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I. P. SENDER NOTES

JOB NO. 1092 AREA JOHNSON CAMP
 LINE 1, HALF 5, SP. 1, DATE MAY, 11, 76

PAGE 1HEINRICH'S
GEOEX

SEND	3-4	4-5	5-6	6-7	2-3	3-4	4-5	5-6	6-7	1-2
RECEIVE	20-30s	—————	—————	—————	→ 30-40s	—————	—————	—————	—————	→ CAL
RANGE	20X300	—————	→ 1	20X250	20X350	20X300	20X300	20X310	20X250	20X100
VOLTAGE	600	660	550	590	460	590	630	550	590	260
CURRENT	6	6	6	5	7	6	6	6	5	2

SEND	1-2	2-3	3-4	4-5	5-6	6-7	1-2	2-3	3-4	4-5
RECEIVE	40-50s	—————	—————	—————	—————	→ 50-60s	—————	—————	—————	—————
RANGE	20X350	20X350	20X300	20X300	20X300	20X250	20X350	20X350	20X300	20X300
VOLTAGE	490	460	590	630	550	590	490	460	570	620
CURRENT	7	7	6	6	6	5	7	7	6	6

FREQUENCIES

SENDER NO. <u>267215</u>	POWER UNIT ID
OPERATOR <u>V.S</u>	
RECEIVER NO.	HOURS RUN
OPERATOR <u>R.R</u>	

COMMENTS:

I. P. SENDER NOTES

JOB No. 1092 AREA JOHNSON CAMP
 LINE 1, HALF 5, SP. 1, DATE MAY 11, 76

PAGE 2HEINRICH'S
GEOEX

SEND	5-6	1-2	2-3	3-4	4-5	1-2	2-3	3-4		
RECEIVE	→	60-70s	→	→	→	90-80s	→	→		
RANGE	20x300									
VOLTAGE	540									
CURRENT	6									
SEND										
RECEIVE										
RANGE										
VOLTAGE										
CURRENT										

FREQUENCIES	COMMENTS:	
SENDER No. <u>267215</u>		
OPERATOR <u>V.S</u>		
RECEIVER No.		
OPERATOR <u>R.R</u>	HOURS RUN	

I. P. SENDER NOTES

JOB NO. 1092 AREA Johnson CAMPLINE 1, HALF N, SP. 1, DATE 5-11-76PAGE 3HEINRICH'S
GEOEX

SEND	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	6-7
RECEIVE	0-10N	→	10-20N	→	→	20-30N	→	→	→	CA1
RANGE	20X350	20X350	20X300	20X350	20X350	20X250	20X310	20X350	20X35	20X100
VOLTAGE	450	490	550	450	440	500	550	440	490	310
CURRENT	7	7	6	7	7	65	6	7	7	2
SEND	5-6	4-5	3-4	2-3	1-2	6-7	5-6	4-5	3-4	2-3
RECEIVE	30-40N	→	→	→	→	40-50N	→	→	→	→
RANGE	20X300	20X250	20X300	20X350	20X350	20X250	20X300	20X250	20X300	20X300
VOLTAGE	530	500	550	440	480	550	530	500	540	440
CURRENT	6	5	6	7	7	5	6	5	6	7

FREQUENCIES

SENDER No. 267215 POWER UNIT IDOPERATOR V.S.

RECEIVER No. HOURS RUN

OPERATOR R.R.

COMMENTS:

7.7.10

I. P. SENDER NOTES

JOB No. 1092 AREA Johnson CAMP
 LINE 1, HALF N, SP. 1, DATE 5-11-76



PAGE 4
 HEINRICH'S
 GEOEX

SEND	1-2	6-7	5-6	4-5	3-4	2-3	6-7	5-6	4-5	3-4
RECEIVE	→	50-60N	→	→	→	→	60-70N	→	→	→
RANGE	20X350	20X250	20X300	20X250	20X300	20X350	20X250	20X300	20X250	20X300
VOLTAGE	480	550	520	490	540	440	550	520	480	540
CURRENT	7	5	6	5	6	7	5	6	5	6
SEND	6-7	5-6	4-5							
RECEIVE	70-80N	→	→							
RANGE	20X250	20X300	20X250							
VOLTAGE	550	520	480							
CURRENT	5	6	5							

FREQUENCIES

SENDER No. <u>267215</u>	POWER UNIT ID
OPERATOR <u>V.S</u>	
RECEIVER No.	HOURS RUN
OPERATOR <u>R.R</u>	

COMMENTS:

I. F. SENDER NOTES

JOB No. 1692 AREA JOHNSON CALIPLINE 1, HALF 5, SP. 1, DATE 4/11/76PAGE 1HEINRICHS
GEOEX

SEND	3-4	4-5	5-6	6-7	2-3	3-4	4-5	5-6	6-7	1-2
RECEIVE	20-300				30-400					2-3
RANGE	20x200		21	20x200	20x350	20x300	20x300	20x300	20x250	20x200
VOLTAGE	600	600	550	570	460	590	670	580	570	560
CURRENT	67	67	67	5	1	6				2
SEND	1-2	2-3	3-4	4-5	5-6	6-7	1-2	2-3	3-4	4-5
RECEIVE	40-500						2-3			
RANGE	20x250	20x350	20x200	20x200	20x200	20x250	20x250	20x200	20x300	20x200
VOLTAGE	470	460	590	630	550	590	470	460	570	620
CURRENT										

FREQUENCIES

SENDER No. 267215 POWER UNIT IDOPERATOR V.3

RECEIVER No. HOURS RUN

OPERATOR R.R.

COMMENTS:

I. P. SENDER NOTES

JOB No. 1092 AREA JOHNSON CAMPLINE 1, HALF 1, SP. 1, DATE MAY 11, 76PAGE 2HEINRICH'S
GEOEX

SEND	5-6	1-2	2-3	3-4	4-5	1-2	2-3	3-4		
RECEIVE	→	60-70s	→	→	→	70-80s	→	→		
RANGE	20x300									
VOLTAGE	540	600								
CURRENT	6									
SEND										
RECEIVE										
RANGE										
VOLTAGE										
CURRENT										

FREQUENCIES

SENDER No. 267215 POWER UNIT IDOPERATOR V.S.

RECEIVER No. HOURS RUN

OPERATOR B.R.

COMMENTS:

I. P. SENDER NOTES

JOB No. 1092 AREA Johnson CAMP
 LINE 1, HALF N, SP. 1, DATE 5-11-76

PAGE 3HEINRICH'S
GEOEX

SEND	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	6-7
RECEIVE	0-10N	→	10-26N	→	→	20-30N	→	→	→	CAN
RANGE	20X350	20X350	20X300	20X350	20X350	20X250	20X300	20X350	20X35	20X100
VOLTAGE	450	490	550	450	440	500	550	140	490	310
CURRENT	7	7	6	7	7	85	6	7	7	2
SEND	5-6	4-5	3-4	2-3	1-2	6-7	5-6	4-5	3-4	2-3
RECEIVE	30-10N	→	→	→	→	40-50N	→	→	→	→
RANGE	20X300	20X250	20X300	20X350	20X350	20X350	20X300	20X250	20X300	20X300
VOLTAGE	530	500	550	440	480	550	530	500	540	440
CURRENT	6	5	6	7	7	5	6	5	6	7

FREQUENCIES

SENDER No. <u>267215</u>	POWER UNIT ID
OPERATOR <u>V.S.</u>	
RECEIVER No.	HOURS RUN
OPERATOR <u>R.R.</u>	

COMMENTS:

I. P. SENDER NOTES

JOB No. 1092 AREA Johnson CAMP
 LINE 1, HALF N 1, Sp. 1, DATE 5-11-76

PAGE 4HEINRICH'S
GEOEX

SEND	1-2	6-7	5-6	4-5	3-4	2-3	6-7	5-6	4-5	3-4
RECEIVE	→	50-100	→	→	→	→	50-100	→	→	→
RANGE	20X350	20X250	20X200	20X250	20X300	20X350	20X250	20X300	20X250	20X200
VOLTAGE	480	550	520	470	540	440	550	520	480	510
CURRENT	7	5	6	5	6	7	5	6	5	6
SEND	6-7	5-6	4-5							
RECEIVE	70-800	→	→							
RANGE	20X250	20X300	20X250							
VOLTAGE	550	520	480							
CURRENT	5	6	5							

FREQUENCIES

SENDER No. <u>67215</u>	POWER UNIT ID
OPERATOR <u>V.S.</u>	
RECEIVER No.	HOURS RUN
OPERATOR <u>K.R.</u>	

COMMENTS:

I. P. SENDER NOTES

JOB No. 1092 AREA TOLUO Camp
 LINE 3, HALF 10, Sp. 1, DATE MAY 29, 1976

PAGE 1HEINRICHS
GEOEX

SEND	2-7	1-2	3-4	2-3	1-2	4-5	3-4	5-6	1-2	2-3
RECEIVE	0-10W	10-20	20-30	30-40	40-50W	50-60	60-70	70-80	80-90	90-100
RANGE	20x300	20x200	30x133	30x166	30x133	30x166	30x133	30x166	30x133	30x166
VOLTAGE	+2500	650	380	380	+70	420	+70	460	370	410
CURRENT	56	4	4	5	4	3	5	6	3	2
SEND	5-6	4-5	3-4	2-3	1-2	6-7	5-6	4-5	3-4	2-3
RECEIVE	30-40W	40-50	50-60	60-70	70-80	80-90	90-100	100-110	110-120	120-130
RANGE	30x133	30x166	30x133	30x166	30x133	30x166	30x133	30x166	30x133	30x166
VOLTAGE	490	420	+80	460	490	500	+90	+20	390	+80
CURRENT	4	3	5	2	4	5	4	3	4	6

FREQUENCIES

SENDER No. <u>267215</u>	POWER UNIT ID
OPERATOR <u>V.S</u>	
RECEIVER No.	HOURS RUN
OPERATOR <u>R.R</u>	

COMMENTS:

1-2 - 4
 2-3 - 6
 3-4 - 5
 4-5 - 1
 5-6
 6-7

I. P. SENDER NOTES

JOB No. 1072 AREA Johnson Camp
 LINE 3, HALF N, SP. 1, DATE May 20 1976



PAGE 2

HEINRICHS
GEOEX

SEND	1-2	6-7	5-6	4-5	3-4	2-3	6-7	5-6	4-5	3-4
RECEIVE	→	50-60N	→	→	→	→	60-70N	→	→	→
RANGE	30x100	30x180	30x100	30x100	30x133	30x133	30x133	30x100	30x100	
VOLTAGE	380	300	380	430	390	320		380	430	
CURRENT	3	3	3	3	4	4		3	3	
SEND	6-7	5-6	4-5		4-5					
RECEIVE	70-80N	→	→		→					
RANGE					10x200					
VOLTAGE					310					
CURRENT										

FREQUENCIES		COMMENTS:
SENDER No. <u>8661-5</u>	POWER UNIT ID	
OPERATOR <u>V.S.</u>		
RECEIVER No.	HOURS RUN	
OPERATOR <u>K.R.</u>		

I. P. SENDER NOTES

JOB No. 1092 AREA JOHNSON CAMP
 LINE 3, HALF 5, SP. 1, DATE MAY 20, 1976

PAGE 3HEINRICHS
GEOEX

SEND	5-6	4-5	5-6	3-4	2-3	3-4	4-5	5-6	6-1	2-3
RECEIVE	0-105	10-205	→	20-305	30-405	→	→	→	→	CAI
RANGE	30x100	→	→	30x133	30x133	30x133	30x100	30x100	30x100	70x200
VOLTAGE	380	420	380	390	320	380	420	370	360	230
CURRENT	43						3			
SEND	1-2	2-3	3-4	4-5	5-6	6-7	1-2	2-3	3-4	4-5
RECEIVE	40505	→	→	→	→	→	50-605	→	→	→
RANGE										20x100
VOLTAGE										400
CURRENT										

FREQUENCIES

SENDER No. <u>8661-5</u>	POWER UNIT ID
OPERATOR <u>V.S.</u>	
RECEIVER No.	HOURS RUN
OPERATOR <u>R.B.</u>	

COMMENTS:

I. P. SENDER NOTES

JOB No. 1092 AREA Johnson Camp
 LINE 3, HALF 5, SP. 1, DATE May 20, 1976

PAGE 4HEINRICHS
GEOEX

SEND	5-6	1-2	2-3	3-4	4-5	1-2	2-3	3-4		
RECEIVE	→	60-70S			→	70-80S		→		
RANGE	30X100	10X200	30X200	30X133	30X100	10X200	30X200	30X133		
VOLTAGE	350	250	450	370	400	250	450	360		
CURRENT	3	2	6	4	3	2	6	4		
SEND										
RECEIVE										
RANGE										
VOLTAGE										
CURRENT										

FREQUENCIES	COMMENTS:	
SENDER No. <u>3641-5</u>	POWER UNIT ID	
OPERATOR <u>V.S.</u>		
RECEIVER No.	HOURS RUN	
OPERATOR <u>R.K.</u>		

I. P. SENDER NOTES

JOB No. 1092 AREA Johnson Camp
 LINE 3, HALF N, SP. 1, DATE MAY 20, 1976

PAGE 1HEINRICH'S
GEOEX

SEND	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	6-7
RECEIVE	0-10N	10-20N	10-20N	10-20N	10-20N	20-30N	20-30N	20-30N	20-30N	CAL
RANGE	20x300	20x200	30x133	30x166	30x133	30x100	30x166	30x199	30x100	10x200
VOLTAGE	42500	650	380	380	490	420	470	460	370	410
CURRENT	\$6	4	4	5	4	3	5	6	3	2
SEND	5-6	4-5	3-4	2-3	1-2	6-7	5-6	4-5	3-4	2-3
RECEIVE	30-40N	30-40N	30-40N	30-40N	30-40N	40-50N	40-50N	40-50N	40-50N	40-50N
RANGE	30x133	30x100	30x166	30x199	30x133	30x166	30x133	30x100	30x133	30x199
VOLTAGE	490	420	480	460	490	500	490	420	390	480
CURRENT	4	3	5	6	4	5	4	3	\$4	6

FREQUENCIES

SENDER No. <u>267215</u>	POWER UNIT ID
OPERATOR <u>V.S</u>	
RECEIVER No.	HOURS RUN
OPERATOR <u>R.R</u>	

COMMENTS:

1-2 - 4
 2-3 - 6
 3-4 - 5
 4-5 - 1
 5-6
 6-7

CAL 3-4 | 3-4 | 4-5
 230 | 200 | 320
 2A | 2A | 2A

I. P. SENDER NOTES

JOB No. 1092 AREA Johnson Camp
 LINE 3, HALF N, SP. 1, DATE May 20, 1976

PAGE 2HEINRICH'S
GEOEX

SEND	1-2	6-7	5-6	4-5	3-4	2-3	6-7	5-6	4-5	3-4
RECEIVE	→	50-60N	→	→	→	→	60-70N	→	→	→
RANGE	30X100	30X100	30X100	30X100	30X133	30X133	30X133	30X100	30X100	
VOLTAGE	380	300	380	430	390	320	400	380	430	
CURRENT	3	3	3	3	4	4	4	3	3	
SEND	6-7	5-6	4-5		4-5					
RECEIVE	70-80N	→	→		CAL					
RANGE					10 X 200					
VOLTAGE					310					
CURRENT					2					

FREQUENCIES

SENDER No. <u>8661-5</u>	POWER UNIT ID
OPERATOR <u>V.S</u>	
RECEIVER No.	HOURS RUN
OPERATOR <u>R.R</u>	

COMMENTS:

I. P. SENDER NOTES

JOB NO. 1092 AREA JOHNSON CAMP
 LINE 3, HALF S, SP. 1, DATE MAY 20, 1976



PAGE 3
 HEINRICH'S
 GEOEX

SEND	5-6	4-5	5-6	3-4	2-3	3-4	4-5	5-6	6-7	2-3
RECEIVE	0-105	10-205	→	20-305	30-405	→	→	→	→	CH1
RANGE	30X100	→	→	30X133	30X133	30X133	30X100	30X100	30X100	10X200
VOLTAGE	380	420	380	390	320	380	420	370	300	230
CURRENT	303	3	3	4	4	4	3	3	3	2
SEND	1-2	2-3	3-4	4-5	5-6	6-7	1-2	2-3	3-4	4-5
RECEIVE	40-505	→	→	→	→	→	50-605	→	→	→
RANGE	30X100	30X133	30X133	30X100	30X100	30X100	10X200	30X133	30X133	30X100
VOLTAGE	370	310	380	410	370	300	280	310	370	400
CURRENT	370	4	4	3	3	3*	2	4	4	3

FREQUENCIES

SENDER No. <u>8661-5</u>	POWER UNIT ID
OPERATOR <u>V.S</u>	
RECEIVER No.	HOURS RUN
OPERATOR <u>R.R</u>	

COMMENTS:

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I. P. SENDER NOTES

JOB No. 1092 AREA Johnson Camp
 LINE 3, HALF 5, SP. 1, DATE MAY 20, 1976

PAGE 4HEINRICHS
GEOEX

SEND	5-6	1-2	2-3	3-4	4-5	1-2	2-3	3-4		
RECEIVE	→	60-705	→	→	→	70-805	→	→		
RANGE	30X100	10X200	30X200	30X133	30X100	10X200	30X200	30X133		
VOLTAGE	350	250	450	370	400	250	450	360		
CURRENT	3	2	6	4	3	2	6	4		
SEND										
RECEIVE	7									
RANGE										
VOLTAGE										
CURRENT										

FREQUENCIES

SENDER No. <u>8661-5</u>	POWER UNIT ID
OPERATOR <u>V.S</u>	
RECEIVER No.	HOURS RUN
OPERATOR <u>R.R</u>	

COMMENTS:

$\frac{0.1}{10.3} \times 3.0$ Readings

PAGE 2

HEINRICH
GEOEX

[illegible]

SENDER STA. 0 = ELECTRODE No. 4, DATE MAY 20, 1976



PAGE

HEINRICH
GEOEX

SEND		1-2	6-7	8-9	4-5	3-1	2-3	6-7	5-6	4-9	3-1
RECEIVE		→	50.60N	→			→	60.70N	→		→
MULTIPLIER		0.1	1.0	0.1	0.1	0.1	0.1	1.0	0.1	0.1	1
PFE		20.14	0.9	0.9	0.9	1.0	0.6	20.2	0.9	0.9	1
CUR. (AMPS)		1.2	3	3	3	4	4	4	3	3	1
POINT No.		3									
SER. (n)		6	2	3	4	5	6	3	4	5	6
H. F. MV		0.19	35.9	9.11	8.11	3.95	3.55	20.6	4.25	3.10	
DRIFT		0.0	0.0	0.0	0.1	0.2	-0.1	0.6	0.0	0.3	1
I.O PFE	K _n /1000	168	12	30	60	105	168	30	60	105	1
0.3 PFE	P _{CAL}									very noisy	
0.1 PFE	PFE _c										
3.0 MV	P/2π	45.9	14.3	9.1	11.4	10.4	14.7	15.4	97.0	10.3	1
DRIFT	MCF	4.4	6.3	9.0	7.0	10.0	11.0	8.0	8.2	8.3	1
S. P.			4.2					-7.2		12.10	
NOISE								5-14	16	0.40	
POT RES.								-0.4050	0.1mD	0.15	0.50
CULT & CMTS								0.5105			

HEINRICH
GEOEX

[illegible]

I. P. RECEIVER NOTES, JOB No. 1092, AREA Johnson CampLINE 3, HALF S, SP 1, $\alpha = 1000'$, BEARING S 16° ESENDER STA. 0 = ELECTRODE No. 4, DATE MAY 24, '76PAGE 5HEINRICH'S
GEOEX

SEND	5-6	4-5	5-6	3-4	2-3	3-4	4-5	5-6	6-7	1-2
RECEIVE	0-10s	10-20s	→	20-30s	30-40s	→				CAL
MULTIPLIER	10	1.0	1.0	10	10	1.0	1.0	0.1	0.1	
PFE	1.1	1.1	1.1	0.9	1.3	1.3	1.6	2.0	1.7	
CUR. (AMPS)	3	3	3	4	4	4	3	3	3	
POINT No.										
SEP. (n)	1	1	2	1	1	2	3	4	5	
H. F. MV	114	59.8	22.4	15.1	12.5	55.7	13.9	10.24	9.83	
DRIFT	0.0	0.2	0.0	0.0	0.1	0.0	0.0	0.0	0.1	
I.O PFE $K_n/1000$	2	2	12	3	3	12	30	60	105	
0.3 PFE P_{CAL}										
0.1 PFE PFE_c										
3.0 MV $P/2\pi$	114	59.8	22.4	11.3	13.9	16.7	13.9	20.5	34.4	
DRIFT MCF	20.0	19.0	12.3	9.0	9.4	18.0	11.5	10.0	5.0	
S. P.	20.6	20.5		0.3	2.1-4					
NOISE										
POT RES.		5w. 60w			5w. 60w. 100w. 150w	150's				
CULT & CMTS		5w. 200w			"	"200's				

$\frac{0.1}{0.3} \times 3.0$ Readings

PAGE 2

HEINRICHSGEOEX

[illegible]

I. P. RECEIVER NOTES, JOB No. 1092, AREA JOHNSON CAMPLINE 3, HALF N, SP. 1, $\alpha =$ 1000', BEARING N16°WSENDER STA. 0 = ELECTRODE No. 4, DATE MAY 20, 1976PAGE 3HEINRICH'S
GEOEX

SEND	1-2	6-7	5-6	4-5	3-4	2-3	6-7	5-6	4-5	3-4
RECEIVE	→	50.60N	→	→	→	→	60.70N	→	→	→
MULTIPLIER	0.1	1.0	0.1	0.1	0.1	0.1	1.0	0.1	0.1	1
PFE	2.0/-1.4	0.9	0.8	0.8	1.0	1.6	1.2	0.8	0.9	}
CUR. (AMPS)	1.2	3	3	3	4	4	4	3	3	}
POINT No.	3									}
SER. (n)	6	2	3	4	5	6	3	4	5	6
H. F. MV	8.17	35.9	9.11	5.71	3.95	3.55	20.6	4.85	3.10	}
DRIFT	0.0	0.0	0.0	0.1	0.2	-0.1	0.6	0.0	0.3	}
I.O PFE $K_n/1000$	168	12	30	60	105	168	30	60	105	}
0.3 PFE P_{CAL}										VERY NOISY
0.1 PFE PFE_c										
3.0 MV $P/2\pi$	457	143	91.1	114	104	149	154	97.0	108	
DRIFT MCF	4.4	6.3	9.0	7.0	10.0	11.0	8.0	8.2	9.3	
S. P.		4.2					-7.2		12.1.4	
NOISE							-5-1.4	-2-1.6	-0.4-0.6	
POT RES.							-0.4-0.5	DAMPED	TO 60 Sec	
CULT & CMTS							-0.5-0.5			

I. P. RECEIVER NOTES, JOB No. 1092, AREA Johnson CampLINE 3, HALF S, SR 1, $\alpha = 1000'$, BEARING S 16° ESENDER STA. 0 = ELECTRODE No. 1004, DATE MAY 28, '76PAGE 5HEINRICH'S
GEOEX

SEND	5-6	4-5	5-6	3-4	2-3	3-4	4-5	5-6	6-7	1-2
RECEIVE	0-10s	10-20s	→	20-30s	30-40s	→	→	→	→	CAL
MULTIPLIER	10	1.0	1.0	10	10	1.0	1.0	0.1	0.1	
PFE	1.1	1.1	1.1	0.9	1.3	1.3	1.6	2.0	1.7	
CUR. (AMPS)	3	3	3	4	4	4	3	3	3	
POINT No.										
SEP. (n)	1	1	2	1	1	2	3	4	5	
H. F. Mv	114	58.8	22.4	151	185	55.7	13.9	10.24	9.83	
DRIFT	0.0	0.2	0.0	0.0	-0.1	0.0	0.0	0.0	0.1	
1.0 PFE $K_n/1000$	3	3	12	3	3	12	30	60	105	
0.3 PFE P_{CAL}										
0.1 PFE PFE_c										
3.0 MV $P/2\pi$	114	58.8	89.6	113	139	167	139	205	344	
DRIFT MCF	10.0	19.0	12.3	9.0	9.4	8.0	11.5	10.0	5.0	
S. P.	20.6	28.5		0.3	21.4					
NOISE										
POT RES.		5w. GRND			5w. GROUND	FENCE 10' N OHW	150's			
CULT & CMTS		ENC 200' N			"	" 200' S				

I. P. RECEIVER NOTES, JOB No. 1092, AREA JOHNSON CAMP

LINE 3, HALF 5, SP. 1, $\alpha = 1000'$, BEARING S 16° E

SENDER STA. 0 = ELECTRODE NO. 4, DATE MAY 28, 1976



HEINRICH
GEOEX

[illegible]

I. P. RECEIVER NOTES, JOB No. 1092, AREA Johnson Camp
 LINE 1, HALF S, SR. 1, $\alpha =$ 1000', BEARING N 16°-W
 SENDER STA. 0 = ELECTRODE No. 4, DATE MAY 11, 1976



PAGE 1

HEINRICH'S
GEOEX

SEND	SP	SP	3-8	8-3	4-6	6-7	2-3	3-4	4-5	1-2
RECEIVE	10-30 S	20-30 S	20-30 S				30-40 S			CAL
MULTIPLIER			10	1.0	1.0	1.0	10	1.0	1.0	1.0
PFE			19	1.1	1.2	1.4	11	1.7	1.8	0.1
CUR. (AMPS)			6	6	6	5	4	6	6	
POINT No.			1	2	3	4	1	2	3	
SER. (n)			1	2	3	4	1	2	3	
H. F. Mv			12.5	41.5	29.2	17.7	28.4	60.8	39.1	2.0
DRIFT			0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
I.O PFE $K_n/1000$			3	1.2	3.0	6.0	3	1.2	3.0	
0.3 PFE P_{CAL}					1.8	12.7				
0.1 PFE PFE_0										
3.0 MV $P/2\pi$			13.0	82.1	144	150	17.2	12.0	11.2	
DRIFT MCF			15.0	12.2	2.3	0.1	9.0	14.2	10.5	
S. P.	-20.7	-26.5	22.0			29.1				
NOISE										
POT RES.										
CULT & CMTS			50.4 P.C	19.5	2.2	0.1 W/ 90	12.40 S			

I. P. RECEIVER NOTES, JOB No. 1092, AREA Johnson Camp

LINE P, HALF S, SR 1, $\alpha = 1000'$, BEARING N 16° W

SENDER STA. 0 = ELECTRODE No. 4, DATE 5/11/76



PAGE 2

HEINRICH
GEOEX

[illegible]

HEINRICHSGEOEX

[illegible]

SENDER STA. 0 = ELECTRODE No. 4, DATE 5/11/76

PAGE 4

HEINRICH
GEOEX

[illegible]

I. P. RECEIVER NOTES, JOB No. 1092, AREA JOHNSON CAMPLINE 1, HALF N, SP. 1, $\alpha =$ 1000', BEARING N16°WSENDER STA. 0 = ELECTRODE No. 4, DATE 5/11/76PAGE 5HEINRICH'S
GEOEX

SEND	5-6	4-5	3-4	2-3	1-2	6-2	5-6	4-5	3-4	2-3
RECEIVE	30-40N					40-50N				
MULTIPLIER	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PFE	1.2	1.1	1.4	1.5	1.3	1.4	1.5	1.3	1.4	1.4
CUR. (AMPS)	6	6	6	7	7	6.8	6.9	11.1	1.0	1.9
POINT No.										
SEP. (n)	1	2	3	4	5	1	2	3	4	5
H.F. Mv	103	133	32.9	30.1	20.7	27.8	139	39.4	15.4	17.9
DRIFT	10.1	-0.1	0.2	0.2	8.1	0.6	0.0	0.1	0.0	7.1
1.0 PFE $K_n/1000$	3	12	30	60	105	3	12	30	60	105
0.3 PFE P_{CAL}										
0.1 PFE PFE_c										
3.0 MV $P/2\pi$	346	314	162	254	306	134	274	233	151	264
DRIFT MCF	3.5	3.5	8.1	6.0	4.7	10.4	5.1	6.0	4.0	5.3
S. P.	-160					7.9				
NOISE										
POT RES.										
CULT & CMTS										

Graded fence 700' x 70'

I. P. RECEIVER NOTES, JOB No. 1092, AREA Tahiti CampLINE 1, HALF N, SR. 1, $\alpha =$ 1000', BEARING N 16° WSENDER STA. 0 = ELECTRODE No. 4, DATE MAY 11, 76PAGE 5HEINRICH'S
GEOEX

SEND	1-2	6-7	5-6	4-5	3-4	2-3	6-1	5-6	4-5	3-4
RECEIVE	→ 60-60N					→ 60-70N				
MULTIPLIER	1.0	1.0	1.0	1.0	0.1	0.1	1.0	1.0	0.1	0.1
PFE	2.0	1.5	1.3	1.2	2.6	4.9	2.3	2.1	2.8	1.2
CUR. (AMPS)	1.2	65	56	65	7.6	17	25.2	2.1	2.8	1.2
POINT No.	7									
SEP. (n)	6	2	3	4	5	6	3	4	5	6
H.F. MV	14.0	46.2	38.1	13.0	6.58	9.21	29.6	26.2	10.01	6.58
DRIFT	4.2	9.2	9.8	8.2	7.83	9.23	0.0	0.2	0.3	0.2
I.O PFE $K_n/1000$	16.0	9.2	9.8	8.2	7.83	9.23	0.0	0.2	0.3	0.2
0.3 PFE P_{CAL}										
0.1 PFE PFE_c										
3.0 MV $P/2\pi$	3.1	1.10	1.88	1.54	1.13	1.94				1.67
DRIFT MCF	6.0	1.2	1.0	8.0	23.1	0.2	17.5	25.8	20.8	8.7
S. P.		27.2				52.2	13.1	5.1	18	8.3
NOISE										4.0
POT RES.		100.0								100.0
CULT & CMTS		51.536								

SENDER STA. 0 = ELECTRODE No. 41, DATE MAY 11, 1976

[illegible]

I. P. RECEIVER NOTES, JOB No. 1092, AREA Johnson CAMP
 LINE 1, HALF S, SP. 1, $\alpha =$ 1000', BEARING N 16°-W
 SENDER STA. 0 = ELECTRODE No. 4, DATE MAY 11, 1976



PAGE 1

HEINRICH'S
GEOEX

SEND	SP	SP	3-4	4-5	5-6	6-7	2-3	3-4	4-5	1-2
RECEIVE	0-10 S	10-20 S	20-30 S	—	—	—	30-40 S	—	—	CAL
MULTIPLIER			10	1.0	1.0	1.0	10	1.0	1.0	1.0
PFE			.9	1.0	1.2	1.4	1.1	1.7	1.8	0.1
CUR. (AMPS)			6	6	6	5	7	6	6	
POINT No.			7	12	30					
SEP. (n)			1	2	3	4	1	2	3	
H. F. Mv			12.5	41.5	29.2	12.7	28.8	60.9	34.9	20.4
DRIFT			0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
I.O PFE $K_n/1000$			3	12	30	60	3	12	30	
0.3 PFE P_{CAL}										
0.1 PFE PFE_C										
3.0 MV $P/2\pi$			62.0	82.1	144	150	122	120	172	
DRIFT MCF			15.0	12.2	8.3	8.1	9.0	14.2	10.5	
S. P.	-20.7	-26.5	22.0			39.1				
NOISE										
POT RES.										
CULT & CMTS			GRD FNL 150' S 20'			OHW 400' N 40 S				

$$\frac{-13.1}{1.3}$$
[illegible]

HEINRICH
GEOEX

[illegible]

I. P. RECEIVER NOTES, JOB No. 1092, AREA JOHNSON CAMP
 LINE 1, HALF N, SR 1, $\alpha =$ 1000', BEARING N16°W
 SENDER STA. 0 = ELECTRODE No. 4, DATE 5/11/76



PAGE 5
 HEINRICH'S
 GEOEX

SEND	5-6	4-5	3-4	2-3	1-2	6-7	5-6	4-5	3-4	2-3
RECEIVE	30-40N					40-50N				
MULTIPLIER	10	10	1.0	1.0	1.0	10	10	1.0	1.0	1.0
PFE	1.2	1.1	1.4	1.5	1.3	1.4	1.4	1.3	1.4	1.4
CUR. (AMPS)	6	5	6	7	7	5.8	6.9	1.1	1.0	1.9
POINT No.						5	6	5	6	7
SER. (n)	1	2	3	4	5	1	2	3	4	5
H. F. MV	703	133	32.9	30.1	30.7	22.8	13.9	39.4	15.9	17.9
DRIFT	0.1	-0.1	0.2	0.2	0.1	0.6	0.0	0.1	0.0	0.1
1.0 PFE $K_n/1000$	3	12	30	60	105	3	12	30	60	105
0.3 PFE P_{CAL}										
0.1 PFE PFE_c										
3.0 MV $P/2\pi$	346	314	162	254	306	134	274	233	157	264
DRIFT MCF	3.5	3.5	8.6	6.0	4.2	10.4	5.1	5.0	9.0	5.3
S. P.	-160					7.9				
NOISE										
POT RES.										
CULT & CMTS										

Graded fence 100' NTH

I. P. RECEIVER NOTES, JOB No. 1092, AREA JOHNSON CAMP
 LINE 1, HALF N, SR. 1, $\alpha =$ 1000', BEARING N 16° W
 SENDER STA. 0 = ELECTRODE No. 4, DATE MAY 11, 76



PAGE 6
**HEINRICHS
 GEOEX**

SEND	1-2	6-7	5-6	4-5	3-4	2-3	6-1	5-6	4-5	3-4
RECEIVE	→ 60-60N					→ 60-70N				→
MULTIPLIER	1.0	1.0	1.0	1.0	0.1	0.1	1.0	1.0	0.1	0.1
PFE	2.0-1.5	1.3	1.3	1.2	2.5	1.6	2.3	2.1	3.8	1.4*
CUR. (AMPS)	1.2	5	6	5	6	7	5	6	5	6
POINT No.	7									
SER. (n)	6	2	3	4	5	6	3	4	5	6
H. F. MV	14.0	46.7	38.1	13.0	6.58	8.21	29.6	26.2	10.07	6.08
DRIFT	0.2	0.1	0.0	0.1	0.2	0.2	0.0	0.2	0.2	-0.2
1.0 PFE $K_n/1000$	168	12	30	60	105	168	30	60	105	168
0.3 PFE P_{CAL}										
0.1 PFE PFE_c										
3.0 MV $P/2\pi$	331	110	188	154	113	194	175	258	208	167
DRIFT MCF	6.0	12.1	7.0	8.0	23.0	9.2	13.1	8.1	18	8.3
S. P.		21.2				52.2				*
NOISE										VERY NOISY
POT RES.		PUL ARE								
CULT & CMTS		51 STB								

PAGE 7

HEINRICH
GEOEX

[illegible]

SENDER STA. SW = ELECTRODE NO. 4, DATE MAY 13, 1976

PAGE 1

HEINRICH
GEOEX

SEND	2-3	1-2	2-4	2-3	1-2	4-5	3-4	2-3	1-2	6-1
RECEIVE	0-10N	10-20N	20-30N	30-40N	40-50N	50-60N	60-70N	70-80N	80-90N	90-100N
MULTIPLIER	10	1.0	10	1.0	1.0	10	1.0	1.0	1.0	10
PFE	1.1	1.2	1.5	1.2	1.3	2.0	1.6	1.4	1.2	0
CUR. (AMPS)	6	5	6	6	5	6	6	6	5	
POINT No.										
SER. (n)	1	2	1	2	3	1	2	3	4	
H. F. MV	237	32.1	26.0	80.5	21.3	57.3	70.4	35.8	13.1	25.0
DRIFT	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.2	0.2	0.0
1.0 PFE $K_n/1000$	3.5	16.0	2.0	17.0	30.0	3.0	12.0	30.0	40.0	
0.3 PFE P_{CAL}										
0.1 PFE PFE_c										
3.0 MV $P/2\pi$	11.7	86.0	12.6	15.5	12.3	21.6	13.6	11.3	15.2	
DRIFT MCF	9.6	14.0	16.6	8.5	10.5	9.4	12.9	8.1	12.0	
S. P.	14.7		6.1			8.7				
NOISE										
POT. RES.			510 FNC			PVL PIR		LEO 67	6.46	150.8
CULT & CMTS			50.1 N			101.5 N				

I. P. RECEIVER NOTES, JOB No. 1092, AREA JOHNSON CAMP

LINE 2, HALF N, SR. 1, a = 1000', BEARING N 16° W

SENDER STA. 0 = ELECTRODE No. 4, DATE MAY 13, 76



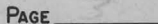
**HEINRICH
GEOEX**

[illegible]

I. P. RECEIVER NOTES, JOB No. 1092, AREA 2062300 LAMP

LINE 2, HALF 2, SP. 1, α = , BEARING N-16°W

SENDER STA. 0 = ELECTRODE No. 4, DATE MAY 13 1970



**HEINRICH
GEOEX**

[illegible]

I. P. RECEIVER NOTES, JOB No. 1092, AREA JOHNSON CAMP
 LINE 2, HALF N15, SP. 1, $\alpha =$ 1000', BEARING N16°W / S16°E
 SENDER STA. 0 = ELECTRODE No. 4, DATE MAY 13 1970



PAGE 4

HEINRICH'S
GEOEX

SEND	6-7	5-6	4-5	2-2	6	8P5	5-8	3-4	4-5	5-6	6-7
RECEIVE	70-80N			20-105	1018BS	10-205	20-305				
MULTIPLIER	0.1	0.1	0.1	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
PFE	4.0	3.1	3.3	1.2	1.4	1.5	.9	1.1	1.1	1.1	1.1
CUR. (AMPS)	4.5	6	6	0	6	6	6	6	6	6	4.5
POINT No.											
SER. (n)	8	51	6	0	1	2	1	2	3	4	1
H. F. MV	8.69	8.11	6.85	2.10	2.41	8.61	2.18	4.43	2.79	12.9	
DRIFT	0.2	-0.2	0.2	0.1	0.2	0.1	-0.2	0.0	-0.2	0.0	0.0
I.O PFE $K_n/1000$	60.0	105.0	16.8	3.0	2.0	12.0	3.0	12.0	35.0	60.0	
0.3 PFE P_{CAL}											
0.1 PFE PFE_c											16.6
3.0 MV $P/2\pi$	11.2	15.0	15.2	8.70	7.15	15.1	11.5	45.2	13.0	10.2	
DRIFT MCF	11.2	28.4	21.0	59.2	117.0	16.1	9.5	10.5	2.2		
S. P.	-2.8			4.5	57.2		-0.8				
Noise											
POT RES.				South			GRND SW. Fe. 10 20.1 N				
CULT & CMTS							OHW 150'				

SENDER STA. _____ = ELECTRODE No. _____, DATE _____

PAGE 5

HEINRICH
GEOEX

[illegible]

SENDER STA. _____ = ELECTRODE No. _____, DATE _____



PAGE

HEINRICH
GEOEX

[illegible]

I. P. RECEIVER NOTES, JOB No. 1091, AREA JOHNSON CAMP
 LINE 2, HALF N, SP. 1, $\alpha =$ 1000', BEARING N 16° W
 SENDER STA. 0N3 = ELECTRODE No. 4, DATE MAY 13, 1976



PAGE 1
 HEINRICH'S
 GEOEX

SEND	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	6-7
RECEIVE	0-10N	→	10-20N	→	→	20-30N	→	→	→	CAI
MULTIPLIER	10	1.0	10	1.0	1.0	10	1.0	1.0	1.0	10
PFE	1.1	1.2	1.5	1.2	1.3	2.6	1.6	1.4	1.8	0.0
CUR. (AMPS)	6	5	5	6	5	6	6	6	5	
POINT. No.										
SER. (n)	1	2	1	2	3	1	2	3	4	
H. F. MV	237	37.1	260	80.5	21.3	573	70.4	35.8	13.1	204
DRIFT	0.0	0.0	0.1	0.0	-0.1	0.0	0.0	-0.2	0.2	0.0
1.0 PFE $K_n/1000$	3.0	12.0	3.0	12.0	30.0	3.0	12.0	30.0	60.0	
0.3 PFE P_{CAL}										
0.1 PFE PFE_c										
3.0 MV $P/2\pi$	114	86.0	126	155	123	277	136	173	152	
DRIFT MCF	9.6	14.0	12.0	8.0	10.5	9.4	12.1	8.1	12.0	
S. P.	14.7		1.1			8.7				
NOISE										
POT RES.			6rd FNC			PVC PIPE		Leach Bedd - 100'E		
CULT & CMTS			500' NTH			100' STH				

HEINRICHSGEOEX

SEND	5-6	4-5	3-4	2-3	1-2	6-7	5-6	4-5	3-4	2-3
RECEIVE	30-49					40-59				
MULTIPLIER	10	10	1.0	1.0	1.0	10	1.0	1.0	1.0	1.0
PFE	1.8	3.0	2.0	1.8	1.9	1.9	1.3	1.0	2.5	1.6
CUR: (AMPS)	6	6	6	6	5	1.1	0.9	0.7	0.2	0.2
POINT No.						4.5	6	6	6	6
SER. (n)	1	2	3	4	5	1	2	3	4	5
H. F. Mv	414	146	44.4	30.7	12.6	146	71.2	38.2	16.1	12.9
DRIFT	0.1	1.6	0.4	0.3	-0.6	0.2	8.2	0.4	-0.2	0.6
I.O PFE $K_n/1000$	3.0	12.0	30.0	60.0	105	3.0	12.0	30.0	60.0	105
0.3 PFE P_{CAL}										
0.1 PFE PFE_c										
3.0 MV $P/2\pi$	200	282	214	297	256	204	138	184	155	218
DRIFT MCF	9.0	11.0	9.3	6.1	7.4	7.0	9.4	13.5	5.1	7.3
S. P.	21.0		13.7			4.0				
NOISE										
POT RES.	GRND FNC 50' NTH / PWR PINT-TANKS 200' W									
CULT & CMTS	PVE PVE CURVE 200' FROM 20-30W									

I. P. RECEIVER NOTES, JOB No. 1092, AREA Johnson Camp

LINE 2, HALF N, SP. 1, $\alpha =$ _____, BEARING N-16° W

SENDER STA. 0 = ELECTRODE NO. 4, DATE MAY 13-1976

[illegible]

I. P. RECEIVER NOTES, JOB No. 1092, AREA JOHNSON CAMPLINE 2, HALF N/S, SR. 1, $\alpha =$ 1000', BEARING N 16° W / S 16° ESENDER STA. 0 = ELECTRODE No. 4, DATE MAY 13 1976PAGE 4HEINRICHS
GEOEX

SEND	6-7	5-6	4-5	5-6	4-5	5-6	3-4	4-5	5-6	6-7
RECEIVE	70-80N			10-10S	10-20S		20-30S			
MULTIPLIER	0.1	0.1	0.1	10.	10.	1.0	10	1.0	1.0	1.0
PFE	4.0	36.1	3.3	1.2	1.4	1.5	.9	1.1	1.1	1.7
CUR. (AMPS)	4.5	6	6	6	6	6	6	6	6	4.5
POINT No.										
SER. (n)	4	5	6	1	1	2	1	2	3	4
H. F. Mv	8.69	8.17	5.85	2.90	2.41	81.1	218	49.3	27.9	12.9
DRIFT	0.2	-0.2	0.2	0.1	0.2	0.1	-0.2	0.0	-0.2	0.0
I.O PFE $K_n/1000$	60.0	105	168	3.0	2.0	12.0	3.0	12.0	30.0	60.0
0.3 PFE P_{CAL}										
0.1 PFE PFE_C										
3.0 MV $P/2\pi$	112	138	158	130	116	157	105	95.3	135	166
DRIFT MCF	36.0	224	21.0	9.2	12.0	10.0	9.5	10.5	8.2	10.2
S. P.	-2.2			4.5	57.2		-0.8			
NOISE										
POT RES.				SOUTH			GRND 5W. Fence 200' N			
CULT & CMTS							OHW 150' S			

SENDER STA. _____ = ELECTRODE No. _____, DATE _____



PAGE 2

HEINRICHSGEOEX

[illegible]

I. P. SENDER NOTES

JOB No. 1092 AREA Johnson Camp
 LINE 2, HALF N, SP. 1, DATE MAY 13, 1976
MAY 14

PAGE 1HEINRICH'S
GEOEX

SEND	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	6-7
RECEIVE	0-10N	→	10-20N	→	→	20-30N	→	→	→	CAL
RANGE	20x300	20x250	20x300	20x300	20x250	20x300	20x300	20x300	20x250	10x200
VOLTAGE	430	450	420	430	450	400	420	430	450	320
CURRENT	6	5	6	6	5	6	6	6	5	2
SEND	5-6	4-5	3-4	2-3	1-2	6-7	5-6	4-5	3-4	2-3
RECEIVE	30-40N	→	→	→	→	40-50N	→	→	→	→
RANGE	20x300	20x300	20x300	20x300	20x250	10x450	20x300	20x300	20x300	20x300
VOLTAGE	420	400	420	430	450	700	420	400	410	420
CURRENT	6	6	6	6	5	4.5	6	6	6	6

FREQUENCIES 1.0 - 0.1 (*)

SENDER No. <u>26721 S</u>	POWER UNIT ID
OPERATOR <u>LANG</u>	<u>ONAN</u>
RECEIVER No.	HOURS RUN
OPERATOR <u>RR</u>	

COMMENTS: * Note - 40-50N use of 1.0 - 0.1 AND 3.0 - 0.3 ON Frequency

I. P. SENDER NOTES

JOB No. 1092 AREA JOHNSON CAMP
 LINE 2, HALF N, SP. 1, DATE MAY 14 76



PAGE 2
 HEINRICH'S
 GEOEX

SEND	1-2	6-7	5-6	4-5	3-4	2-3	6-7	5-6	4-5	3-4
RECEIVE	→	50-60N	→	→	→	→	60-70N	→	→	→
RANGE	20X250	10X450	20X300	20X300	20X300	20X300	10X450	20X350	20X300	20X300
VOLTAGE	450	700	420	400	420	420	700	480	400	410
CURRENT	5	4.5	6	6	6	6	4.5	7.5	6	6
SEND	6-7	5-6	4-5							
RECEIVE	70-80N	→	→							
RANGE	10X450	20X300	20X300							
VOLTAGE	700	420	400							
CURRENT	4.5	6	6							

FREQUENCIES 1.0 - 0.1

COMMENTS: * Note 7I instead of 6I

SENDER No. <u>21721 S</u>	POWER UNIT ID
OPERATOR <u>LANG</u>	<u>ONAN</u>
RECEIVER No.	HOURS RUN
OPERATOR <u>BOB R.</u>	

I. R. SENDER NOTES

 JOB No. 1092 AREA JOHNSON CAMP
 LINE 2, HALF S, SP. 1, DATE May 14, 76
PAGE 3HEINRICHS
GEOEX

SEND	5-6	4-5	5-6	3-4	4-5	5-6	6-7	2-3	3-4	1-2
RECEIVE	0-10S	10-20S	→	20-30S	→	→	→	30-40S	→	CAL
RANGE	20X300	20X300	20X300	20X300	20X300	20X300	10X450	20X300	20X300	10X200
VOLTAGE	410	400	410	400	390	410	680	410	400	220
CURRENT	6	6	6	6	6	6	4.5	6	6	2
SEND	4-5	5-6	6-7	1-2	2-3	3-4	4-5	5-6	6-7	1-2
RECEIVE	→	→	→	40-50S	→	→	→	→	→	50-60S
RANGE	20X300	20X300	10X450	20X250	20X300	20X300	20X300	20X300	10X450	
VOLTAGE	390	410	680	430	410	400	390	410	670	
CURRENT	6	6	4.5	5	6	6	6	6	4.5	

FREQUENCIES 1.0 - 0.1

COMMENTS:

SENDER No. <u>26721 S</u>	POWER UNIT ID
OPERATOR <u>LANG</u>	
RECEIVER No.	HOURS RUN
OPERATOR	

LINES 1 & 2

I. P. SENDER NOTES

JOB No. 1092 AREA Johnson Camp
 LINE 2, HALF N, SP. 1, DATE MAY 13, 1976



PAGE 1

HEINRICH'S
GEOEX

SEND	2-3	1-2	3-4	2-3	1-2	4-5	3-4	2-3	1-2	6-7
RECEIVE	10-10W	10-20W	10-20W	10-20W	10-20W	10-20W	10-20W	10-20W	10-20W	10-20W
RANGE	10X300	20X350	20X300	20X300	20X300	20X300	20X300	20X300	20X300	20X300
VOLTAGE	450	450	450	450	450	450	450	450	450	450
CURRENT										
SEND	5-6	4-5	3-4	2-3	1-2	6-7	5-6	4-5	3-4	2-3
RECEIVE	10-40W	10-40W	10-40W	10-40W	10-40W	10-40W	10-40W	10-40W	10-40W	10-40W
RANGE										
VOLTAGE										
CURRENT										

FREQUENCIES

SENDER No.	POWER UNIT ID
OPERATOR	
RECEIVER No.	HOURS RUN
OPERATOR	

COMMENTS:

I. P. SENDER NOTES

JOB No. 1097 AREA JOHNSON CAMPLINE 2, HALF N, SP. 1, DATE MAY 18 76PAGE 2HEINRICHS
GEOEX

SEND	1-2	6-7	5-6	4-5	3-4	2-3	6-7	5-6	4-5	3-4
RECEIVE	→ 50-60N						60-70N			→
RANGE	20X25	11X450	11X4	10X50	20X300	20X300	10X50	20X50	20X50	10X50
VOLTAGE	450	700	420	400	420	450	700	450	450	450
CURRENT										
SEND	6-7	5-6	4-5							
RECEIVE	70-80N	→								
RANGE	EX 150	20X500	20X500							
VOLTAGE	700	420	450							
CURRENT										

FREQUENCIES

SENDER No.

POWER UNIT ID

OPERATOR

RECEIVER No.

HOURS RUN

OPERATOR

COMMENTS:

I. P. SENDER NOTES

JOB No. 1092 AREA Johnson Camp
 LINE 2, HALF S, SP. 1, DATE May 14, 76

Page 3HEINRICHS
GEOEX

SEND	5-6	4-5	5-6	3-4	4-5	5-6	6-7	2-3	3-4	6-7
RECEIVE	0-10S	10-20S	→	20-30S	→	→	→	30-40S	→	CHL
RANGE	20X300	20X300	20X300	20X300	20X300	20X300	20X450	20X300	20X300	20X300
VOLTAGE	410	420	410	410	370	410	410	410	410	410
CURRENT										
SEND	4-5	5-6	6-7	1-2	2-3	3-4	4-5	5-6	6-7	1-2
RECEIVE	→	→	→	40-50S	→	→	→	→	→	50-60S
RANGE	20X300	20X300	20X300	20X300	20X300	20X300	20X300	20X300	20X300	20X300
VOLTAGE	410	410	410	410	410	410	370	410	410	410
CURRENT										

FREQUENCIES

SENDER No.	POWER UNIT ID
OPERATOR	
RECEIVER No.	HOURS RUN
OPERATOR	

COMMENTS:

Induced Polarization, Resistivity and
Self Potential Survey, and Associated
Geologic and Magnetic Data Interpretation

Section 35 T.15S., R.22E.
and Vicinity
Johnson Area, Cochise County, Arizona

for
Cyprus Mines Corporation
Tucson, Arizona

May 1976

by
Heinrichs GEOEXploration Company
P.O. Box 5964, Tucson, AZ 85703
Telephone 1-(602)-623-0578

GEOEX Job #1092

CONTENTS

Index Map-----Frontispiece

Introduction-----Page 1

Conclusions-----Page 1

Recommendations-----Page 3

Procedures-----Page 3

Comments on Drilling I.P. Targets-----Appended

Illustrations: 3 Copies each delivered to Mr. Clayton
personally 6/1/76

Sectional Data Sheet Line 1

Sectional Data Sheet Line 2

Sectional Data Sheet Line 3

Plan Map

Showing relative position and location of lines
(Line 3-1500 feet westerly of Line 1 and line 2-
950 feet easterly of Line 1) - all parallel.

INTRODUCTION

During the two week period ending 22 May 1976, at the request of Mr. Robert Clayton, Geologist for Cyprus Mines Corporation, a three line I.P. survey was run, centered on the northern half of Section 35, T15S., R.22E., immediately southwest of the present Johnson operations in Cochise County, Arizona. The lines were oriented N16°W and were designed to explore into or hopefully beneath the exposed Tertiary (?) Texas Canyon stock which is mapped as covering most of the area lying south and west of the Precambrian and younger aged sediments lying to the north and east of the area. Possibilities that the stock might overlie and conceal a mineralized section of sediments was considered worth some preliminary I.P. geophysical testing.

CONCLUSIONS

Results were marginal in that the data are somewhat complex and difficult to interpret categorically, but the possibility of at least technical sulfide mineralization at depth is indicated.

PFE effects were encountered from at or near surface to depth, almost continuously along lines 1 and 2, with the strongest effects at or near known surface sulfides on the north portions of both lines. Possible PFE effects on line 3 were considerably less extensive, quite deep and very weak. If valid and really sulfide caused, the very weak line 3 effects seem to correlate with a resistivity high of roughly 500 ohm feet/2pi magnitude, centered beneath the center of the line at an absolute but not calculated maximum crude depth estimate of 750 feet minus 250 feet plus 500 feet. Similar magnitude or greater resistivity material was encountered at or near surface on the southern portion of the line beginning at station 30S or electrode 1 position. This latter material may correlate with the possible Pinal schist interpreted here from the prior ground magnetic data, or perhaps other unknown material in contact with Pinal on the south. One speculation is that lines 1 and 2, barred from extending coverage farther south by Interstate 10, may have been by-passed undetectably farther to the south by this same interface or contact (?) feature, or whatever caused the abrupt increase in resistivity on the southernmost string of data on this line.

Self potential effects on all three lines are very broad and somewhat inconsistent which is not unusual for this type of data in this type of survey. However, they do indicate a definite broad low on lines 1 and 2. This low seems to center approximately at the magnetically interpreted Precambrian suboutcrop contact (?) on the south. From the low center the relative effects gradually rise going north and more abruptly rise going south. If real and repeatable, the low could be indicative of a broad oxidizing sulfide zone centering beneath the low. Line 3 results show only very weak localized lows at stations 10N and 50N.

The 1973 ground magnetic and 1963 U.S.G.S. aerial magnetic coverage was reviewed to add subsurface interpretation correlation with the new I.P. data. Overlying the 1973 ground magnetic contour results on to U.S.G.S. PP#416, plate 6 geologic map of the area by Cooper et al, several rather prominent but prior unmapped probably subsurface linear features are evidenced in the survey area. Also, there are several obvious direct correlations between the mapped surface geology and the magnetics and some possible indirect ties to the I.P. results. Linear features such as the diabase outcrop and the Keystone fault are obvious geomagnetic ties, but some areal effects are also noted. Most important for purposes of this report, there are suggestions that the Tertiary (?) stock exposures may relatively thinly overlie pre mineral rocks. For example, there are three zones of 400 to 500 gamma magnetic contour closures in the immediate area. One is in the Donna Anna vicinity, one west and south of the gravel pit near the east quarter corner of Section 35, and one just north of Adams Ranch and Russellville. Based on the apparent thick Precambrian exposures in the Donna Anna area, similar rocks could be underlying the other two areas at relatively shallow depths. Similarly, the zone of lower magnitude magnetic relief around the center of Section 35 seems to most nearly correlate with other areas of younger known pre mineral sediments such as encountered in up the Section drill results immediately east and north of "The Thing" in the southeast part of Section 36. The magnetic character of the maximum magnetic highs and lows does not seem quite right for massive contact type magnetite such as encountered in that same area in Section 6 mainly, but that cannot be ruled out either, because the situation could be simply much more complex or less integrated in Section 35. The apparent characteristic magnetic magnitude of the Tertiary (?) stock material based on the U.S.G.S. aerial magnetics and the ground magnetics, suggests a possible characteristic magnetic level intermediate between the younger sediments and the Precambrian. Of course, any of this could be coincident to other unknown and/or unstudied factors as well, but the speculation now may be ultimately constructive to the overall Johnson program.

The general electrical geophysical sulfide response over lines 1 and 2 is basically similar, but there is at least an apparent technical reduction in this response over line 3. A definite geological reason for this is not apparent. Assuming that artificially introduced coupling effects, which commonly show a natural increase with the deeper related data, are not a paramount factor, the structure, rock type, alteration effects, or some combination of these, appears somewhat different under line 3. Perhaps everything is just deeper under line 3 is another possibility.

Nothing can be interpreted from the data which totally rules out simple differential effects all within a relatively thick section of Tertiary (?) stock material. But, even if this is the case, a test of the sulfide indications would still be ideally desirable.

RECOMMENDATIONS

Without benefit of a detailed field-onsite study (as to topographic accessibility and known local geological fine points), the best possible sulfide indications of greatest current interest from or near the southern part of lines 1 and 2, are interpreted to lie beneath a surface parallelogram roughly defined by stations 5S and 20S on line 1 and stations 10N and 5S on line 2. Depending on the results as they were actually achieved, one to three vertical holes drilled in this area, with an initial programmed depth of 1000 feet, plus 500 feet and minus 250 feet, are recommended. This is considered as a minimum required to definitely test the indicated anomaly cause especially if results of an initial test hole were at all encouraging.

One other zone is mentioned for the record. This is the weak PFE anomaly that perhaps represents something of interest underlying the Pioneer shale and/or Pinal schist at or relatively near surface, i.e., approximately 300 feet deep or less to the top of the cause, centering between stations 10N and 25N on Line 2. This zone appears to be limited in depth especially if it represents only disseminated sulfide effects. However, such effects could also be caused by two dimensional pods, lenses, or veins of more massive type sulfides, from which effects that diminished with depth would not be unusual (as the greater volume of lower PFE background material with depth was integrated into the results). Based solely on the observed I.P. results, and in the absence of any negative known geologic or field criterion to the contrary, the pros and cons of test drilling of this zone should at least be considered. In this particular instance dip cannot be predicated from the geophysics and in lieu of any other specific information in this regard, a vertical hole at about Station 17.5N is proposed. Or, depending on known dip factors, any sites offset from Station 17.5N in order to take advantage of dip and avoid the possibility of missing the causative zone by drilling only into its foot wall, would also be satisfactory. Since the target or targets here could be very small, at least in one dimension, careful and constant geologic and geophysical logging of drill results would be necessary until the anomaly cause was positively identified. (See also "Comments on Drilling I.P. Targets") appended.

Anomalous PFE effects of shallow depth and moderate strength on or near the ends of lines 1 and 2 were not studied because they correlate with sulfide occurrences already known by Cyprus and not of presently assigned interest.

PROCEDURES

The multiple frequency I.P. technique, with primary frequencies of 1.0 Hz and 0.1 Hz and 1000 foot length and spaced collinear dipole-dipole electrode

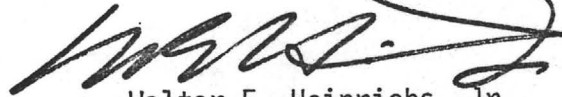
arrays were employed. Each line consisted of one seven sending electrode spread. GEOEX Mark 4 Series senders and receivers were used with GEOEX semi-portable 6KVA power units. Electrode current varied from three amperes to seven amperes utilizing a minimum of four to five electrolyte solution saturated, aluminum foil electrode pits, per electrode station.

Natural and artificial noise, mainly from Johnson operations, slowed production somewhat, but general quality of the signal and data was good.

Personnel involved were Bob Rollins, crew chief, assisted by Vic Sargeant and Dan Lang, and supervised by Walter E. Heinrichs, Jr.

Respectfully submitted,

Heinrichs GEOEXploration Co.(Inc.)



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3 June 1976
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