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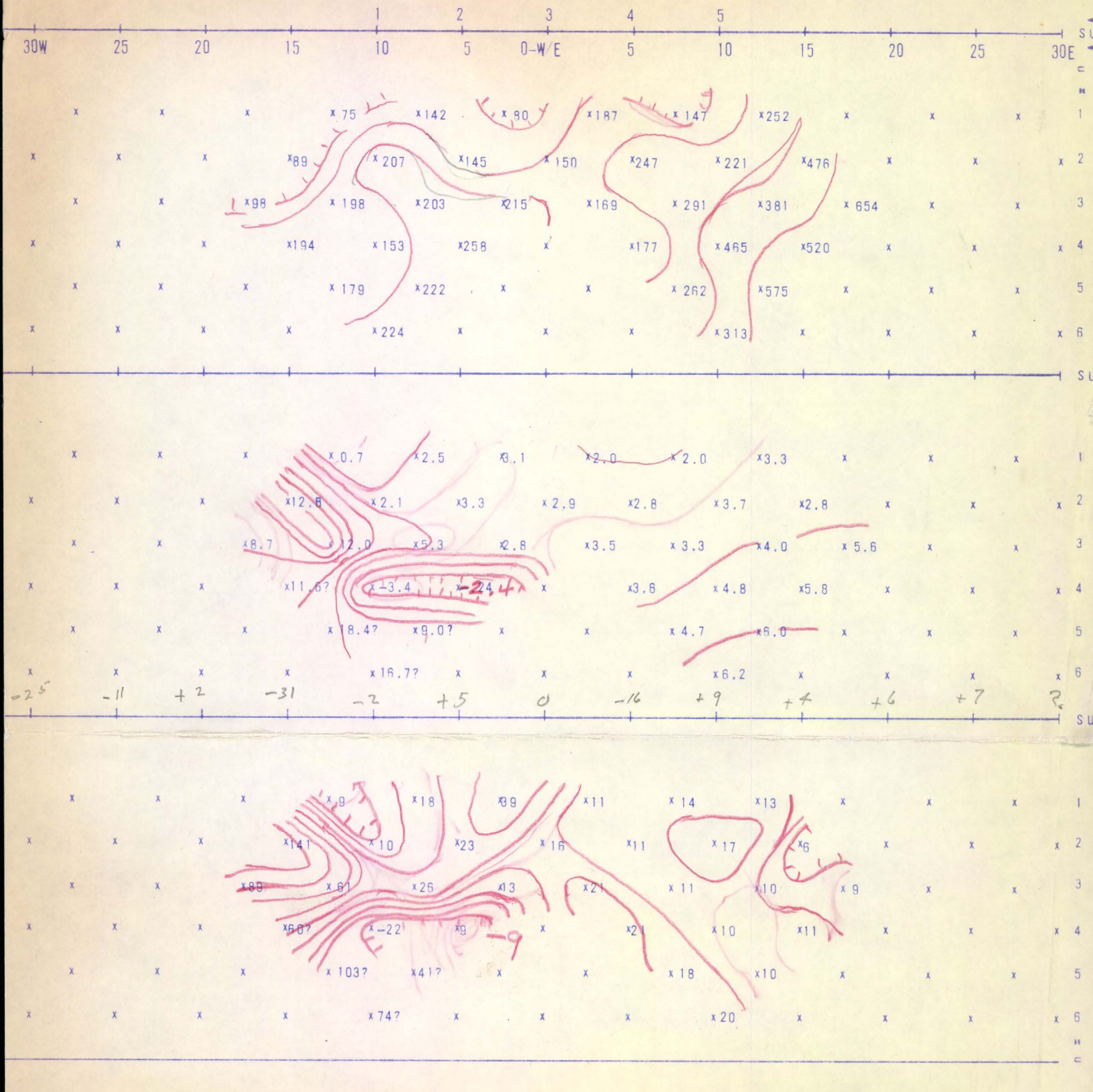
LINE 5 377-69

SPREAD 1



GENERAL LOCATION OF GOSSAN PROSPECT AREA FOR C F & I STEEL CORPORATION

HEINRICHS
GEOEXPLORATION COMPANY
BOX 5671 TUCSON, ARIZONA 85703
PH: 602/623-0578 CABLE: GEOEX, TUCSON
GEOPHYSICAL ENGINEERS
SYDNEY VANCOUVER

I.P. AND RESISTIVITY SURVEY

The Gossan Project Area

Yavapai County Arizona

C. f. and I. Steel Corporation

Job #377-69

INDUCED POLARIZATION AND RESISITIVITY SURVEY

the Gossan Project Area

Yavapai County Arizona

For

C. F. and I. Steel Corporation

May 1969

By

Heinrichs Geoexploration Company
P. O. Box 5671 Tucson, Arizona 85703
Phone: 623-0578 Area Code: 602

Job #377-69

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1 Induced Polarization Location and Interpretation Plan	

INTRODUCTION

At the request of Mr. James Brooks and on behalf of the C. F. & I. Steel Corporation, Heinrichs Geoexploration Company completed an induced polarization and resistivity survey over a portion of the Gossan Project Area, near Cleator, Yavapai County, Arizona.

Five lines oriented east-west, spaced approximately 1,000 feet apart were located in relation to the Gossan Claim Group as indicated on the Induced Polarization Location and Interpretation Plan. Initial location of these lines in the field relative to existing drill holes and a claim map was directed by C. F. & I. personnel. The dual frequency technique of obtaining I. P. data was used as outlined in the appended "Basis of the Induced Polarization Method". The project was started using frequencies of 1.0 Hz and 0.1 Hz on Line 1 and changed to 3.0 Hz and 0.1 Hz on all subsequent lines after determining that comparatively high resistivity would predominate and therefore adverse electromagnetic coupling interference would be no problem in the area.

Five hundred foot dipole-dipole electrode spreads were used on all lines, resulting in a total of 30,000 feet of surface coverage and 17,500 feet of "subsurface" date. The data obtained is presented on sectional data sheets one line to a sheet, showing in contoured form apparent resistivity ($\rho_a/2\pi$), percent frequency effect (PFE), and metallic conduction factor

HEINRICHS GEOEXPLORATION COMPANY

(MCF). Self potential data is presented in profile form. The location of all lines and interpretations of results are presented in plan on the Induced Polarization Location and Interpretation Plan.

The field work was completed during the period from May 9 to May 14, 1969 by the following Geoex personnel: Mr. James Bauersachs, crew chief; Mr. Brian Terrell, sender operator; and Mr. Rollie Lawson, helper. Compilation of this report and data interpretation was by Mr. Paul Head, Geophysicist, assisted by the Geoex staff in Tucson.

CONCLUSIONS AND RECOMMENDATIONS

Drill targets are not well defined within the Gossan Claim Group by this survey although there is some evidence that drilling is justified. We recommend that 200 foot dipole arrays be used on Lines 2, 3, and 4 to localize the cause or causes, of Anomaly "B" prior to test drilling. Anomaly "A" need not be considered unless additional ground to the west can be controlled.

Should 200 foot dipole coverage indicate a strongly polarizing body, the north south limits and the strongest part of the anomaly should be located by means of intermediate 200 foot dipole lines no more than 300 feet apart. Alternately, a gradient array grid, which could resolve near surface anomalies and still detect deep mineralization, should be considered over the same area. Gradient work is somewhat less expensive than dipole-dipole, but is a good drilling guide.

A more direct possibility exists using several 45 degree inclined drill holes, collared in such a way as to cross the entire section under anomaly "B". We consider that this would be more expensive in the long run than an additional geophysical survey followed by a more precisely directed drilling program.

INTERPRETATION

The apparent resistivity contour patterns on Lines 2, 3, 4, and 5 are very similar and must represent nearly indentical geologic conditions. Line 1 is different mainly because of the string of resistivity lows on the east end of the line that is not seen on the other lines. Steeply dipping or nearly vertical formations less than 250 feet thick are indicated on all lines, generally showing increasing apparent resistivity from west to east. A possible geologic interface crossing Lines 4, 2, and 5 is noted near the east side of the claim group. An estimate of the total resistivity change across these lines is from about 70 ohm feet to 700 ohm feet, occuring as discrete steps rather than as a gradational change.

The strongest I. P. anomalism detected on this project was up to 12 PFE on Line 5 between 15 West and 20 West, just beyond the west boundary of the Gossan Claim Group. This anomaly may extend north to Line 3 and south to Line 2 where weak frequency effects up to 6 PFE are noted, forming Anomaly "A" on the plan maps.

Anomaly "B" is formed by weak I. P. anomalies having PFE values up to six between 0.0 and 5 West on Lines 2 and 4 with a possible weak extension to the north across Line 5.

North from Line 5 Anomaly "B" either deflects westerly or the weak anomaly between 5 West and 7.5 West on Line 3 may represent an entirely new zone not continuous with "B".

The I. P. effects noted on the 500 foot dipole arrays seem to be relatively near surface but the polarizing bodies are either rather small in all dimensions or are up to 500 feet in width and very weakly mineralized.

No significant self potential effects were observed.

Respectfully submitted,

HEINRICHS GEOEXPLORATION COMPANY

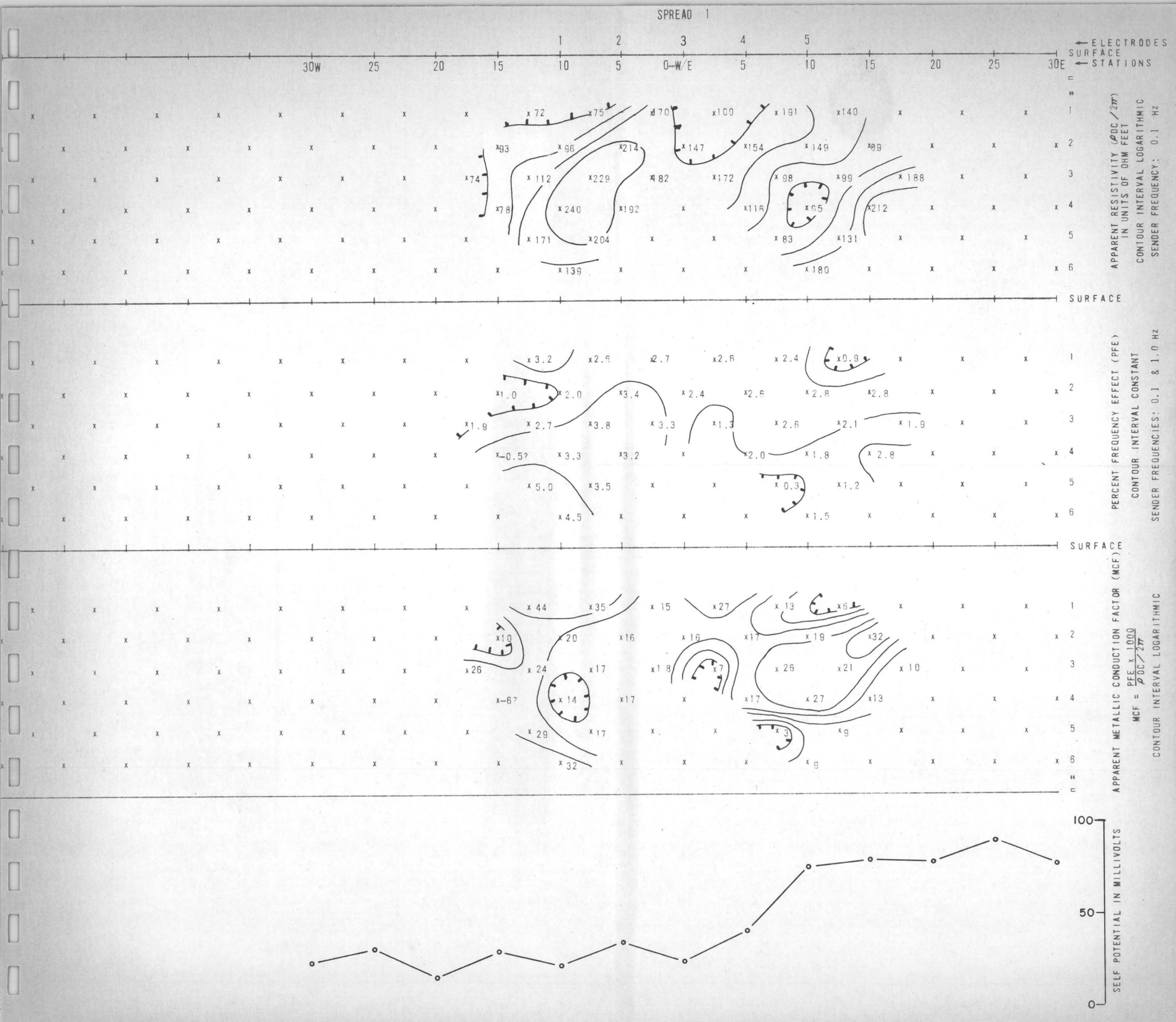
Paul A. Head

Paul A. Head
Geophysicist

APPROVED: Walter E. Heinrichs, Jr.

Walter E. Heinrichs, Jr.
President & General Manager

Tucson, Arizona
June 5, 1969



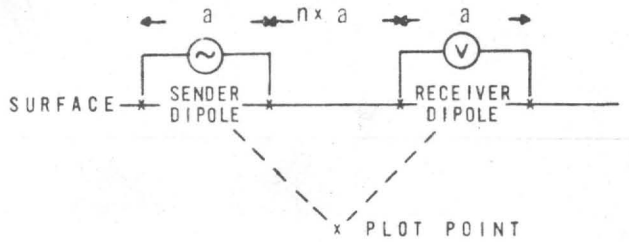
LINE NO.
1
SPREAD(S)
1

INDUCED POLARIZATION TRAVERSE SECTIONAL DATA SHEET for C F & I STEEL CORPORATION

RELATIVE ANOMALY STRENGTH

VERY WEAK — WEAK — MODERATE — STRONG

DIPOLE DIPOLE ELECTRODE ARRAY



AREA
GOSSAN PROJECT AREA

LOOKING
NORTH

DATE
MAY 1969

SCALE
a = 500'

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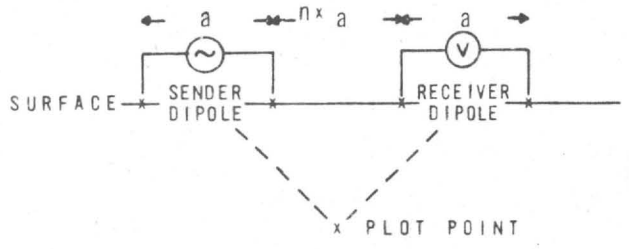
LINE NO.
2
SPREAD(S)
1

INDUCED POLARIZATION TRAVERSE SECTIONAL DATA SHEET for C F & I STEEL CORPORATION

RELATIVE ANOMALY STRENGTH

DIPOLE DIPOLE ELECTRODE ARRAY



AREA

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LOOKING

NORTH

DATE

May 1969

SCALE

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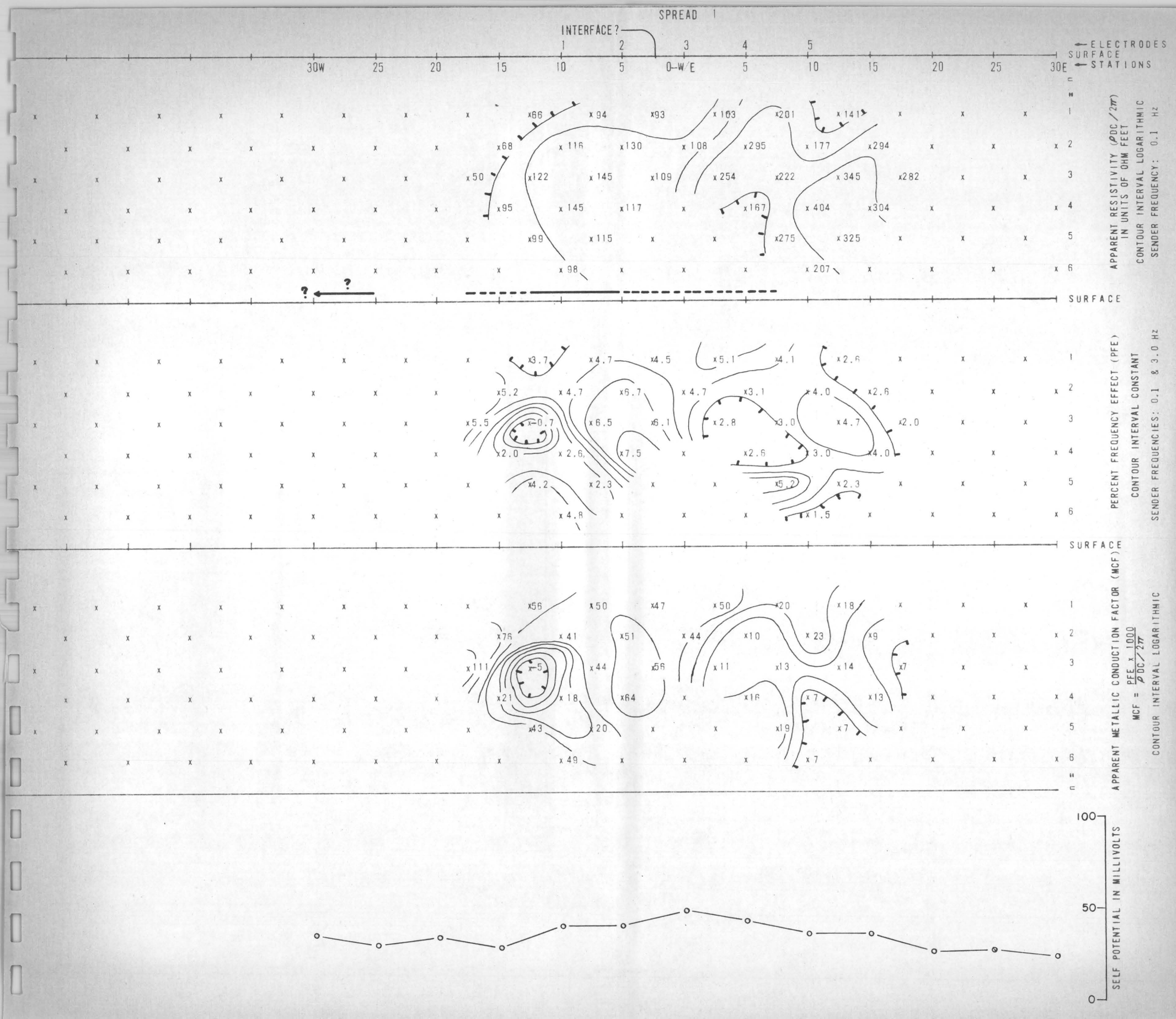


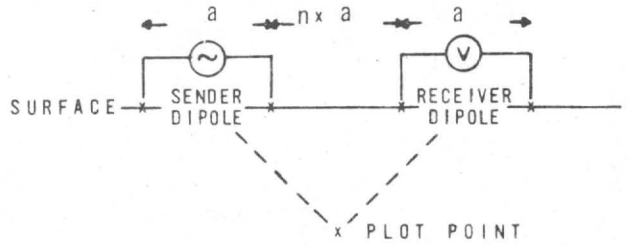
LINE NO.
3

SPREAD(S)
1

INDUCED POLARIZATION TRAVERSE SECTIONAL DATA SHEET for C F & I STEEL CORPORATION

RELATIVE ANOMALY STRENGTH

DIPOLE DIPOLE ELECTRODE ARRAY



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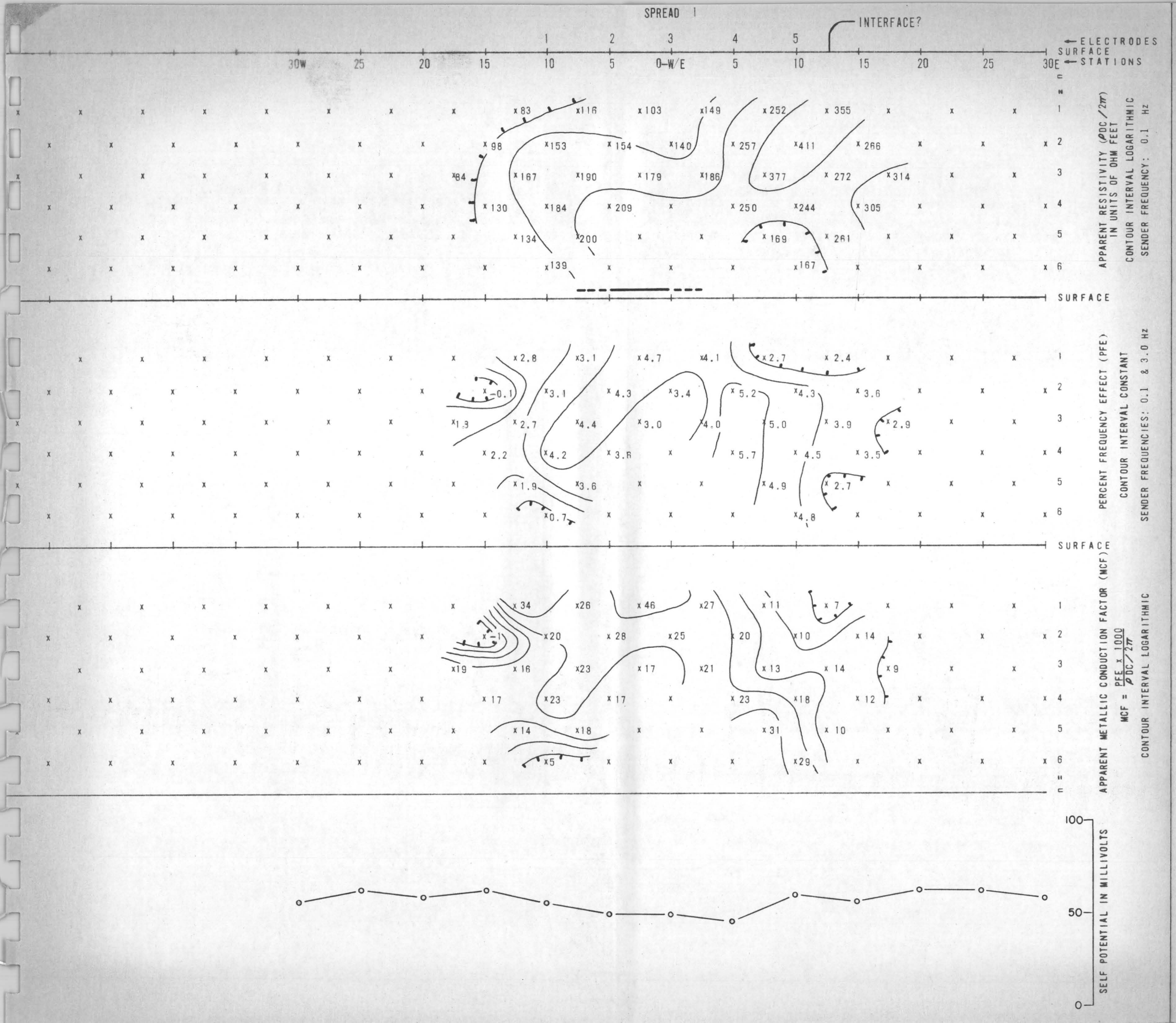
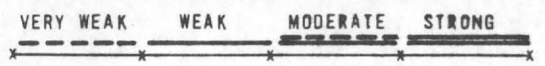


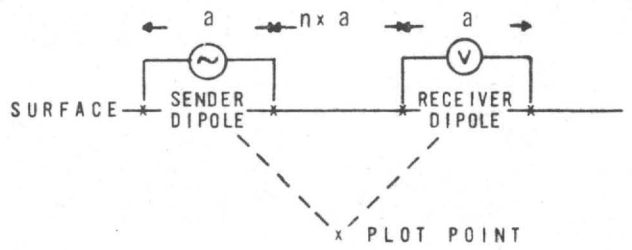
LINE NO.
4
SPREAD(S)
1

INDUCED POLARIZATION TRAVERSE SECTIONAL DATA SHEET for C F & I STEEL CORPORATION

RELATIVE ANOMALY STRENGTH



DIPOLE DIPOLE ELECTRODE ARRAY



AREA
GOSSAN PROJECT AREA

LOOKING
NORTH

DATE
MAY 1969

SCALE
a = 500'

File

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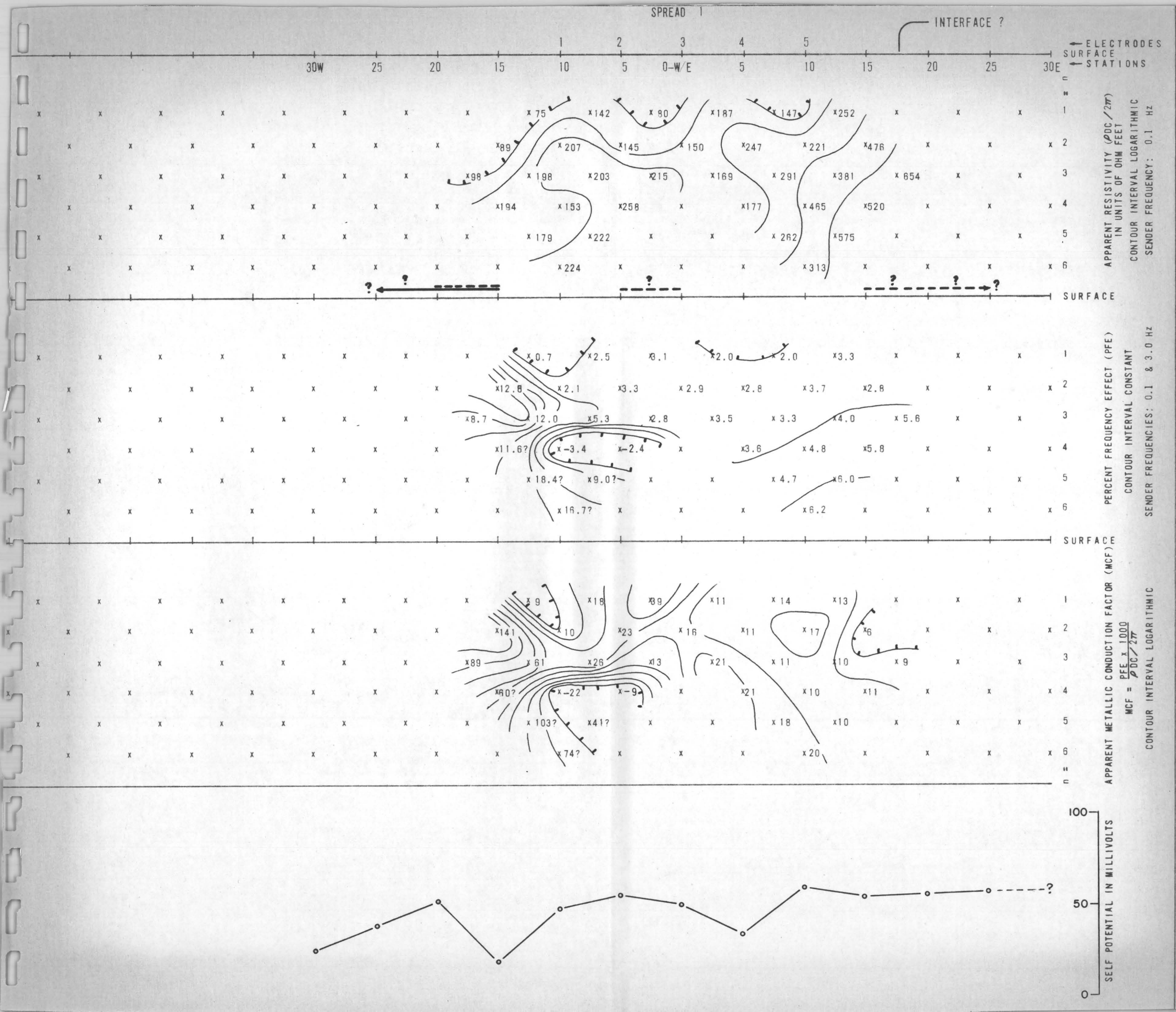
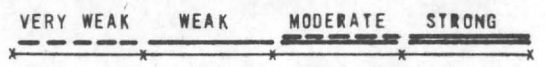


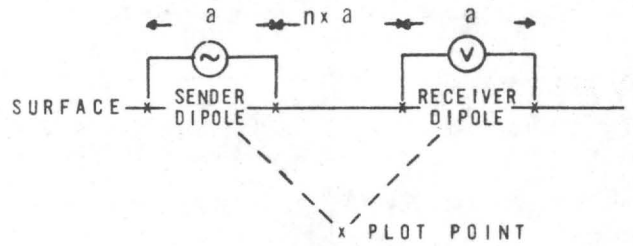
LINE NO.
5
SPREAD(S)
1

INDUCED POLARIZATION TRAVERSE SECTIONAL DATA SHEET for C F & I STEEL CORPORATION

RELATIVE ANOMALY STRENGTH



DIPOLE DIPOLE ELECTRODE ARRAY



AREA
GOSSAN PROJECT AREA

LOOKING
NORTH

DATE
MAY 1969

SCALE
a = 500'

File

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JOB 377-69 LINE 5 SPREAD 1

LOOKING N DATE May 14 69 A= 500

CENTER 0 LABEL W/E FREQ. 3.0 - 0.1

COUPLING yes

15 May 69 pc

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 5 HALF W SP. 1 DATE 5/14/69

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE										
RANGE	.3	.1	.1	.3	.1	.03	.1	.1	.03	.03
DC 1	216	96.8	43.1	164	41.1	23.4	87.3	60.4	23.2	14.8
DC 2	218	93.5	43.5	166	43.2	25.2	87.8	58.1	24.1	17.3
DC 3	216	95.8	43.7	164	40.9	25.3	86.9	60.7	21.1	12.4
DC 4	218	95.2	44.1	166	42.9	25.6	88.0	59.2	24.9	16.3
DC 5		96.2	44.1		40.9	23.1	86.4	60.9	25.6	15.2
DC 6		94.0	43.2		42.9	25.8	88.4	60.1	23.2	13.8
DC 7		95.7	42.7			25.2	86.7	61.0	21.8	15.7
DC 8		94.3	43.9			25.3	89.1	60.7	25.0	13.3
DC AVG.										
AC 1	207	89.3	41.0	156	39.4	23.5	84.2	57.0	21.7	14.8
AC 2	207	89.3	41.0	156	39.4	23.5	84.1	57.0	21.7	14.8
AC AVG.										
S.P.	+5.7	-7.4		-29.3			+33.0			
AC NOISE	.22		.08			.08				.18
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Gossan
LINE 5 HALF W SP. 1 DATE 5/19/69

SEND	1-2	2-3	3-4	4-5		1-2	2-3		3.4		4-5		CAL 1	
RECEIVE													2-3	
RANGE	.03	.03	.01	.01		.03	.03		.01		.01		1.75	
DC 1	26.4	21.3	8.41	9.31	5.21	11.2	9.8	12.6	6.02	4.80	4.40	5.12	174	
DC 2	25.2	24.0	9.37	5.80	8.00	10.4	10.7	14.1	6.15	7.21	3.90	6.85	174	
DC 3	27.5	19.6	8.18	9.80	5.43	13.0	12.3	8.7	6.17	4.65	2.25	4.80	174	
DC 4	24.2	23.7	9.62	6.40	8.00	9.8	11.1	12.4	6.18	9.00	4.70	6.21	174	
DC 5	27.3	21.9	8.29	9.27	5.81	13.1	7.4	7.3	3.10	7.12	3.15	5.06		
DC 6	24.4	26.9	9.41	6.20	9.62	10.2	12.2	12.7	5.90		5.25	6.39		
DC 7	27.2	22.6	8.40	9.01	5.12	12.7	14.6	10.1	3.42		3.19	2.87		
DC 8									7.90		6.04	3.09		
DC AVG.														
AC 1	22.4	20.0	8.88	6.57		10.2	9.8		4.88		3.87		*178	
AC 2	22.4	20.0	8.88	6.57		10.2	9.8		4.88		3.87		178	
AC AVG.											?			
S.P.	-12.7					-14.3								
AC NOISE				.26 ?							.30			
POT RES.														

PAGE

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I. P. SENDER NOTES

PROJECT Gossan

LINE 5 HALF E SP. 1 DATE

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	140V	120V	140V	160V	120V	140V	150V	160V	120V	140V
CURRENT	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		3-4
RANGE										
VOLTAGE	150V	160V	120V	140V	150V	160V	120V	140V		180V
CURRENT	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A		1.75A

FREQUENCIES 3.0 0.1

SENDER NO. 13671-S

OPERATOR 57

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Gossan
LINE 5 HALF E SP. 1 DATE 5/14/69

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE										
RANGE	.1	.3	.1	.3	.1	.03	.3	.1	.1	.03
DC 1	90.3	221	44.1	174	76.5	19.7	292	65.1	32.4	10.4
DC 2	90.0	212	43.2	166	67.0	19.9	293	63.4	34.9	10.4
DC 3	90.3	221	44.1	174	76.5	19.2	292	64.0	32.5	10.2
DC 4	90.0	212	41.9	166	67.0	20.4	293	63.0	34.7	10.3
DC 5			45.2			19.1		65.3	32.8	10.2
DC 6			42.9			19.8		63.8	35.0	10.3
DC 7			43.9			19.4		64.6	32.4	
DC 8			41.2			19.7		63.2	35.1	
DC AVG.										
AC 1	89.2	213	42.9	170	71.0	19.3	288	62.8	33.2	10.1
AC 2	89.2	213	42.9	169	71.0	19.3	288	62.8	33.2	10.1
AC AVG.										
S.P.	-15.5	+24.5		-5.0			+2.2			
AC NOISE	.08		.17			.08				.05
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 5 HALF E SP. 1 DATE 5/14/69

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	CAL 1	
RECEIVE									3-4	
RANGE	.3	.1	.03	.01	.1	.03	.03	.01	1.75	?
DC 1	138	44.3	26.7	9.29	75.8	29.9	19.6	7.18	184	
DC 2	138	44.2	27.2	8.09	76.0	30.4	18.3	5.78	184	
DC 3	138	44.3	26.7	9.18	75.8	29.7	19.8	7.19	184	
DC 4	138	44.2	27.3	8.10	76.0	30.6	18.5	5.62	184	
DC 5			26.7	9.36		30.0	19.7	7.21		
DC 6			27.3	8.01		30.2	18.3	5.68		
DC 7				9.40		29.8	20.0	7.65		
DC 8				8.18		30.8	18.2	5.43		?
DC AVG.										
AC 1	137	43.3	26.2	8.43	73.1	29.0	18.3	6.22	187	
AC 2	136	43.3	26.2	8.45	73.1	29.0	18.3	6.22	187	
AC AVG.										
S.P.	+.6									
AC NOISE				.06						
POT RES.										

PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Gossan

LINE 5 HALF W SP. 1 DATE

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE							130V	120V	150V	140V
CURRENT	1.75	→	→	→	→	1.75	1.75A	1.75A	1.75A	1.75A
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		2-3
RANGE										
VOLTAGE	130V	120V	150V	140V	130V	120V	150V	140V		150V
CURRENT	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A	1.75A		1.75A

FREQUENCIES 3.0 0.1

SENDER NO. 13671-5

OPERATOR 59

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

JOB 377-69 LINE 4 SPREAD 1

LOOKING N DATE May 13, 69 A= 500

CENTER 0.0 LABEL W/E FREQ. 3.0 - 0.1

COUPLING yes

15 May 69

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 4 HALF W SP. 1 DATE 5/13/69

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE										
RANGE	.3	.3	.1	.3	.1	.03	.3	.1	.03	.03
DC 1	203	138	44.8	158	53.9	24.5	114	51.8	26.9	13.4
DC 2	204	145	57.6	163	54.5	25.3	116	54.2	26.7	13.8
DC 3	203	138	44.8	163	52.4	24.5	113	52.1	26.2	11.7
DC 4	204	145	57.6	162	53.0	25.3	117	53.7	25.9	12.0
DC 5				159	53.8		113	52.1	26.9	14.2
DC 6				164	54.2		117	53.8	25.2	12.6
DC 7				162	52.6		113	52.8	28.0	11.4
DC 8				163	52.5		117	53.7	24.8	13.5
DC AVG.										
AC 1	196	134	47.0	156	50.8	24.0	111	51.1	25.1	12.2
AC 2	196	135	47.0	156	50.8	24.0	111	51.1	25.1	12.2
AC AVG.										
S.P.	+0.2	+5.9		+7.0			-3.6			
AC NOISE	.14		.10			.18				.12
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 4 HALF W SP. 1 DATE 5/13/69

PAGE 4009

SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	CAL1	
RECEIVE										
RANGE	.1	.03	.03	.01	.08	.01	.01	.003		
DC 1	37.5	23.3	13.5	7.19	12.9	9.04	5.00	2.98	208	
DC 2	32.2	21.6	11.9	6.82	10.1	8.87	6.00	3.08	209	
DC 3	36.9	26.0	13.6	6.87	13.0	8.98	4.61	2.95	208	
DC 4	30.8	21.0	12.2	7.31	10.4	9.02	5.62	3.17	209	
DC 5	35.9	23.2	12.8	6.65	13.2	9.38	5.00	2.80		
DC 6	32.1	23.1	12.5	7.29	10.5	8.81	6.12	3.19		
DC 7	36.0	25.7	14.2	6.58	12.8	9.19	4.58	2.91		
DC 8	31.7	20.0	11.3	7.02	10.4	9.02	5.58	3.14		
DC AVG.										
AC 1	33.9	22.4	12.2	6.66	11.4	8.78	5.18	2.98	207	
AC 2	33.8	22.4	12.2	6.66	11.4	8.78	5.18	2.98	207	
AC AVG.										
S.P.	+3.9				-6.1					
AC NOISE				.21				.08		
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Gossan

LINE 4 HALF W SP. 1 DATE

PAGE

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	200v	160v	200v	100v	160v	200v	160v	100v	160v	180v
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	1.75A
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		2-3
RANGE										
VOLTAGE	160v	100v	160v	180v	160v	100v	160v	180v		140v
CURRENT	2.0A	2.0A	2.0A	1.75A	2.0A	2.0A	2.0A	1.75A		2.0A

FREQUENCIES 3.0 0.1

SENDER NO. 13671-S

OPERATOR SN

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GOSSAW

LINE 4 HALF E SP. 1 DATE 5/13/69

PAGE 16 F 4

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE										
RANGE	.3	.3	.1	1.	.1	.03	1.	.3	.1	.03
DC 1	143	204	47.1	350	90.1	24.9	492	142	50.9	15.8
DC 2	146	214	51.1	350	87.8	26.7	492	143	53.6	19.0
DC 3	143	204	46.7	350	90.1	24.9	492	142	50.9	15.7
DC 4	146	214	51.4	350	88.0	26.7	492	143	53.6	18.7
DC 5			46.3		90.0					15.6
DC 6			51.5		88.0					19.2
DC 7			46.4		90.0					15.7
DC 8			51.8		88.0					18.8
DC AVG.										
AC 1	137	198	46.6	339	84.2	24.7	478	136	49.5	16.3
AC 2	137	198	46.6	339	84.2	24.7	478	136	49.5	16.3
AC AVG.										
S.P.	-4.0	+14.0		-4.4			+1.5			
AC NOISE	.14		.21			.12				.10
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GOSSAN

LINE 4 HALF E SP. 1 DATE 5/13/65

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	CAL'	
RECEIVE									3-4	
RANGE	.1	.1	.03	.01	.1	.03	.03	.01		
DC 1	92.2	37.6	16.8	6.41	42.9	22.3	10.0	4.21	208	
DC 2	92.1	37.8	17.0	6.30	44.3	19.7	10.7	4.03	208	
DC 3	92.2	37.6	16.8	6.33	42.7	22.6	10.0	4.08	208	
DC 4	92.1	37.8	17.0	6.21	44.6	19.9	10.6	4.32	208	
DC 5				6.56	42.6	22.3	10.1	4.28		
DC 6				6.20	44.5	19.6	10.3	4.00		
DC 7				6.42	42.7	22.7	10.3	3.84		
DC 8				6.19	44.6	19.8	10.5	4.47		
DC AVG.										
AC 1	88.5	36.1	16.1	6.01	42.2	20.3	10.0	3.92	×207	
AC 2	88.5	36.1	16.1	6.01	42.1	20.3	10.0	3.92	207	
AC AVG.										
S.P.	-.4				-4.7					
AC NOISE	.03			.08	.07			.07		
POT RES.										

PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Gossan

LINE 4 HALF E SP. 1 DATE

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→		15-20	→		
RANGE										
VOLTAGE							200v	180v	100v	160v
CURRENT	2.0A						2.0A	2.0A	2.0A	2.0A
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL
RECEIVE	20-25	→			25-30	→				3-4
RANGE										
VOLTAGE	200v	180v	100v	160v	200v	180v	100v	160v		190v
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A		2.0A

FREQUENCIES 30 0.1

SENDER NO. 13671-5

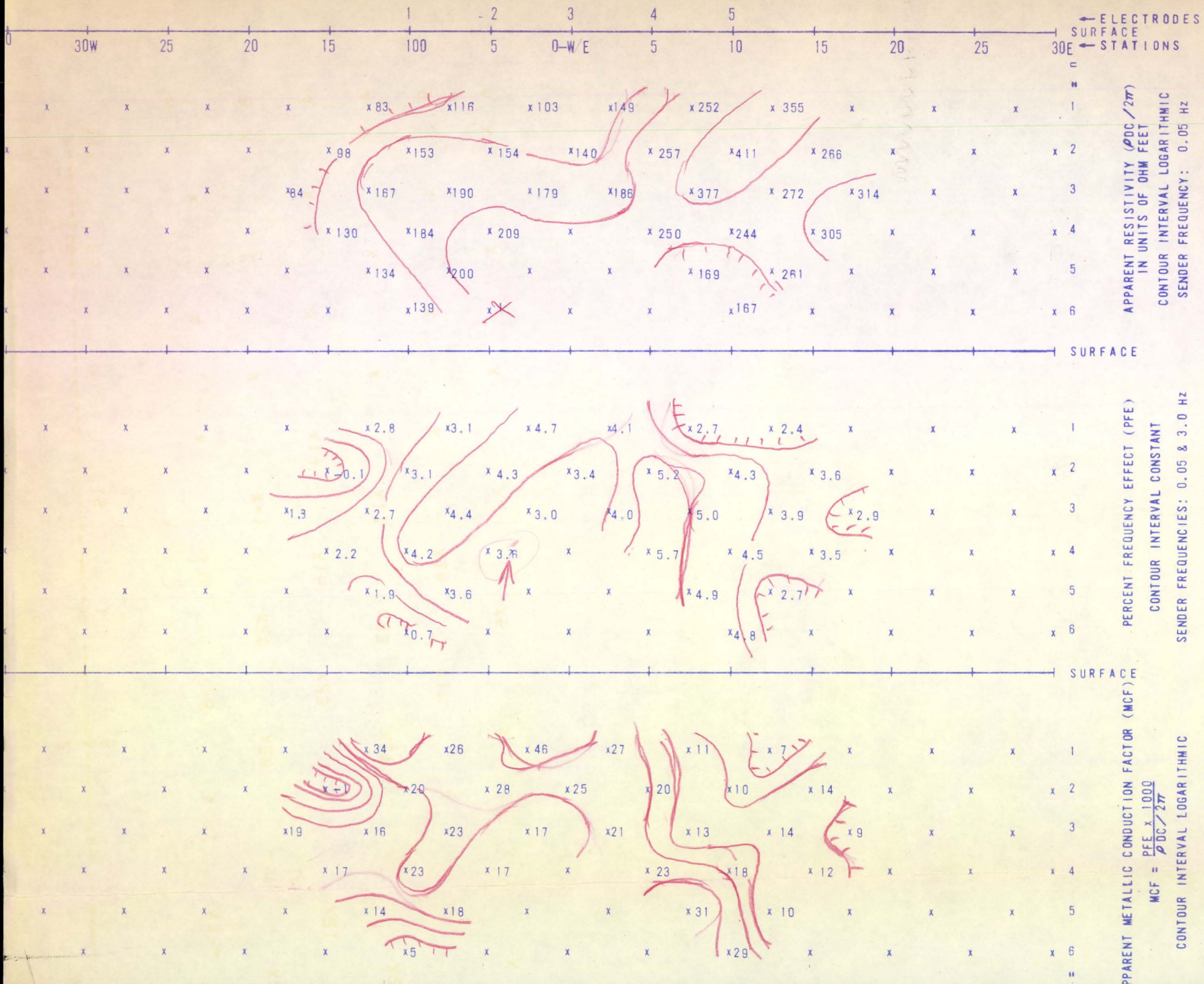
OPERATOR 57

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

SPREAD 1



L-4
5-1
377-69

JOB 377-69 LINE 3 SPREAD 1

LOOKING N DATE May 12, 69 A= 500

CENTER 0.0 LABEL W/E FREQ. 3.0 - 0.1

COUPLING yes

15 May 69
RC

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Gossan
LINE 3 HALF W SP. 1 DATE 5/12/69

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE										
RANGE	.3	.3	.1	.3	.1	.03	.1	.1	.03	.01
DC 1	143	131	37.1	130	45.7	14.5	91.9	39.3	19.0	7.60
DC 2	142	131	37.8	131	44.3	15.7	90.8	40.8	21.4	8.42
DC 3	143	131	37.1	130	45.7	14.5	91.9	39.2	18.9	7.60
DC 4	142	131	38.6	131	44.3	15.7	90.8	40.8	21.4	8.38
DC 5			37.0					39.5	18.9	7.71
DC 6			37.8					40.9	21.4	8.27
DC 7			36.9					39.2		8.73
DC 8			38.1					40.9		8.22
DC AVG.										
AC 1	138	127	36.2	127	43.0	14.5	89.8	39.0	19.3	7.72
AC 2	138	127	36.2	127	43.0	14.5	89.8	39.0	19.3	7.72
AC AVG.										
S.P.	-7.8	+0.3		-12.5			+6.2			
AC NOISE	.05		.07			.05				.07
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 3 HALF W SP. 1 DATE 5/12/69

PAGE 20-4

SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	CAL 1	
RECEIVE									2-3	
RANGE	.03	.03	.03	.01	.01	.01	.01	.003	.3	
DC 1	23.7	16.3	10.1	4.76	6.89	6.82	4.23	2.50	208	
DC 2	23.2	17.5	10.0	4.42	6.90	6.30	3.50	2.33	208	
DC 3	23.8	16.3	10.1	4.72	6.91	6.83	4.38	2.48	208	
DC 4	23.2	17.7	10.1	4.40	6.80	6.40	3.42	2.35	208	
DC 5	24.0	16.2	10.0	4.71	6.88	6.78	4.41	2.45		
DC 6	23.1	17.7	10.1	4.38	7.00	6.38	3.39	2.38		
DC 7	24.0	16.3	10.0	4.81	6.82	6.85	4.45	2.51		
DC 8	23.1	17.7	10.2	4.37	6.88	6.30	3.37	2.32		
DC AVG.										
AC 1	22.8	17.4	10.0	4.55	6.65	6.58	3.82	2.35	212	
AC 2	22.8	17.4	10.0	4.55	6.65	6.56	3.82	2.35	212	
AC AVG.										
S.P.	-3.8				+4.8					
AC NOISE				.06				.03		
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Bossan

LINE 3 HALF W SP. 1 DATE

PAGE

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→		15-20	→		
RANGE										
VOLTAGE	140v	120v	140v	100v	120v	140v	100v	100v	120v	140v
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE	20-25	→			25-30	→				2-3
RANGE										
VOLTAGE	100v	100v	120v	140v	100v	100v	120v	140v		100v
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A		2.0A

FREQUENCIES 3.0 0.1

SENDER NO. 13621-S

OPERATOR 57

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Gossan
LINE 3 HALF E SP. 1 DATE 5/12/69

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE										
RANGE	.3	.3	.1	.3	.3	.01	.3	.1	.1	.03
DC 1	129	143	36.1	277	116	40.8	218	58.9	32.0	13.0
DC 2	129	141	38.4	277	113	38.1	219	63.2	36.8	13.1
DC 3	129	143	36.1	277	116	40.8	218	59.1	32.0	12.9
DC 4	129	141	38.4	277	113	38.1	219	63.2	36.9	12.9
DC 5								59.0	31.9	13.2
DC 6								63.1	37.0	12.7
DC 7								59.2	31.9	13.2
DC 8								63.2	36.8	12.3
DC AVG.										
AC 1	123	134	35.5	264	110	38.0	211	58.2	33.1	12.5
AC 2	123	134	35.5	263	110	38.0	211	58.2	33.1	12.5
AC AVG.										
S.P.	-5.5	-7.1		+0.4			-9.8			
AC NOISE	.07		.12			.14				.04
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GOSSAN
LINE 3 HALF E SP. 1 DATE 5/12/69

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	CAL 1	
RECEIVE									3-4	
RANGE	.3	.1	.03	.03	.1	.03	.03	.01		
DC 1	101	48.3	27.0	12.3	40.1	19.2	10.4	5.01	207	
DC 2	102	47.0	28.8	9.2	37.8	22.8	15.2	5.21	207	
DC 3	101	48.3	26.9	12.4	40.1	19.2	10.4	4.98	207	
DC 4	102	47.1	28.8	9.4	37.8	22.8	15.3	5.28	207	
DC 5		48.2	26.9	12.2			10.3	4.85		
DC 6		47.0	28.9	9.6			15.3	5.35		
DC 7		48.3	26.8	12.2			10.3	4.82		
DC 8		47.0	28.9	9.4			15.3	5.46		
DC AVG.										
AC 1	98	45.0	26.8	10.2	37.8	20.0	12.4	4.98	205	
AC 2	98	45.1	26.8	10.2	37.8	20.0	12.4	4.98	205	
AC AVG.										
S.P.	-0.2				-3.5					
AC NOISE				.06						
POT RES.										

PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Bassan

LINE 3 HALF E SP. 1 DATE

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	90V	100V	90V	120V	100V	100V	150V	120V	100V	100V
CURRENT	2.0A	2.0A	2.0A	2.0A	2.25A	2.25A	2.25A	2.0A	2.25A	2.25A
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		OFL
RECEIVE	20-25	→	→	→	25-30	→	→	→		3-4
RANGE										
VOLTAGE	140V	120V	100V	100V	140V	120V	100V	100V		140V
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A		2.0A

FREQUENCIES 3.0 0.1

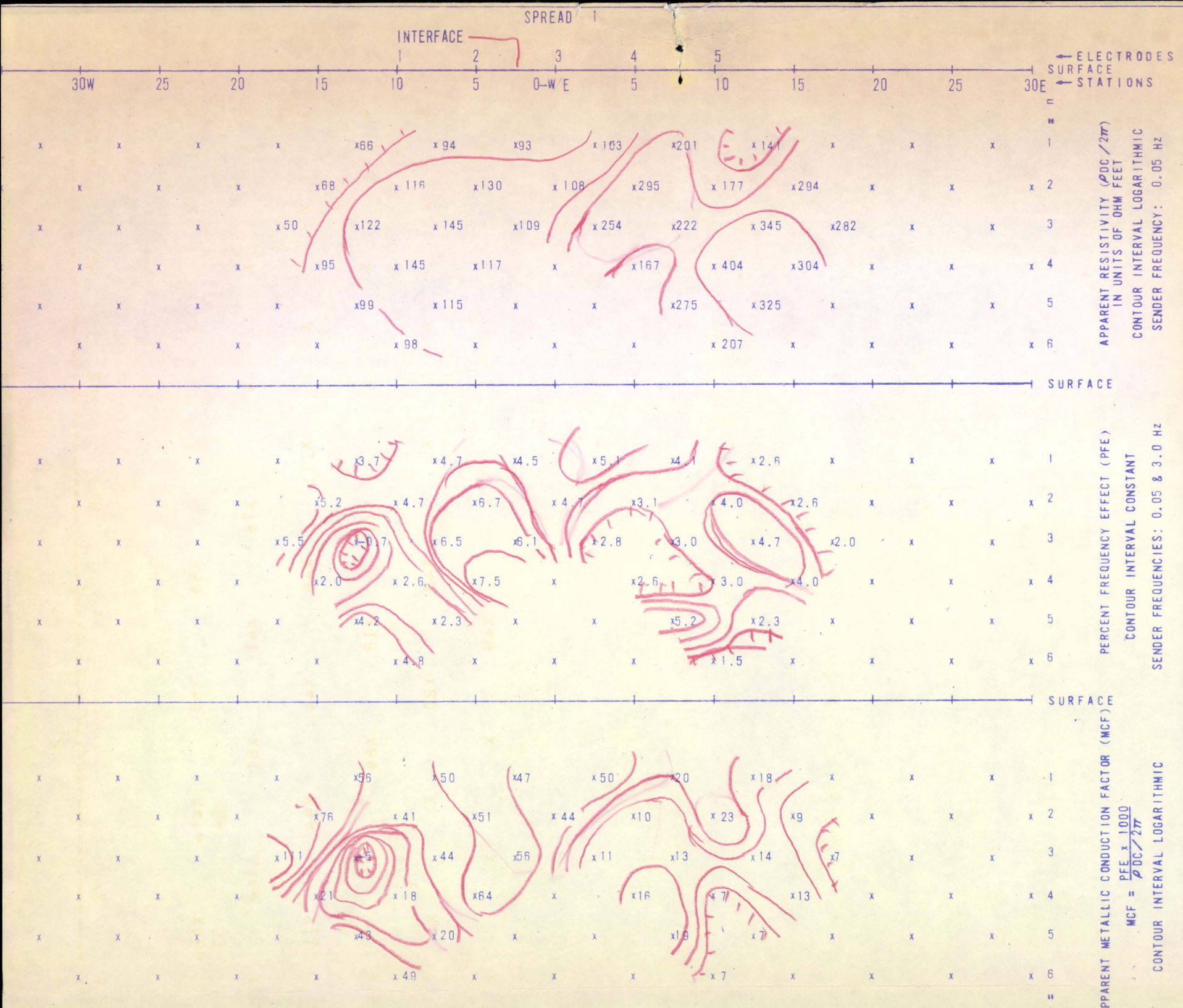
SENDER NO. 1367-S

OPERATOR 57

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:


SPREAD 1
INTERFACE
1 2 3 4 5
30W 25 20 15 10 5 0-W/E 5 10 15 20 25 30E
ELECTRODES
SURFACE
STATIONS
APPARENT RESISTIVITY (ρDC/2π)
IN UNITS OF OHM FEET
CONTOUR INTERVAL LOGARITHMIC
SENDER FREQUENCY: 0.05 Hz
SURFACE
PERCENT FREQUENCY EFFECT (PFE)
CONTOUR INTERVAL CONSTANT
SENDER FREQUENCIES: 0.05 & 3.0 Hz
SURFACE
APPARENT METALLIC CONDUCTION FACTOR (MCF)
MCF = PFE x 1000 / ρDC/2π
CONTOUR INTERVAL LOGARITHMIC

L-3
S-1
377-69

JOB 377-69 LINE 2 SPREAD 1

LOOKING N DATE May 10, 69 A= 500'

CENTER 0.0 LABEL W/E FREQ. 3.0 & 0.1

COUPLING yes

13 May 69

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 2 HALF W SP. 1 DATE 5/10/69

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE										
RANGE	.3	.3	.1	.3	.1	.03	.3	.1	.1	.03
DC 1	177	138	39.2	170	68.1	24.6	103	62.6	35.7	16.1
DC 2	177	139	42.3	169	67.8	25.4	102	63.1	35.2	15.6
DC 3	177	138	39.2	170	68.1	24.6	103	62.6	35.5	16.3
DC 4	177	139	42.3	169	67.8	25.4	102	63.1	35.4	15.5
DC 5									35.4	16.3
DC 6									35.6	15.6
DC 7									35.6	16.2
DC 8									35.4	15.6
DC AVG.										
AC 1	175	137	40.2	168	66.7	24.5	103	62.0	34.6	15.5
AC 2	175	137	40.2	168	66.7	24.5	103	62.0	34.6	15.6
AC AVG.										
S.P.	+6.4	-.8		+1.8			+1.3			
AC NOISE	.08		.06			.05				.08
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 2 HALF W SP. ____ DATE 5/10/69

PAGE 20K4

SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL 1	
RECEIVE											
RANGE	.03	.03	.03	.01	.03	.01	.01	.01		.3	
DC 1	31.0	24.7	15.2	7.70	10.4	9.82	7.08	3.42	3.20	209	
DC 2	31.1	24.3	15.7	7.58	10.7	10.0	6.62	3.39	3.60	209	
DC 3	31.0	24.8	15.3	7.72	10.4	9.87	6.95	3.39	3.18	209	
DC 4	31.1	24.2	15.6	7.69	10.8	9.97	6.66	3.43	3.58	209	
DC 5		24.7	15.3	7.61	10.2	9.80	6.85	3.28	3.21		
DC 6		24.3	15.7	7.79	10.9	9.98	6.89	3.60	3.61		
DC 7		24.7	15.2	7.61	10.2	9.84	6.85	3.19	3.07		
DC 8		24.3	15.7	7.72	10.9	9.95	6.60	3.52	3.68		
DC AVG.											
AC 1	30.5	24.1	15.2	7.42	10.4	9.63	6.60	3.30		214	
AC 2	30.5	24.0	15.2	7.42	10.4	9.63	6.61	3.30		214	
AC AVG.											
S.P.	+10.3				-7.7						
AC NOISE				.04				.06			
POT RES.											

PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Gossan

LINE 2 HALF W SP. 1 DATE

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	150V	140V	150V	140V	140V	150V	90V	140V	140V	150V
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		2-3
RANGE										
VOLTAGE	90V	140V	140V	150V	90V	140V	140V	150V		160V
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A		2.0A

FREQUENCIES 3.0 0.1

SENDER NO. 13671-5

OPERATOR 57

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Gossan

LINE 2 HALF E SP. 1 DATE 5/11/69

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE										
RANGE	.3	.3	.1	.3	.1	.03	1.0	.3	.1	.03
DC 1	137	173	40.4	314	49.9	20.2	396	117	39.1	11.6
DC 2	134	174	40.8	316	62.7	19.9	392	119	36.2	11.8
DC 3	137	173	40.3	314	49.9	20.1	396	117	39.1	11.7
DC 4	134	174	41.2	316	62.7	19.9	392	119	36.2	11.9
DC 5			39.9		62.2	20.3				11.7
DC 6			41.2			19.7				11.8
DC 7			40.1			20.3				11.7
DC 8			41.2			19.7				12.0
DC AVG.										
AC 1	128	167	38.9	303	68.2	19.2	381	113	36.0	11.3
AC 2	128	167	38.9	303	68.2	19.2	380	113	36.0	11.3
AC AVG.										
S.P.	+4.2			-8.6			+1.5			
AC NOISE	.12		.08			.08				.07
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 2 HALF E SP. 1 DATE 5/11/69

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	CAL 1	
RECEIVE									3-4	
RANGE	.3	.1	.1	.03	.1	.1	.03	.01	.3	
DC 1	237	99.9	35.5	11.7	86.3	47.5	20.9	6.50	209	
DC 2	238	99.8	35.3	11.9	88.4	50.8	19.3	7.07	209	
DC 3	237	99.8	35.5	11.7	86.3	47.6	20.9	6.38	209	
DC 4	238	99.9	35.2	11.8	89.1	50.9	19.4	7.02	209	
DC 5		99.9	35.7	11.7	86.1	47.7	20.8	6.38		
DC 6		99.8	35.0	11.8	88.7	50.9	19.3	7.06		
DC 7			35.7	11.7	86.3	47.8	21.0	6.39		
DC 8			35.2	11.8	89.0	50.9	19.2	7.06		
DC AVG.										
AC 1	232	97.5	33.9	11.3	84.0	47.2	19.2	6.43	206	
AC 2	231	97.5	33.9	11.3	84.1	47.2	19.2	6.43	206	
AC AVG.										
S.P.	-5.2				NONE					
AC NOISE				.07				.08		
POT RES.										

COPY5

PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT GOSSAN

LINE 2 HALF E SP. 1 DATE

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	80V	140V	80V	140V	140V	80V	140V	140V	140V	80V
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		3-4
RANGE										
VOLTAGE	140V	140V	140V	80V	140V	140V	140V	80V		180V
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A		2.0A

FREQUENCIES 3.0 0.1

SENDER NO. 13671-S

OPERATOR 57

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

159 - 117

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT GOSSAN
LINE 2 HALF W SP. 1 DATE 5/11/69

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE										
RANGE	.3	.3	.1	.3	.1	.03	.3	.1	.1	.03
DC 1	177	138	39.2	170	68.1	24.6	103	62.6	35.7	16.1
DC 2	177	139	42.3	169	67.8	25.4	102	63.1	35.2	15.6
DC 3	177	138	39.2	170	68.1	24.6	103	62.6	35.5	16.3
DC 4	177	139	42.3	168	67.8	25.4	102	63.1	35.4	15.5
DC 5									35.4	16.3
DC 6									35.6	15.6
DC 7									35.6	16.2
DC 8									35.4	15.6
DC AVG.										
AC 1	175	137	40.2	168	66.7	24.5	103	62.0	34.6	15.5
AC 2	175	137	40.2	168	66.7	24.5	103	62.0	34.6	15.6
AC AVG.										
S.P.	+6.4	-.8		+1.8			+1.3			
AC NOISE	.08		.06			.05				.08
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 2 HALF W SP. 1 DATE 5/11/69

PAGE 20K9

SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	CAL 1	
RECEIVE									2-3	
RANGE	.03	.03	.03	.01	.03	.01	.01	.01	2 AMP.	
DC 1	31.0	24.7	15.2	7.70	10.4	9.82	7.08	3.42 / 3.20	209	
DC 2	31.1	24.3	15.7	7.58	10.7	10.0	6.62	3.39 / 3.60	209	
DC 3	31.0	24.8	15.3	7.72	10.4	9.82	6.95	3.39 / 3.18	209	
DC 4	31.1	24.2	15.6	7.69	10.8	9.97	6.66	3.43 / 3.58	209	
DC 5		24.7	15.3	7.61	10.2	9.80	6.85	3.28 / 3.21		
DC 6		24.3	15.7	7.79	10.9	9.98	6.89	3.60 / 3.61		
DC 7		24.7	15.2	7.61	10.2	9.84	6.85	3.19 / 3.07		
DC 8		24.3	15.7	7.72	10.9	9.95	6.60	3.52 / 3.68		
DC AVG.										
AC 1	30.5	24.1	15.2	7.42	10.4	9.63	6.60	3.30	214	
AC 2	30.5	24.0	15.2	7.42	10.4	9.63	6.61	3.30	214	
AC AVG.										
S.P.	+10.3				-7.7					
AC NOISE				.04				.06		
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GOSSAN
LINE 2 HALF E SP. 1 DATE 5/10/69

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE										
RANGE	.3	.3	.1	.3	.1	.03	1.	.3	.1	.03
DC 1	137	173	40.4	314	49.9	20.2	396	117	39.1	11.6
DC 2	134	174	40.8	316	62.7	19.9	392	119	36.2	11.8
DC 3	137	173	40.3	314	49.9	20.1	396	117	39.1	11.7
DC 4	134	174	41.2	316	62.7	19.9	392	119	36.2	11.9
DC 5			39.9			20.3				11.7
DC 6			41.2			19.7				11.8
DC 7			40.1			20.3				11.7
DC 8			41.2			19.7				12.0
DC AVG.										
AC 1	128	167	38.9	303	68.2	19.2	381	113	36.0	11.3
AC 2	128	167	38.9	303	68.2	19.2	380	113	36.0	11.3
AC AVG.										
S.P.	+4.2			-8.6			+1.5			
AC NOISE	.12		.08			.08				.07
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT GOSSAN
LINE 2 HALF E SP. 1 DATE 5/10/69

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2	CAL 1	
RECEIVE									3-4	
RANGE	.3	.1	.1	.03	.1	.1	.03	.01	2 AMP.	
DC 1	237	9.99	35.5	11.7	86.3	47.5	20.9	6.50	209	
DC 2	238	9.98	35.3	11.9	88.4	50.8	19.3	7.07	209	
DC 3	237	9.98	35.5	11.7	86.3	47.6	20.9	6.38	209	
DC 4	238	9.99	35.2	11.8	89.1	50.9	19.4	7.02	209	
DC 5		9.99	35.7	11.7	86.1	47.7	20.8	6.38		
DC 6		9.98	35.0	11.8	88.7	50.9	19.3	7.06		
DC 7			35.7	11.7	86.3	47.8	21.0	6.39		
DC 8			35.2	11.8	89.0	50.9	19.2	7.06		
DC AVG.										
AC 1	232	97.5	33.9	11.3	84.0	47.2	19.2	6.43	206	
AC 2	231	97.5	33.9	11.3	84.1	47.2	19.2	6.43	206	
AC AVG.										
S.P.	-5.2									
AC NOISE				.07				.08		
POT RES.										

JOB 377-69 LINE 1 SPREAD 1

LOOKING N DATE May 9, 1969 A= 500'

CENTER 0.0 LABEL W/E FREQ. 1.0 and 0.1

COUPLING YES

13 May 69

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HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Gossan

LINE 1 HALF W SP. 1 DATE 5/9/69

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE										
RANGE	.3	.3	.1	.1	.1	.03	.3	.03	.1	.03
DC 1	138	243	56.0	52.2	74.3	24.2	100	16.2	31.9	12.7
DC 2	137	241	48.2	54.0	76.2	27.0	103	17.5	32.6	14.2
DC 3	138	243	56.0	52.2	74.2	24.2	100	16.2	31.8	12.8
DC 4	137	241	48.2	54.0	76.2	26.8	103	17.6	32.6	14.2
DC 5					75.1	24.3		16.3	31.9	12.7
DC 6					76.2	27.0		18.0	32.6	14.2
DC 7					74.0	24.1		16.2	31.9	13.1
DC 8					76.1	26.9		17.7	32.6	14.0
DC AVG.										
AC 1	132	232	50.0	51.0	71.8	24.4	97	16.4	30.6	12.9
AC 2	132	232	50.0	51.0	71.8	24.4	97	16.4	30.6	12.9
AC AVG.										
S.P.	+11.2	-8.6		+4.4			-14.6			
AC NOISE	.08		.12			.10				.14
POT RES.										

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HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT GOSSAN
LINE 1 HALF W SP. ____ DATE ____

SEND	1-2	2-3	3-4		4-5	1-2	2-3		3-4		4-5		CAL 1	
RECEIVE													2.3	
RANGE	.1	.01	.03		.01	.03	.01		.01		.01		.3	
DC 1	33.8	8.42	17.3	16.8	8.78	10.3	3.38	2.38	6.81	6.70	4.29	4.70	211	
DC 2	32.4	7.78	16.8	17.2	7.80	10.8	2.39	2.17	6.60	6.80	3.96	1.85	211	
DC 3	33.8	8.40	16.4	16.8	8.51	10.0	3.01	3.58	7.21	6.71	3.90	4.78	211	
DC 4	32.0	7.42	17.2	17.1	8.04	10.7	2.78	2.09	6.50	7.08	2.50	2.18	211	
DC 5	32.4	8.20	16.8	16.4	8.07	10.0	2.89	3.79	7.70	6.18	4.4	4.50		
DC 6	32.0	7.60	16.8	17.0	8.10	10.7	2.57	1.89	6.70	6.91	2.60	2.38		
DC 7	33.9	8.04	17.0	17.0	8.57	10.3	3.00	3.58	7.10	6.44	4.43	4.78		
DC 8	32.0	8.00	16.6	16.8	7.61	10.9	2.60	1.91	7.02	7.09	2.30	2.05		
DC AVG.														
AC 1	32.0	7.56	16.1		7.79	10.1	2.79		6.44		3.30		208	
AC 2	32.0	7.56	16.1		7.80	10.1	2.79		6.43		3.30		208	
AC AVG.														
S.P.	+15.6					-7.3								
AC NOISE					.02						.10			
POT RES.														

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PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Gossan

LINE 1 HALF W SP. 1 DATE

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	120v	90v	120v	50v	90v	120v	90v	50v	90v	120v
CURRENT	2.0A	2.0A	2.0A	1.0A	2.0A	2.0A	2.0A	1.0A	2.0A	2.0A
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		2-3
RANGE										
VOLTAGE	90v	50v	90v	120v	90v	50v	90v	120v		
CURRENT	2.0A	1.0A	2.0A	2.0A	2.0A	1.0A	2.0A	2.0A		2.0A

FREQUENCIES 1.0 0.1

SENDER NO. 13671-C

OPERATOR SJ

RECEIVER NO. 2651-R

OPERATOR

COMMENTS: 1.0 Hz. & 0.1 Hz.

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HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 1 HALF E SP. 1 DATE 5/9/69

SEND	1-2	2-3		1-2	3-4	2-3	1-2	4-5	3-4	2-3		1-2	
RECEIVE													
RANGE	.3	.1		.1	.3	.03	.03	.3	.1	.01		.01	
DC 1	235	71.0	64.0	56.1	268	26.4	24.3	196	52.7	7.62	8.00	8.20	8.41
DC 2	237	71.2	78.2	49.2	268	27.2	24.4	197	52.0	5.78	5.88	8.19	8.00
DC 3	235	70.0	62.8	56.2	268	26.7	24.3	196	52.7	7.70	7.70	8.39	7.96
DC 4	237	72.0	79.1	49.2	268	27.8	24.2	197	52.7	5.90	5.83	8.37	8.40
DC 5		69.6	61.3	56.2		26.7	24.4		52.5	7.97	8.09	8.30	8.06
DC 6		72.8	80.0	48.7		27.9	24.3		51.8	6.18	5.82	8.01	8.40
DC 7		64.8	61.8	47.0		26.1	23.5		52.8	7.77	7.90	7.98	7.71
DC 8		71.8	80.2	48.2		27.6	24.2		51.8	5.78	5.90	8.19	8.18
DC AVG.													
AC 1	227	68.1		50.9	258	26.0	23.5	192	50.1	6.60		7.90	
AC 2	227	68.1		50.9	258	26.0	23.6	192	50.1	6.60		7.90	
AC AVG.													
S.P.	+17.2	+34.0			+4.0			-1.2					
AC NOISE	.10			.08			.14					.01	
POT RES.													

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HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan
LINE 1 HALF E SP. 1 DATE 5/9/69

SEND	4-5		3-4		2-3		1-2		4-5	3-4		2-3		1-2		CAL 1
RECEIVE																3-4
RANGE	.1		.03		.003		.01		.03	.03		.003		.01		
DC 1	31.8		14.6		2.24	2.25	3.20	3.40	26.8	14.4	14.2	2.62	2.65	4.42	4.18	211
DC 2	30.8		13.1		2.28	2.11	3.22	3.19	26.2	15.4	15.7	2.68	2.64	4.76	4.80	211
DC 3	31.8		14.5		2.60	2.36	3.57	3.51	26.8	14.1	13.9	2.63	2.63	4.29	4.09	211
DC 4	30.8		13.6		2.21	2.27	3.22	3.07	26.0	15.4	15.7	2.64	2.59	4.72	4.90	211
DC 5			14.3		2.10	2.46	3.37	3.42	26.9	14.3	14.0	2.59	2.68	4.33	4.30	
DC 6			13.3		2.26	2.24	3.19	3.21	26.1	15.7	15.8	2.68	2.54	4.68	4.87	
DC 7			14.4		2.48	2.20	3.49	3.41	26.8	14.0	14.8	2.62	2.73	4.31	4.47	
DC 8			13.3		2.31	2.26	3.42	3.21	26.1	15.6	15.8	2.72	2.52	4.71	4.70	
DC AVG.																
AC 1	30.0		13.4		2.22		3.28		25.6	14.3		2.57		4.38		208
AC 2	30.0		13.4		2.22		3.26		25.6	14.3		2.57		4.38		208
AC AVG.																
S.P.	+11.5								-12.6							
AC NOISE							.04							.04		
POT RES.																

PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT GOSSAN

LINE 1 HALF E SP. 1 DATE

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	80v	40v	80v	120v	40v	80v	120v	80v	40v	80v
CURRENT	2.0A	1.0A	2.0A	2.0A	1.0A	2.0A	2.0A	2.0A	1.0A	2.0A
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		3-4
RANGE										
VOLTAGE	120v	80v	40v	80v	120v	80v	40v	80v		120v
CURRENT	2.0A	2.0A	1.0A	2.0A	2.0A	2.0A	1.0A	2.0A		2.0A

FREQUENCIES 1.0 0.1

SENDER NO. 13671-S

OPERATOR SD

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

1.0 Hz. & 0.1 Hz.

PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT GOSSAN

LINE 1 HALF E SP. 1 DATE

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→		15-20	→		
RANGE										
VOLTAGE	80V	40V	80V	120V	40V	80V	120V	80V	40V	80V
CURRENT	2.0A	1.0A	2.0A	2.0A	1.0A	2.0A	2.0A	2.0A	1.0A	2.0A
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL
RECEIVE	20-25	→			25-30	→				3-4
RANGE										
VOLTAGE	120V	80V	40V	80V	120V	80V	40V	80V		120V
CURRENT	2.0A	2.0A	1.0A	2.0A	2.0A	2.0A	1.0A	2.0A		2.0A

FREQUENCIES 1.0 0.1

SENDER NO. 13671-S

OPERATOR 57

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Gossan

LINE 1 HALF W SP. 1 DATE

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	120V	90V	120V	50V	90V	120V	90V	50V	90V	120V
CURRENT	2.0A	2.0A	2.0A	1.0A	2.0A	2.0A	2.0A	1.0A	2.0A	2.0A
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		2-3
RANGE										
VOLTAGE	90V	50V	90V	120V	90V	50V	90V	120V		
CURRENT	2.0A	1.0A	2.0A	2.0A	2.0A	1.0A	2.0A	2.0A		2.0A

FREQUENCIES 1.0 0.1

SENDER NO. 13671-S

OPERATOR SY

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Gossan

LINE 2 HALF W SP. 1 DATE

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	150v	140v	150v	140v	140v	150v	90v	140v	140v	150v
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		2-3
RANGE										
VOLTAGE	90v	140v	140v	150v	90v	140v	140v	150v		160v
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A		2.0A

FREQUENCIES 3.0 0.1

SENDER NO. 13671-S

OPERATOR S7

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

PAGE

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Gossan

LINE 2 HALF E SP. 1 DATE

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	←	→	→
RANGE										
VOLTAGE	80v	140v	80v	140v	140v	80v	140v	140v	140v	80v
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		3-4
RANGE										
VOLTAGE	140v	140v	140v	80v	140v	140v	140v	80v		180v
CURRENT	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A	2.0A		2.0A

FREQUENCIES 3.0 0.1

SENDER NO. 13671-S

OPERATOR SJ

RECEIVER NO. 7651-R

OPERATOR

COMMENTS:

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT Gossan - B-377-69
LINE 1 HALF W SP. 1 DATE 5/9/69

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE										
RANGE	.3	.3	.1	.1		.03	.3	.03	.1	.03
DC 1	138	243	56.0	52.2	74.3	24.2	10.0	16.2	31.9	12.7
DC 2	137	241	48.2	54.0	76.2	27.0	10.3	17.5	32.6	14.2
DC 3	138	243	56.0	52.2	74.2	24.2	10.0	16.2	31.8	12.8
DC 4	137	241	48.2	54.0	76.2	26.8	10.3	17.6	32.6	14.2
DC 5					75.1	24.3		16.3	31.9	12.7
DC 6					76.2	27.0		18.0	32.6	14.2
DC 7					74.0	24.1		16.2	31.9	13.1
DC 8					76.1	26.9		17.7	32.6	14.0
DC AVG.										
AC 1	132	232	50.0	51.0	71.8	24.4	97	16.4	30.6	12.9
AC 2	132	232	50.0	51.0	71.8	24.4	97	16.4	30.6	12.9
AC AVG.										
S.P.	+11.2	-8.6		+4.4			-14.6			
AC NOISE	.08		.12			.10				.14
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT Gossan - B-377-69 LINE 1 HALF W SP. 1 DATE 5/9/69

SEND	1-2	2-3	3-4		4-5	1-2	2-3		3-4		4-5		CAL 1	
RECEIVE													2-3	
RANGE	.1	.01	.03		.01	.03	.01		.01		.01			
DC 1	33.8	8.42	17.3	16.8	8.78	10.3	3.38	2.38	6.81	6.70	4.29	4.70	211	
DC 2	32.4	7.28	16.8	17.2	7.80	10.8	2.39	2.19	6.60	6.80	3.98	1.85	211	
DC 3	33.8	8.40	16.4	16.8	8.51	10.0	3.01	3.58	7.21	6.71	3.90	4.78	211	
DC 4	32.0	7.42	17.2	17.1	8.04	10.7	2.78	2.09	6.50	7.08	2.50	2.18	211	
DC 5	32.4	8.20	16.8	16.4	8.07	10.0	2.89	3.79	7.70	6.18	4.41	4.50		
DC 6	32.0	7.60	16.8	17.0	8.10	10.7	2.59	1.89	6.70	6.91	2.60	2.38		
DC 7	33.9	8.04	17.0	17.0	8.57	10.3	3.00	3.58	7.10	6.64	4.43	4.78		
DC 8	32.0	8.00	16.6	16.8	7.61	10.4	2.60	1.91	7.02	7.09	2.30	2.05		
DC AVG.														
AC 1	32.0	7.56	16.1		7.79	10.1	2.79		6.44		3.35		208	
AC 2	32.0	7.56	16.1		7.80	10.1	2.79		6.43		3.30		208	
AC AVG.														
S.P.	+15.0					-7.3								
AC NOISE					.12								.10	
POT RES.														

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT GOSSAN
LINE 1 HALF E SP. 1 DATE 5/9/69

SEND	1-2	2-3		1-2	3-4	2-3	1-2	4-5	3-4	2-3		1-2	
RECEIVE													
RANGE	.3	.1		.1	.3	.03	.03	.3	.1	.01		.01	
DC 1	235	71.0	64.0	56.1	268	26.4	24.3	196	52.7	7.62	8.00	8.20	8.41
DC 2	237	71.2	78.2	49.2	268	27.2	24.4	197	52.0	5.78	5.88	8.19	8.00
DC 3	235	70.0	62.8	56.2	268	26.7	24.3	196	52.7	7.70	7.70	8.39	7.98
DC 4	237	72.1	79.1	49.2	268	27.8	24.2	197	51.7	5.90	5.83	8.37	8.40
DC 5		69.6	61.3	56.2		26.7	24.4		52.5	7.97	8.09	8.30	8.06
DC 6		72.8	80.0	48.7		27.9	24.3		51.8	6.18	5.82	8.01	8.40
DC 7		64.8	61.8	57.0		26.1	23.5		52.8	7.72	7.90	7.98	7.71
DC 8		77.8	80.2	48.2		27.6	24.2		51.8	5.78	5.90	8.19	8.18
DC AVG.													
AC 1	227	68.1		50.9	258	26.0	23.5	192.	50.1	6.60		7.90	
AC 2	227	68.1		50.9	258	26.0	23.6	192	50.1	6.60		7.90	
AC AVG.													
S.P.	+17.2	+34.0			+4.0			-1.2					
AC NOISE	.10			.08			.14					.01	
POT RES.													

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT GOSSAN
LINE 1 HALF E SP. 1 DATE 5/9/69

SEND	4-5	3-4	2-3		1-2		4-5	3-4	2-3		1-2		CAL 1	
RECEIVE													3-4	
RANGE	.1	.03	.003		.01		.03	.03	.003		.01		2 AMP	
DC 1	31.8	14.6	2.24	2.25	3.20	3.40	26.8	14.4 14.2	2.62	2.65	4.42	4.18	211	
DC 2	30.8	13.1	2.28	2.11	3.22	3.19	26.2	15.4 15.7	2.68	2.64	4.76	4.80	211	
DC 3	31.8	14.5	2.60	2.36	3.57	3.51	26.8	14.1 13.9	2.63	2.63	4.29	4.09	211	
DC 4	30.8	13.6	2.21	2.27	3.22	3.07	26.0	15.4 15.7	2.64	2.59	4.72	4.90	211	
DC 5		14.3	2.10	2.46	3.37	3.42	26.9	14.3 14.0	2.59	2.68	4.33	4.30		
DC 6		13.3	2.26	2.24	3.19	3.21	26.1	15.7 15.8	2.68	2.54	4.68	4.87		
DC 7		14.4	2.48	2.20	3.49	3.41	26.8	14.0 14.8	2.62	2.73	4.31	4.17		
DC 8		13.3	2.31	2.26	3.42	3.21	26.1	15.6 15.8	2.72	2.52	4.71	4.70		
DC AVG.														
AC 1	30.0	13.4	2.22		3.28		25.6	14.3	2.57		4.38		208	
AC 2	30.0	13.4	2.22		3.26		25.6	14.3	2.57		4.38		208	
AC AVG.														
S.P.	+11.5						-12.6							
AC NOISE					.04						.04			
POT RES.														

JOB 394-69 LINE 1 SPREAD 1

LOOKING NW DATE 5-20-69 A= 500'

CENTER 0.0 LABEL SW-NE FREQ. 3.0 - 0.1

COUPLING yes

2 June 69
RC

Dump at 500'

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT 39A-69
LINE 1 HALF SW SP. 1 DATE 5-20-69

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5.0	5.0 →	10.0	10.0	→	15.0	15.0 →			20.0
RANGE	100	300	30	100	30	10	300	30	30	10
DC 1	410420	750 710	195 184	519 525	167 169	580543	155 157	135 147	860 650	335 345
DC 2	410420	750710	193 187	519525	165 170	570542	155157	127 148	999 650	258 393
DC 3	410420	750710	190 188	519525	165 172	570560	155157	134 145	910 690	290 337
DC 4			195 184		163 171	561560	12	138 145	910 660	295 339
DC 5			195 184		165 172	570540		120 150	900 600	323 320
DC 6					164 170	580535		130 145	860 640	318 315
DC 7					165 170	590535		125 166	790 640	320 360
DC 8								130 149	930 760	270 385
DC AVG.										
AC 1	41.3	69.9	17.95	49.0	16.0	5.37	149.0	13.0	7.60	3.03
AC 2	41.3	"	"	"	"	"	"	"	"	"
AC AVG.										
S.P.	+7.8	+5.0		+14.9			+1.2			
AC NOISE	.07	.08		.08			.06			
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES -

PROJECT 394-69

LINE 1 HALF SW SP. 1 DATE 5-30-69

PAGE 2

SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE	20.0			25.0	25.0			30.0		1-2
RANGE	100	10	10	3.0	30	10	10	3.0		300
DC 1	220 220	320 320	260 260	113 109	[illegible]	319 300	319 339	155 127		100 100
DC 2	220 220	320 320	259 261	121 105	[illegible]	319 300	262 320	135 125		100 100
DC 3	220 220	320 320	259 261	119 111	[illegible]	319 300	275 317	145 130		100 100
DC 4				110 115			300 300	154 130		
DC 5				108 112	183 190		300 295	165 116		
DC 6				115 112	183 190		310 297	172 115		
DC 7				115 111	183 190		317 290	179 96		
DC 8				112 114			305 281	167 113		
DC AVG.										
AC 1	20.3	3.0	2.42	1.05	[illegible]	2.97	2.81	1.30		100
AC 2	"	"	"	"	"	"	"	"		"
AC AVG.										
S.P.	+4.5				-4.1					
AC NOISE	.07				.06					
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT Hanks-394

LINE 1 HALF SW SP. 1 DATE

PAGE 1

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	200v	180v	200v	140v	180v	200v	180v	140v	180v	200v
CURRENT	1.0A	1.0A	1.0A	1.0A	1.0A	1.0A	1.0A	1.0A	1.0A	1.0A
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		1-2
RANGE										
VOLTAGE	180v	140v	180v	200v	180v	140v	180v	200v		200v
CURRENT	1.0A	1.0A	1.0A	1.0A	1.0A	1.0A	1.0A	1.0A		1.0A

FREQUENCIES 3.0 0.1

SENDER NO. 1367-S

OPERATOR 57

RECEIVER NO. 7651-R

OPERATOR 17

COMMENTS:

WP Fence at 17.5

PAGE 3

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT 394-69

LINE 1 HALF NE SP. 1 DATE 5-20-69

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0.0-5.0	5.0 →	10.0	10.0	→	15.0	15.0	→		20.0
RANGE	300	100	100	1000	30	30	300	100	10	10
DC 1	900 980	525 530	225 240	239 239	160 170	125 129	115 119	460 420	460 435	454 421
DC 2	900 980	525 530	225 240	239 239	160 170	126 130	115 119	460 420	462 435	460 440
DC 3	900 980	525 530	225 240		160 170	121 130	115 119	460 420	460 423	455 442
DC 4						125 134			472 423	445 441
DC 5						120 133			477 417	443 450
DC 6						121 134			482 401	457 435
DC 7						124 131			500 403	462 420
DC 8						120 131			480 402	
DC AVG.										
AC 1	87.0	51.7	22.0	237.0	16.2	12.0	116.0	43.8	4.40	4.21
AC 2	"	"	"	"	"	"	"	"	"	"
AC AVG.										
S.P.	-9.6	-24.5		+32.2			-0.5			
AC NOISE	.10	.06		.04			.04			
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT 394-69

LINE 1 HALF NE SP. 1 DATE 5-20-69

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL
RECEIVE	20.0			25.0	25.0			30.0		4-5
RANGE	100	100	10	10	30	30	3.0	10.0		300
DC 1	460 480	242 273	380 340	440 440	100 90	950 850	175 175	279 260		100 100
DC 2	460 480	242 273	380 335	441 441	100 90	950 850	170 180	280 259		100 100
DC 3	460 480	242 273	390 340	443 440	100 90	950 850	180 180	279 260		100 100
DC 4			398 322	438 459			187 175	279 260		
DC 5			400 319	439 425			190 168			
DC 6			402 320	441 445			184 170			
DC 7			402 315	470 417			186 171			
DC 8							179 185			
DC AVG.										
AC 1	47.2	25.9	3.58	4.20	9.50	8.95	1.74	2.53		100
AC 2	"	"	"	"	"	"	"	"		"
AC AVG.										
S.P.	-7.8				+6.8					
AC NOISE	.08				.06					
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT 394-69

LINE 1 HALF NE SP. 1 DATE

PAGE 2

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE										
VOLTAGE	230v	180v	240v	220v	180v	240v	250v	220v	180v	240v
CURRENT	1.25A	1.25A	1.25A	1.25A	1.25A	1.25A	1.25	1.25A	1.25A	1.25A
SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		4-5
RANGE										
VOLTAGE	250v	220v	180v	240v	250v	220v	180v	240v		200v
CURRENT	1.25A	1.25A	1.25A	1.25A	1.25A	1.25A	1.25A	1.25A		1.0A

FREQUENCIES 3.0 0.1

SENDER NO. 13671-S

OPERATOR SD

RECEIVER NO. 7651-R

OPERATOR 17

COMMENTS:

JOB 394-69 LINE 2 SPREAD 1

LOOKING NW DATE 5-28-69 A= 500'

CENTER 0.0 LABEL SW-NE FREQ. 3.0-0.1

COUPLING yes

2 June 69
RC

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT HANKS - 394
LINE 2 HALF SW SP. 1 DATE 5/28

SEND	4-5	3-4	4-5	2-3	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE	300	100	100	300	30	30	1000	100	30	30
DC 1	123-124	464-584	211-239	118-119	150-163	103-121	359-363	440-482	169-185	89-108
DC 2	123-124	464-584	211-239	118-119	151-162	101-123	359-363	438-482	165-184	92-108
DC 3	123-124	464-584	210-240	118-119	150-163	103-121	359-363	439-483	169-183	88-110
DC 4			210-240		149-164	101-123		438-490	170-184	88-107
DC 5			210-240		149-164	100-124		440-485	165-183	91-110
DC 6								435-490	165-183	87-111
DC 7								430-491	167-184	89-114
DC 8								430-490	167-184	84-115
DC AVG.										
AC 1	118	54.0	21.1	108	14.3	10.3	325	42.0	16.3	9.1
AC 2	118	54.0	21.1	108	14.3	10.3	325	42.0	16.3	9.1
AC AVG.										
S.P.	-20.4	+4.9	[illegible]	-17.6			+16.8			
AC NOISE										
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT HANKS 394

LINE 2 HALF SW SP. 1 DATE 5/28

PAGE 4

SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		1-2
RANGE	300	30	30	10	100	30	10	10		300
DC 1	90-98	173-203	95-107	660-685	355-360	82-88	540-610	315-405		211-214
DC 2	91-97	177-205	97-105	580-710	350-361	83-87	535-619	320-400		211-214
DC 3	90-98	177-200	93-107	585-695	350-361	82-87	540-610	320-395		211-214
DC 4	94-96	175-206	96-108	610-710	350-361	82-88	535-620	315-405		
DC 5	93-94	177-202	91-108	575-715	350-361	81-88	535-621	310-415		
DC 6	94-94	177-202	95-109	623-645		81-90	530-605	305-419		
DC 7	94-94	177-200	92-108	590-685		80-89	539-610	315-410		
DC 8	93-94	184-199	91-111	—		80-88	535-621	300-430		
DC AVG.										
AC 1	89.0	18.2	9.7	6.05	34.0	8.0	5.5	3.4		202
AC 2	89.0	18.1	9.7	6.	34.0	8.1	5.5	3.39		202
AC AVG.					+2.6					
S.P.	+5.3				+2.6					
AC NOISE										
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT MM

LINE II HALF 1 SP. 500 DATE 28

PAGE 1

SEND	4-5	3-4	4-5	23	3-4	4-5	1-2	2-3	3-4	4-5
RECEIVE										
RANGE										
VOLTAGE	700	700	700	800	700	700	700	800	800	800
CURRENT	2	2	2	3	2	2	3	3	3	2
SEND	1-2	2-3	3-4	4-5	1-2	2-3	3-4	4-5	CAL	
RECEIVE									1-2	
RANGE										
VOLTAGE	700	800	800	800	700	800	800	800	600	
CURRENT	3	3	3	2	3	3	3	2	2	

FREQUENCIES 3 .1

SENDER NO. CO

OPERATOR AB

RECEIVER NO.

OPERATOR

COMMENTS:

HEINRICHS GEOEXPLORATION CO.

I.P. RECEIVER NOTES

PROJECT HANKS-394

LINE 2 HALF NE SP. 1 DATE 5/28

PAGE 1/28

SEND	1-2	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2
RECEIVE	0-5	5-10	→	10-15	→	→	15-20	→	→	→
RANGE	300	300	100	300	30	30	300	100	30	10
DC 1	81-82	121-122	330-335	117-118	213-215	117-127	100-102	225-230	67-70	525-535
DC 2	81-82	121-122	331-334	117-118	213-217	117-127	100-102	225-230	67-69	530-530
DC 3	81-82	121-122	330-335	117-118	213-217	118-126	100-102	225-230	67-70	530-530
DC 4			331-334		213-217	117-127			67-70	
DC 5					210-218	117-127			67-70	
DC 6					213-217					
DC 7					213-215					
DC 8					213-217					
DC AVG.										
AC 1	80.0	119	33	116	21.2	12.2	102	23.0	6.9	5.4
AC 2	80.0	118	33	116	21.2	12.2	102	23.0	6.8	5.4
AC AVG.										
S.P.	+16.9	-10.5	-1.1				+3.0			
AC NOISE										
POT RES.										

HEINRICHS GEOEXPLORATION CO.
I.P. RECEIVER NOTES

PROJECT HANKS-394
LINE 2 HALF N E SP. 1 DATE 5/28

PAGE 2

SEND	4-5	3-4	2-3	1-2	4-5	3-4	2-3	1-2		CAL
RECEIVE	20-25	→	→	→	25-30	→	→	→		4-5
RANGE	100	30	10	10						300
DC 1	410-425	95-155	275-475							210-212
DC 2	410-425	92-152	250-400							210-212
DC 3	405-425	82-155	240-265							210-212
DC 4	410-425	80-155	215-495							
DC 5	405-425	77-162	210-510							
DC 6	405-425	76-165								
DC 7										
DC 8										
DC AVG.										
AC 1	48.0	13.5	4.75	4.0						209
AC 2	48.0	13.5	4.75	4.0						209
AC AVG.										
S.P.	+33.9									
AC NOISE										
POT RES.										

HEINRICHS GEOEXPLORATION CO.

I. P. SENDER NOTES

PROJECT M-MARCH

LINE II HALF NE SP. 1 DATE 28

PAGE 2

SEND	1-2	2-3	1-2	3-4	2-3	1-2	45	34	2-3	1-2
RECEIVE	40-50				50-6					
RANGE										
VOLTAGE	800	800	800	800	800	800	700	800	800	800
CURRENT	3	2	3	2	2	3	2	2	2	3
SEND	1-2	3-4	2-3	1-2	45	3-4	2-3	1-2	CAL	
RECEIVE										
RANGE									2	
VOLTAGE	800	800	800	800					800	
CURRENT	2	2	2	3					2	

FREQUENCIES 3 .1

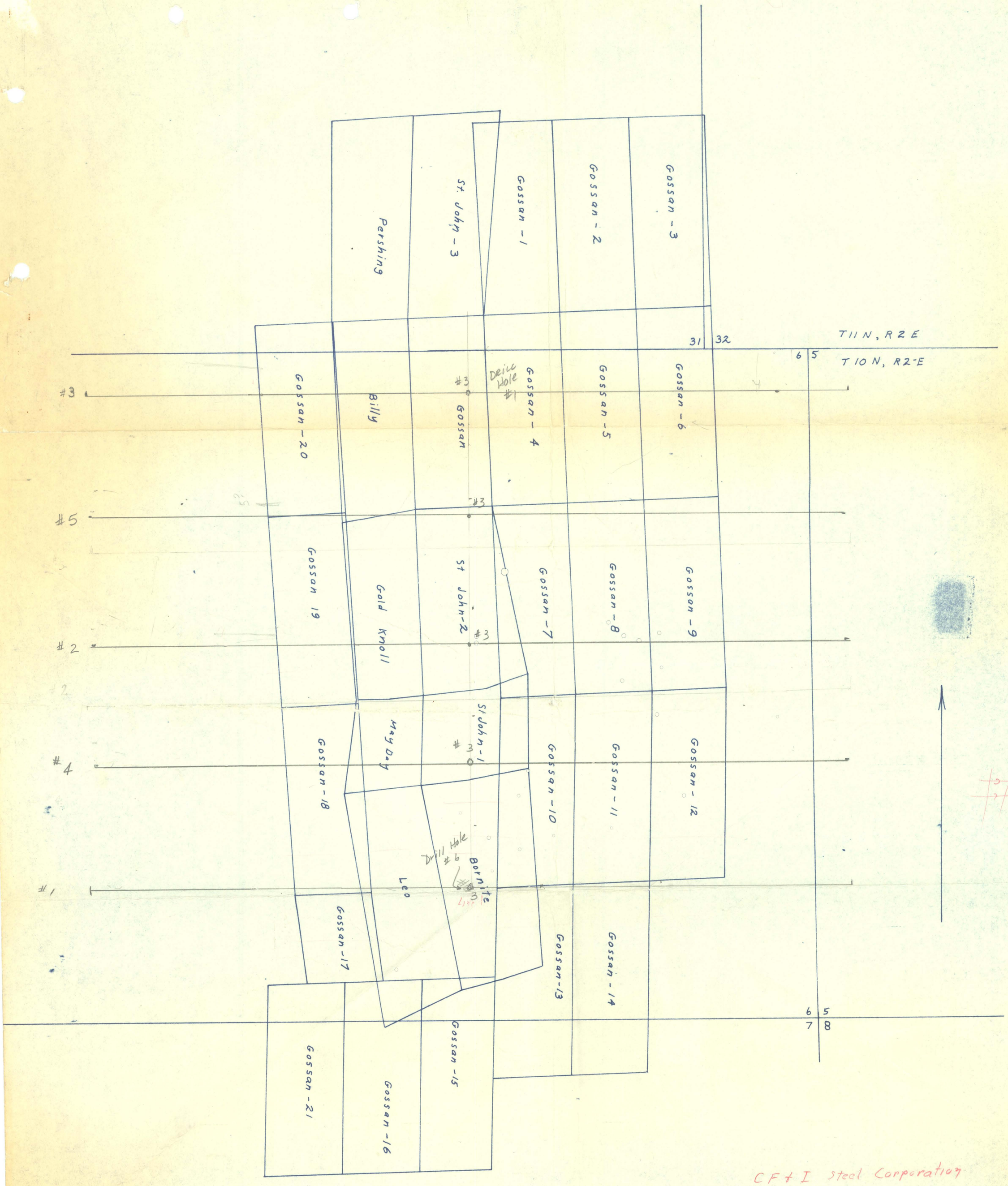
SENDER NO.

OPERATOR

RECEIVER NO.

OPERATOR

COMMENTS:



CF+I Steel Corporation

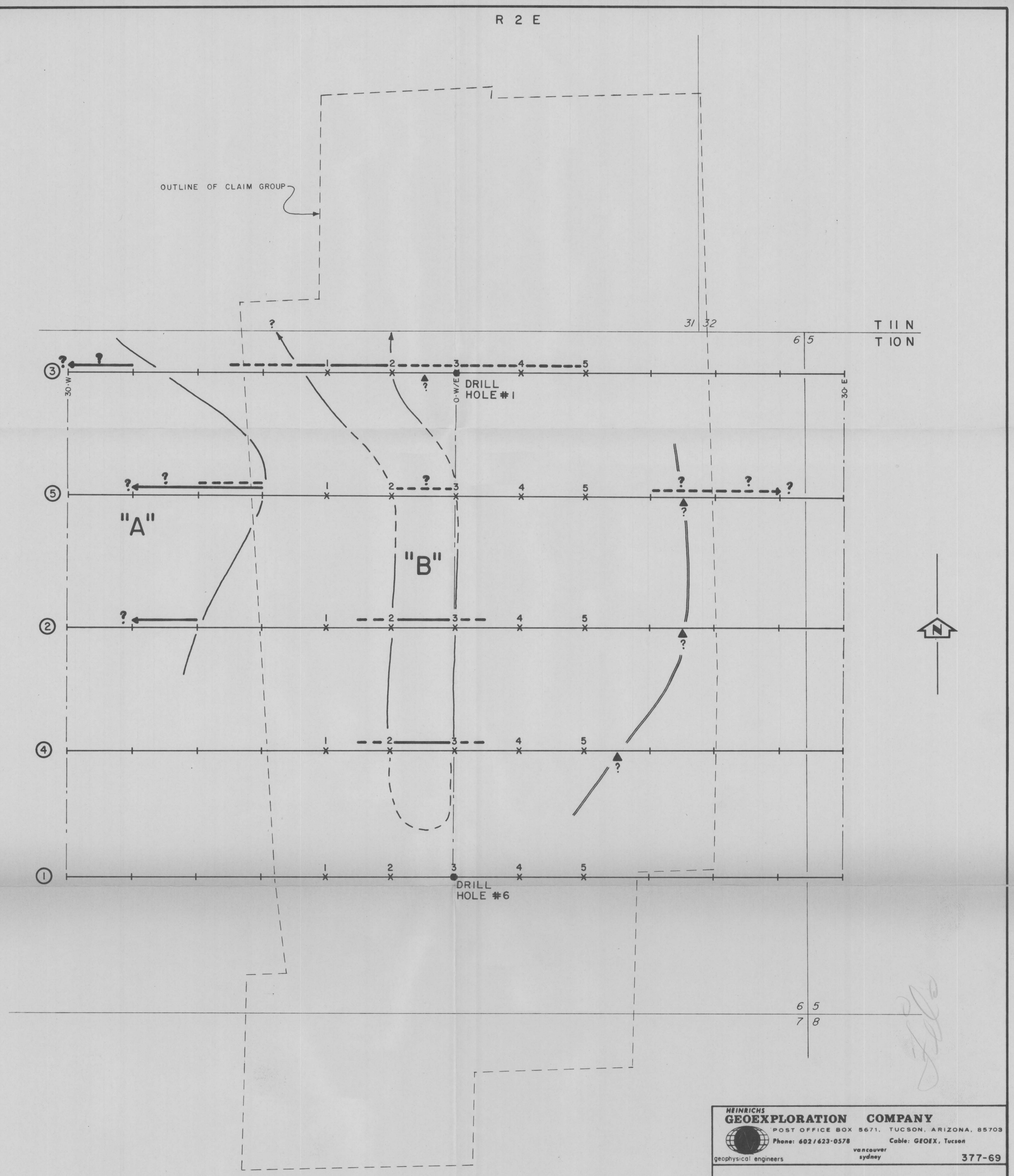
377-69

Gossan Claims

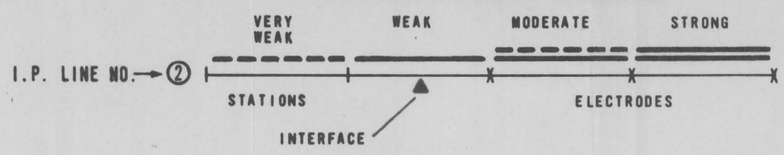
Yavapai county, Ariz

Jan, 1967

1in = 500'



RELATIVE ANOMALY STRENGTH



HEINRICHS GEOEXPLORATION COMPANY
POST OFFICE BOX 5671, TUCSON, ARIZONA, 85703
Phone: 602/623-0578 Cable: GEOEX, Tucson
geophysical engineers vancouver sydney

377-69

INDUCED POLARIZATION LOCATION AND INTERPRETATION PLAN

GOSSAN PROJECT AREA
YAVAPAI COUNTY, ARIZONA

FOR

C F & I STEEL CORPORATION

SCALE: 1" = 500' | DRAWN BY: JAY DOWNS | DATE: MAY 1969

HEINRICHS GEOEX (MAR 69) JOB 377-69 LINE 5 SPREAD 1 LOOKING NORTH 5/14/69 A= 500 FEET, FREQUENCIES .10 AND 3.0

1.750	1.750	1.750	1.750	1.750	1.750	1.750	1.750	1.750	1.750	I	1.750	1.750	1.750	1.750	1.750	1.750	1.750	1.750	1.750	
216	968	431	164	411	234	873	604	232	148	DC	264	213	841	931	112	98	602	440	174	LEFT
218	935	435	166	432	252	878	581	241	173		252	240	937	580	104	107	615	390	174	SIDE
	958	437		409	253	869	607	211	124		275	196	818	980	130	123	617	225		
	952	441		429	256	880	592	249	162		242	237	962	640	98	111	618	470		
	962	441		409	231	864	609	256	152		273	219	829	927	131	74	310	315		
	940	432		429	258	884	601	232	138		244	269	941	620	102	122	590	525		
	957	427			252	867	610	218	157		272	226	840	901	127	146	342	319		
	943	439			253	891	607	250	133					521		126	790	604		
														800		141	480	512		
														543		87	721	685		
														800		124	465	480		
														581		73	900	621		
														962		127	712	500		
														512		101		639		
																		287		
																		309		
1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18		
434	1903	866	330	843	486	1751	1185	473	321	DC	516	453	1778	1511	216	205	1217	830	348	
	1893	872		841	505	1747	1188	452	297	SUMS	527	436	1755	1560	234	230	1232	615		
	1910	878		838	509	1749	1199	460	286		517	433	1780	1620	228	234	1235	695		
	1914	882		838	487	1744	1201	505	314		515	456	1791	1567	229	185	928	785		
	1902	873		838	489	1748	1210	488	290		517	488	1770	1547	233	196	900	840		
	1897	859			510	1751	1211	450	295		516	495	1781	1521	229	268	932	844		
	1900	866			505	1758	1217	468	290					1422		272	1132	923		
														1321		267	1270	1116		
														1343		228	1201	1197		
														1343		211	1186	1165		
														1381		197	1365	1101		
														1543		200	1612	1121		
														1474		228		1139		
																		926		
														?		?	?	596		
																		?		
0.0	.0	-.6	0.0	.4	-2.5	.1	-1.4	.5	7.4	DC	-.4	-1.6	.1	2.6	-5.3	-8.8	2.8	-10.4	0.0	
	-.5	.1		.2	1.3	-.2	-1.1	-4.0	-.7	DEVS	1.7	-5.3	-1.2	5.9	2.6	2.4	4.0	-33.6		
	.4	.8		-.2	2.1	-.0	-.2	-2.3	-4.3		-.2	-5.9	.2	10.0	-.1	4.1	4.3	-25.0		
	.6	1.3		-.2	-2.3	-.3	-.0	7.3	5.0		-.6	-.9	.9	6.4	.4	-17.7	-21.6	-15.2		
	-.0	.2		-.2	-1.9	-.1	.7	3.6	-3.0		-.2	6.0	-.3	5.0	2.1	-12.8	-24.0	-9.3		
	-.3	-1.4			2.3	.1	.8	-4.4	-1.3		-.4	7.6	.3	3.2	.4	19.3	-21.3	-8.9		
	-.1	-.6			1.3	.5	1.3	-.6	-3.0					-3.5		21.1	-4.4	-.3		
														-10.3		18.8	7.2	20.5		
														-8.8		1.5	1.4	29.2		
														-8.8		-6.1	.2	25.8		
														-6.3		-12.3	15.3	18.9		
														4.7		-11.0	36.1	21.0		
														.0		1.5		23.0		
																		-.0		
																		-35.7		
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
217.0	95.14	43.54	165.0	41.98	24.94	87.49	60.08	23.54	14.95	DCA	25.90	23.01	8.879	7.367	11.41	11.235	5.921	4.631	174.0	
207.0	89.30	41.00	156.0	39.40	23.50	84.20	57.00	21.70	14.80	AC1	22.40	20.00	8.880	6.570	10.20	9.800	4.880	3.870	178.0	
207.0	89.30	41.00	156.0	39.40	23.50	84.10	57.00	21.70	14.80	AC2	22.40	20.00	8.880	6.570	10.20	9.800	4.880	3.870	178.0	
207.0	89.30	41.00	156.0	39.40	23.50	84.15	57.00	21.70	14.80	ACA	22.40	20.00	8.880	6.570	10.20	9.800	4.880	3.870	178.0	
187.1	82.01	150.1	142.2	144.8	215.0	75.42	207.2	203.0	257.8	RHO	89.31	198.3	153.1	222.3	98.35	193.7	178.6	223.6	1.006	DC CAL
7.2	9.0	8.6	8.2	9.0	8.5	6.4	7.8	11.0	3.3	PFE	18.3	17.7	2.3	14.7	14.4	17.3	24.1	22.4	1.023	AC CAL
39	110	58	58	62	40	84	38	54	13	MCF	205	89	15	66	147	89	135	100		

1.750	1.750	1.750	1.750	1.750	1.750	1.750	1.750	1.750	1.750	I	1.750	1.750	1.750	1.750	1.750	1.750	1.750	1.750	1.750	
903	221	441	174	765	197	292	651	324	104	DC	138	443	267	929	758	299	196	718	174	RIGHT
900	212	432	166	670	199	293	634	349	104		138	442	272	809	760	304	183	578	174	SIDE
		441			192		640	325	102				267	918		297	198	719		
		419			204		630	347	103				273	810		306	185	562		
		452			191		653	328	102				267	930		300	197	721		
		429			198		638	350	103				273	801		302	183	568		
		439			194		646	324						940		298	200	765		
		412			197		632	351						818		308	182	543		
1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18		
1803	433	873	340	1435	396	585	1285	673	208	DC	276	885	539	1738	1518	603	379	1296	348	
		873			391		1274	674	206	SUMS			539	1727		601	381	1297		
		860			396		1270	672	205				540	1728		603	383	1281		
		871			395		1283	675	205				540	1740		606	382	1283		
		881			389		1291	678	205				540	1731		602	380	1289		
		868			392		1284	674						1741		600	383	1333		
		851			391		1278	675						1758		606	382	1308		
0.0	0.0	.6	0.0	0.0	.8	0.0	.3	-.2	1.1	DC	0.0	0.0	-.1	.0	0.0	0.0	-.6	-.2	0.0	
		.6			-.5		-.5	-.1	.1	DEVS			-.1	-.6		-.3	-.1	-.1		
		-.9			.8		-.8	-.4	-.4				.1	-.6		0.0	.4	-1.3		
		.3			.5		.2	.1	-.4				.1	.1		.5	.1	-1.2		
		1.5			-1.0		.8	.5	-.4				.1	-.4		-.2	-.4	-.7		
		-.0			-.2		.3	-.1						.2		-.5	.4	2.7		
		-2.0			-.5		-.2	.1						1.2		.5	.1	.8		
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
90.15	216.5	43.41	170.0	71.75	19.64	292.5	64.04	33.72	10.29	DCA	138.0	44.25	26.98	8.688	75.90	30.15	19.07	6.491	174.0	
89.20	213.0	42.90	170.0	71.00	19.30	288.0	62.80	33.20	10.10	AC1	137.0	43.30	26.20	8.430	73.10	29.00	18.30	6.220	177.0	
89.20	213.0	42.90	169.0	71.00	19.30	288.0	62.80	33.20	10.10	AC2	136.0	43.30	26.20	8.450	73.10	29.00	18.30	6.220	177.0	
89.20	213.0	42.90	169.5	71.00	19.30	288.0	62.80	33.20	10.10	ACA	136.5	43.30	26.20	8.440	73.10	29.00	18.30	6.220	177.0	
77.72	186.6	149.7	146.6	247.4	169.3	252.2	220.8	290.7	177.4	RHO	475.9	381.5	465.2	262.1	654.3	519.8	575.4	313.3	1.006	DC CAL
2.8	3.4	2.9	2.0	2.8	3.5	3.3	3.7	3.3	3.6	PFE	2.8	4.0	4.8	4.7	5.6	5.8	6.0	6.2	1.017	AC CAL
36	18	20	14	11	21	13	17	11	21	MCF	6	10	10	18	9	11	10	20		

HEINRICHS GEOEX (MAR 69) JOB 377-69 LINE 5 SPREAD 1 LOOKING NORTH 5/14/69 A= 500 FEET, FREQUENCIES .10 AND 3.0

1 2 3 4 5 SURFACE

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E

RHO/2PI

N													
1	X	X	X	X75	X142	X~~78~~ 80 ~~82~~	X~~187~~ 187	X147	X252	X	X	X	X
2	X	X	X	X89	X207	X145	X~~150~~ 150	X247	X221	X476	X	X	X
3	X	X	X98	X198	X203	X215	X169	X291	X381	X654	X	X	X
4	X	X	X	X194	X153	X258	X	X177	X465	X520	X	X	X
5	X	X	X	X179	X222	X	X	X262	X575	X	X	X	X
6	X	X	X	X	X224	X	X	X	X313	X	X	X	X

1 2 3 4 5 SURFACE

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E

PFE

N													
1	X	X	X	X~~6.4~~ 0.7	X~~8.2~~ 2.5	X~~2.8~~ 3.1 ~~9.0~~	X~~3.4~~ 2.0 ~~1.2~~	X2.0	X3.3	X	X	X	X
2	X	X	X	X~~18.3~~ 12.6	X~~7.8~~ 2.1	X~~9.0~~ 3.3	X~~2.9~~ 2.9 ~~8.6~~	X2.8	X3.7	X~~2.6~~	X	X	X
3	X	X	X	X~~14.4~~ 8.7	X17.7 12.0	X11.0 5.3	X8.5 2.8	X3.5	X3.3	X4.0	X5.6	X	X	X
4	X	X	X	X~~17.3~~ 11.6 ?	X~~2.3~~ -3.4	X~~3.3~~ -2.4	X	X3.6	X4.8	X5.8	X	X	X
5	X	X	X	X~~24.1~~ 18.4 ?	X~~14.7~~ 9.0 ?	X	X	X4.7	X~~6.0~~	X	X	X	X
6	X	X	X	X	X~~22.4~~ 16.7 ?	X	X	X	X6.2	X	X	X	X

correction -5.7 PFE

of 61

1 2 3 4 5 SURFACE

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E

MCF

N													
1	X	X	X	X~~84~~ 9	X~~58~~ 18	X~~36~~ 39 ~~110~~	X~~18~~ 11 ~~39~~	X14	X13	X	X	X	X
2	X	X	X	X~~205~~ 141	X~~38~~ 10	X~~62~~ 23	X~~20~~ 5 ~~68~~ 16	X11	X17	X6	X	X	X
3	X	X	X~~147~~ 89	X~~89~~ 61	X~~28~~ 26	X~~40~~ 13	X21	X11	X10	X9	X	X	X
4	X	X	X	X~~89~~ 60	X~~15~~ -22	X~~13~~ -9	X	X21	X10	X11	X	X	X
5	X	X	X	X~~135~~ 103 ?	X~~66~~ 91 ?	X	X	X18	X10	X	X	X	X
6	X	X	X	X	X~~100~~ 74 ?	X	X	X	X20	X	X	X	X

HEINRICHS GEOEX (MAR 69) JOB 377-69 LINE 4 SPREAD 1 LOOKING N 5/13/69 A= 500 FEET, FREQUENCIES .10 AND 3.0

2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	1.750	I	2.000	2.000	2.000	1.750	2.000	2.000	2.000	1.750	2.000	
203	138	440	158	539	245	114	518	269	134	DC	375	233	135	719	129	904	500	298	208	LEFT
204	145	528	163	545	253	116	542	267	138		322	216	119	682	101	887	600	308	209	SIDE
			163	524		113	521	262	117		369	260	136	687	130	898	461	295		
			162	530		117	537	259	120		308	210	122	731	104	902	562	317		
			159	538		113	521	269	142		359	232	128	665	132	938	500	280		
			164	542		117	538	252	126		321	231	125	729	105	881	612	319		
			162	526		113	528	280	114		360	257	142	658	128	919	458	291		
			163	525		117	537	248	135		317	200	113	702	104	902	558	314		
1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18		
407	283	968	321	1084	498	230	1060	536	272	DC	697	449	254	1401	230	1791	1100	606	417	
			326	1069		229	1063	529	255	SUMS	691	476	255	1369	231	1785	1061	603		
			325	1054		230	1058	521	237		677	470	258	1418	234	1800	1023	612		
			321	1068		230	1058	528	262		667	442	250	1396	236	1840	1062	597		
			323	1080		230	1059	521	268		680	463	253	1394	237	1819	1112	599		
			326	1068		230	1066	532	240		681	488	267	1387	233	1800	1070	610		
			325	1051		230	1065	528	249		677	457	255	1360	232	1821	1016	605		
0.0	0.0	0.0	-.9	1.5	0.0	.1	-.1	1.5	6.8	DC	2.3	-3.1	-.8	.8	-1.4	-.9	3.4	.2	0.0	
			.7	.1		-.4	.2	.2	.1	DEVS	1.4	2.7	-.4	-1.5	-1.0	-1.3	-.2	-.3		
			.4	-1.3		.1	-.3	-1.3	-7.0		-.6	1.4	.8	2.1	.3	-.4	-3.8	1.2		
			-.9	.0		.1	-.3	.0	2.9		-2.1	-4.7	-2.3	.5	1.2	1.8	-.1	-1.3		
			-.3	1.2		.1	-.2	-1.3	5.2		-.2	-.1	-1.2	.3	1.6	.6	4.6	-.9		
			.7	.0		.1	.4	.8	-5.8		-.1	5.3	4.3	-.2	-.1	-.4	.6	.9		
			.4	-1.6		.1	.3	.0	-2.2		-.6	-1.4	-.4	-2.1	-.6	.7	-4.5	.1		
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
203.5	141.5	48.40	161.9	53.39	24.90	114.9	53.06	26.39	12.74	DCA	34.07	23.18	12.80	6.946	11.66	9.040	5.317	3.023	208.5	
196.0	134.0	47.00	156.0	50.80	24.00	111.0	51.10	25.10	12.20	AC1	33.90	22.40	12.20	6.660	11.40	8.780	5.180	2.980	207.0	
196.0	135.0	47.00	156.0	50.80	24.00	111.0	51.10	25.10	12.20	AC2	33.80	22.40	12.20	6.660	11.40	8.780	5.180	2.980	207.0	
196.0	134.5	47.00	156.0	50.80	24.00	111.0	51.10	25.10	12.20	ACA	33.85	22.40	12.20	6.660	11.40	8.780	5.180	2.980	207.0	
146.4	101.8	139.3	116.5	153.6	179.1	82.68	152.7	189.9	209.4	RHO	98.05	166.8	184.2	199.9	83.92	130.1	133.9	139.2	.959	DC CAL
3.1	4.4	2.2	3.1	4.3	3.0	2.8	3.1	4.4	3.6	PFE	-.1	2.7	4.2	3.6	1.6	2.2	1.9	.7	.993	AC CAL
21	44	16	26	28	17	34	20	23	17	MCF	-1	16	23	18	19	17	14	5		
2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	I	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	
143	204	471	350	878	249	492	142	509	158	DC	922	376	168	641	429	223	100	421	208	RIGHT
146	214	511	350	901	267	492	143	536	190		921	378	170	630	443	197	107	403	208	SIDE
		467		880					157					633	427	226	100	408		
		514		900					187					621	446	199	106	432		
		463		880					156					658	426	223	101	428		
		515		900					192					620	445	196	103	400		
		464		880					157					642	427	227	103	384		
		518							188					619	446	198	105	447		
1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18		
289	418	982	700	1779	516	984	285	1045	348	DC	1843	754	338	1271	872	420	207	824	416	
		978		1781					347	SUMS				1263	870	423	207	811		
		981		1780					344					1254	873	425	206	840		
		977		1780					343					1279	872	422	207	860		
		978		1780					348					1278	871	419	204	828		
		979		1780					349					1262	872	423	206	784		
		982							345					1261	873	425	208	831		
0.0	0.0	.2	0.0	-.1	0.0	0.0	0.0	0.0	.5	DC	0.0	0.0	0.0	.3	.0	-.6	.3	-.2	0.0	
		-.2		.1					.2	DEVS				-.3	-.2	.1	.3	-1.7		
		.1		0.0					-.7					-1.0	.1	.6	-.2	1.8		
		-.3		0.0					-.9					1.0	.0	-.1	.3	4.2		
		-.2		0.0					.5					.9	-.1	-.8	-1.2	.3		
		-.1		0.0					.8					-.4	.0	.1	-.2	-5.0		
		.2							-.4					-.5	.1	.6	.8	.7		
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
144.5	209.0	48.98	350.0	89.00	25.80	492.0	142.5	52.25	17.31	DCA	92.15	37.70	16.90	6.334	43.59	21.12	10.32	4.127	208.0	
137.0	198.0	46.60	339.0	84.20	24.70	478.0	136.0	49.50	16.30	AC1	88.50	36.10	16.10	6.010	42.20	20.30	10.00	3.920	207.0	
137.0	198.0	46.60	339.0	84.20	24.70	478.0	136.0	49.50	16.30	AC2	88.50	36.10	16.10	6.010	42.10	20.30	10.00	3.920	207.0	
137.0	198.0	46.60	339.0	84.20	24.70	478.0	136.0	49.50	16.30	ACA	88.50	36.10	16.10	6.010	42.15	20.30	10.00	3.920	207.0	
104.2	150.7	141.3	252.4	256.7	186.1	354.8	411.1	376.8	249.7	RHO	265.8	271.9	243.7	159.9	314.4	304.6	260.5	166.7	.962	DC CAL
5.0	5.0	4.6	2.7	5.2	4.0	2.4	4.3	5.0	5.7	PFE	3.6	3.9	4.5	4.9	2.9	3.5	2.7	4.8	.995	AC CAL
48	33	33	11	20	21	7	10	13	23	MCF	14	14	18	31	9	12	10	29		

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HEINRICHS GEOEX (MAR 69) JOB 377-69 LINE 4 SPREAD 1 LOOKING N 5/13/69 A= 500 FEET, FREQUENCIES .10 AND 3.0

1 2 3 4 5

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E SURFACE

RHO/2PI

N	30W	25	20	15	10	5	0W/E	5	10	15	20	25	30E
1	X	X	X	X83	X116	X~~104~~ 102 (103)	X~~151~~ 146 (149)	X252	X355	X	X	X	X
2	X	X	X	X98	X153	X154	X~~141~~ 139 (140)	X257	X411	X266	X	X	X
3	X	X	X84	X167	X190	X179	X186	X377	X272	X314	X	X	X
4	X	X	X	X130	X184	X209	X	X250	X244	X305	X	X	X
5	X	X	X	X134	X200	X	X	X160	X261	X	X	X	X
6	X	X	X	X	X139	X	X	X	X167	X	X	X	X

1 2 3 4 5

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E SURFACE

PFE

N	30W	25	20	15	10	5	0W/E	5	10	15	20	25	30E
1	X	X	X	X2.8	X3.1	X~~5.0~~ 4.4 (4.7)	X~~5.0~~ 3.1 (4.1)	X2.7	X2.4	X	X	X	X
2	X	X	X	X-.1	X3.1	X4.3	X~~4.6~~ 2.2 (3.4)	X5.2	X4.3	X3.6	X	X	X
3	X	X	X1.6	X2.7	X4.4	X3.0	X4.0	X5.0	X3.9	X2.9	X	X	X
4	X	X	X	X2.2	X4.2	X3.6	X	X5.7	X4.5	X3.5	X	X	X
5	X	X	X	X1.9	X3.6	X	X	X4.9	X2.7	X	X	X	X
6	X	X	X	X	X.7	X	X	X	X4.8	X	X	X	X

7 13 9 13 6 0 0 -4 +10 6 13 13 8

1 2 3 4 5

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E SURFACE

MCF

N	30W	25	20	15	10	5	0W/E	5	10	15	20	25	30E
1	X	X	X	X34	X26	X~~48~~ 44 (46)	X~~33~~ 21 (27)	X11	X7	X	X	X	X
2	X	X	X	X-1	X20	X28	X~~33~~ 16 (25)	X20	X10	X14	X	X	X
3	X	X	X19	X16	X23	X17	X21	X13	X14	X9	X	X	X
4	X	X	X	X17	X23	X17	X	X23	X18	X12	X	X	X
5	X	X	X	X14	X18	X	X	X31	X10	X	X	X	X
6	X	X	X	X	X5	X	X	X	X29	X	X	X	X

X51216

HEINRICHS GEOEX (MAR 69) JOB 377-69 LINE 3 SPREAD I LOOKING NORTH 5/12/69 A= 500 FEET, FREQUENCIES .10 AND 3.0

2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	I	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	
143	131	371	130	457	145	919	393	190	760	DC	237	163	101	470	687	682	423	250	208	LEFT
142	131	378	131	443	157	908	408	214	842		232	175	100	442	690	630	350	233	208	SIDE
		371					392	189	760		238	163	101	472	691	683	438	248		
		380					408	214	838		232	177	101	440	680	640	342	235		
		370					395	189	771		240	162	100	471	688	678	441	245		
		378					409	214	827		231	177	101	438	700	638	339	238		
		369					392		873		240	163	100	481	682	685	445	251		
		381					409		822		231	177	102	437	688	630	337	232		
1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18		
285	262	749	261	900	302	1827	801	404	1602	DC	469	338	201	912	1377	1312	773	483	416	
		749					800	403	1602	SUMS	470	338	201	914	1381	1313	788	481		
		751					800	403	1598		470	340	202	912	1371	1323	780	483		
		750					803	403	1609		472	339	201	911	1368	1318	783	480		
		748					804	403	1598		471	339	201	909	1388	1316	780	483		
		747					801		1700		471	340	201	919	1382	1323	784	489		
		750					801		1695		471	340	202	918	1370	1315	782	483		
0.0	0.0	-.0	0.0	0.0	0.0	0.0	-.1	.2	-1.7	DC	-.3	-.3	-.1	-.2	.0	-.4	-1.1	-.0	0.0	
		-.0					-.2	-.0	-1.7	DEVS	-.1	-.3	-.1	.0	.3	-.3	.8	-.4		
		.2					-.2	-.0	-1.9		-.1	.3	.4	-.2	-.4	.4	-.2	-.0		
		.1					.2	-.0	-1.2		.3	-.0	-.1	-.3	-.6	.1	.2	-.7		
		-.2					.3	-.0	-1.9		.1	-.0	-.1	-.5	.8	-.1	-.2	-.0		
		-.3					-.1		4.3		.1	.3	-.1	.6	.4	.4	.3	1.2		
		.1					-.1		4.0		.1	.3	.4	.5	-.5	-.2	.1	-.0		
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
142.5	131.0	37.46	130.5	45.00	15.10	91.35	40.07	20.16	8.146	DCA	23.53	16.96	10.06	4.568	6.884	6.586	3.907	2.416	208.0	
138.0	127.0	36.20	127.0	43.00	14.50	89.80	39.00	19.30	7.720	AC1	22.80	17.40	10.00	4.550	6.650	6.580	3.820	2.350	212.0	
138.0	127.0	36.20	127.0	43.00	14.50	89.80	39.00	19.30	7.720	AC2	22.80	17.40	10.00	4.550	6.650	6.580	3.820	2.350	212.0	
138.0	127.0	36.20	127.0	43.00	14.50	89.80	39.00	19.30	7.720	ACA	22.80	17.40	10.00	4.550	6.650	6.580	3.820	2.350	212.0	
102.8	94.47	108.0	94.11	129.8	108.9	65.88	115.6	145.4	117.5	RHO	67.87	122.3	145.2	115.3	49.64	94.99	98.62	97.56	.962	DC CAL
5.2	5.1	5.5	4.7	6.7	6.1	3.7	4.7	6.5	7.5	PFE	5.2	-.7	2.6	2.3	5.5	2.0	4.2	4.8	1.019	AC CAL
51	54	51	50	51	56	56	41	44	64	MCF	76	-5	18	20	111	21	43	49		

2.000	2.000	2.000	2.000	2.250	2.250	2.250	2.000	2.250	2.250	I	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	
129	143	361	277	116	408	218	589	320	130	DC	101	483	270	123	401	192	104	501	207	RIGHT
129	141	384	277	113	381	219	632	368	131		102	470	288	92	378	228	152	521	207	SIDE
							591	320	129			483	269	124			104	498		
							632	369	129			471	288	94			153	528		
							590	319	132			482	269	122			103	485		
							631	370	127			470	289	96			153	535		
							592	319	132			483	268	122			103	482		
							632	368	123			470	289	94			153	546		
1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18		
258	284	745	554	229	789	437	1221	688	261	DC	203	953	558	215	779	420	256	1022	414	
							1223	688	260	SUMS		953	557	216			256	1019		
							1223	689	258			954	557	218			257	1026		
							1222	688	261			953	557	216			256	1013		
							1221	689	259			952	558	218			256	1020		
							1223	689	259			953	557	218			256	1017		
							1224	687	255			953	557	216			256	1028		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	-.1	-.0	.8	DC	0.0	0.0	.1	-.8	0.0	0.0	-.1	.1	0.0	
							.0	-.0	.4	DEVS		0.0	-.1	-.3			-.1	-.2		
							.0	.1	-.4			.1	-.1	.6			.3	.5		
							-.0	-.0	.8			0.0	-.1	-.3			-.1	-.8		
							-.1	.1	0.0			-.1	.1	.6			-.1	-.1		
							.0	.1	0.0			0.0	-.1	.6			-.1	-.4		
							.1	-.2	-1.5			0.0	-.1	-.3			-.1	.7		
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
129.0	142.0	37.25	277.0	114.5	39.45	218.5	61.12	34.41	12.95	DCA	101.50	47.65	27.86	10.84	38.95	21.00	12.81	5.104	207.0	
123.0	134.0	35.50	264.0	110.0	38.00	211.0	58.20	33.10	12.50	AC1	98.00	45.00	26.80	10.20	37.80	20.00	12.40	4.980	205.0	
123.0	134.0	35.50	263.0	110.0	38.00	211.0	58.20	33.10	12.50	AC2	98.00	45.10	26.80	10.20	37.80	20.00	12.40	4.980	205.0	
123.0	134.0	35.50	263.5	110.0	38.00	211.0	58.20	33.10	12.50	ACA	98.00	45.05	26.80	10.20	37.80	20.00	12.40	4.980	205.0	
93.48	102.9	108.0	200.7	295.0	254.1	140.7	177.2	221.7	166.8	RHO	294.2	345.3	403.8	274.8	282.2	304.3	324.8	207.1	.966	DC CAL
3.9	4.9	3.9	4.1	3.1	2.8	2.6	4.0	3.0	2.6	PFE	2.6	4.7	3.0	5.2	2.0	4.0	2.3	1.5	.990	AC CAL
41	48	36	20	10	11	18	23	13	16	MCF	9	14	7	19	7	13	7	7		

HEINRICHS GEOEX (MAR 69) JOB 377-69 LINE 3 SPREAD 1 LOOKING NORTH 5/12/69 A= 500 FEET, FREQUENCIES .10 AND 3.0

Interface

SURFACE

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E

RHO/2PI

N	30W	25	20	15	10	5	0W/E	5	10	15	20	25	30E
1	X	X	X	X66	X94	X93 ~~94~~	X103 ~~103~~	X201	X141	X	X	X	X
2	X	X	X	X68	X116	X130	X108 ~~108~~	X295	X177	X294	X	X	X
3	X	X	X50	X122	X145	X109	X254	X222	X345	X282	X	X	X
4	X	X	X	X95	X145	X117	X	X167	X404	X304	X	X	X
5	X	X	X	X99	X115	X	X	X275	X325	X	X	X	X
6	X	X	X	X	X98	X	X	X	X207	X	X	X	X

SURFACE

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E

PFE

N	30W	25	20	15	10	5	0W/E	5	10	15	20	25	30E
1	X	X	X	X3.7	X4.7	X3.9 ~~5.1~~ (4.5)	X4.9 ~~5.2~~ (5.1)	X4.1	X2.6	X	X	X	X
2	X	X	X	X5.2	X4.7	X6.7	X3.9 ~~5.5~~ (4.7)	X3.1	X4.0	X2.6	X	X	X
3	X	X	X5.5	X-.7	X6.5	X6.1	X2.8	X3.0	X4.7	X2.0	X	X	X
4	X	X	X	X2.0	X2.6	X7.5	X	X2.6	X3.0	X4.0	X	X	X
5	X	X	X	X4.2	X2.3	X	X	X5.2	X2.3	X	X	X	X
6	X	X	X	X	X4.8	X	X	X	X1.5	X	X	X	X
	-13	-18	-14	-20	-8	-8	0	-6	-13	-13	-23	-23	-26

SURFACE

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E

MCF

N	30W	25	20	15	10	5	0W/E	5	10	15	20	25	30E
1	X	X	X	X56	X50	X41 ~~54~~ (47)	X48 ~~51~~ (50)	X20	X18	X	X	X	X
2	X	X	X	X76	X41	X51	X36 ~~51~~ (44)	X10	X23	X9	X	X	X
3	X	X	X111	X-5	X44	X56	X11	X13	X14	X7	X	X	X
4	X	X	X	X21	X18	X64	X	X16	X7	X13	X	X	X
5	X	X	X	X43	X20	X	X	X19	X7	X	X	X	X
6	X	X	X	X	X49	X	X	X	X7	X	X	X	X

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X5T208

HEINRICHS GEOEX (MAR 69) JOB 377-69 LINE 2 SPREAD 1 LOOKING NORTH 5/10/69 A= 500 FEET, FREQUENCIES .10 AND 3.0

2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	I	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	
177	138	392	170	681	246	103	626	357	161	DC	310	247	152	770	104	982	708	342	209	LEFT
177	139	423	169	678	254	102	631	352	156		311	243	157	758	107	1000	662	339	209	SIDE
								355	163			248	153	772	104	982	695	339		
								354	155			242	156	769	108	997	666	343		
								354	163			247	153	761	102	980	685	328		
								356	156			243	157	779	109	998	689	360		
								356	162			247	152	761	102	984	685	319		
								354	156			243	157	772	109	995	660	352		
																		320		
																		360		
																		318		
																		358		
																		321		
																		361		
																		307		
																		368		
1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18		
354	277	815	339	1359	500	205	1257	709	317	DC	621	490	309	1528	211	1082	1370	681	418	
								707	319	SUMS		491	310	1530	211	1082	1357	678		
								709	318			490	309	1541	212	1979	1361	682		
								708	318			489	309	1530	210	1977	1351	671		
								710	319			490	310	1540	211	1978	1374	688		
								712	318			490	309	1540	211	1982	1374	679		
								710	318			490	309	1533	211	1979	1345	671		
																		672		
																		680		
																		678		
																		676		
																		679		
																		682		
																		668		
																		675		
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-.0	-.4	DC	0.0	0.0	-.1	-.4	0.0	-37.2	.6	.5	0.0	
								-.3	.3	DEVS		.2	.2	-.3	0.0	-37.2	-.3	.1		
								-.0	-.0			0.0	-.1	.4	.5	14.9	-.1	.7		
								-.2	-.0			-.2	-.1	-.3	-.5	14.8	-.8	-.9		
								.1	.3			0.0	.2	.4	0.0	14.8	.9	1.6		
								.4	-.0			0.0	-.1	.4	0.0	15.1	.9	.2		
								.1	-.0			0.0	-.1	-.1	0.0	14.9	-1.2	-.9		
																		-.8		
																		.4		
																		.1		
																		-.2		
																		.2		
																		.7		
																		-1.4		
																115		-.3		
																99				
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
177.0	138.5	40.75	169.5	67.95	25.00	102.5	62.85	35.46	15.91	DCA	31.05	24.50	15.46	7.673	10.55	8.614	6.809	3.387	209.0	
175.0	137.0	40.20	168.0	66.70	24.50	103.0	62.00	34.60	15.50	AC1	30.50	24.10	15.20	7.420	10.40	9.630	6.600	3.300	214.0	
175.0	137.0	40.20	168.0	66.70	24.50	103.0	62.00	34.60	15.60	AC2	30.50	24.00	15.20	7.420	10.40	9.630	6.610	3.300	214.0	
175.0	137.0	40.20	168.0	66.70	24.50	103.0	62.00	34.60	15.55	ACA	30.50	24.05	15.20	7.420	10.40	9.630	6.605	3.300	214.0	
127.0	99.40	117.0	121.7	195.1	179.4	73.56	180.4	254.5	228.3	RHO	89.14	175.8	222.0	192.7	75.72	123.6	171.0	136.1	.957	DC CAL
3.6	3.5	3.8	3.3	4.3	4.5	1.9	3.8	5.0	4.7	PFE	4.2	4.3	4.2	5.9	3.9	-8.4	5.5	5.1	1.024	AC CAL
28	35	32	27	22	25	26	21	19	21	MCF	48	25	19	31	51	-68	32	37		

2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	I	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	2.000	
137	173	404	314	499 ?	202	396	117	391	116	DC	237	999	355	117	863	475	209	650	209	RIGHT
134	174	408	316	627 ?	199	392	119	362	118		238	998	353	119	884	508	193	707	209	SIDE
		403			201				117			998	355	117	863	476	209	638		
		412			199				119			999	352	118	891	509	194	702		
		399			203				117			999	357	117	861	477	208	638		
		412			197				118			998	350	118	887	509	193	706		
		401			203				117				357	117	863	478	210	639		
		412			197				120				352	118	890	509	192	706		
1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18		
271	347	812	630	1126	401	788	236	753	234	DC	475	1997	708	236	1747	983	402	1357	418	
		811			400				235	SUMS		1996	708	236	1747	984	402	1345		
		815			400				236			1997	707	235	1754	985	403	1340		
		811			402				236			1998	709	235	1752	986	402	1340		
		811			400				235			1997	707	235	1748	986	401	1344		
		813			400				235				707	235	1750	987	403	1345		
		813			400				237				709	235	1753	987	402	1345		
0.0	0.0	-.0	0.0	0.0	.1	0.0	0.0	0.0	-.6	DC	0.0	0.0	.0	.3	-.2	-.2	-.0	.9	0.0	
		-.2			-.1				-.2	DEVS		-.1	.0	.3	-.2	-.1	-.0	-.0		
		.3			-.1				.2			0.0	-.1	-.1	.2	-.0	.2	-.4		
		-.2			.4				.2			.1	.2	-.1	.1	.1	-.0	-.4		
		-.2			-.1				-.2			0.0	-.1	-.1	-.1	.1	-.3	-.1		
		.1			-.1				-.2				-.1	-.1	-.0	.2	.2	-.0		
		.1			-.1				.7				.2	-.1	.2	.2	-.0	-.0		
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
135.5	173.5	40.61	315.0	56.30	20.02	394.0	118.0	37.65	11.77	DCA	237.5	99.85	35.39	11.76	87.51	49.27	20.11	6.726	209.0	
128.0	137.0	38.90	303.0	68.20	19.20	381.0	113.0	36.00	11.30	AC1	232.0	97.50	33.90	11.30	84.00	47.20	19.20	6.430	206.0	
128.0	137.0	38.90	303.0	68.20	19.20	380.0	113.0	36.00	11.30	AC2	231.0	97.50	33.90	11.30	84.10	47.20	19.20	6.430	206.0	
128.0	137.0	38.90	303.0	68.20	19.20	380.5	113.0	36.00	11.30	ACA	231.5	97.50	33.90	11.30	84.05	47.20	19.20	6.430	206.0	
97.25	124.5	116.6	226.1	161.6	143.7	282.8	338.8	270.2	169.0	RHO	681.8	716.6	508.0	295.5	628.0	707.2	505.1	270.3	.957	DC CAL
4.3	24.8 2.4	2.9	2.5	-18.6	2.8	2.1	2.9	3.1	2.7	PFE	1.1	.9	2.9	2.6	2.6	2.9	3.2	3.1	.986	AC CAL
45	199 19	25	11	-115	19	7	9	11	16	MCF	2	1	6	9	4	4	6	11		

HEINRICHS GEOEX (MAR 69) JOB 377-69 LINE 2 SPREAD 1 LOOKING NORTH 5/10/69 A= 500 FEET, FREQUENCIES .10 AND 3.0

RHO/2PI

N	30W	25	20	15	10	5	0W/E	5	10	15	20	25	30E
					1	2	3	4	5				
1	X	X	X	X74	X122	X97 (98) / 99	X125 (126) / 127	X226	X283	X	X	X	X
2	X	X	X	X89	X180	X195	X117 (117)	X162	X339	X682	X	X	X
3	X	X	X76	X176	X255	X179	X144	X270	X717	X628	X	X	X
4	X	X	X	X124	X222	X228	X	X169	X508	X707	X	X	X
5	X	X	X	X171	X193	X	X	X296	X505	X	X	X	X
6	X	X	X	X	X136	X	X	X	X270	X	X	X	X

PFE

N	30W	25	20	15	10	5	0W/E	5	10	15	20	25	30E
					1	2	3	4	5				
1	X	X	X	X1.9	X3.3	X4.3 (3.9) / 3.5	X24.8 (3.0) / 3.6	X2.5	X2.1	X	X	X	X
2	X	X	X	X4.2	X3.8	X4.3	X2.9 (3.4) / 3.8	X-18.6?	X2.9	X1.1	X	X	X
3	X	X	X3.9	X4.3	X5.0	X4.5	X2.8	X3.1	X.9	X2.6	X	X	X
4	X	X	X	X-8.4 (5.2)	X4.2	X4.7	X	X2.7	X2.9	X2.9	X	X	X
5	X	X	X	X5.5	X5.9	X	X	X2.6	X3.2	X	X	X	X
6	X	X	X	X	X5.1	X	X	X	X3.1	X	X	X	X

+11	+18	+8	+7	+5	+6	0	+4	-5	-4	-9	—	

MCF

N	30W	25	20	15	10	5	0W/E	5	10	15	20	25	30E
					1	2	3	4	5				
1	X	X	X	X26	X27	X45 (40) / 35	X199 (24) / 28	X11	X7	X	X	X	X
2	X	X	X	X48	X21	X22	X25 (29) / 32	X-115?	X9	X2	X	X	X
3	X	X	X51	X25	X19	X25	X19	X11	X1	X4	X	X	X
4	X	X	X	X-58 (42)	X19	X21	X	X16	X6	X4	X	X	X
5	X	X	X	X32	X31	X	X	X9	X6	X	X	X	X
6	X	X	X	X	X37	X	X	X	X11	X	X	X	X

HEINRICHS GEOEX (MAR 69) JOB 377-69 LINE 1 SPREAD 1 LOOKING NORTH 5/9/69 A= 500 FEET, FREQUENCIES .10 AND 1.0

2.000	2.000	2.000	1.000	2.000	2.000	2.000	1.000	2.000	2.000	I	2.000	1.000	2.000	2.000	2.000	1.000	2.000	2.000	2.000	
138	243	560	522	743	242	100	162	319	127	DC	338	842	173	878	103	338	681	429	211	LEFT
137	241	482	540	762	270	103	175	326	142		324	728	168	780	108	239	660	398	211	SIDE
			522	742	242		162	318	128		338	840	164	851	100	301	721	390		
			540	762	268		176	326	142		320	742	172	804	107	278	650	250		
				751	243		163	319	127		324	820	168	807	100	289	770	441		
				762	270		180	326	142		320	760	168	810	107	257	670	260		
				740	241		162	319	131		339	804	170	857	103	300	710	443		
				761	269		177	326	140		320	800	166	761	109	260	702	230		
													168			238	670	470		
													172			217	680	185		
													168			358	671	478		
													171			209	708	218		
													164			379	618	450		
													170			189	691	238		
													170			358	664	478		
													168			191	709	205		
1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18		
275	484	1042	1062	1505	512	203	337	645	269	DC	662	1570	341	1658	211	577	1341	827	422	
			1062	1504	512		337	644	270	SUMS	662	1568	332	1631	208	540	1381	788		
			1062	1504	510		338	644	270		658	1582	336	1655	207	579	1371	640		
				1513	511		339	645	269		644	1562	340	1611	207	567	1420	691		
				1513	513		343	645	269		644	1580	336	1617	207	546	1440	701		
				1502	511		342	645	273		659	1564	338	1667	210	557	1380	703		
				1501	510		339	645	271		659	1604	336	1618	212	560	1412	673		
													334			498	1372	700		
													340			455	1350	655		
													340			575	1351	663		
													339			567	1379	696		
													335			588	1326	668		
													334			568	1309	688		
													340			547	1355	716		
													338			549	1373	683		
																1320				
0.0	0.0	0.0	0.0	-.1	.1	0.0	-.7	.0	-.4	DC	1.0	-.4	1.1	1.3	1.0	4.6	-2.2	18.2	0.0	
			0.0	-.1	.1		-.7	-.1	-.1	DEVS	1.0	-.5	-1.6	-.3	-.4	-2.1	.8	12.7		
			0.0	-.1	-.3		-.4	-.1	-.1		.4	.4	-.4	1.1	-.9	5.0	.0	-8.5		
				.5	-.1		-.1	.0	-.4		-1.7	-.9	.8	-1.6	-.9	2.8	3.6	-1.2		
				.5	.3		1.1	.0	-.4		-1.7	.3	-.4	-1.2	-.9	-1.0	5.1	.2		
				-.3	-.1		.8	.0	1.1		.5	-.7	.2	1.9	.5	1.0	.7	.5		
				-.3	-.3		-.1	.0	.3		.5	1.8	-.4	-1.1	1.5	1.5	3.0	-3.8		
													-1.0			-9.7	.1	.1		
													.8			-17.5	-1.5	-6.4		
													.8			4.3	-1.4	-5.2		
													.5			2.8	.6	-.5		
													-.7			6.6	-3.3	-4.5		
													-1.0			3.0	-4.5	-1.6		
													.8			-.8	-1.1	2.4		
													.2			-.5	.2	-2.4		
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
137.5	242.0	52.10	53.10	75.30	25.56	101.50	16.96	32.24	13.51	DCA	32.77	7.879	16.86	8.184	10.44	2.758	6.853	3.497	211.0	
132.0	232.0	50.00	51.00	71.80	24.40	97.00	16.40	30.60	12.90	AC1	32.00	7.560	16.10	7.790	10.10	2.790	6.440	3.300	208.0	
132.0	232.0	50.00	51.00	71.80	24.40	97.00	16.40	30.60	12.90	AC2	32.00	7.560	16.10	7.800	10.10	2.790	6.430	3.300	208.0	
132.0	232.0	50.00	51.00	71.80	24.40	97.00	16.40	30.60	12.90	ACA	32.00	7.560	16.10	7.795	10.10	2.790	6.435	3.300	208.0	
97.75	172.0	148.2	75.50	214.1	181.7	72.16	96.48	229.2	192.0	RHO	93.19	112.0	239.8	203.6	74.24	78.42	170.5	139.2	.948	DC CAL
2.7	2.8	2.7	2.6	3.4	3.3	3.2	2.0	3.8	3.2	PFE	1.0	2.7	3.3	3.5	1.9	-2.6	5.0	4.5	.986	AC CAL
27	16	18	35	16	18	44	20	17	17	MCF	10	24	14	17	26	33	29	32		
																-6				
2.000	1.000	2.000	2.000	1.000	2.000	2.000	2.000	1.000	2.000	I	2.000	2.000	1.000	2.000	2.000	2.000	1.000	2.000	2.000	
235	710	561	268	264	243	196	527	762	820	DC	318	146	224	320	268	144	262	442	211	RIGHT
237	712	492	268	272	244	197	520	578	819		308	131	228	322	262	154	268	476	211	SIDE
	700	562		267	243		527	770	839			145	260	357	268	141	263	429		
	720	492		278	242		517	590	837			136	221	322	260	154	264	472		
	696	562		267	244		525	797	830			143	210	337	269	143	259	433		
	728	487		279	243		518	618	801			133	226	319	261	157	268	468		
	648	470		261	235		528	772	798			144	248	349	268	140	262	431		
	778	482		276	242		518	578	819			133	231	342	261	156	272	471		
	640							800	841				225	340		142	265	418		
	782							588	800				211	319		157	264	480		
	628							770	798				236	351		139	263	409		
	791							583	846				227	307		157	259	490		
	613							809	806				246	342		140	268	430		
	800							582	840				224	321		158	254	487		
	618							790	771				220	341		148	273	417		
	802							590	818				226	321		158	252	470		
1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18		
472	1422	1053	536	536	487	393	1047	1340	1639	DC	626	277	452	642	530	298	530	918	422	
	1412	1054		539	487		1047	1348	1658	SUMS		276	488	679	530	295	531	905		
	1420	1054		545	485		1044	1360	1676			281	481	679	528	295	527	901		
	1416	1054		545	486		1042	1387	1667			279	431	659	529	297	523	905		
	1424	1049		546	487		1043	1415	1631			276	436	656	530	300	527	901		
	1376	867		540	478		1046	1390	1599			277	474	668	529	297	530	899		
	1426	952		537	477		1046	1350	1617			277	479	691	529	296	534	902		
	1418							1378	1660				456	682		298	537	889		
	1422							1388	1641				436	659		299	529	898		
	1410							1358	1598				447	670		296	527	889		
	1419							1353	1644				463	658		296	522	899		
	1404							1392	1652				473	649		297	527	920		
	1413							1391	1646				470	663		298	522	917		
	1418							1372	1611				444	662		306	527	904		
	1420							1380	1589				446	662		306	525	887		
0.0	.5	2.8	0.0	-1.0	.6	0.0	.2	-2.4	.2	DC	0.0	-.2	-1.4	-3.5	.1	-.1	.4	1.7	0.0	
	-.2	2.9		-.4	.6		.2	-1.9	1.4	DEVS		-.6	6.5	2.1	.1	-1.1	.6	.3		
	.4	2.9		.7	.2		-.1	-1.0	2.5			1.2	4.9	2.1	-.2	-1.1	-.2	-.1		
	.1	2.9		.7	.4		-.3	1.0	1.9			.5	-6.0	-.9	-.1	-.4	-.9	.3		
	.7	3.4		.9	.6		-.2	3.0	-.3			-.6	-4.9	-1.4	.1	.6	-.2	-.1		
	-2.7	-5.4		-.2	-1.2		.1	1.2	-2.2			-.2	3.4	.4	-.1	-.4	.4	-.4		
	.8	-7.1		-.8	-1.4		.1	-1.7	-1.1			-.2	4.5	3.9	-.1	-.8	1.2	-.0		
	.2							.3	1.5				-.5	2.5		-.1	1.7	-1.5		
	.5							1.1	.4				-4.9	-.9		.2	.2	-.5		
	-.3							-1.1	-2.3				-2.5	.7		-.8	-.2	-1.5		
	.3							-1.5	.5				1.0	-1.1		-.8	-1.1	-.4		
	-.8							1.3	1.0				3.2	-2.4		-.4	-.2	2.0		
	-.1							1.3	.7				2.5	-.3		-.1	-1.1	1.6		
	.2							-.1	-1.5				-3.1	-.5		2.6	-.2	.2		
	.4							.5	-2.8				-2.7	-.5		2.6	-.5	-1.7		
1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6		
236.0	70.73	51.24	268.0	27.06	24.19	196.5	52.25	6.867	8.176	DCA	31.30	13.88	2.292	3.326	26.46	14.91	2.639	4.511	211.0	
227.0	68.10	50.90	258.0	26.00	23.50	192.0	50.10	6.600	7.900	AC1	30.00	13.40	2.220	3.280	25.60	14.30	2.570	4.380	208.0	
227.0	68.10	50.90	258.0	26.00	23.60	192.0	50.10	6.600	7.900	AC2	30.00	13.40	2.220	3.260	25.60	14.30	2.570	4.380	208.0	
227.0	68.10	50.90	258.0	26.00	23.55	192.0	50.10	6.600	7.900	ACA	30.00	13.40	2.220	3.270	25.60	14.30	2.570	4.380	208.0	
167.8	100.6	147.0	190.5	153.9	172.0	139.7	148.6	97.64	116.2	RHO	89.00	98.66	65.18	82.76	188.1	212.0	131.3	179.6	.948	DC CAL
2.5	2.4	2.8	2.4	2.6	1.3	.9	2.8	2.6	2.0	PFE	2.8	2.1	1.8	.3	1.9	2.8	1.2	1.5	.986	AC CAL
15	24	17	13	17	7	6	19	26	17	MCF	32	21	27	3	10	13	9	9		

HEINRICHS GEOEX (MAR 69) JOB 377-69 LINE 1 SPREAD 1 LOOKING NORTH 5/9/69 A= 500 FEET, FREQUENCIES .10 AND 1.0

1 2 3 4 5

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E SURFACE

RHO/2PI

N														
1	X	X	X	X72	X75	X168 172	X101 98	X191	X140	X	X	X	X
2	X	X	X	X93	X96	X214	X146 148	X154	X149	X89	X	X	X
3	X	X	X74	X112	X229	X182	X172	X98	X99	X188	X	X	X
4	X	X	X	X78	X240	X192	X	X116	X65	X212	X	X	X
5	X	X	X	X171	X204	X	X	X83	X131	X	X	X	X
6	X	X	X	X	X139	X	X	X	X180	X	X	X	X

1 2 3 4 5

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E SURFACE

PFE

N														
1	X	X	X	X3.2	X2.6	X2.5 2.8	X2.4 2.7	X2.4	X.9	X	X	X	X
2	X	X	X	X1.0	X2.0	X3.4	X2.8 2.7	X2.6	X2.8	X2.8	X	X	X
3	X	X	X1.9	X2.7	X3.8	X3.3	X1.3	X2.6	X2.1	X1.9	X	X	X
4	X	X	X	X-2.6	X3.3	X3.2	X	X2.0	X1.8	X2.8	X	X	X
5	X	X	X	X5.0	X3.5	X	X	X.3	X1.2	X	X	X	X
6	X	X	X	X	X4.5	X	X	X	X1.5	X	X	X	X

0 +7 -8 +6 -2 +11 0 +17 +51 +55 +54 +65 +52

1 2 3 4 5

30W 25 20 15 10 5 0W/E 5 10 15 20 25 30E SURFACE

MCF

N														
1	X	X	X	X44	X35	X15	X24 27	X13	X6	X	X	X	X
2	X	X	X	X10	X20	X16	X-5 18	X17	X19	X32	X	X	X
3	X	X	X26	X24	X17	X18	X7	X26	X21	X10	X	X	X
4	X	X	X	X-33	X14	X17	X	X17	X27	X13	X	X	X
5	X	X	X	X29	X17	X	X	X3	X9	X	X	X	X
6	X	X	X	X	X32	X	X	X	X9	X	X	X	X

HEINRICHS GEOEX (MAR 69) JOB 394-69 LINE 1 SPREAD 1 LOOKING NW 5/20/69 A= 500 FEET, FREQUENCIES .10 AND 3.0

1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	I	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
410	750	195	519	167	580	155	135	860	335	DC	220	320	260	113	183	319	319	155	100	LEFT
420	710	184	525	164	543	157	147	650	345		220	320	260	109	190	300	339	127	100	SIDE
		193		165	570		127	999	258				259	121			262	135		
		187		170	542		148	650	393				261	105			320	125		
		190		165	570		134	910	290					119			275	145		
		188		172	560		145	690	337					111			317	130		
		195		163	561		138	910	295					110			300	154		
		184		171	560		145	660	339					115			300	130		
		195		165	570		120	900	323					108			300	165		
		184		172	540		150	600	320					112			295	116		
				164	580		130	860	318					115			310	172		
				170	535		145	640	315					112			297	115		
				165	590		125	990	320					115			317	179		
				170	535		166	640	360					111			290	95		
							130	930	270					112			305	167		
							149	960	385					114			281	113		

1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18	
830	1460	379	1044	331	1123	312	282	1510	680	DC	440	640	520	222	373	619	658	282	200
		377		329	1113		274	1649	603	SUMS			519	230			601	262	
		380		335	1112		275	1649	651				520	226			582	260	
		377		335	1112		282	1560	683					224			595	270	
		378		337	1130		279	1600	627					230			592	275	
		383		335	1121		283	1600	632					221			617	284	
		379		334	1121		283	1570	634					225			600	284	
		379		336	1130		265	1560	662					223			600	295	
		379		337	1110		270	1500	643					220			595	281	
				336	1120		280	1460	638					227			605	288	
				334	1115		275	1500	633					227			607	287	
				335	1125		270	1630	635					227			614	294	
				335	1125		291	1630	680					226			607	274	
							296	1570	630					223			595	262	
							279	1890	655					226			586	280	

0.0	0.0	0.0	0.0	-1.1	.3	0.0	1.1	-5.1	5.3	DC	0.0	0.0	.1	-1.4	0.0	0.0	9.0	1.2	0.0
		-.5		-1.7	-.6		-1.8	3.6	-6.6	DEVS			-.1	2.2			-.4	-5.9	
		.3		.1	-.7		-1.4	3.6	.8				.1	.4			-3.6	-6.7	
		-.5		.1	-.7		1.1	-2.0	5.8					-.5			-1.4	-3.1	
		-.3		.7	.9		.0	.5	-2.9					2.2			-1.9	-1.3	
		1.1		.1	.1		1.5	.5	-2.1					-1.8			2.2	2.0	
		0.0		-.2	.1		1.5	-1.4	-1.8					-.1			-.6	2.0	
		0.0		.4	.9		-5.0	-2.0	2.5					-.9			-.6	5.9	
		0.0		.7	-.9		-3.2	-5.8	-.4					-2.3			-1.4	.9	
				.4	.0		.4	-8.3	-1.2					.8			.2	3.4	
				-.2	-.4		-1.4	-5.8	-2.0					.8			.6	3.0	
				.1	.5		-3.2	2.4	-1.7					.8			1.7	5.6	
				.1	.5		4.3	2.4	5.3					.4			.6	-1.6	
							6.1	-1.4	-2.4					-.9			-1.4	-5.9	
							.0	18.7	1.4					.4			-2.9	.5	

1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6	
41.50	73.00	18.95	52.20	19.73	5.599	156.0	13.95	7.959	3.229	DCA	22.00	3.200	2.598	1.126	18.65	3.095	3.018	1.393	100.0
41.30	69.90	17.95	49.00	16.00	5.370	149.0	13.00	7.600	3.030	AC1	20.30	3.000	2.420	1.050	17.60	2.970	2.810	1.300	100.0
41.30	69.90	17.95	49.00	16.00	5.370	149.0	13.00	7.600	3.030	AC2	20.30	3.000	2.420	1.050	17.60	2.970	2.810	1.300	100.0
41.30	69.90	17.95	49.00	16.00	5.370	149.0	13.00	7.600	3.030	ACA	20.30	3.000	2.420	1.050	17.60	2.970	2.810	1.300	100.0
62.25	109.5	113.7	78.30	100.4	83.98	234.0	83.68	119.4	96.86	RHO	132.0	48.00	77.95	59.10	279.7	92.85	158.4	117.0	1.000 DC CAL
.5	4.4	5.6	6.5	4.5	4.3	4.7	7.3	4.7	6.6	PFE	8.4	6.7	7.4	7.2	6.0	4.2	7.4	7.1	1.000 AC CAL
8	41	49	83	45	51	20	87	40	68	MCF	63	139	95	122	21	45	47	61	

1.250	1.250	1.250	1.250	1.250	1.250	1.250	1.250	1.250	1.250	I	1.250	1.250	1.250	1.250	1.250	1.250	1.250	1.250	1.000	
900	525	225	239	160	125	115	460	460	459	DC	460	242	380	440	100	950	175	279	100	RIGHT
980	530	240	239	170	129	119	420	435	421		480	273	340	440	90	850	175	260	100	SIDE
					126			462	460				380	441			170	280		
					130			435	440				335	441			180	259		
					121			460	455				390	443			180	279		
					130			423	442				340	440			180	260		
					125			472	445				398	438			187	279		
					134			423	441				322	459			175	260		
					120			477	443				400	439			190			
					133			417	450				319	425			168			
					121			482	457				402	441			184			
					134			401	435				320	445			170			
					124			500	462				402	470			186			
					131			403	420				315	417			171			
					120			480									179			
					131			402									158			

1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18	
1880	1055	465	478	330	254	234	880	895	880	DC	940	515	720	880	190	1800	350	539	200
					255			897	881	SUMS			720	881			345	540	
					256			897	900				715	882			350	539	
					251			895	895				725	884			360	538	
					251			883	897				730	883			360	539	
					255			895	887				738	878			367	539	
					259			895	886				720	897			362	539	
					254			900	884				722	898			365		
					253			894	893				719	864			358		
					254			899	907				721	866			352		
					255			883	892				722	886			354		
					258			901	897				722	915			356		
					255			903	882				717	887			357		
					251			883									350		
					251			882									337		

0.0	0.0	0.0	0.0	0.0	-.1	0.0	0.0	.2	-1.2	DC	0.0	0.0	-.3	-.5	0.0	0.0	-1.4	0.0	0.0
					.3			.4	-1.1	DEVS			-.3	-.4			-2.8	.2	
					.7			.4	1.0				-1.0	-.3			-1.4	0.0	
					-1.2			.2	.5				.4	-.1			1.4	-.2	
					-1.2			-1.2	.7				1.1	-.2			1.4	0.0	
					.3			.2	-.4				2.2	-.8			3.4	0.0	
					1.9			.2	-.5				-.3	1.4			2.0	0.0	
					-.1			.7	-.8				-.1	1.5			2.9		
					-.4			.1	.2				-.5	-2.3			.9		
					-.1			.6	1.8				-.2	-2.1			-.8		
					.3			-1.2	.1				-.1	.1			-.2		
					1.5			.8	.7				-.1	3.4			.3		
					.3			1.1	-1.0				-.7	.3			.6		
					-1.2			-1.2									-1.4		
					-1.2			-1.3									-5.0		

1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6	
94.00	52.75	23.25	239.0	16.50	12.71	117.0	44.00	4.467	4.454	DCA	47.00	25.75	3.612	4.423	9.500	9.000	1.774	2.695	100.0
87.00	51.70	22.00	237.0	16.20	12.00	116.0	43.80	4.400	4.210	AC1	47.20	25.90	3.580	4.200	9.500	8.950	1.740	2.550	100.0
87.00	51.70	22.00	237.0	16.20	12.00	116.0	43.80	4.400	4.210	AC2	47.20	25.90	3.580	4.200	9.500	8.950	1.740	2.550	100.0
87.00	51.70	22.00	237.0	16.20	12.00	116.0	43.80	4.400	4.210	ACA	47.20	25.90	3.580	4.200	9.500	8.950	1.740	2.550	100.0
112.8	63.30	111.6	286.8	79.20	152.5	140.4	211.2	53.61	106.9	RHO	225.6	309.0	86.69	185.8	114.0	216.0	74.52	181.1	1.000 DC CAL
8.0	2.0	5.7	.8	1.9	5.9	.9	.5	1.5	5.8	PFE	-.4	-.6	.9	5.3	0.0	.6	2.0	5.7	1.000 AC CAL
71	32	51	3	23	39	6	2	29	54	MCF	-2	-2	10	29	0	3	26	31	

J25525

J25525

HEINRICHS GEOEX (MAR 69) JOB 394-69 LINE 2 SPREAD 1 LOOKING NW 5-28-69 A= 500 FEET, FREQUENCIES .10 AND 3.0

2.000	2.000	2.000	3.000	2.000	2.000	3.000	3.000	3.000	2.000	I	3.000	3.000	3.000	2.000	3.000	3.000	3.000	2.000	2.000		
123	564	211	118	150	103	359	440	169	89	DC	90	173	95	660	358	82	540	315	211	LEFT	
124	584	239	119	163	121	363	482	185	108		98	203	107	685	360	88	610	405	214	SIDE	
		211		151	101		438	165	92		91	177	97	580	350	83	535	320			
		239		162	123		482	184	108		97	205	105	710	361	87	619	400			
		210		150	103		439	169	88		90	177	93	585	350	82	540	320			
		240		163	121		483	183	110		98	200	107	695	361	87	610	395			
				149	101		438	170	88		94	175	96	610		82	535	315			
				164	123		490	184	107		96	206	108	710		88	620	405			
				149	100		440	168	91		93	177	91	575		81	535	310			
				164	124		485	183	110		94	202	108	715		88	621	415			
							435	168	87		94	177	95	623		81	530	305			
							490	183	111		94	202	109	645		90	605	419			
							430	167	87		94	177	92	590		80	539	315			
							491	184	114		93	200	108	685		89	610	410			
							430		84		94	184	91			80	535	300			
							490		115			199	111			88	621	430			

1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18	
247	1148	450	237	313	224	722	922	354	197	DC	188	376	202	1345	718	170	1150	720	425
		450		314	222		920	350	200	SUMS	189	380	204	1265	710	171	1145	725	
		450		313	224		920	349	200		188	382	202	1290	711	170	1154	720	
		449		312	226		921	353	196		187	382	198	1295	711	169	1159	720	
		450		313	224		922	352	198		188	377	200	1280	711	169	1150	715	
				312	222		921	353	198		192	375	203	1305		169	1145	710	
				313	224		928	354	195		190	381	204	1320		170	1155	720	
				313	223		930	352	198		189	383	199	1285		169	1155	715	
				313	224		925	351	201		187	379	199	1290		169	1156	725	
							920	351	197		188	379	203	1338		169	1151	720	
							925	351	198		188	379	204	1268		171	1135	724	
							920	350	198		188	379	201	1235		170	1144	734	
							921	351	201		187	377	200	1275		169	1149	725	
							921		198		187	384	199			169	1145	710	
							920		199			383	202			168	1156	730	

0.0	0.0	.0	0.0	.0	.1	0.0	-.0	.7	-.6	DC	-.2	-1.0	.3	4.1	.8	.3	.0	-.1	0.0
		.0		.4	-.7		-.3	-.5	.9	DEVS	.4	.1	1.3	-2.1	-.3	.9	-.4	.6	
		.0		.0	.1		-.3	-.7	.9		-.2	.6	.3	-.1	-.2	.3	.4	-.1	
		-.2		-.3	1.0		-.2	.4	-1.1		-.7	.6	-1.7	.3	-.2	-.3	.8	-.1	
		.0		.0	.1		-.0	.1	-.1		-.2	-.7	-.7	-.9	-.2	-.3	.0	-.8	
				-.3	-.7		-.2	.4	-.1		2.0	-1.2	.8	1.0		-.3	-.4	-1.5	
				.0	.1		.6	.7	-1.6		.9	.3	1.3	2.2		.3	.4	-.1	
				.0	-.3		.8	.1	-.1		.4	.9	-1.2	-.5		-.3	.4	-.8	
				.0	.1		.3	-.2	1.4		-.7	-.2	-1.2	-.1		-.3	.5	.6	
							-.3	-.2	-.6		-.2	-.2	.8	3.6		-.3	.1	-.1	
							.3	-.2	-.1		-.2	-.2	1.3	-1.8		.9	-1.3	.4	
							-.3	-.5	-.1		-.2	-.2	-.2	-4.4		.3	-.5	1.8	
							-.2	-.2	1.4		-.7	-.7	-.7	-1.3		-.3	-.1	.6	
							-.2		-.1		-.7	1.1	-1.2			-.3	-.4	-1.5	
							-.3		.4			.9	.3			-.9	.5	1.3	

1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6	
123.5	57.40	22.49	118.5	15.64	11.18	361.0	46.12	17.58	9.913	DCA	94.14	18.99	10.067	6.458	35.61	8.473	5.750	3.604	212.5
118.0	54.00	21.10	108.0	14.30	10.30	325.0	42.00	16.30	9.100	AC1	89.00	18.20	9.700	6.050	34.00	8.000	5.500	3.400	202.0
118.0	54.00	21.10	108.0	14.30	10.30	325.0	42.00	16.30	9.100	AC2	89.00	18.10	9.700	6.000	34.00	8.100	5.500	3.390	202.0
118.0	54.00	21.10	108.0	14.30	10.30	325.0	42.00	16.30	9.100	ACA	89.00	18.15	9.700	6.025	34.00	8.050	5.500	3.395	202.0
87.18	40.52	63.50	55.76	44.17	78.94	169.9	86.81	82.73	140.0	RHO	177.2	89.35	94.75	159.6	167.6	79.75	94.70	142.5	.941 DC CAL
-.5	1.0	1.3	4.3	4.0	3.2	5.6	4.4	2.5	3.6	PFE	.6	-.6	-1.3	1.9	-.4	.1	-.6	.9	.951 AC CAL
-6	26	21	77	90	41	33	50	31	25	MCF	3	-6	-14	12	-3	1	-7	6	

3.000	2.000	3.000	2.000	2.000	3.000	2.000	2.000	2.000	3.000	I	2.000	2.000	2.000	3.000	3.000	3.000	3.000	3.000	2.000
81	121	330	117	213	117	100	225	67	525	DC	410	95	275						210 RIGHT
82	122	335	118	215	127	102	230	70	535		425	155	475						212 SIDE
		331		213	117			67	530		410	92	250						
		334		217	127			69	530		425	152	470						
		330		213	118			67			405	82	240						
		335		217	126			70			425	155	465						
		331		213	117						410	80	215						
		334		217	127						425	155	495						
				210	117						405	77	210						
				218	127						425	162	510						
				213								76							
				217								165							
				213															
				215															
				213															
				217															

1	2	3	4	5	6	7	8	9	10	PT.	11	12	13	14	15	16	17	18	
163	243	665	235	428	244	202	455	137	1060	DC	835	250	750						422
		666		428	244			137	1065	SUMS	835	247	725						
		665		430	244			136	1060		835	244	720						
		664		430	245			136			830	234	710						
		665		430	244			137			830	237	705						
		666		430	243						835	235	680						
		665		430	244						835	235	710						
				427	244						830	232	705						
				428	244						830	239	720						
				431								238							
				430								241							
				430															
				428															
				428															
				430															

0.0	0.0	-.0	0.0	-.3	0.0	0.0	0.0	.3	-.2	DC	.3	4.5	5.1						0.0
		.1		-.3	0.0			.3	.3	DEVS	.3	3.2	1.6						
		-.0		.2	0.0			-.4	-.2		.3	2.0	.9						
		-.2		.2	.4			-.4			-.3	-2.2	-.5						
		-.0		.2	0.0			.3			-.3	-.9	-1.2						
		.1		.2	-.4						.3	-1.8	-4.7						
		-.0		.2	0.0						.3	-1.8	-.5						
				-.5	0.0						-.3	-3.0	-1.2						
				-.3	0.0						-.3	-.1	.9						
				.4								-.5							
				.2								.7							
				.2															
				-.3															
				-.3															
				.2															

1	1	2	1	2	3	1	2	3	4	N	2	3	4	5	3	4	5	6	
81.50	121.5	33.26	117.5	21.46	12.20	101.0	22.75	6.830	5.308	DCA	41.64	11.96	3.569	0.000	0.000	0.000	0.000	0.000	211.0
80.00	119.0	33.00	116.0	21.20	12.20	102.0	23.00	6.900	5.400	AC1	48.00	13.50	4.750	4.000	0.000	0.000	0.000	0.000	209.0
80.00	118.0	33.00	116.0	21.20	12.20	102.0	23.00	6.800	5.400	AC2	48.00	13.50	4.750	4.000	0.000	0.000	0.000	0.000	209.0
80.00	118.5	33.00	116.0	21.20	12.20	102.0	23.00	6.850	5.400	ACA	48.00	13.50	4.750	4.000	0.000	0.000	0.000	0.000	209.0
38.63	86.37	63.05	83.53	61.02	57.82	71.80	64.69	48.55	50.32	RHO	118.4	85.05	50.75	*000.0	*000.0	*000.0	*000.0	*000.0	.948 DC CAL
.9	1.6	-.2	.3	.3	-.9	-1.9	-2.0	-1.2	-2.6	PFE	-14.1	-12.2	-25.6	*000.0	*000.0	*000.0	*000.0	*000.0	.991 AC CAL
24	18	-3	4	4	-16	-27	-31	-25	-52	MCF	-119	-144	-504	*00000	*00000	*00000	*00000	*00000	