

BACA PROJECT  
DATA AND REPORTS

WELLS

<u>No.</u>	<u>Transfer Date</u>	<u>Release Date</u>	<u>Title</u>
1.	A	A	Summary sheet for Baca Wells No's 1-3.
2.	A	A	Baca Wells No's 4-16 summary sheet.
3.	A	A	Well summary reports and Drilling Histories-- Baca Wells No's 4-16.
4.	B	B	Lithology logs--Baca Wells No's 4-16.
5.	A	A	Temperature and Pressure Surveys--Baca Wells No's 4-8 and 10-16.
6.	B	B	Electric logs for Baca Wells No's 10-14.

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

BACA#14-S3-P/T

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME BACA#14  
 CASING 20" @ 193'; 13 3/8" @ 1452 ELEV. 8604.9' DATE: 2/19/75  
 LINER DESCRIPTION: 9 5/8" HUN9 - 1452' - 3074', OPEN HOLE - 3074' - 6837' ZERO POINT R.T.  
 DEPTH 6824'

TUBING DETAIL:

PURPOSE RIG SURVEY

REMARKS:

P-0-4250RSIG - 7198 12HR - 13375L 15  
 ELEMENT T-88°F-698°F SERIAL NO. 10055 CLOCK 12HR - 13790L TURN 15 STABILIZATION PERIOD  
 ENGAGE STYLUS P-2024HMS T-2024H DISENGAGE STYLUS P-0101, T-0103  
 WELL HEAD -0-  
 PICKUP @ 6824' TIME ON BOTTOM 0024hrs 0036 MAX. °F 529.6  
 WELL STATUS STATIC  
 SHUT IN: 16.45 hrs 2/19/75 ON PRODUCTION:  
 RATE QUIT DRILLING @ 1400hrs 2/19/75

PRESSURE

TEMPERATURE

PRESSURE						TEMPERATURE											
TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
37	1000	0	0	0	0	"	"	.351	209.3								
38	2000	.147	331	0	0	"	"	.605	291.6								
04-2114	3000	.317	701.3	.370	-0.003	"	"	.813	358.0								
16-2126	3250	.359	790.3	.356	-0.001	"	"	.875	377.2								
27-2147	3500	.402	881.4	.364	0.000	"	"	.935	395.8								
48-2158	3750	.442	966.1	.339	+0.001	"	"	1.021	422.1								
59-2209	4000	.482	1050.4	.337	+0.002	"	"	1.033	425.6								
10-2220	4250	.525	1140.8	.362	+0.003	"	"	1.017	420.9								
22-2332	4500	.567	1222.0	.353	+0.004	"	"	1.015	420.3								
32-2243	4750	.608	1315.0	.344	+0.005	"	"	1.040	427.6								
45-2305	5000	.648	1399.2	.337	+0.005	"	"	1.069	436								
06-2316	5250	.687	1481.1	.327	+0.006	"	"	1.094	443.3								
18-2328	5500	.729	1570.0	.356	+0.007	"	"	1.110	447.9								
29-2339	5750	.768	1652.5	.330	+0.007	"	"	1.160	462.4								
40-2350	6000	.812	1746.0	.374	+0.007	"	"	1.188	470.5								
51-0001	6250	.849	1824.2	.313	+0.007	"	"	1.230	482.5								
02-0012	6500	.890	1911.0	.347	+0.006	"	"	1.295	501.1								
13-0023	6750	.933	2002.0	.364	+0.006	"	"	1.370	522.4								
24-0036	6824	.946	2030.0	.378	+0.006	"	"	1.396	529.6								

COMMENTS:

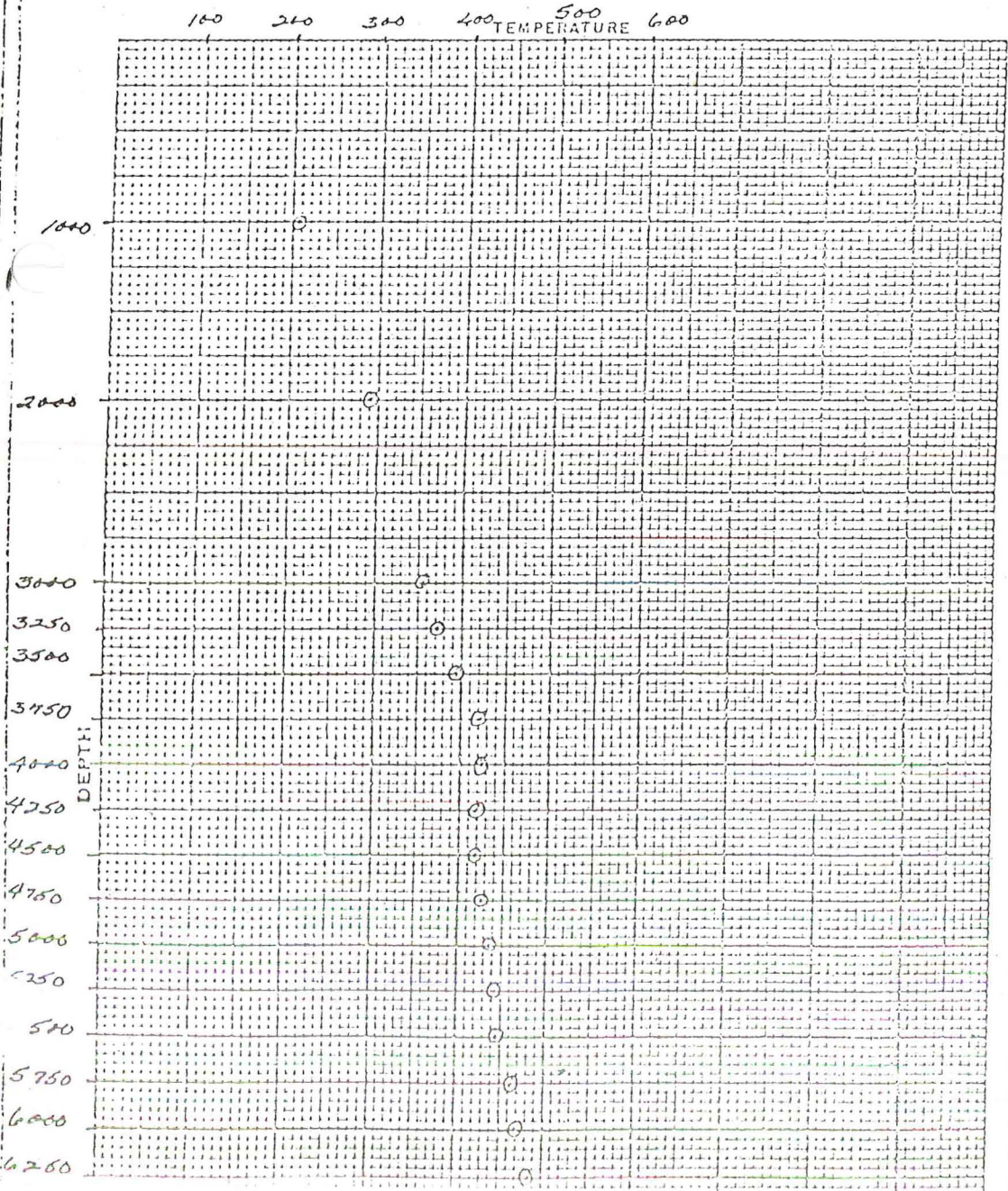
# GEO THERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

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OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #14  
 CASING 22" @ 143'; 13 3/8" @ 1452' ELEV. 8604.8' DATE: 2/19/75  
 LINER DESCRIPTION: 9 5/8" HUNG 1452'-3074'; OPEN HOLE 3074'-TD ZERO POINT ROTARY TABLE  
 DEPTH 6824'

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 88-692° FA: \_\_\_\_\_  
 SERIAL NO 10055  
 PURPOSE: \_\_\_\_\_ MAX. TEMP. 529.6 °F @ 6824'  
 REMARKS: \_\_\_\_\_



STABILIZATION PERIOD \_\_\_\_\_

PRESSURE,	GAUGE	COND
CASING. PSI		

DEPTH	TEMP.	DEPTH	TEMP.
1000	209.3		
2000	391.6		
3000	358.0		
3250	377.2		
3500	395.8		
3750	422.1		
4000	425.6		
4250	420.9		
4500	420.3		
4750	437.6		
5000	436.0		
5250	445.3		
5500	447.9		
5750	462.4		
6000	470.5		
6250	482.5		
6500	501.1		
6750	522.4		
6824	529.6		

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# GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

B14-53-P17

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACHWIL  
 CASING 20" @ 193', 13 3/8" @ 1452' ELEV. 8604.8' DATE 2/9/75  
 LINER DESCRIPTION: 9 5/8" HUNG - 1152' - 3074' OPEN HOLE - 3074' - 6822' ZERO POINT R.T.  
 DEPTH 6824'

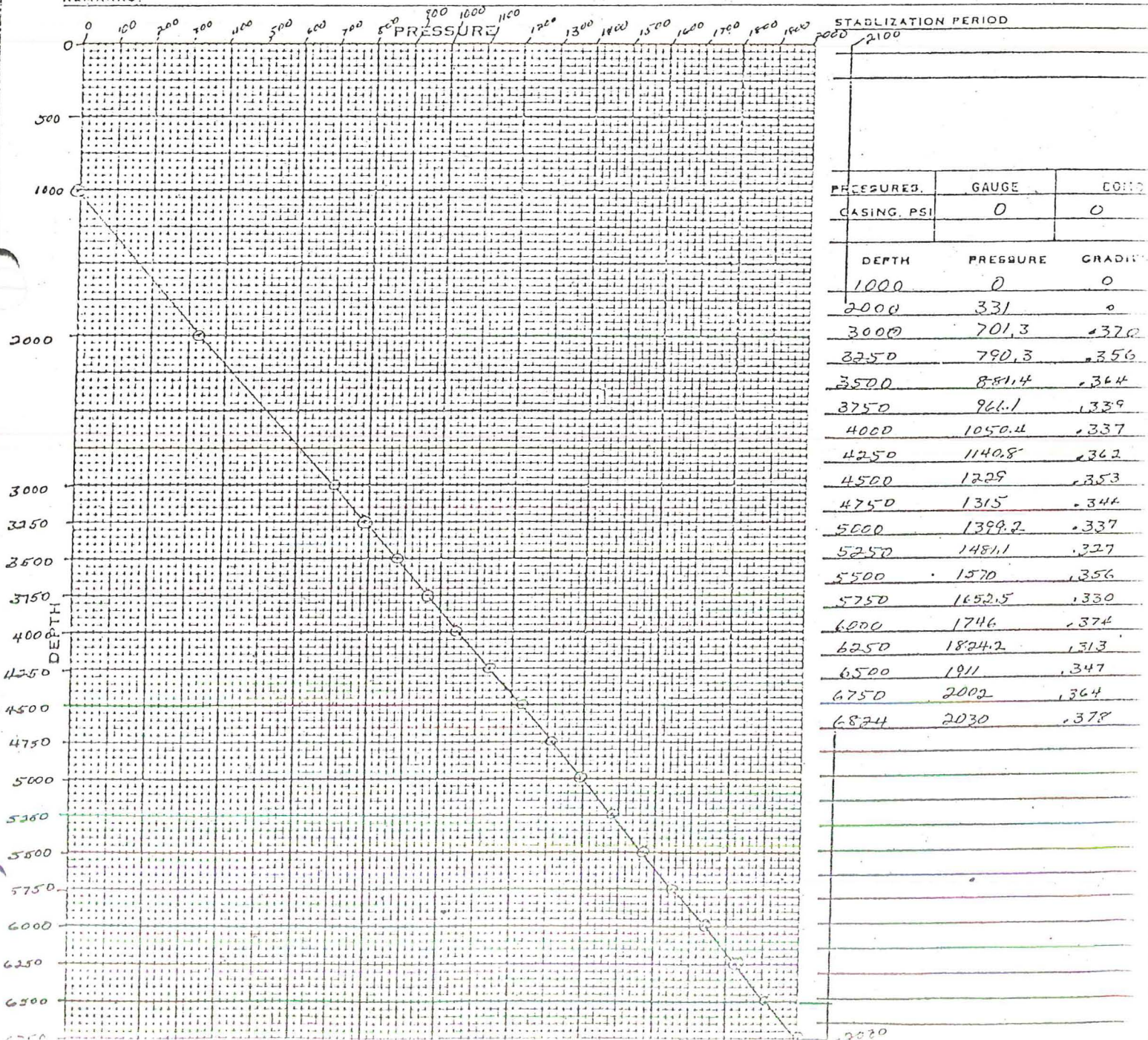
HOLE DESCRIPTION:

INSTRUMENT 0-4250 P.S.  
 SERIAL NO. 7198

PURPOSE RIG SURVEY.

MAX TEMP 522.6 °F @ 6824'

REMARKS:







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GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B14 S9 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #14  
 CASING 20" AT 193'; 13 3/8" AT 1452 ELEV. 8605' DATE: 8/12/76  
 LINER DESCRIPTION: 9 5/8" AT 3074' ZERO POINT CL + 6'  
3074 - TD = OPEN HOLE DEPTH 5780'

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT - 0-4750 PSI SN 15012 CL-12 HC 15 TURN  
ELEMENT 30°-646° SERIAL NO. 10052 CLOCK 12 HC 15 TURN STABILIZATION PERIOD  
ENGAGE STYLUS P1425T 1420 DISENGAGE STYLUS P1645T 1645  
 WELL HEAD 0  
 PICKUP 0 3958' TIME ON BOTTOM 1405-25 MAX. °F 412 OF  
 WELL STATUS \_\_\_\_\_  
 SHUT IN: \_\_\_\_\_ ON PRODUCTION: \_\_\_\_\_  
 RATE \_\_\_\_\_

PSI

TEMP

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	0	0		0		100	.049	96								
1505	1000	0	0		0		1000	.346	188								
1518	2000	.147	368		-002		2000	.930	363								
1530	3000	.301	732	360	+001		3000	1.102	412								
1541	3250	.539	822		+002		3250	1.037	394								
1552	3500	.376	910		+003		3500	1.018	358								
1603	3750	.415	1002		0		3750	1.025	273								
1625	3958	.453	1092		+002		3958	1.336	185								

COMMENTS:

## GEO THERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

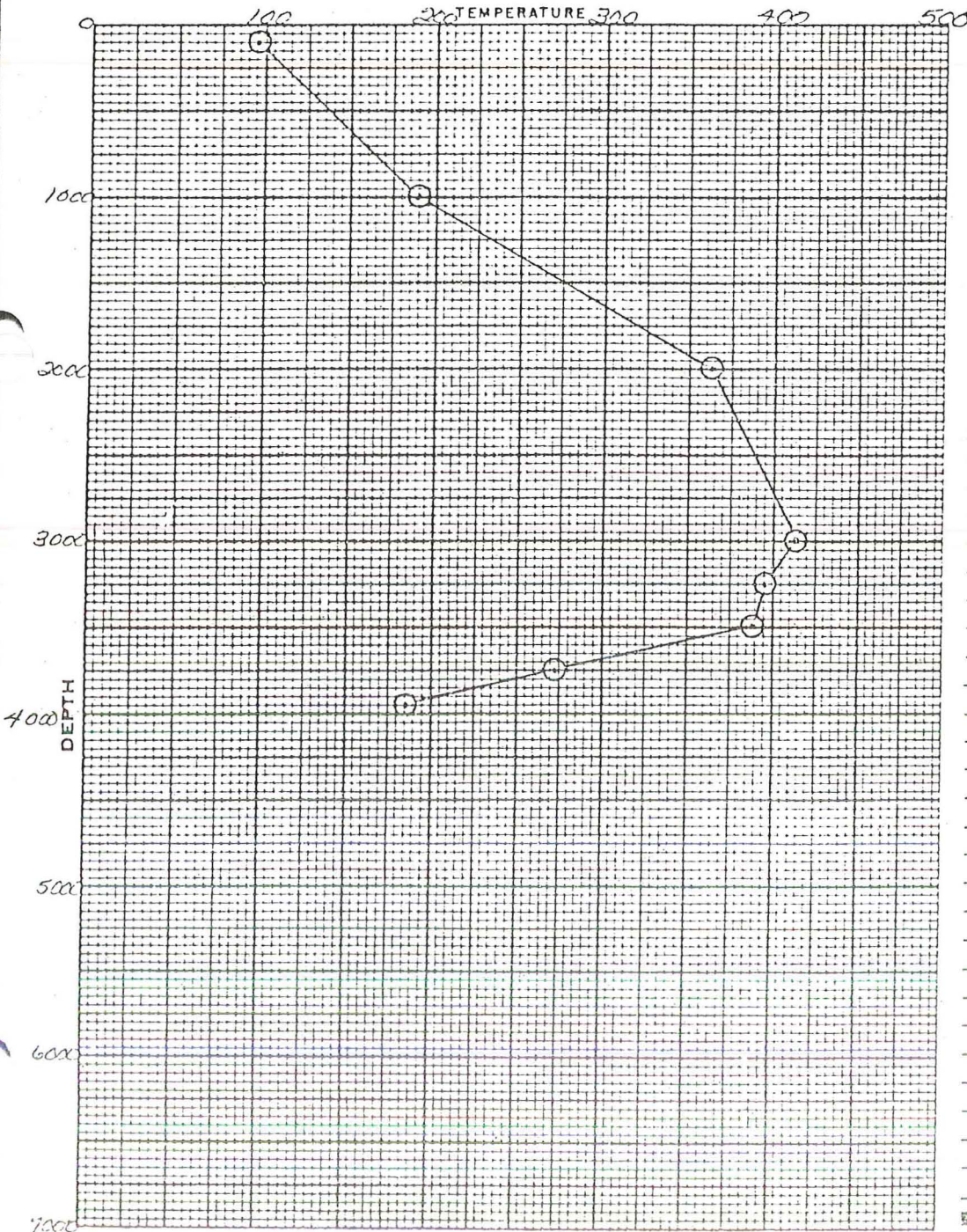
B14-S9-PT

OWNER Union Oil Company FIELD Valle Grande WELL NAME BACA #14  
 CASING \_\_\_\_\_ ELEV 8605' DATE 8/12/76  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT GL +6'  
 \_\_\_\_\_ DEPTH 5780'

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT \_\_\_\_\_ FAHR  
 \_\_\_\_\_ SERIAL NO 10052

PURPOSE \_\_\_\_\_ MAX TEMP 412 °F @ 3000'  
 REMARKS: \_\_\_\_\_

STABILIZATION PERIOD \_\_\_\_\_



PRESSURES.	GAUGE	BOMB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100	96		
1000	188		
2000	363		
3000	412		
3250	394		
3500	388		
3750	273		
3958	185		

BY: \_\_\_\_\_



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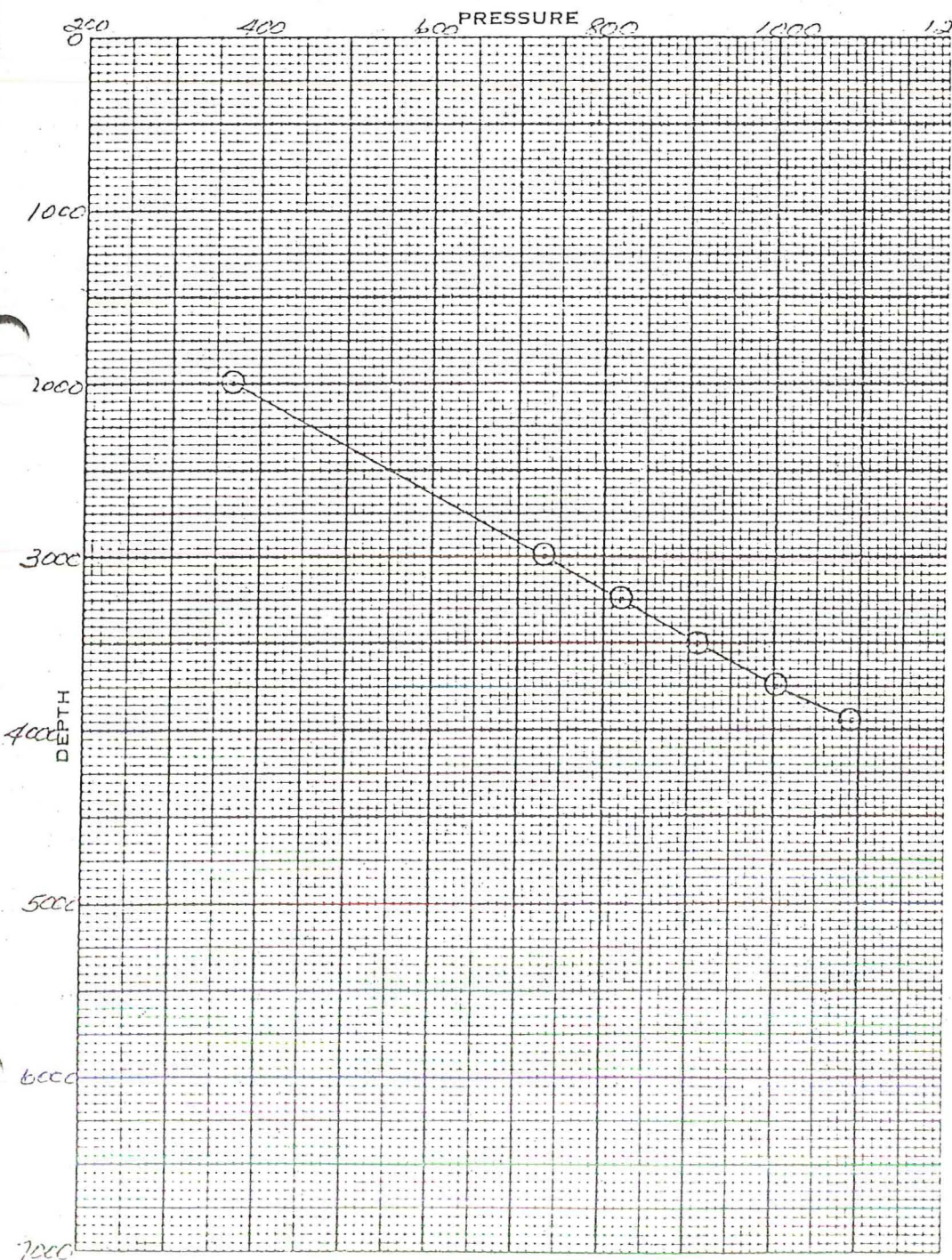
UNION

# GEOHERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

B14-59-PT

OWNER \_\_\_\_\_ FIELD Valle Grande WELL NAME BACA #14  
 CASING \_\_\_\_\_ ELEV 8605' DATE 8/12/76  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT GL +6'  
 \_\_\_\_\_ DEPTH 5780'  
 HOLE DESCRIPTION: \_\_\_\_\_  
 \_\_\_\_\_ INSTRUMENT \_\_\_\_\_ PSIG  
 \_\_\_\_\_ SERIAL NO 13012  
 PURPOSE \_\_\_\_\_ MAX TEMP 412 °F @ 3000'  
 REMARKS: \_\_\_\_\_

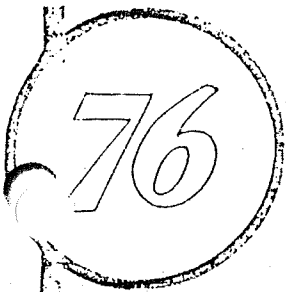


STABILIZATION PERIOD \_\_\_\_\_

PRESSURES.	GAUGE	BOMB
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
100	0	
1000	0	
2000	368	
3000	732	
3250	822	
3500	910	
3750	1002	
3958	1092	

BY: \_\_\_\_\_



# UNION

## GEO THERMAL DIVISION

### SUBSURFACE SURVEY

#### Field Work Sheet

B-14 5-7 P/T

OWNER Union Oil Co. of Calif FIELD Valle Grande WELL NAME BACA #14  
 CASING 20" @ 193'; 13 3/4" @ 1452' ELEV. 8609.8' DATE: 2/21/75  
 LINER DESCRIPTION: 9 5/8" hung 1452'-3074' ZERO POINT R. T.  
Open hole 3074'-6100' DEPTH 6100'  
 TUBING DETAIL:

PURPOSE

REMARKS:

R- 0-4250 RS19 7198 12 hr. 133.75 L 15  
 ELEMENT 89°-698°F SERIAL NO. 10055 CLOCK 12 hr. 13790 L 15 STABILIZATION PERIOD  
 ENGAGE STYLUS P-1247; T-1243 DISENGAGE STYLUS P-1706; T-1707  
 WELL HEAD  
 PICKUP @ 6100' TIME ON BOTTOM 16.22-16.32 MAX. °F 499.6°F  
 WELL STATUS Static  
 SHUT IN: Static since 0300 2/21/75 ON PRODUCTION:  
 RATE

TEMP

PRESSURE Corr.

TIME	DEPTH	DEFL.	R. T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
30	1000	.312	196.1				1000	-	-							
31	2000	.448	241.4				2000	.142	319.8							
32	3000	.568	279.8				3000	.315	697.0	-008						
33	3250	.586	285.5				3250	.357	786.0	-008						
34	3500	.631	299.9				3500	.400	877.1	-007						
35	3750	.674	297.7				3750	.442	968.1	-006						
36	3900	.561	277.5				3900	.470	1025.2	-006						
37	4000	.531	267.9				4000	.490	1067.2	-005						
38	4250	.489	234.3				4250	.535	1161.8	-005						
39	4500	.528	267.0				4500	.579	1254.2	-004						
40	4750	.527	266.6				4750	.624	1348.7	-002						
41	5000	.626	314.3				5000	.669	1443.3	+001						
42	5250	.791	351.1				5250	.711	1531.8	+004						
43	5500	.783	348.6				5500	.765	1625.0	+005						
44	5750	.873	376.6				5750	.797	1714.0	+005						
45	5900	1.123	462.2				5900	.827	1777.3	+008						
46	6000	1.211	477.1				6000	.846	1817.8	+007						
47	6100	1.290	499.6				6100	.863	1853.9	+007						

1777.5

COMMENTS:

BY:

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

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BACA #14-57-P/7

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA #14  
 CASING 20" @ 193'; 13 3/8" @ 1452' ELEV. 8604.8' DATE: 2/21/75  
 LINER DESCRIPTION: 9 5/8" ANNQ - 1452' - 3074' ZERO POINT R.T.  
 OPEN HOLE - 3074' - 6100' DEPTH 6100'

TUBING DETAIL:

PURPOSE

REMARKS:

P-O-425 OPSIG 7198 12/1R 133752 15  
 ELEMENT T-85-695°F SERIAL NO. 10055 CLOCK 12:12 137902 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P-0416 T-0419 DISENGAGE STYLUS P-0549, T-0552

WELL HEAD

PICKUP @ 6100' TIME ON BOTTOM 0800-0810 MAX. °F 490°F

WELL STATUS

SHUT IN: STATIC SINCE ( ) ON PRODUCTION:

RATE 2/20/75

PRESSURE

TEMPERATURE

TIME	DEPTH	DEFL.	P. #	GRAD.	CORR.	TIME	DEPTH	DEFL.	°-T	GRAD.	#	TIME	DEPTH	DEFL.	°-T	GRAD.	#
0440	1000	0	0	0	0.00	0440	1000	107	125.4	✓		0732	5750	1740	334.8	-	
0442	2000	.147	331	.331	0.00	0452	2000	160	144.0	✓		0737	5750	1744	336.1	X-	
0445	3000	.327	722.5	.391	-0.05	0500	3000	218	164.1	-		0743	5900	11048	429.9	-	
0447	3250	.372	818	.382	-0.07	0505	3000	223	165.8	X-		0748	5900	11054	431.7	X-	
0448	3500	.414	907	.356	-0.07	0511	3250	258	177.7	-		0754	6000	11144	457.8	-	
0449	3750	.457	998	.364	-0.06	0517	3250	264	179.8	X-		0759	6000	11150	459.5	X-	
0450	3900	.484	1054.6	.377	-0.06	0523	3500	312	196.1	-		0805	6100	11250	488.2	-	
0452	4000	.503	1094.5	.399	-0.05	0528	3500	318	198.1	X-		0810	6100	11256	490.0	X-	
0453	4250	.548	1189.1	.378	-0.05	0534	3750	297	191.0	-							
0454	4500	.592	1281.1	.370	-0.04	0539	3750	297	191.0	X-							
0455	4750	.636	1374	.370	-0.03	0546	3900	282	185.9	-							
0456	4900	.663	1430.7	.378	-0.02	0551	3900	282	185.9	X-							
0457	5000	.680	1466.4	.357	-0.01	0559	4000	276	184.0	-							
0458	5250	.723	1552.2	.363	0.00	0604	4000	276	184.0	X-							
0459	5500	.766	1648.3	.364	+0.01	0611	4250	253	176.0	-							
0500	5750	.808	1732.3	.356	+0.04	0616	4250	253	176.0	X-							
0501	5900	.839	1803	.438	+0.08	0622	4500	333	203.2	-							
0502	6000	.856	1834	.310	+0.08	0627	4500	338	204.9	X-							
0503	6100	.873	1875	.410	+0.07	0634	4750	338	204.9	-							
						0639	4750	338	205.3	X-							
						0646	4900	513	262.2	-							
						0652	4900	519	264.1	X-							
						0658	5000	538	270.2	-							
						0703	5000	544	272.1	X-							
						0710	5250	537	269.8	-							
						0715	5250	537	269.8	X-							
						0721	5500	592	287.4	-							
						0726	5500	598	288.4	X-							

COMMENTS:

NOTE - WHEN EXAMINING THE TEMP. TIME SECTION, REFER BACK TO THE PRESSURE TIME SECTION FOR THE FULL TIME SPAN AT THE RESPECTIVE DEPTH.

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UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B#14-S5-P17  
INJ-SURVEY

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA#14  
 CASING 20" @ 193' 1 5/8" @ 1452' ELEV. 8604.8' DATE: 2/20/75  
 LINER DESCRIPTION: 9 5/8" HWS - 1452' - 3074' - OPEN HOLE - 3074' - 6837' ZERO POINT R.T.  
 DEPTH 6100'

TUBING DETAIL:

PURPOSE INJECTIVITY SURVEY, FROM RIG.

REMARKS:

P - 0 - 42.50 PSIG - 7198 - 12 HR 13375L 15  
 ELEMENT T-88-698°F SERIAL NO. 10055 CLOCK 12 HR - 13790L TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P-2249 HRS T-2245 HRS DISENGAGE STYLUS P-0255 T-0257  
 WELL HEAD - 0 -  
 PICKUP @ 6100' TIME ON BOTTOM 0214 - 0224 MAX. °F 419.8  
 WELL STATUS ON INJECTION  
 SHUT IN: 1645 HRS - 2/19/75 ON PRODUCTION:  
 RATE

PRESSURE

TEMPERATURE

TIME	DEPTH	DEFL.	P - T	GRAD.	COEFF	TIME	DEPTH	DEFL.	P - T	GRAD.	TIME	DEPTH	DEFL.	P - T	GRAD.	ID
31	1000	.199	425.7	-	0	"	1000	.004	89							
	2020	.382	839	.113	-0.007	"	2000	.015	92.9							
327-2337	3000	.575	1245.8	.407	-0.007	"	3000	.047	104.0							
340-2350	3250	.619	1338.2	.370	-0.003	"	3250	.056	107.2							
352-0012	3500	.662	1428.6	.362	-0.002	"	3500	.065	110.4							
365-0023	3750	.706	1521.2	.370	-0.001	"	3750	.073	113.3							
374-0034	4000	.745	1603.8	.330	-0.001	"	4000	.078	115.1							
386-0046	4250	.789	1697	.373	-0.001	"	4250	.085	117.6							
397-0057	4500	.835	1794.5	.390	-0.001	"	4500	.100	123							
408-0109	4750	.878	1885.6	.364	0	"	4750	.114	127.9							
419-0129	5000	.919	1972.5	.348	0	"	5000	.141	144.3							
430-0140	5250	.961	2061.7	.357	0	"	5250	.209	161.4							
441-0151	5500	1.004	2153.2	.366	+0.001	"	5500	.263	179.4							
452-0202	5750	1.046	2247.6	.358	+0.002	"	5750	.376	217.8							
463-0213	6000	1.086	2327.7	.340	+0.011	"	6000	.843	367.3							
474-0224	6100	1.106	2370.2	.425	+0.012	"	6100	1.013	419.8							

COMMENTS:

TIME STARTED INJECTION - 1800 HRS 2/20/75  
 TIME FINISHED INJECTION - 03:00 HRS 2/21/75  
 AVERAGE GPM = 496 GPM FOR ENTIRE INJECTIVITY TEST  
 TOTAL BARRELS INJ = 6376 bbls

BY: J.M. A.D. ( J.P. Van't )

# GEO THERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

BACA#14-55-P1/T  
1WJ - SURVEY.

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA#14  
 CASING 20" @ 193', 13 3/8" @ 1452' ELEV. 8604.8' DATE: 2/20/75  
 LINER DESCRIPTION: 9 5/8" I.W.N.P. 1452' - 3074' - OPEN HOLE - 3074' - 6837' ZERO POINT R.T.  
 DEPTH 6100'

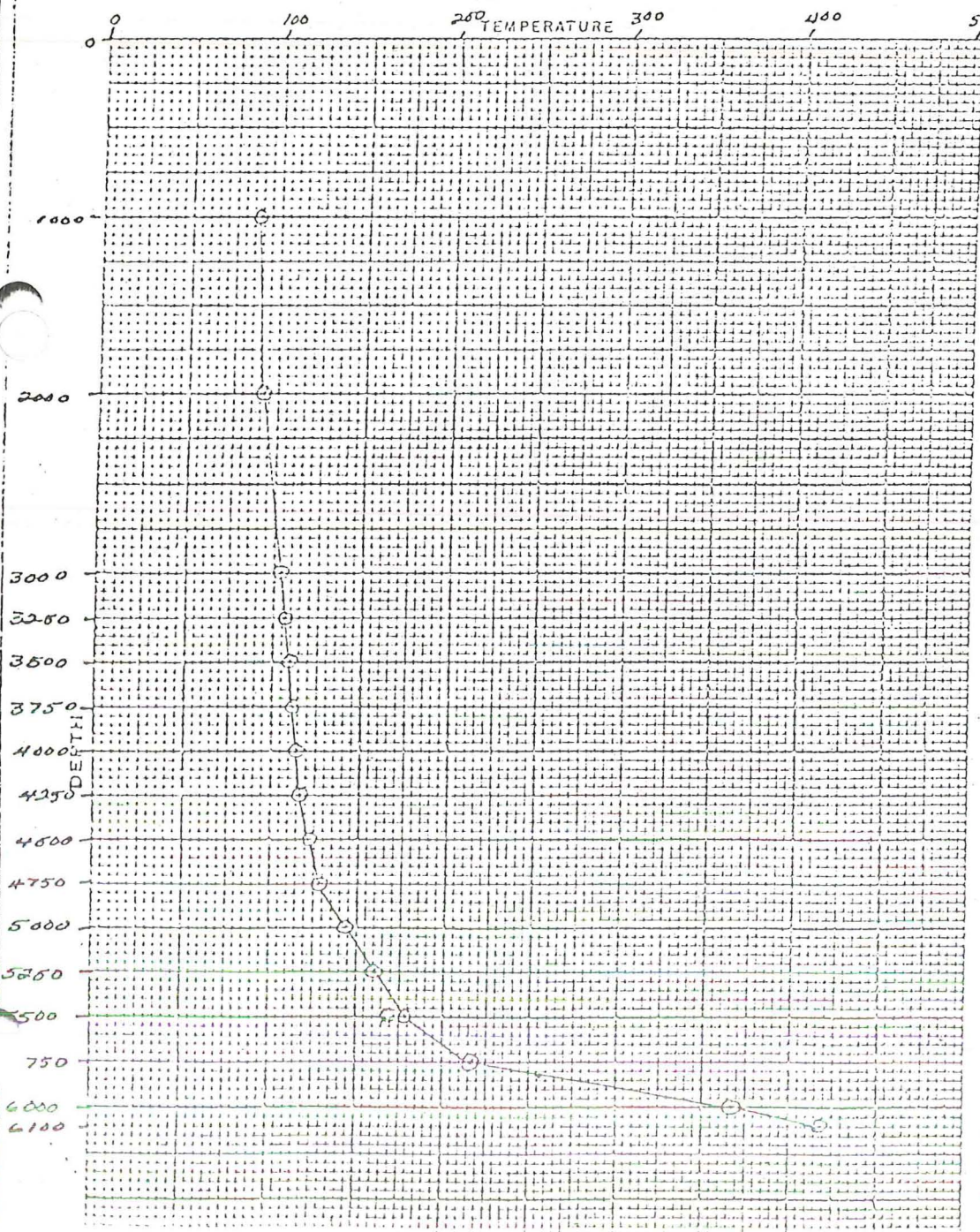
HOLE DESCRIPTION:

INSTRUMENT 88-698 FA.  
SERIAL NO 10055

PURPOSE RIG SURVEY / INJECTION

MAX TEMP. 419.8 °F @ 6100

REMARKS:



STABILIZATION PERIOD

PRESSURES	GAUGE	COND.
CASING, PS.	UAC	UAC

DEPTH	TEMP.	DEPTH	TEMP.
1000	89		
2000	92.9		
3000	104		
3250	107.2		
3500	110.4		
3750	113.3		
4000	115.1		
4250	117.6		
4500	123		
4750	127.9		
5000	144.3		
5250	161.4		
5500	179.4		
5750	217.8		
6000	367.3		
6100	419.8		

# 76

## GEOHERMAL DIVISION

### SUBSURFACE PRESSURE SURVEY

B#14-55-P/T  
INS. SURVEY

OWNER UCCO. FIELD U. G. WELL NAME B#14  
 CASING 20" @ 193', 13 7/8" 1452' ELEV. 866 U.S. DATE: 2/26/75  
 LINER DESCRIPTION: 9 5/8" - 1452' - 3074' - OPEN HOLE - 3074' - 6237' ZERO POINT P.T.  
 DEPTH 6100'

HOLE DESCRIPTION:

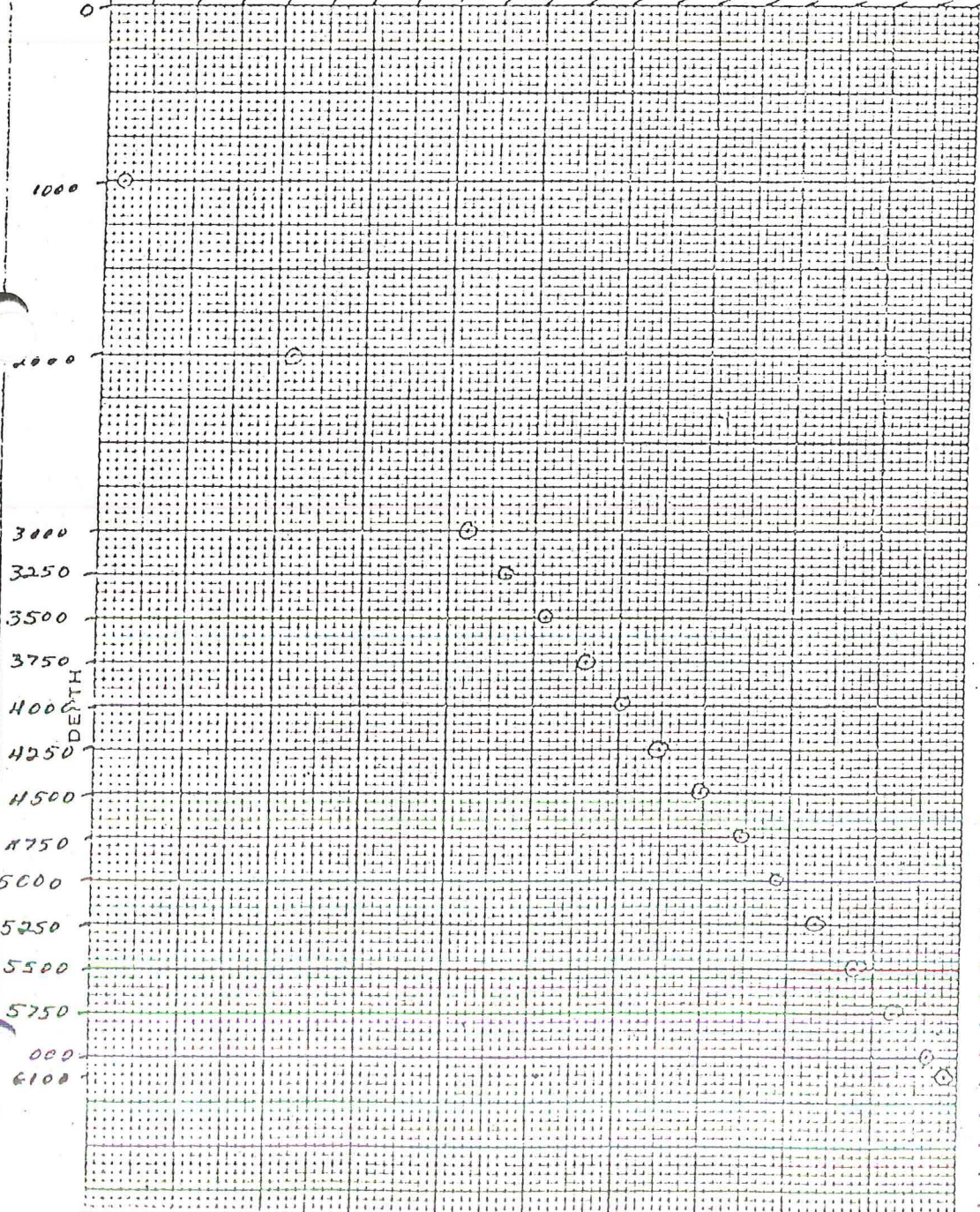
INSTRUMENT 0 - 4250  
 SERIAL NO 7198

PURPOSE

MAX TEMP 419.8 °F @ 6100

REMARKS:

400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000 2100 2200 2300 2350 STABILIZATION PERIOD  
 PRESSURE 1500 1600 1700 1800 1900 2000 2100 2200 2300 2350



PRESSURE	GAUGE	DEPTH

DEPTH	PRESSURE	GRADIENT
1000	1000.0	-
2000	1100.0	.413
3000	1250.0	.410
3250	1300.0	.390
3500	1350.0	.367
3750	1400.0	.390
4000	1450.0	.350
4250	1500.0	.373
4500	1550.0	.390
4750	1600.0	.364
5000	1650.0	.348
5250	1700.0	.357
5500	1750.0	.366
5750	1800.0	.358
6000	1850.0	.340
6100	1900.0	.425

W. H. M.

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

BACA #14-S4-F17

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA #14  
 CASING 20" @ 193'; 13 3/8" @ 1452' ELEV. 8604.8' DATE: 2/20/75  
 LINER DESCRIPTION: 9 5/8" HUNG - 1452' - 3074' OPEN HOLE - 3074' - 6837' ZERO POINT R.T.  
 DEPTH 6180' TOR - 6'

TUBING DETAIL:

PURPOSE RIG SURVEY

REMARKS:

P-0-4250 PSIG - 7198 12HR - 13375L 15

ELEMENT T-88°F - 698°F SERIAL NO. 10055 CLOCK 12HR - 13790L TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0240 T-0242 DISENGAGE STYLUS P-1437 T-1421

WELL HEAD -0-

PICKUP @ 6180' TIME ON BOTTOM 0607-0617 MAX. 'F 483.7

WELL STATUS STATIC

SHUT IN: 1645 HRS - 2/19/75 ON PRODUCTION:

RATE

PRESSURE

TEMPERATURE

TIME	DEPTH	DEFL.	P - P	GRAD.	ID	TIME	DEPTH	DEFL.	P - T	GRAD.	ID	TIME	DEPTH	DEFL.	P - T	GRAD.	ID
6-0366	1000	0	0	0	0	"	1000	.352	210								
8-0371	2000	.150	338	.338	0	"	2000	.650	306								
10-0376	3000	.319	706	.368	-0.03	"	3000	.848	349								
11-0341	3250	.361	795	.356	-0.01	"	3250	.895	383								
12-0402	3500	.402	881	.348	0.00	"	3500	.941	398								
1-0413	3750	.442	966	.339	+0.01	"	3750	1.031	425								
1-0424	4000	.483	1053	.346	+0.02	"	4000	1.035	426								
5-0455	4250	.523	1137	.336	+0.03	"	4250	1.023	423								
6-0446	4500	.564	1223	.344	+0.04	"	4500	1.036	426								
7-0457	4750	.606	1311	.353	+0.05	"	4750	1.055	432								
8-0520	5000	.647	1397	.345	+0.05	"	5000	1.090	442								
1-0531	5250	.686	1479	.327	+0.06	"	5250	1.121	451								
2-0544	5500	.720	1551	.288	+0.07	"	5500	1.138	456								
3-0555	5750	.771	1639	.432	+0.07	"	5750	1.192	472								
6-0606	6000	.811	1744	.339	+0.07	"	6000	1.224	481								
7-0617	6180	.837	1799	.306	+0.07	"	6180	1.234	484								

COMMENTS:

T.D. 6180' TOR - 6'

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# GEOHERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

RFOA #14 S-4

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #14  
 CASING 20" @ 193'; 13 3/4" @ 1452' ELEV. 8604.8 DATE: 2-20-75  
 LINER DESCRIPTION: 9 5/8" HUNG 1452'-3074'; OPEN HOLE 3074'-6824' ZERO POINT ROTARY TABLE  
 DEPTH 6824'

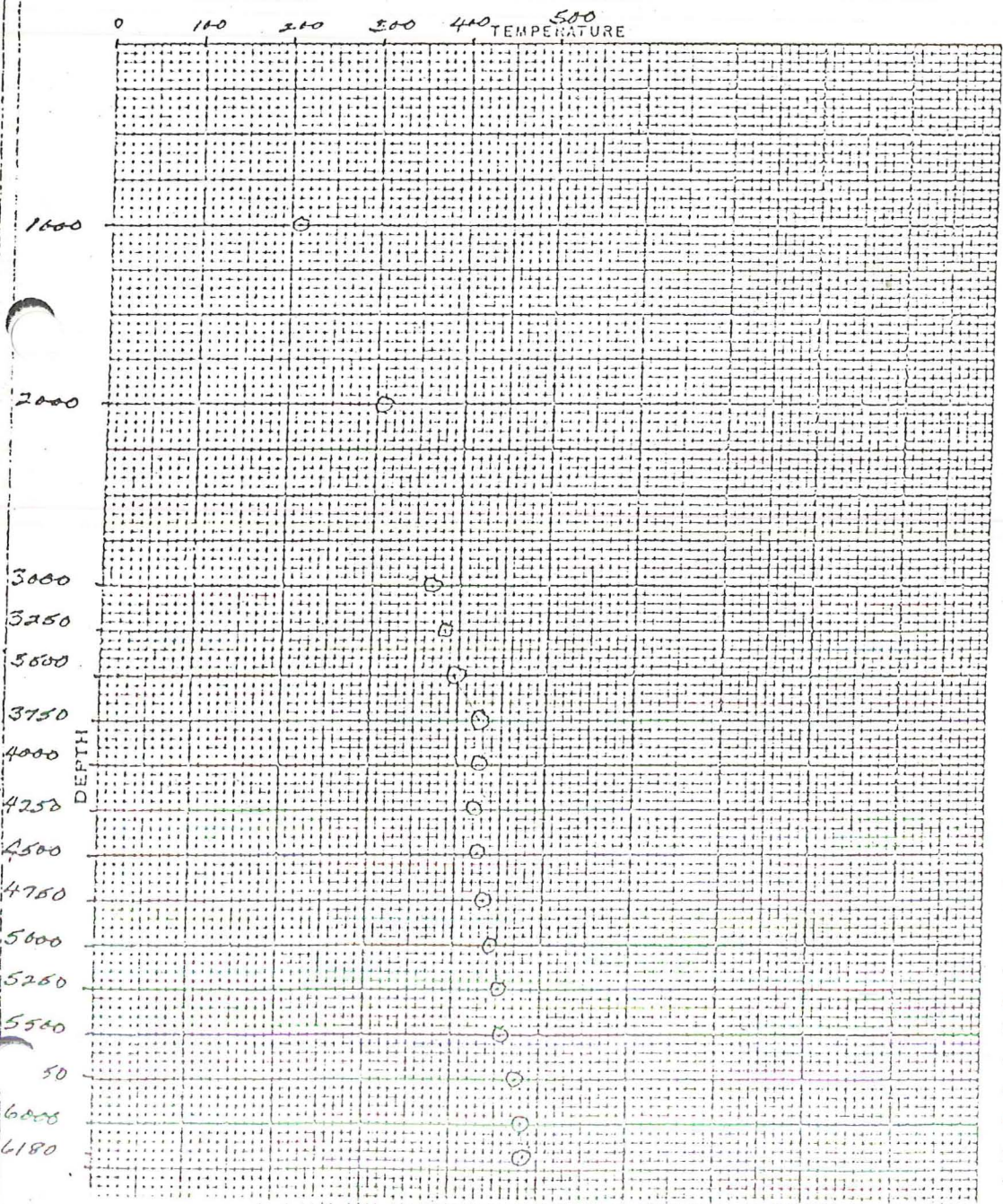
HOLE DESCRIPTION: \_\_\_\_\_

INSTRUMENT 880-698° FA  
 SERIAL NO 10055

MAX TEMP. 484 °F @ 6180

PURPOSE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_

STABILIZATION PERIOD \_\_\_\_\_



PRESSURES,	GAUGE	BOUG
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
1600	210		
2000	306		
3000	369		
3250	383		
3500	398		
3750	425		
4000	426		
4250	423		
4500	426		
4750	432		
5000	442		
5250	451		
5500	456		
5750	472		
6000	481		
6180	484		





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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

BACR#14-S-2-T4

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME BACR#14  
 CASING 2.0" @ 193'; 1.3 1/2" @ 1452' ELEV. DATE: 2/7/75  
 LINER DESCRIPTION: 9 5/8" HWY 9-1452'-3074', OPEN HOLE -3074'-6837' ZERO POINT RT  
 DEPTH 6837'

TUBING DETAIL:

PURPOSE RIG SURVEY

REMARKS:

T1-820E-6930F 10055 12hr-13375 15'  
 ELEMENT T2-820E-6460E SERIAL NO. 10052 CLOCK 1242-13790L 15TURN STABILIZATION PERIOD  
 ENGAGE STYLUS T1-1211 T2-1207 DISENGAGE STYLUS T1-1357 T2-1358  
 WELL HEAD —  
 PICKUP @ 6837' TIME ON BOTTOM 1316-1326 MAX. F 552.0  
 WELL STATUS STATIC  
 SHUT IN: — ON PRODUCTION:  
 RATE

T1-10055

T2-10052

TIME	DEPTH	DEFL.	Ø-T	GRAD.	ID	TIME	DEPTH	DEFL.	Ø-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1314	3000	.278	184.5	0	—	"	3000	.272	165.0	0	—						
1316	4000	.482	254.0	.073	—	"	4000	.505	233.0	.073	—						
1318	5000	.969	406.4	.152	—	"	5000	1.027	391.0	.153	—						
1320	6000	1.222	440.3	.074	—	"	6000	1.301	467.0	.076	—						
1324	6837	1.475	552.0	.085	—	"	6837	1.577	540.0	.087	—						

COMMENTS:

BY: J.M.

# GEO THERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

Basin #14 S-2 T<sub>1</sub>

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OWNER Union Oil Company of Calif. FIELD Valle Grande WELL NAME Basin #14

CASING 20" x 19.5' 13 3/4" x 12.5' ELEV. \_\_\_\_\_ DATE: \_\_\_\_\_

LINER DESCRIPTION: 4 1/2" pipe 1447' - 5074, open hole 5074' - 6937 ZERO POINT Rotary table  
DEPTH \_\_\_\_\_

HOLE DESCRIPTION: \_\_\_\_\_

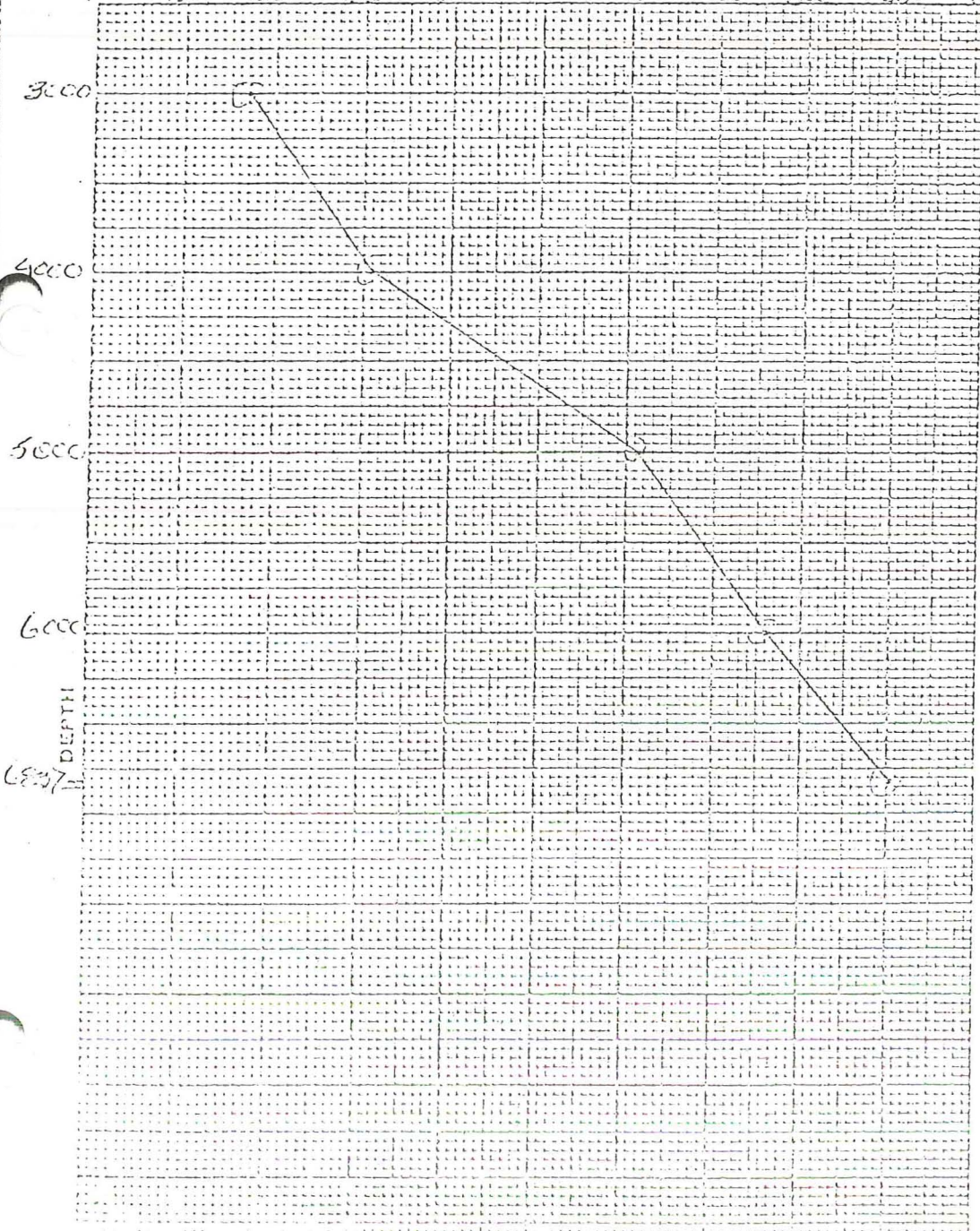
INSTRUMENT RS-692° F FAR.

SERIAL NO KTR-10055

MAX TEMP. 552 °F @ 6937

PURPOSE \_\_\_\_\_  
REMARKS: \_\_\_\_\_

100 150 200 250 300 TEMPERATURE (°F) 350 400 450 500 550 600 STABILIZATION PERIOD



PRESSURES	GAUGE	COND.	
CASING, PSI			
DEPTH	TEMP.	DEPTH	TEMP.
3660	184.5		
4000	254.0		
5100	406.9		
6100	487.3		
6937	552.0		

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# GEO THERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

B#14-52-T/T

OWNER UNION OIL CO. OF CALIF. FIELD Wells Grande WELL NAME B#14  
 CASING 20" @ 193'; 13 3/8" @ 1452' ELEV. \_\_\_\_\_ DATE: 2/7/75  
 LINER DESCRIPTION: 9 5/8" RUN 9'-1452'-3074' OPEN HOLE 3074'-6837' ZERO POINT R.T.  
 DEPTH 6837

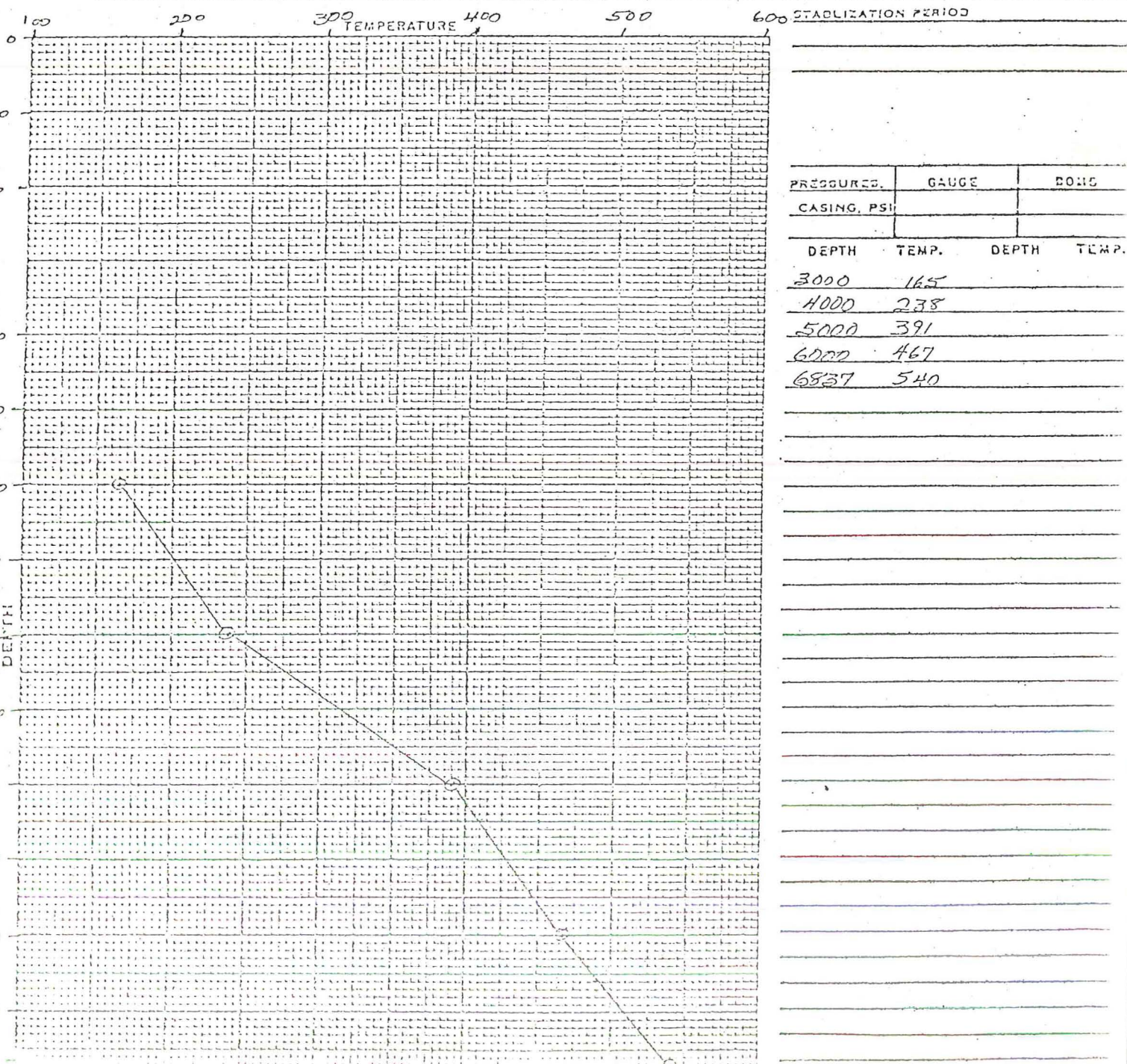
HOLE DESCRIPTION: \_\_\_\_\_

INSTRUMENT 89-196°F FAHR  
 SERIAL NO 10052

PURPOSE \_\_\_\_\_

MAX TEMP. 540 °F @ 6837

REMARKS: \_\_\_\_\_



PRESSURES	GAUGE	BOB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
3000	165		
4000	238		
5000	391		
6000	467		
6837	540		