CONTACT INFORMATION
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Arizona Geological Survey
3550 N. Central Ave, 2nd floor
Phoenix, AZ, 85012
602-771-1601
http://www.azgs.az.gov
inquiries@azgs.az.gov

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JAMES P. BOYLE
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B. G. THOMPSON
T. K. SHOENHAIR
HAROLD C. WARNOCK
WILLIAM A. SCANLAND
WILBERT E. DOLPH, JR.
DAVID W. RICHTER
B. G. THOMPSON, JR.
RICHARD M. BILBY
MICHAEL A. LACAGNINA
WILLIAM C. IRVINE
MARVIN S. COHEN
CHARLES F. STOUT

LAW OFFICES
BOYLE, BILBY, THOMPSON & SHOENHAIR
NINTH FLOOR VALLEY NATIONAL BUILDING
TUCSON, ARIZONA 85701
TELEPHONE 623-8661

KNAPP, BOYLE, BILBY & THOMPSON
1946-1954

July 28, 1966

OUR FILE NO. 5111.3

JUL 1966
GEOEX

Mr. Paul Kayser
1006 Main Street
Houston, Texas

Dear Mr. Kayser:

We have filed as of this date applications for prospecting permits covering the following lands:

T20S R25E

Sec. 3 North half of Section 3, except the East half of the NE¼ of said Sec. 3.

T19S R25E

Sec. 34 S½ of the SE¼ of Sec. 34.
Sec. 35 SW¼ of the SW¼ of Sec. 35.

These applications will be effective for 15 days following the expiration of the pending applications covering the larger area.

Very truly yours,

BOYLE, BILBY, THOMPSON & SHOENHAIR

By H. C. Warnock

HCW:bac

cc: Mr. John Langs

These applications will be effective 12 August 1966, at which time Thomson will apply for the Permit and bill Mr. Kayser. - All the inclosed applications will be dropped. Mr. Kayser does not have to do anything till after he is Billed by Thompson.

HAROLD C. WARNOCK

OF THE FIRM
BOYLE, BILBY, THOMPSON & SHOENHAIR
ATTORNEYS AT LAW

NINTH FLOOR
VALLEY NATIONAL BUILDING
TUCSON, ARIZONA

July 20, 1966

Boyle, Bilby, Thompson & Shoenhair
9th Floor, Valley National Building
Tucson, Arizona

Re: Paul Kayser
Courtland Area Claims

Gentlemen:

In accordance with Mr. Kayser's request, I hereby authorize you to proceed in the following manner in connection with the above captioned area presently top-filed by B. G. Thompson, Jr.

1. When notification is received from the State Land Department that the 17 Prospecting Permits are available to us, you are authorized to proceed to obtain Prospecting Permits on the following described portions of land:

T20S R25E

Sec. 3 - North half of Section 3, except the E½ of the NE¼ of said Sec. 3. 240 acres

T19S R25E

Sec. 34 - S½ of the SE¼ of Sec. 34. 80

Sec. 35 - SW¼ of the SW¼ of Sec. 35 40

2. All of the other applications for Prospecting Permits in the above captioned area are to be dropped and no further work is to be done by you on them. 360 acres

I would appreciate your calling me at 623-0578 when notification has been received from the State Land Department that the permits are available.

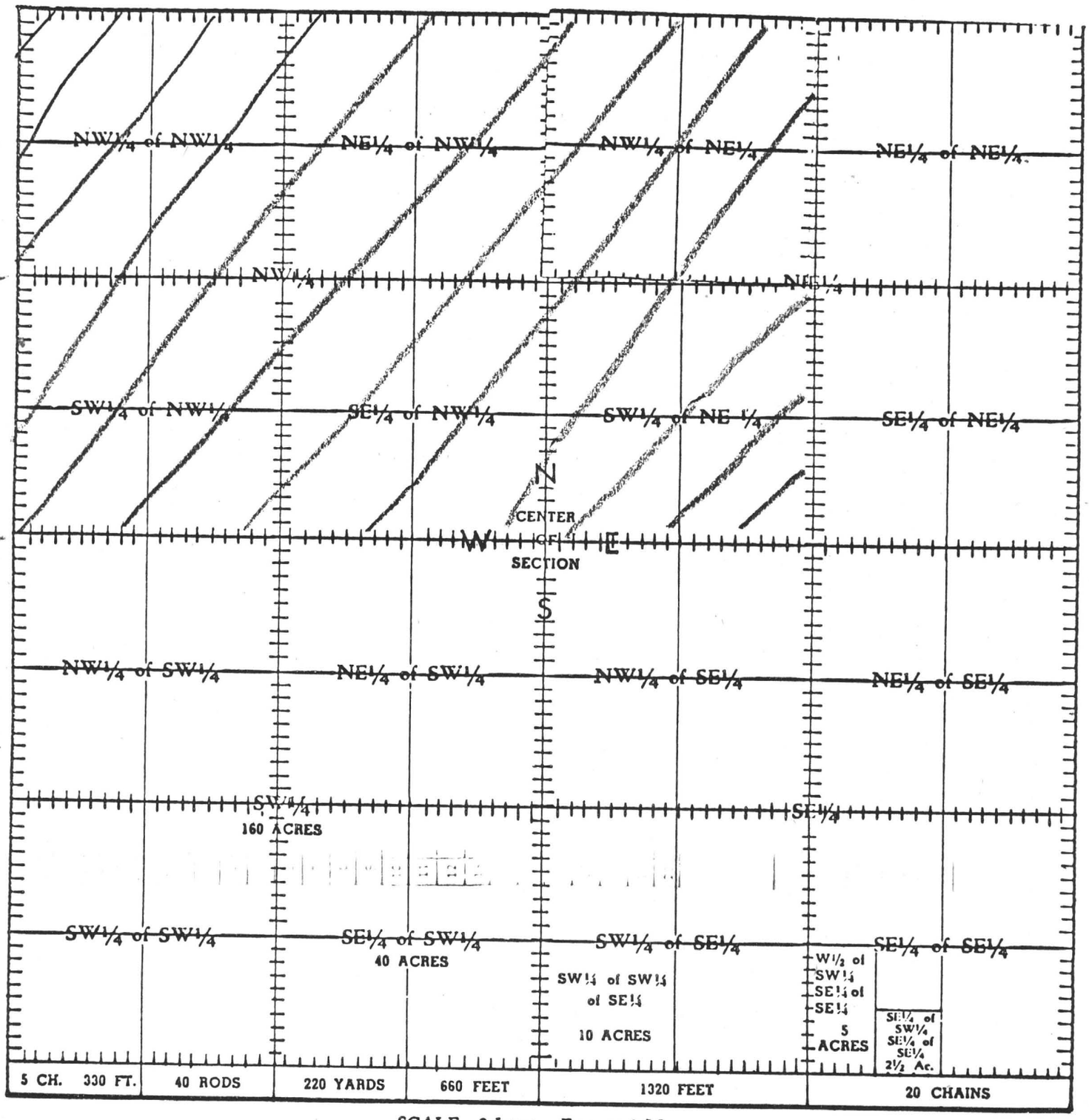
Very truly yours,

John W Lang

cc: Mr. Paul Kayser

Sec 3 T20S R25E

ground needed



SCALE—8 INCHES EQUALS 1 MILE

1 INCH EQUALS 10 CHAINS, 660 FEET, 40 RODS OR 220 YARDS.

One Link = 7.92 Inches.
One Rod = 16½ Feet, ¼ Chain or 25 Links.

One Chain = 66 Feet, 4 Rods or 100 Links.
One Mile = 5,280 Feet, 320 Rods or 80 Chains.

All Measurements in Government Surveys are Indicated by Links and Chains.

One Square Rod Contains 272¼ Square Feet.
One Acre is about 208¾ Feet Square.
One Acre Contains 43,560 Square Feet or 160 Square Rods.
½ Acre (Homestead within City Limits) Contains 21,780 Square Feet.
Ten Square Chains = One Acre.

A Section of Land is One Square Mile and Contains 640 Acres.
¼ Section Contains 160 Acres.
A Township Area is 36 Square Miles and Contains 23,040 Acres.

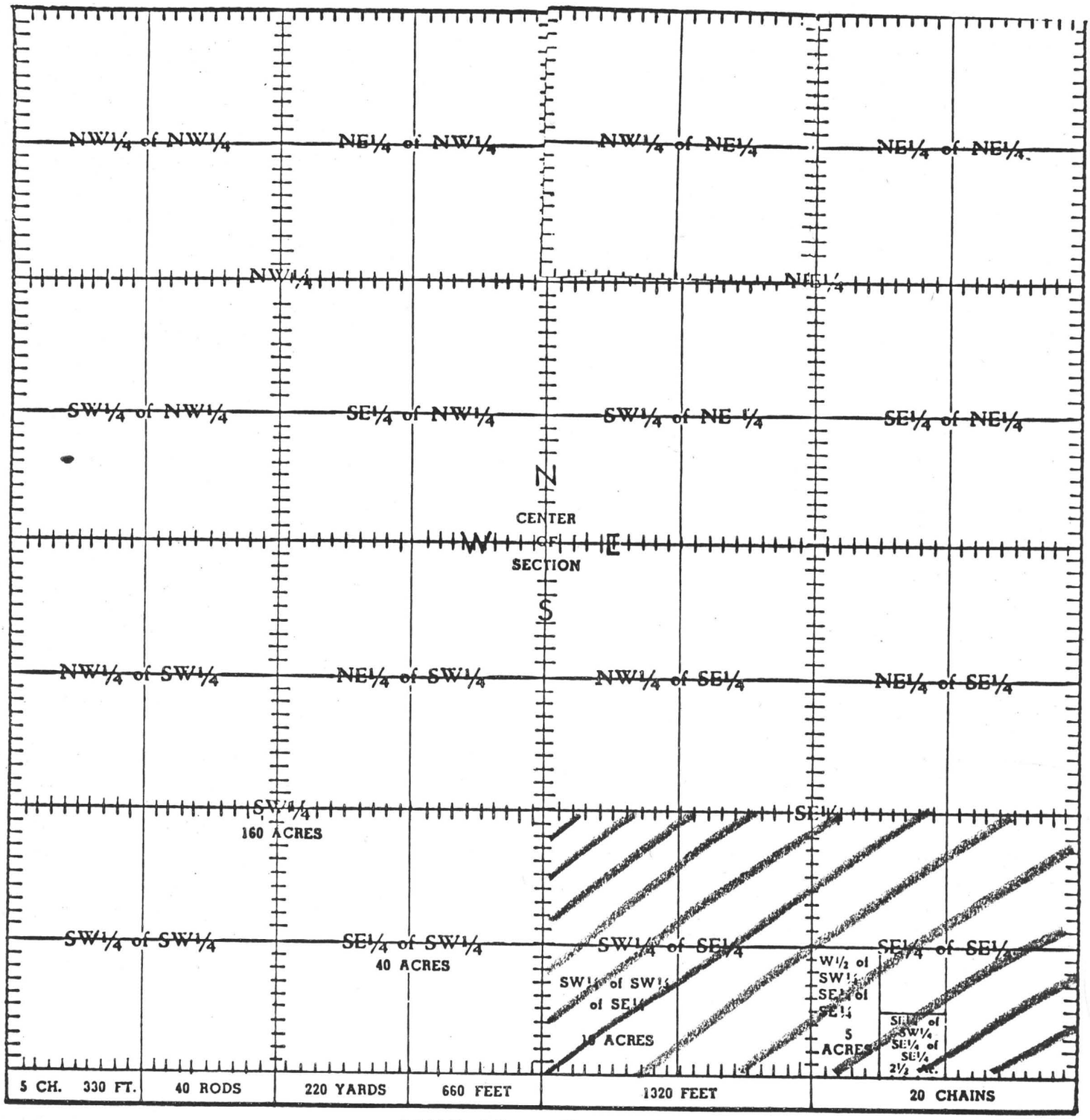
SECTIONAL MAP OF A TOWNSHIP WITH ADJOINING SECTIONS

36	31	32	33	34	35	36	31
1	6	5	4	3	2	1	6
12	7	8	9	10	11	12	7
13	18	17	16	15	14	13	18
24	19	20	21	22	23	24	19
25	30	29	28	27	26	25	30
36	31	32	33	34	35	36	31

EQUIVALENTS																					
FEET	66	132	198	264	330	396	462	528	594	660	726	792	858	924	990	1056	1122	1188	1254	1320
YARDS	22	44	66	88	110	132	154	176	198	220	242	264	286	308	330	352	374	396	418	440
RODS	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80

Sec 34 T 19 S R 25 E

ground needed



SCALE—8 Inches Equals 1 Mile

1 Inch Equals 10 Chains, 660 Feet, 40 Rods or 220 Yards.

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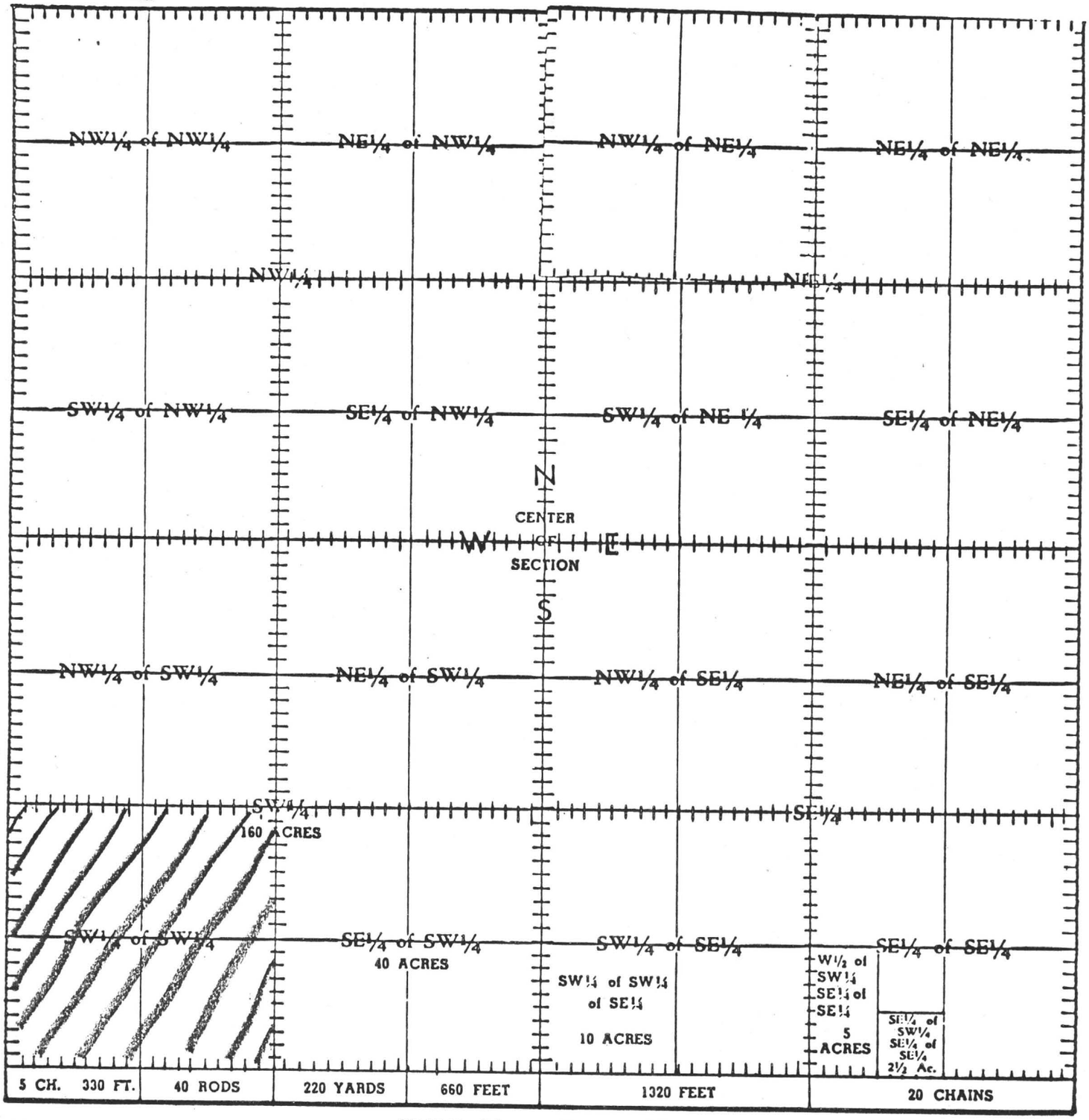
YARDS	22	44	66	88	110	132	154	176	198	220	242	264	286	308	330	352	374	396	418	440
RODS	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80

Sectional Map of a Township With Adjoining Sections

36	31	32	33	34	35	36	31
1	6	5	4	3	2	1	6
12	7	8	9	10	11	12	7
13	18	17	16	15	14	13	18
24	19	20	21	22	23	24	19
25	30	29	28	27	26	25	30
36	31	32	33	34	35	36	31

Sec 35 T 19S, R 25E

ground needed



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YARDS	22	44	66	88	110	132	154	176	198	220	242	264	286	308	330	352	374	396	418	440
RODS	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	68	72	76	80

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36	31	32	33	34	35	36	31
1	6	5	4	3	2	1	6
12	7	8	9	10	11	12	7
13	18	17	16	15	14	13	18
24	19	20	21	22	23	24	19
25	30	29	28	27	26	25	30
36	31	32	33	34	35	36	31

Kayser - (Courtland P.)

LAW OFFICES
BOYLE, BILBY, THOMPSON & SHOENHAIR
NINTH FLOOR VALLEY NATIONAL BUILDING
TUCSON, ARIZONA 85701
TELEPHONE 623-8661

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WILLIAM C. IRVINE
CHARLES F. STOUT
THOMAS E. WILSON

KNAPP, BOYLE, BILBY & THOMPSON
1946-1954

July 19, 1967

OUR FILE NO.

JUL 1967
GEOEX

Tucson Realty and Trust Co.
P. O. Box 990
Tucson, Arizona

Attention: Mrs. Sue Graham - Bonding Department

Gentlemen:

Continuation Certificates respecting Prospecting Bonds numbered 9692, 9693 and 9694 are returned herewith, as our client does not wish to renew these permits.

This is your authority to cancel the above described bonds as of their expiration date, to-wit: August 16, 1967.

Very truly yours,

BOYLE, BILBY, THOMPSON & SHOENHAIR

By

BGTjr:ep
Enclosure

Peggy
Check Kayser file re: Courtland Project to confirm where to file

INDUCED POLARIZATION SENDER NOTES

Project: Kayer 4/6 Line: 1 Sp 3 Date: Wed. June

Send	1/2	2/3	1/2	2/3	1/2	2/3	1/2		Cal			
Receive	→	←	→	←	→	←	→		2/3			
Time	AC-DC	AC	AC	DC	AC							
Range												
Current	6 amps	6	6	6	6	6	6		3			
Send												
Receive												
Time												
Range												
Current												

(1) COURT HAND

6/29/66

TR. MK. REG. U.S. PAT. OFF.

ORIGINAL COPR. 1910 BY A. C. PARKER

STA	TIME	READ
BM 1000	11:10	517.5
"	11:15	518.7
"	11:20	518.7
"	11:25	518.7
1	11:30	524.5
2	11:40	552.3
3	11:45	562.3
4	11:50	574.0
5	12:00	556.7
BM	2:45	521.3
6	3:00	536.4
7	3:05	532.3
8	3:12	536.2
9	3:20	548.2
10	3:30	572.7
11	3:38	571.8
12	3:45	594.1
13	3:50	597.5
BM	4:10	522.0
14	4:30	591.2
15	4:37	594.0
16	4:46	604.7

LEFAX, PHILA., PHIA 7, PA., MADE IN U.S.A.

ORIGINAL COPR. 1910 BY A. C. PARKER

(2) CORTLAND
6/29/66
TR. MK. REG. U.S. PAT. OFF.

STA	TIME	READ
17	4:54	612.6
18	5:00	621.7
19	5:06	627.7
20	5:12	634.5
21	5:20	641.0
22	5:30	647.1
23	5:35	654.2
24	5:45	659.6
25	5:50	663.2
14	6:10	590.7
BM	6:25	522.0
6/30/66		
BM	7:45	519.8
26	8:15	664.1
27	8:20	666.6
28	8:27	665.8
29	8:35	672.0
30	8:45	671.5
31	9:30	671.4
32	9:35	668.0
33	9:45	660.5
34	9:50	655.2
26	10:00	664.4
BM	12:00	519.2

FIRST PAGE

LEFAX, PHILADELPHIA 7, PA., MADE IN U.S.A.

(3) Courtland
7/1/66

TR. MK. REG. U.S. PAT. OFF.

ORIGINAL COPR. 1910 BY A. C. PARKER

Sta	Time	Read
BM	8:10	523.5
34	8:35	660.3
35	8:45	658.4
36	8:50	657.1
37	9:00	658.1
38	9:10	656.0
39	9:15	653.3
40	9:22	649.7
41	9:30	645.5
42	9:37	644.7
43	9:43	646.8
44	9:47	648.6
45	9:55	650.5
46	10:00	652.6
47	10:06	652.2
48	10:12	652.2
49	10:16	651.4
BM	10:35	523.5
7/6/66		
BM	2:40	533.0
49	3:07	662.3
50	3:14	669.7
51	3:17	675.0

LEFAX, PHILADELPHIA 7, PA., MADE IN U.S.A.

④ KAYCEE COURTLAND

7/6/66

TRADE MARK REG. U.S. PAT. OFF.

ORIGINAL COPR. 1910 BY A. C. PARKER

STA	TIME	READ
52	3:22	681.5
53	3:26	689.2
54	3:33	695.8
55	3:36	702.0
56	3:44	706.5
57	3:50	705.9
58	3:53	700.0
59	4:00	692.5
60	4:05	685.4
61	4:10	680.5
62	4:20	673.7
63	4:25	665.4
64	4:32	657.6
65	4:36	651.1
66	4:41	647.9
67	4:46	641.4
68	4:53	630.9
69	4:57	616.4
70	5:03	598.5
71	5:07	588.4
72	5:13	595.5
73	5:19	601.8
74	5:28	591.9
75	5:35	579.0
76	5:40	552.9
BM	5:47	536.9

LEFAX, PHILADELPHIA 7, PA., MADE IN U.S.A.

(5)

KAYSER
COURTLAND
7/7/66

TR. MK. REG. U.S. PAT. OFF.

ORIGINAL COPR. 1910 BY A. C. PARKER

STA	TIME	READ
BM	8:10	538.5
42	8:40	660.6
77	8:45	664.8
78	8:50	673.2
79	8:57	682.9
80	9:03	697.7
81	9:11	704.6
82	9:15	710.2
83	9:25	711.7
84	9:35	708.7
85	9:42	704.6
86	9:47	698.4
87	9:55	687.7
88	10:03	678.2
89	10:12	667.4
90	10:20	657.0
91	10:30	648.2
92	10:40	643.3
93	10:50	639.7
94	11:00	631.5
95	11:05	624.2
96	11:15	615.5
97	11:20	609.6
98	11:40	598.3
99	11:45	596.2
A	12:15	534.2
2	12:25	574.9

LEFAX, PHILADELPHIA 7, PA., MADE IN U.S.A.

(6)

KAYSER
Cogeyland
7/7/61

TR. MK. REG. U.S. PAT. OFF.

ORIGINAL COPR. 1910 BY J. C. PARKER

STA	TIME	READ
BM	12:35	541.5
100	2:00	608.0
101	2:15	611.1
102	2:26	628.6
103	2:40	644.9
104	2:50	649.5
105	3:07	653.2
106	3:16	652.6
107	3:30	656.3
108	3:39	665.6
109	3:46	675.1
110	3:55	684.9
111	4:30	696.2
112	4:35	708.7
113	4:45	716.6
BM	5:30	549.4

LEFAX, PHILADELPHIA 7, PA., MADE IN U.S.A.

INDUCED POLARIZATION SENDER NOTES

Project: Kayer C/G Line: 1 Sp 4 Date: 6-2-66

Send	1/2	2/3	1/2	2/3	1/2	2/3	1/2		Cal			
Receive	→	→	→	→	→	→	→		2/3			
Time												
Range												
Current	6	6	6	6	6	6	6		3A			
Send												
Receive												
Time												
Range												
Current												

INDUCED POLARIZATION SENDER NOTES

Project: Kayer Arizona Line: 1 Sp. 1 → N30°W Date: 5-27-66

Send	1/2	2/3	1/2	2/3	1/2	2/3	1/2		cal			
Receive	0-15	15 — 30		30 — 45		45 — 60			2/3			
Time	1 →	2 →		3 →		4 →						
Range												
Current	6	6	6	6	6	6	6		3			
Send		LINE 1		Starting		from		SE	Cor	Sec 3		
Receive		heading		N 30° W								
Time												
Range	AC	DC	AC/AC		DC	AC						
Current												

INDUCED POLARIZATION SENDER NOTES

Project: Kayer C/G Line: 1 - Sp. 2 Date: 5-31-66

Send	1/2	2/3	1/2	2/3	1/2	2/3	1/2		cal.			
Receive	→	→	→	→	→	→			2/3			
Time												
Range												
Current	5 AMP	5	5	5	5	5	5		3 A			
Send												
Receive												
Time												
Range												
Current												

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: _____ Line: _____ Int.Cal _____ Date: _____

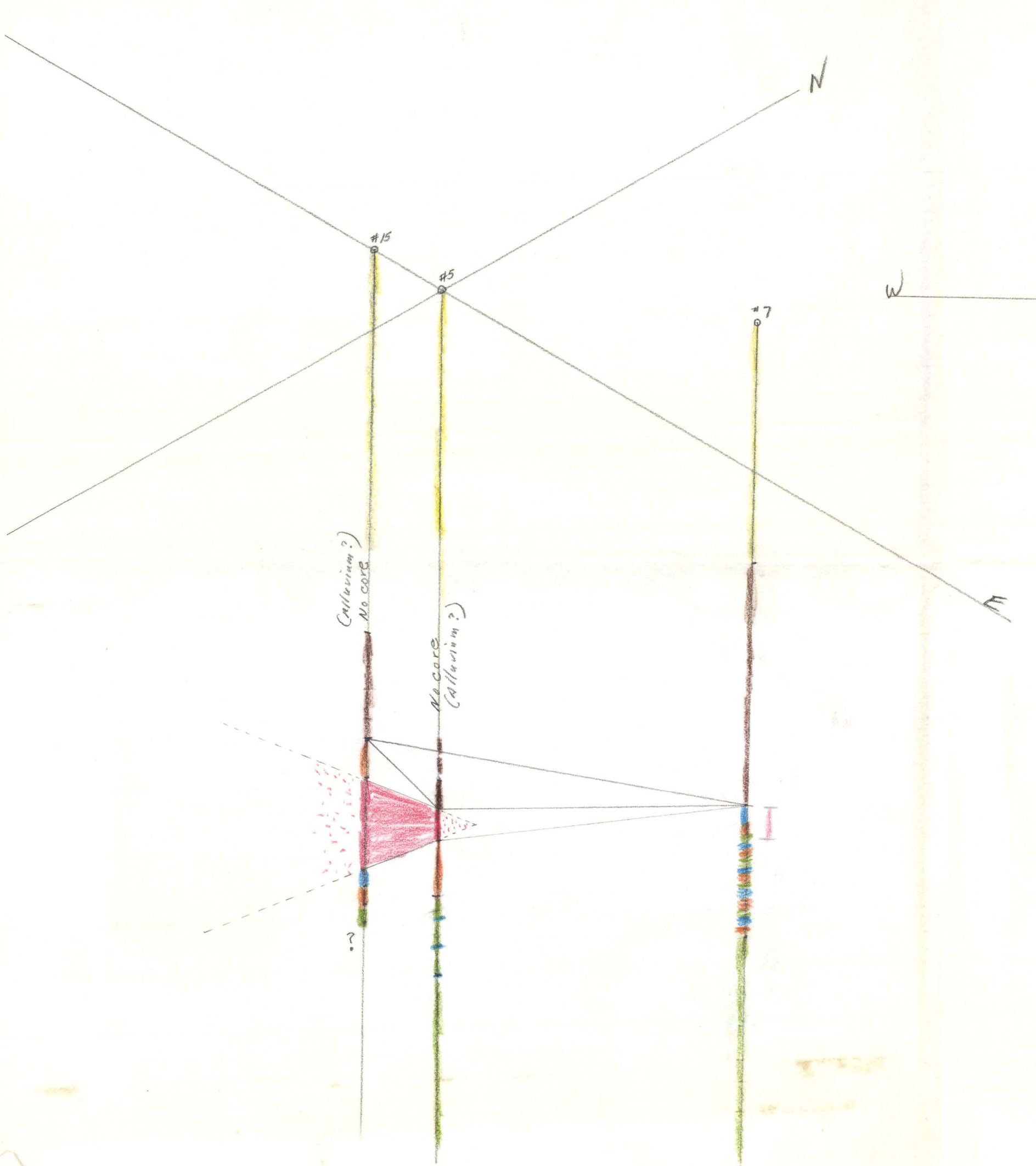
Send	1-2	2-3	1-2	2-3	1-2		1-2	2-3		cal		
Rec.												
Time	100	100	10	10	3	3	1	3				
DC-1	27.4 21.8	21.5 21.2	5.94 3.98	4.56 6.00	1.68 1.89	1.91 2.09	0.72 0.68	0.92 0.87	0.85 1.36	317 317		
DC-2	27.4 21.6	21.5 21.2	5.82 3.78	4.08 5.92	1.62 1.81	1.88 2.25	0.78 0.69	1.20 0.75	0.32 1.35	317 317		
Σ	27.6 21.9	21.7 20.8	6.04 2.63	4.68 5.98	1.78 1.64	1.67 2.47	0.64 0.82	0.99 1.4	0.70 1.35			
DC-3	21.9 28.0	20.9 21.1	6.18 3.57	4.50 5.99	1.82 1.71	1.50 2.52	0.69 0.73	0.81 1.16	0.04 1.56			
Dc-4	21.0			4.52 6.08	1.80 1.72	1.47 2.52	0.68 0.79	0.72 1.23	0.82 0.90			
Σ				4.26 2.28	1.48 1.93	1.44 2.65		0.72 1.05	1.31 0.63			
DC-AV	49.14	42.46	9.74	10.43	1.62 1.97	4.02	1.44	1.89		634		
AC-1	24.2	20.6	4.65	4.94	1.61	1.82	0.61	.084		320		
AC-2	24.2	20.6	4.64	4.96	1.60	1.82	0.61	0.84		320		
Σ	48.20	41.2	9.29	9.90	3.21	3.64	1.22	1.68		640		
S. P.	-24.0	+12.2		-8.4		-11.7		-14.5				
AC-N	.05	.10		.09		.04		.09				

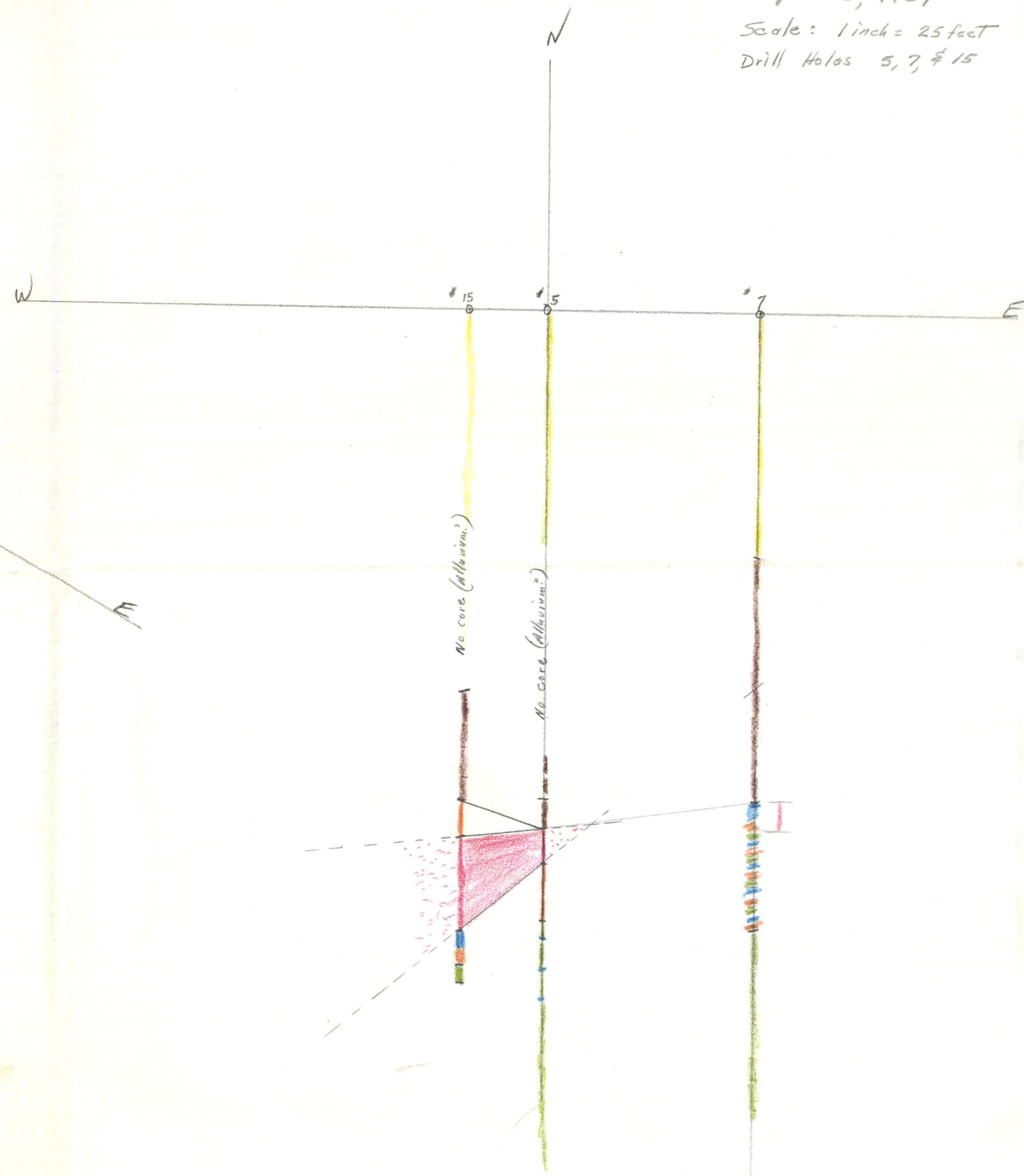
INDUCED POLARIZATION SENDER NOTES

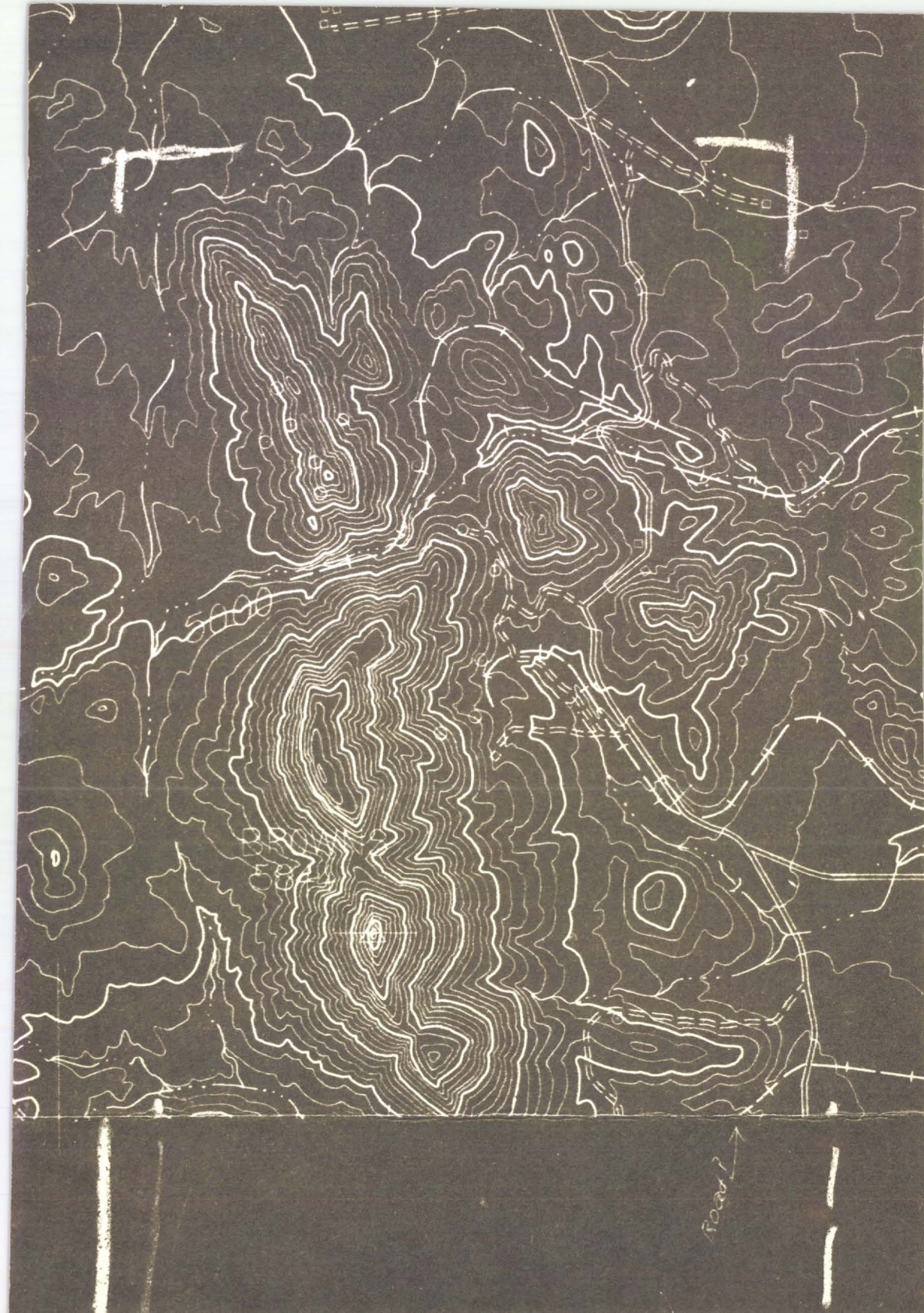
Project: _____ Line: _____ Date: _____

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3	~~1-2~~		CAL	2-3
Receive	0-1500	1500 -	3000	3000 -	4500	4500 -	6000	6000 -	7500			
Time									0			180
Range	320V	240V	✓	✓	✓	✓	✓					
Current	6A	✓	✓	✓	✓	✓	✓					3A
Send												
Receive												
Time												
Range												
Current												

Courtland-Gleeson project
April 3, 1939
Scale: 1 inch = 25 feet
Drill Holes 5, 7, & 15






Road?

Crystal
gleason

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: Kaw i/c Line: 2 Sp 1 Int.Cal _____ Date: _____

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		cal			
Rec.									0-15			
Time	100	100	10	10	3	3	3		1000			
DC-1	35.6 37.0	25.6 26.4	5.02 5.68	5.26 5.34	2.22 2.06	2.08 2.52	1.24 1.30		314 314			
DC-2	35.6 37.0	25.6 26.6	5.00 5.76	5.20 5.42	2.27 2.17	2.15 2.47	1.22 1.25		314 314			
Σ					2.04 2.23	2.12 2.73	1.21 1.31					
DC-3	35.6 37.6	25.4 26.8	4.98 5.70	5.16 5.44	2.14 2.15	1.87 2.81	1.20 1.31					
Dc-4	35.2 37.6	25.4 26.8	4.96 5.92	5.08 5.50	2.09 2.34	1.85 2.96	1.20 1.33					
Σ			4.88 5.88	4.98 5.62	2.10 2.16	2.22 2.56	1.20 1.25					
DC-AV	72.74	52.11	10.74	10.57	4.32	4.73	2.51					
AC-1	35.8	25.4	5.12	5.02	2.01	2.14	1.13		319			
AC-2	35.8	25.4	5.14	5.02	2.02	2.14	1.12		320			
Σ	71.6	50.8	10.26	10.04	4.03	4.28	2.25		639			
S. P.	-1.5	-1.8		+0.2		-5.3						
AC-N	.12	.12		.09		.10						

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: Kayer C/G Line: 2 Sp 1-3CPS Int.Cal _____ Date: 6-9-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3				
Rec.	0-15	15-30	→	30-45	→	45-60	→	60-75				
Time	100	100	10	10	3	3	3	3				
DC-1	29.2 24.8	22.2 21.8	0.32 5.08	5.44 5.82	1.68 2.46	1.73 2.68	0.58 1.38	0.89 1.42	0.44 1.57	315 315		
DC-2	29.8 24.2	22.2 21.9	5.48 5.16	5.42 5.98	1.54 2.38	1.73 2.72	0.67 1.32	0.67 1.30	0.54 1.48	315 315		
Σ				5.30 6.08	1.52 2.39	1.72 2.62	0.64 1.25	0.74 1.42	0.46 1.57			
DC-3	30.4 23.6	22.2 21.8	5.36 5.10	5.18 6.10	1.46 2.42	1.72 2.62	0.70 1.18	0.64 1.55	0.56 1.54			
Dc-4	31.0 23.0	22.2 21.8	5.36 5.22	5.16 6.16	1.57 2.42	1.75 2.66	0.71 1.12	0.67 1.45	0.53 1.60			
Σ			5.32 5.38	5.16 6.22	1.53 2.42	1.83 2.66	0.78 1.10	0.65 1.45				
DC-AV	54.2	44.0	10.54	11.31	3.94	4.41	1.93	2.09				
AC-1	25.4	20.2	4.58	4.94	1.58	1.71	0.67	0.73		305		
AC-2	25.4	20.2	4.58	4.94	1.58	1.71	0.67	0.73		305		
Σ	50.8	40.4	9.16	9.88	3.16	3.42	1.34	1.46				
S. P.	-24.0	-7.4		-1.5		-14.1		-6.3				
AC-N	.10	.09		.07		.08		.05				
Pot. Res			*	*								

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: Kuger C/6 Line: 2 - Sp 2 Int.Cal _____ Date: 6-3-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	2-3	1-2	Cal			
Rec.									~~1000~~			
Time	100	30	10	10	3		3	1	1000			
DC-1	24.0 24.2	20.8 18.4	3.58 3.48	4.20 3.78	1.96 1.93	2.04 2.27	19.2 2.32	1.10 1.51	312 312			
DC-2	24.0 24.2	20.5 18.3	3.56 4.46	4.14 3.76	1.96 1.82	1.94 2.37	1.93 2.37	0.94 1.61	312 312			
Σ			3.62 3.42	4.32 3.66	1.87 1.78	2.02 2.35	1.84 2.34	1.16 1.36				
DC-3	24.0 24.2	20.5 18.3	3.60 3.40	4.28 3.74	2.12 1.72	1.88 2.46	1.96 2.31	1.26 1.36				
Dc-4			3.62 3.50	4.24 3.66	2.03 1.78		1.82 2.40	1.08 1.41				
Σ			3.56 3.46	4.36 3.56	1.98 1.75		1.95 2.39	1.24 1.32				
DC-AV	48.2	38.8	7.23	7.97	3.79		1.76 2.59 4.25	2.57				
AC-1	23.4	18.8	3.34	3.78	1.74	1.95		1.17	314			
AC-2	23.4	18.8	3.34	3.78	1.74	1.95		1.17	314			
Σ	46.8	37.6	6.68	7.56	3.48	3.90		2.34				
S. P.	+4.8	-3.0		+3.8		+4.8						
AC-N	.06	.09		.12		.10						

INDUCED POLARIZATION - RECEIVER NOTES PAGE

Project: Kayor C/6 Line: 2 - Sp 3 Int.Cal Date: 6-6-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		Cal.			
Rec.									0-15			
Time	100	100	10	30	10	10	3		1000			
DC-1	36.8 38.4	31.0 31.2	7.46 7.02	8.0 7.6	4.36 3.06	3.78 3.72	2.04 2.34		314 314		478	
DC-2	36.8 38.2	30.8 31.4	7.08 6.86	7.9 7.6	4.36 2.80	3.80 3.68	1.86 2.26		314 314			
Σ						3.94 3.26	1.98 2.23					
DC-3	36.8 38.4	31.4 31.4	7.50 7.16	8.1 7.7	4.38 3.04	3.80 3.62	1.86 2.32					
Dc-4	36.6 38.2	31.4 31.6	7.60 6.90	8.2 7.4	4.40 2.70	4.14 3.44	1.83 2.22					
Σ		31.4 31.4	7.92 7.06	8.0 7.4	4.38 2.88	4.26 3.22	2.04 2.16					
DC-AV	75.1	62.6	14.51	15.6	7.27	7.50	4.19		628			
AC-1	36.6	30.6	7.02	7.65	3.41	3.54	1.93		316			
AC-2	36.6	30.8	7.02	7.65	3.41	3.54	1.93		316			
Σ	73.2	61.4	14.04	15.30	6.82	7.08	3.86		632		419	
S. P.	+7.0	+4.6	-	-12.9		-5.0						
AC-N	.05	.10		.08		.06						

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: Kayer d/s Line: 2 Sp 4 Int.Cal _____ Date: 6-7-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		cal			
Rec.	10								0-15			
Time	100	100	10	10	10	3	3		1000			
DC-1	27.0 24.6	22.2 23.2	4.54 6.28	6.80 5.70	2.12 2.00	1.73 2.44	0.90- 1.15-	1.32 0.80	317 317			
DC-2	27.0 24.8	22.2 23.4	4.38 6.38	6.50 5.64	2.16 2.30	1.67 2.69	1.03- 1.12	1.10 0.93	317 317			
Σ					2.14 2.20	1.68 2.68	1.08 1.18	1.12 0.86				
DC-3	27.2 24.4	22.2 23.4	4.42 6.46	6.64 5.56	2.04 2.16	1.82 2.86	1.34 1.40	1.46 0.76				
Dc-4	27.2 24.6	22.2 23.4	4.54 6.60	6.66 5.82	2.42 2.16	1.60 2.38	1.52 1.18	1.58 0.32				
Σ			4.28 6.78	6.64 5.72	2.16 2.00	1.42 2.84	1.10 1.06					
DC-AV	51.7	45.5	10.89	12.32	4.33	4.27	2.26		634			
AC-1	25.4	22.1	5.16	5.78	2.02	1.93	0.92		320			
AC-2	25.4	22.1	5.16	5.80	2.02	1.93	0.92		320			
Σ	50.8	44.2	10.32	11.58	4.04	3.86	1.84		640			
S. P.	-22.7	-22.4		+1.1		+3.0						
AC-N	.07	.05		.09		.14						

INDUCED POLARIZATION SENDER NOTES

Project: KAYSER CG. Line: 2-SP-13CPS. Date: 6-9-66.

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3			1-2	CAL
Receive												
Time												
Range	400	300									260V	
Current	6A	6A									3A	
Send												
Receive												
Time												
Range												
Current												

INDUCED POLARIZATION SENDER NOTES

project: Kayer 9/6 Line: #2 SPREAD #1 Date: JUNE 3 1966

Send	1/2	2/3	1/2	2/3	1/2	2/3	1/2		Col 2/3			
Receive	→	← →		← →		← →						
Time												
Range												
Current	6	6	6	6	6	6	6		3A			
Send	1/2	2/3	1/2	2/3	1/2	2/3	1/2		Col 23,	SPREAD 2		
Receive	→	→		→		→						
Time												
Range												
Current	4	4	4	4	4	4	4		3A			

INDUCED POLARIZATION SENDER NOTES

Project: Kayser CG Line: 2-SP-3 Date: 6-6-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2				KAC	2-3
Receive												
Time	420V	320V	400V	300V	400V	300V						
Range												240V
Current	6A	6A	6A	6A	6A	6A						3A
Send												
Receive												
Time												
Range												
Current												

INDUCED POLARIZATION SENDER NOTES

Project: Kayser CG Line: 2-SR-4 Date: 6-7-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2				CK	2-3
Receive												
Time	420	220V	420	—	—	—	—					
Range	6A	6A	6A	—	—	—	—					200
Current												3A
Send												
Receive												
Time												
Range												
Current												

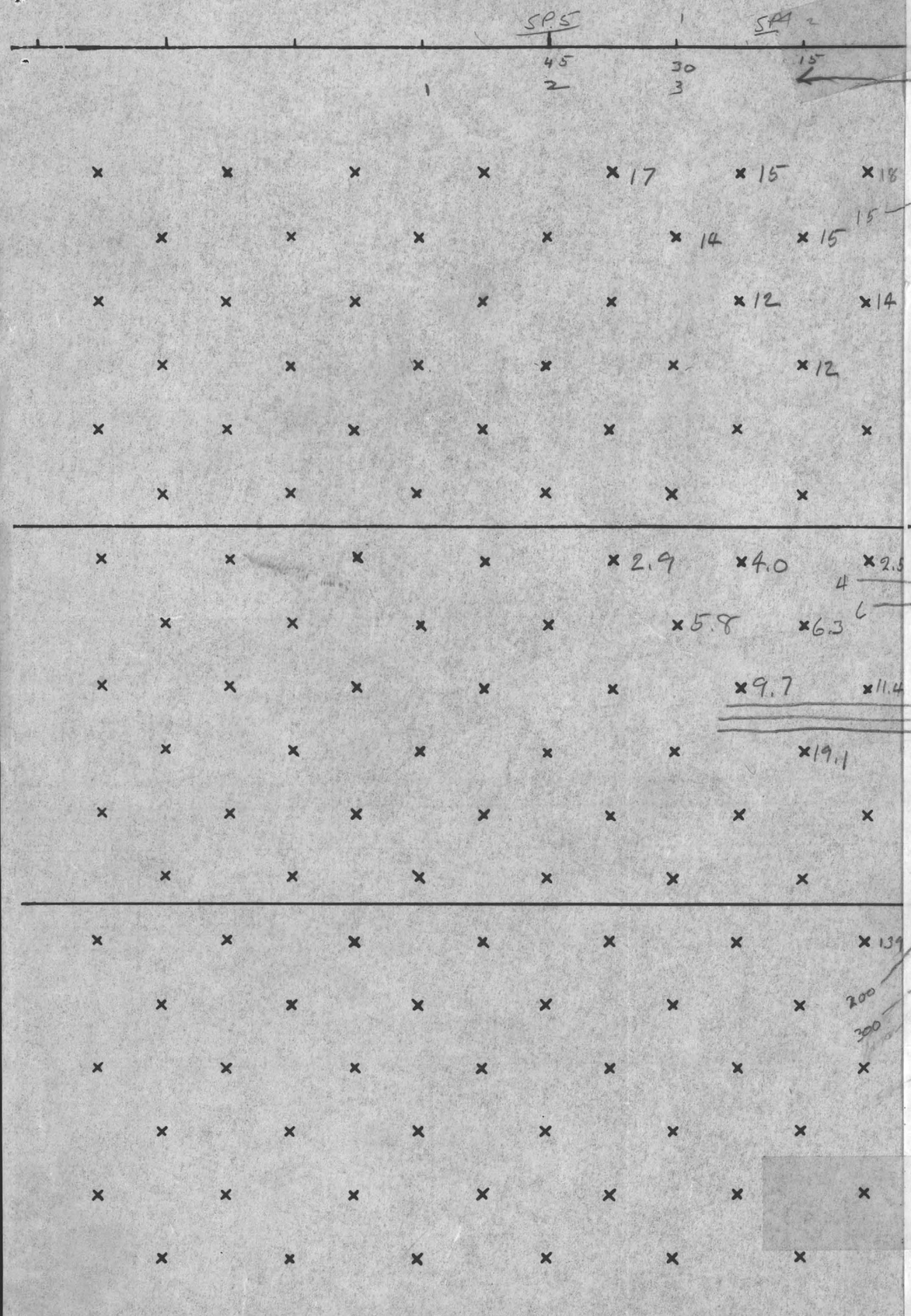
INDUCED POLARIZATION SENDER NOTES

Project: KAYSER Line: SP-2 - LINE 5 Date: 6-8-66

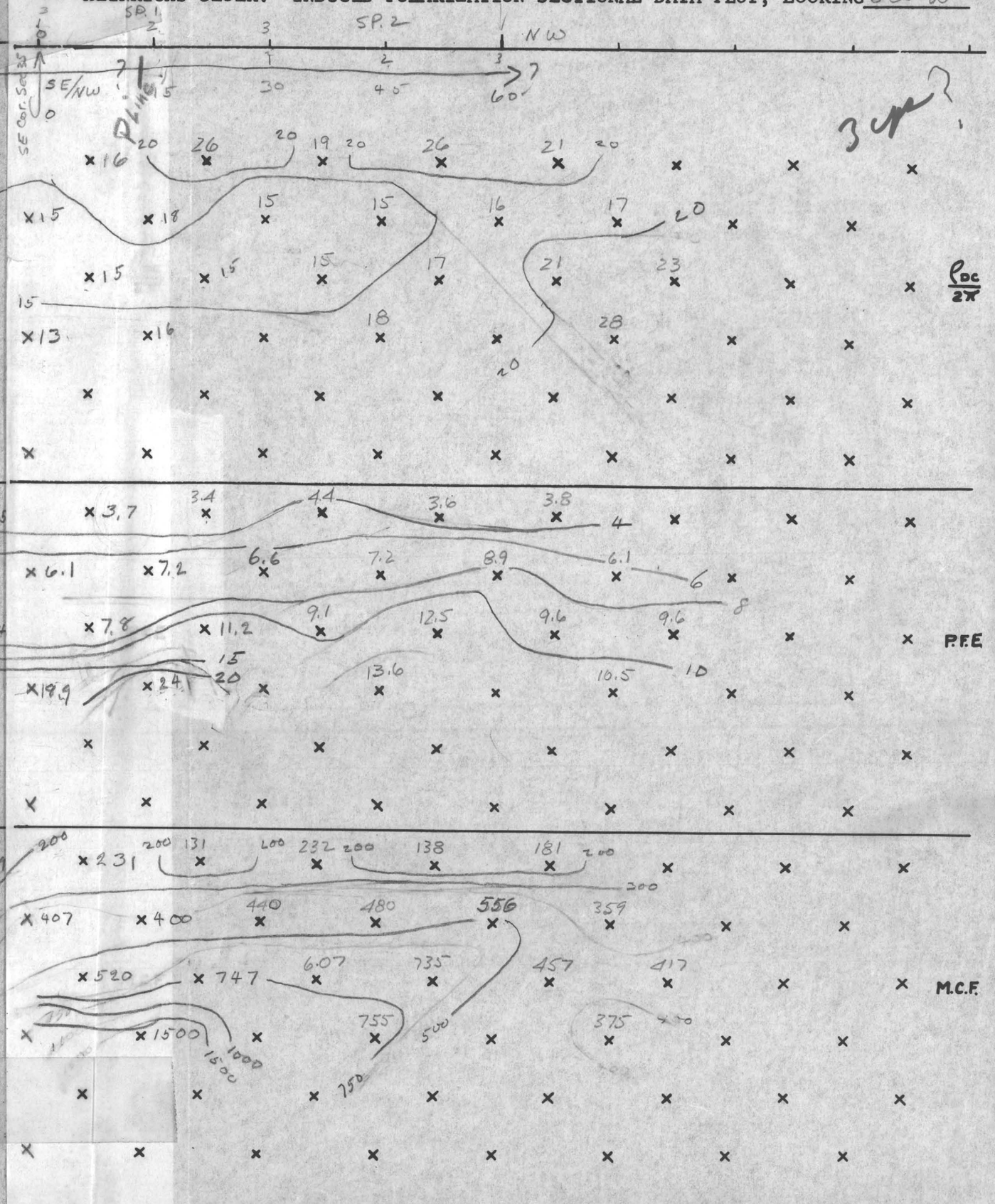
Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3	1-2		CAL	2-3
Receive												
Time	280	320	280	320	280	320	280	340				
Range												
Current	6A	6A	6A	6A	6A	6A	5A	6A				
Send												
Receive												
Time												
Range												
Current												

Cal. 3 amp 280 u.

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING



HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING S 60° W



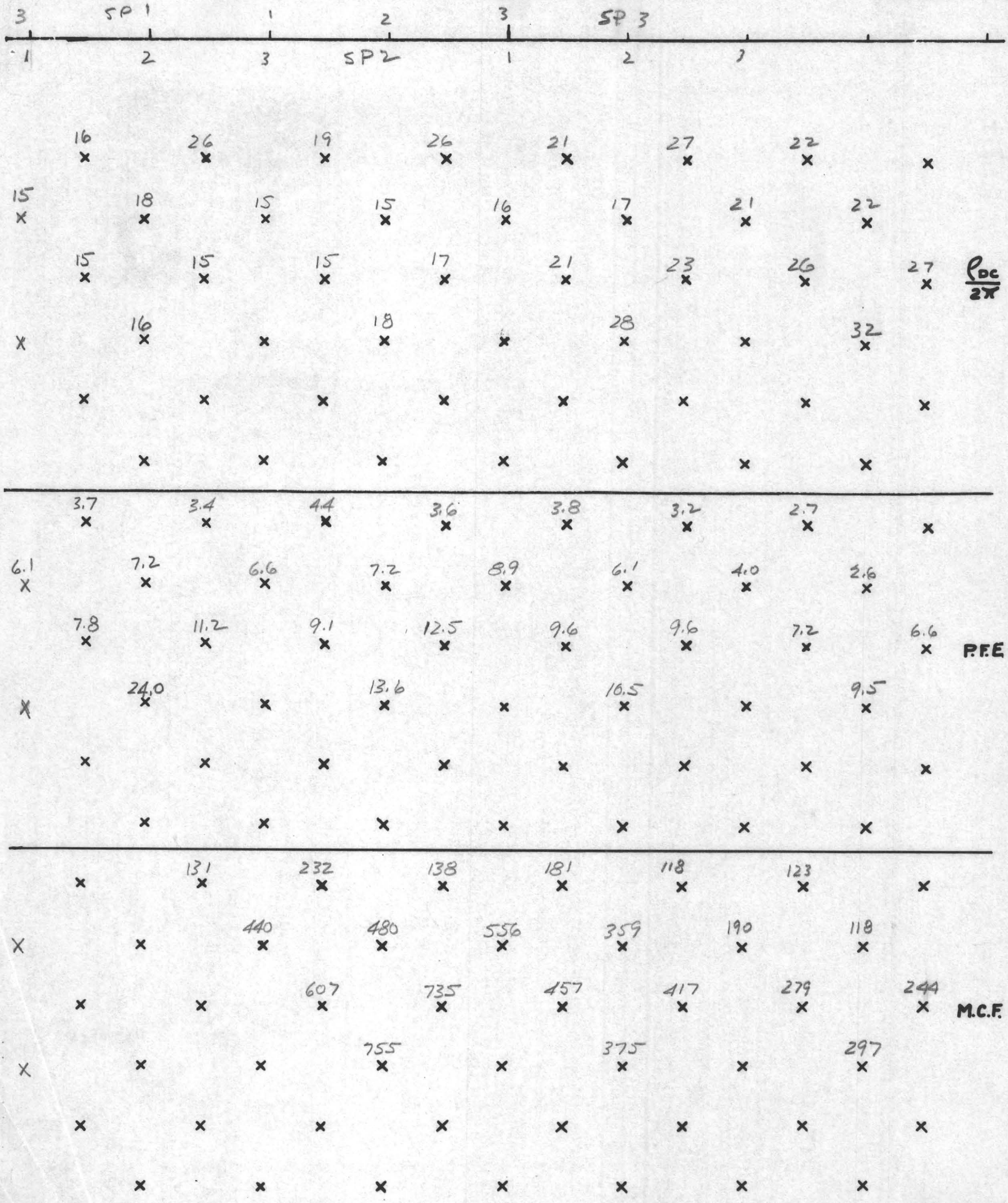
P.F.E.

M.C.F.

AREA _____ LINE _____ a = ' SCALE: _____

AREA [redacted] LINE 2 a = 1500 ' SCALE: 1" = 1500 DATE: 6-4-66

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING S60°W



AREA Kayer C/6 LINE 2 a = 1500' SCALE: 1" = 1500' DATE: 6-4-66

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 1

Project Kayer C/G Line 2-SD 1 Field date 6-3-66 Data page 1 Comp. date 6-4-66. Comp by R.P.

(A) Send	2-3	1-2	2-3	1-2	2-3	1-2	2-3		cal			
(B) Receive	0-15	15-30 →		30-45 →		45-60 →			0-15			
(C) n separation	1	1	2	2	3	3	4					
(D) I	6000 →								3000			
(E) Vdc (avg)	72.74	52.11	10.74	10.57	4.32	4.73	2.51		628			
(F) DCcal	.478											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90					
(H) ρ dc=ExFxGx10^3/D	26	19	15	15	15	17	18					
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$	71.6	50.8	10.26	10.04	4.03	4.28	2.25		639			
(L) AC-DC cal.	1.018											
(M) ρ dc/ρac=ExL/K	1.034	1.044	1.066	1.072	1.091	1.125	1.136					
(N) PFE=(M-1)(10^2)	3.4	4.4	6.6	7.2	9.1	12.5	13.6					
(O) MCF=(M-1)(10^5)/H	131	232	440	480	607	735	755					

Project Line Field date Data page Comp. date Comp by

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 2

Project Kayer C/G Line 2 Sp 1 Field date 6-3-66 Data page 2 Comp. date 6-4-66 . Comp by R.P.

(A) Send	2-3	1-2	2-3	1-2	2-3	1-2	2-3		Cal			
(B) Receive	0-15	15-30	→	30-45	→	45-60	→		0-15			
(C) n separation	1	1	2	2	3	3	4					
(D) I	4000	→							3000			
(E) Vdc (avg)	48.2	38.8	7.23	7.97	3.79	4.25	2.57		624			
(F) DCcal	.481											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90					
(H) ρ dc=ExFxGx10^3/D	26	21	16	17	21	23	28					
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$	46.8	37.6	6.68	7.56	3.48	3.90	2.34		628			
(L) AC-DC cal.	1.006											
(M) ρ dc/ρac=ExL/K	1.036	1.038	1.089	1.061	1.096	1.096	1.105					
(N) PFE=(M-1)(10^2)	3.6	3.8	8.9	6.1	9.6	9.6	10.5					
(O) MCF=(M-1)(10^5)/H	138	181	556	359	457	417	375					

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

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INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 3

Project Kayer C/G Line 2 Sp 3 Field date 6-6-66 Data page 3 Comp. date 6-6-66. Comp by R.P.

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		cal			
(B) Receive	0-15	15-30	→	30-45	→	45-60	→		0-15			
(C) n separation	1	1	2	2	3	3	4					
(D) I	6000	→							3000			
(E) Vdc (avg)	75.1	62.6	14.51	15.60	7.27	7.50	4.19		628			
(F) DCcal	.478											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90					
(H) ρ dc=ExFxGx10^3/D	27	22	21	22	26	27	32					
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$	73.2	61.4	14.04	15.30	6.82	7.08	3.86		632			
(L) AC-DC cal.	1.007											
(M) ρ dc/ρac=ExL/K	1.032	1.027	1.040	1.026	1.072	1.066	1.095					
(N) PFE=(M-1)(10^2)	3.2	2.7	4.0	2.6	7.2	6.6	9.5					
(O) MCF=(M-1)(10^5)/H	118	123	190	118	279	244	297					

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

3cps

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INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project Kayor C/G Line 2 Sp/1-3cps Field date 6-9-66 Data page 1 Comp. date 6-9-66. Comp by R.P.

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3		dal		
(B) Receive	0-15	15-30	→	30-45	→	45-60	→	60-75		0-15		
(C) n separation	1	1	2	2	3	3	4	4				
(D) I	6	→						→		3		
(E) Vdc (avg)	54.2	44.0	10.54	11.31	3.94	4.41	1.93	2.09		630		
(F) DCcal	.461											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90	90				
(H) ρ dc=ExFxGx10^3/D	19	15	15	1660	14	15	13	14				
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$	50.8	40.4	9.16	9.88	3.16	3.42	1.34	1.46		610		
(L) AC-DC cal.	.968											
(M) ρ dc/ρac=ExL/K	1.035	1.053	1.114	1.103	1.208	1.248	1.391	1.389				
(N) PFE=(M-1)(10^2)	3.5	5.3	11.4	10.3	20.8	24.8	39.1	38.9				
(O) MCF=(M-1)(10^5)/H												

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 4

Project Kayer C/G Line 2 Sp 4 Field date 6-7-66 Data page 4 Comp. date 6-7-66. Comp by R.P.

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		cal.			
(B) Receive	0-15	15-30	→	30-45	→	45-60	→		0-15			
(C) n separation	1	1	2	2	3	3	4					
(D) I	6000	→					→		3000			
(E) Vdc (avg)	51.7	45.5	10.89	12.32	4.33	4.27	2.26		634			
(F) DCcal	.473											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90					
(H) ρ dc=ExFxGx10^3/D	18	16	15	18	15	15	16					
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$	50.8	44.2	10.32	11.58	4.04	3.86	1.84		640			
(L) AC-DC cal.	1.008											
(M) ρ dc/ρac=ExL/K	1.025	1.037	1.061	1.072	1.078	1.112	1.240					
(N) PFE=(M-1)(10^2)	2.5	3.7	6.1	7.2	7.8	11.2	24.0					
(O) MCF=(M-1)(10^5)/H												

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project Kaper C/6 Line 2 Sp 5 Field date_____ Data page_____ Comp. date_____. Comp by_____

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3		cal		
(B) Receive	0-15SE	0-15NW	→	15-30	→	30-45NW	→					
(C) n separation	1	1	2	2	3	3	4	4				
(D) I	6	6	6	6	6	6	5	6		3A		
(E) Vdc (avg)	49.14	42.46	9.74	10.43	3.49	4.02	1.44	1.89		634		
(F) DCcal										.473		
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90	90				
(H) ρ dc=ExFxGx10^3/D	17	15	14	15	12	14	12	13				
(I) Vac Σ	48.2	41.2	9.29	9.90	3.21	3.64	1.22	1.68		640		
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.										1.009		
(M) ρ dc/ρac=ExL/K	1.029	1.040	1.058	1.063	1.097	1.114	1.191	1.189				
(N) PFE=(M-1)(10^2)	2.9	4.0	5.8	6.3	9.7	11.4	19.1	18.9				
(O) MCF=(M-1)(10^5)/H												

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: Kayer C/8 Line: 3 Sp 1 Int.Cal _____ Date: 6-15-6

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3		cal.		
Rec.	0-15	15-30	→	30-45	→	45-60	→	60-75		0-15		
Time	100	30	30	10	10	3	3	3		1000		
DC-1	40.4 38.6	19.2 20.3	7.4 6.1	4.58 4.40	2.42 2.72	2.02 1.94	1.47 1.24	1.06 1.47		315 315		
DC-2	40.8 38.2	19.2 20.2	7.4 6.1	4.66 4.20	2.38 2.70	2.03 1.92	1.47 1.24	0.92 1.59		315 315		
Σ				4.82 4.04	2.42 2.72	2.06 1.90	1.51 1.23	0.77 1.77				
DC-3	41.0 38.0	19.1 20.3	7.4 6.0	4.96 3.94	2.40 2.78	2.08 1.88	1.50 1.17	0.63 1.90				
Dc-4	41.4 37.6	19.1 20.3	7.5 6.0	5.04 3.86	2.36 2.78	2.09 1.88	1.54 1.18	0.52 2.01				
Σ				5.18 3.76	2.28 2.78		1.55 1.18					
DC-AV	79.1	39.4	13.5	8.96	5.37	3.97	2.72	2.47		630		
AC-1	39.8	19.6	6.65	4.34	2.44	1.86	1.27	1.12		322		
AC-2	39.8	19.6	6.65	4.34	2.44	1.86	1.27	1.12		322		
Σ	79.6	39.2	13.3	8.68	4.88	3.72	2.54	2.24		644		
S. P.	+27.1	-5.8		+0.5		-8.5		+1.5				
AC-N	.07	.21		.27		.18		.24				
Pot. Res												

Power line

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: Kayer C/G Line: 3 Sp 2 Int.Cal _____ Date: 6-15-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3		Cal		
Rec.	0-15	15-30	→	30-45	→	45-60	→	60-75		0-15		
Time	100	30	10	10		3	3			1000		
DC-1	22.8 22.0	20.3 21.0	5.40 3.41	6.20 4.04	2.60 1.94	2.16 2.15	0.95 1.53	1.00 0.93		314 314		
DC-2	23.0 21.9	20.2 21.1	5.52 3.30	6.40 3.88	2.54 2.01	2.04 2.30	0.91 1.57	1.10 0.83		314 314		
Σ				6.52 3.88	2.34 2.14	2.00 2.36	0.93 1.59	1.19 0.76				
DC-3	23.0 22.0	20.1 21.2	5.62 3.22	6.60 3.72	2.28 2.24	1.88 2.46	0.89 1.63	1.31 0.63				
Dc-4	23.0 22.0	20.1 20.2	5.74 3.08	6.58 3.58	2.14 2.38	1.83 2.49	0.89 1.50	1.38 0.52				
Σ							0.99 1.46					
DC-AV	44.9	41.1	8.87	10.29	4.47	4.30	2.49	1.97		628		
AC-1	22.2	20.3	4.30	4.97	2.06	2.01	1.12	0.88		321		
AC-2	22.2	20.3	4.30	5.00	2.06	2.01	1.12	0.88		321		
Σ	44.4	40.6	8.60	9.97	4.12	4.02	2.24	1.76		642		
S. P.	+2.4	+5.1		+1.0		+8.8		+4.8				
AC-N	.27	.15		.18		.10		.08				
Pot. Res												

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: Kayer C/G Line: 3 Sp 3 Int.Cal _____ Date: 6-16-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3		cal.		
Rec.	0-15	15-30	→	30-45	→	45-60	→					
Time	100	100	10	10	3	3	3					
DC-1	35.0 18.0	28.8 29.4	5.74 6.96	6.60 6.52	2.17 2.26	2.09 2.13	1.01 0.84	1.01 0.88		318 318		
DC-2	35.4 17.8	28.6 29.6	5.64 6.96	6.82 6.42	2.22 2.04	1.98 2.20	0.95 0.80	0.97 0.86		318 318		
Σ					2.23 2.20	2.02 2.23	1.00 0.93	1.03 0.82				
DC-3	35.8 17.4	28.6 29.4	5.68 7.00	6.78 6.42	2.26 2.09	1.87 2.34	0.88 0.81	1.00 0.83				
Dc-4	36.4 16.8	28.4 29.6	5.56 6.98	6.86 6.32	2.24 2.06	1.92 2.28	1.02 0.84					
Σ			5.60 7.04	6.90 6.30	2.34 2.12	1.90 2.33	0.98 0.84					
DC-AV	53.3	58.1	12.60	13.22	4.38	4.20	1.83			636		
AC-1	26.4	28.4	6.02	6.35	2.02	1.94	0.81			324		
AC-2	26.4	28.4	6.02	6.35	2.02	1.95	0.81			324		
Σ	52.8	56.8	12.04	12.70	4.04	3.89	1.62			648		
S. P.	-25.4	-7.6		+7.1		+15.3						
AC-N	.09	.15		.13		.16						
Pot. Res												

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: Kayer C/G Line: 3 Sp 4 Int.Cal _____ Date: 6-17-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2			cal		
Rec.	0-15	15-30	→	30-45	→	45-60	→					
Time	100	100	10	10	3	3	3					
DC-1	23.0 24.0	26.8 26.4	5.74 5.70	6.80 6.16	2.26 1.96	2.22 2.07	0.87 0.98			215 214		
DC-2	23.0 24.1	26.6 26.6	5.60 5.78	6.78 6.22	2.30 1.98	2.23 2.03	0.85 1.00			215 214		
Σ												
DC-3	22.8 24.2	26.6 26.6	5.60 5.76	6.64 6.36	2.25 2.00	2.24 2.06	0.90 0.93					
Dc-4	22.8 24.2	26.6 26.6	5.66 5.74	6.60 6.38	2.26 2.00	2.25 2.04	0.95 0.92					
Σ			5.60 5.82	6.62 6.26	2.29 1.94	2.26 2.06	0.95 0.94					
DC-AV	47.1	53.2	11.38	12.95	4.25	4.29	1.86			429		
AC-1	23.5	26.6	5.54	6.30	2.01	2.01	0.83			226		
AC-2	23.5	26.6	5.54	6.30	2.01	2.02	0.83			226		
Σ	47.0	53.2	11.08	12.60	4.02	4.03	1.66			452		
S. P.	-8.2	-1.0		-9.7		+2.0						
AC-N	.07	.04		.06		.05						
Pot. Res												

INDUCED POLARIZATION SENDER NOTES

Project: KAISER C.G. Line: 3-SA-1 Date: 6-15-6

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3	1-2		CAL	2-3
Receive	0-1500	1500—3000		3000—4500		4500—6000		6000—7500				
Time	440 ✓	400 ✓	✓	✓	✓	✓	✓	✓	0			240 ✓
Range												
Current	6A	6A	✓	✓	✓	✓	✓	✓				3AMP
Send												
Receive												
Time												
Range												
Current												

INDUCED POLARIZATION SENDER NOTES

Project: KAYSER - CO. Line: 3 - SP - 2 Date: 6-15-66

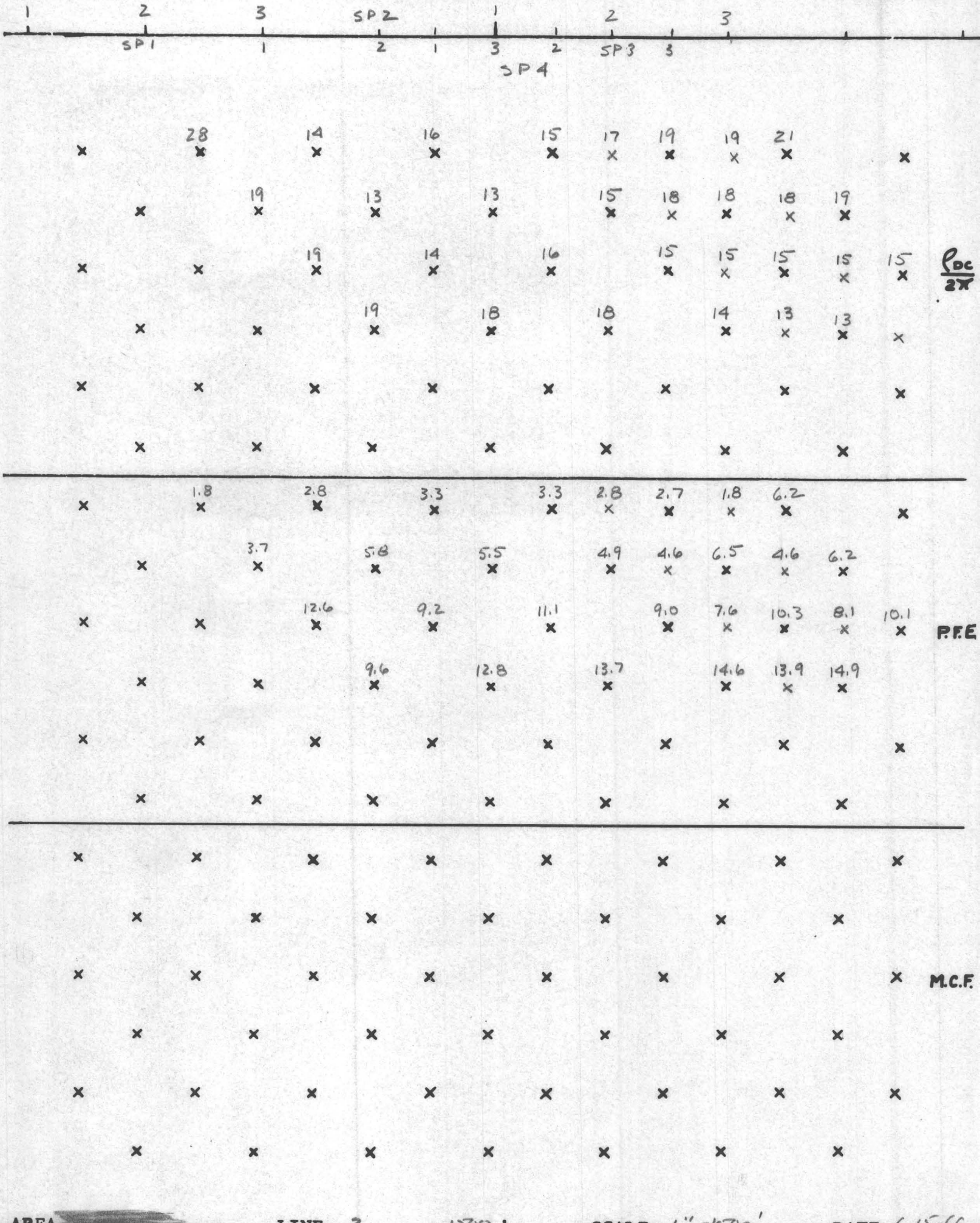
Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3	1-2		CAL	2-3
Receive	0-1500	1500—3000		3000—4500		4500—6000		6000—7500				
Time												
Range	340	240V	✓	✓	✓	✓	✓	✓	0			200V
Current	6A	—	—									3A.
Send												
Receive												
Time												
Range												
Current												

INDUCED POLARIZATION SENDER NOTES

Project: KAYSER Line: 3-SP-4 Date: 6-17-66

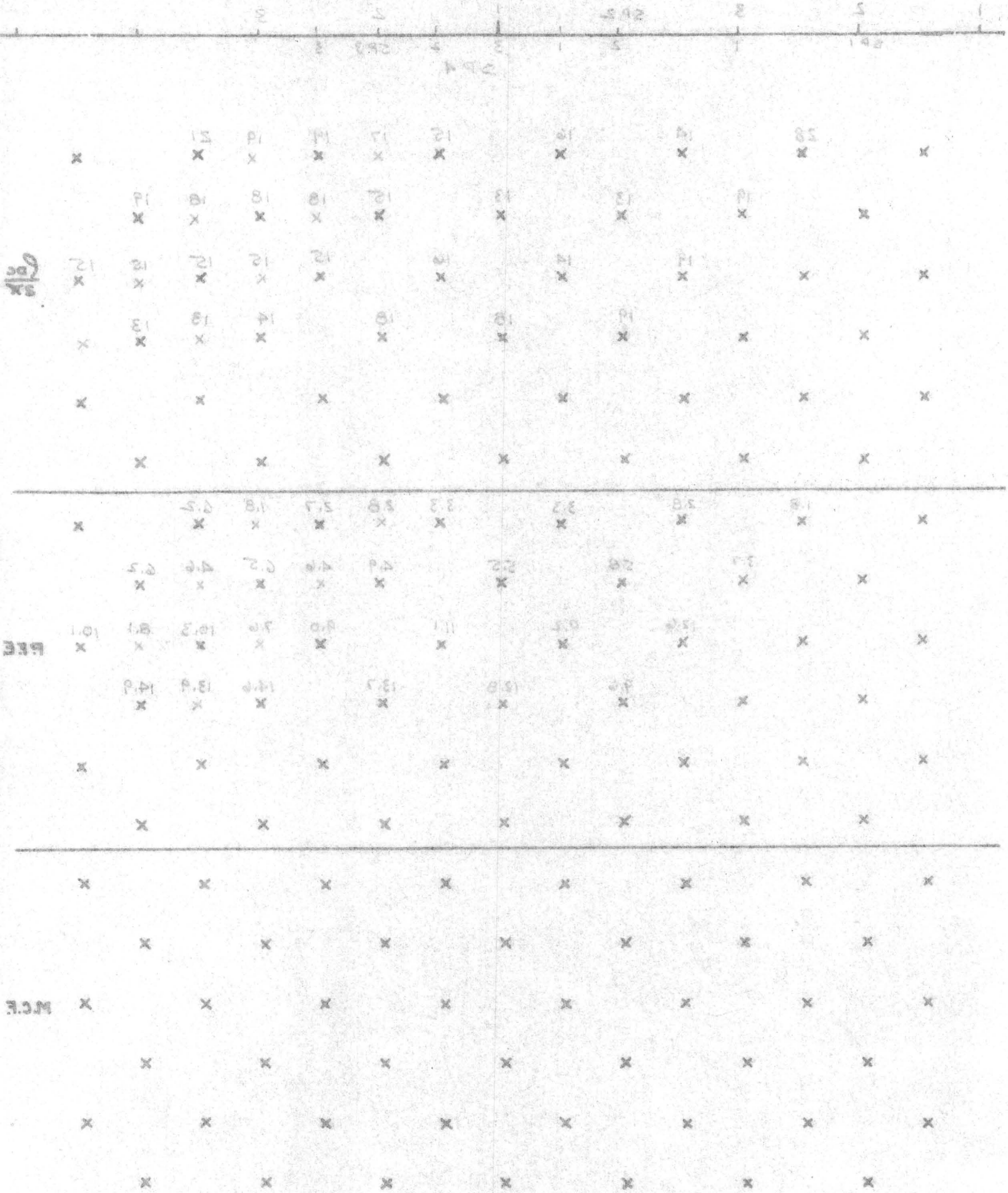
Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2			CAL	2-3	
Receive	0-1500	1500-3000		3000-4500		4500-6000						
Time											150V	
Range	310V	210V	✓	✓	✓	✓	✓					
Current	6A	6A	✓	✓	✓	✓	✓				3A	
Send												
Receive												
Time												
Range												
Current												

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING N 30°W



AREA [redacted] LINE 3 a = 1500' SCALE: 1" = 1500' DATE: 6-15-66

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING N 30° W



AREA [redacted] LINE 2 a = 150' SCALE: 1" = 250' DATE: 6-13-66

Started at Elect. 2 Sp 2 Line 1
Elect. 3 is at this spot.

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project Kayer C/G Line 3 - Sp 1 Field date 6-15-66 Data page 1 Comp. date 6-15-66. Comp by R.P.

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3		cal.		
(B) Receive	0-15	15-30 →		30-45 →		45-60 →		60-75		0-15		
(C) n separation	1	1	2	2	3	3	4.	4				
(D) I	6 →									3		
(E) Vdc (avg)	79.1	39.4	13.5	8.96	5.37	3.97	2.72	2.47		630		
(F) DCcal	.477											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90	90				
(H) ρ dc=ExFxGx10^3/D	28	14	19	13	19	14	19	18				
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$	79.6	39.2	13.3	8.68	488	3.72	2.54	2.24		644		
(L) AC-DC cal.	1.022											
(M) ρ dc/ρac=ExL/K	1.018	1.028	1.037	1.058	1.126	1.092	1.096	1.128				
(N) PFE=(M-1)(10^2)	1.8	2.8	3.7	5.8	12.6	9.2	9.6	12.8				
(O) MCF=(M-1)(10^5)/H												

Project Kayer C/G Line 3 Sp 2 Field date 6-15-66 Data page 1 Comp. date 6-15-66 Comp by R.P.

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3		cal.		
(B) Receive	0-15	15-30 →		30-45 →		45-60 →		60-75		0-15		
(C) n separation	1	1	2	2	3	3	4	4				
(D) I	6 →									3		
(E) Vdc (avg)	44.9	41.1	8.87	10.29	4.47	4.30	2.49	1.97		628		
(F) DCcal	.478											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90	90				
(H) ρ dc=ExFxGx10^3/D	16	15	13	15	16	15	18	14				
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$	44.4	40.6	8.60	9.97	4.12	4.04	2.24	1.76		642		
(L) AC-DC cal.	1.022											
(M) ρdc/ρac =ExL/K	1.033	1.033	1.055	1.049	1.111	1.090	1137	1146				
(N) PFE=(M-1)(10^2)	3.3	3.3	5.5	4.9	11.1	9.0	13.7	14.6				
(O) MCF=(M-1)(10^5)/H												

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page _____

Project Kayer C/G Line 3 Sp 3 Field date 6-16-66 Data page 2 Comp. date 6-16-66. Comp by R.P.

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2			cal		
(B) Receive	0-15	15-30 →		30-45 →		45-60 →				0-15		
(C) n separation	1	1	2	2	3	3	4					
(D) I	6 →									3		
(E) Vdc (avg)	53.3	58.1	12.60	13.22	4.38	4.20	1.83			636		
(F) DCcal	.472											
(G) Kn x 10^{-3}	4.5	4.5	18	18	4.5	4.5	90					
(H) ρ dc=ExFxGx10^3/D	19	21	18	19	15	15	13					
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$	52.8	56.8	12.04	12.70	4.04	3.89	1.62			648		
(L) AC-DC cal.	1.018	1.										
(M) ρ dc/ρac=ExL/K	1.027	1.062	1.065	1.062	1.103	1.101	1.149					
(N) PFE=(M-1)(10^2)	2.7	6.2	6.5	6.2	10.3	10.1	14.9					
(O) MCF=(M-1)(10^5)/H												

Project Kayer C/G Line 3 Sp 4 Field date 6-17-66 Data page 2 Comp. date 6-17-66 Comp by R.P.

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2			cal.		
(B) Receive	0-15	15-30 →		30-45 →		45-60 →				0-15		
(C) n separation												
(D) I	6 →									3		
(E) Vdc (avg)	47.1	53.2	11.38	12.95	4.25	4.29	1.86			429		
(F) DCcal	.472											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90					
(H) ρ dc=ExFxGx10^3/D	17	19	18	18	15	15	13					
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$	47.0	53.2	11.08	12.60	4.02	4.03	1.66			452		
(L) AC-DC cal.	1.018											
(M) ρdc/ρac =ExL/K	1.028	1.018	1.046	1.046	1.076	1.081	1.139					
(N) PFE=(M-1)(10^2)	2.8	1.8	4.6	4.6	7.6	8.1	13.9					
(O) MCF=(M-1)(10^5)/H												

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: Kayer C/G Line: 1 Sp 1 Int.Cal _____ Date: 5-27-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		cal			
Rec.									1000			
Time	30	30	10	30	10	10	10					
DC-1	21.7 17.4	18.0 17.6	5.83 5.58	9.1 7.2	4.62 4.38	3.90 4.60	3.62 1.64		307 307			
DC-2	22.1 16.9	18.0 17.7	5.90 5.50	9.1 7.1	4.66 4.42	3.72 4.72	3.62 1.64		307 307			
Σ	22.5 16.7	18.1 17.6	5.95 5.60	9.2 7.1	4.76 4.38	3.72 4.97	3.18 2.30					
DC-3	22.8 16.3	18.1 17.7	5.88 5.48	9.2 7.0	4.72 4.28	4.46 4.04	2.90 2.24					
Dc-4	23.0 16.0	18.0 17.6	6.02 5.62	9.3 6.9	4.90 4.04	4.60 3.92	3.18 2.32					
Σ			5.84 5.50 11.42		4.92 4.06	4.50 4.00						
DC-AV	39.23	35.69	5.40 6.10	16.27	9.05	8.57	5.26					
AC-1	19.3	17.6	5.53	7.85	4.28	4.10	2.52		310			
AC-2	19.3	17.6	5.53	7.85	4.30	4.10			310			
Σ	38.6	35.2	11.06	15.7	8.58	8.20	5.04					
S. P.	-22.9	+18.5		-11.9		+23.9						
AC-N	.09	.10		.12		.28						

Powerline appx 300'

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: [illegible] 1a/9 Line: 1-Sp. 2 Int.Cal _____ Date: 5-31-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		cal			
Rec.									2-3			
Time	100	100	30	30	10	10			1000			
DC-1	34.2 32.4	48.6 48.8	8.6 8.1	11.9 13.6	3.42 3.24	5.22 5.02	1.68 1.43		318 318			
DC-2	32.1 33.9	48.4 49.0	8.6 7.9	12.2 14.4	3.38 3.18	5.24 5.09	1.76 1.53		318 318			
Σ					3.08 3.46	5.13 5.62	1.84 1.50					
DC-3	34.2 31.9	48.4 49.2	8.8 7.9	11.2 14.4	3.02 3.72	5.22 5.76	2.12 1.16					
Dc-4	32.2 33.0	47.8 50.1	8.1 8.6	11.3 14.6	2.84 3.98	5.02 5.98	1.88 1.47					
Σ					2.82 3.72	4.62 6.22	2.07 1.14					
DC-AV	65.8	97.4	16.57	25.8	3.12 3.38	10.74	3.27					
AC-1	32.1	48.1	8.1	12.7	3.14	5.18	1.58		318			
AC-2	32.1	48.1	8.1	12.7	3.14	5.18	1.58		318			
Σ	64.2	96.2	16.2	25.4	6.28	10.36	3.16					
S. P.	-17.1	+49.9	~~+1.1~~	+11.1		+14.1						
AC-N	.10	.08	~~.41~~	.44		.22						

INDUCED POLARIZATION - RECEIVER NOTES PAGE _____

Project: Kayer 1c/6 Line: 1 Sp 3 Int.Cal _____ Date: 6-1-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		Cal.			
Rec.									0-15			
Time	100	100	30	100	30	30	10		1000			
DC-1	78.2 78.2	91.8 95.0	24.0 19.2	30.6 30.2	10.95 11.9	11.0 13.3	6.08 6.16		314 314			
DC-2	78.2 78.4	91.7 95.1	24.0 19.2	30.6 30.2	10.9 11.9	11.0 13.4	6.00 6.04		314 314			
Σ							6.08 6.14					
DC-3	78.3 78.4	91.7 95.2	24.0 19.2	30.6 30.2	10.95 11.9	10.9 13.6	6.08 6.04					
Dc-4	78.2 78.4	91.8 95.2				11.0 13.5	6.10 6.16					
Σ												
DC-AV	156.6	186.8	43.2	60.8	22.83	24.4	12.17		628			
AC-1	78.4	93.1	21.4	30.4	11.25	12.0	5.90		317			
AC-2	78.4	93.1	21.4	30.4	11.25	12.2	5.92		317			
Σ	156.8	186.2	42.8	60.8	22.5	22.2	11.82		634			
S. P.	-6.7	+9.4		-1.8		-8.6						
AC-N	.06	.12		.22		.44						

INDUCED POLARIZATION - RECEIVER NOTES PAG

Project: Kaiser 1 C/6 Line: 1 Sp 4 Int.Cal Date: 6-2-66

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		Cal			
Rec.	0-15	15-30	→	30-45	→	45-60	→		2-3			
Time	300	300	100	100	30	30	10		1000			
DC-1	129 128	108 107	28.2 31.6	34.4 35.0	15.2 14.0	12.8 13.8	6.54 7.08		314 314			
DC-2	129 128	108 107	28.4 31.6	34.6 35.0	15.6 13.6	12.2 13.9	6.50 6.92		314 314			
Σ												
DC-3	129 128	108 107	28.4 31.6	34.6 34.8	15.8 13.7	12.5 14.4	6.78 6.94					
Dc-4			28.4 31.4	34.8 35.0	15.8 12.8	12.2 14.1	6.74 6.84					
Σ						12.0 14.5	6.44 6.70					
DC-AV	257	215	59.97	69.57	29.29	26.39	13.64					
AC-1	129	108	30.0	34.2	14.3	12.6	6.44		320.5			
AC-2	129	108	30.0	34.2	14.3	12.6	6.44		320.5			
Σ	258	216	60.0	68.4	28.6	25.2	12.88					
S. P.	+0.2	-16.6	~~+1.1~~	+1.1	-6.0							
AC-N	.06	.14	~~.14~~	.14	.16							

INDUCED POLARIZATION - RECEIVER NOTES PAGE ____

Project: Kayer C/G Line: 4 Sp 1 Int.Cal _____ Date _____

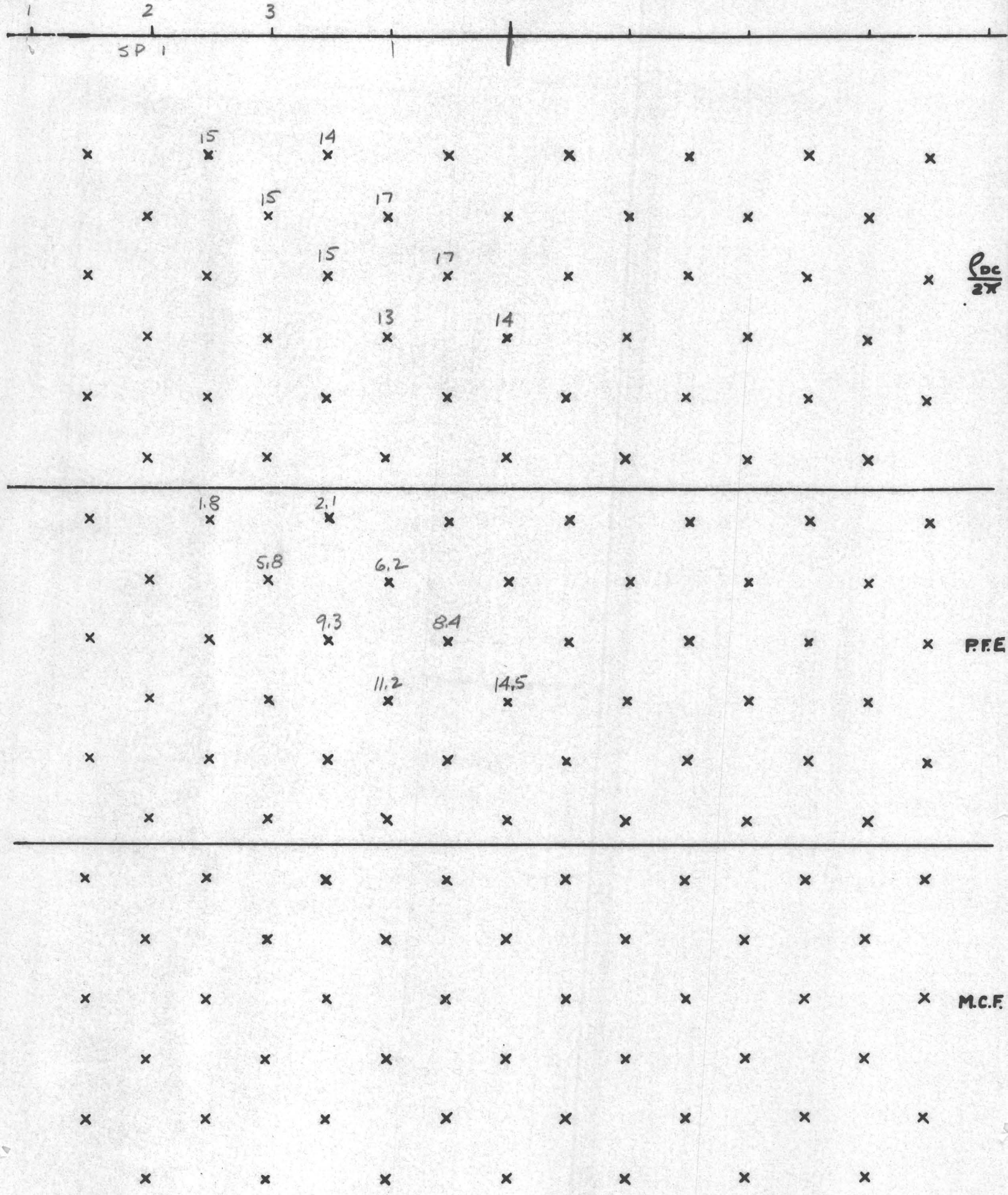
Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3		cal		
Rec.	0-15	15-30	→	30-45	→	45-60	→	60-75		0-15		
Time	100	30	10	10	3					1000		
DC-1	21.0 21.2	17.9 20.6	4.60 5.70	6.06 5.80	1.87 2.40	2.39 2.32	1.03 0.78	1.12 0.93		315 315		
DC-2	20.6 21.2	17.7 20.8	4.44 5.82	6.24 5.64	1.82 2.42	2.33 2.38	1.08 0.74	1.0 1.0		315 315		
Σ												
DC-3	20.6 21.4	17.5 21.0	4.34 5.98	6.38 5.54	1.75 2.52	2.32 2.38	1.11 0.69	0.92 1.05				
Dc-4	20.6 21.4	17.3 21.2	4.20 6.12	6.50 5.40	1.73 2.52	2.29 2.43	1.19 0.62	0.88 1.14				
Σ												
DC-AV	41.9	38.4	10.24	12.00	4.24	4.69	1.83	1.97		630		
AC-1	21.0	19.2	5.00	5.76	1.99	2.21	0.84	0.88		321		
AC-2	21.0	19.2	5.00	5.76	1.99	2.21	0.84	0.88		322		
Σ	42.0	38.4	10.00	11.52	3.98	4.42	1.68	1.76		643		
S. P.	-79.0	+68.7		+9.7		-4.1		-0.3				
AC-N	.13	.10		.12		.12	.14	.11				
Pot. Res												

INDUCED POLARIZATION SENDER NOTES

Project: KAYSER Line: 4-SP-1 Date:

Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3	—		CAL	2-3
Receive	0-1500	1500—	3000	3000—	4500	4500—	6000	6000—	7500			
Time												
Range	400 V	260 V	400 V	✓	✓	✓	✓	✓				200 V
Current	6A	✓	✓	✓	✓	✓	✓	✓				3A
Send												
Receive												
Time												
Range												
Current												

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING_____



AREA Kayer C/6 LINE 4 a = 1500' SCALE: 1"=1500' DATE: 6-17-66

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING _____

AREA _____ LINE _____ SCALE: _____ DATE: _____

HEINRICHS GEOEXPLORATION COMPANY
INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

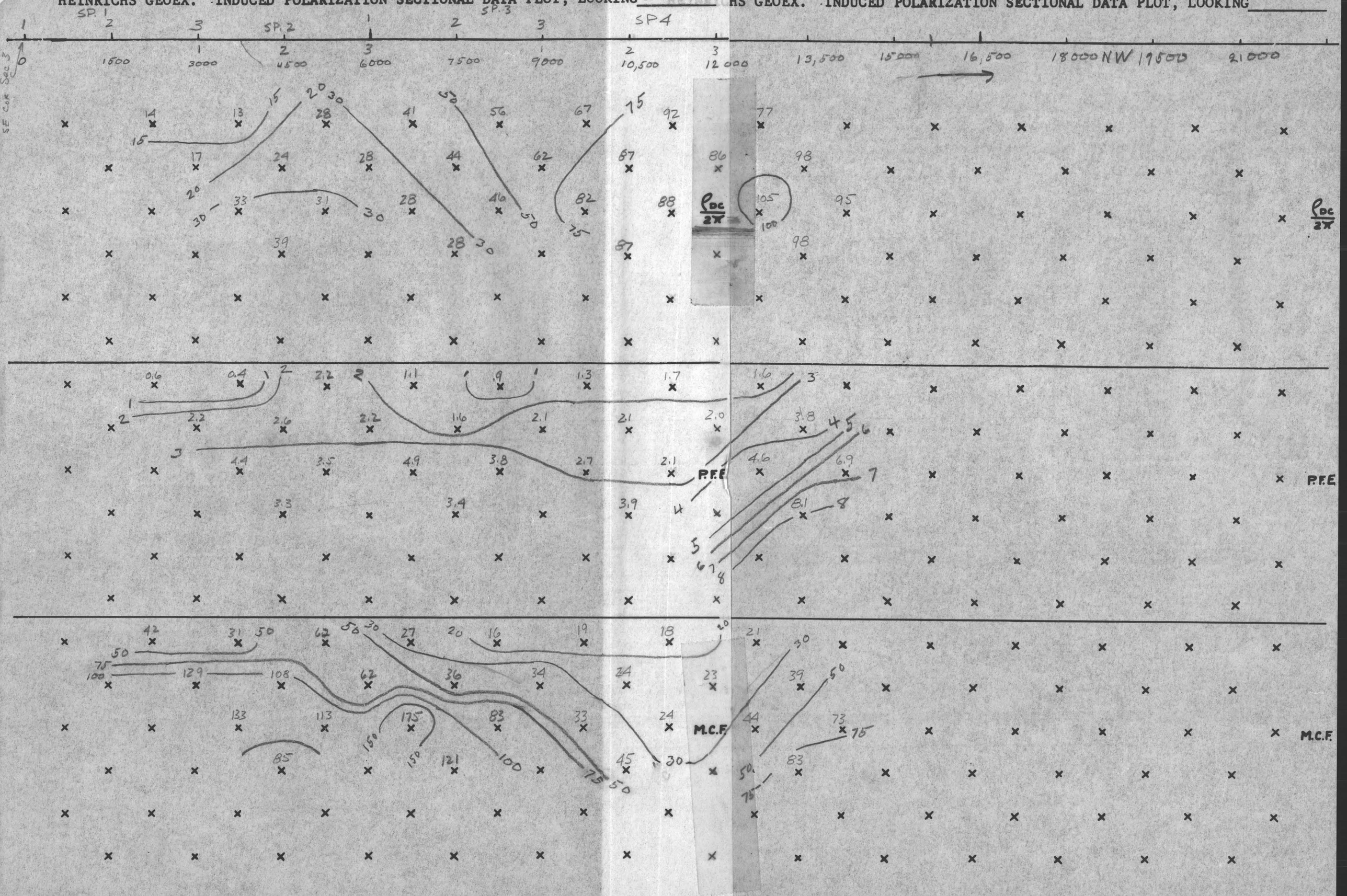
Project Kayer C/G Line 4 - Sp' Field date 6-17-66 Data page 1 Comp. date 6-17-66. Comp by R.P.

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2	2-3		cal		
(B) Receive	0-15	15-30	→	30-45	→	45-60	→	60-75		0-15		
(C) n separation	1	1	2	2	3	3	4	4				
(D) I	6	→						→		3		
(E) Vdc (avg)	41.9	38.4	10.34	12.00	4.24	4.69	1.83	1.97		630		
(F) DCcal	.477											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90	90				
(H) ρ dc=ExFxGx10^3/D	15	14	15	17	15	17	13	14				
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$	42.0	38.4	10.00	11.52	3.98	4.42	1.68	1.76		643		
(L) AC-DC cal.	1.021											
(M) ρ dc/ρac=ExL/K	1.018	1.021	1.058	1.062	1.093	1.084	1.112	1.145				
(N) PFE=(M-1)(10^2)	1.8	2.1	5.8	6.2	9.3	8.4	11.2	14.5				
(O) MCF=(M-1)(10^5)/H												

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

HEINRICHS GEOEX. INDUCED POLARIZATION SECTIONAL DATA PLOT, LOOKING S60W



AREA _____ LINE 1 a = 1500' SCALE: 1" = 1500' DATE: 5-28-66

LINE _____ a = ' SCALE: _____ DATE: _____

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 1

Project Kayer C/G Line 1 - Sp. 1 Field date 5-27-66 Data page 1 Comp. date 5-28-66. Comp by R.P.

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		Cal.			
(B) Receive	0-15	15-30	→	30-45	→	45-60	→		2-3			
(C) n separation	1	1	2	2	3	3	4					
(D) I	6000	6000	6000	6000	6000	6000	6000		3000			
(E) Vdc (avg)	39.23	35.69	11.42	16.27	9.05	8.57	5.26					
(F) DCcal	.489								614			
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90					
(H) ρ dc=ExFxGx10^3/D	14	13	17	24	33	31	39					
(I) Vac Σ												
(J) AC noise x 2	.09	.10		.12		.28						
(K) Vac(corr) = $\sqrt{I^2 - J^2}$	38.6	35.2	11.06	15.7	8.58	8.20	5.04		620			
(L) AC-DC cal.	.990											
(M) ρ dc/ρac=ExL/K	1.006	1.004	1.022	1.026	1.044	1.035	1.033					
(N) PFE=(M-1)(10^2)	0.6	0.4	2.2	2.6	4.4	3.5	3.3					
(O) MCF=(M-1)(10^5)/H	42	31	129	108	133	113	85					
	-22.9	+18.5		-11.9		+23.9						

Project Line Field date Data page Comp. date Comp by

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) = $\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 2

Project Kayer C/G Line 1 Sp 2 Field date 5-31-66 Data page 2 Comp. date 5-31-66. Comp by R.P.

(A) Send	2-3	1-2	2-3	1-2	2-3	1-2	2-3		cal			
(B) Receive	0-15	15-30 →		30-45 →		45-60 →			0-15			
(C) n separation	1	1	2	2	3	3	4					
(D) I	5000 →								3000			
(E) Vdc (avg)	65.8	97.4	16.57	25.8	6.58	10.74	3.27		636			
(F) DCcal	.472											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90					
(H) ρ dc=ExFxGx10^3/D	28	41	28	44	28	46	28					
(I) Vac Σ	64.2	96.2	16.2	25.4	6.28	10.36	3.16		636			
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	1.0											
(M) ρ dc/ρac=ExL/K	1.022	1.011	1.022	1.016	1.049	1.038	1.034					
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H	62	27	62	36	175	83	121					

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

1 1 1 1.4 1.3 1.5 1.5 1.7 1.6

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project_____ Line 1 W½ Field date_____ Data page_____ Comp. date_____. Comp by_____

(A) Send	4-5	3-4	45	2-3	34	4-5	1-2	2-3	3-4	4-5	1-2	2-3
(B) Receive	0-500W	500-10W	→	10-15W	→	→	15-20W			→	20-25W	
(C) n separation	1	1	2	1	2	3	1	2	3	4	2	3
(D) I in milliamps	2 A	→	→	→	→	→	→	→	→	→	→	→
(E) Vdc (avg)	135	142	126	16	3000							
(F) DCcal	.943	→	→	→	→	→	→	→	→	→	→	→
(G) Kn x 10^{-3}	1.5	1.5	6	1.5	6	15	1.5	6	15	30	6	15
(H) ρ dc=ExFxGx10^3/D	95.47	–	–	–	–	–						
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.	.981	→	→									
(M) ρ dc/ρac=ExL/K	1.068	1.03	1.05	1.11	1.21							
(N) PFE=(M-1)(10^2)	6.8	3	5	11	21							
(O) MCF=(M-1)(10^5)/H	71											

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send	3-4	4-5	1-2	2-3	3-4	4-5			Cal			
(B) Receive	→	→	25-3000	→	→	→						
(C) n separation	4	5	3	4	5	6						
(D) I	→	→	→	→	→	→			1000	1000		
(E) Vdc (avg)	→	→	→	→	→	→			1060	933		
(F) DCcal	→	→	→	→	→	→						
(G) Kn x 10^{-3}	30	52.5	15	30	52.5	84						
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$									1040			
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page 3

Project Kayer C/6 Line 1 Sp 3 Field date 6-1-66 Data page 3 Comp. date 6-1-66. Comp by R.P.

(A) Send	2-3	1-2	2-3	1-2	2-3	1-2	2-3		cal			
(B) Receive	0-15	15-30	→	30-45	→	45-60	→		0-15			
(C) n separation	1	1	2	2	3	3	4					
(D) I	6000	→	→	→	→	→	→		3000			
(E) Vdc (avg)	156.6	186.8	43.2	60.8	22.83	24.4	12.17		628			
(F) DCcal	.478											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90					
(H) ρ dc=ExFxGx10^3/D	56	67	62	87	82	88	87					
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$	156.8	186.2	42.8	60.8	22.5	22.2	11.82		634			
(L) AC-DC cal.	1.011											
(M) ρ dc/ρac=ExL/K	1.009	1.013	1.021	1.011	1.027	1.021	1.039					
(N) PFE=(M-1)(10^2)	.9	1.3	2.1	2.1	2.7	2.1	3.9					
(O) MCF=(M-1)(10^5)/H	16	19	34	24	33	24	45					

Project _____ Line _____ Field date _____ Data page _____ Comp. date _____ Comp by _____

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

HEINRICHS GEOEXPLORATION COMPANY

INDUCED POLARIZATION SURVEY COMPUTATION SHEET

Page_____

Project Kayer 4/6 Line 1 Sp 4 Field date 6-2-66 Data page 4 Comp. date 6-4-66. Comp by R.P.

(A) Send	1-2	2-3	1-2	2-3	1-2	2-3	1-2		cal.			
(B) Receive	0-15	15-30	→	30-45	→	45-60	→		2-3			
(C) n separation	1	1	2	2	3	3	4		0-15			
(D) I	6000	→					→		3000			
(E) Vdc (avg)	257	215	59.97	69.57	29.29	26.39	13.64		628			
(F) DCcal	.478											
(G) Kn x 10^{-3}	4.5	4.5	18	18	45	45	90					
(H) ρ dc=ExFxGx10^3/D	92	77	86	98	105	95	98					
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac(corr) $=\sqrt{I^2 - J^2}$	258	216	60.0	68.4	28.6	25.2	12.88		641			
(L) AC-DC cal.	1.021											
(M) ρ dc/ρac=ExL/K	1.017	1.016	1.020	1.038	1.046	1.069	1.081					
(N) PFE=(M-1)(10^2)	1.7	1.6	2.0	3.8	4.6	6.9	8.1					
(O) MCF=(M-1)(10^5)/H	18	21	23	39	44	73	83					

Project_____ Line_____ Field date_____ Data page_____ Comp. date_____ Comp by_____

(A) Send												
(B) Receive												
(C) n separation												
(D) I												
(E) Vdc (avg)												
(F) DCcal												
(G) Kn x 10^{-3}												
(H) ρ dc=ExFxGx10^3/D												
(I) Vac Σ												
(J) AC noise x 2												
(K) Vac (corr) $=\sqrt{I^2 - J^2}$												
(L) AC-DC cal.												
(M) ρdc/ρac =ExL/K												
(N) PFE=(M-1)(10^2)												
(O) MCF=(M-1)(10^5)/H												

Proposed I.P. Lines to test pediment around a portion of the Courtland Mining District. Lines using 1000 foot dipoles spaced 1/4 mile apart.

HEINRICHS GEOEX
GEOPHYSICAL ENGINEERS
TUCSON, ARIZONA

7

GRAVITY SURVEY

(LEVELING DATA)

COURTLAND - GLEESON - ELFRIDA AREA

FOR

PAUL KAYSER

JUNE, 1966

π : R. ZUNIGA
φ : F. LEON LOPEZ

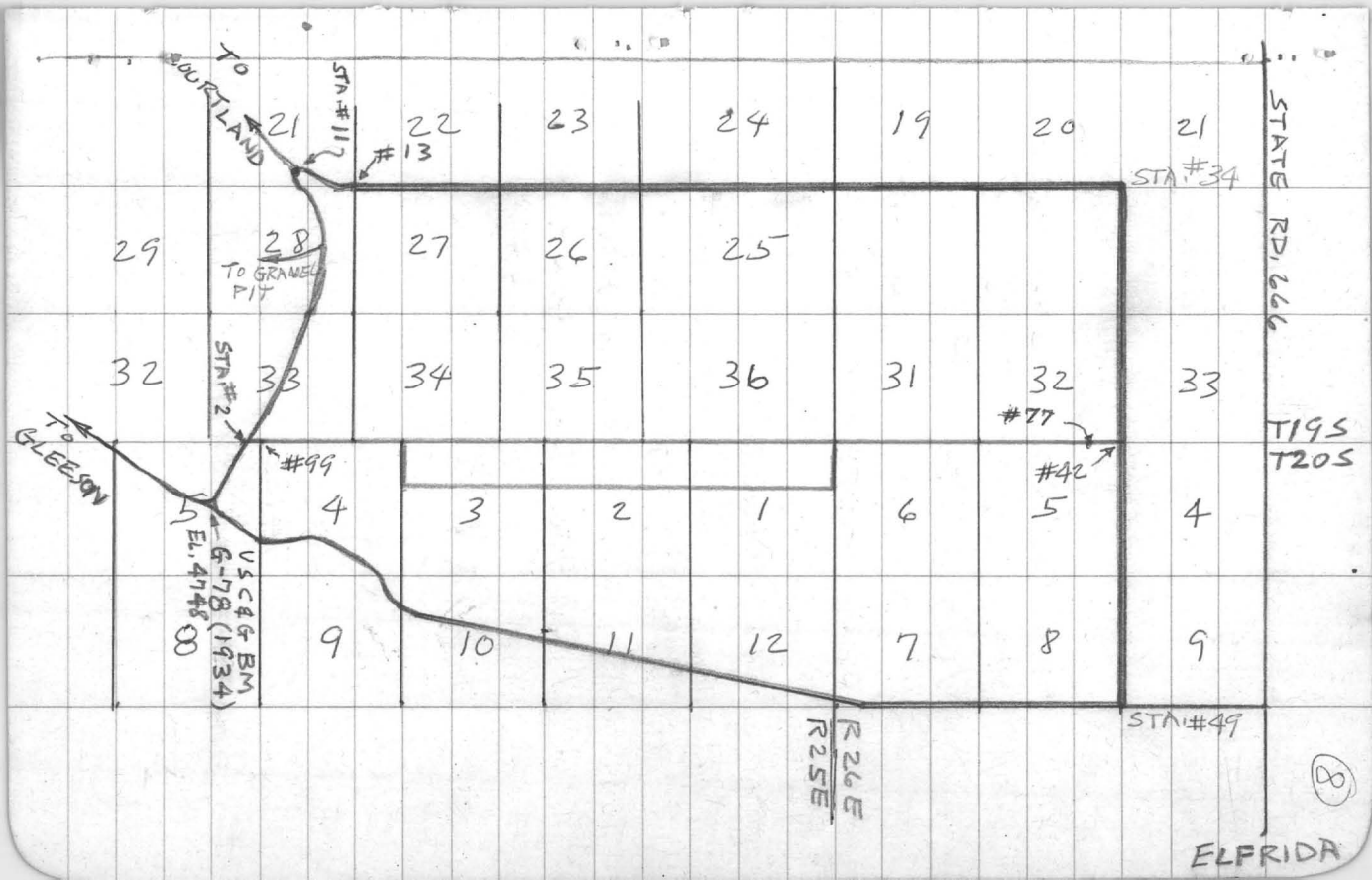
(PAGES 7 through 53)

HEINRICHS GEOEX
GEOPHYSICAL ENGINEERS
TUCSON, ARIZONA

KAYSER PROJECT
GRAVITY SURVEY

APPROX. TWENTY LINEAL MILES ON OUTER PERIMETER, AS SHOWN ON OPPOSITE PAGE.
2 X 2 HUBS, FLUSH WITH GROUND, APPROX. 1320' STATION TO STATION, UNLESS OTHERWISE NOTED.
POINT OF BEGINNING BEING USC&G BM G-78 LOCATED IN ISLAND AT ELFRIDA-GLEESON-COURTLAND ROAD JUNCTION, IN SEC. 5, T19S, R25E, G & SR B & M

6-28-66
R. ZUNIGA
F. HEINRICHS
F. L. LOPEZ


TO COURTLAND
STA #17
#13
21
22
23
24
19
20
21
STA. #34
STATE RD. 666
29
28
TO GRAVEL PIT
27
26
25
32
STA #2
33
34
35
36
31
32
33
#77
#42
T19S
T20S
TO GLEESON
#99
5
4
3
2
1
6
5
4
VSC&GBM
G-78 (1934)
EL. 4748.00
9
10
11
12
7
8
9
STA. #49
R26E
R25E
ELFRIDA
8

PROFILE ALONG GLEESON-COURTLAND

STA.	+	H.I.	−	EL.	DIST
BM				4748.00	
	9.14	57.14			1320 ±
T.P.			11.97	45.17	
	0.59	45.76		4737.50	
# 1			8.26	47.50	
	1.09	38.59 ~~48.59~~			
T.P.			10.52	28.07 ~~38.07~~	
	0.34	28.41 ~~38.41~~			1320 ±
T.P.			11.81	16.60 ~~26.60~~	
	3.02	19.62 ~~29.62~~			
T.P.			12.43	7.19 ~~17.19~~	
	0.57	7.76 ~~17.76~~			
T.P.			12.81	694.95 ~~704.95~~	
	1.22	696.17 ~~706.17~~		4685.19	
# 2			10.98	695.19	
	1.59	86.78 ~~96.78~~			
T.P.			12.60	74.18 ~~84.18~~	
	0.53	74.71 ~~84.71~~			1320 ±
T.P.			12.93	61.78 ~~71.78~~	
	2.42	64.20 ~~74.20~~		4659.10	
# 3			5.10	~~69.10~~	

6-28-66, 1 PM
π & ⊡ = R. ZUNIGA (9)
φ = F. LEON LOPEZ
HOT - CLOUDY

ROAD

REMARKS

U.S. C & G B.M. #G-78, 1934 @
JCT. GLEESON-COURTLAND-ELFRIDA RDS.

2 X 2 HUB E. SIDE OF RD.

2 X 2 HUB E. SIDE OF RD. $\frac{33}{5}$

2 X 2 HUB E. SIDE OF RD.
END OF DAY 6 PM.

STA.	+	HI	−	EL.	DIST.
				4655.10	
#3		59.44		69.10	
	0.34	~~69.44~~			
				46.78	
T.P.			12.66	~~56.78~~	
		49.37			
	2.59	~~59.37~~			
				42.94	
T.P.			6.43	~~52.94~~	
		45.50			
	2.56	~~55.50~~			
				4643.35	
#4			2.15	~~53.35~~	
				42.17	
T.P.			3.33	~~52.17~~	
		53.22			
	11.05	~~63.22~~			
				53.04	
TP			0.18	~~63.04~~	
		65.88			
	12.84	~~75.88~~			
				65.65	
T.P.			0.23	~~75.65~~	
		78.28			
	12.63	~~88.28~~			
				4668.24	
#5			10.04	~~78.24~~	
				88.13	
T.P.			0.15	~~88.13~~	
		90.19			
	12.06	~~700.19~~			
				89.89	
T.P.			0.30	~~699.89~~	
		698.45			
	8.56	~~708.45~~			
				697.18	
T.P.			1.27	~~707.18~~	
		05.42			
	8.24	~~15.42~~			
				470234	
#6			3.08	~~12.34~~	
		09.82			
	7.48	~~19.82~~			
				05.62	
T.P.			4.20	~~15.62~~	
		11.08			
	5.46	~~21.08~~			

1320 +

1320 +

1320 +

1320 +

6-29-66 (10)
π & ⌂ = R. ZUNIGA
Φ = F. LEON LOPEZ

A.M. HOT-HUMID
P.M. RAIN

REMARKS

2X2 HUB E. SIDE OF RD

2X2 HUB W. SIDE OF RD.

2X2 HUB E. SIDE OF RD.

STA.	+	H.I.	—	EL.	DIST.
		21.08 ~~21.08~~			
T.P.			3.83	07.25 ~~17.25~~	
	5.79	13.04 ~~23.04~~			
# 7			4.45	4708.59 ~~18.59~~	
	2.71	11.30 ~~21.30~~			
T.P.			2.26	09.04 ~~19.04~~	1320 ±
	6.33	15.37 ~~25.37~~			
T.P.			4.66	10.71 ~~20.71~~	
	4.34	15.05 ~~25.05~~			
# 8			10.62	4704.43 ~~14.43~~	
	2.56	06.99 ~~16.99~~			
T.P.			7.68	4669.31 ~~9.31~~	
	3.68	02.99 ~~12.99~~			
T.P.			9.56	4693.43 ~~3.43~~	1320 ±
	4.48	97.91 ~~7.91~~			
# 9			4.34	4693.57 ~~3.57~~	
	0.59	4694.16 ~~704.16~~			
T.P.			11.61	682.55 ~~692.55~~	
	1.35	83.90 ~~93.90~~			
T.P.			12.11	71.79 ~~81.79~~	1320 ±
	0.20	71.99 ~~81.99~~			
T.P.			11.63	60.36 ~~70.36~~	
	1.55	61.91 ~~71.91~~			
#10			7.70	4654.21 ~~64.21~~	

REMARKS

2X2 HUB W. SIDE OF RD.

2X2 HUB W. SIDE OF RD.

2X2 HUB @ JCT. RD. TO GRAVEL PIT

2X2 HUB E. SIDE OF RD.

STA.	+	H.I.	−	EL.	DIST.
				4637.21	
#10		55.14 ~~65.14~~		64.21	
	0.93				
				42.40 ~~52.40~~	
T.P.		43.03 ~~53.03~~	12.74		
	0.63				
				36.33 ~~46.33~~	+1
T.P.		43.86 ~~53.86~~	6.70		0
	7.53				1850
				43.56 ~~53.56~~	
T.P.		52.41 ~~62.41~~	0.30		
	8.85				
				51.10 ~~61.11~~	
T.P.		61.25 ~~71.26~~	1.31		
	10.15				
				4660.45	
#11		60.91 ~~70.00~~	0.80	~~70.46~~	
	0.46				
				48.32 ~~57.41~~	
T.P.		48.46 ~~57.55~~	12.59		
	0.14				
				36.04 ~~45.13~~	+1
T.P.		36.94 ~~46.03~~	12.42		1320
	0.90				
				26.14 ~~35.23~~	
T.P.		27.76 ~~36.85~~	10.80		
	1.62				
				4618.90	
#12		19.95 ~~29.04~~	8.86	~~27.99~~	
	1.05				
				07.96 ~~17.05~~	+1
T.P.		08.76 ~~17.85~~	11.99		1050
	0.80				
				06.50 ~~15.59~~	
T.P.		09.64 ~~18.73~~	2.26		
	3.14				

REMARKS

2X2 HUB @ JCT. RD. E. TO HIWAY 666

2 X 2 HUB ON S. SIDE OF RD.

STA.	+	H.I.	—	ELV	DIST.
		~~93.54~~ ~~18.73~~		4601.51	
#13		03.88	8.13	~~10.60~~	
	1.72	~~12.32~~		596.23	
T.P.		97.25	7.00	~~5.32~~	
	1.02	~~606.34~~		85.06	
T.P.		85.09	12.19	~~594.15~~	
	0.03	~~494.18~~		4575.39	
#14			9.70	~~84.48~~	

1850'

REMARKS

2 X 2 HUB ON N. SIDE OF RD. @ CATTLEGUARD
21 | 22
28 | 27 T19S R25E G&SR B&M

2 X 2 HUB ON S. SIDE OF RD.
(END OF DAY)

STA.	+	HI	−	EL.	DIST
#14		76.19 ~~85.28~~		~~584.48~~ 4575.39	
	0.80				
T.P.		66.84 ~~75.93~~	10.55	65.64 ~~74.73~~	
	1.20				
T.P.		56.90 ~~65.99~~	10.09	56.75 ~~65.84~~	
	0.15				
#15		45.99 ~~55.08~~	11.47	4545.43 ~~54.52~~	
	0.56				
T.P.		35.17 ~~44.26~~	10.87	35.12 ~~44.21~~	
	0.05				
T.P.		24.31 ~~40.40~~	11.59	23.58 ~~32.67~~	
	0.73				
T.P.		14.68 ~~30.77~~	11.45	12.86 ~~28.95~~	
	1.82				
#16			3.99	4510.69 ~~26.78~~	
T.P.		0394 ~~20.03~~	10.76	583.92 ~~20.01~~	
	0.02				
T.P.		495.24 ~~511.33~~	9.73	494.21 ~~10.30~~	
	1.03				
T.P.		487.19 ~~502.26~~	9.96	485.28 ~~501.37~~	
	1.89				
#17			3.72	4483.45 ~~498.54~~	
T.P.		7708 ~~92.17~~	10.14	~~92.12~~ 477.03	
	0.05				

6-30-66, (14)
T & ☑ = R. ZUNIGA
¢ = F. L. LOPEZ
A.M. HOT - HUMID

REMARKS

2X2 HUB S. SIDE OF RD

2X2 HUB S. SIDE OF RD.

2X2 HUB S. SIDE OF RD.

STA.	+	HI	-	EL.	DIST
		~~92.17~~ 47708		66.65	
T.P.			10.43	~~81.74~~	
	0.99	~~67.64~~ ~~82.73~~			
				57.28	
T.P.			10.36	~~72.37~~	
	0.66	57.94 ~~73.03~~			
				4454.15	
# 18			3.79	~~69.24~~	
T.P.			9.92	~~63.16~~ 48.02	
	0.15	48.17 ~~63.26~~			
				38.52	
T.P.			9.65	~~53.61~~	
	0.94	39.46 ~~54.55~~			
				4430.61	
# 19			8.85	~~45.70~~	
	1.09	31.70 ~~46.79~~			
				21.79	
T.P.			9.91	~~36.88~~	
	1.17	22.96 ~~38.05~~			
				13.68	
T.P.			9.28	~~28.77~~	
	3.02	16.70 ~~31.79~~			
				4407.13	
# 20			9.57	~~22.22~~	
	2.30	09.43 ~~24.52~~			
				399.50	
T.P.			9.93	~~14.59~~	
	1.49	400.99 ~~16.08~~			
				390.59	
T.P.			10.40	~~5.68~~	
	0.92	391.51 ~~406.60~~			
				4382.90	
# 21			8.61	~~397.99~~	

REMARKS

2X2 HUB S. SIDE OF RD.

2X2 HUB S. SIDE OF RD.

2X2 HUB S. SIDE OF RD.

2X2 HUB S. SIDE OF RD.

STA.	+	HI	-	EL.	DIST
#21		84.28 ~~99.37~~		397.99 ~~4382.50~~	
	1.38			74.41 ~~89.50~~	1050 ±
T.P.		76.34 ~~91.43~~	9.87		
	1.93			4365.44 ~~80.53~~	
#22		67.92 ~~83.01~~	10.90		
	2.48			57.19 ~~72.28~~	
T.P.		58.88 ~~73.97~~	10.73		1320 ±
	1.69			48.87 ~~63.96~~	
T.P.		49.38 ~~64.47~~	10.01		
	0.51			4345.79 ~~60.88~~	
#23			3.59		
T.P.		40.91 ~~56.00~~	9.34	~~55.13~~ 40.04	
	0.87				1320 ±
T.P.		33.92 ~~49.01~~	9.47	31.44 ~~46.53~~	
	2.48			4326.02 ~~41.11~~	
#24		27.34 ~~42.43~~	7.90		
	1.32			16.44 ~~31.53~~	
T.P.		18.64 ~~33.73~~	10.90		1320 ±
	2.20			10.38 ~~25.47~~	
T.P.		13.41 ~~28.50~~	8.26		
	3.03			4305.63 ~~20.72~~	
#25			7.78		

REMARKS

2X2 HUB S. SIDE OF RD.

2X2 HUB S. SIDE OF RD.

2X2 HUB S. SIDE OF RD.

1X2 HUB S. SIDE OF RD.

STA.	+	HI	—	EL.	DIST.
#25				~~20.72~~ 4305.63	
	0.87	06.50 ~~21.59~~			
T.P.			9.29	~~12.30~~ 297.21	
	1.92	299.13 ~~14.22~~			
T.P.			10.47	288.66 ~~3.75~~	
	4.00	292.66 ~~307.75~~			
T.P.			8.91	83.75 ~~298.84~~	
	1.81	85.56 ~~300.65~~			
T.P.			9.42	76.14 ~~291.23~~	
	2.26	78.40 ~~93.49~~			
#26			4.15	4274.25 ~~89.34~~	
T.P.			8.95	~~84.54~~ 69.45	
	2.47	71.92 ~~87.01~~			
T.P.			9.30	~~77.71~~ 62.62	
	2.38	65.00 ~~80.09~~			
#27			9.15	4255.85 ~~70.94~~	
	3.01	58.86 ~~73.95~~			
T.P.			7.63	51.23 ~~66.32~~	
	3.33	54.56 ~~69.65~~			
T.P.			7.71	46.85 ~~61.94~~	
	3.86	50.71 ~~65.80~~			
#28			8.34	4242.37 ~~57.46~~	
	2.85	45.22 ~~60.31~~			

6-30-66 (17)
π = R. ZUNIGA
♡ = F. HEINRICHS
φ = F. L. LOPEZ
P.M. = HOT - HUMID

STA.	+	HI	−	EL.	DIST	REMARKS
BM				4153.08		
	3.01	67.09		4152.54 ✓		
#49			3.55	~~63.54~~		
T.P.			6.63	60.46		
	3.40	63.86				
T.P.			5.84	58.02		
	4.39	62.41				
T.P.			5.95	56.46		
	3.95	60.41		4144.80 ✓		
#50			4.61	~~55.80~~		
T.P			5.60	54.81		
	4.36	59.17				2x2 HUB S. SIDE OF RD.
T.P.			5.35	53.82		
	4.63	58.45				
T.P.			4.88	53.57		
	4.59	58.16		4141.52 ✓		
#51			5.64	~~52.52~~		2x2 HUB S. SIDE OF RD.
T.P.			5.24	52.92		
	5.25	58.17				
T.P.			6.06	52.11		
	3.99	56.10		4138.49 ✓		
#52			6.61	~~49.49~~		
	6.38	55.87				2x2 HUB S. SIDE OF RD.
T.P.			5.69	50.18		

STA.	+	H.I.	—	EL.	DIST.	REMARKS
		42.32 ~~60.31~~				
T.P.			7.72	37.50 ~~52.59~~		
	2.13	39.63 ~~54.72~~				
T.P.			8.94	30.69 ~~45.78~~		
	2.43	33.12 ~~48.21~~				2X2 HUB W. SIDE OF RD.
#29			6.33	4206.79 ~~41.88~~		
T.P.			9.21	~~39.00~~ 23.91		
	3.02	26.93 ~~42.02~~				
T.P.			8.52	18.41 ~~33.50~~		
	2.53	20.94 ~~36.03~~				
T.P.			7.58	18.36 ~~28.45~~		2X2 HUB @ S.W. COR. INTERSECTION
	3.22	16.58 ~~31.67~~				SET NAIL IN TEL. POLE N.W.
#30			4.54	4212.04 ~~27.13~~		COR. OF INTERSECTION
T.P.		10.45	8.47	~~23.20~~ 08.11		END OF DAY
	2.34	~~25.54~~				
T.P.		05.98	8.07	02.98 ~~17.47~~		
	3.60	~~21.07~~				
#31			7.36	4198.62 ~~13.71~~		
	4.04	202.66 ~~17.75~~				
T.P.			6.56	196.10 ~~11.19~~		
	4.45	200.55 ~~15.64~~				
T.P.			4.38	196.17 ~~11.26~~		
	3.72	99.89 ~~14.98~~				
#32			5.46	4194.43 ~~9.52~~		

CONT'D. ON PAGE 34

STA.	+	HI	−	EL.	DIST.	REMARKS
T.P.		69.88		~~65.17~~ ~~65.63~~		
	4.71	~~72.34~~		64.18		
T.P.		69.30	5.70	~~66.64~~		
	5.12	~~71.76~~		4151.49 ✓		
# 48		68.76	6.81	~~64.95~~		
	6.27	~~71.22~~		63.17		Railroad Spike S. SIDE OF RD.
T.P.		68.90	5.59	~~65.63~~		
	5.73	~~71.36~~		63.88		
T.P.		68.71	5.02	~~66.34~~		
	4.83	~~71.17~~		4152.54 ✓		
# 49			5.17	~~66.00~~		
BM			4.63	~~66.54~~		
				4153.08 ✓		2x2 HUB S. SIDE OF RD.
						2x2 HUB S. SIDE OF RD.
						2x2 HUB S. SIDE OF RD.

STA	+	H.I	-	ELEV	DIST	REMARKS
				194.73		
#32		99.29	5.46	~~9.52~~		
T.P.	4.86	~~14.38~~		94.18		
		98.49	5.11	~~9.27~~		
T.P.	4.31	~~13.58~~		93.69		
		98.70	4.80	~~8.78~~		2X2 HUB W. SIDE OF RD
T.P.	5.01	~~13.79~~		93.63		
		99.03	5.07	~~8.72~~		
#33	5.40	~~14.12~~		94.00		
T.P		200.76	5.03	~~9.09~~		
	6.76	~~15.85~~		196.21		2X2 HUB W. SIDE OF RD.
T.P		202.00	4.55	~~11.30~~		
	5.79	~~17.09~~		196.81		
T.P		202.51	5.19	~~11.90~~		
	5.70	~~17.60~~				
#34			4.82	~~212.78~~ 197.69		

VOIDED BY R. ZUNIGA, 7-6-66. SEE PAGE 34

2X2 HUB W. SIDE OF RD

STA.	+	H.I.	—	EL.	DIST.	REMARKS
		~~81.52~~ ~~83.98~~		75.60		
T.P.		80.95	5.92	~~78.06~~		
	5.35	~~83.41~~		74.43		
T.P.		78.81	6.52	~~76.89~~		
	4.38	~~81.27~~		4163.09		
#45			4.72	~~76.55~~		
T.P.		76.44	6.16	~~72.65~~ 75.11		
	3.79	~~78.90~~		69.62		
T.P.		74.30	6.82	~~72.08~~		2x2 HUB S. SIDE OF RD.
	4.68	~~76.76~~		4157.44		
#46			5.86	~~70.90~~ 68.13		
T.P.		73.13	6.17	~~70.59~~		
	5.00	~~75.59~~		67.25		
T.P.		72.43	5.88	~~69.71~~		
	5.18	~~74.89~~		66.43		
T.P.		71.95	6.00	~~68.89~~		2x2 HUB S.E. COR. OF INTER-
	5.52	~~74.41~~		66.76		SECTION @ N.E. CORNER OF
T.P.		71.74	5.19	~~69.22~~		PROJECT,
	4.98	~~74.20~~		4154.95		END OF DAY
#47		71.36	5.79	~~68.41~~		
	5.41	~~73.82~~		65.83		
T.P.		70.99	5.53	~~68.29~~		
	5.16	~~73.45~~		65.17		
T.P.			5.82	~~67.63~~		

STA.	+	HI	—	EL	DIST.	REMARKS
#34				4212.78		
	2.75	202.07 15.53		95.99		2X2 HUB S.W. COR. INTERSECTION
T.P.		200.18 13.64	6.08	9.45		
	4.19			94.57		
T.P.		99.38 12.84	5.61	8.03		
	4.81			4194.31		
#35		97.78 11.24	5.07	7.77		
	3.47			91.41		
T.P.		96.69 10.15	6.37	4.87		
	5.28			91.16		2X2 HUB W. SIDE OF RD.
T.P.		95.81 9.27	5.53	4.62		
	4.65			4190.91		
#36		93.83	4.90	4.37		
T.P.		94.83 7.29	6.43	89.38 2.84		
	4.45			88.16		
T.P.		92.14 4.60	6.67	200.62		
	3.98			4184.63		
#37		89.75 202.21	6.51	198.09		2X2 HUB W. SIDE OF RD.
	4.12			83.46		
T.P.		88.33 200.79	6.29	95.92		
	4.87			82.36		
TP		87.58 200.04	5.97	94.82		
	5.22			4181.54		
#38			5.04	195.00		

7-1-66 (20)
T&M = R. ZUNIGA
9 = F. L. LOPEZ
HOT - DRY

STA.	+	H.I.	-	EL.	DIST.	REMARKS
		~~93.43~~ 95.89		4177.42 ✓		
#42		93.23	5.01	~~90.88~~		
	4.81	~~95.69~~		86.56		
T.P.		90.96	6.67	~~89.02~~	+1	
	4.40	~~93.42~~		85.49	700	
T.P.		90.18	5.47	~~87.95~~		
	4.69	~~92.64~~		85.56		2X2 HUB E. SIDE OF RD.
T.P.		89.30	4.62	~~88.02~~		
	3.74	~~91.76~~		4171.82 ✓		
#43		87.71	6.48	~~85.28~~		
	4.89	~~90.17~~		81.99		
T.P.		86.45	5.72	~~84.45~~		
	4.46	~~88.91~~		80.68		2X2 HUB E. SIDE OF RD
T.P.		85.49	5.77	~~83.14~~		
	4.81	~~87.95~~		79.72		
TP		84.80	5.77	~~82.18~~		
	5.08	~~89.26~~		4168.57 ✓		
#44			5.23	~~82.03~~ 78.41		2X2 HUB E. SIDE OF RD.
T.P.		83.53	6.39	~~80.87~~		
	5.12	~~85.99~~		78.70		
T.P.		81.57	4.83	~~81.16~~		
	2.87	~~84.03~~		75.85		
T.P.		81.52	5.72	~~78.31~~		
	5.67	~~83.98~~				2X2 HUB E. SIDE OF RD.

STA.	+	H I	−	EL.	DIST	REMARKS
				~~4181.54~~		
#38		86.72		~~4195.00~~		
	4.18	~~99.18~~		81.09		
T.P.		86.33	5.63	~~93.55~~		
	5.24	~~98.79~~		81.01		
T.P.		85.63	5.32	~~93.47~~		
	4.62	~~98.09~~		4179.01 ✓		
#39		83.17	5.62	~~92.47~~		2X2 HUB E. SIDE OF RD.
	3.16	~~95.63~~		87.29		
T.P.		92.27	5.88	~~89.75~~		
	4.98	~~94.73~~		86.65		
T.P.		93.10	5.62	~~89.11~~		
	6.45	~~95.56~~		4176.49 ✓		
#40		93.03	5.61	~~89.95~~		2X2 HUB W. SIDE OF RD.
	5.54	~~95.49~~		88.03		
T.P.		93.48	5.00	~~90.49~~		
	5.45	~~95.94~~		88.15		
T.P.		93.54	5.33	~~90.61~~		
	5.39	~~96.00~~		4178.56 ✓		
#41		94.20	3.98	~~92.02~~		2X2 HUB W. SIDE OF RD.
	4.64	~~96.66~~		89.17		
T.P.		94.40	5.03	~~91.63~~		
	5.23	~~96.86~~		89.41		
T.P.		93.43	4.99	~~91.87~~		
	4.02	~~95.89~~				

7-5-66 (25)
π & ☐ = R. ZUNIGA
φ = F. L. LOPEZ
AM. HOT - DRY
P.M. WINDY

REMARKS

2X2 HUB N. SIDE OF RD.

2X2 HUB. N. SIDE OF RD

2X2 HUB N. SIDE OF RD.

STA.	+	HI	—	EL.	DIST.
				50.18	
	4.18	54.36			
T.P.			6.27	48.09	
	3.97	52.06		4134.46	
#53			6.60	~~4546~~	
	6.27	51.73			
T.P.			5.55	46.18	
	5.45	51.63			
T.P.			4.89	46.74	
	5.06	51.80		4131.79	
#54			9.01	~~42.79~~	
	8.37	51.16			
T.P.			5.49	45.67	
	5.04	50.71			
T.P.			5.38	45.33	
	3.84	49.17			
T.P.			5.38	43.79	
	5.87	49.66		4133.34	
#55			5.32	44.34	

REMARKS

2X2 HUB N. SIDE OF RD.

2X2 HUB N. SIDE OF RD.

2X2 HUB S. SIDE OF RD.
END OF DAY

STA.	+	HI	−	El	DIST
#55				~~44.34~~ 4133.34	
	7.77	52.11			
T.P.			4.26	47.85	
	6.38	54.23			
T.P.			3.96	50.27	
	7.84	58.11		4141.17 ✓	
#56			5.94	~~52.17~~	
T.P.			3.79	54.32	
	7.68	62.00			
T.P.			3.52	58.48	
	8.57	67.05			
T.P.			1.80	65.25	
	8.14	73.49		4160.08 ✓	
#57			2.31	~~71.18~~	
	8.13	79.31			
T.P.			2.09	77.22	
	8.59	85.81			
T.P.			2.26	83.55	
	8.83	92.38		4179.13 ✓	
#58			2.15	~~90.23~~	
	7.67	97.90			
T.P.			1.68	96.22	
	9.61	205.83			
T.P.			0.73	205.10	

7-6-66 (27)
T.& ☐ = R. ZUNIGA
Φ = F.L. LOPEZ
A.M. HOT-DRY
P.M. WINDY

STA.	+	HI	−	EL	DIST.	REMARKS
		297.66		~~4293.60~~ 4295.60		
	2.06	~~295.66~~		287.13		
T.P.		288.38	10.53	~~285.13~~		
	1.25	~~286.38~~		78.30		
T.P.		79.24	10.08	~~76.30~~		
	0.94	~~77.24~~		68.47		
T.P.		70.53	10.77	~~66.47~~		2X2 S. SIDE OF RD.
	2.06	~~68.53~~				
T.P.			2.06	68.47		
	9.43	77.90				
#90			2.59	75.31 ✓		
						2X2 HUB N. SIDE OF RD.
						2X2 N. SIDE OF RD. (HUB)

STA.	+	HI	−	EL.	DIST.	REMARKS
				4205.10		
	9.07	14.17		4200.73 ✓		
#59			2.34	~~11.83~~		
	9.83	21.66				
T.P.			2.30	19.36		
	8.42	27.78				2X2 HUB 225'± W. OF POWER LINE. 34/35 3/2 UNDER (FND.)
T.P.			1.60	26.18		
	8.30	34.48		4221.49 ✓		
#60			1.89	~~32.59~~		
	8.82	41.41				
T.P.			1.28	40.13		
	10.06	50.19				
T.P.			1.44	48.75		
	8.67	57.42		4239.42 ✓		
#61			6.90	~~50.52~~		
T.P.			1.35	56.07		
	9.81	65.88				
T.P.			0.14	65.74		
	9.33	75.07				
T.P.			1.66	73.41		
	10.18	83.59		4266.95 ✓		
#62			5.54	~~78.05~~		2X2 HUB 35/2 1/4 COR. N. OF POWER LINE (FND.) (C.C. 500'± W) 34/35 (FND.) 3/2 CC
T.P.			0.02	83.57		
	11.14	94.71				

STA.	+	HI	—	EL,	DIST.	REMARKS
		~~4492.24~~		481.96		
T.P.		4493.24	11.28	~~80.96~~		
		83.33				
	1.37	~~81.33~~		472.53		2X2 HUB S. SIDE OF RD.
T.P.		74.07	10.80	~~70.53~~		
	1.54	~~72.07~~		4467.44		
#93			6.63	~~65.44~~		
T.P.		62.95	12.15	~~59.92~~		
				61.92		
	1.03	~~60.95~~		51.85		
T.P.		53.84	11.30	~~49.65~~		2X2 HUB S. SIDE OF RD.
	2.19	~~51.84~~		44.31		
T.P.		45.96	9.53	~~42.31~~		
	1.65	~~43.96~~		4433.04		
#92			12.92	~~31.04~~		
T.P.		35.53	12.53	~~31.43~~		
				33.43		
	2.10	~~33.53~~		24.35		2X2 HUB S. SIDE OF RD.
T.P.		25.91	11.18	~~22.35~~		
	1.56	~~23.91~~		15.47		
T.P.		18.17	10.44	~~13.47~~		
	2.70	~~16.17~~		307.87		
T.P.		309.87	10.30	~~305.87~~		
	2.00	~~307.87~~		4402.57		
#91		305.86	7.30	~~300.57~~		2X2 HUB S. SIDE OF RD.
	3.29	~~303.86~~		295.66		
T.P.			10.26	~~293.60~~		

STA.	+	HI	−	EL.	DIST.	REMARKS
		94.71				
T.P.			0.25	94.46		
	10.33	304.79		4292.47		
#63			1.22	~~303.57~~		
	10.34	303.91				
T.P.			0.02	303.89		
	11.06	14.95				
T.P.			0.12	314.83		2X2 UNDER POWER LINE
	10.42	25.25		4321.00		
#64			3.15	~~22.10~~		
T.P.			0.03	25.22		
	10.91	36.13				
T.P.			0.10	36.03		
	11.04	47.07				
T.P.			0.05	47.02		
	11.32	58.34		4353.91		2X2 HUB 34 1/4 COR. (FND.)
#65			3.33	~~55.01~~		
T.P.			0.14	58.20		
	12.07	70.27				
T.P.			0.02	70.25		
	11.38	81.63				2X2 HUB UNDER POWER LINE
T.P.			0.92	80.71		
	10.69	91.40		4384.15		
#66			6.15	~~85.25~~		

STA	+	HI	—	EL.	DIST.	REMARKS
		92.61				
T.P.			12.52	80.09		
	1.06	81.15				
T.P.			11.61	69.54		2X2 HUB S. SIDE OF RD.
	1.67	71.21		61.19		
T.P.		63.96	10.02	~~60.19~~ ✓		
	2.77	~~62.96~~		4553.50 ✓		
#96		55.68	10.46	~~52.50~~		
	2.18	~~54.68~~		42.59		
T.P.		43.01	13.09	~~41.59~~		2X2 HUB S. SIDE OF RD.
	0.42	~~42.01~~		34.05		
T.P.		35.43	8.96	~~33.05~~		
	1.38	~~34.43~~		26.41		
T.P.		28.15	9.02	~~25.41~~		
	1.74	~~27.15~~		4521.33 ✓		
#95			6.82	~~20.33~~		
T.P.		17.82	11.43	~~15.72~~		2X2 HUB S. SIDE OF RD.
	1.10	~~16.82~~		16.72 6.71		
T.P.		508.83	11.11	~~5.71~~		
	2.12	~~507.83~~		4498.05 ✓		
#94		501.40	10.78	~~497.05~~		
	3.35	~~500.40~~		491.34		
T.P.		493.24	10.06	~~490.34~~		
	1.90	~~492.24~~				

7-7-66
π & ☐ = R. ZUNIGA
φ = F.L. LOPEZ
AM. = DRY - HOT
P.M. = DRY - WINDY

(36)

STA.	+	HI	—	EL.	DIST.	REMARKS
		91.40				
T.P.			0.23	91.17		
	11.01	402.18				
T.P.			0.12	402.06		
	12.63	14.69				
T.P.			0.08	414.61		
	11.31	25.92		4419.72		
#67			5.10	~~20.82~~		
T.P.			0.12	25.80		2X2 N. SIDE OF FENCE 33/4 - 1/4 COR (FND.)
	11.77	37.57				
T.P.			0.44	37.13		
	11.23	48.36				
T.P.			0.13	48.23		
	11.52	59.75		4450.66		
#68			7.99	~~51.76~~		
T.P.			0.14	59.61		2X2 HUB @ FENCE
	12.31	71.92				
T.P.			0.24	71.68		
	10.72	82.40				
T.P.			0.16	82.24		
	9.98	92.22		4483.06		
#69			8.06	~~84.16~~		
BM			3.31	4478.81 ~~88.91~~		
T.P.			0.35	91.87		2X2 HUB 33/4 | 34/3 (FND.)

STA.	+	HI	−	EL.	DIST.	REMARKS
#2				468.519		
	2.50	87.69				
T.P.			12.87	74.82		
	0.62	75.44				
T.P.			12.98	62.46		
	1.03	63.49				
T.P.			11.18	52.31		
	1.22	53.53				2X2 HUB S. SIDE OF RD.
#99			7.42	46.11		
			11.19	42.34		
	3.04	45.38				
T.P.			10.31	35.07		
	6.08	41.15				
T.P.			6.56	34.59		
	2.58	37.17				2X2 HUB N. SIDE OF RD
#98			12.06	25.11		
	1.29	26.40				
T.P.			12.71	13.69		
	0.98	14.67				
T.P.			11.11	603.56		
	0.61	604.17				
T.P.			12.82	591.35		2X2 HUB N. SIDE OF RD
	1.26	92.61				USC&G BM H-78 (1934)
#97			6.82	85.79		

7-7-66
R. ZUNIGA

STA.	+	HI	—	EL.	DIST.
				91.87	
	10.90	502.77			
T.P.			0.02	502.75	
	11.55	14.30			
T.P.			0.06	14.24	
	11.78	26.02		4521.32	
#70			3.60	~~22.42~~	
T.P.			0.95	25.07	
	9.37	34.44			
T.P.			0.15	34.29	
	11.48	45.77			
T.P.			0.40	45.37	
	12.22	57.59		4553.43	
#71			3.06	~~54.53~~	
T.P.			0.52	57.07	
	10.52	67.59			
T.P.			0.89	66.70	
	9.60	76.30			
T.P.			0.88	75.42	
	10.18	85.60		4581.56	
#72			2.94	~~82.66~~	
T.P.			0.15	85.45	
	10.74	96.19			
T.P.			1.51	94.68	

LEVELS FROM STA. #2, THROUGH STA. 99 & 77 TO CLOSE AT STA. 42. EAST FROM GLEESON-COURTLAND RD., ALONG TOWNSHIP LINE (T19S-T20S) TO POINT ONE MILE WEST OF STATE RD. 666.

REMARKS

2X2 HUB N. SIDE OF RD.

2X2 HUB N. SIDE OF RD.

2X2 HUB N. SIDE OF RD.

7-6-66
T&M = R. ZUNIGA
Φ = F. L. LOPEZ
A.M. CALM

(34)

STA.	+	HI	—	EL.	DIST.	REMARKS
				94.68		
	10.20	504.88				
T.P.			0.20	504.68		
	12.06	16.74		4610.04		
#73			5.60	~~11.14~~		
T.P.			0.91	15.83		
	11.34	27.17				
T.P.			0.67	26.50		
	10.90	37.40				
T.P.			0.27	37.13		
	11.45	48.58		4642.52		
#74			4.96	43.62		
	9.35	52.97				
T.P.			1.95	51.02		
	10.54	61.56				
T.P.			0.31	61.25		
	12.48	73.73		4671.70		
#75			0.93	~~72.80~~		
	12.88	85.68				
T.P.			0.10	85.58		
	12.32	97.90				
T.P.			1.05	96.85		
	10.94	607.79				
T.P.			0.24	607.55		

(FROM PAGE 18)

STA	+	HI	−	EL.	DIST.	REMARKS
#32				4194.43		
	5.68	200.11				
T.P.			4.43	195.68		
	4.77	200.45				
T.P.			4.94	195.51		2X2 HUB N. SIDE OF RD.
	5.14	200.65				
#33			5.38	195.27		
	5.74	201.01				
T.P.			3.78	197.23		
	5.71	202.94				
T.P.			4.74	198.20		
	5.30	203.50				2X2 HUB S. SIDE OF RD.
#34			4.18	199.32		

CONT'D. ON PAGE 20

2X2 HUB S. SIDE OF RD.

STA	+	HI	—	EL	DIST.	REMARKS
				607.55		
	12.49	20.04		4717.25		
#76			1.19	18.85		2X2 HUB N. SIDE OF RD.
T.P.			0.31	19.73		
	8.94	28.67				
T.P.			3.12	25.55		
	9.40	34.95				
T.P.			1.29	33.66		
	12.18	45.84				
T.P.			2.85	42.99		
	8.82	51.81		4747.53		
BM			3.18	~~648.63~~		POINT OF BEGINNING, USC&G BM G-78, (1934) @ JCT. OF RDS. TO GLEESON-COURTLAND-ELFRIDA (END OF DAY)

BM = 4748.00
4747.53
ERROR .47

STA	+	HI	−	EL.	DIST.	REMARKS
		31.81				
T.P.			5.62	26.19		
	5.60	31.79		4226.72 ✓		
#84			5.05	~~26.74~~		

STA. #84 EL. 4226.71
ERROR .01

2X2 HUB N. OF POWER LINE
END OF DAY

STA.	+	HI	−	EL.	DIST.	REMARKS
# 90				4875.31		
	2.56	77.87				
T.P.			10.12	66.75		
	3.17	69.92				
T.P.			10.72	59.20		
	1.62	60.82				
T.P.			10.29	50.53		2X2 HUB
	2.10	52.63		4344.73		
# 89			8.90	~~43.73~~		
	2.76	47 ~~46.49~~				
T.P.			9.61	36.88		
	1.30	9 38.18				
T.P.			10.34	27.84		
	1.32	30 29.16		20.70		2X2 HUB
T.P.			9.46	18.62		
	1.26	91.96 19.88		4315.33		
# 88			6.63	~~+3.25~~		
T.P.		4305.98	10.01	209.87	4305.32	
	0.66	10.53				
T.P.			10.97	199.56		2X2 HUB
	0.62	200.18			4188.43	
# 87			11.75	188.43	4283.88	
	0.42	88.85				
T.P.			10.68	78.17		

7-8-66
T&M = R. ZUNIGA
ϕ = F. L. LOPEZ

(40)

STA.	+	HI	−	EL.	DIST	REMARKS
				94.66		
	2.36	97.02				
T.P.			9.32	87.70		
	0.75	88.45				
T.P.			11.60	76.85		
	1.61	78.46		4274.52 ✓		
#111			3.92	~~74.54~~		
T.P			10.27	68.19		
	1.54	69.73				2X2 HUB $\frac{35|36}{2|1}$ (FND.)
T.P.			9.23	60.50		
	1.13	61.63				
T.P.			11.99	49.64		
	1.81	51.45		4242.72 ✓		
#112			8.71	~~42.74~~		
	2.53	45.27				
T.P.			9.08	36.19		
	0.90	37.09				2X2 HUB ON FENCE LINE
T.P.			8.89	28.20		
	1.66	29.86		4220.22 ✓		
#113			9.62	~~20.24~~		
T.P.			6.44	23.42		
	6.59	30.01				2X2 HUB ON FENCE LINE. $\frac{36}{1}$ 1/4 COR (FND.) (350'± W. TO $\frac{35|36}{2|1}$ CC)
T.P.			5.52	24.49		
	7.32	31.81				

STA.	+	HI	−	EL.	DIST.	REMARKS
				178.17		
	1.16	79.33				
T.P.			10.84	68.49		
	1.39	69.88		4263.09		
#86			8.87	~~61.01~~		
	1.23	62.24				2X2 HUB
T.P.			9.65	52.59		
	1.58	54.17				
T.P.			8.74	45.43		
	1.88	47.31		4243.15		
#85			6.24	~~41.07~~		
T.P.			9.40	37.91		
	1.24	39.15				
T.P.			9.53	29.62		2X2 HUB
	2.96	32.58		4226.71		
#84			7.95	~~24.63~~		
T.P.			10.62	21.96		
	3.46	25.42				
T.P.			9.76	15.66		
	4.01	19.67				
T.P.			9.46	10.21		
	3.74	13.95				2X2 HUB
T.P.			7.56	106.39		
	2.98	109.37				

STA.	+	HI	−	EL.	DIST.	REMARKS
		79.70				
T.P.			9.94	69.76		
	1.60	71.36				
T.P.			10.32	61.04		
	1.19	62.23		4354.37		2X2 HUB ON FENCE LINE
#108			7.84	~~54.39~~		
	1.72	56.11				
T.P.			9.42	46.69		
	1.07	47.76				
T.P.			10.85	36.91		
	1.86	38.77				2X2 HUB ON FENCE LINE
T.P.			9.47	29.30		
	4.45	33.75		4327.16		
#109			6.57	~~27.18~~		
	3.15	30.33				
T.P.			9.02	21.31		2X2 HUB ON FENCE LINE 36/1 31/6 (FND.)
	2.35	23.66				
T.P.			10.14	13.52		
	0.73	14.25				
T.P.			10.13	04.12		
	1.09	05.21		4301.34		
#110			3.85	~~01.36~~		
	1.80	03.16				
T.P.			8.50	94.66		

STA.	+	HI	−	EL.	DIST.	REMARKS
		109.37		4206.22		
#83			5.23	~~104.14~~		2X2 HUB
T.P.			8.50	100.87		
	2.76	103.63				
T.P.			8.23	95.40		
	2.96	98.36				
T.P.			8.38	89.98		
	3.93	93.91		4188.31		
#82			7.68	~~86.23~~		2X2 HUB
	2.61	88.84				
T.P.			6.97	81.87		
	2.75	84.62				
T.P.			7.97	76.65		
	3.60	80.25		4175.87		
#81			6.46	~~73.79~~		2X2 HUB
T.P.			8.44	71.81		
	4.39	76.20				
T.P.			7.44	68.76		
	4.39	73.15				
T.P.			6.59	66.56		
	5.24	71.80		4167.38		
#80			6.50	~~65.30~~		
	6.32	71.62				
T.P.			5.30	66.32		

STA.	+	HI	−	EL.	DIST.	REMARKS
		55.52		4451.60		
#104			3.90	~~51.62~~		2X2 HUB N. SIDE OF RD
T.P.			11.93	43.59		
	2.96	46.55				
T.P.			12.42	34.13		
	2.39	36.52				
T.P.			10.84	25.68		
	1.51	27.19		4421.32		
#105			5.85	~~21.34~~		2X2 HUB N. SIDE OF RD.
	6.14	27.48				
T.P.			12.47	15.01		
	2.91	17.92				
T.P.			11.76	06.16		
	3.59	09.75		4404.91		
#106			4.82	~~04.93~~		2X2 HUB S. SIDE OF RD.
T.P.			8.25	01.50		
	1.86	03.36				
T.P.			10.29	93.07		
	1.91	94.98				
T.P.			9.11	85.87		
	2.00	87.87		4381.76		
#107			6.09	~~81.78~~		2X2 HUB S. SIDE OF RD.
T.P.			10.37	77.50		
	2.20	79.70				

STA.	+	H I	−	EL,	DIST.	REMARKS
				66.32		
	5.57	71.89				
T.P.			5.21	66.68		2X2 HUB
	4.22	70.90				END OF DAY 7-8-66
T.P.			4.58	66.32		7-9-66, ⊼ & ⊠ = R. ZUNIGA, ϕ = F.L. LOPEZ
	5.13	71.45		4169.39		
#79			4.14	~~67.31~~		
T.P.			5.41	66.04		
	5.82	71.86				
T.P.			5.84	66.02		
	5.49	71.51				
T.P.			5.22	66.29		
	5.65	71.94		4170.20		
#78			3.82	~~68.12~~		
T.P.			5.05	66.89		
	6.05	72.94				2X2 HUB
T.P.			4.88	68.06		
	5.78	73.84		4173.95		
#77			1.97	~~71.87~~		
T.P.			4.05	69.79		
	6.34	78.13				
T.P.			5.81	72.32		
	5.66	77.98				
T.P.			4.07	73.91		

STA.	+	HI	−	EL.	DIST.	REMARKS
				13.44		
	2.60	16.04		4514.58 ✓		
#102			11.44	~~04.60~~		
				4514.58 ✓		
#102				~~04.60~~		
	1.45	06.05				2X2 HUB S. SIDE OF RD.
T.P.			10.72	05.33		
	1.41	06.74				
T.P.			11.12	95.62		
	2.12	97.74				
T.P.			11.94	85.80		
	1.05	86.85				
T.P.			11.41	75.44		
	9.96	85.40		4473.55		
#103			11.83	~~73.57~~		
T.P.			2.89	82.51		
	2.52	85.03				
T.P.			8.19	76.84		2X2 HUB S. SIDE OF RD.
	0.62	77.46				
T.P.			12.71	64.75		
	0.10	64.85				
T.P.			12.30	52.55		
	2.97	55.52				

STA.	+	HI	−	EL.	DIST.	REMARKS
				73.91		
	6.04	79.95				
T.P.			4.72	75.23		
	5.98	81.21		4177.44		
#42			3.85	~~77.36~~		

STA. #42 EL. = 4177.42
ERROR .02

2X2 HUB

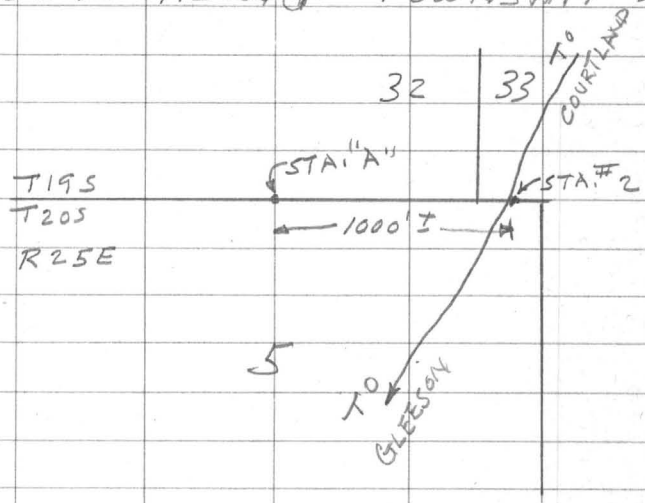
2X2 HUB

STA.	+	HI	—	EL.	DIST.	REMARKS
#97				4585.79		
	7.82	93.61				
T.P.			6.37	87.26		
	10.00	97.26				
T.P.			3.42	93.84		
	7.61	91.45				
T.P.			3.36	88.09		
	6.45	94.54		4601.98 ✓		
#100			2.54	~~92.00~~		
T.P.			12.57	81.97		
	0.85	82.82				
T.P.			10.88	71.94		
	1.03	72.97				
T.P.			11.43	61.54		
	0.64	62.18				
T.P.			12.72	49.46		
	0.60	50.06		4548.85 ✓		
#101			11.19	~~38.87~~		
	2.33	41.20				
T.P.			12.06	29.14		
	3.92	33.06				
T.P.			10.53	22.53		
	0.85	23.38				
T.P.			9.94	13.44		

LEVELS FROM STA. #97, SOUTH 1000' ± AND THEN EAST, PARALLEL TO TOWNSHIP LINE, THROUGH SEC. 3, 2, 1. STATIONS 100 THRU 113, THEN NORTH, CLOSING AT STA. 84.

REMARKS

LEVELS W. FROM STATION #2
TO A POINT (STA. "A") APPROX.
1000'± ALONG TOWNSHIP LINE



STA.	+	HI	-	EL.	DIST.
# 2				4685.19	
	12.43				
T.P.			0.82		
	13.00				
T.P.			0.09		
	12.81				
T.P.			0.18		
	12.86				
T.P.			0.27		
	12.88				
T.P.			0.37		
	10.27				
# "A"			1.78	4755.93	

HI 1000

7-9-66
π ϕ ⌂ = R. ZUNIGA
ϕ = F. L. LOPEZ
WARM-DRY

(53)

REMARKS

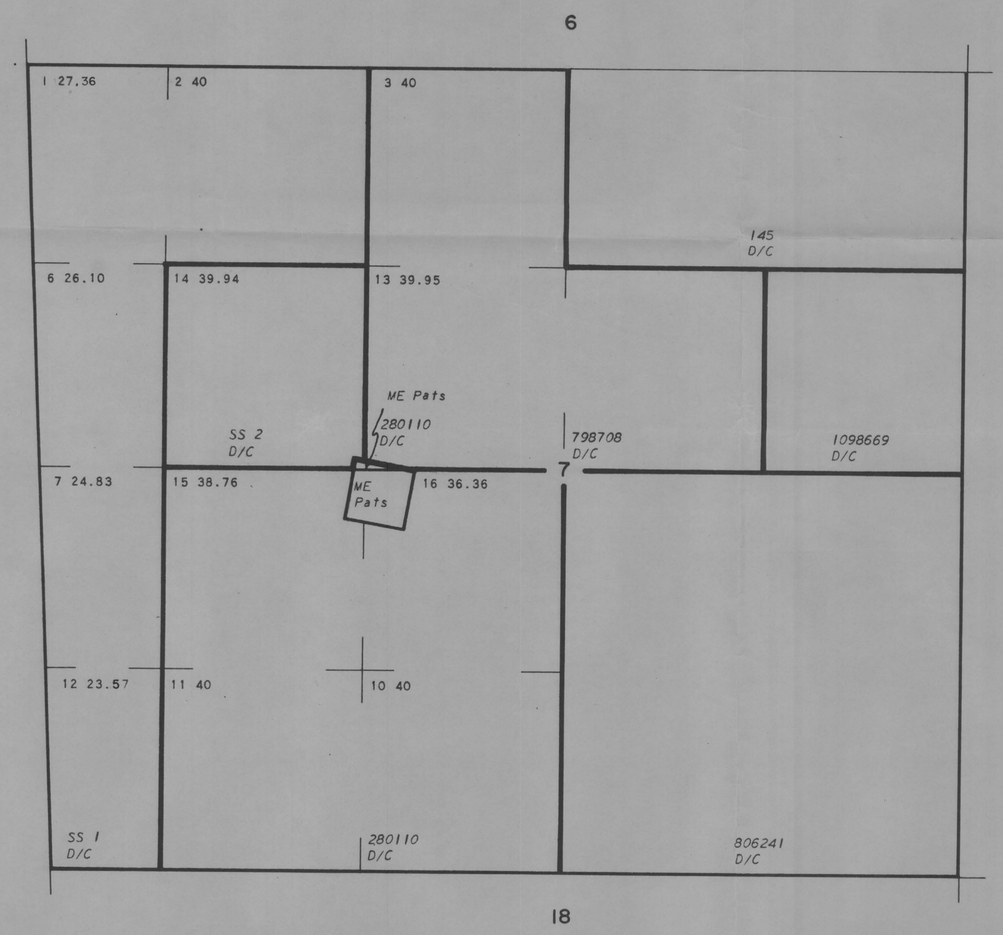
HEINRICHS
GEOEX
GEOPHYSICAL ENGINEERS
TUCSON, ARIZONA

TOWNSHIP 20 SOUTH RANGE 26 EAST OF THE GILA AND SALT RIVER MERIDIAN, ARIZONA

STATUS OF PUBLIC DOMAIN
LAND AND MINERAL TITLES

MTP
SUPPL Sec 7

INDEX TO SEGREGATED TRACTS				
RESURVEY	ORIGINAL SURVEY			
TRACT NO	T	R	SEC	SUBDIVISION



FOR ORDERS EFFECTING DISPOSAL OR USE OF UNIDENTIFIED LANDS WITHDRAWN FOR CLASSIFICATION, MINERALS, WATER AND/OR OTHER PUBLIC PURPOSES, REFER TO INDEX OF MISCELLANEOUS DOCUMENTS.

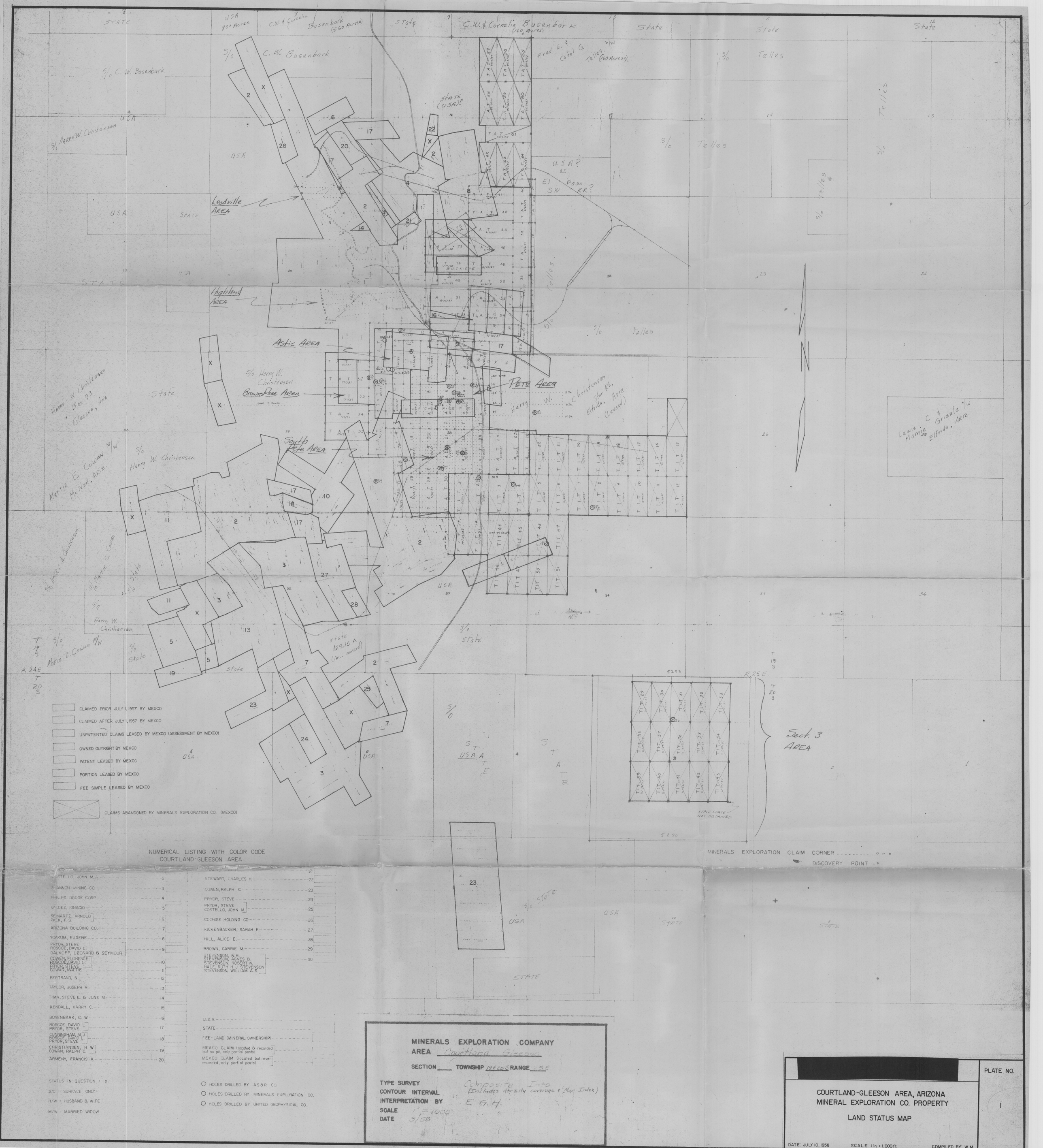
BUREAU OF LAND MANAGEMENT
PHOENIX, ARIZONA
COPY ISSUED BY
1986 JUN 7 AM 8 33

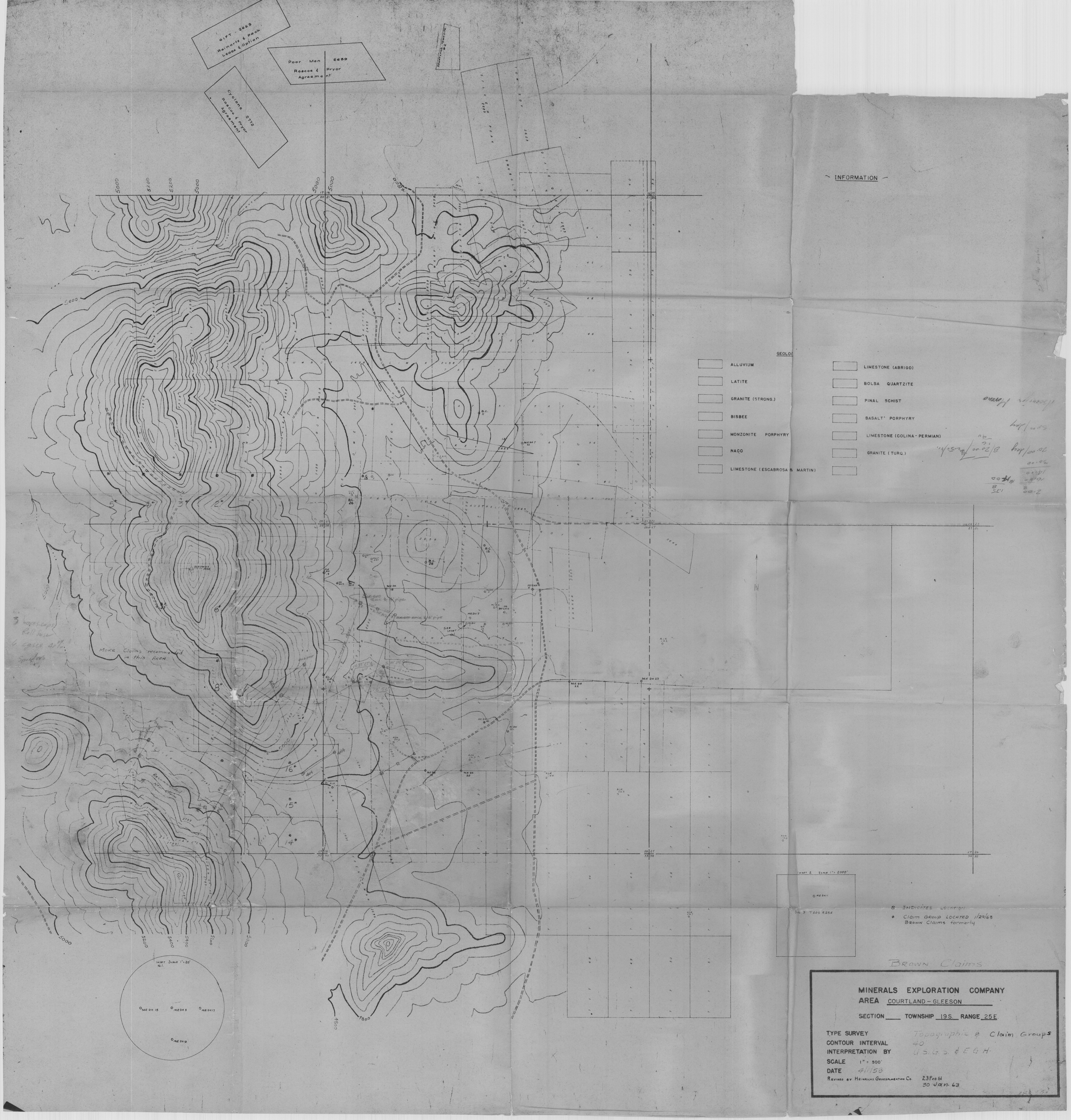
CURRENT TO	BY

SCALE
5 0 5 10 20
10 chains to the inch

T. 20 S.
R. 26 E.

Courtland - Gleason
El Freida
T 20S - R 26 E


Leadville AREA
Highland AREA
Astic AREA
Pete AREA
South Pete AREA
Brown's Peak Area
Sect. 3 AREA
C. W. Busenbark
Harry W. Christensen
Mattie E. Cowan M/W
Fred E. & Carol G. Telles (160 Acres)
C. & Grizzle H/W
Lewis Mamie
Elfrida, Ariz.
Harry W. Christensen Star Rt. Elfrida, Ariz (Leased)
Harry W. Christensen Box 93 Gleeson, Ariz
STATE (USA)?
U.S.A? or El Paso SW RR?
STATE LEASE NOT OBTAINED
CLAIMED PRIOR JULY 1, 1957 BY MEXCO
CLAIMED AFTER JULY 1, 1957 BY MEXCO
UNPATENTED CLAIMS LEASED BY MEXCO (ASSESSMENT BY MEXCO)
OWNED OUTRIGHT BY MEXCO
PATENT LEASED BY MEXCO
PORTION LEASED BY MEXCO
FEE SIMPLE LEASED BY MEXCO
CLAIMS ABANDONED BY MINERALS EXPLORATION CO. (MEXCO)
NUMERICAL LISTING WITH COLOR CODE
COURTLAND-GLEESON AREA
COSTELLO, JOHN M. 2
SHANNON MINING CO. 3
PHELPS DODGE CORP 4
VALDEZ, IGNACIO 5
REINARTZ, ARNOLD
PACK, F. S. 6
ARIZONA BUILDING CO. 7
YOAKUM, EUGENE 8
PRYOR, STEVE
ROSCOE, DAVID L.
DALKOFF, LEONARD & SEYMOUR 9
COWEN, FLORENCE
ROSCOE, DAVID L.
PRYOR, STEVE
COWAN, MATTIE 10
BERTRAND, N. 11
TAYLOR, JOSEPH H. 12
TIMA, STEVE E. & JUNE M. 14
KENDALL, HARRY C. 15
BUSENBARK, C. W. 16
ROSCOE, DAVID L.
PRYOR, STEVE 17
CUNNINGHAM, M. J.
ROSCOE, DAVID L.
PRYOR, STEVE 18
CHRISTIANSEN, H. W.
COWAN, RALPH C. 19
ARMENY, FRANCIS A. 20
STEWART, CHARLES H. 22
COWEN, RALPH C. 23
PRYOR, STEVE 24
PRYOR, STEVE
COSTELLO, JOHN M. 25
COCHISE HOLDING CO. 26
RICKENBACKER, SARAH E. 27
HILL, ALICE E. 28
BROWN, CARRIE M. 29
STEVENSON, W. R.
STEVENSON, AGNES B.
STEVENSON, ROBERT W.
HALE, RUTH H. J. STEVENSON
STEVENSON, WILLIAM A. S. 30
U.S.A.
STATE
FEE-LAND (MINERAL OWNERSHIP)
MEXCO CLAIM (located & recorded but no pit, only partial posts)
MEXCO CLAIM (located but never recorded, only partial posts)
STATUS IN QUESTION = X
S/O = SURFACE ONLY
H/W = HUSBAND & WIFE
M/W = MARRIED WIDOW
HOLES DRILLED BY A.S.B.R. CO.
HOLES DRILLED BY MINERALS EXPLORATION CO.
HOLES DRILLED BY UNITED GEOPHYSICAL CO.
MINERALS EXPLORATION CLAIM CORNER
DISCOVERY POINT
MINERALS EXPLORATION COMPANY
AREA Courtland Gleeson
SECTION ___ TOWNSHIP 19 & 20 S RANGE 25 E
TYPE SURVEY Composite Into (Includes density coverage & Map Index)
CONTOUR INTERVAL
INTERPRETATION BY E. G. H.
SCALE 1" = 1000'
DATE 3/58
[redacted]
COURTLAND-GLEESON AREA, ARIZONA
MINERAL EXPLORATION CO. PROPERTY
LAND STATUS MAP
DATE: JULY 10, 1958
SCALE: 1 in. = 1,000 ft.
COMPILED BY: W. M.
PLATE NO.
1

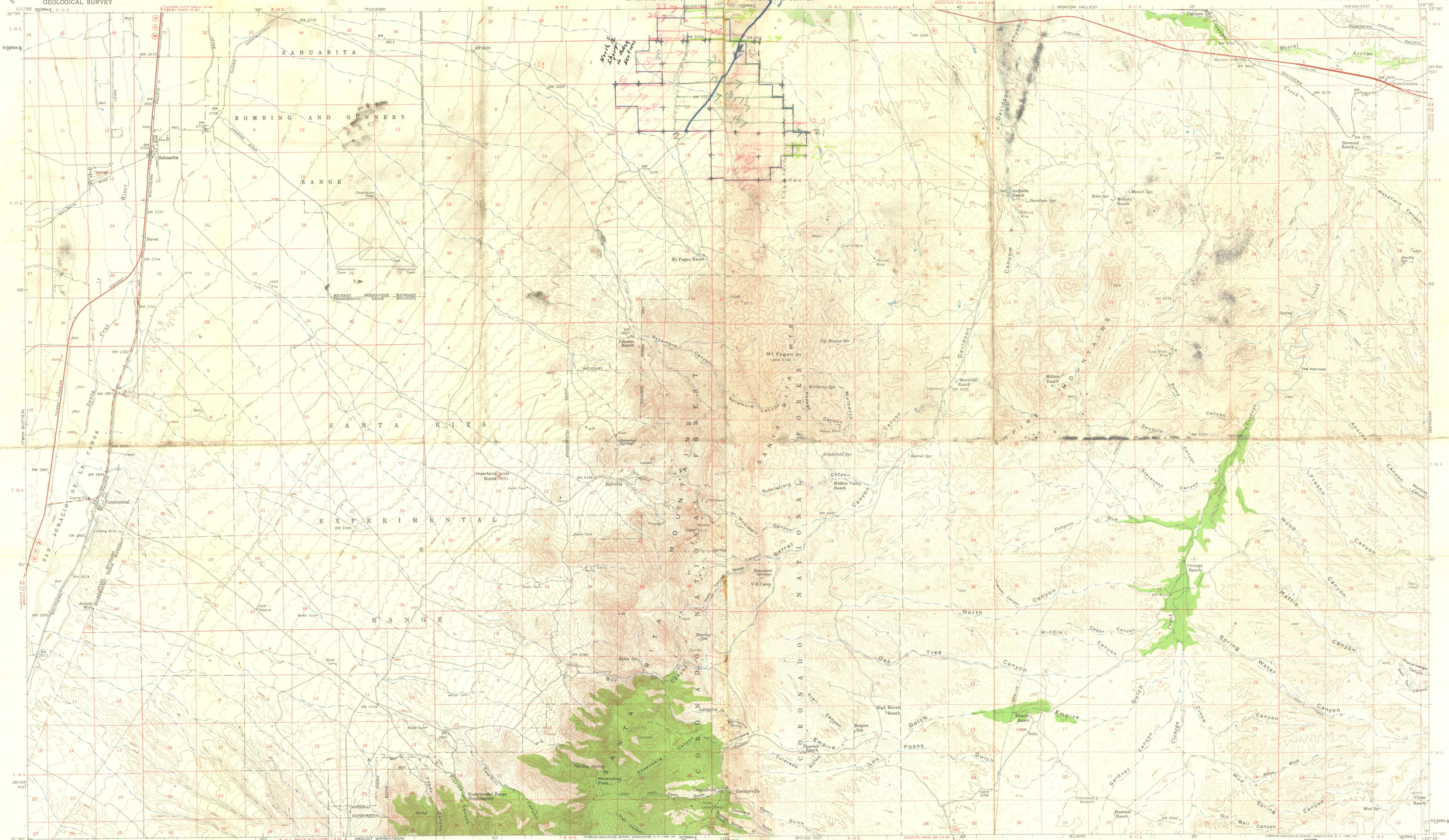

GIFT 2663
Reinartz & pack
Lease & Option
Poor Man 2689
Roscoe & Pryor
Agreement
Cyclone 2772
Roscoe & Pryor
Agreement
INFORMATION
GEOLOGY
ALLUVIUM
LATITE
GRANITE (STRONG.)
BISBEE
MONZONITE PORPHYRY
NACO
LIMESTONE (ESCABROSA & MARTIN)
LIMESTONE (ABRIGO)
BOLSA QUARTZITE
PINAL SCHIST
BASALT PORPHYRY
LIMESTONE (COLINA-PERMIAN)
GRANITE (TURQ.)
BROWN'S PEAK
MORE Claims recommended in this AREA
Recommended Not Claim
INSET 2 SCALE 1" = 2000'
SEC 3 T20S R25E
INDICATES LOCATION
Claim Group LOCATED 1/29/63
Brown Claims formerly
INSET SCALE 1" = 20'
ME DH 15
ME DH 5
ME DH 17
ME DH 16
BROWN Claims
MINERALS EXPLORATION COMPANY
AREA COURTLAND - GLEESON
SECTION ____ TOWNSHIP 19S RANGE 25E
TYPE SURVEY Topographic & Claim Groups
CONTOUR INTERVAL 40'
INTERPRETATION BY U.S.G.S. & E.G.H.
SCALE 1" = 500'
DATE 4/1/58
REVISED BY HEINRICHS GEOEXPLORATION CO. 23 Feb 61
30 Jan. 63

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SAHUARITA QUADRANGLE
ARIZONA–PIMA CO.
15 MINUTE SERIES (TOPOGRAPHIC)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

EMPIRE MOUNTAINS QUADRANGLE
ARIZONA–PIMA CO.
15 MINUTE SERIES (TOPOGRAPHIC)



Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by ER-55 plotter
Aerial photographs taken 1955–1956. Field check 1958

Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks, zone 12, shown in blue

Dashed land lines indicate approximate locations

Unchecked elevations are shown in brown

SCALE 1:62500

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION

Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
U.S. Route — State Route

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1958

ARIZONA
QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

SAHUARITA, ARIZ.
N3145—W11045/15
1958

Mapped, edited, and published by the Geological Survey

Control by USGS, USC&GS and USCE

Topography from aerial photographs by ER-55 plotter
Aerial photographs taken 1955. Field check 1958

Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks, zone 12, shown in blue

Dashed land lines indicate approximate locations

Unchecked elevations are shown in brown

SCALE 1:62500

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

ROAD CLASSIFICATION

Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
U.S. Route — State Route

TRUE NORTH
MAGNETIC NORTH
APPROXIMATE MEAN DECLINATION, 1958

ARIZONA
QUADRANGLE LOCATION

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SLE BY U. S. GEOLOGICAL SURVEY, DENVER 25, COLORADO OR WASHINGTON 25, D. C.
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

EMPIRE MOUNTAINS, ARIZ.
N3145—W11030/15
1958

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

ORACLE QUADRANGLE
ARIZONA
15 MINUTE SERIES (TOPOGRAPHIC)

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography from aerial photographs by photogrammetric methods
Aerial photographs taken 1958. Advance field check 1959

Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, central zone
1000-meter Universal Transverse Mercator grid ticks,
zone 12, shown in blue

Dashed land lines indicate approximate locations
Land lines unsurveyed in parts of T. 10 S.–Rs. 15 and 16 E.,
and T. 11 S.–R. 15 E.

TRUE NORTH
MAGNETIC NORTH
13½°
APPROXIMATE MEAN DECLINATION, 1959

SCALE 1:62 500

1 ½ 0 1 2 3 4 MILES

3000 0 3000 6000 9000 12000 15000 18000 21000 FEET

1 .5 0 1 2 3 4 5 KILOMETERS

CONTOUR INTERVAL 80 FEET
DATUM IS MEAN SEA LEVEL

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
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A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

ARIZONA
QUADRANGLE LOCATION

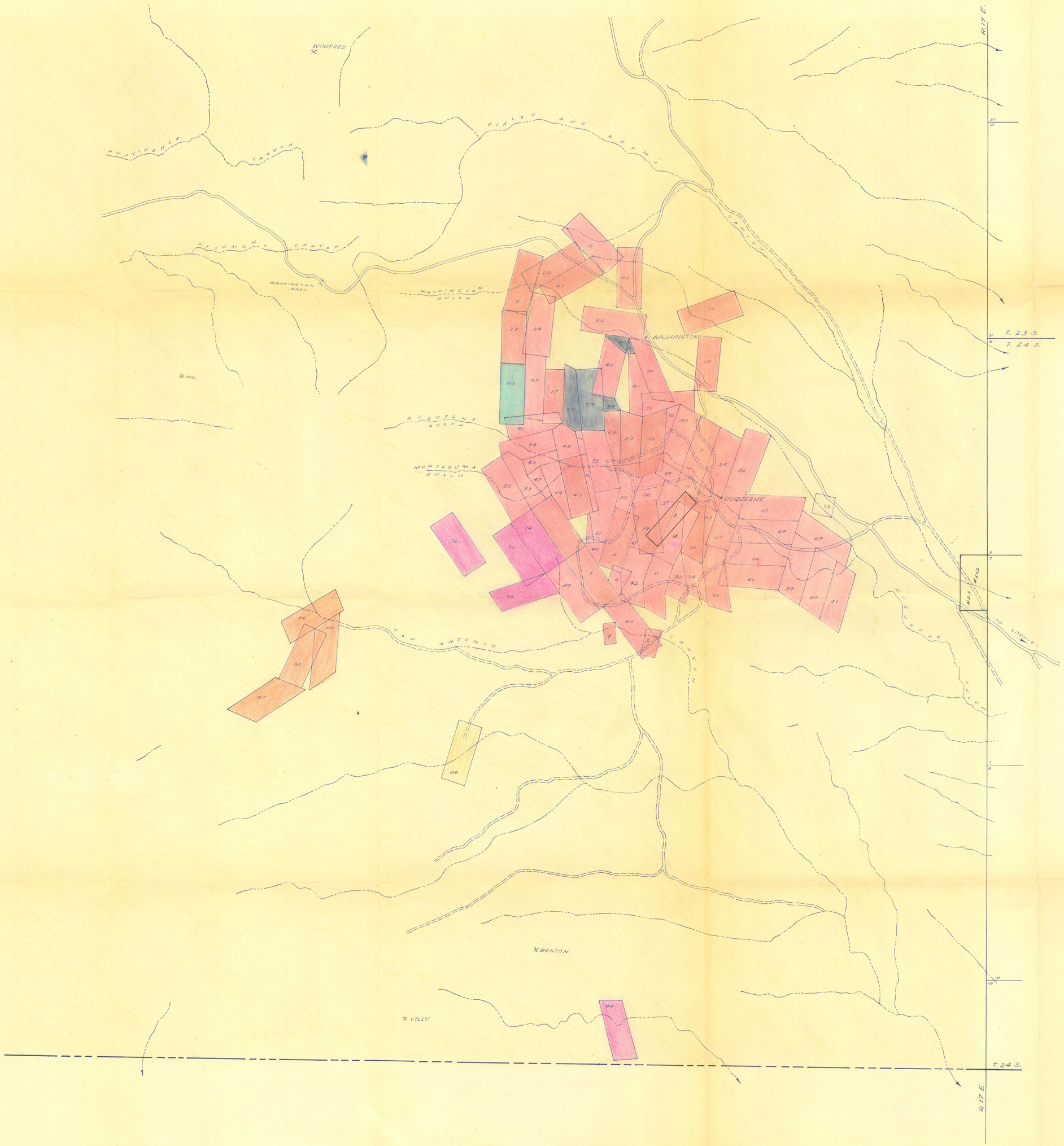
ROAD CLASSIFICATION

Heavy-duty — Light-duty
Medium-duty — Unimproved dirt
U. S. Route — State Route

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1961—NS—T
MR 6040

ORACLE, ARIZ.
N3230—W11045/15

1959



KEY	NAME	SURV. NO.
1	BELMONT	23
2	" M.S.	24
3	SAN ANTONIO	25
4	" " M.S.(?)	26
5	EMPIRE	37
6	SILVER BILL	160
7	BONANZA	855
8	ILLINOIS	856
9	INDIANA	892
10	ESTELLE & LOUISE	894
11	POCAHONTAS	895
12	EVENING STAR	896
13	BONANZA M.S.	897
14	GREAT REPUBLIC	899
15	POSEY	1399
16	DOCO	1400
17	ARIZONA	1401
18	TEXAS	1402
19	CALIFORNIA	1403
20	KANSAS	1404
21	NEW YORK	"
22	MAINE	1405
23	GEORGIA	1406
24	OHIO Nº 2	1407
25	SLIM JIM	"
26	BIG CAVE	2920
27	BIG CROP	"
28	" " Nº 2	"
29	BISBEE	"
30	BRONCO	"
31	CENTER	"
32	CHRIS EXCERS	"
33	COPPER BELT	"
34	JUMBO	"
35	KEYSTONE	"
36	LAST CHANCE	"
37	MANSANITA	"
38	PITTSBURGH	"
39	RHINO	"
40	SILVER JACK	"
41	SUCCESS	"
42	WEDGE	"
43	COMET	2032
44	INDIANAPOLIS	"
45	LAURETTA	"
46	LITTLE EMMA	"
47	MOHAWK	"
48	GOLDEN GATE	2033
49	LEAD KING	2034
50	ANNIE	2035
51	MARY JANE	2036
52	DUBLY STANDARD	"
53	CONTACT	2037
54	KLONDIKE	"
55	MONTEZUMA	"
56	GRASSHOPPER	2038
57	DUQUESNE	2057
58	PLUTO	"
59	" Nº 2	"
60	VIRGINIA	"
61	ALASKA	2210 A
62	AMSTERDAM	2211
63	HOLLAND	"
64	LITTLE JOKER	"
65	STEWART	2212
66	MEYER	2214
67	TURNPIKE	2215
68	NEW YORK	2216
69	SMUGGLER	"
70	YOSEMITE	"
71	DIVIDE	2217
72	IMPERIAL	"
73	IVANHOE	2402
74	JOE WHEELER	"
75	WINNEBAGO CHIEF	"
76	GOLDEN GRANITE	2406
77	DAVID ALLEN MINE	2503
78	PRIDE OF THE WEST	"
79	" " " " Nº 2	"
80	WEDGE	2514
81	IRON COW	2556
82	HAPPY THOUGHT	2558
83	NOONDAY	2566
84	LINE BOY	2894
85	SANTO NIÑO	3113
86	" " Nº 1	"
87	" " Nº 2	"
88	JUSTICE	3813
89	SANTO NIÑO Nº 3	3907

SURFACE OWNERSHIP:

- NATIONAL FOREST
- JOHN F. CAMPBELL
- BYRD & COMPANY
- A.C. REID
- RODERICK O'CONNOR
- SOUTHERN COPPER MINING COMPANY
- MITCHELL, RITCHIE, EDWARDS
- A.R. BYRD OF TUCSON. MANY CLAIMS SOLD TO NASH MINES INC. SALE NOT YET RECORDED.

SOUTHERN PORTION

PATAGONIA AREA

SANTA CRUZ COUNTY, ARIZONA

SCALE 1" = 1000'±

6-Cm-2
6-Cm-2

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

ELGIN QUADRANGLE
ARIZONA
7.5 MINUTE SERIES (TOPOGRAPHIC)
NE/4 ELGIN 15' QUADRANGLE

Mapped by the Army Map Service
Published for civil use by the Geological Survey

Control by USC&GS, USGS, and USCE

Topography from aerial photographs by stereoplanigraph methods
Aerial photographs taken 1946. Field check 1948

Polyconic projection. 1927 North American datum
10,000-foot grid based on Arizona coordinate system, central zone

No distinction is made between barns, dwellings, commercial and industrial buildings

Unchecked elevations are shown in brown

TRUE NORTH
MAGNETIC NORTH
13½°
APPROXIMATE MEAN DECLINATION, 1948

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

CONTOUR INTERVAL 25 FEET
DATUM IS MEAN SEA LEVEL

ARIZONA
QUADRANGLE LOCATION

ROAD CLASSIFICATION

Heavy-duty — 4 LANE | 6 LANE
Medium-duty — 4 LANE | 6 LANE
Light-duty
Unimproved dirt
U. S. Route
State Route

ELGIN, ARIZ.
NE/4 ELGIN 15' QUADRANGLE
N3137.5—W11030/7.5

1948

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U. S. GEOLOGICAL SURVEY, FEDERAL CENTER, DENVER, COLORADO OR WASHINGTON 25, D. C.
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