

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.
	B	B	Electric logs for Baca Wells No's 10-14.

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JOHN D. HARTZ

OCT 06 1975

UNION

GEO THERMAL DIVISION DEL' PYLE

SUBSURFACE SURVEY

Field Work Sheet

OCT 8 1975

B6 546 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #6
 CASING 9 5/8" AT 795' 7" AT 2585' ELEV. 8725.7 DATE: 9/30/75
 LINER DESCRIPTION: 2585 - TD = OPEN HOLE ZERO POINT GLT+10'
 DEPTH 3834'

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT - 0 - 4250 PSI SN 7198 CLOCK - 12 HR 15 TURN
 ELEMENT 82' - 6.86' SERIAL NO. 10055 CLOCK 12 HR 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-0925 T-0919 DISENGAGE STYLUS P-1340 T-1340
 WELL HEAD 157 PSIC 0 - 4000 TIC
 PICKUP @ 3834' TIME ON BOYOM 1116 - 1216 MAX. 'F 489.6
 WELL STATUS RIG MOVED OFF LOCATION 9/24/75
 SHUT IN: ON PRODUCTION:
 RATE

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
1035	100	.070	157.6		0	1035	100	.077	106.6								
1047	1000	.063	141.9		0	1047	1000	.755	326.8								
1059	2000	.119	335.6		0	1059	2000	.989	401.5								
1112	3000	.324	709.7		+ .001	1112	3000	1.234	476.0								
1116	3834	.460	1004.2		+ .002	1116	3834	1.280	489.6								
1146	3834	.460	1004.2		+ .002	1146	3834	1.280	489.6								
1216	3834	.460	1004.2		+ .002	1216	3834	1.280	489.6								

COMMENTS: NOTE: CANNOT GET P/T TOOLS PAST 3834'

BY: JB ER

716

GEOTHERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

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B6 S-T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACH #6
 CASING 7 7/8" AT 795'; 7" AT 2585' ELEV. 8725.7 DATE: 9/30/75
 LINER DESCRIPTION: 2585 - TD = OPEN HOLE ZERO POINT CL + 10'
 DEPTH 3834

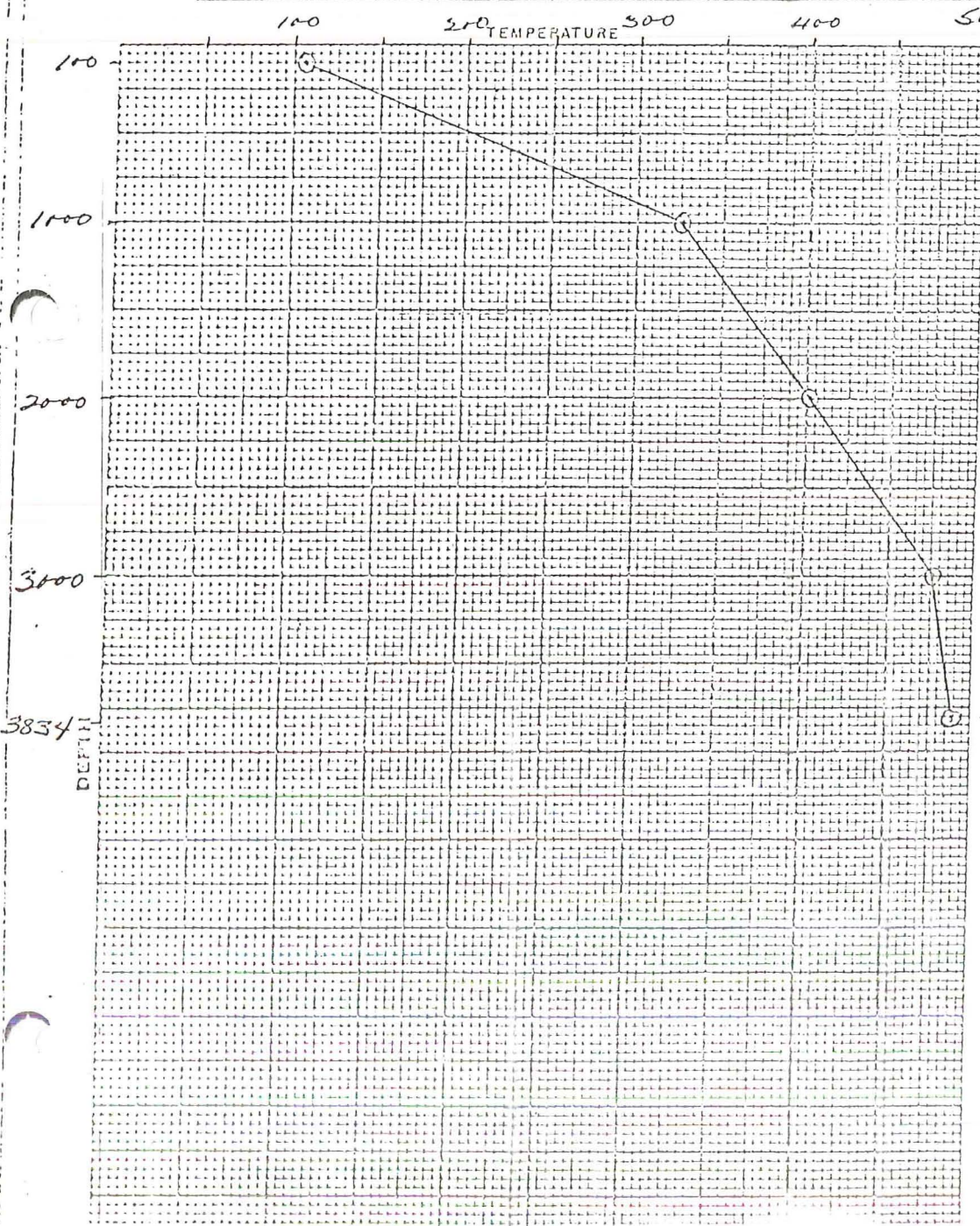
HOLE DESCRIPTION:

INSTRUMENT 820-686° F.
 SERIAL NO 10055

PURPOSE

MAX TEMP. 489.6 °F @ 3834

REMARKS:



STABILIZATION PERIOD

PRESSURES,	GAUGE	DEPTH
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100	106.6		
1000	326.8		
2000	401.5		
3000	476.0		
3834	489.6		
3834	489.6		
3834	489.6		

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GEOTHERMAL DIVISION
SUBSURFACE PRESSURE SURVEY

R # 6 - 540

OWNER: MINIUM OIL CO OF CALIF FIELD: VALLE GYMNASEWELL NAME BOREHOLE: Bore H6
 CASING: 1 7/8" @ 795' 1" @ 2586 ELEV: 8725.7 DATE: 9-30-75
 LINER DESCRIPTION: 2885 - TD Open Hole ZERO POINT: GL 710'
 DEPTH: 3834

HOLE DESCRIPTION:

INSTRUMENT: 0-4250 PS.
 SERIAL NO: 7198

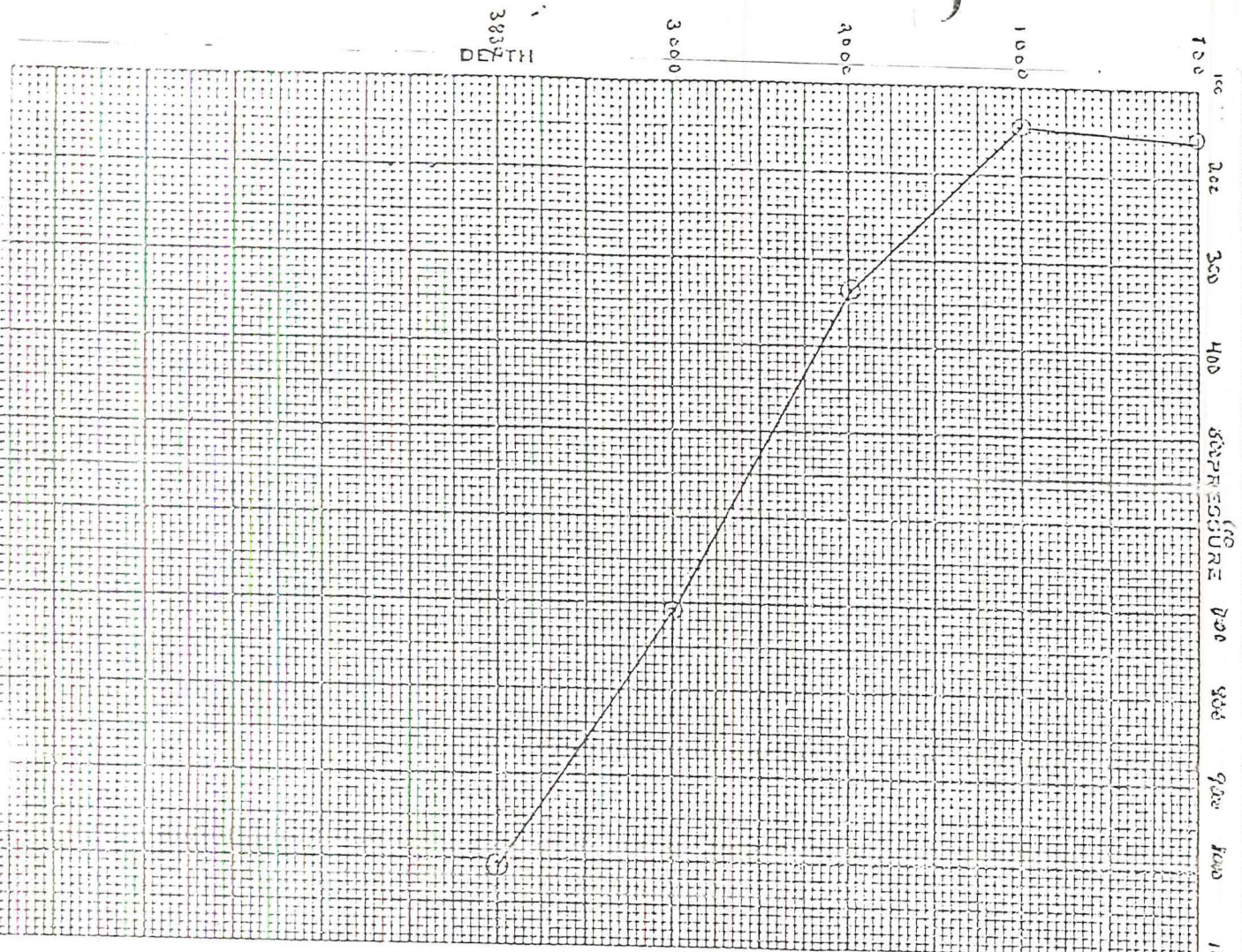
MAX TEMP: 489.6 °F @ 3834

PURPOSE:

REMARKS:

STABILIZATION PERIOD

DEPTH	PRESSURE	GRADIENT
100	157.6	
1000	141.9	
2000	235.6	
3000	209.7	
3834	1001.2	
3834	1001.2	
3834	1001.2	



DEPTH
3834

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B6 547 P/T

OWNER: UNION OIL COMPANY FIELD: VALLE GRANDE WELL NAME: BICH #6
 CASING: 9" AT 795', 7" AT 2585' ELEV.: 8725.7 DATE: 6/25/76
 LINER DESCRIPTION: 2585 TD = OPEN HOLE ZERO POINT: CLF 6'
 DEPTH: 3469'

TUBING DETAIL:

PURPOSE:

REMARKS:

ILLUMINANT - 0-2950 SN 9235 CL 12 1/2 TURN
 ELEMENT 80° - 6444 SERIAL NO. 10052 CLOCK 12 1/2 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P 1002 T 1006 DISENGAGE STYLUS P 1412 T 1408
 WELL HEAD 21 P319
 PICKUP @ 3460 TIME ON BOTTOM 1310 - 1535 MAX. IF 493
 WELL STATUS _____
 SHUT IN: _____ ON PRODUCTION: _____
 RATE _____

PRESSURE

TEMPERATURE

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
12:05	100	.025	472			12:05	100	.230	152								
12:14	100	.025	472			12:14	1000	.635	276								
12:44	2000	.235	379			12:34	2000	1.125	419								
12:45	2410	.563	566			12:45	2600	1.215	444								
12:57	3000	.485	752			12:57	3000	1.220	445								
13:05	3250	.549	543			13:05	3250	1.350	491								
13:35	3460	.602	922			13:35	3460	1.395	493								

COMMENTS:

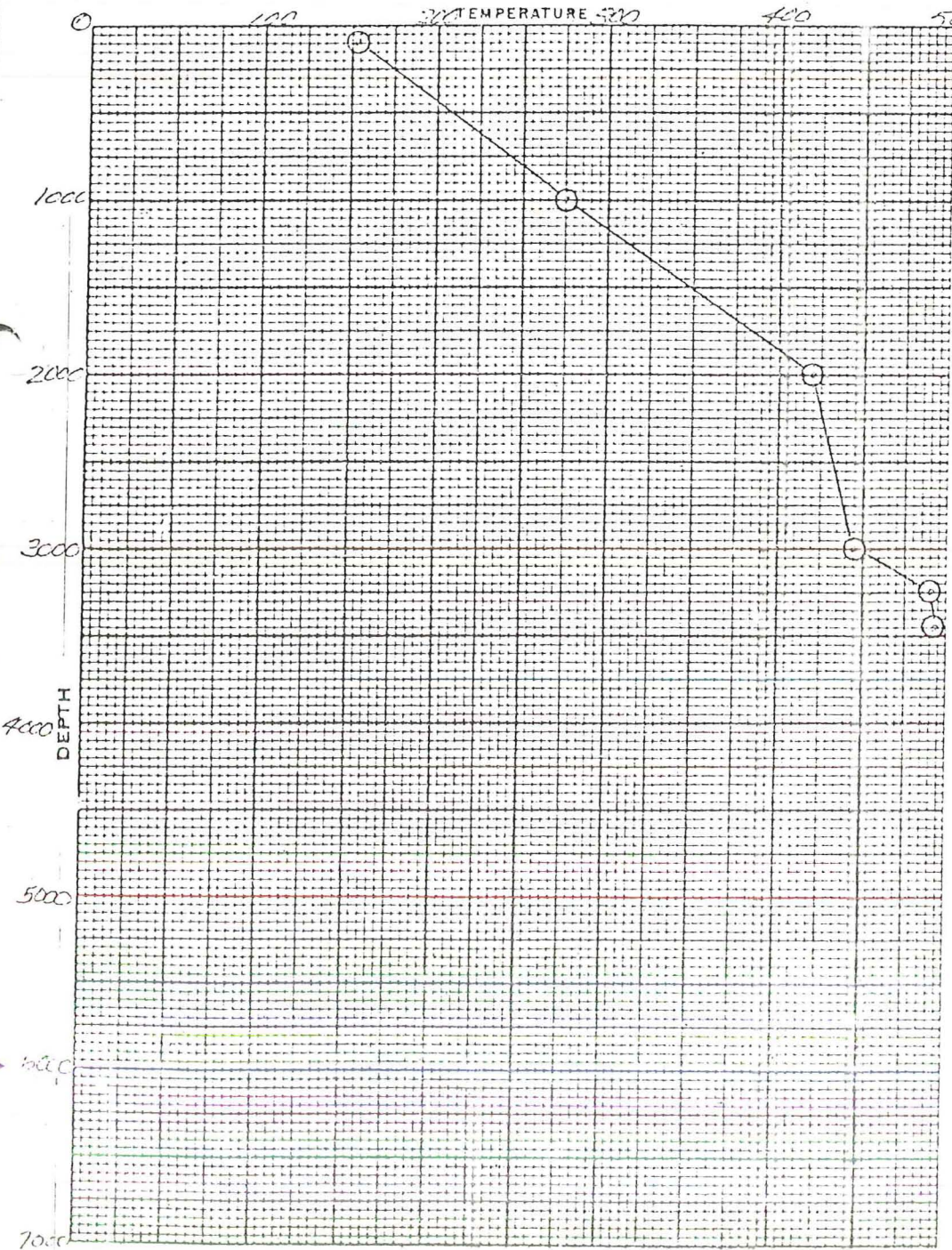
BY: JB CP

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UNION
 GEOTHERMAL DIVISION
 SUBSURFACE TEMPERATURE SURVEY

B6-S47-PT

OWNER _____ FIELD Lake George WELL NAME BQA #6
 CASING _____ ELEV 8725.7 DATE 6/25/76
 LINER DESCRIPTION: _____ ZERO POINT GL +6'
 _____ DEPTH 3469'
 HOLE DESCRIPTION: _____
 _____ INSTRUMENT _____ FAHP
 _____ SERIAL NO 10052
 PURPOSE _____ MAX TEMP 493 °F @ 3460
 REMARKS _____



STABILIZATION PERIOD

PRESSURES	GAUGE	ROMS	
CASING, PSI			
DEPTH	TEMP.	DEPTH	TEMP.
100	152		
1000	276		
2000	419		
2500	442		
3000	445		
3250	491		
3460	493		

RY: _____

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UNION
GEOHERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B6-547-PT

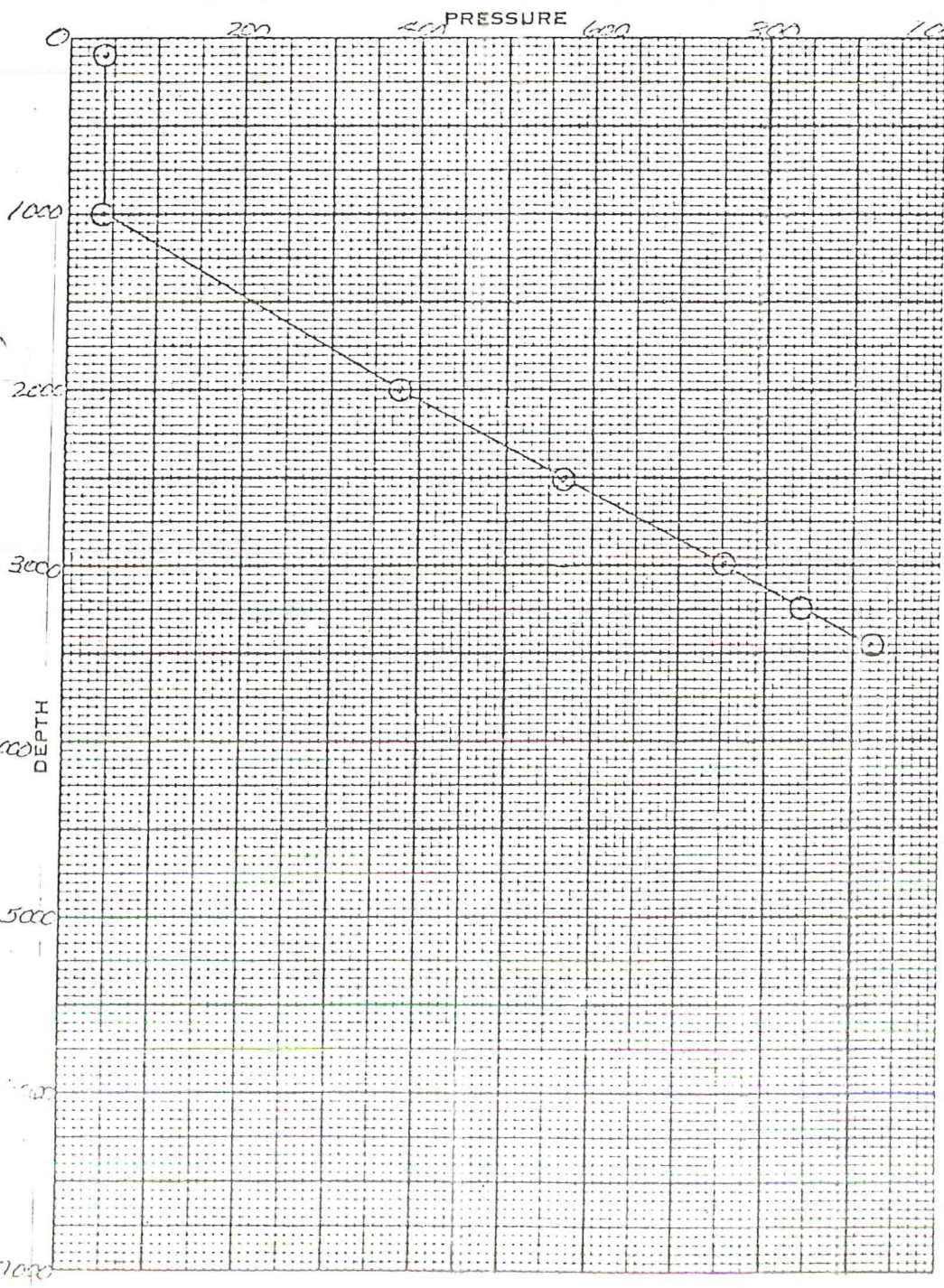
OWNER _____ FIELD _____ WELL NAME BACA #6
 CASING _____ ELEV _____ DATE 6/25/77
 LINER DESCRIPTION: _____ ZERO POINT GL + 6'
 _____ DEPTH 3469'

HOLE DESCRIPTION: _____ INSTRUMENT _____ PSIG
 _____ SERIAL NO 9235

PURPOSE _____ MAX TEMP 493 °F @ 3460'

REMARKS:

STABILIZATION PERIOD _____



PRESSURES.	GAUGE	BOMB
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
100	42	
1000	42	
2000	379	
2500	536	
3000	752	
3250	843	
3460	922	

BY:

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UNION

DEL' PYLE

GEO THERMAL DIVISION SEP 10 1975

SUBSURFACE SURVEY

Field Work Sheet

B6-545 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACH #6
 CASING 9 7/8 AT 745'; 7" AT 2585 ELEV. 8725.7' DATE: 8/27/75
 LINER DESCRIPTION: 2585' - TD OPEN HOLE ZERO POINT GL + 12'
 DEPTH 3830'

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT 0-4250 PSIG. SN-7198 CLOCK 12 hr 15 TURN
 ELEMENT 32°-69° SERIAL NO. 10055 CLOCK 12 hr 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-1100 T-1102 DISENGAGE STYLUS P-1647 T-1648
 WELL HEAD 113 PSIG
 PICKUP @ 3830 TIME ON BOTTOM 1210-1610 MAX. F 489.3
 WELL STATUS
 SHUT IN: 8/19/75 0930 hrs ON PRODUCTION:
 RATE

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
1135	100	.053	117.1			1135	100	.116	119.1								
1134	1000	.045	101.4			1134	1000	.805	342.6								
1144	2000	.143	319.8			1144	2000	1.035	415.7								
1152	2500	.232	519.1			1152	2500	1.111	433.9								
1201	3000	.316	699.2			1201	3000	1.246	479.6								
1209	3500	.400	877.2			1209	3500	1.243	478.7								
1210	3830	.453	991.5			1210	3830	1.272	487.2								
1310	"	.453	991.5			1310	"	1.272	487.2								
1410	"	.453	991.5			1410	"	1.272	487.2								
1510	"	.453	991.5			1510	"	1.272	487.2								
1610	"	.453	991.5			1610	"	1.272	487.2								

COMMENTS:

BY: JMM JR

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GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

BIRM #C-5415-T

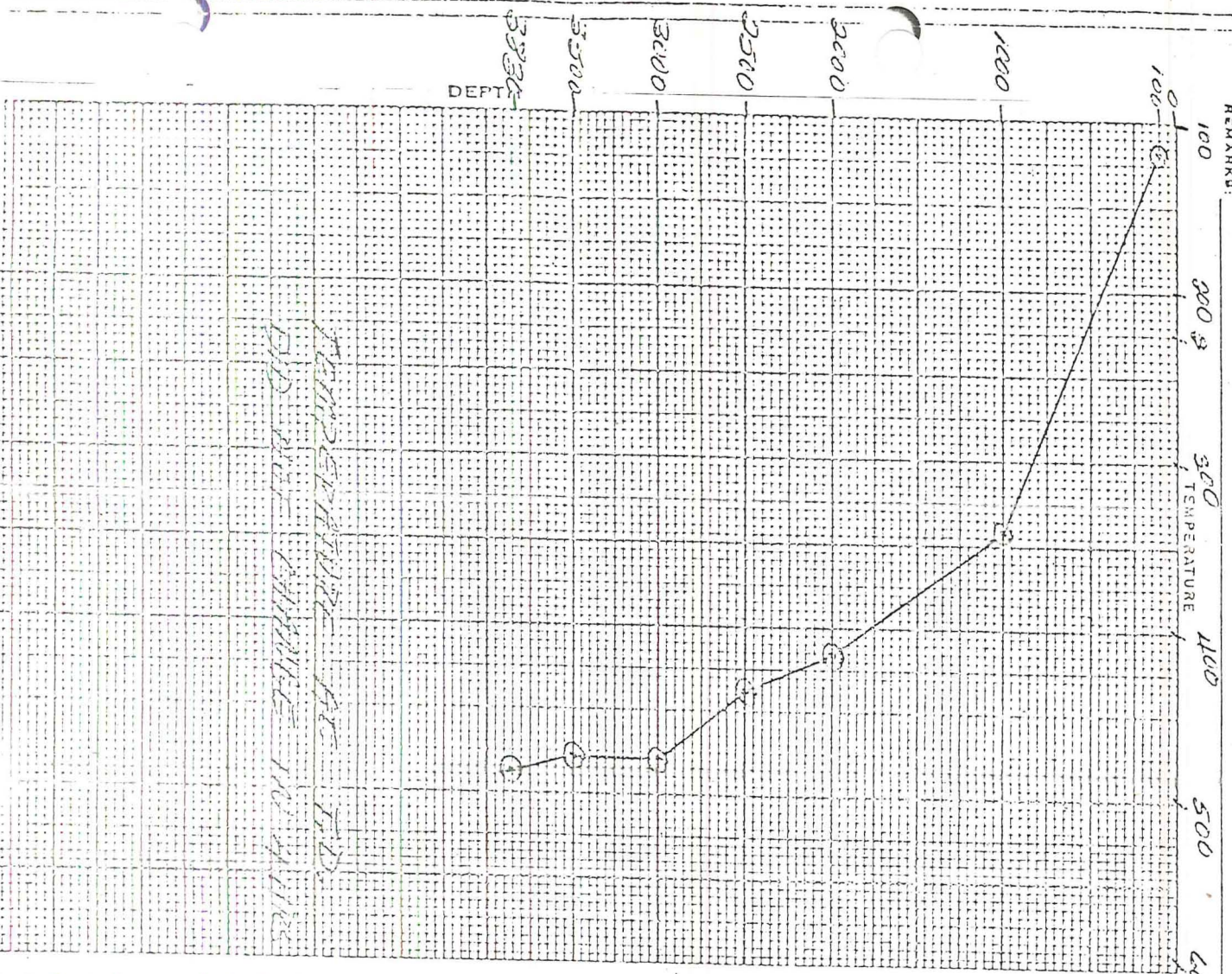
OWNER WILLIAMS-SUBSURFACE FIELD 1-1-1-1-1 WELL NAME BHCP #6
 CASING 9 5/8" @ 795' ELEV 8725.7 DATE: 8/27/55
 LINER DESCRIPTION: 7" - 795' - 2585' ZERO POINT PT-101
OPEN HOLE - 2585' - 3830' DEPTH 3830

HOLE DESCRIPTION:

INSTRUMENT 879E-656 SERIAL NO 10055

MAX TEMP 487.3°F @ 3830

PURPOSE _____
 REMARKS: _____
 600 STABILIZATION PERIOD



TEMPERATURE REC'D
 DD BY: WILLIAMS-SUBSURFACE

DEPTH	TEMP.	DEPTH	TEMP.
100	119.2		
1000	349.6		
2000	415.7		
2500	435.9		
3000	479.6		
3500	478.7		
3830	487.3		

PRESSURES	GAUGE	DEPTH
CASING, PSI	11.3	1175 ft

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GEOHERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

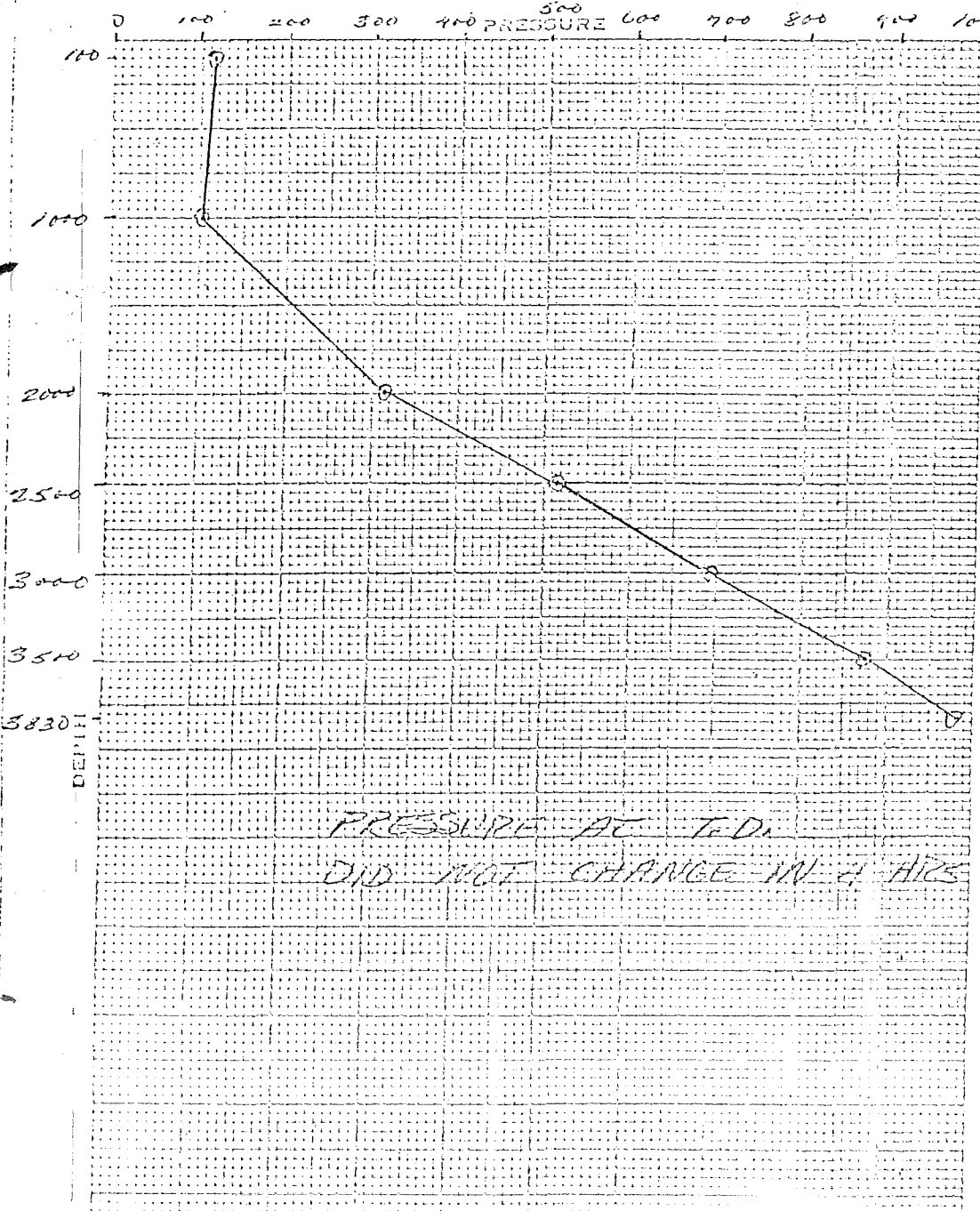
B6-545 P

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BAVA # 6
 CASING 9 5/8" AT 795'; 7" AT 2585' ELEV 8725.7 DATE 8/27/75
 LINER DESCRIPTION: 2585-TD = OPEN HOLE ZERO POINT CL +17'
 DEPTH _____

WELL DESCRIPTION: _____ INSTRUMENT D-4250
 SERIAL NO 7198

MAX TEMP 487.3°F @ 3830

REMARKS:



DEPTH	PRESSURE	GRADIENT
100	117.1	
1070	101.9	
2070	319.8	
2570	519.1	
3070	699.2	
3570	879.2	
3830	991.5	

PROCESSED: _____
 CASING, PSI: 113 117 GALL

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DEL' PYLE
SEP 10 1975

UNION
GEOHERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

BO 544 T/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #6
 CASING 9 5/8" AT 795', 7" AT 2585' ELEV. 8725.7' DATE: 8/27/75
 LINER DESCRIPTION: 2585' - TD = OPEN HOLE ZERO POINT CL + 12
 DEPTH 5830'

TUBING DETAIL:

PURPOSE TANDEM TEMP RUN

REMARKS:
 ELEMENT 90°-646°F SN 10052 CLOCK 12 HR 15 TURN
 ELEMENT 82°-686°F SERIAL NO. 10055' CLOCK 12 HR 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS T₁ 0730; T₂ 0725 DISENGAGE STYLUS T₁ 1025; T₂ 1026
 WELL HEAD 118 PSIG 0-400 T/C
 PICKUP @ 3830' TIME ON BOTTOM 0845-0945 MAX. °F 487.5
 WELL STATUS
 SHUT IN: 8/19/75 AT 0936 HRS ON PRODUCTION:
 RATE

T-1 TEMP 10052 T-2 TEMP 10055

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
0759	100	1.067	101.1			0759	100	1.065	115.6								
0827	1050	1.846	336.1			0827	1050	1.815	345.8								
0816	2000	1.090	408.6			0816	2000	1.037	416.3								
0825	2500	1.177	433.4			0825	2500	1.111	438.9								
0833	3000	1.331	475.4			0833	3000	1.254	481.9								
0843	3500	1.325	473.7			0843	3500	1.247	477.9								
0845	3830	1.350	480.5			0845	3830	1.273	487.5								
0915	"	1.350	480.5			0915	3830	1.273	487.5								
0945	"	1.350	480.5			0945	3830	1.273	487.5								

COMMENTS:

BY: JM JB CP

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GEO THERMAL DIVISION
SUBSURFACE TEMPERATURE SURVEY

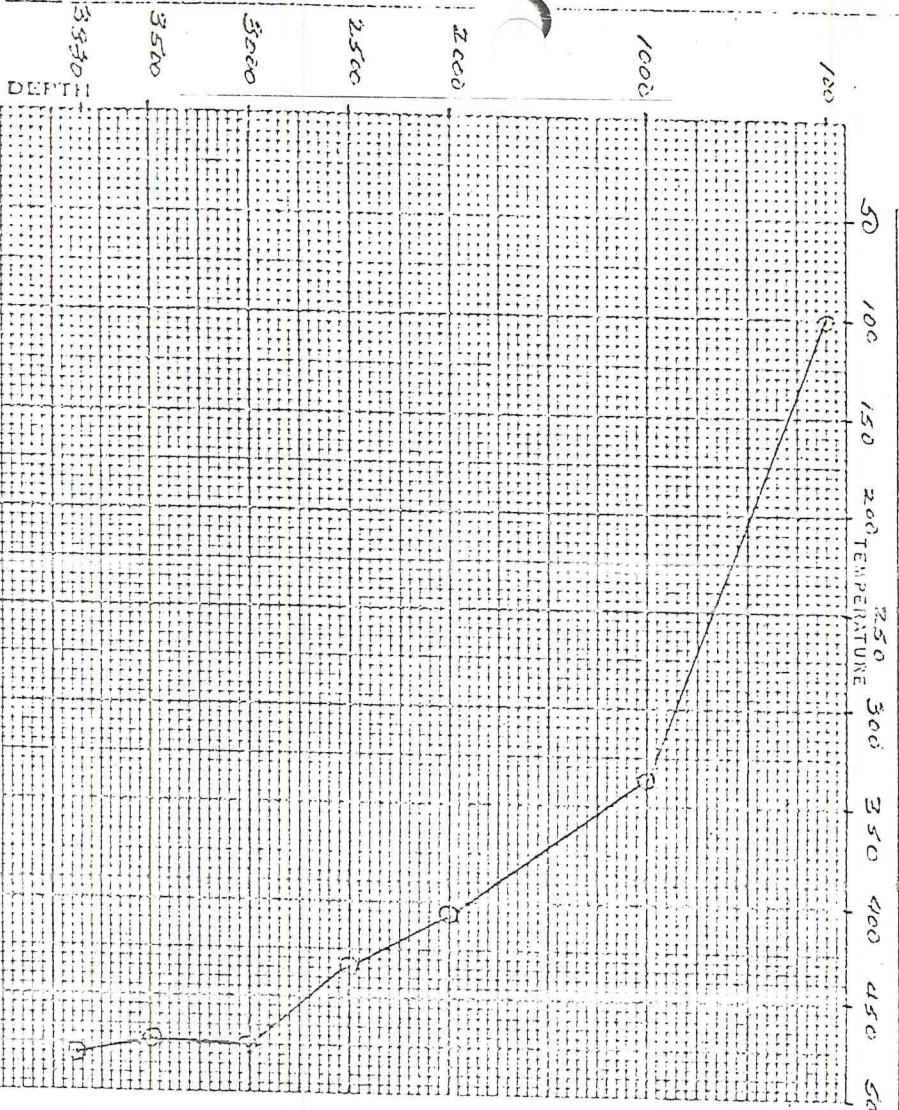
B6-544 T1

OWNER MINCH OIL COMPANY FIELD WALLE GRANDE WELL NAME BANA #6
 CASING 9 5/8" AT 195', 7" AT 2585' ELEV. 8725.7 DATE 8/27/75
 LINER DESCRIPTION: 2 5/8" - TD 50 PEN HOLE ZERO POINT 64.4 1/2'
 DEPTH 3830'

ROLE DESCRIPTION: _____ INSTRUMENT 90-646°
 SERIAL NO 10052

PURPOSE _____ MAX TEMP 480.5° @ 3830

REMARKS: _____



T-1 16052 ELEMENT

PRESSURES	CASING	SOIL	
DEPTH	TEMP.	DEPTH	TEMP.
100	101.1		
240	536.6		
240	408.6		
250	433.4		
3100	475.4		
3500	473.7		
3830	480.5		

Jan 108 cap

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GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

BG 544 T₂

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #6
 CASING 9 5/8" AT 795'; 7" AT 2585' ELEV. 8725.7 DATE: 8/27/75
 LINER DESCRIPTION: 2585' TD = OPEN HOLE ZERO POINT CL + 12'
 DEPTH 3830'

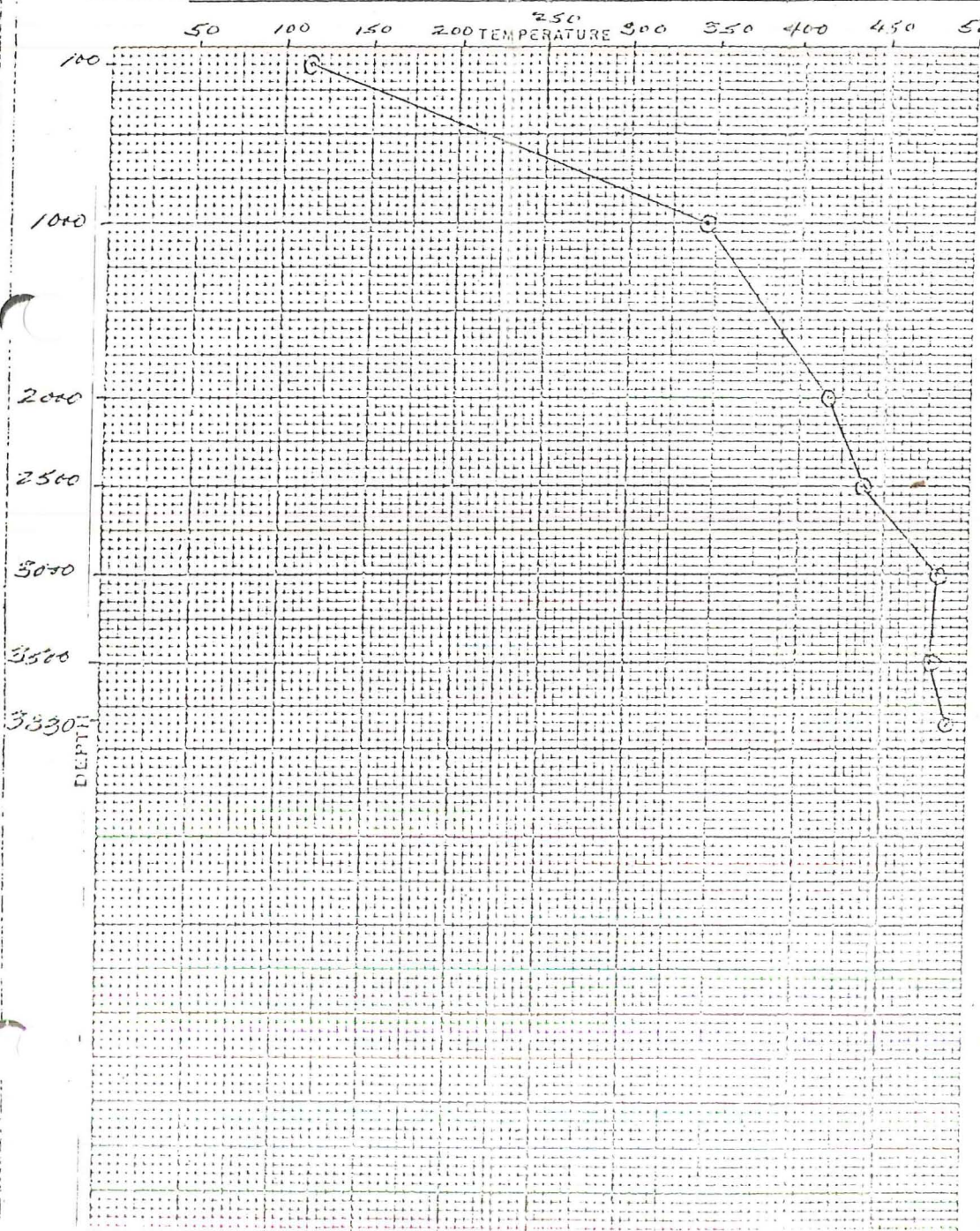
HOLE DESCRIPTION:

INSTRUMENT 802 - G.S.G. ° F.M.
 SERIAL NO 10055

PURPOSE

MAX TEMP. 487.5 ° F @ 3830'

REMARKS:



STABILIZATION PERIOD

T-2 10055 ELEMENT

PRESSURES	GAUGE	DEPTH
CASING, PSI:		

DEPTH	TEMP.	DEPTH	TEMP.
100	115.6		
1000	345.8		
2000	416.3		
2500	438.9		
3000	451.9		
3500	479.9		
3830	487.5		

M. J. B. CP



UNION

DEL PYLE
SEP 2 1975

GEO THERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

BACA #6-S43-P/T

OWNER UNION OIL CO CALIF FIELD VALLE GRANDE WELL NAME BACA#6
 CASING 9 7/8" @ 795'; 7" @ 2585" ELEV. 8725.7' DATE: 8/21/75
 LINER DESCRIPTION: 2585' - T.D. - OPEN HOLE ZERO POINT GLT 12'
 DEPTH 3830'

TUBING DETAIL:

PURPOSE PSI & TEMP BUILDUP

REMARKS:

ELEMENT-04250 PSIG. 7198 CLOCK 12HR 13375-L 15
 ELEMENT-82°F-686°F SERIAL NO. 10055 CLOCK 12HR 14091-L TURN'S STABILIZATION PERIOD
 ENGAGE STYLUS P-0750 T-0751 DISENGAGE STYLUS P-1410 - T-1407
 WELL HEAD 352 PSIG - 0-600 7/8
 PICKUP @ 3830' TIME ON BOTTOM 0815-1435 hr MAX. °F 474.3
 WELL STATUS SHUT IN
 SHUT IN: 0936 HRS 8/19/75 ON PRODUCTION:
 RATE

PRESSURE

TEMPERATURE

TIME	PRESSURE					TEMPERATURE					TIME	PRESSURE				
	DEPTH	DEFL.	P-T	GRAD.	CORR	DEPTH	DEFL.	P-T	GRAD.	ID		DEPTH	DEFL.	P-T	GRAD.	ID
0815	3830	.448	979	-	+0.01	-	3830	1.228	474.3	-	-					
0845	-	-	-	-	-	-	-	-	-	-	-					
0915	-	-	-	-	-	-	-	-	-	-	-					
0945	-	-	-	-	-	-	-	-	-	-	-					
1015	-	-	-	-	-	-	-	-	-	-	-					
1045	-	-	-	-	-	-	-	-	-	-	-					
1115	-	-	-	-	-	-	-	-	-	-	-					
1145	-	-	-	-	-	-	-	-	-	-	-					
1215	-	-	-	-	-	-	-	-	-	-	-					
1245	-	-	-	-	-	-	-	-	-	-	-					
1315	-	-	-	-	-	-	-	-	-	-	-					
1335	3830	.448	979	-	+0.01	-	3830	1.228	474.3	-	-					

COMMENTS:

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UNION

DEL' PYLE

SEP 2 1975

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B6-542 P/1

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BODA #6
 CASING 3 1/2" HT 795'; 3 7/8" HT 2595' ELEV. 8725.7' DATE: 8/20/75
 LINDER DESCRIPTION: 2585' - TD = OPEN HOLE ZERO POINT GLT 12'
 DEPTH 3830'

TUBING DETAIL:

PURPOSE PSI & TEMP BUILDUP

REMARKS:

CLEARNT - 0 - 0250 PSIC SM-7198 CLOCK 12 hrs 15 TURN
ELEMENT - 82° - 686°F SERIAL NO. 10055 CLOCK 12 hrs 15 TURN STABILIZATION PERIOD
ENGAGE STYLUS P-0919 T-0817 DISENGAGE STYLUS P-1454; T-1454
WELL HEAD 0850 hrs - 278 PSIC; 1450 hrs 300 PSIC
PICKUP @ 3830' TIME ON BOTTOM 0850 - 1450 MAX. °F 474.3
WELL STATUS SHUT IN 0936 hrs 8/19/75
 SHUT IN: ON PRODUCTION:
 RATE

PRESSURE					TEMPERATURE												
T	DEPTH	DEFL.	P-#	GRAD.	ID	TIME	DEPTH	DEFL.	R-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	3830	.446	974.4		1.001	0850	3830	1.185	461.4								
0920	"	.443	978.8		"	0920	"	1.220	471.9								
0950	"	.443	978.3		"	0950	"	1.221	472.2								
1020	"	.443	978.9		"	1020	"	1.221	472.2								
1050	"	.443	978.8		"	1050	"	1.223	472.8								
1120	"	.443	978.8		"	1120	"	1.224	473.1								
1150	"	.443	978.8		"	1150	"	1.226	473.7								
1220	"	.443	978.8		"	1220	"	1.226	473.7								
1250	"	.443	978.8		"	1250	"	1.227	474.0								
1320	"	.443	978.8		"	1320	"	1.228	474.3								
1350	"	.443	978.8		"	1350	"	1.228	474.3								
1420	"	.443	978.8		"	1420	"	1.228	474.3								
1450	"	.443	978.8		"	1450	"	1.228	474.3								

COMMENTS: WELL BRIDGED OFF AT 3830'

RY: 10-10

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UNION

DEL PYLE

GEO THERMAL DIVISION SEP 2 1975

SUBSURFACE SURVEY

Field Work Sheet

B6-541 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME RACA #6
 CASING 9 5/8" AT 795; 7" AT 2555' ELEV. 8725.7 DATE: 8/19/75
 LINER DESCRIPTION: 2555' - TD = OPEN HOLE ZERO POINT GL + 12'
 DEPTH 3830'

TUBING DETAIL:

PURPOSE SHUT IN PSI + TEMP BUILD UP

REMARKS:

ELEMENT - 0-4250 P210 SN-7198 CLOCK-12 HR 15 TURN
 ELEMENT 82-686°F SERIAL NO. 10055 CLOCK-12 HR 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-0922; T-0817 DISENGAGE STYLUS P-1633; T-1635
 WELL HEAD SEE CHART
 PICKUP @ 3830' TIME ON BOTTOM 0945-1345 MAX. °F
 WELL STATUS SHUT IN 0936 hrs 8/19/75
 SHUT IN: ON PRODUCTION:
 RATE

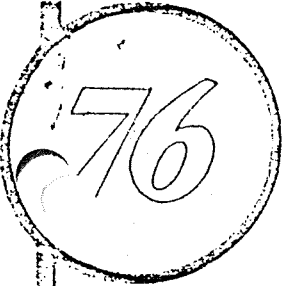
TEMPERATURE

TEMPERATURE

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
0945	3830	1.198	465.4			1245	3830	1.252	481.3								
	"	1.199	465.7			1315	"	1.234	476.0								
41	"	1.205	467.5			1345	"	1.229	474.6								
48	"	1.210	469.0			1415	"	1.224	473.1								
49	"	1.213	469.8			1445	"	1.220	471.9								
50	"	1.216	470.7			1515	"	1.219	471.6								
51	"	1.223	472.8			1545	"	1.218	471.3								
52	"	1.228	474.3														
53	"	1.233	475.7														
54	"	1.238	477.2														
55	"	1.243	478.7														
1000	"	1.255	482.2														
05	"	1.268	486.1														
10	"	1.274	487.8														
15	"	1.277	488.7														
20	"	1.279	489.3														
25	"	1.279	489.3														
30	"	1.290	489.6														
35	"	1.281	489.9														
40	"	1.282	490.2														
45	"	1.283	490.5														
1100	"	1.304	496.9														
15	"	1.305	496.9														
20	"	1.296	494.3														
45	"	1.290	492.6														
1200	"	1.290	492.6														
	"	1.289	489.9														
	"	1.266	485.5														

COMMENTS: WELL BRIDGED OFF AT 3830'

BY: JM & JB



Union

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B6-540⁴¹ P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACD #6
 CASING 9 5/8" AT 795'; 7" AT 2585' ELEV. 8725' DATE: 8/19/75
 LINER DESCRIPTION: 2585 - TD OPEN HOLE ZERO POINT GL + 12'
 DEPTH 3830'

TUBING DETAIL:

PURPOSE SHUT IN PSI + TEMP BUILDUP

REMARKS:

ELEMENT - 0-4250 PSIG SN 7198 CLOCK - 12 HR 15 TURN
 ELEMENT 82-656 °F SERIAL NO. 10055 CLOCK 12 HR 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-0822 T-0817 DISENGAGE STYLUS P-1655 T-1135
 WELL HEAD SEE CHART
 PICKUP @ 3830' TIME ON BOTTOM 0945-1545 MAX. °F
 WELL STATUS SHUT IN 0936 HRS 8/19/75
 SHUT IN: ON PRODUCTION:
 RATE

PRESSURE

PRESSURE

TIME	DEPTH	DEFL.	P- ^g	GRAD.	ID	TIME	DEPTH	DEFL.	P- ^g	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
0	3830	.250	559		0	1245	3830	.435	951		7.001						
	"	.258	576		0	1315	"	.436	953		"						
47	"	.268	597		0	1345	"	.436	953		"						
48	"	.275	612		0	1415	"	.443	968		"						
49	"	.282	627		0	1445	"	.442	966		"						
50	"	.290	644		0	1515	"	.441	964		"						
51	"	.296	657		0	1545	"	.441	964		"						
52	"	.306	678		0												
53	"	.314	695		0												
54	"	.321	709		0												
55	"	.327	722		0												
1000	"	.365	803		0												
05	"	.393	862		7.001												
10	"	.411	900		"												
15	"	.422	924		"												
20	"	.428	936		"												
25	"	.430	941		"												
30	"	.431	943		"												
35	"	.432	945		"												
40	"	.433	947		"												
45	"	.434	949		"												
1100	"	.435	951		"												
15	"	.436	953		"												
50	"	.437	956		"												
45	"	.438	958		"												
2	"	.439	960		"												
	"	.437	956		"												
30	"	.435	951		"												

COMMENTS:

WELL BRIDGED OFF AT 3830'

BY: JMH + JRB

76

UNION

GEOTHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

3-3
B6-541 PIT

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #6
 CASING 9 5/8" AT 795; 7" AT 2585' ELEV. 8725.7 DATE: 8/19/75
 LINER DESCRIPTION: 2585' - TD = OPEN HOLE ZERO POINT GL+12'
 DEPTH 3830'

TUBING DETAIL:

PURPOSE SHUT IN PSI + TEMP BUILD UP

REMARKS:

ELEMENT - 0-4250 PSI/C. SN-7488 CLOCK - 12 HR 15 TURN

ELEMENT 82-686°F SERIAL NO. 10055 CLOCK - 12 HR 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0822; T-0817 DISENGAGE STYLUS P-1635; T-1635

WELL HEAD SEE CHART

PICKUP @ 3830' TIME ON BOTTOM 0945-1545 MAX. °F

WELL STATUS SHUT IN 0936 HRS 8/19/75

SHUT IN: ON PRODUCTION:

RATE

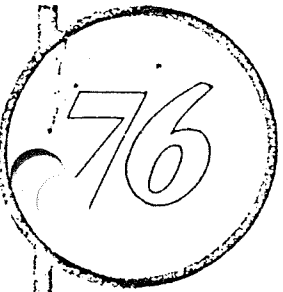
TEMPERATURE

TEMPERATURE

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
0945	3830'	1.198	465.4			1245	3830'	1.252	481.3								
	"	1.199	465.7			1315	"	1.234	476.0								
	"	1.205	467.5			1345	"	1.229	474.6								
48	"	1.210	469.0			1415	"	1.224	473.1								
49	"	1.213	469.8			1445	"	1.220	471.9								
50	"	1.216	470.7			1515	"	1.219	471.6								
51	"	1.223	472.8			1545	"	1.218	471.3								
52	"	1.228	474.3														
53	"	1.233	475.7														
54	"	1.238	477.2														
55	"	1.243	478.7														
1000	"	1.255	482.2														
05	"	1.268	486.1														
10	"	1.274	487.8														
15	"	1.277	488.7														
20	"	1.279	489.3														
25	"	1.279	489.3														
30	"	1.280	489.6														
35	"	1.281	489.9														
40	"	1.282	490.2														
45	"	1.283	490.5														
1100	"	1.304	495.7														
15	"	1.305	496.7														
30	"	1.296	494.3														
45	"	1.290	492.6														
1200	"	1.290	492.6														
	"	1.281	489.9														
	"	1.266	485.5														

COMMENTS: WELL BRIDGED OFF AT 3830'

BY: JM & JB



UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B6-540⁴¹ P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE

WELL NAME B2CA #6

CASING 9 5/8" AT 795'; 7" AT 258' ELEV. 8725.7

DATE: 8/19/75

LINER DESCRIPTION: 2585 - TD OPEN HOLE

ZERO POINT CL + 12'

DEPTH 3830'

TUBING DETAIL:

PURPOSE SHUT IN PSI + TEMP BUILDUP

REMARKS:

ELEMENT - 0-4250 PSIG SN 7198 CLOCK - 12 HR 15 TURN

ELEMENT 82-686 °F SERIAL NO. 10255 CLOCK 12 HR 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0922 T-0817 DISENGAGE STYLUS P-1635 T-435

WELL HEAD SEE CHART

PICKUP @ 3830' TIME ON BOTTOM 0945-1545 MAX. °F

WELL STATUS SHUT IN 0936 HRS 8/19/75

SHUT IN: ON PRODUCTION:

RATE

PRESSURE

PRESSURE

TIME	DEPTH	DEFL.	P-°	GRAD.	ID	TIME	DEPTH	DEFL.	P-°	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	3830	.250	559		0	1245	3830	.435	951		1.001						
	"	.258	576		0	1315	"	.436	953		"						
47	"	.268	597		0	1345	"	.436	953		"						
48	"	.275	612		0	1415	"	.443	968		"						
49	"	.282	627		0	1445	"	.442	966		"						
50	"	.290	644		0	1515	"	.441	964		"						
51	"	.296	657		0	1545	"	.441	964		"						
52	"	.306	678		0												
53	"	.314	695		0												
54	"	.321	709		0												
55	"	.327	722		0												
1000	"	.365	803		0												
05	"	.393	862		1.001												
10	"	.411	900		"												
15	"	.422	924		"												
20	"	.429	936		"												
25	"	.430	941		"												
30	"	.431	943		"												
35	"	.432	945		"												
40	"	.433	947		"												
45	"	.434	949		"												
1100	"	.435	951		"												
15	"	.436	953		"												
30	"	.437	956		"												
45	"	.438	958		"												
30	"	.439	960		"												
30	"	.437	956		"												
30	"	.435	951		"												

COMMENTS:

WELL BRIDGED OFF AT 3830'

BY: JM + JB

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UNION

GEOTHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B-6-540-P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA#6
 CASING 9 7/8 @ 795'; 7"-0'-2585 ELEV. 8725.7 DATE: 6/5/75
 LINER DESCRIPTION: OPEN HOLE 2585'-T.D. ZERO POINT GLT 12'
 DEPTH 4681

TUBING DETAIL:

PURPOSE

REMARKS:

P-0-4250 PSIG 7198 12hr-13375-L 15
 ELEMENT T-820F-6860F SERIAL NO. 10955 CLOCK 12hr-14091-L 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-0688 T-0648. DISENGAGE STYLUS P-0850 T-0850
 WELL HEAD
 PICKUP @ 4681' TIME ON BOTTOM 0814-0822 MAX. °F 536.4
 WELL STATUS STATIC.
 SHUT IN: ON PRODUCTION:
 RATE

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
255-0826	0	.020	45	0	0	"	0	0	0	0							
72	100	.027	61	.38	0	"	100	.196	145								
735-0800	1000	.085	79	.02	0	"	1000	.598	277								
747-0854	2000	.160	360	.282	0	"	2000	1.027	413								
752-0803	3000	.331	731	.370	0	"	3000	1.193	464								
805-0812	4000	.495	1078	.351	±.002	"	4000	1.270	487								
814-0822	4681	.600	1298	.324	±.002	"	4681	1.440	536.4								

COMMENTS:

BY: J.M. / J.B.

GEO THERMAL DIVISION

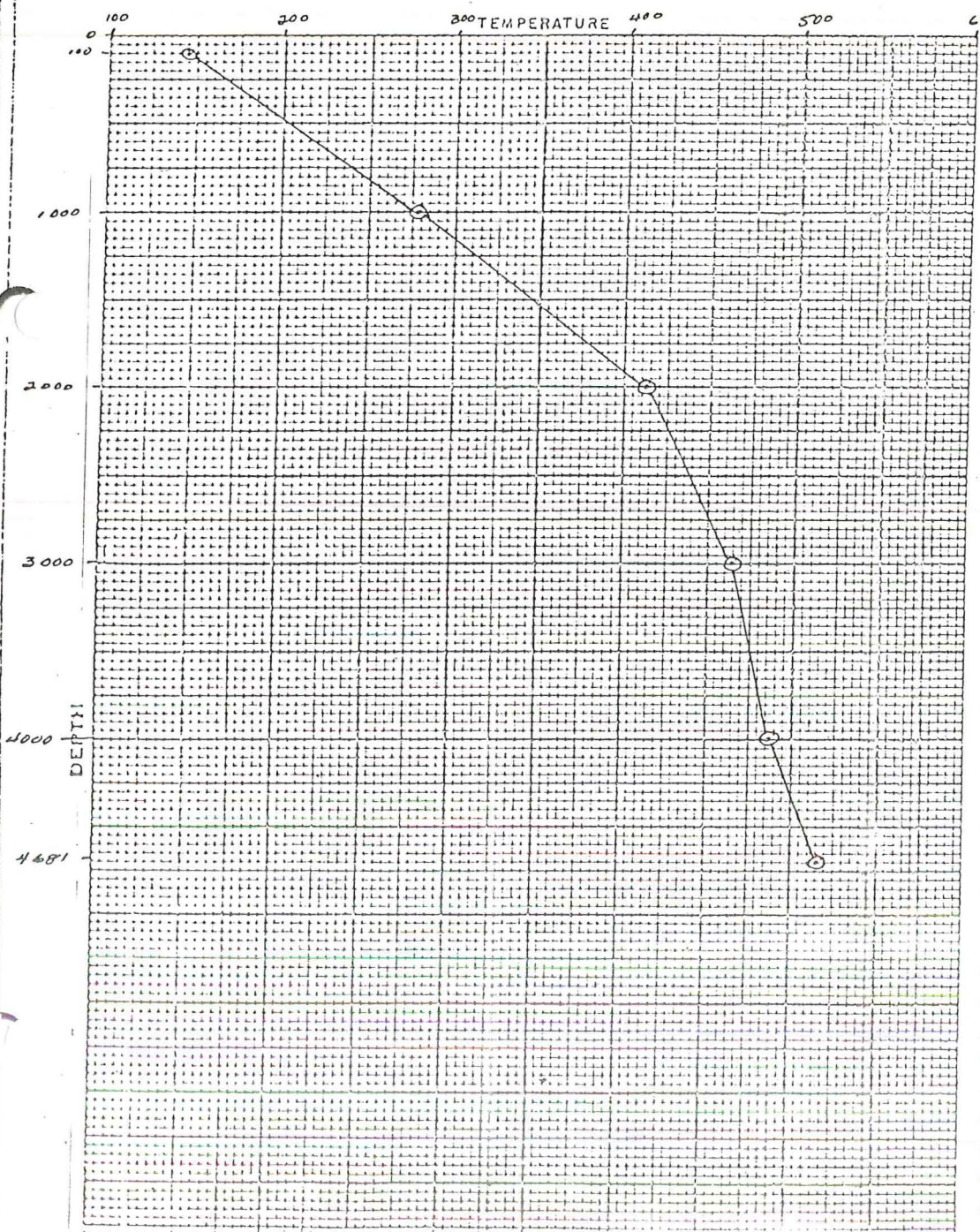
SUBSURFACE TEMPERATURE SURVEY

B#6-540-P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA#6
 CAGING 9 7/8" @ 795'; 7"-8'-2585' ELEV. 8725.5 DATE: 6/5/75
 LINER DESCRIPTION: OPEN HOLE - 2585 - T.D. ZERO POINT GL+12'
 DEPTH 4681'

HOLE DESCRIPTION: _____
 INSTRUMENT 82°F - 686 FAH
 SERIAL NO 10055

PURPOSE _____ MAX TEMP. 536.4 °F @ 4681
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURE	GAUGE	DEPTH
CASING, PSI	40	45

DEPTH	TEMP.	DEPTH	TEMP.
0	0		
100	145		
1000	277		
2000	413		
3000	464		
4000	487		
4681	536		

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GEOHERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

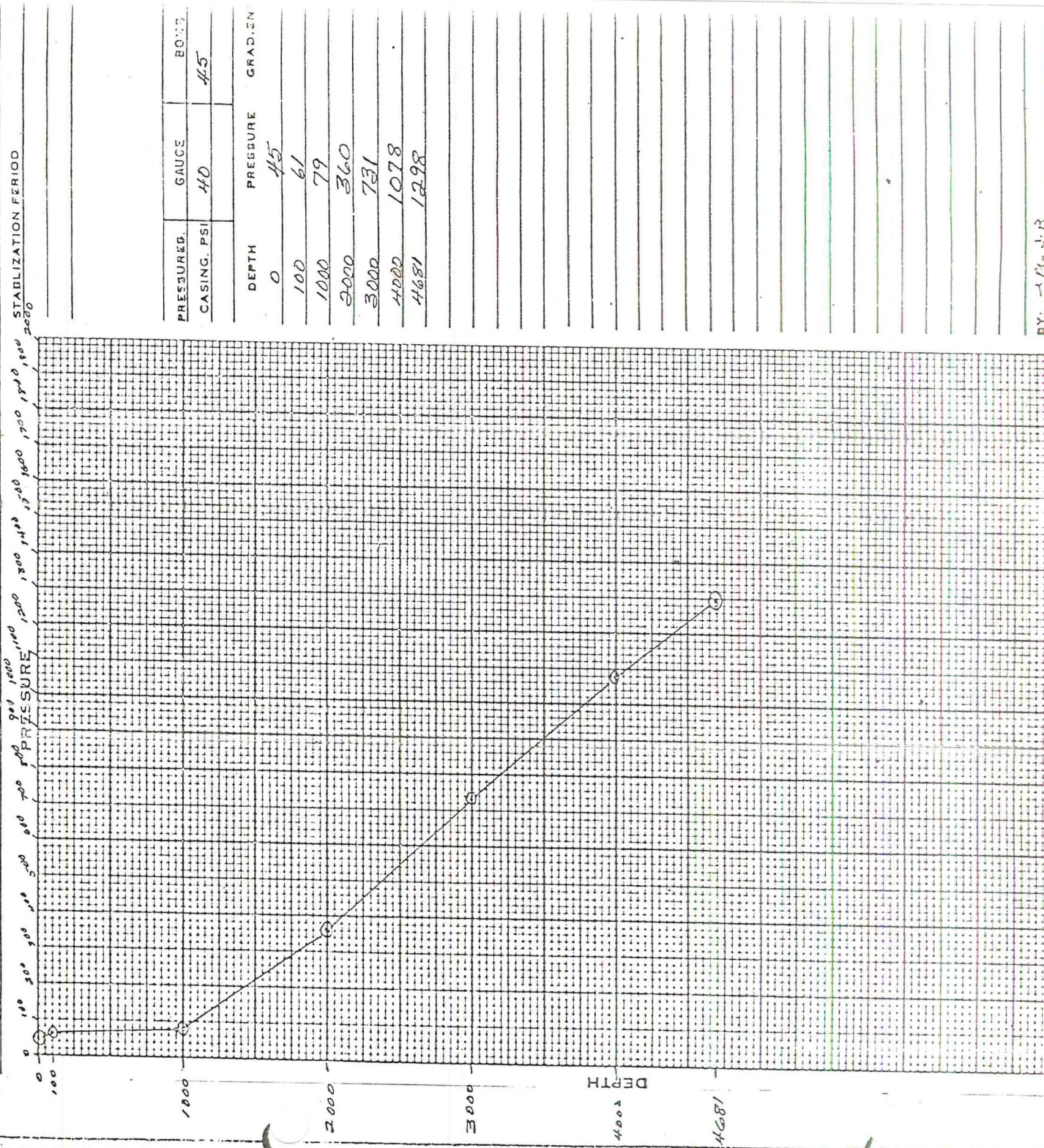
B#16-540-P/T

OWNER UNION OIL CO. OF CALIF. FIELD VALLE GRANDE WELL NAME BARA#6
 CASING 7 5/8" @ 795', 7" - 0' - 2585' DATE 6/5/75
 LINER DESCRIPTION: OPEN HOLE - 2585' - F.D. ELEV. 8725.5' ZERO POINT GLT-12'
 DEPTH 4681'

HOLE DESCRIPTION: _____ INSTRUMENT Q-4250 PSI
 SERIAL NO 7198

PURPOSE _____ MAX. TEMP 536.4 °F @ 4681'

REMARKS: _____ STABILIZATION PERIOD _____



PRESSURED.	CASING. PSI	GAUGE	BOUND
		40	45

BY: A.P.C.-J.B.

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John



GEOTHERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

B#6-S-39-P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA#6
 CASING 9 7/8" @ 795 - 7'0 - 2585" ELEV. 8725.7' DATE: 5/27/75
 LINER DESCRIPTION: OPEN HOLE - 2585 - T.D. ZERO POINT GL+12'
 DEPTH 4681' (4850' T.D.)

TUBING DETAIL:

PURPOSE

REMARKS: RAN SINKER BAR WITH CENTRALIZER - COULD NOT GET PASSED 4681'

P-0-4250 PSIG - 7198 1242-13375-L 15
 ELEMENT 82°F - 686°F SERIAL NO. 10055 CLOCK 1242-13374-L RETURN STABILIZATION PERIOD
 ENGAGE STYLUS P-1606 T-1608 DISENGAGE STYLUS P-1804 T-1804
 WELL HEAD 100 PSIG 0-600 7/8"
 PICKUP @ 4681' TIME ON BOTTOM 1731-1741 hrs MAX. 'F 530.7
 WELL STATUS SHUT IN -
 SHUT IN: ON PRODUCTION:
 RATE

PRESSURE

TEMPERATURE

TIME	PRESSURE					TEMPERATURE					TIME	TEMPERATURE				
	DEPTH	DEFL.	P-T	GRAD.	ID	DEPTH	DEFL.	P-T	GRAD.	ID		DEPTH	DEFL.	P-T	GRAD.	ID
23	0	.042	95	0	0	"	0	0	0	0						
33-1643	100	.042	95	0	0	"	100	.013	85.9	0						
44-1654	1000	.042	95	0	0	"	1000	.740	322.1	.263						
56-1706	2000	.160	360.4	.266	0	"	2000	1.015	409.6	.086						
67-1718	3000	.333	735.2	.375	0	"	3000	1.178	459.3	.050						
72-1730	4000	.497	1091.9	.343	+1.002	"	4000	1.250	480.8	.022						
81-1741	4681	.605	1308.8	.327	+1.004	"	4681	1.420	530.7	.073						

COMMENTS:

RV:

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GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

B#6-539-P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA#6
 CASING 9 5/8" @ 795', 7" @ 2585' ELEV. 8725.7' DATE: 5/27/75
 LINER DESCRIPTION: OPEN HOLE - 2585 - T.D. ZERO POINT GLT 12'
 DEPTH 4850' - SURVEY TO 4681'

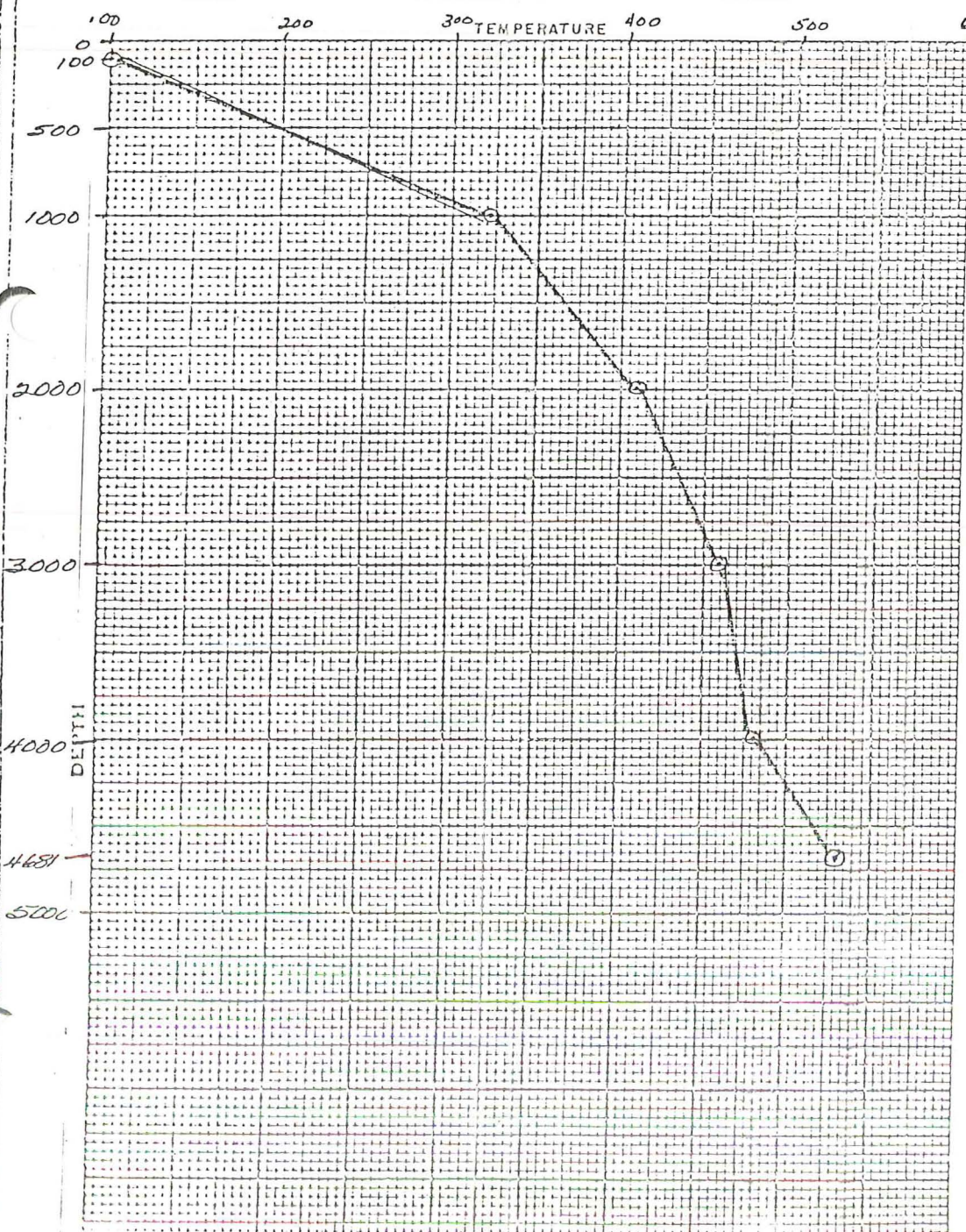
HOLE DESCRIPTION:

INSTRUMENT 82°F - 686° FAH
 SERIAL NO 10055

PURPOSE

MAX TEMP. 530.7 °F @ 4681'

REMARKS:



STABILIZATION PERIOD

PRESSURES,	GAUGE	BOHC
CASING, PSI	100	95

DEPTH	TEMP.	DEPTH	TEMP.
0	0		
100	85.9		
1000	322.1		
2000	409.6		
3000	459.3		
4000	480.8		
4681	530.7		

Extrap 979 psi @ 3690
 JDM

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GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B#6-539-P17

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA#6
 CASING 9 5/8" @ 775' 7" o - 2585' ELEV. 8725.7' DATE 5/27/75
 LINER DESCRIPTION: OPEN HOLE - 2585' - TD. ZERO POINT 6412'
 DEPTH 4850' SURVEY TO 4681'

HOLE DESCRIPTION:

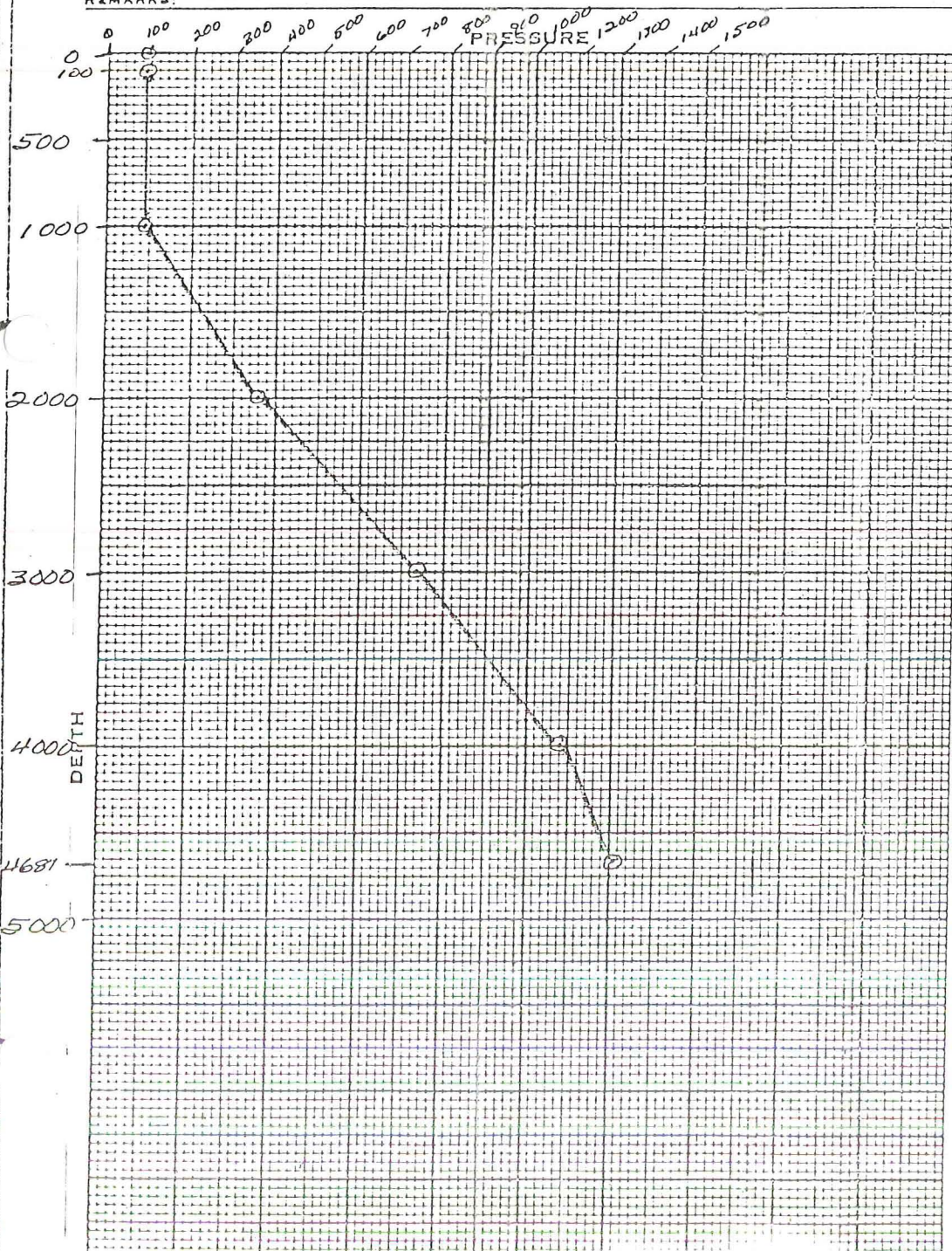
INSTRUMENT 0-4250 PS
 SERIAL NO 7198

PURPOSE:

MAX TEMP 530.7 °F @ 4681

REMARKS:

STABILIZATION PERIOD



PRESSURES	GAUGE	BCWB
CASING. PSI	100	95

DEPTH	PRESSURE	GRADIENT
0	95	0
100	95	0
1000	95	0
2000	360.4	0.266
3000	735.2	0.375
4000	1081.9	0.343
4681	1308.8	0.327

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UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

306-5-25-P/T

OWNER UNION OIL CO. OF CALIF. FIELD VALLE GRANDE WELL NAME BACA #6
 CASING 7 7/8" @ 795' ELEV. 8725.7' DATE: 2/14/75
 LINER DESCRIPTION: 7" HUNG @ 692' - 2700' ZERO POINT CL+6'
 STOPS- 2655'-2710; 2982'-3176, 3589'-3666' DEPTH 3666'
 TUBING DETAIL:

PURPOSE

REMARKS:

P- O-425D PS12 7198 12hrz 13375L 15'
 ELEMENT R-882'-698'F SERIAL NO. 100567 CLOCK 12hrz 13790L 15TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-1054 H2S R-1102 H2S DISENGAGE STYLUS P-1419 H2S T-1417 H2S
 WELL HEAD 14.5 PSIG
 PICKUP @ 3666' TIME ON BOTTOM 1318-1453 MAX. F 475.7 @ 3500
 WELL STATUS SHUT IN.
 SHUT IN: ON PRODUCTION:
 RATE

PRESSURE

TEMPERATURE

TIME	DEPTH	DEFL.	P - D	GRAD.	ID	TIME	DEPTH	DEFL.	Q - T	GRAD.	ID	TIME	DEPTH	DEFL.	P - T	GRAD.	ID
1-112	00	065	142.4	0	000	1157-1147	100	.007	90.1	0	-						
1-112	500	065	142.4	0	000	1149-1155	500	.599	287.7	.499	-						
1-1211	1000	065	142.4	0	000	1201-1211	1000	.874	376.9	.174	-						
2-1222	1500	075	169.0	.045	000	1212-1222	1500	.905	382.5	.019	-						
3-1242	2000	1.60	360.4	.383	000	1233-1242	2000	1.069	436.0	.099	-						
4-1257	2500	2.46	550.8	.381	000	1244-1257	2500	1.107	447.0	.022	-						
5-1325	3000	.329	726.7	.352	f.001	1255-1325	3000	1.179	468.0	.042	-						
7-1317	3500	.413	904.7	.356	f.002	1307-1317	3500	1.206	476.0	.016	-						
-1353	3666	.439	959.7	.331	f.002	1318-1353	3666	1.168	444.7	0	-						

COMMENTS:

BY: J.H. J.R.

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GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

#46-538-P1T

OWNER UNION OIL CO. OF CALIF. FIELD VALLE GRANDE WELL NAME BACANS
 CASING 9 5/8" @ 795' 7" HVNG-692'-3700' ELEV. 8725.7' DATE 2/1/75
 LINER DESCRIPTION: SLOTS-2623'-2710'; 2888'-3176'; 3587'-3699' ZERO POINT GLT-6'
 DEPTH 3666'

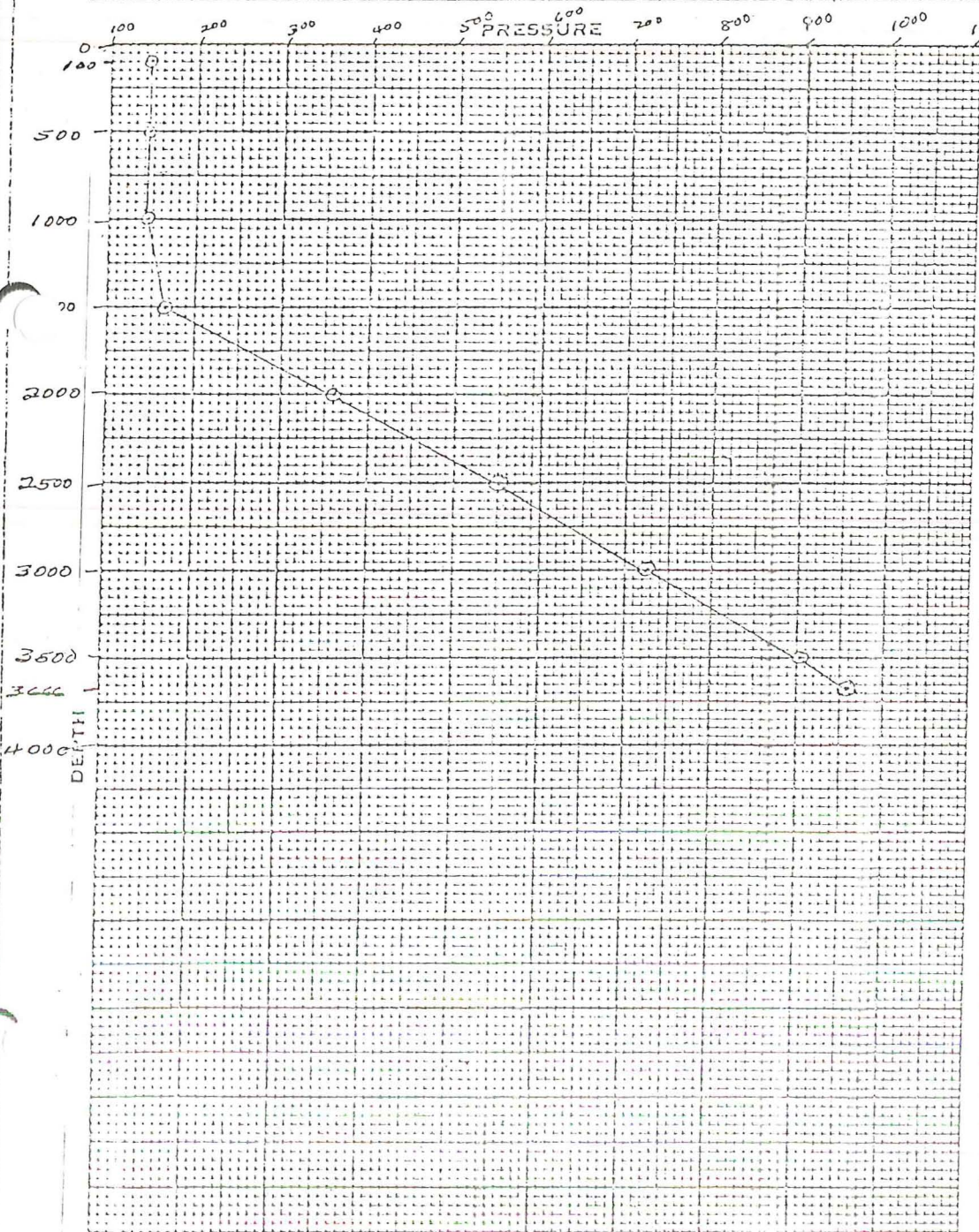
HOLE DESCRIPTION:

INSTRUMENT 0-4250 PS
 SERIAL NO. 7198

PURPOSE

MAX TEMP 475.7 °F @ 3500'

REMARKS:



PRESSURED.	GAUGE	SONS
CASING. PSI	145	146

DEPTH	PRESSURE	GRADIENT
100	146.4	0
500	146.4	0
1000	146.4	0
1500	169	1.045
2000	360.4	1.353
2500	550.8	1.351
3000	726.7	1.352
3500	904.7	1.356
3666	959.7	1.331

GEOHERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

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B446-S-38-P17

OWNER UNION OIL CO. OF CALIF FIELD WALL GRANDS WELL NAME B446-46
 CASING 9 5/8" x 7.75" 7" HWC-692-3700' ELEV. 8725.7 DATE: 2/14/75
 LINER DESCRIPTION: SECT. 2-333'-2710'; 2888'-3176'; 3588'-3692' ZERO POINT 6.644'
 DEPTH 3666'

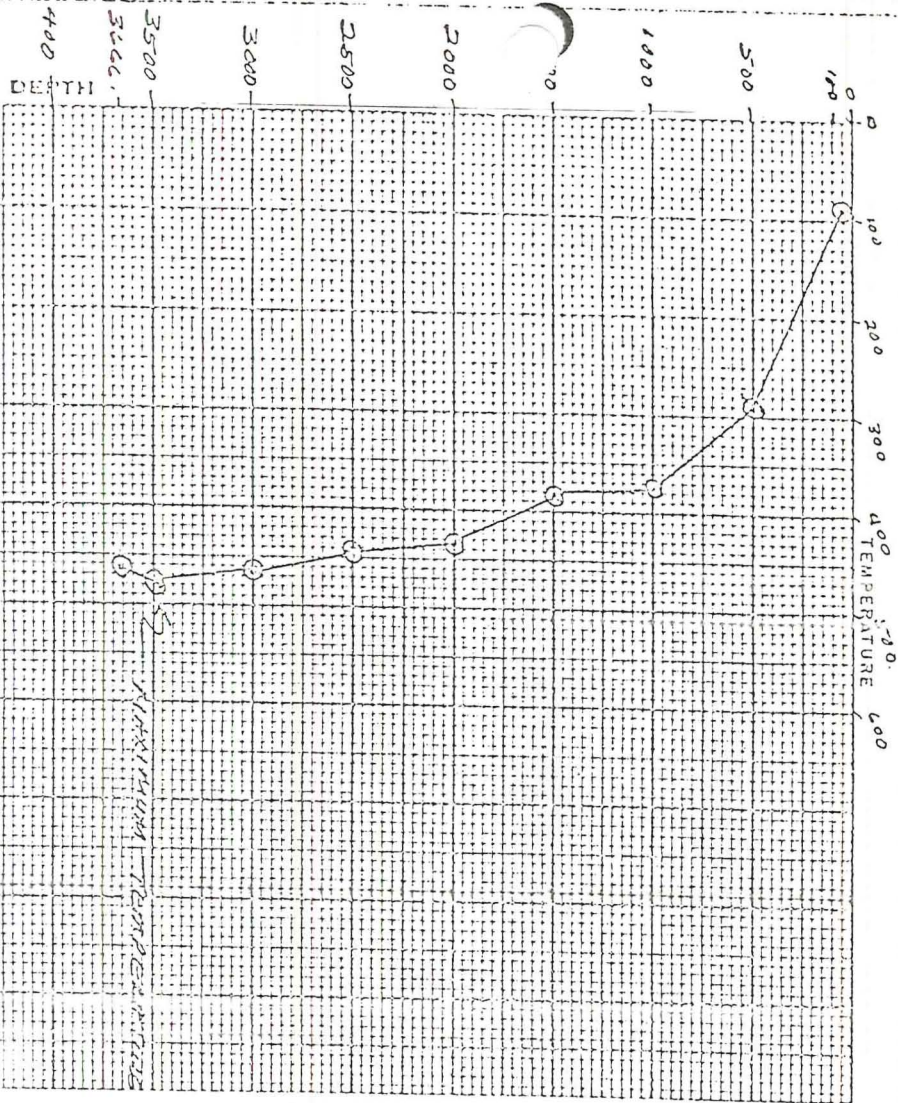
HOLE DESCRIPTION:

INSTRUMENT 8892-6980 FAHR
 SERIAL NO 10055

MAX TEMP 475.7 °F @ 3556'

PURPOSE _____
 REMARKS: _____

STABILIZATION PERIOD _____



DEPTH	TEMP.	DEPTH	TEMP
100	90.1		
520	289.7		
1000	376.9		
1500	386.5		
5000	436.0		
2500	447.0		
3000	467.9		
3500	475.7		
3666	474.7		

PRESSURE	GAUGE	DEPTH
CASING, PSI	145	146

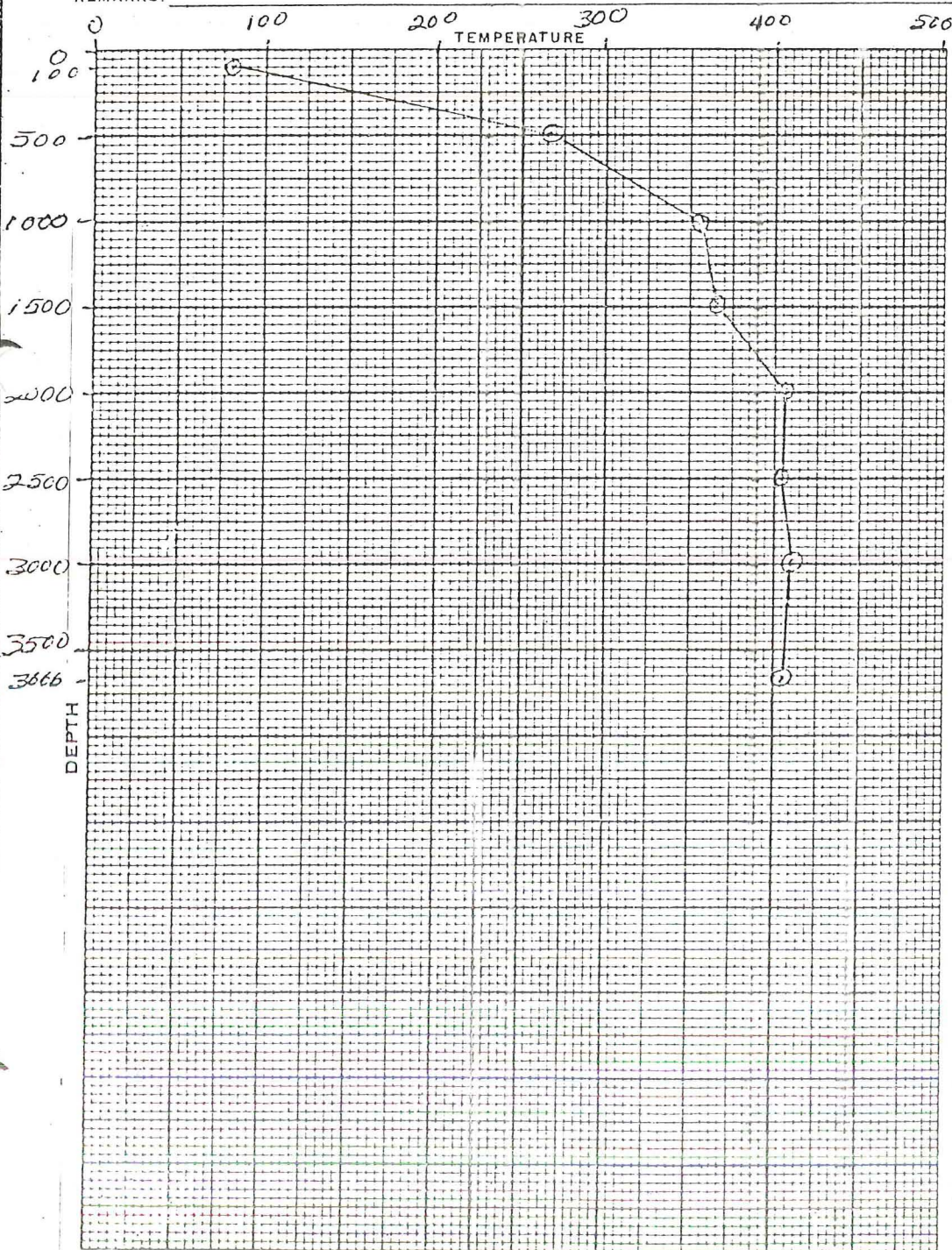
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UNION 76

GEOHERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY B6-537-T

OWNER UNION OIL CO. CALIF FIELD V.C. WELL NAME B#6
 CASING _____ ELEV _____ DATE 10-4-74
 LINER DESCRIPTION: _____ ZERO POINT _____
 _____ DEPTH 3666
 HOLE DESCRIPTION: _____
 _____ INSTRUMENT 800-646 FAHF
 _____ SERIAL NO 10052
 _____ PURPOSE _____ MAX TEMP 411.5 °F @ 3000
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOWB
CASING, PSI	<u>143</u>	<u>-</u>

DEPTH	TEMP.	DEPTH	TEMP.
<u>100</u>	<u>81.6</u>		
<u>500</u>	<u>267.8</u>		
<u>1000</u>	<u>356.0</u>		
<u>1500</u>	<u>365.9</u>		
<u>2000</u>	<u>406.7</u>		
<u>2500</u>	<u>404.9</u>		
<u>3000</u>	<u>411.8</u>		
<u>3666</u>	<u>405.2</u>		

BY: J.M.

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UNION GEOTHERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

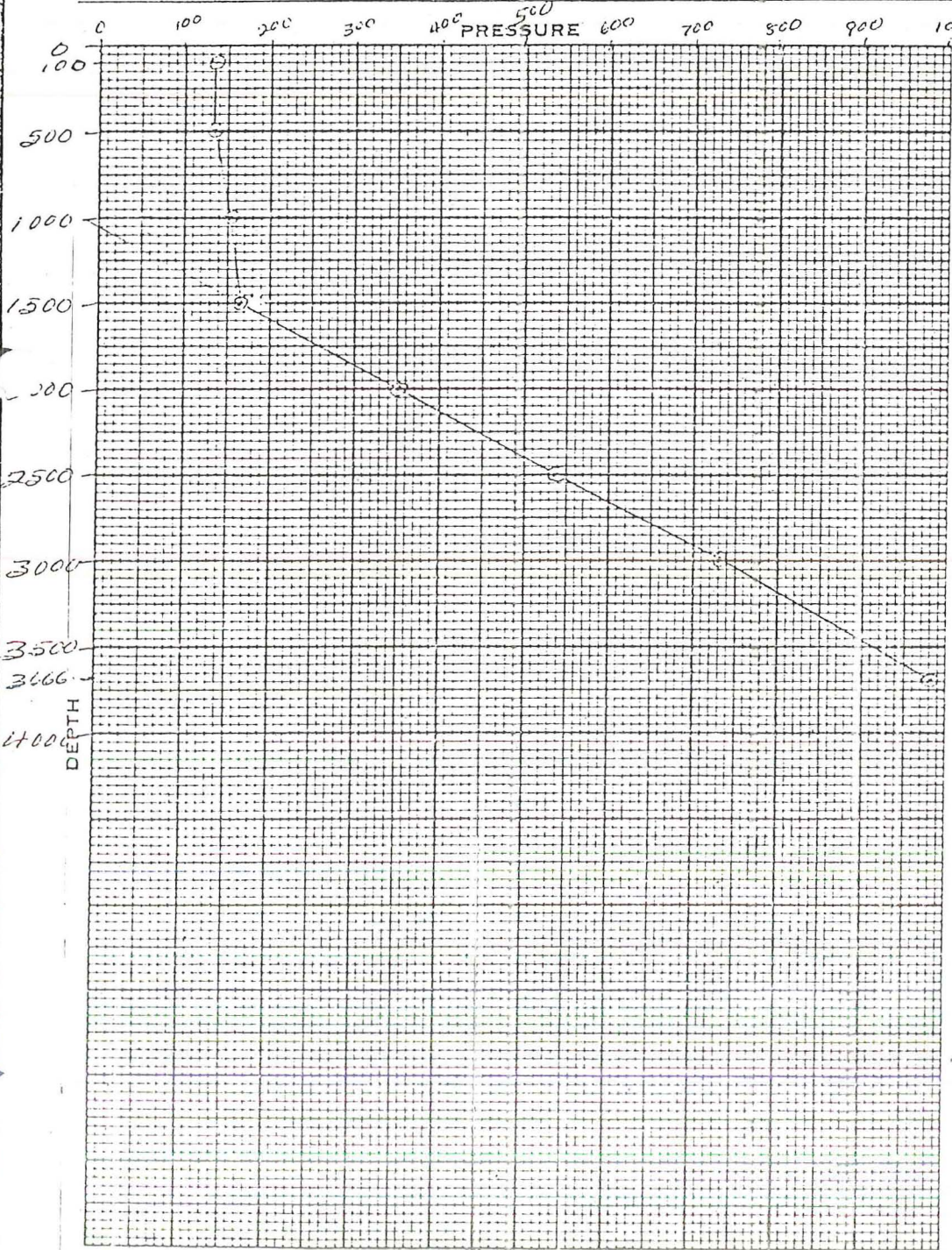
B#6-S36-P.

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME BACA#18
 CASING 9 7/8" at 795' ELEV 8726' DATE 10/3/74
 LINER DESCRIPTION: 7" AZ 692 CU 3700 ZERO POINT GL+6'
 SLOT- INTERVALS 2633' - 2710' - DEPTH 3666'
2986' - 3176'
3589' - 3699'

HOLE DESCRIPTION: _____

INSTRUMENT 2950 PSIC
 SERIAL NO 9235

PURPOSE _____ MAX TEMP 411.8 °F @ 3000'
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOMB
CASING. PSI	<u>143.0</u>	_____

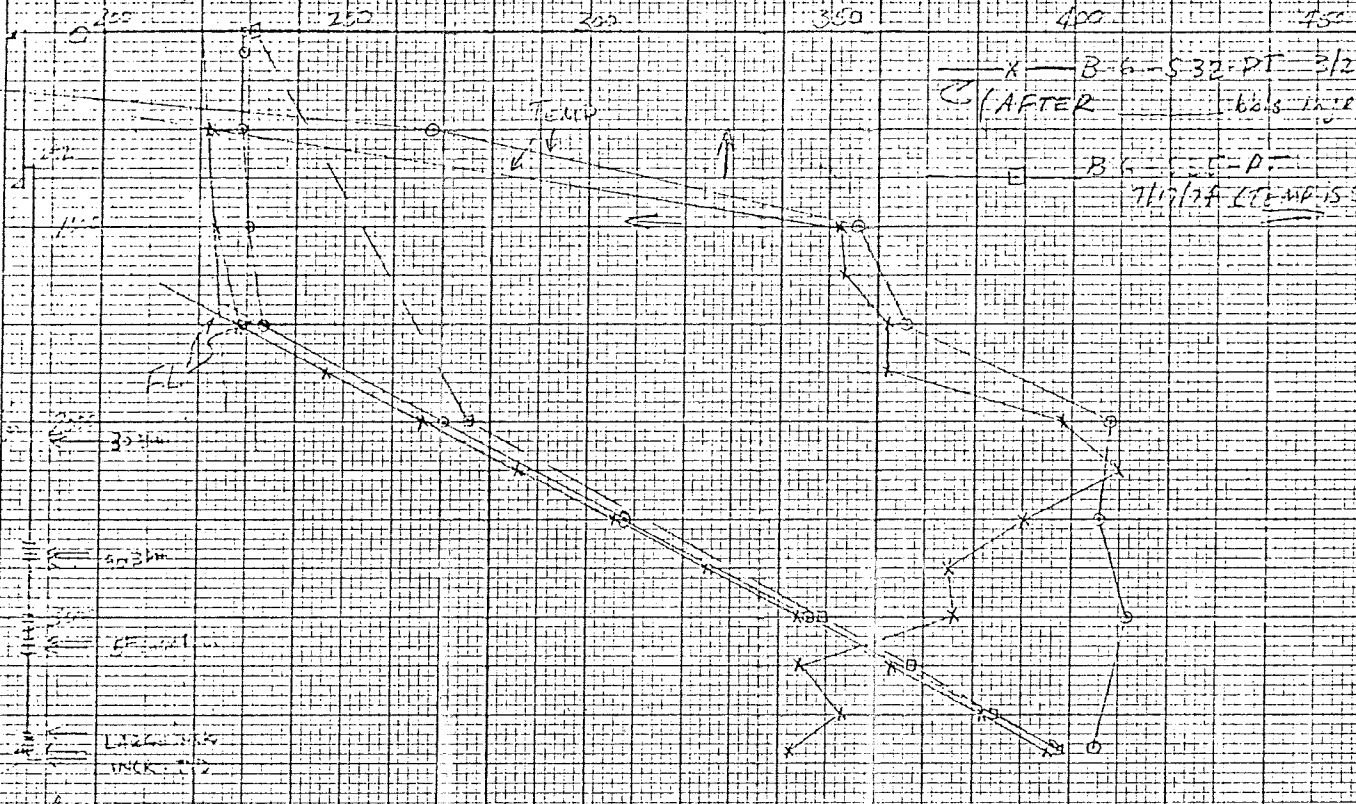
DEPTH	PRESSURE	GRADIENT
<u>100</u>	<u>143.3</u>	<u>0</u>
<u>500</u>	<u>143.3</u>	<u>0</u>
<u>1000</u>	<u>156.1</u>	<u>0.0156</u>
<u>1500</u>	<u>166.7</u>	<u>0.0312</u>
<u>2000</u>	<u>353.6</u>	<u>0.374</u>
<u>2500</u>	<u>538.7</u>	<u>0.370</u>
<u>3000</u>	<u>730.7</u>	<u>0.384</u>
<u>3666</u>	<u>950.7</u>	<u>0.375</u>

BY: JPA

81500
10/31/74

TEMPERATURE OF

10/31/74



Pressure, PSI

TEMPERATURE, OF

B-6-S 37 T
10/6/74
THIS IS ESSENTIALLY
THE SAME AS B-6-S 32-PT

Pressure, PSI

JDH 11/9/74

MADE IN U.S.A.
KLUFFEL & ESSER CO.

76

UNION

GEOHERMAL DIVISION

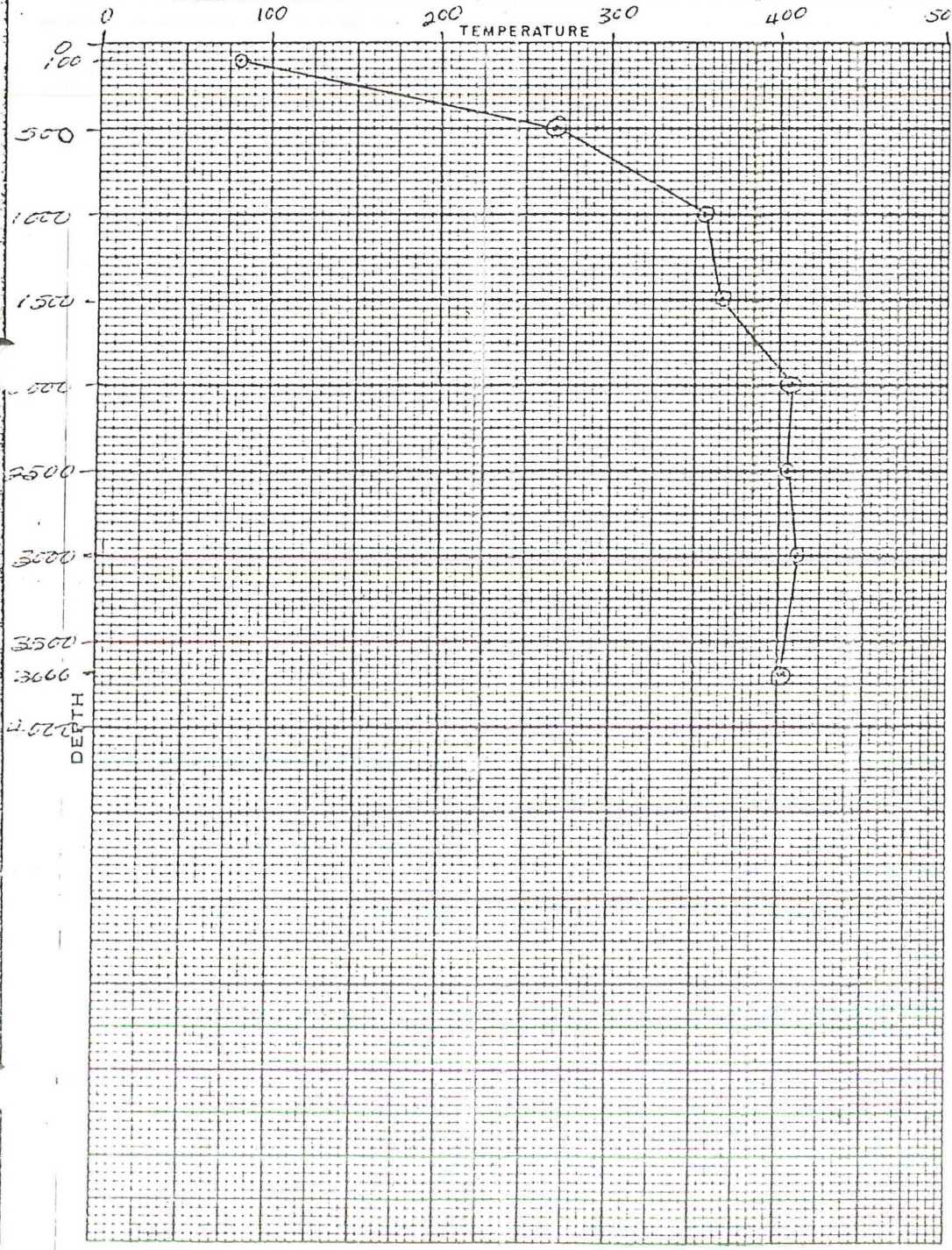
SUBSURFACE TEMPERATURE SURVEY

B#6-536-T

OWNER UNION OIL COMPANY OF CALIF FIELD VALLE GRANDE WELL NAME BACA #6
 CASING 9 7/8" AC 795' ELEV 8726 DATE 10-3-74
 LINER DESCRIPTION: 7" AC 692' - 3700 ZERO POINT CL + 6
SLOT INTERVALS - 2633' - 2710'; 2956' - 3176'; DEPTH 3666'
3589' - 3699';

HOLE DESCRIPTION: _____
 INSTRUMENT SC-646
 SERIAL NO 10052

PURPOSE _____ MAX TEMP 411.8 °F @ 3000'
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES.	GAUGE	3042
CASING. PSI	143.0	—

DEPTH	TEMP.	DEPTH	TEMP.
100	81.6		
500	267.8		
1000	356.0		
1500	365.9		
2000	405.4		
2500	405.5		
3000	411.8		
3666	404.9		

BY: J.M.

76

GEO THERMAL DIVISION

B6-535-Pre

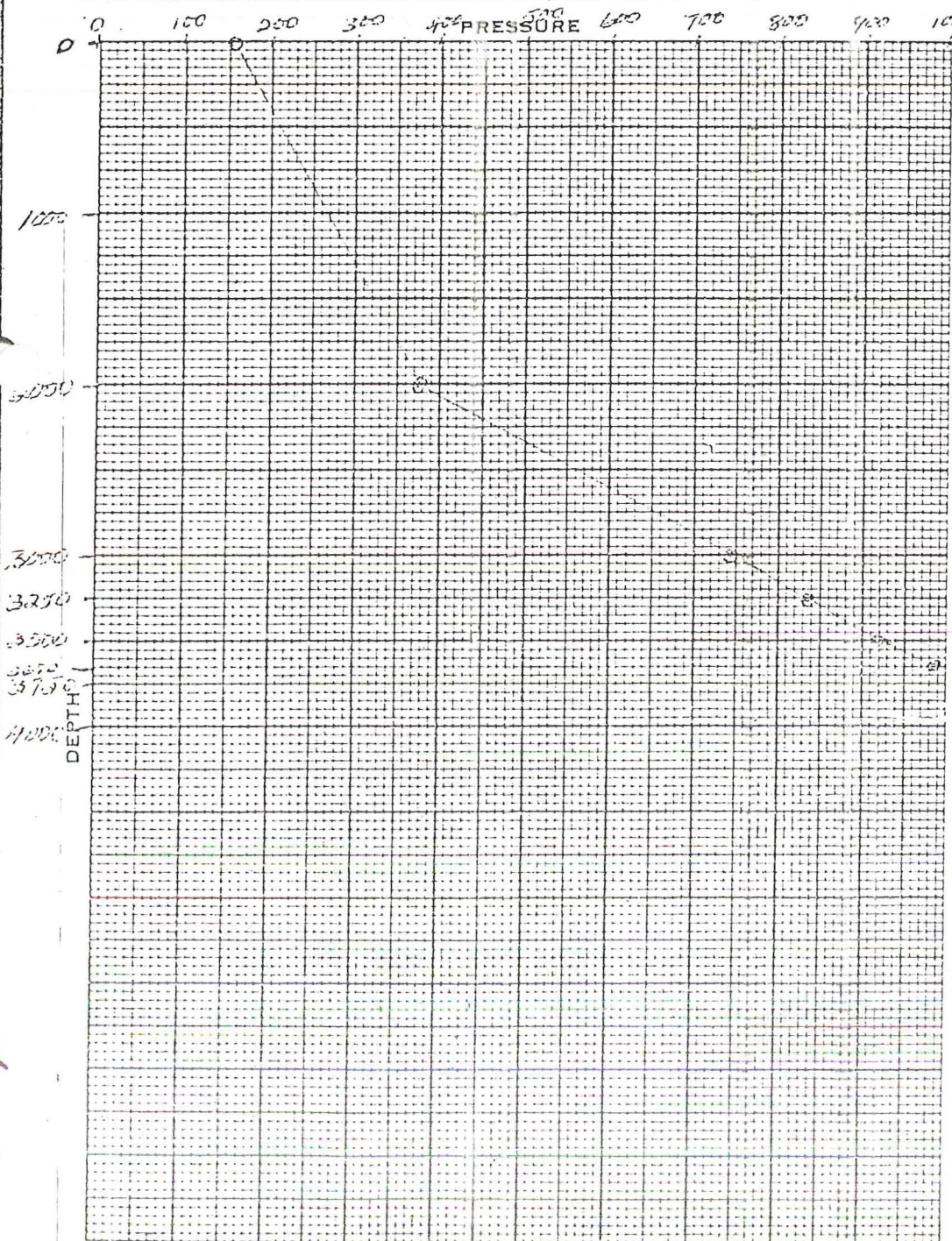
SUBSURFACE PRESSURE SURVEY

OWNER UNION OIL OF CALIFORNIA FIELD VALLE GRANDE WELL NAME BACH #6
 CASING 9 9/8" AT 795' ELEV. 8500 DATE 7/17/74
 LINER DESCRIPTION: 7" SLOTTED LINER 692' - 3700 ZERO POINT C.L. + 3'
 DEPTH 3680'

HOLE DESCRIPTION:

INSTRUMENT C-4250 PS
 SERIAL NO 719E

PURPOSE INTERFERENCE TEST WITH BACH #11 Sep Test #5 MAX TEMP 495.4 °F @ 3670
 REMARKS: BACH #6 HAS HAD SOME H₂O INJECTION FROM BACH #11



PRESSURED.	GAUGE	BONG
CASING. PSI	152	153.51

DEPTH	PRESSURE	GRADIENT
0	153.51	
2000	377.19	1.12
3000	744.73	1.36
3250	837.55	1.37
3500	919.83	1.32
3670	988.23	1.38

BY: *J.P.*

76

GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

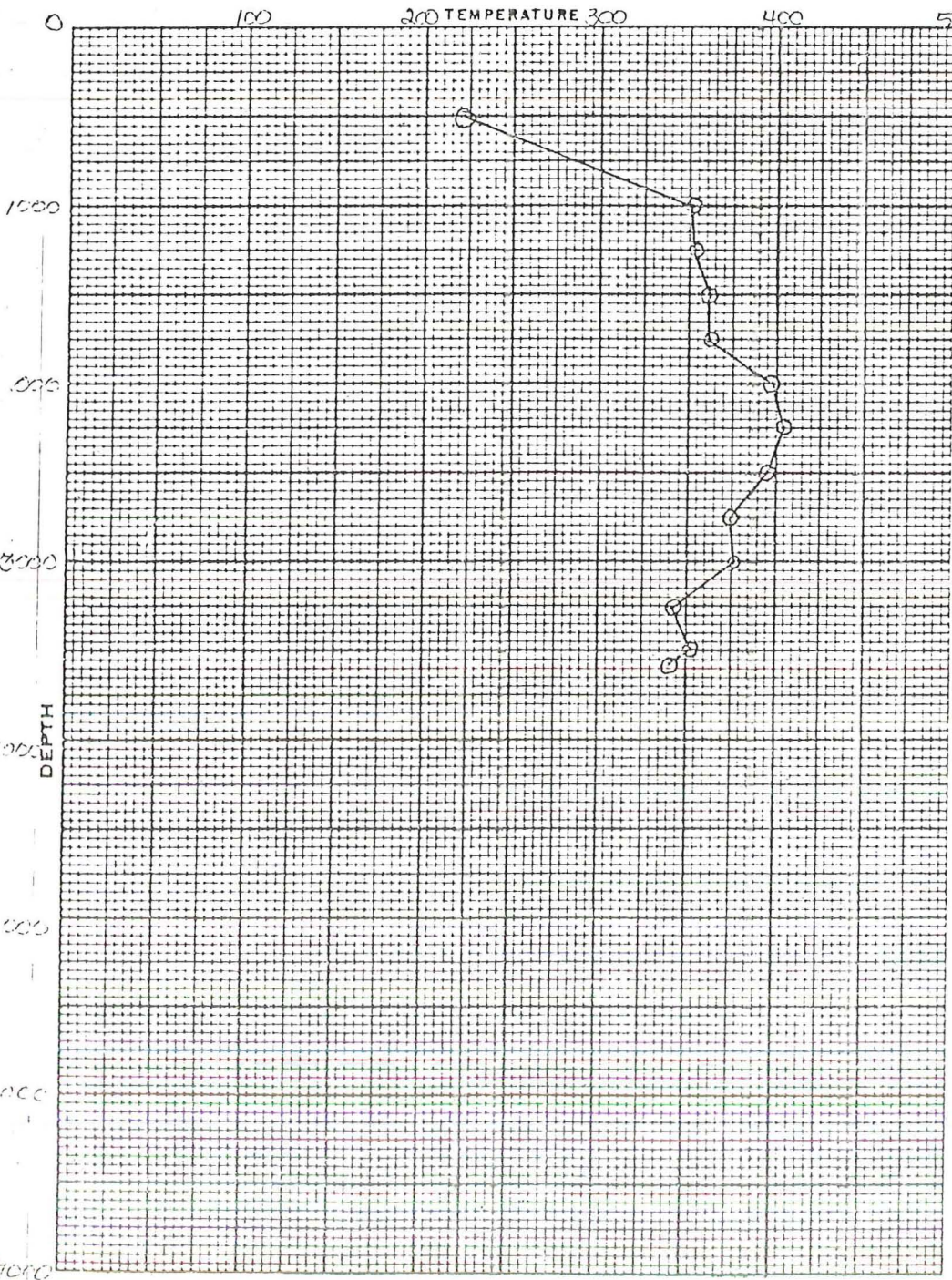
BG-532P/T

OWNER Union Oil Company FIELD _____ WELL NAME BACA No. 6
 CASING _____ ELEV _____ DATE 3/2/74
 LINER DESCRIPTION: _____ ZERO POINT _____
 _____ DEPTH 3680 T.D.

HOLE DESCRIPTION: _____ INSTRUMENT 80°-646° FAH
 SERIAL NO KTB 10052

PURPOSE Static Gradient Survey MAX TEMP 409.5 °F @ 2250
 REMARKS: Bottom Max Pressure 12hrs 985.23 335.1F

STABILIZATION PERIOD _____



PRESSURES.	GALGE.	BOMB	
CASING, PSI			
DEPTH	TEMP.	DEPTH	TEMP.
500	223.3		
1000	351.7		
1250	353.4		
1500	362.4		
1750	362.4		
2000	397.5		
2250	409.5		
2500	390.4		
2750	374.9		
3000	375.7		
3350	344.4		
3500	353.4		
3680 T.D.	341.8		

BY: Tom Alinette

76

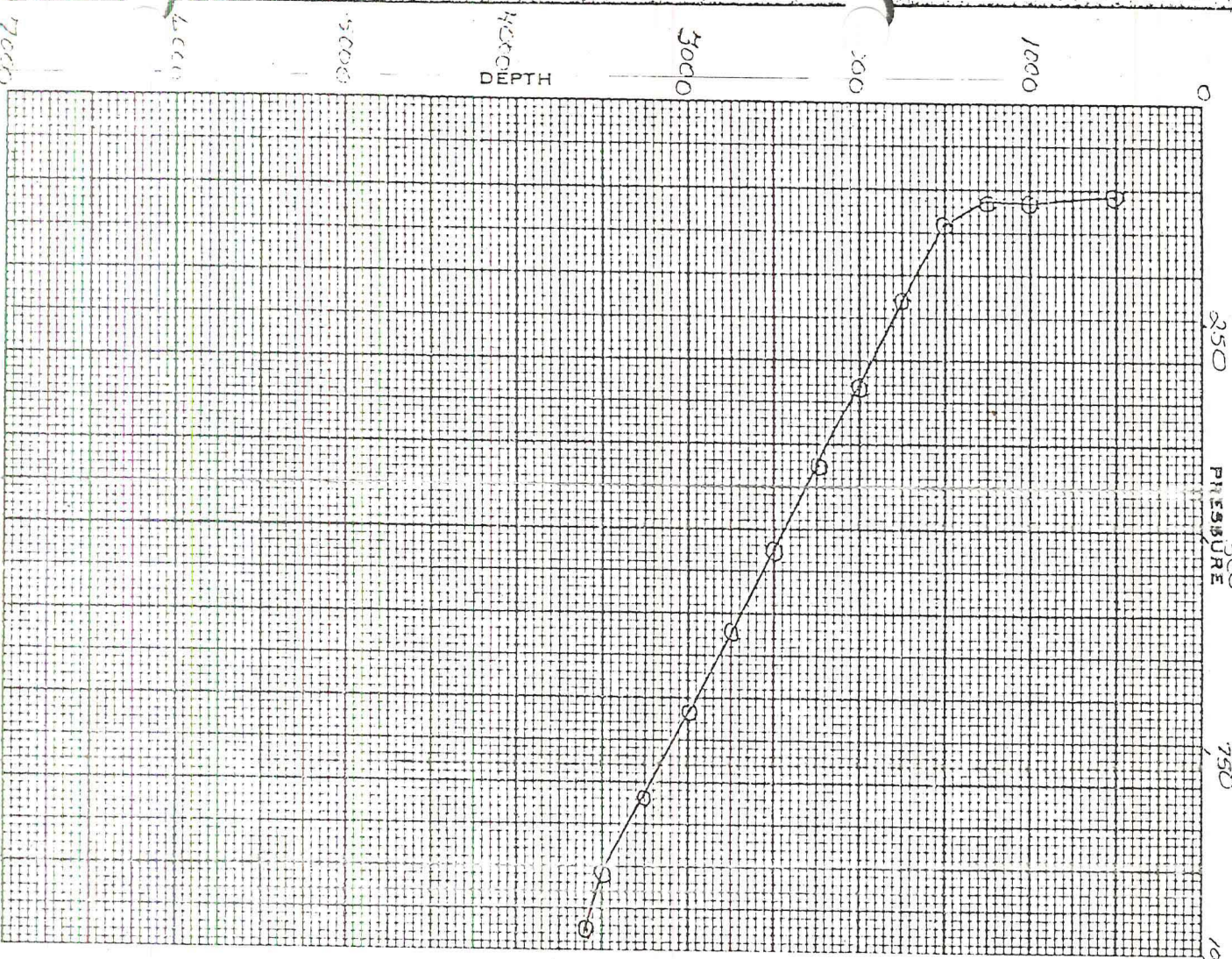
GEOTHERMAL DIVISION SUBSURFACE PRESSURE SURVEY

B6-532 PH

OWNER Union Oil Company FIELD BREA No. 6
 CASING 13-7/8" @ 34', 9-5/8" @ 195', 7" @ 672-328' Elev DATE 3/2/74
 LINER DESCRIPTION: _____ ZERO POINT _____
 DEPTH 3680 TD.

HOLE DESCRIPTION: _____ INSTRUMENT 0 - 4252 PSIC
 SERIAL NO KPG 7198

PURPOSE Static Gradient Survey MAX. TEMP 409.5 °F @ 2250'
 REMARKS: Bottom Max Pressure 12 hr 985.23 P 335.17



DEPTH	PRESSURE	GRADIENT
500	109.65	
1000	116.23	
1250	116.23	
1500	140.35	
1750	230.26	
2000	331.14	
2250	427.63	
2500	527.43	
2750	622.56	
3000	719.41	
3250	816.46	
3500	909.28	
3680 TD	976.79	

BY: Tom D'Inca

GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

76

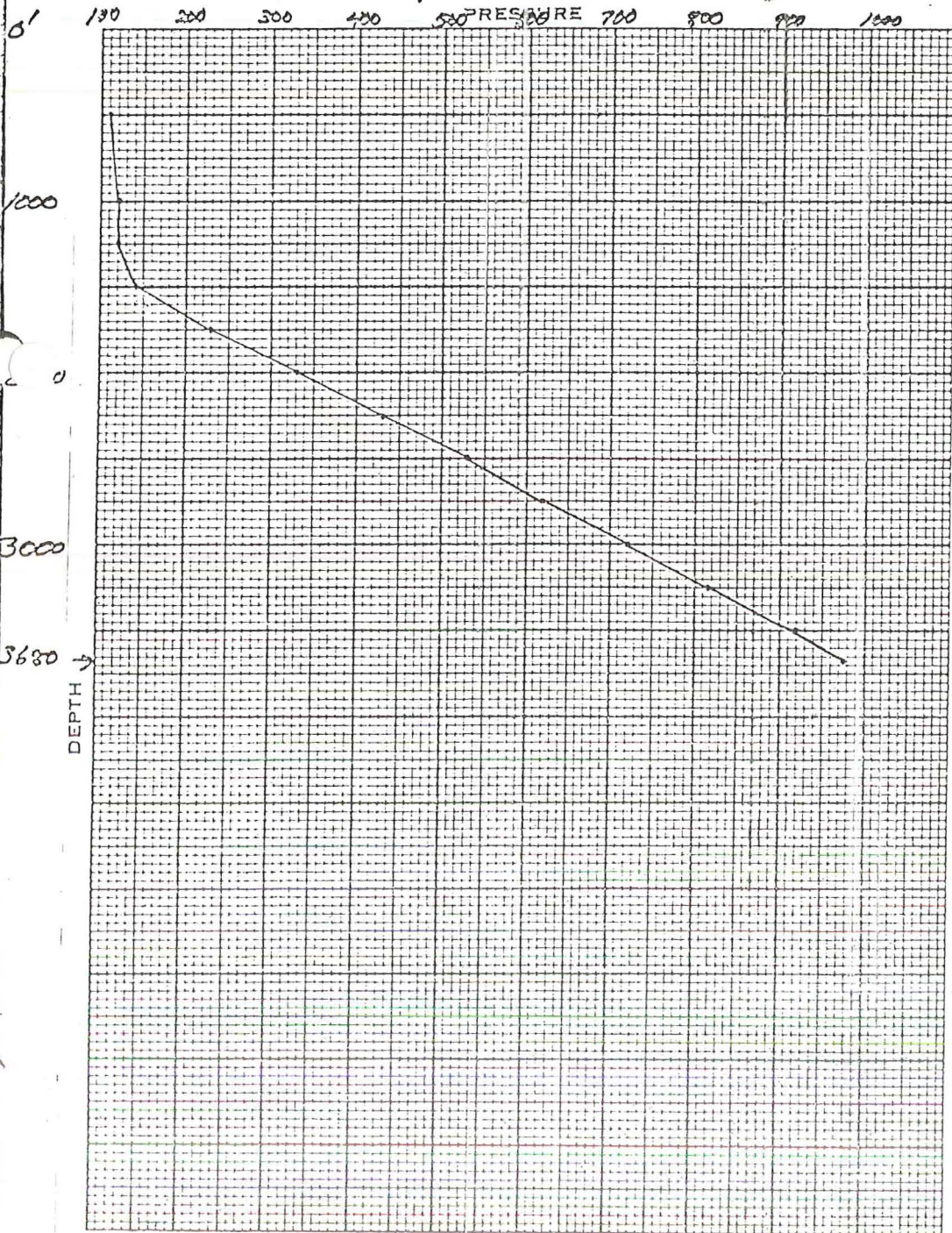
OWNER Union Oil Co. of Cali. FIELD Valle Grande WELL NAME Baca #6
 CASING _____ ELEV. _____ DATE 3/2/74
 LINER DESCRIPTION: _____ ZERO POINT 64+2'
 _____ DEPTH 3687 -S- 3687

HOLE DESCRIPTION: _____ INSTRUMENT 4250 PSI
 _____ SERIAL NO 7128

PURPOSE _____ MAX TEMP _____ °F @ _____

REMARKS: Temp. Temp. & Press. Survey

STABILIZATION PERIOD _____



PRESSURES.	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
0'	0	0
500	109.65	.001
1000	116.23	.0
1250	116.23	.001
1500	140.35	.021
1750	230.26	.090
2000	331.14	.101
2250	427.63	.090
2500	527.43	.100
2750	622.36	.095
3000	712.41	.091
3250	816.46	.091
3500	909.22	.093
3680	976.79	.086

BY: RL

76

GEOTHERMAL DIVISION

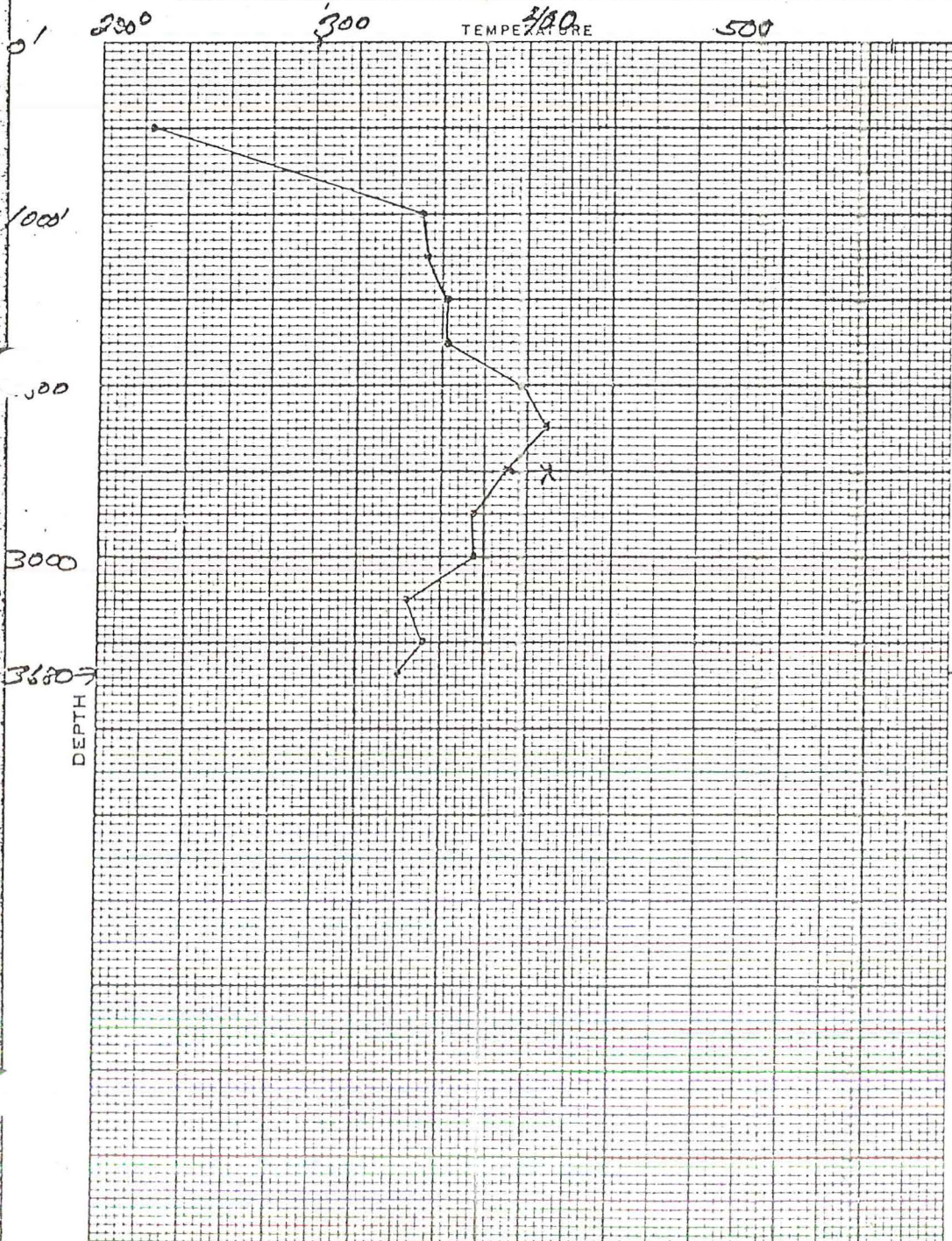
SUBSURFACE TEMPERATURE SURVEY

36-SX-1D

OWNER Union Oil Co. of Calif. FIELD Valle Grande WELL NAME Raca #6
 CASING _____ ELEV _____ DATE 3/2/74
 LINER DESCRIPTION: _____ ZERO POINT 2' + GL
 _____ DEPTH 3627.5 - 3680

HOLE DESCRIPTION: _____ INSTRUMENT 80°-6460 FAH:
 _____ SERIAL NO 10052

PURPOSE Temp. & Press. Gradient MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD

PRESSURES	GAUGE	BOMB
CASING. PSI		

DEPTH	TEMP.	DEPTH	TEMP.
0'	0		
500	223.3		
1000	351.7		
1250	353.4		
1500	362.4		
1750	362.4		
2000	397.5		
2250	409.5		
2500	390.8		
2750	374.9		
3000	375.7		
3250	344.4		
3500	353.4		
3680	341.8		

BY: RF

UNION

76

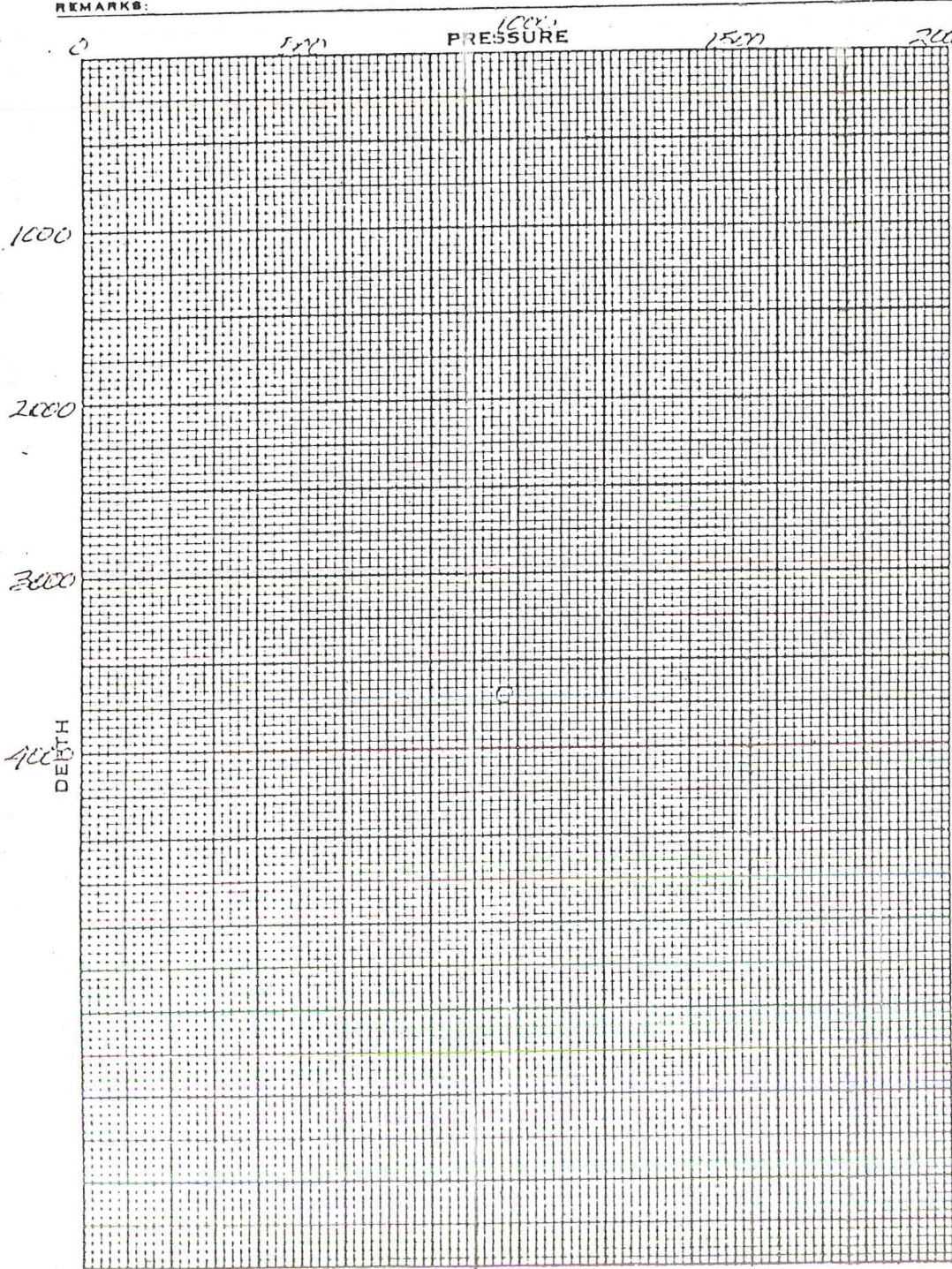
GEO THERMAL DIVISION B6-530 P

SUBSURFACE PRESSURE SURVEY

OWNER Union Oil Co FIELD _____ WELL NAME BACA No. 6
 CASING _____ ELEV 8726.66 DATE 12-19-73
 LINER DESCRIPTION: _____ ZERO POINT CH + 1'
 _____ DEPTH 3690

HOLE DESCRIPTION: _____ INSTRUMENT 2100 PSI
 _____ SERIAL NO KPG 6609 N

PURPOSE _____ MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
<u>3690</u>		
<u>MAX</u>	<u>965</u>	
<u>MIN</u>	<u>958</u>	

Press oscillates
ON 7.5 MIN CYCLES

BY: _____

76

UNION
GEOTHERMAL DIVISION
SUBSURFACE PRESSURE SURVEY

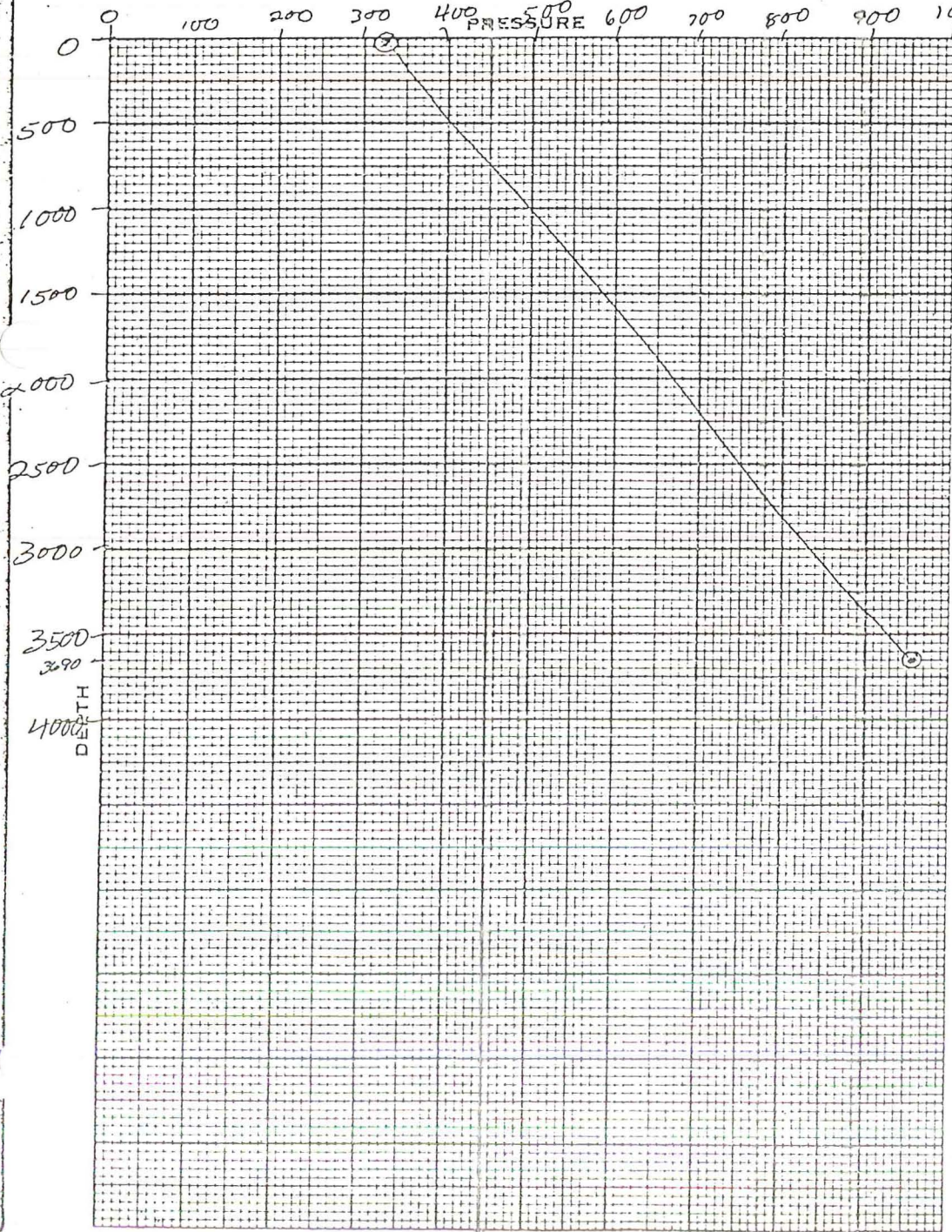
29
 B6-531-P

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME B-6
 CABING _____ ELEV _____ DATE 12/10/73
 LINER DESCRIPTION: _____ ZERO POINT 1' Above Ground
 _____ DEPTH 3690

HOLE DESCRIPTION: _____ INSTRUMENT 4250 PSIC
 _____ SERIAL NO KPG 7198

PURPOSE _____ MAX TEMP 484 °F @ _____

REMARKS: _____ STABILIZATION PERIOD 16 MIN



PRESSURES	GAUGE	BOMB
CASING, PSI		
DEPTH	PRESSURE	GRADIENT
0	320.18	
3690	953.59	

BY: _____

76

GEO THERMAL DIVISION

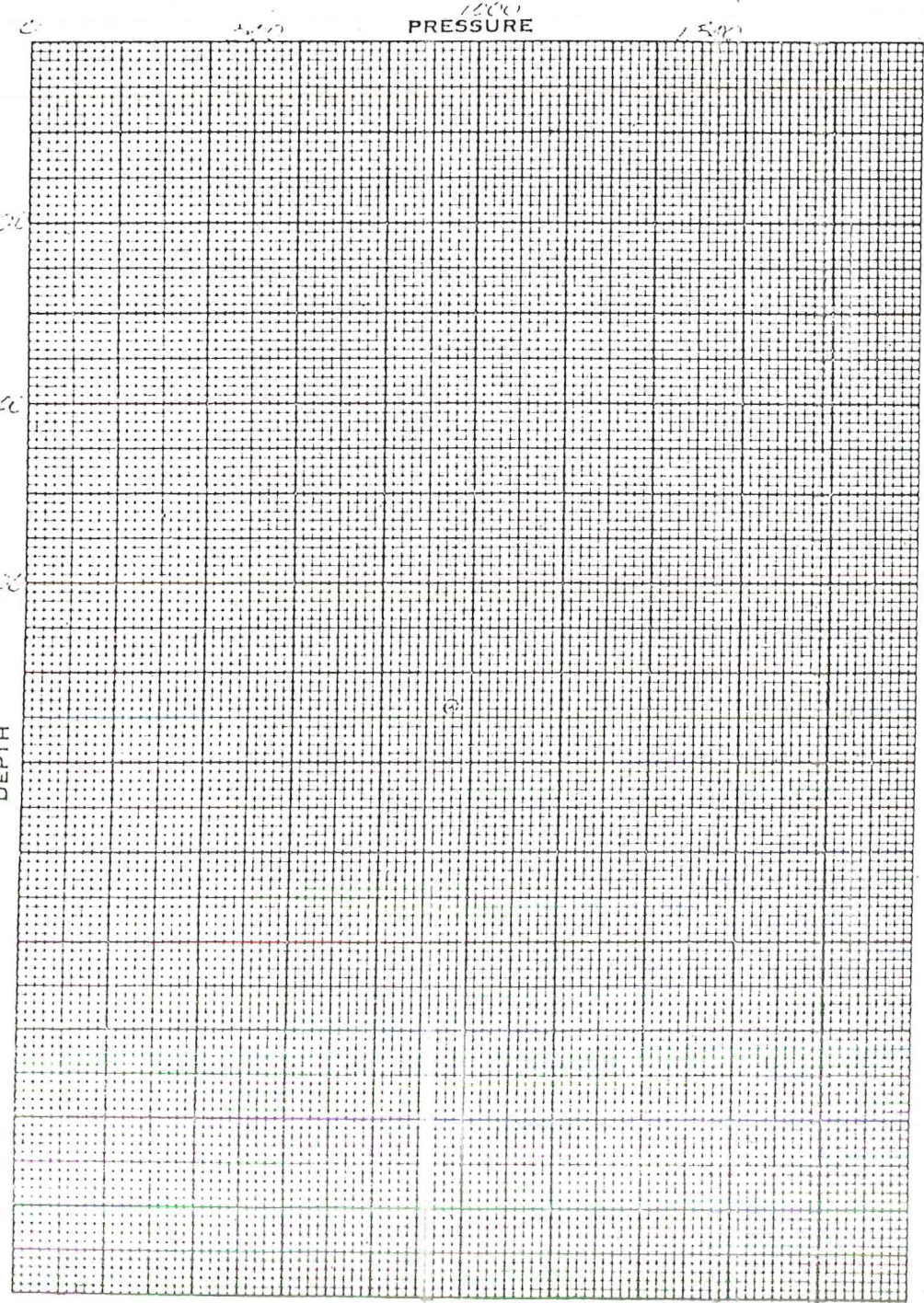
B6-529 PT

SUBSURFACE PRESSURE SURVEY

OWNER Shell Oil Co FIELD _____ WELL NAME B/111 No. 6
 CAGING _____ ELEV _____ DATE 12-10-73
 LINER DESCRIPTION: _____ ZERO POINT _____
 _____ DEPTH _____

HOLE DESCRIPTION: _____ INSTRUMENT -1250 PG
 SERIAL NO KPG-7198

PURPOSE _____ MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD

PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
<u>3690</u>	<u>953.59</u>	

BY: J. Kuhn

UNION

GEOHERMAL DIVISION

B6-528P

SUBSURFACE PRESSURE SURVEY

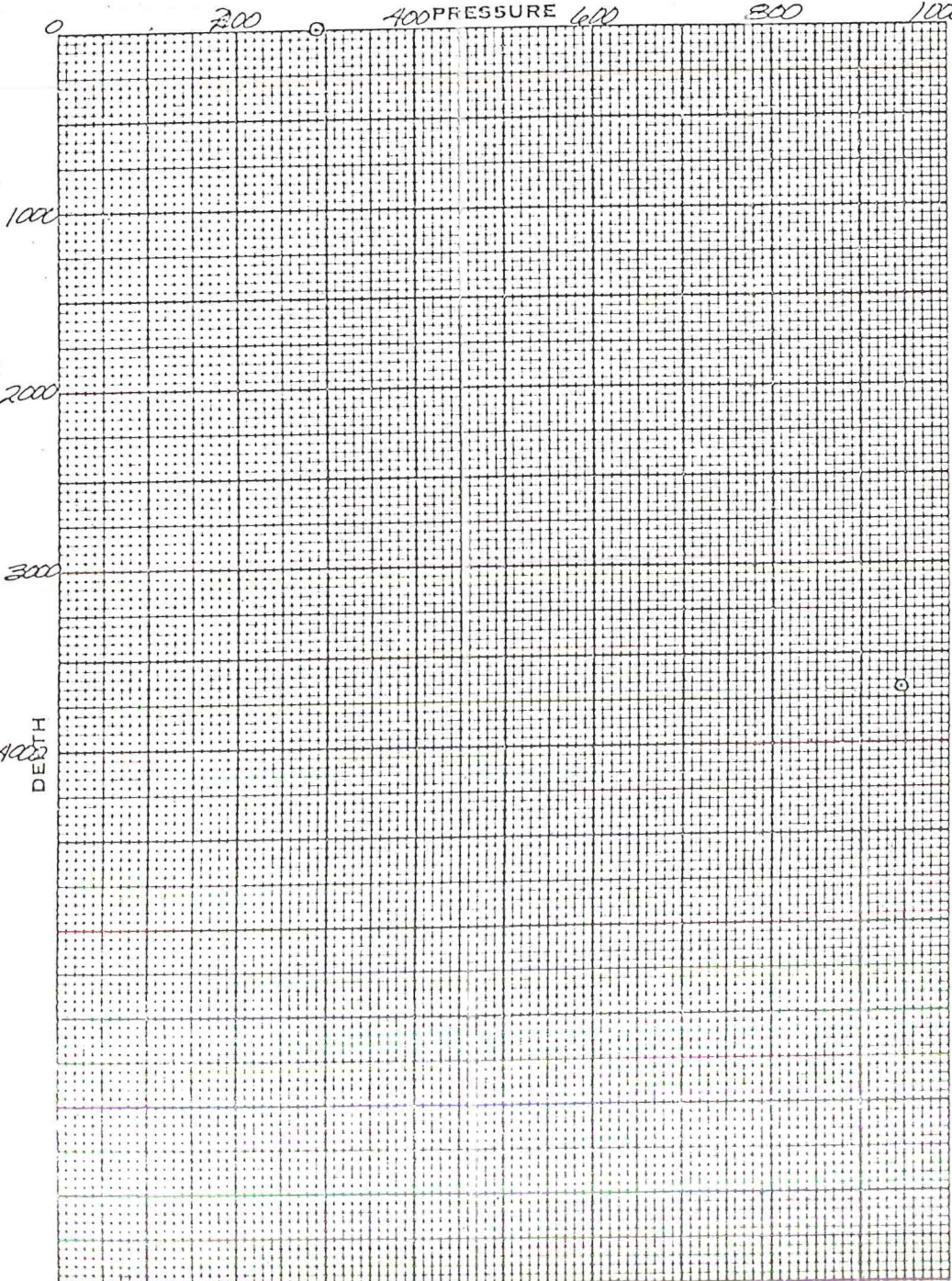
76

OWNER UNION Oil Co. FIELD _____ WELL NAME BACA 6
 CASING _____ ELEV 8726 GA DATE 11-8-73
 LINER DESCRIPTION: _____ ZERO POINT GA + 14
 _____ DEPTH 3715

HOLE DESCRIPTION: _____ INSTRUMENT 2500 PSI
 _____ SERIAL NO KPG 9595

PURPOSE Interference test with BACA test BA-2 MAX TEMP _____ °F @ _____
 REMARKS: _____

STABILIZATION PERIOD



PRESSURES.	GAUGE	BOMB
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
0	289.4	
3690	947.37	

BY: _____

76

UNION

GEOTHERMAL DIVISION

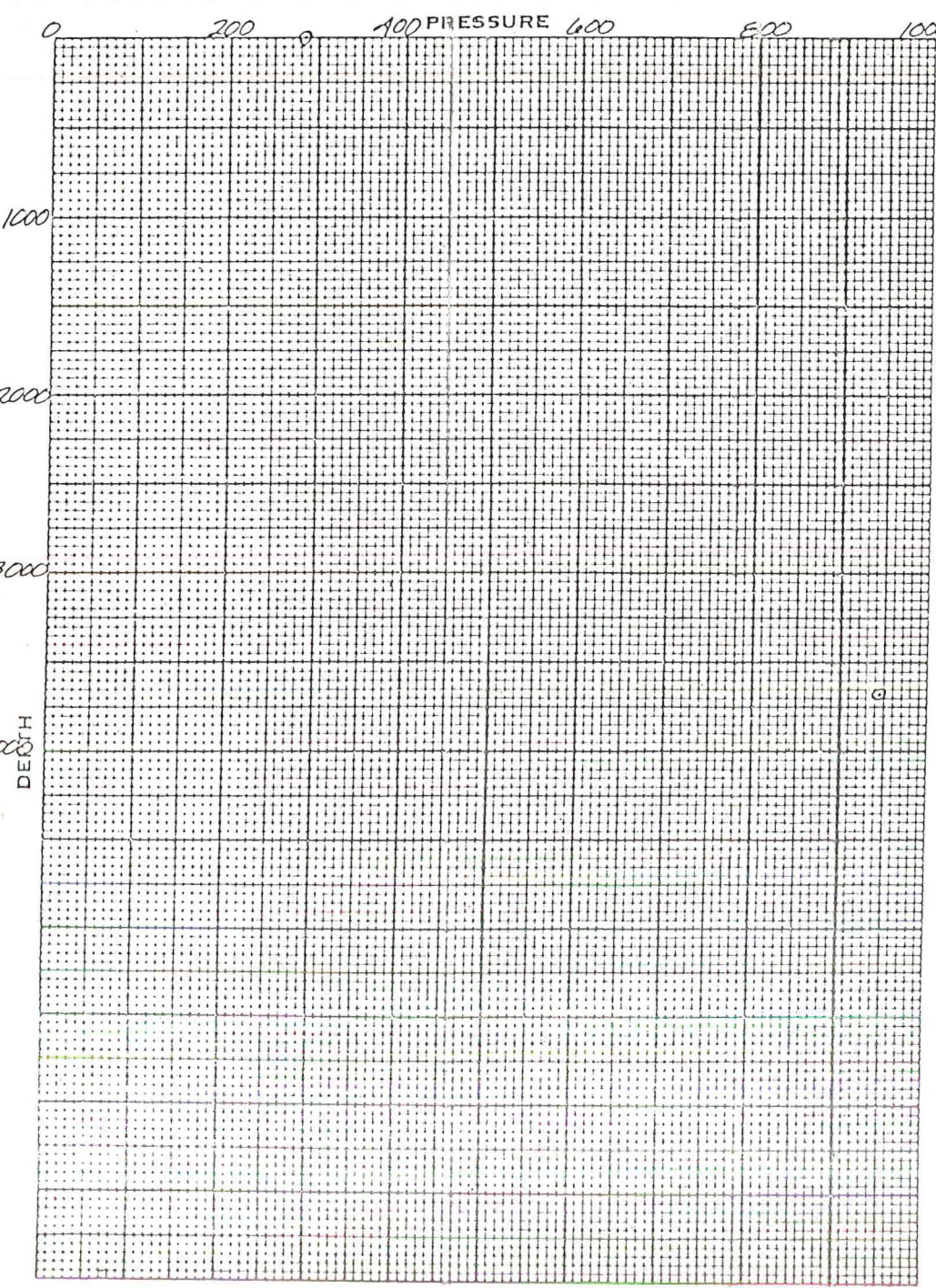
SUBSURFACE PRESSURE SURVEY

136-527P

OWNER Union Oil Co FIELD _____ WELL NAME BACA No. 6
 CASING _____ ELEV 5726.01 DATE 11-2-73
 LINER DESCRIPTION: _____ ZERO POINT GL + 19
 _____ DEPTH 3715

HOLE DESCRIPTION: _____ INSTRUMENT 2500 PSI
 _____ SERIAL NO KPG 9595

PURPOSE Interference test by BACA BA-2 Test MAX TEMP _____ °F @
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOMB
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
0	286.68	
3690	996.12	

BY: _____

GEOHERMAL DIVISION

BG - 1126P

SUBSURFACE PRESSURE SURVEY

76

OWNER UNION Oil Co. FIELD _____ WELL NAME BACA No. 6
 CASING _____ ELEV 8226.06 DATE 10-29-73
 LINER DESCRIPTION _____ ZERO POINT GL + 14'
 DEPTH 3715

HOLE DESCRIPTION: _____ INSTRUMENT 2500
 SERIAL NO KPG 9595

PURPOSE Interference Check with BA-2 Test MAX TEMP _____ °F @ _____
 REMARKS _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOMB
CASING PSI		

DEPTH	PRESSURE	GRADIENT
0	286.68	
3690	946.12	

BY: _____

76

UNION

GEOHERMAL DIVISION

B6-535P

SUBSURFACE PRESSURE SURVEY

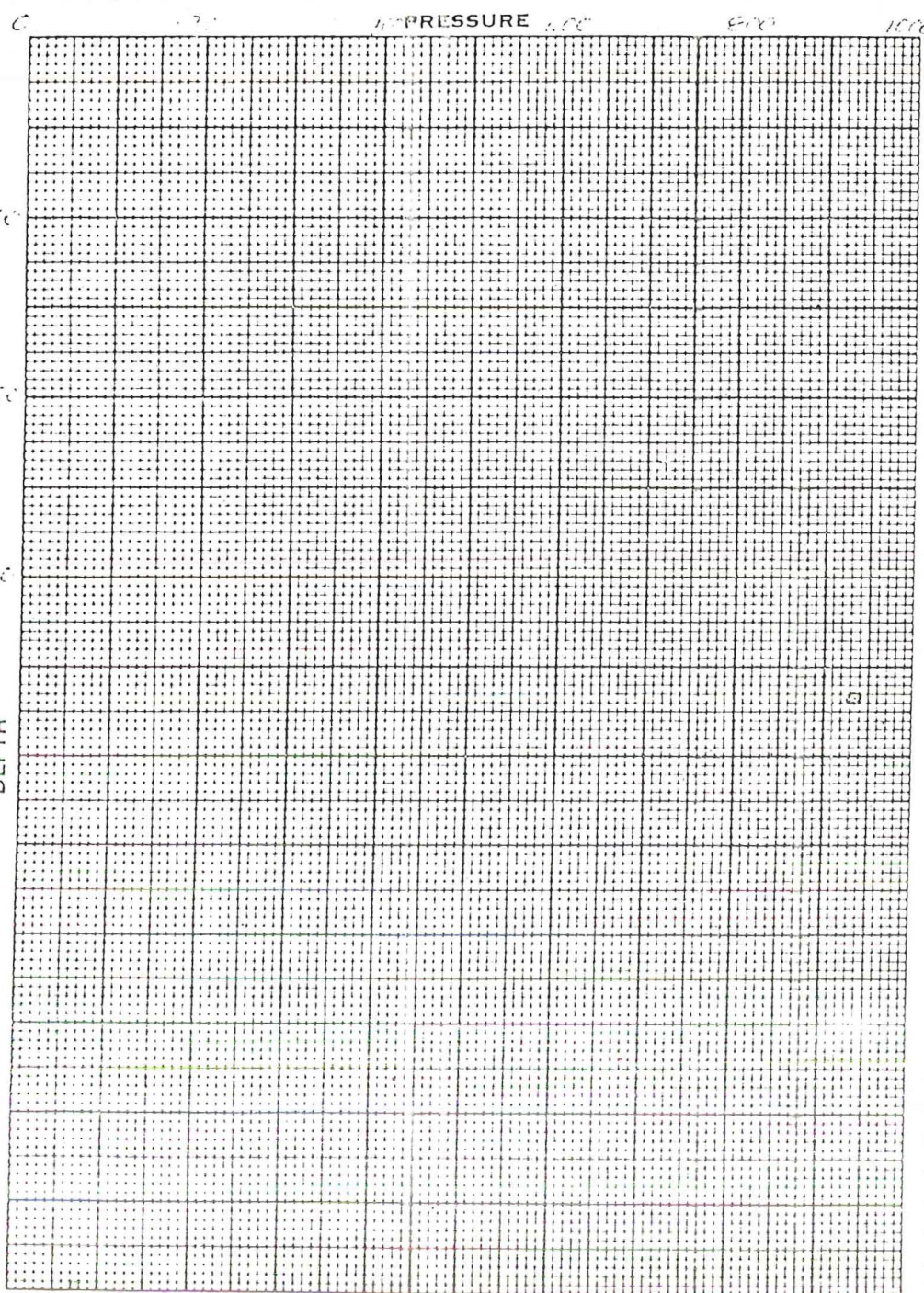
OWNER C. V. Co. FIELD _____ WELL NAME BICA No. 6
 CASING _____ ELEV 5226 EL DATE 10-19-73
 LINER DESCRIPTION _____ ZERO POINT C.F. + 14
 _____ DEPTH 3715

HOLE DESCRIPTION: _____

 _____ INSTRUMENT 2100
 _____ SERIAL NO 6609N

PURPOSE _____ MAX TEMP _____ °F @ _____
 REMARKS _____

STABILIZATION PERIOD _____



PRESSURE	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
3690	932.3	

BY: _____

76

GEO THERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

BG - 524 PT

OWNER UNION OIL FIELD BACH No. 6

CASING CL ELEV 5726 CL DATE 10-9-73

LINER DESCRIPTION: _____ ZERO POINT CL

DEPTH 3715

HOLE DESCRIPTION: _____

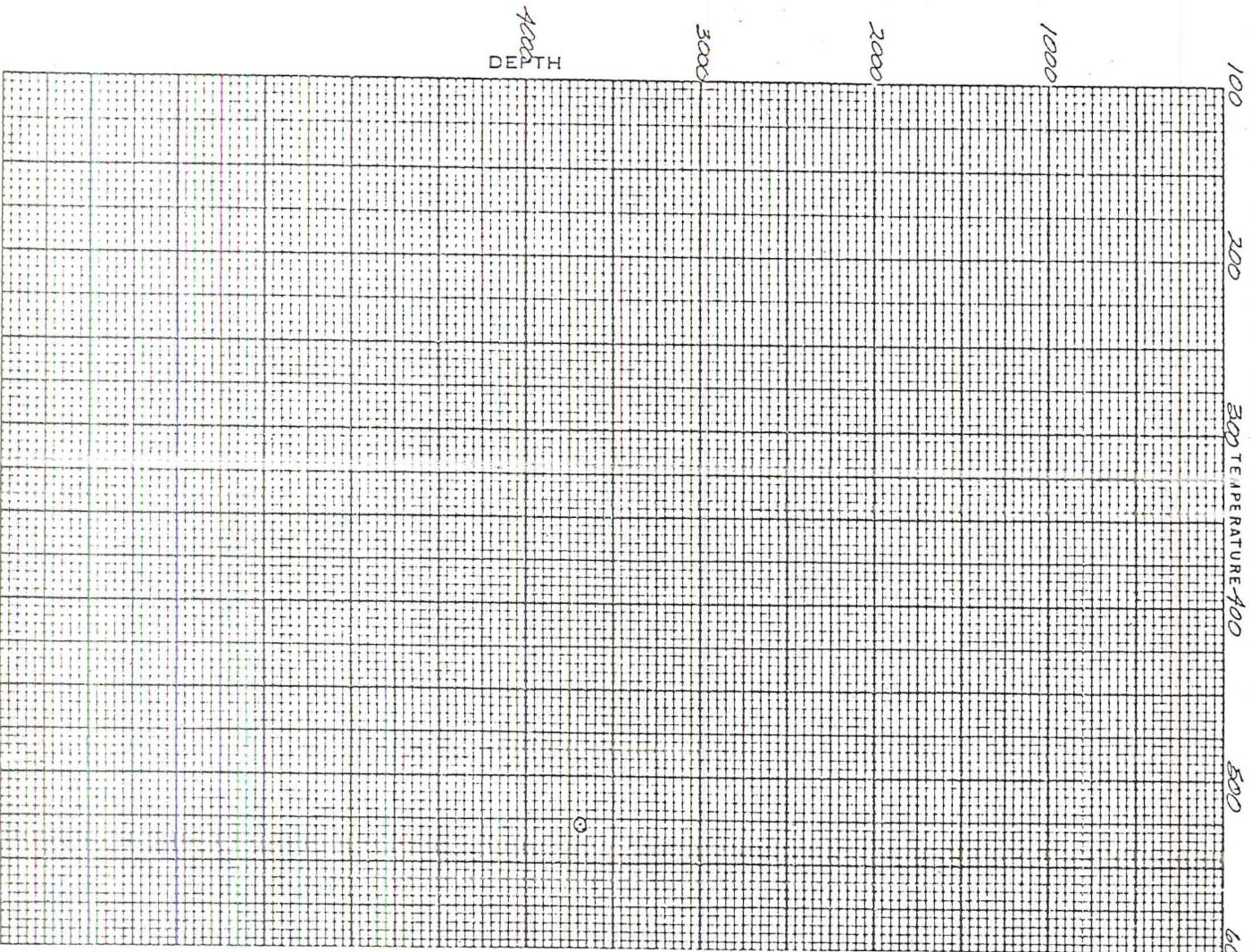
INSTRUMENT 300-73C FA. _____

SERIAL NO KBT-10036

PURPOSE Press Temp Check MAX TEMP 527.9 °F @ 3690

REMARKS: _____

STABILIZATION PERIOD _____



PRESSURES	GAUGE	BOJ#
CASING, PSI	<u>320</u>	<u>317</u>

DEPTH TEMP. DEPTH TEM

0 _____

3690 527.9

BY: _____

76

UNITED STATES
GEOTHERMAL DIVISION B.L. 524PT
SUBSURFACE PRESSURE SURVEY

OWNER

Union Oil Co.

FIELD

Elev 3720 CL

WELL NAME

BACH No. 6

CASING

ELEV

3720 CL

DATE

10-4-73

LINER DESCRIPTION:

ZERO POINT

CL

DEPTH

3715

HOLE DESCRIPTION:

INSTRUMENT

2400

PS

SERIAL NO

4604N

PURPOSE

Press. Temp. Check

MAX TEMP

527.9 °F @ 3690

REMARKS:

STABILIZATION PERIOD



PRESSURES

GAUGE

BOMBS

CASING, PSI

DEPTH

PRESSURE

GRADIENT

0 317

3690 943 HIGH

3690 936 1000

Press. is oscillating
on 1-5 min cycles.

BY:

76

UNION GEOHERMAL DIVISION SUBSURFACE PRESSURE SURVEY

B6-523PT

OWNER UNION Oil Co of CALIF FIELD _____ WELL NAME BACA No.6
 CASING _____ ELEV 5726 GL DATE 9-19-73 / 9-20-73
 LINER DESCRIPTION: _____ ZERO POINT GL
 _____ DEPTH 3715
 HOLE DESCRIPTION: _____ INSTRUMENT 2400
 _____ SERIAL NO 6609 N
 PURPOSE _____ MAX TEMP 527.4 °F @ 3690
 REMARKS _____



STABILIZATION PERIOD

PRESSURES	GAUGE	BOMBS
CASING PSI	320	

DEPTH	PRESSURE	GRADIENT
1000	341	
3690		
TIME	H ₁ Press	Lo. Press
1920	962	959
2020	960	952
2120	956	953
2220	954	949
2320	948	942
0020	944	939
0120	939	933
0220	937	932
0320	931	923
0420	931	924
0520	924	917
0550	923	905

Press fluctuating like a sine wave on about 5 mins intervals
 Drop in press with time could be due to leak in packing gland

BY: _____

76

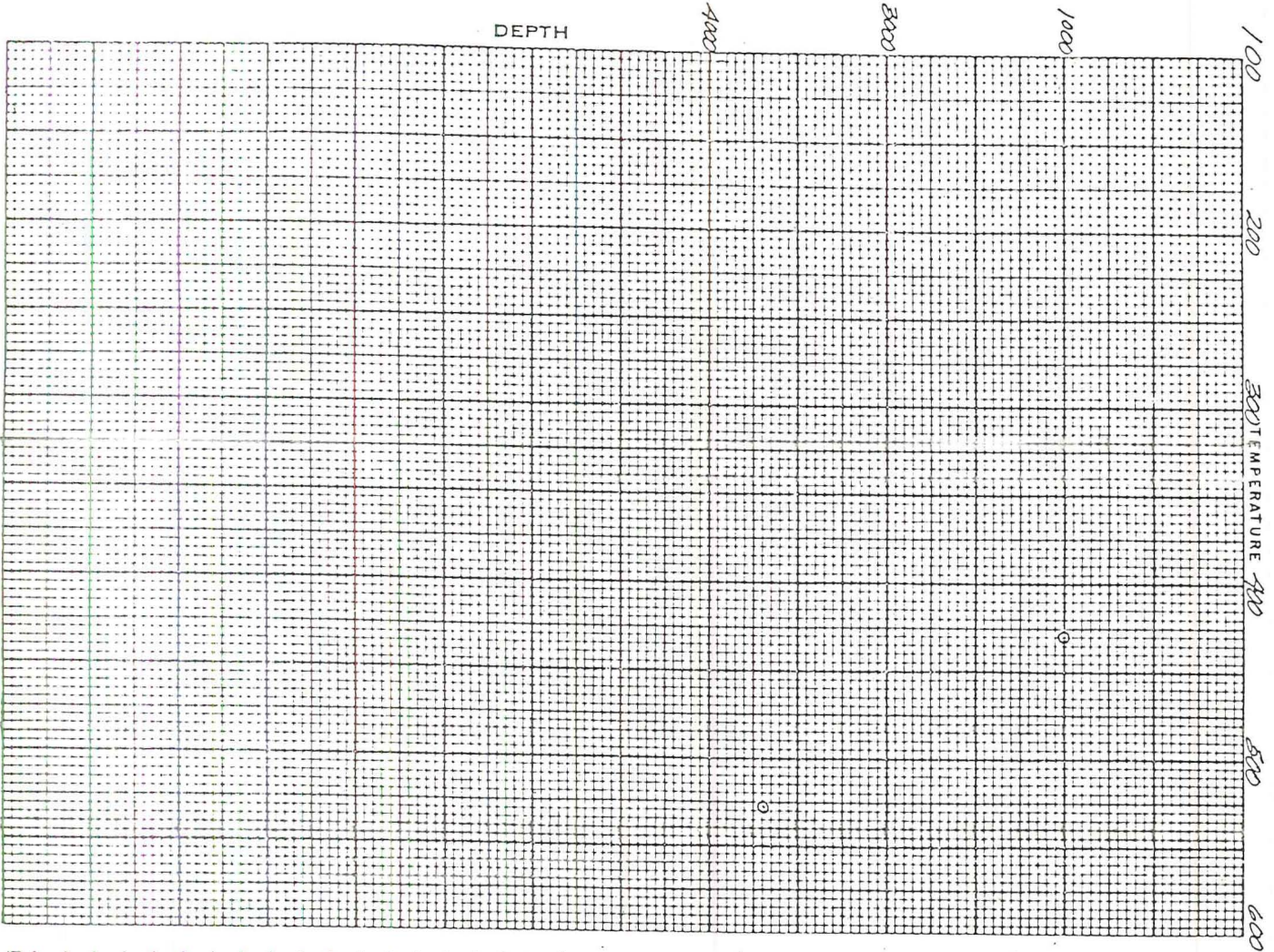
GEO THERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

B6-523PT

OWNER UNION Oil Co of Calif FIELD CL WELL NAME BACH No. 6
CASING 9-5/8" @ 795 ELEV 5726.64 DATE 9-19-73 - 9-20-73
LINER DESCRIPTION 7" liner 692-3700 ZERO POINT 64 + 0
DEPTH 3715

HOLE DESCRIPTION: _____
INSTRUMENT 300-736 SERIAL NO KT B - 10036
MAX TEMP 527.9 °F @ 3690

PURPOSE Pressure / Temperature Check
REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES.	GAUGE	30MB	
CASING. PSI	<u>320</u>		
DEPTH	TEMP.	DEPTH	TEMP.
<u>1000</u>	<u>527.9</u>		
<u>3690</u>	<u>428.6</u>		

BY: _____

UNION

GEOHERMAL DIVISION

B6-522PT

SUBSURFACE PRESSURE SURVEY

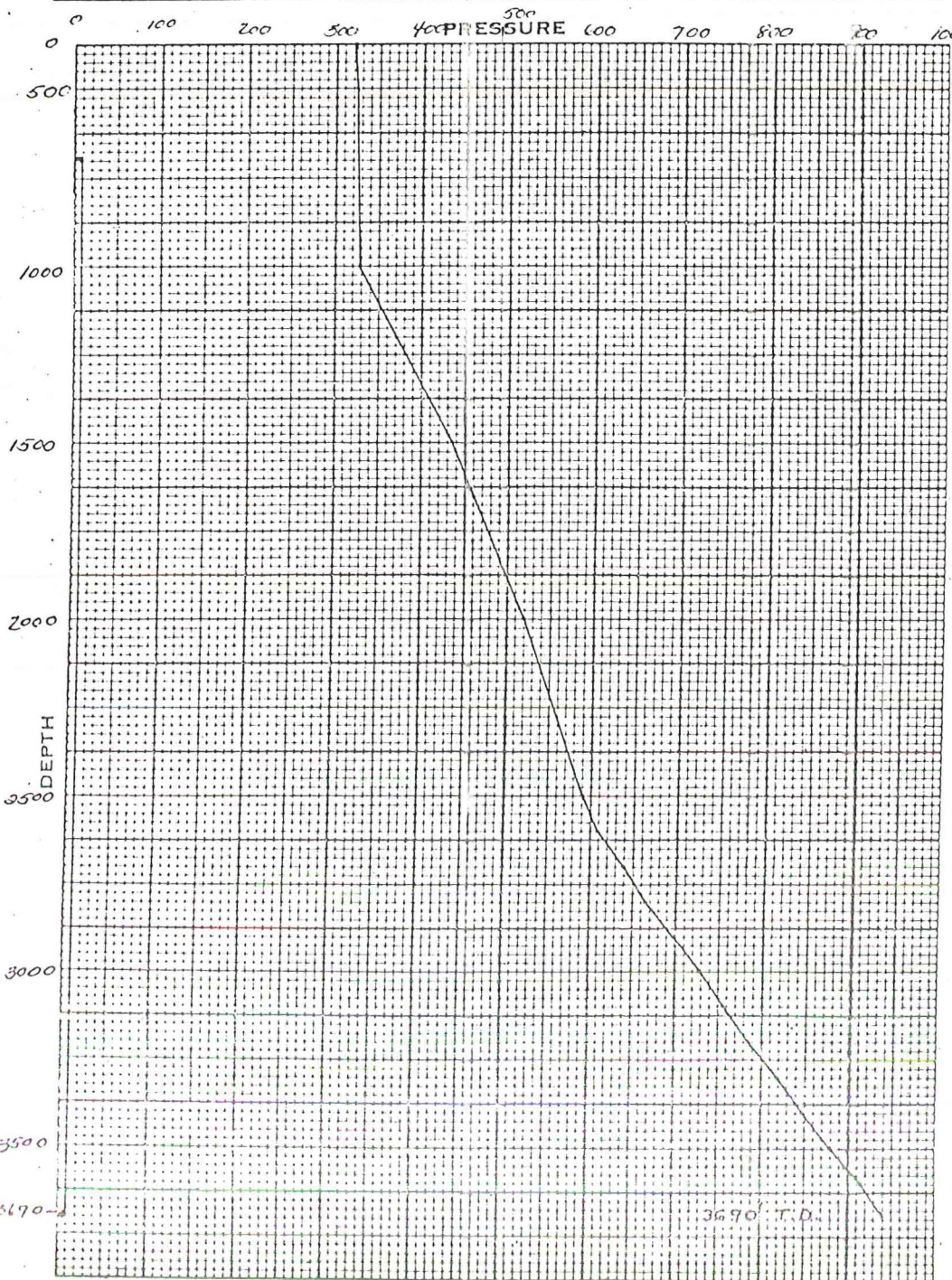
76

OWNER Union Oil Co. of Calif. FIELD Valle Grande WELL NAME Baca #6
 CASING 9 7/8" C. from surface to 795' ELEV 5726.61 DATE 8-3-73
 LINER DESCRIPTION: 7" liner from 692' to 3700' Perfor intervals 14' above ground
from 2634' to 2710'; 2980' to 3177'; 3589' DEPTH 3715'
3698'

HOLE DESCRIPTION:

INSTRUMENT 2500 PSI
 SERIAL NO KPG 9595

PURPOSE Static tandem press. and temp. survey MAX TEMP 521.9 °F @ 3690'
 REMARKS:



STABILIZATION PERIOD
 ST 1-16-73 @ 1133

PRESSURES	GAUGE	BOMB
CASING, PSI	322	322.62

DEPTH	PRESSURE	GRADIENT
0	322.62	
50	322.62	
500	323.91	.003
1000	327.76	.008
1500	435.73	.216
2000	520.20	.169
2500	590.91	.141
2600	608.59	.177
2700	640.15	.316
2800	664.14	.240
2900	698.23	.341
3000	728.54	.303
3100	756.31	.278
3200	786.62	.303
3300	819.44	.325
3400	848.48	.290
3500	880.05	.316
3600	914.14	.341
3690	940.66	.295

Time @ 3690 21 1/2
 ST TIME 287145 MID

BY: Carl Junker

76

GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

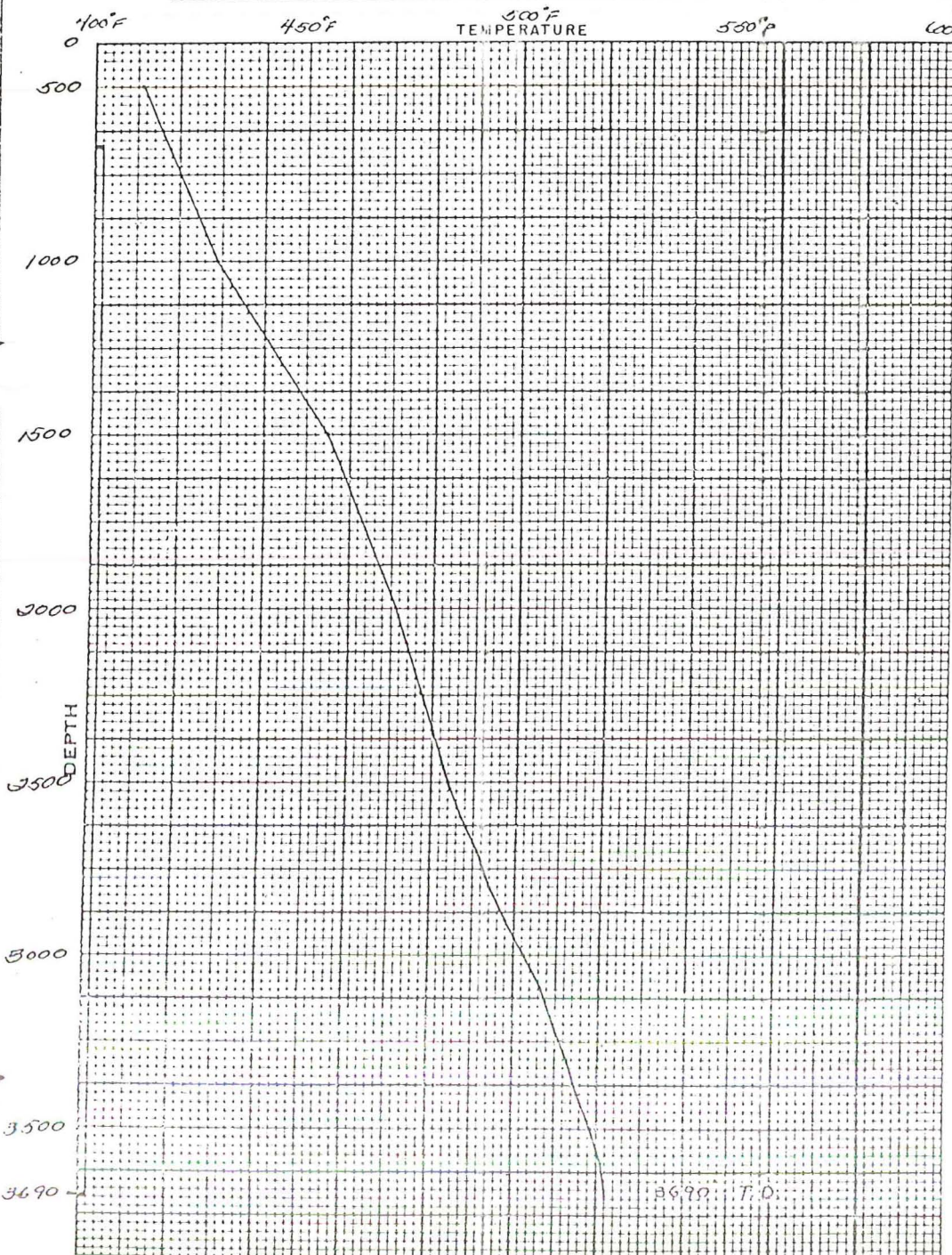
B6-522PT

OWNER Union Oil Co. of Calif. FIELD Valle Grande WELL NAME Baca # 6
 CASING 9 7/8" C. from surface to 795' ELEV 8726 C.L. DATE 8. 3. 73
 LINER DESCRIPTION: 7" liner from 692' to 3700' Per. intervals ZERO POINT 14' above ground
from 2634'-2710'; 2980'-3177'; 3589'- DEPTH 3715'
3698'

HOLE DESCRIPTION:

INSTRUMENT 300° to 736°F FAH
 SERIAL NO KTB-10036

PURPOSE Static tandem press. and temp. survey MAX TEMP 521.9°F @ 3690'
 REMARKS:



STABILIZATION PERIOD

PRESSURES.	GAUGE	BOMB
CASING. PSI	322	322.62

DEPTH	TEMP.	DEPTH	TEMP.
0			
50			
500	411.0		
1000	429.0		
1500	454.6		
2000	471.0		
2500	484.0		
2600	487.1		
2700	490.7		
2800	494.1		
2900	498.0		
3000	502.4		
3100	506.6		
3200	509.5		
3300	512.8		
3400	515.7		
3500	518.6		
3600	520.9		
3690	521.9		

BY: Carl Junker

76

GEO THERMAL DIVISION

BG-321 PT

SUBSURFACE PRESSURE SURVEY

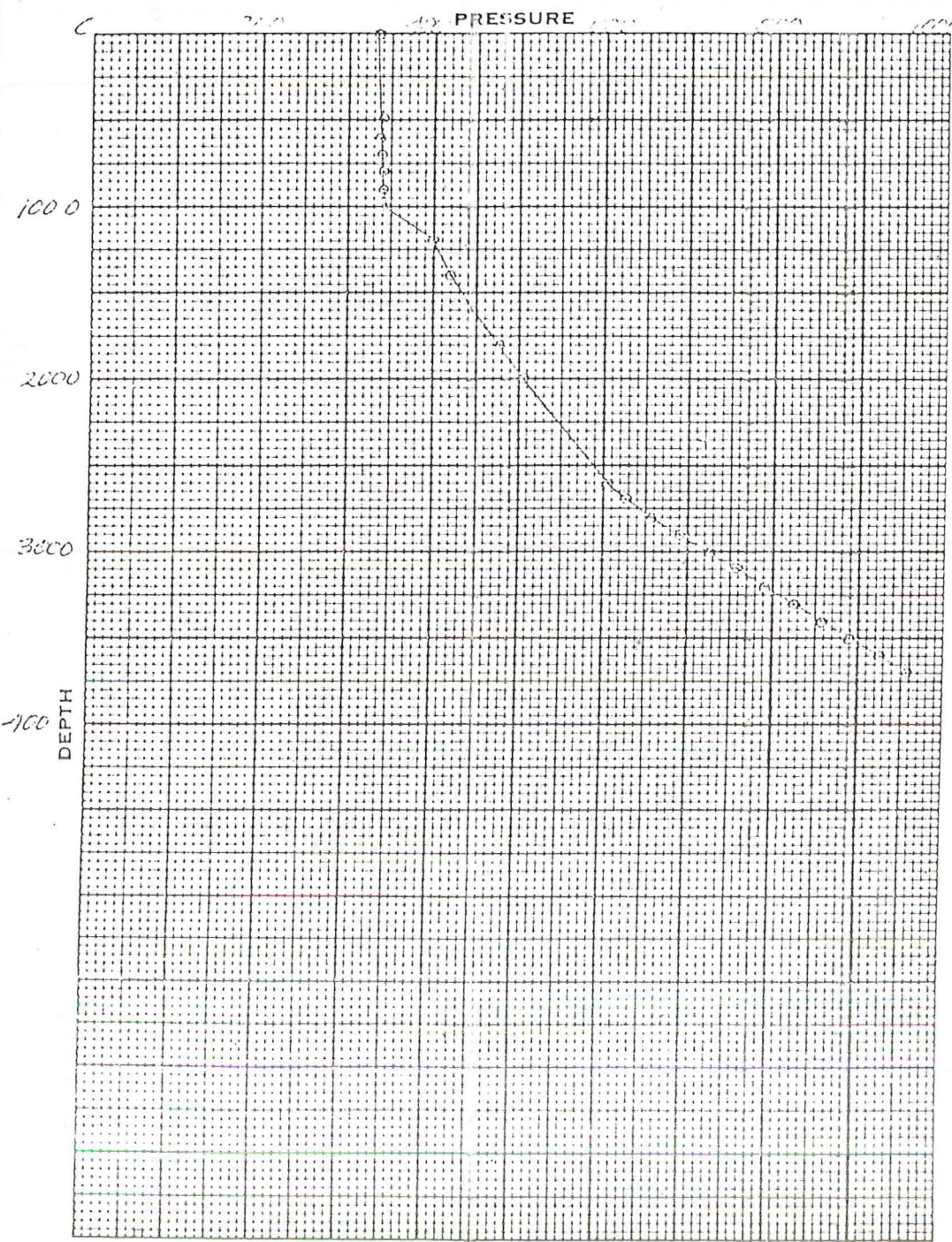
OWNER Esso Oil Co of Calif FIELD _____ WELL NAME Bickr No. 6
 CASING _____ ELEV 8726 GL DATE MAY 29, 1973
 LINER DESCRIPTION: _____ ZERO POINT _____
 DEPTH 3690

HOLE DESCRIPTION: _____ INSTRUMENT Q-2400 PS
 SERIAL NO 6607N

PURPOSE GRADIENT / PRESS. PD MAX TEMP _____ °F @ _____

REMARKS:

STABILIZATION PERIOD



PRESSURES.	GAUGE	BOMB
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
0	339.25	
500	340.16	0.012
600	358.95	0.012
700	340.16	0.015
800	341.39	0.015
900	342.52	0.015
1000	359.33	0.115
1200	400.39	0.236
1400	424.47	0.162
1600	473.54	0.136
1800	473.35/517.53	0.162
2000	522.51/544.72	0.162
2200	59.42/605.25	0.158
2400	621.93/636.19	0.202
2500	653.51/657.19	0.316
2600	683.1/690.45	0.323
2800	721.43/727.39	0.309
3000	753.27/758.53	0.310
3200	785.71/792.56	0.345
3300	816.61/823.51	0.310
3400	850.1/857.11	0.322
3500	884.52/887.29	0.322
3600	917.93/923.90	0.346
3690	915.3/954.95	0.346

BY: T. H. Keller

76

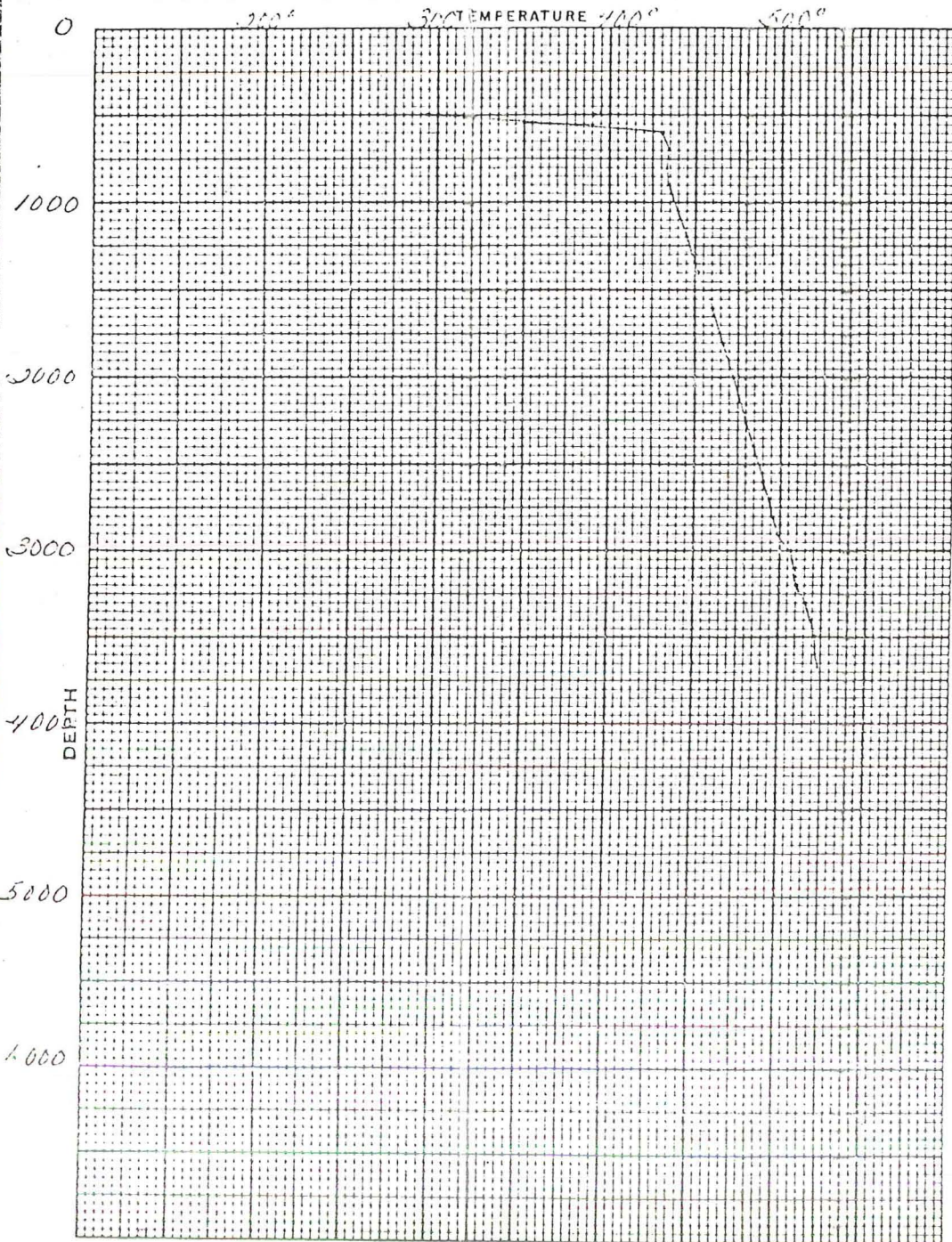
UNION

GEO THERMAL DIVISION
SUBSURFACE TEMPERATURE SURVEY

B6-521PT

OWNER Union Oil Co of California FIELD _____ WELL NAME Boca #6
 CASING _____ ELEV 8126.61 DATE: May 27, 1973
 LINER DESCRIPTION: _____ ZERO POINT _____ DEPTH _____
 HOLE DESCRIPTION: _____ INSTRUMENT _____ FAI _____
 SERIAL NO _____
 PURPOSE _____ MAX TEMP _____ °F @ _____
 REMARKS: _____

STABILIZATION PERIOD



PRESSURE	GAUGE	60:12	
CASING. PSI			
DEPTH	TEMP.	DEPTH	TEMP.
500	294.5		
600	430.6		
700	434.0		
800	433.5		
900	434.3		
1000	437.7		
1200	445.7		
1400	452.3		
1600	460.3		
1800	466.7		
2000	472.5		
2200	480.3		
2700	504.2		
2825	507.2		
2900	509.2		
3000	516.3		
3100	509.9		
3200	516.0		
3500	516.3		
3400	518.9		
3500	520.4		
3600	521.7		
3690	524.8		

BY: _____

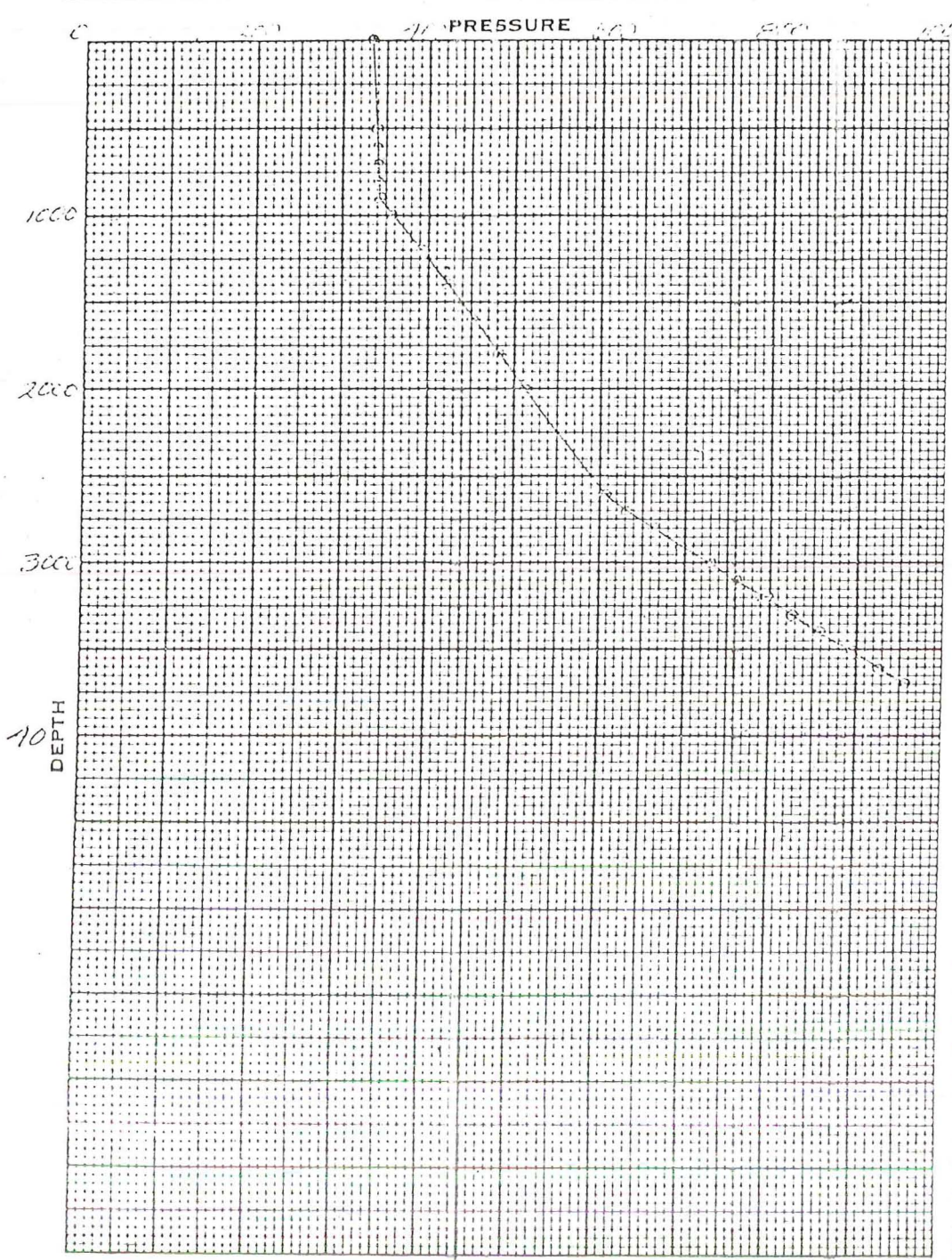
76

GEO THERMAL DIVISION

B6-520PT

SUBSURFACE PRESSURE SURVEY

OWNER Union Oil Co of Calif FIELD _____ WELL NAME BACP No. 6
 CABING _____ ELEV 5720 GL DATE MAY 29, 1973
 LINER DESCRIPTION: _____ ZERO POINT _____
 _____ DEPTH 3690
 HOLE DESCRIPTION: _____ INSTRUMENT C-2100 P
 _____ SERIAL NO 6607 H
 PURPOSE GRADIENT / Press. BU. MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD

PRESSURES	GAUGE	BOMB
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
0	331.61	
500	341.34	0.009
600	341.34	0.009
700	342.52	0.012
800	343.70	0.012
900	344.88	0.012
1000	349.06	0.192
1200	392.13	0.169
1400	422.83	0.159
1600	450.00	0.139
1800	479.53/480.11	0.159
2000	510.21/511.12	0.159
2400	603.57/600.52	0.124
2700	673.81/630.95	0.214
2900	697.14/661.90	0.310
2910	694.7/645.23	0.340
3100	735.0/730.35	0.340
3100	737.14/701.90	0.310
3200	782.29/78.44	0.300
3300	800.21/822.0	0.300
3400	863.57/839.42	0.320
3400	855.71/826.24	0.350
3600	910.12/826.39	0.310
3690	941.51/827.37	0.310

BY: Mirelle TEEFELER

76

GEO THERMAL DIVISION

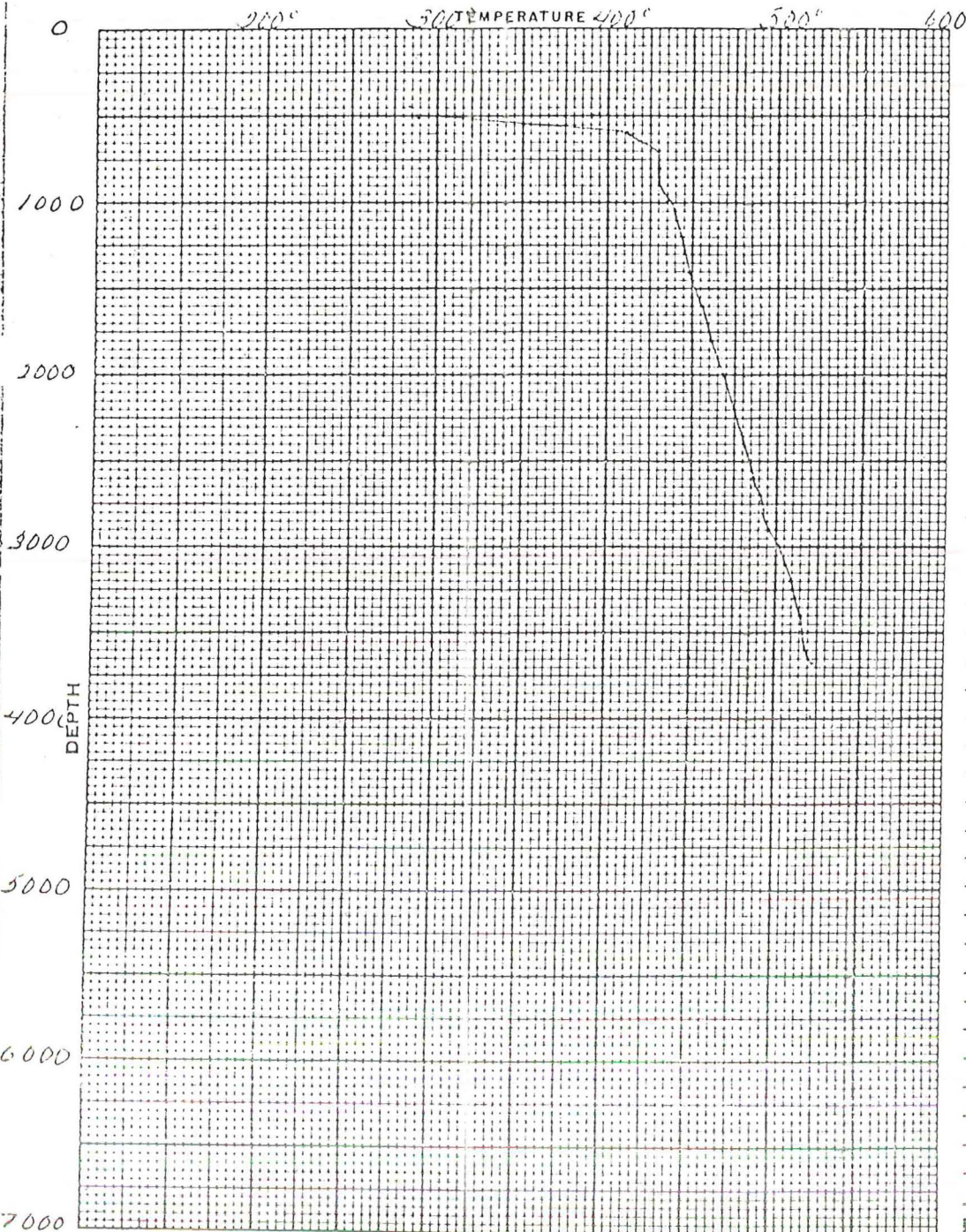
B6-S20PT

SUBSURFACE TEMPERATURE SURVEY

OWNER Union Oil Co. of California FIELD _____ WELL NAME Baca #4
 CASING _____ ELEV 5736 ft DATE May 29, 1973
 LINER DESCRIPTION: _____ ZERO POINT _____
 _____ DEPTH _____

HOLE DESCRIPTION: _____ INSTRUMENT 87-696 FAH
 _____ SERIAL NO 10005

PURPOSE _____ MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
500	385.7		
600	412.8		
700	430.1		
800	430.3		
900	430.8		
1000	435.1		
1200	443.0		
1400	449.7		
1600	456.0		
1800	462.7		
2000	468.5		
2200	486.6		
2700	490.0		
2800	492.4		
2900	495.0		
3000	502.0		
3100	506.3		
3200	509.9		
3300	512.5		
3400	515.0		
3500	516.3		
3600	517.9		
3790	523.7		

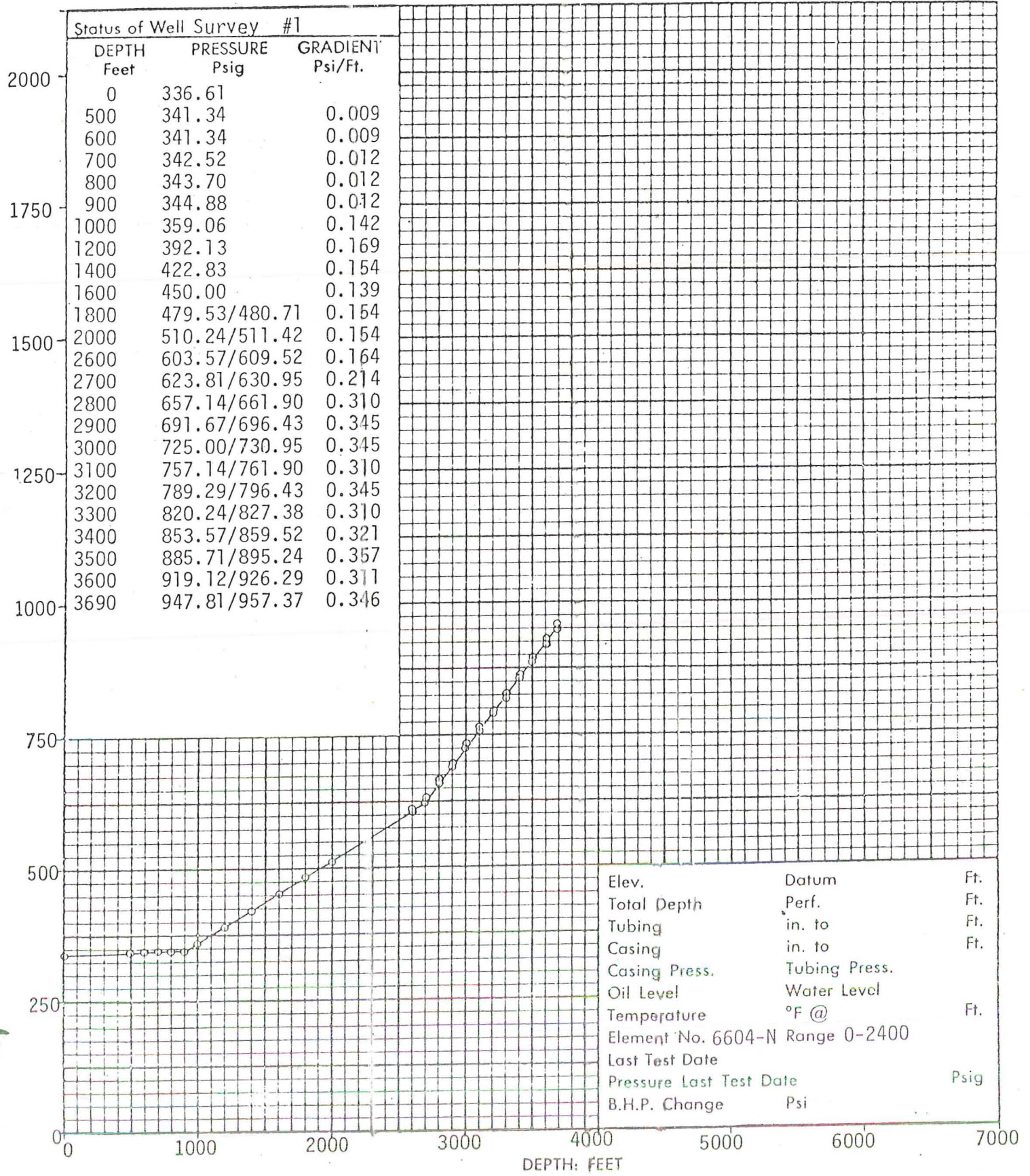
BY: _____

Company UNION OIL CO. OF CALIFORNIA Lease BACA Well No. 6
 Field _____ County SANDOVAL State NEW MEXICO
 Formation _____ Test Date MAY 29, 1973

Status of Well Survey #1

DEPTH Feet	PRESSURE Psig	GRADIENT Psi/Ft.
0	336.61	
500	341.34	0.009
600	341.34	0.009
700	342.52	0.012
800	343.70	0.012
900	344.88	0.012
1000	359.06	0.142
1200	392.13	0.169
1400	422.83	0.154
1600	450.00	0.139
1800	479.53/480.71	0.154
2000	510.24/511.42	0.154
2600	603.57/609.52	0.164
2700	623.81/630.95	0.214
2800	657.14/661.90	0.310
2900	691.67/696.43	0.345
3000	725.00/730.95	0.345
3100	757.14/761.90	0.310
3200	789.29/796.43	0.345
3300	820.24/827.38	0.310
3400	853.57/859.52	0.321
3500	885.71/895.24	0.357
3600	919.12/926.29	0.311
3690	947.81/957.37	0.346

PRESSURE POUNDS PER SQUARE INCH GAUGE

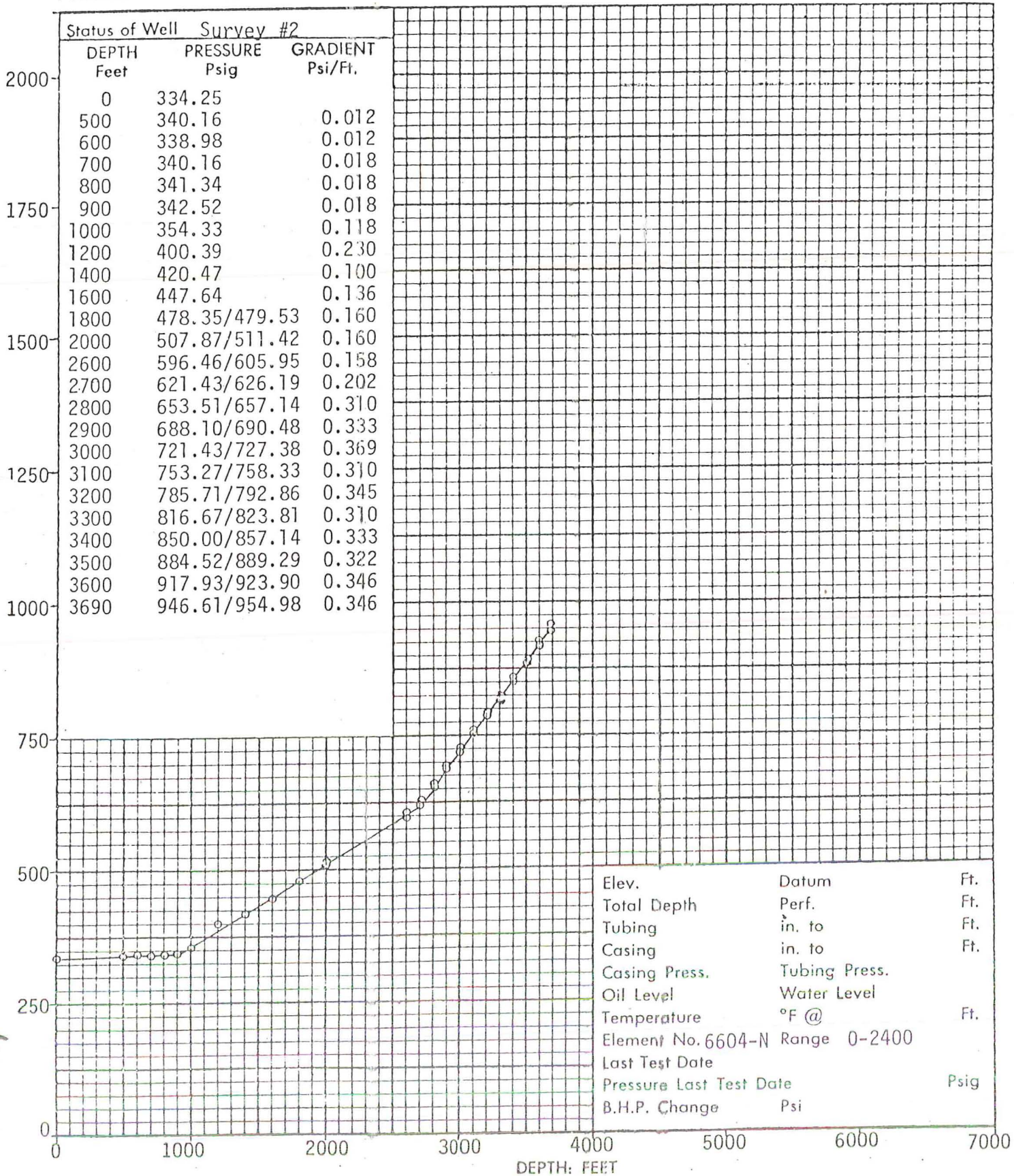


Elev.	Datum	Ft.
Total Depth	Perf.	Ft.
Tubing	in. to	Ft.
Casing	in. to	Ft.
Casing Press.	Tubing Press.	
Oil Level	Water Level	
Temperature	°F @	Ft.
Element No. 6604-N	Range 0-2400	
Last Test Date		
Pressure Last Test Date		Psig
B.H.P. Change	Psi	

DEPTH: FEET

Company UNION OIL CO. OF CALIFORNIA Lease BACA Well No. 6
 Field _____ County SANDOVAL State NEW MEXICO
 Formation _____ Test Date MAY 29, 1973

PRESSURE POUNDS PER SQUARE INCH GAUGE

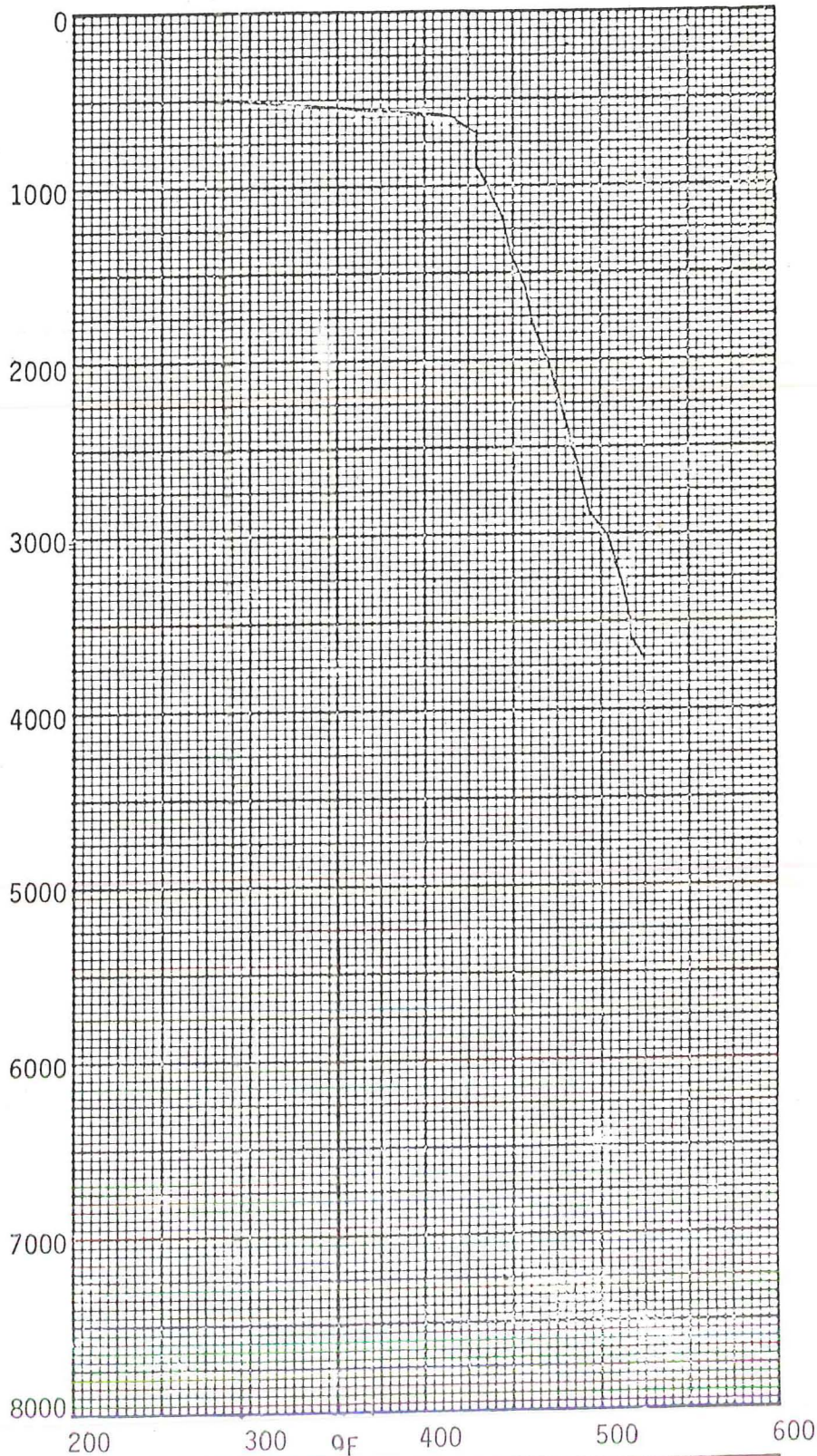


UNION OIL CO. OF CALIFORNIA
 BACA NO. 6
 SANDOVAL COUNTY, NEW MEXICO



TEMPERATURE SURVEY # 1
 MAY 29, 1973
 Our File No. 2-5258-P
 Page 10 of 11

DEPTH FEET	TEMP. °F
0	
500	288.7
600	412.8
700	430.1
800	430.3
900	430.8
1000	435.1
1200	443.0
1400	449.7
1600	456.0
1800	462.7
2000	468.5
2600	486.6
2700	490.0
2800	492.4
2900	495.0
3000	502.0
3100	506.3
3200	509.9
3300	512.5
3400	515.0
3500	516.3
3600	517.9
3690	523.7



Temperature Element 10005 Range 84° - 646° F

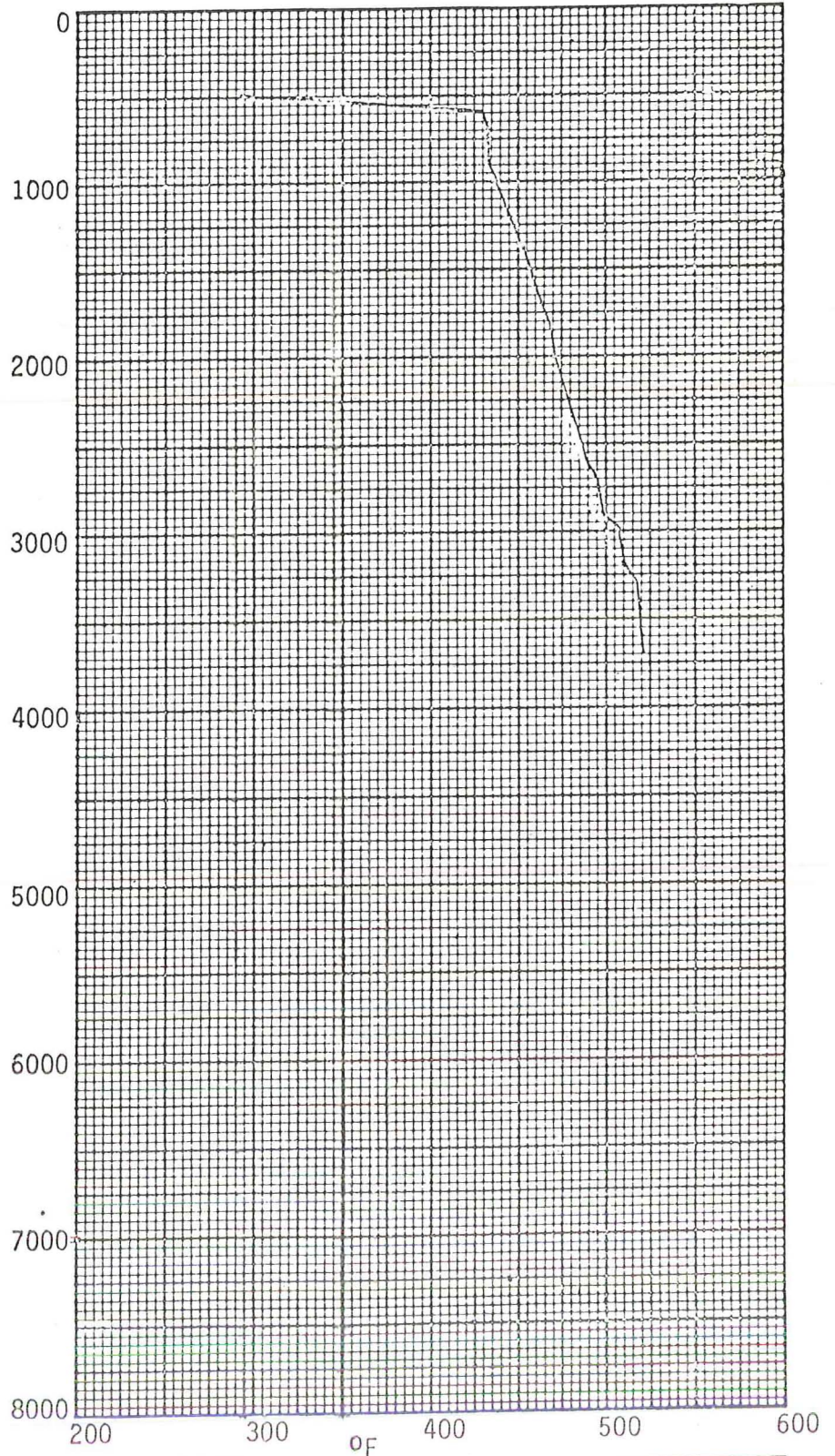
REMARKS _____

UNION OIL CO. OF CALIFORNIA
 BACA NO.6
 SANDOVAL COUNTY, NEW MEXICO



TEMPERATURE SURVEY # 2
 MAY 29, 1973
 Our File No. 2-5258-P
 Page 11 of 11

DEPTH FEET	TEMP. OF
0	
500	294.5
600	430.6
700	434.0
800	433.5
900	434.3
1000	437.7
1200	445.7
1400	452.3
1600	460.3
1800	466.7
2000	472.5
2600	490.3
2700	494.2
2800	497.4
2900	499.2
3000	506.3
3100	509.9
3200	510.0
3300	516.3
3400	518.9
3500	520.4
3600	521.7
3690	524.8



Temperature Element 10005 Range 84° - 646° F

REMARKS

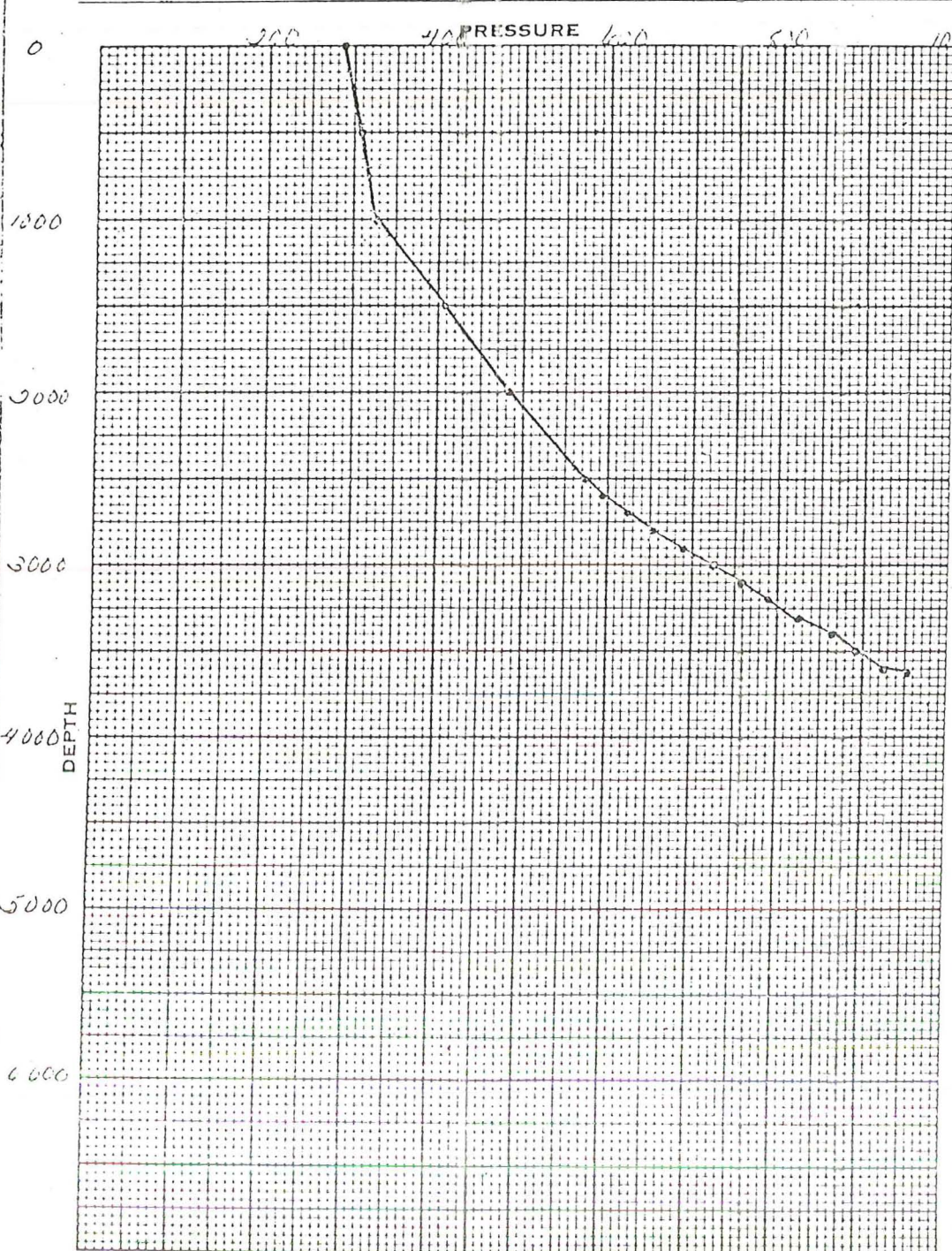
76

GEO THERMAL DIVISION B6-319PT
 SUSSURFACE PRESSURE SURVEY

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Baca #6
 CAGING 945' 0" from surface to 445' ELEV. 5726.61 DATE 2-1-73
 LINER DESCRIPTION: 4" liner from 692' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2653' to 2710'; DEPTH 3715'
2950' to 3176'; 3589' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT 2050
 SERIAL NO 7168N

PURPOSE Tenden Temperature and Pressure Survey (Gradient) MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD
35 1-16-73 @ 1133

PRESSURES	GAUGE	BOMF
CASING. PSI		

DEPTH	PRESSURE	GRADIE
0	287.41	
500	309.28	
1000	327.84	
1500	407.22	
2000	483.51	
2500	571.13	
2600	595.88	
2700	623.79	
2800	653.79	
2900	690.00	
3000	725.17	
3100	758.28	
3200	790.34	
3300	825.53	
3400	860.69	
3500	893.76	
3600	926.90	
3690	953.79	

Time @ 3698' 1701

BY: _____

76

GEO THERMAL DIVISION
SUBSURFACE TEMPERATURE SURVEY

136-319 PT

OWNER Union Carbide of Calif FIELD Redondo Valley WELL NAME Baca #6
 CAGING 95 1/2" P. from surface to 795' ELEV 5726 CL DATE 2-1-73
 LINER DESCRIPTION: 7" liner from 692' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2633' to 2710'; DEPTH 3715'
2986' to 3176'; 3589' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT 84°F - 646°F FAH
 SERIAL NO KTB-10005

PURPOSE Tandem Temperature and Pressure Survey (Gradient) MAX TEMP _____ °F @ _____
 REMARKS: _____

STABILIZATION PERIOD



DEPTH	TEMP.	DEPTH	TEMP.
500	296.5		
1000	422.2		
1500	441.2		
2000	458.7		
2500	475.4		
2600	479.7		
2700	483.4		
2800	486.3		
2900	488.4		
3000	492.9		
3100	500.7		
3200	507.1		
3300	509.4		
3400	512.2		
3500	512.7		
3600	520.9		
3690	522.9		

BY: _____

UNION

GEO THERMAL DIVISION

B6-518PT

SUBSURFACE PRESSURE SURVEY

76

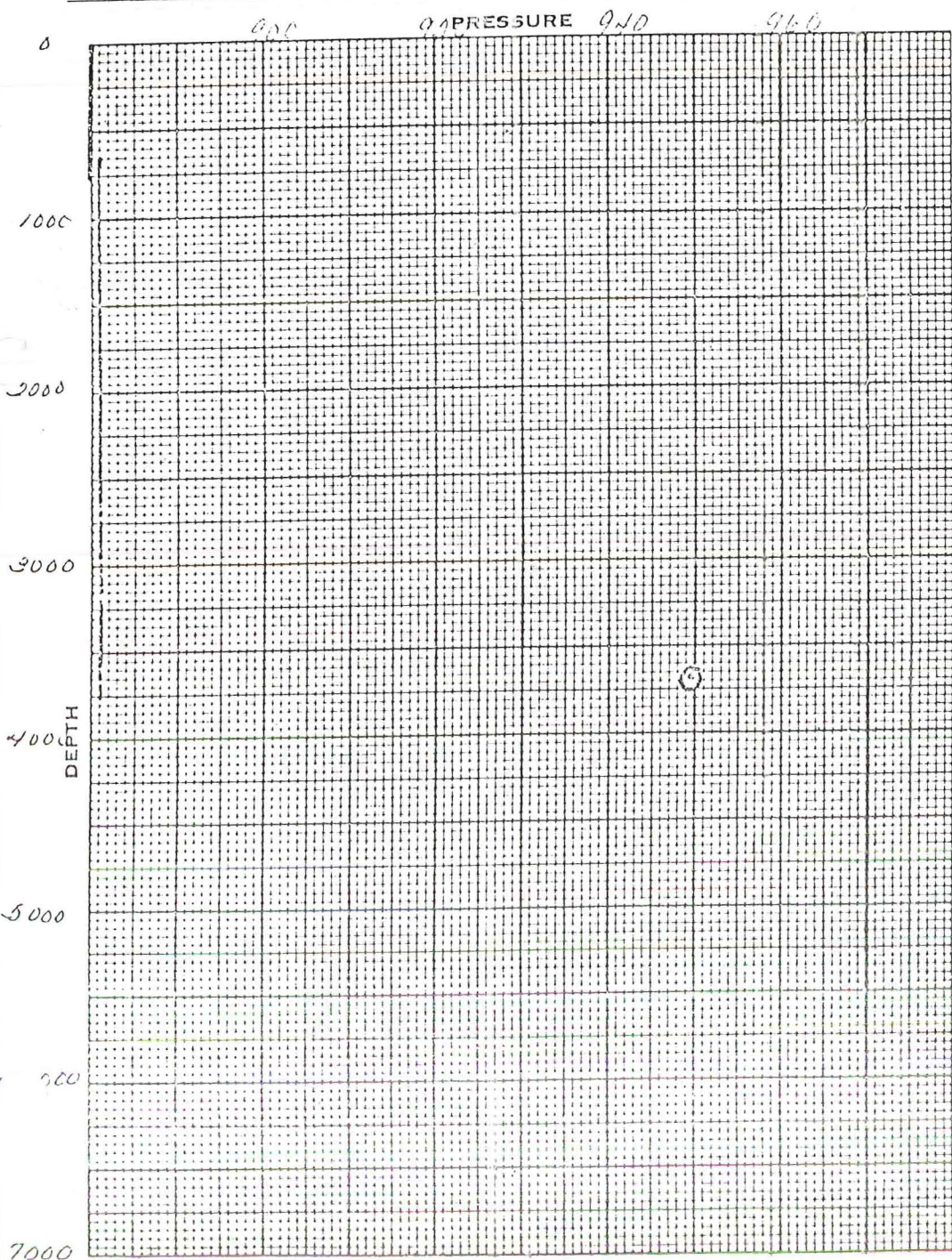
OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Boca #1
 CASING 2 1/2" 2 from surface to 795' ELEV 5726 G.L. DATE 1-31-73
 LINER DESCRIPTION: 4" liner from 792' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2633' to 2710', DEPTH 3715'
2986' to 3116', 3589' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT J050 PSI
 SERIAL NO 7168N

PURPOSE Bottom Hole Temperature and Pressure Buildup @ 3690' AX TEMP _____ °F @

REMARKS:

STABILIZATION PERIOD



PRESSURES.	GAUGE	BOMB
CASING. PSI		

DEPTH 3690 PRESSURE 949.66 GRADIENT

BY: _____

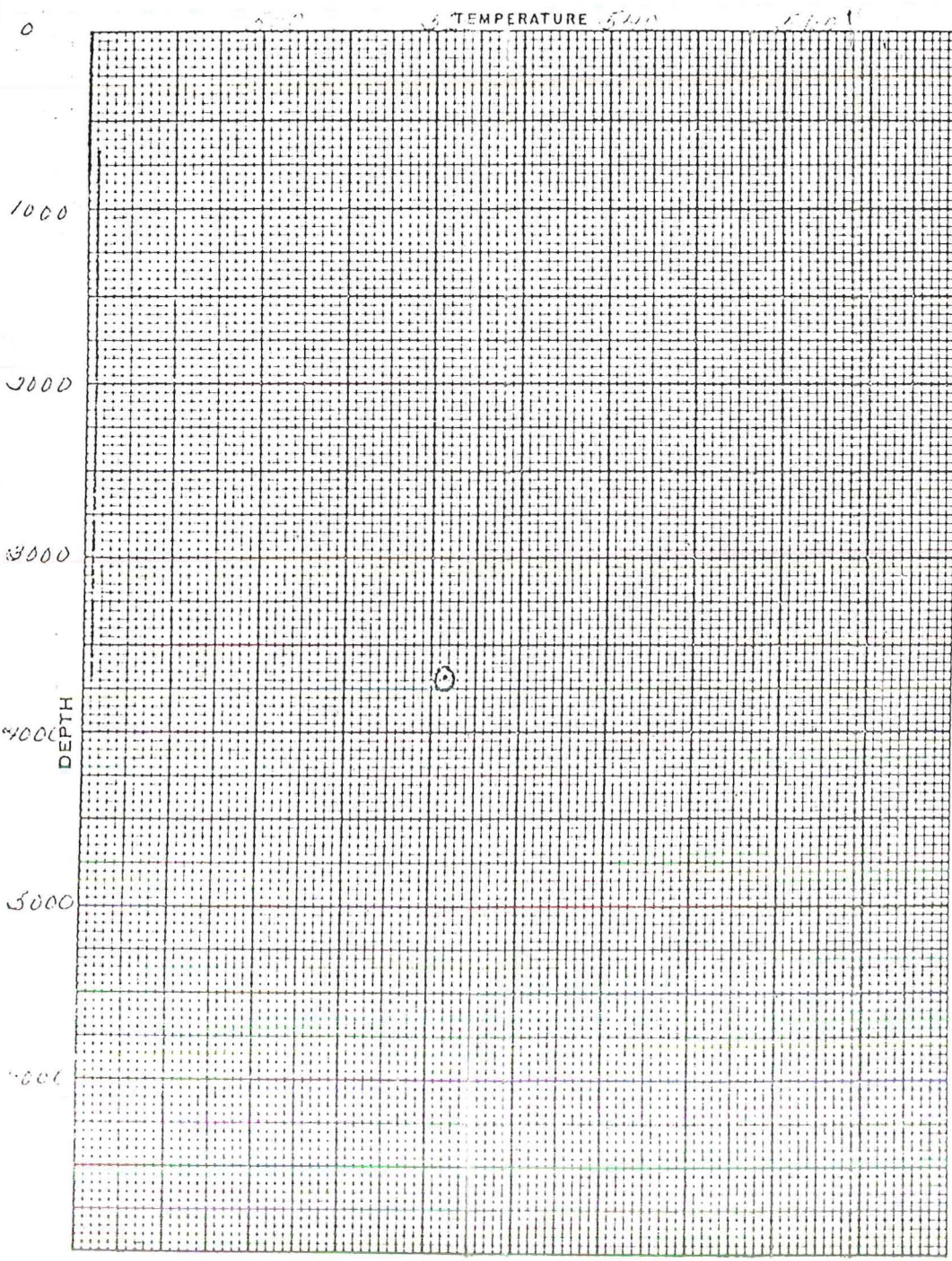
76

UNION
GEO THERMAL DIVISION BG-318PT
SUBSURFACE TEMPERATURE SURVEY

OWNER Union Oil Co of Cal. FIELD Redondo Valley WELL NAME Boca # 6
CASING 9 5/8" L. from surface to 795' ELEV 9700 5126 G.L. DATE 1-31-73
LINER DESCRIPTION: 5" liner from 692' to 3700' ZERO POINT 14' above ground
Partialed intervals from 2653' to 2910'; DEPTH 3515'
2986' to 3174'; 3589' to 3698'

HOLE DESCRIPTION: _____
INSTRUMENT 84°-046° F FA
SERIAL NO RTB-10005

PURPOSE Bottom Hole Temperature and Pressure Logging @ 3698' MAX TEMP _____ °F @ _____
REMARKS: _____



STABILIZATION PERIOD

PRESSURE,	GAUGE	BOMB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
3690	521.7		

BY: _____

76

UNION GEO THERMAL DIVISION

B6-3 17PT

SUBSURFACE PRESSURE SURVEY

OWNER Union Oil Co of Calif FIELD Redondo Valley WELL NAME Baca #6
 CASING 7 1/8" p from surface to 795' ELEV 5726 GL DATE 1-20-73
 LINER DESCRIPTION: 7" liner from 692' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2633' to 2710'; DEPTH 3715'
2986' to 3176"; 3589' to 3698'

HOLE DESCRIPTION:

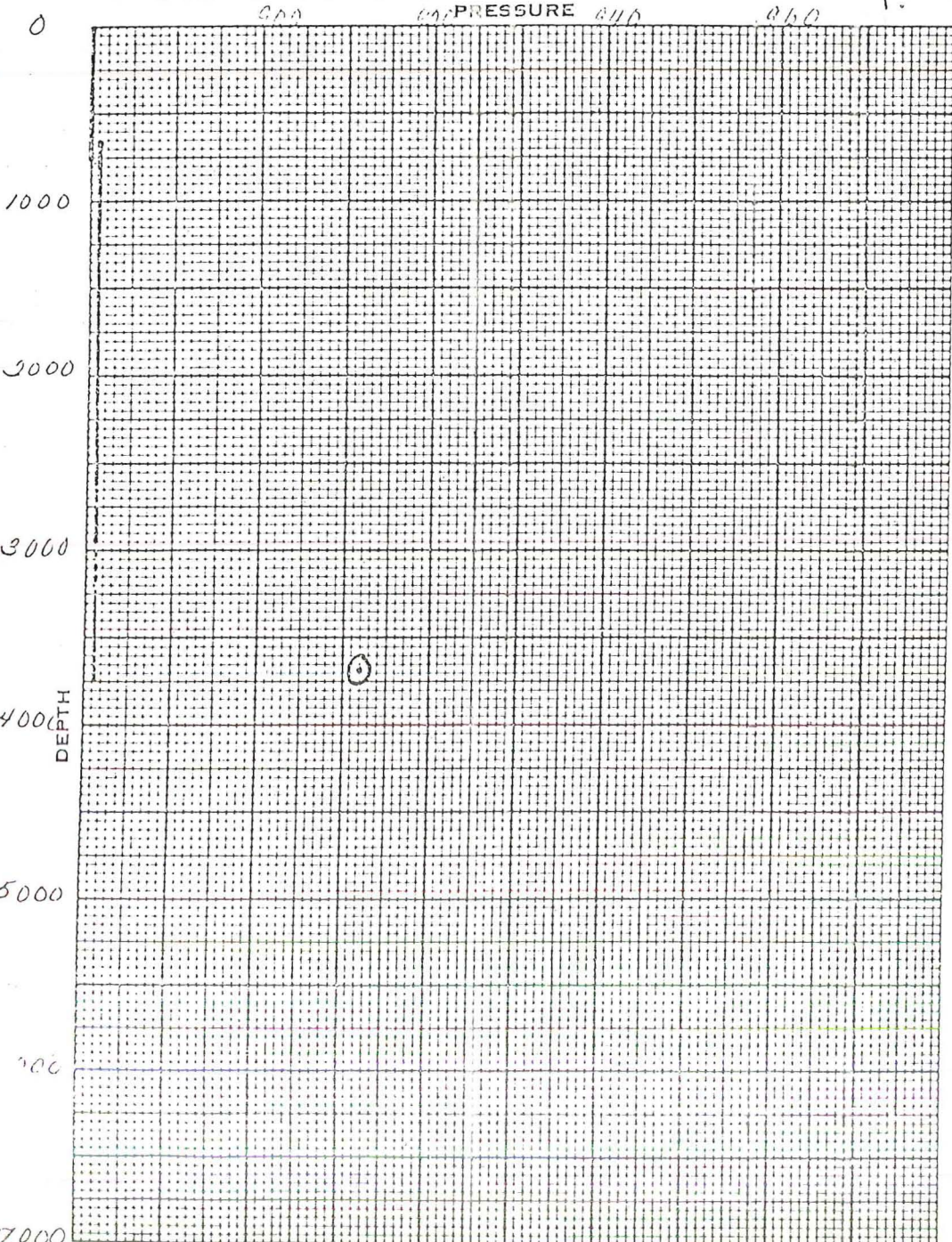
INSTRUMENT 2050 PSI

SERIAL NO 7168N

PURPOSE Bottom Hole Pressure and Temperature Buildup MAX TEMP _____ °F @ _____

REMARKS:

STABILIZATION PERIOD



PRESSURES	GAUGE	BOWS
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
<u>3690</u>	<u>912.41</u>	

BY:

76

GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

B6-517PT

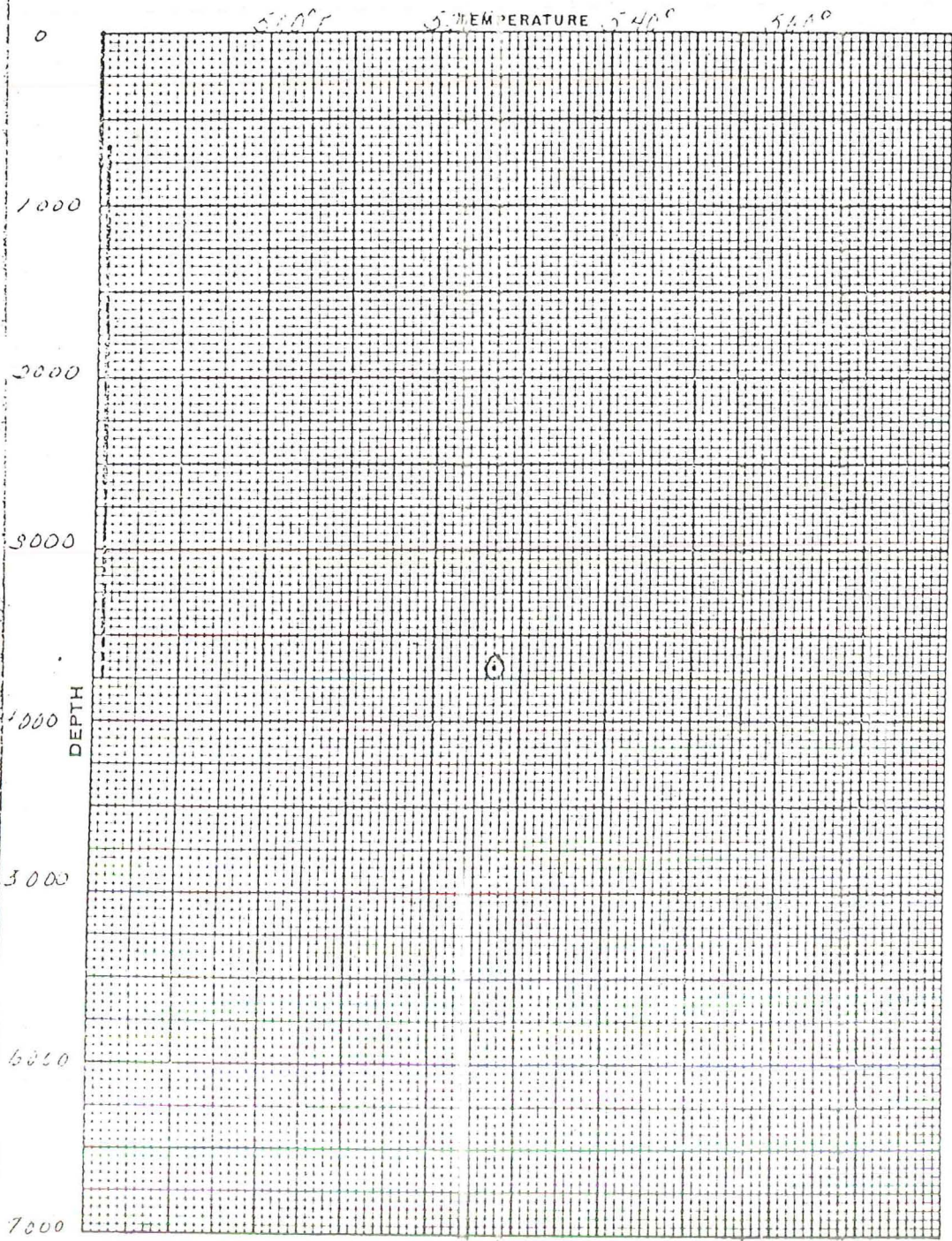
OWNER Union Oil Co of Calif FIELD Redondo Valley WELL NAME Buca #6
 CAGING 2515 - 0, from surface to 795' ELEV 5726 ft DATE 1-20-73
 LINER DESCRIPTION: 7" liner from 692' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2633' to 2710', DEPTH 3715'
2986' to 3176', 3559' to 3698'

HOLE DESCRIPTION:

INSTRUMENT 84°-646° F FA
 SERIAL NO KTB-10005

PURPOSE Bottom Hole Pressure and Temperature Buildup MAX TEMP _____ °F @ _____
 REMARKS:

STABILIZATION PERIOD



PRESSURES	GAUGE	BOHB
CASING, PSI		
DEPTH	TEMP.	DEPTH
3690	527.3	

BY:

GEOHERMAL DIVISION B6-316PT

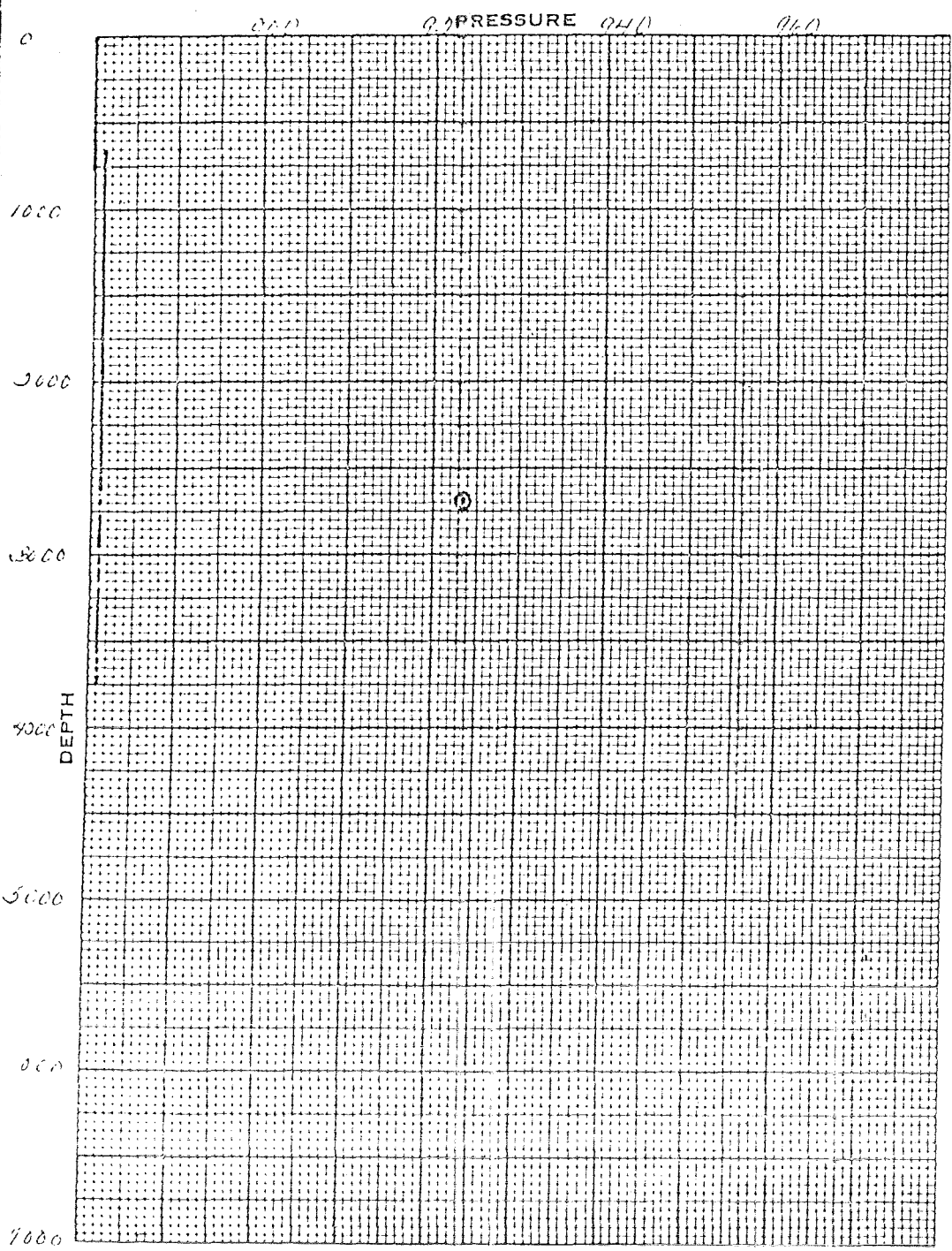
SUBSURFACE PRESSURE SURVEY

76

OWNER Union Oil Co of Calif. FIELD Redondo Valley WELL NAME Boco # 5
 CASING 2 3/4" ID From surface to 795' ELEV 8726 CH DATE 1-19-73
 LINER DESCRIPTION: 7" Liner from 492' to 3400' ZERO POINT 14' above ground
Isolated intervals from 2633' to 2910'; 2986' to 3176'; 3589' to 3698' DEPTH 3715'

HOLE DESCRIPTION: _____ INSTRUMENT 2050 PSI
 SERIAL NO 7168 N

PURPOSE Bottom Hole Pressure and Temperature Buildup MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD

PRESSURES	GAUGE	BOMB
CASING, PSI		
DEPTH	PRESSURE	GRADIENT
<u>3690</u>	<u>923.79</u>	

BY: _____

76

UNION
GEOTHERMAL DIVISION
SUBSURFACE TEMPERATURE SURVEY

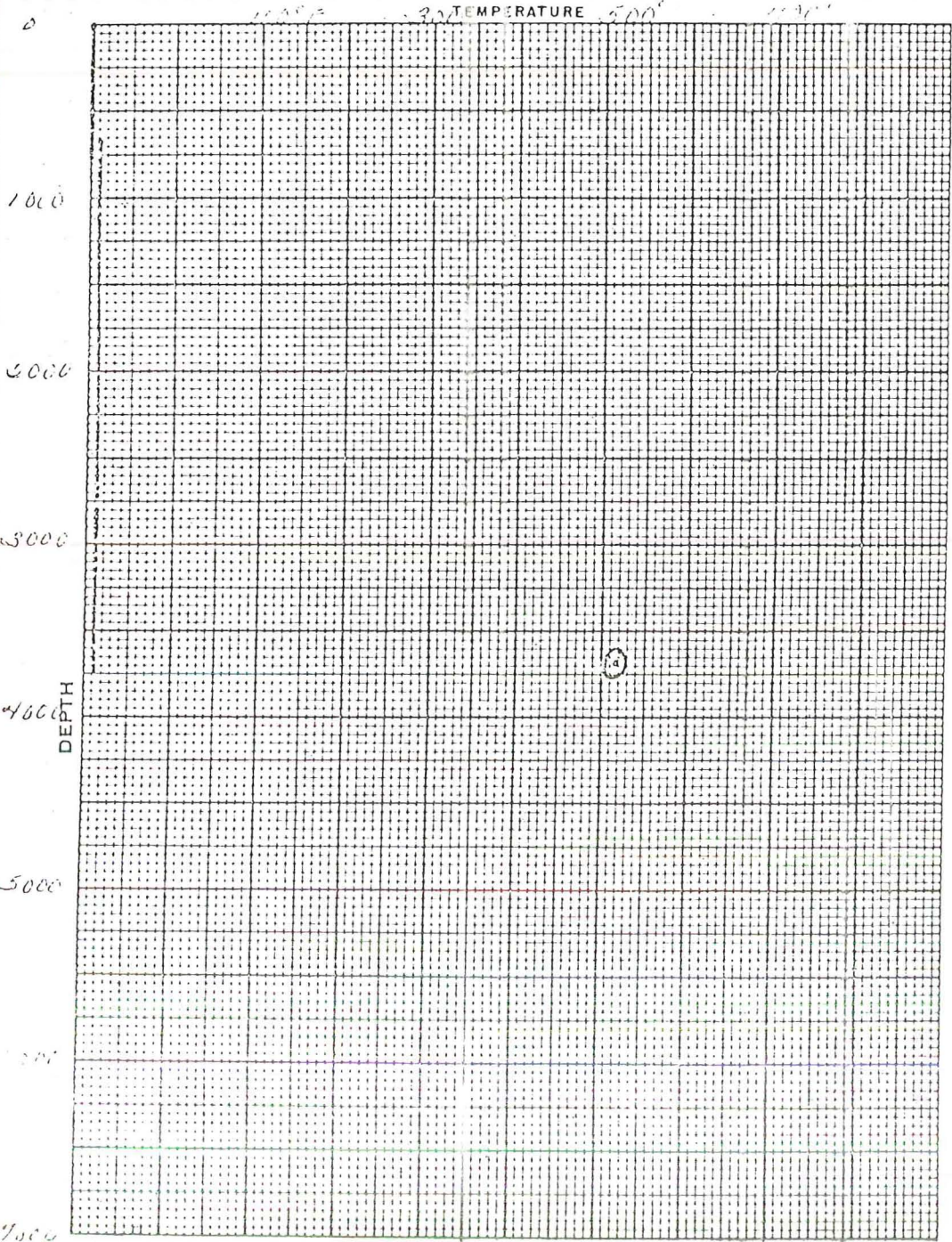
B6-516PT

OWNER U.S. Geol. Surv. FIELD Redondo Valley WELL NAME Boca #6
CABING from surface to 795' ELEV 8736 Ch DATE 1-19-73
LINER DESCRIPTION: 5" liner from 283' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2693' to 2710'; DEPTH 3715
2986' to 3176'; 3589' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT 840-646° F FAH
SERIAL NO KTB-10005

PURPOSE Bottom Hole Pressure and Temperature Buildup MAX TEMP _____ °F @ _____
REMARKS: _____

STABILIZATION PERIOD



PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
3690	319.1		

BY: _____

76

UNION

GEOTHERMAL DIVISION

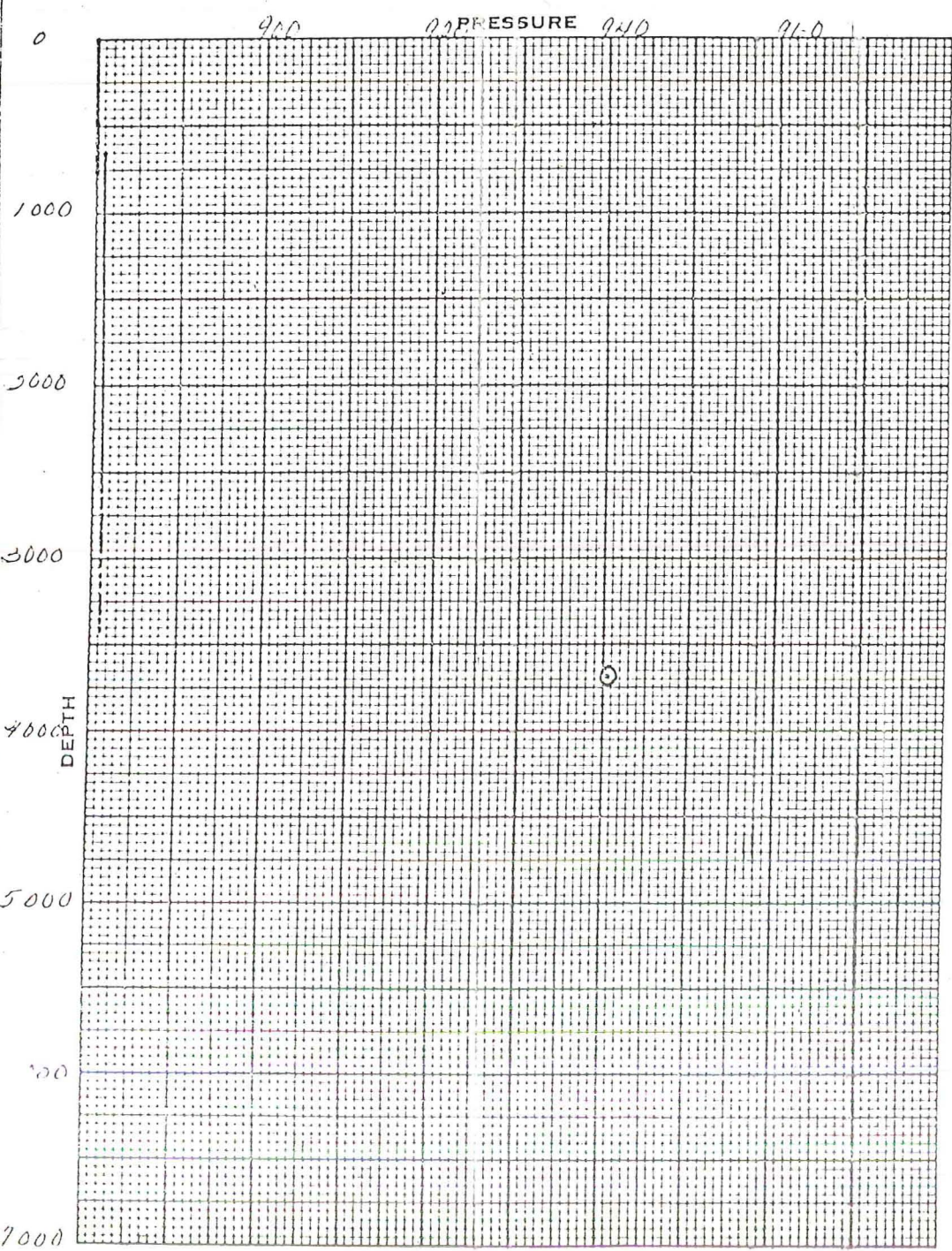
26-515PT

SUBSURFACE PRESSURE SURVEY

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Baca # 6
 CASING 4 1/2" P from surface to 795' ELEV 8726 SL DATE 1-18-73
 LINER DESCRIPTION: 7" liner from 692' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2633' to 2710'; DEPTH 3715'
2980' to 3176'; 3589' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT 2050 PSI
 SERIAL NO 7168 N

PURPOSE Bottom Hole Pressure and Temperature Buildup MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD

PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
<u>3690</u>	<u>943.45</u>	

BY: _____

UNION

GEO THERMAL DIVISION

B6-515 PT

SUBSURFACE TEMPERATURE SURVEY

76

OWNER Union Oil Co of Calif FIELD Redondo Valley WELL NAME Baca #6
 CASING 4 1/2" i. from surface to 795' ELEV 5726 ch DATE 1-18-73
 LINER DESCRIPTION: 5" liner from 692' to 3700' ZERO POINT 14' above ground
Perforated intervals: from 2633' to 2710', DEPTH 3715'
2986' to 3170', 3287' to 3698'

HOLE DESCRIPTION:

INSTRUMENT 84°F - 6.46°F FAH

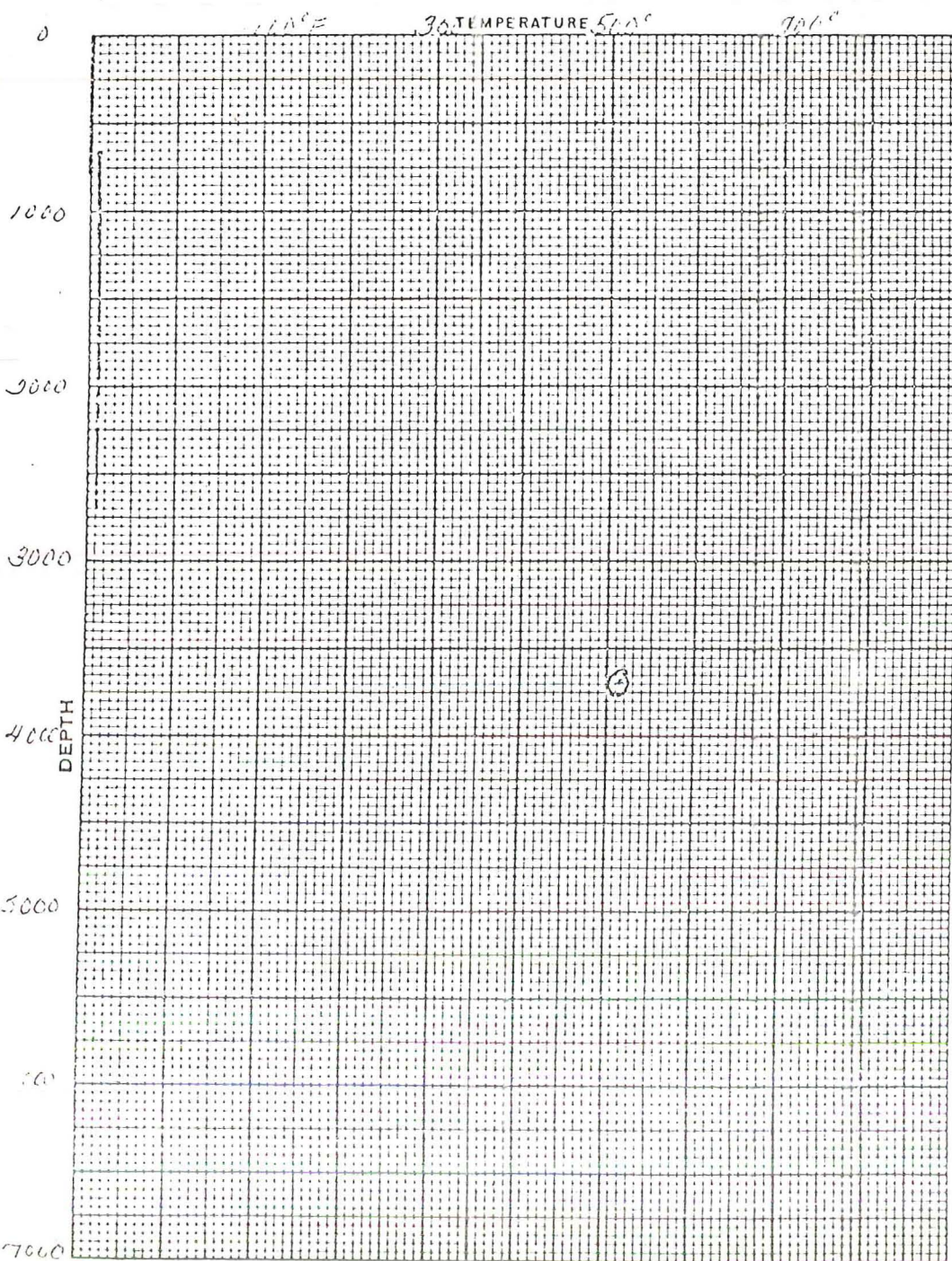
SERIAL NO KTB-10005

PURPOSE Bottom Hole Pressure and Temperature Buildup

MAX TEMP _____ °F @ _____

REMARKS:

STABILIZATION PERIOD



PRESSURE,	GAUGE	ROMB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
3690	515.8		

BY:

76

UNION

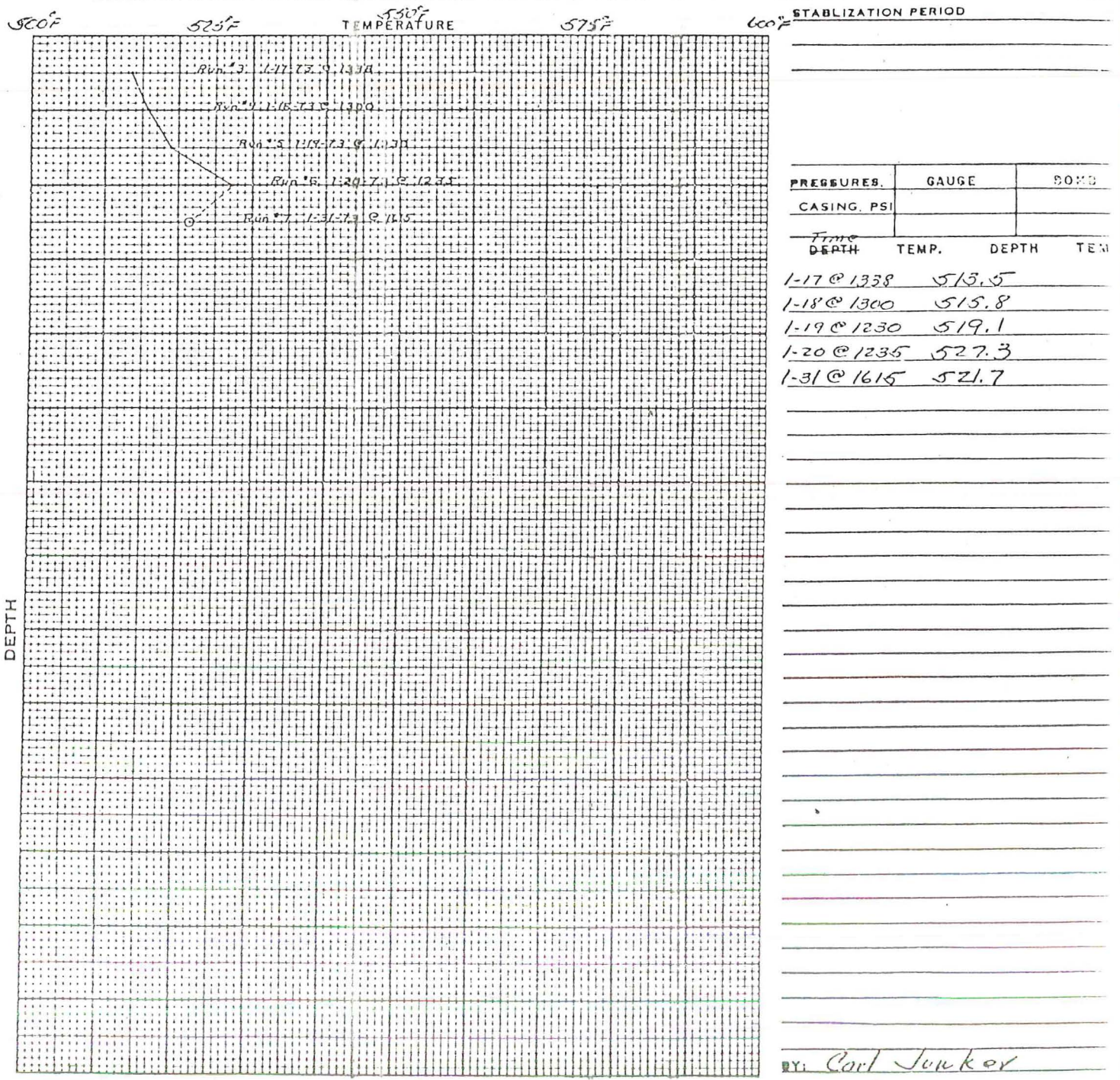
GEOHERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

126-514 PT
5 15 PT
5 16 PT
5 17 PT
5 18 PT

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Boca #6
 CASING 9 5/8" C. from surface to 795' ELEV 8700' 5726.0' DATE 1-17 to 1-20-73
 LINER DESCRIPTION: 7" liner from 692' to 3700'. Perfor intervals ZERO POINT 14' above ground
from 2634'-2710'; 2980'-3177'; 3587'-3698' DEPTH 3715'

HOLE DESCRIPTION: _____ INSTRUMENT 84°-646° FA: _____
 SERIAL NO KTB 10005

PURPOSE Bottom hole temperature buildup @ 3690' MAX TEMP 527.3 °F @ 1-20-73
 REMARKS Shut-in well 1-16-73 @ 1133



BY: Carl Junker

76

GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

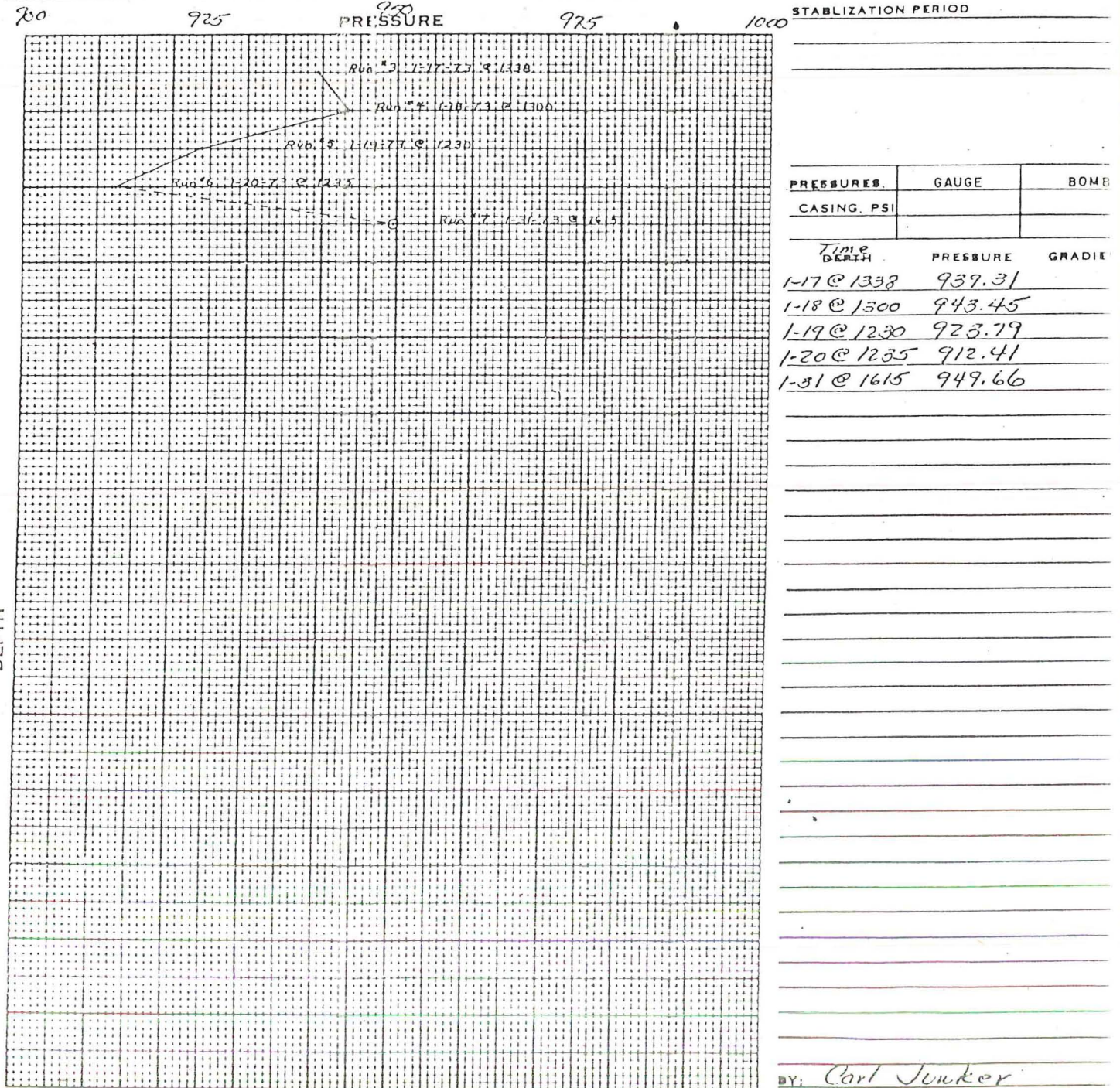
B6-514 PT
 515 PT
 516 PT
 517 PT
 518 PT

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Baca #6
 CASING 9 5/8" C. from surface to 295' ELEV 8700' 5.226 G DATE 1-17 to 1-20-73
 LINER DESCRIPTION: 7" liner from 693' to 3700' Perf. intervals ZERO POINT 14' above ground
from 2634'-2710'; 2980'-3177'; 3589'-3698' DEPTH 3715'

HOLE DESCRIPTION:

INSTRUMENT 2050
 SERIAL NO 7168N

PURPOSE Bottom hole pressure buildup @ 3690' MAX TEMP 527.3 °F @ 1-20-73
 REMARKS Shot-in well 1-16-73 @ 1133



BY: Carl Junker

76

GEO THERMAL DIVISION B6-519PT

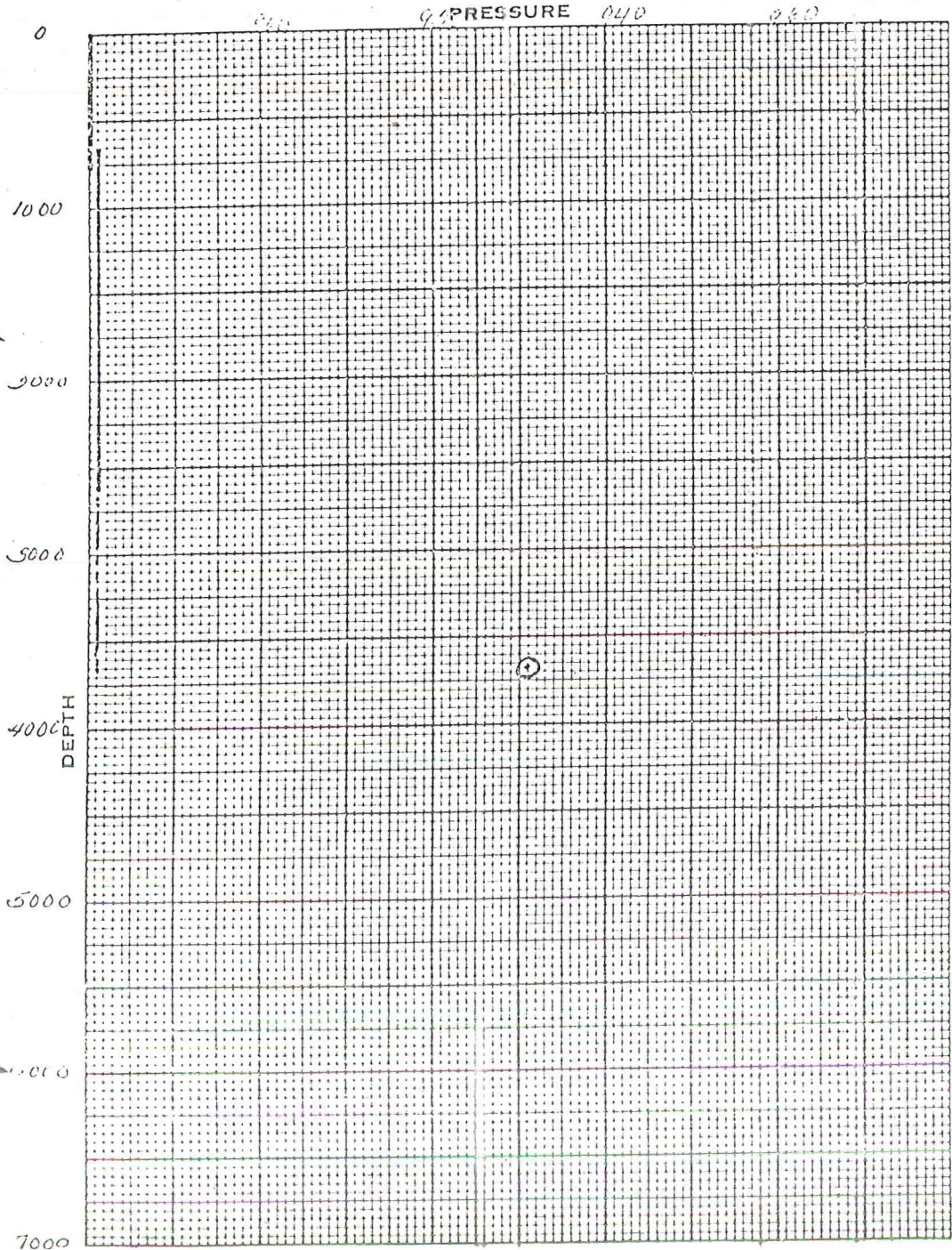
SUBSURFACE PRESSURE SURVEY

OWNER Union Cal. Coal Co. FIELD Redondo Valley WELL NAME Baca # 6
 CASING 2 1/2" P. From surface to 495' ELEV. 3726 Gk DATE 1-17-73
 LINER DESCRIPTION: 7" liner from 492' to 3700' ZERO POINT 14' above ground
Perforated intervals from 3633' to 2710'; DEPTH 3715'
2980' to 3176'; 3580' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT 3050 PSI
 SERIAL NO 7168 N

PURPOSE: Bottom Hole Pressure and Temperature Buildup MAX TEMP _____ °F @ _____

REMARKS: _____ STABILIZATION PERIOD
ST 1133 1-16-73



PRESSURES.	GAUGE	BOMB
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
3690	939.31	

Time 1335

BY: _____

76

GEO THERMAL DIVISION

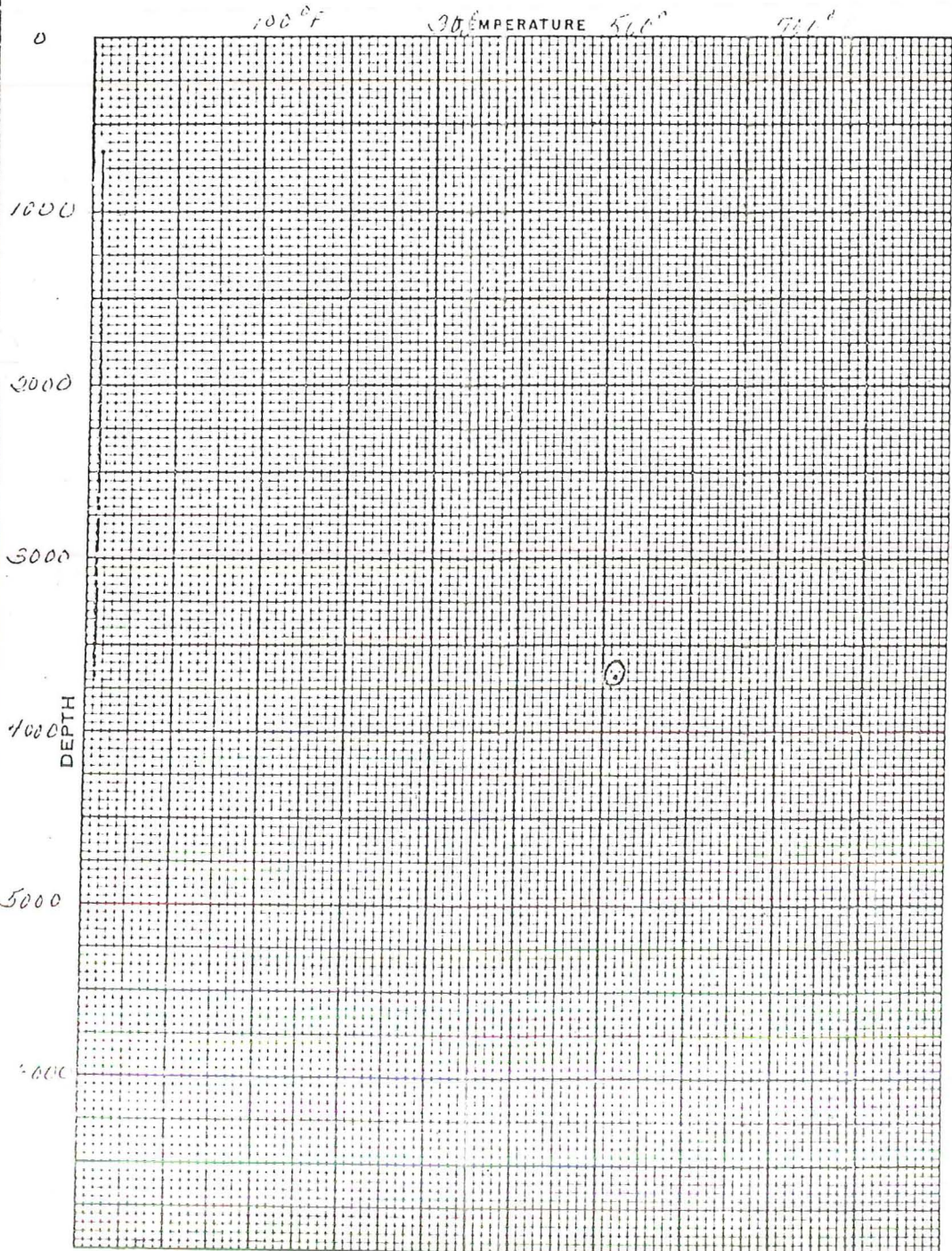
SUBSURFACE TEMPERATURE SURVEY

B6-514PT

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Baca #4
 CASING 2 1/2" C from surface to 715' ELEV 8726.61 DATE 1-17-73
 LINER DESCRIPTION: 7" liner from 698' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2633' to 2710'; DEPTH 3715'
3486 to 3176'; 3589' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT YH° F-646° FEM
 SERIAL NO KTB-10005

PURPOSE Bottom Hole Pressure and Temperature Buildup MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES.	GAUGE	BOMB	
CASING, PSI			
DEPTH	TEMP.	DEPTH	TEMP.
	<u>513.5</u>	<u>3690</u>	

BY: _____

76

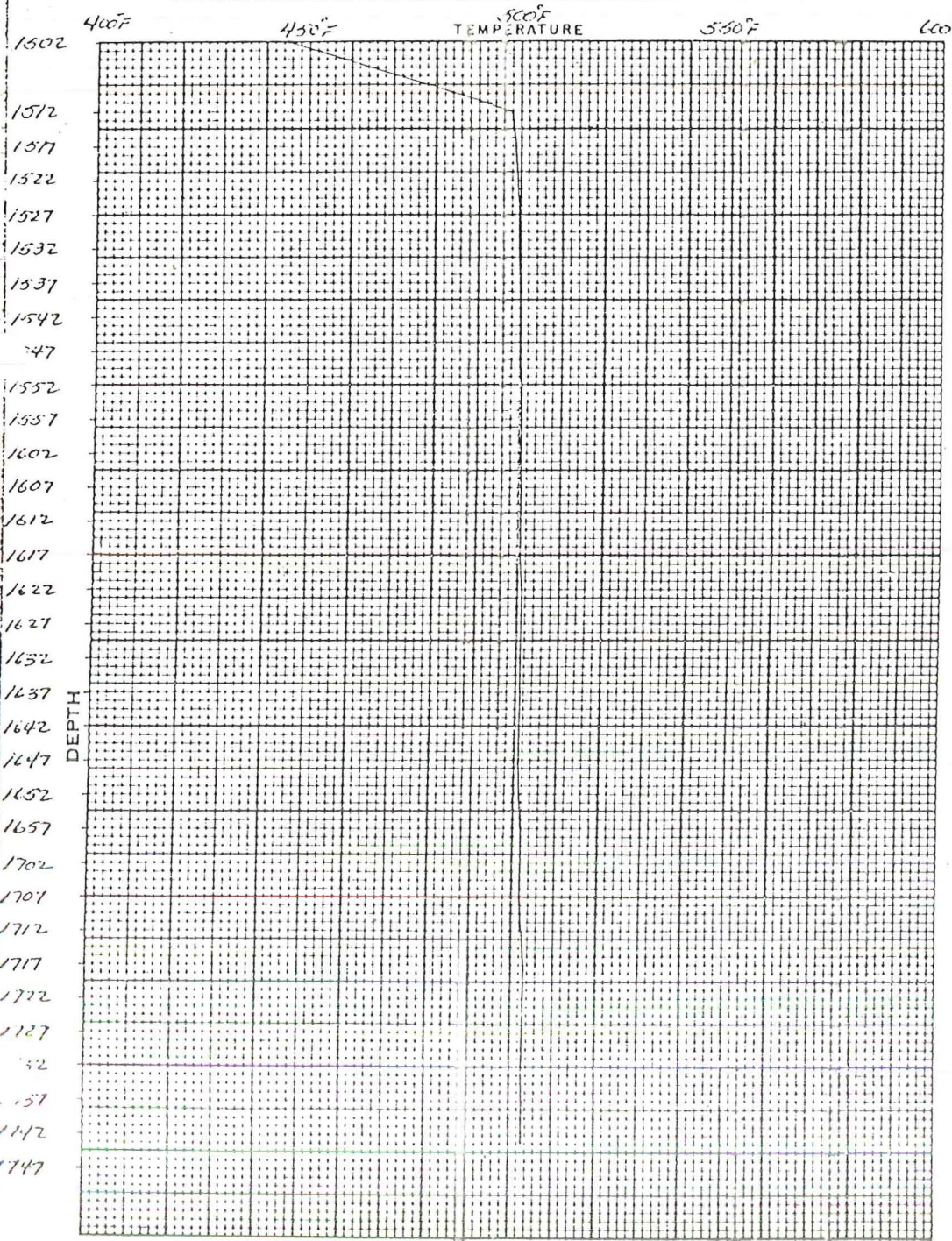
UNION
GEO THERMAL DIVISION
SUDSURFACE TEMPERATURE SURVEY

B6-513PT

OWNER Union Oil Co. of Calif. FIELD Redonda Valley WELL NAME Baca # 6
 CASING 9 3/8" C. from surface to 795' ELEV 5126.6h DATE 1-16-73
 LINER DESCRIPTION: 7" liner from 692' to 3700' - Perf. intervals ZERO POINT 14' above ground
from 2634'-2710'; 2980'-3177'; 3589'-3698' DEPTH 3715'

HOLE DESCRIPTION: _____ INSTRUMENT S-1-6-16 FAH
 SERIAL NO F-113-10502

PURPOSE Bottom hole temperature buildup @ 3690' MAX TEMP 503.0 °F @ 1743 Time
 REMARKS: _____



STABILIZATION PERIOD			
DEPTH	TEMP.	DEPTH	TEMP.
1502	445.2	1743	503
1512	497.9		
1517	498.7		
1522	499.4		
1527	499.7		
1532	499.7		
1537	499.9		
1542	499.9		
1547	499.9		
1552	500.5		
1557	500.5		
1602	500.5		
1607	500.7		
1612	500.7		
1617	500.7		
1622	501.0		
1627	501.2		
1632	501.2		
1637	501.2		
1642	501.2		
1647	501.2		
1652	501.5		
1657	502.0		
1702	502.2		
1707	502.2		
1712	502.5		
1717	502.8		
1722	502.8		
1727	502.8		
1732	502.8		
1737	503.0		
1742	503.0		

BY: Carl Junker

GEOTHERMAL DIVISION

B6-513PT

SUBSURFACE PRESSURE SURVEY

76

OWNER Union Oil Co. of Cal. f. FIELD Redondo Valley WELL NAME Baca #6
 CASING 9 3/8" C. from surface to 795' ELEV 8700' 3726.61 DATE 1-16-73
 LINER DESCRIPTION: 7" liner from 692' to 3700'. Part. intervals ZERO POINT 14' above ground
from 2654'-2710'; 2980'-3177'; 3589'-3698' DEPTH 3715'

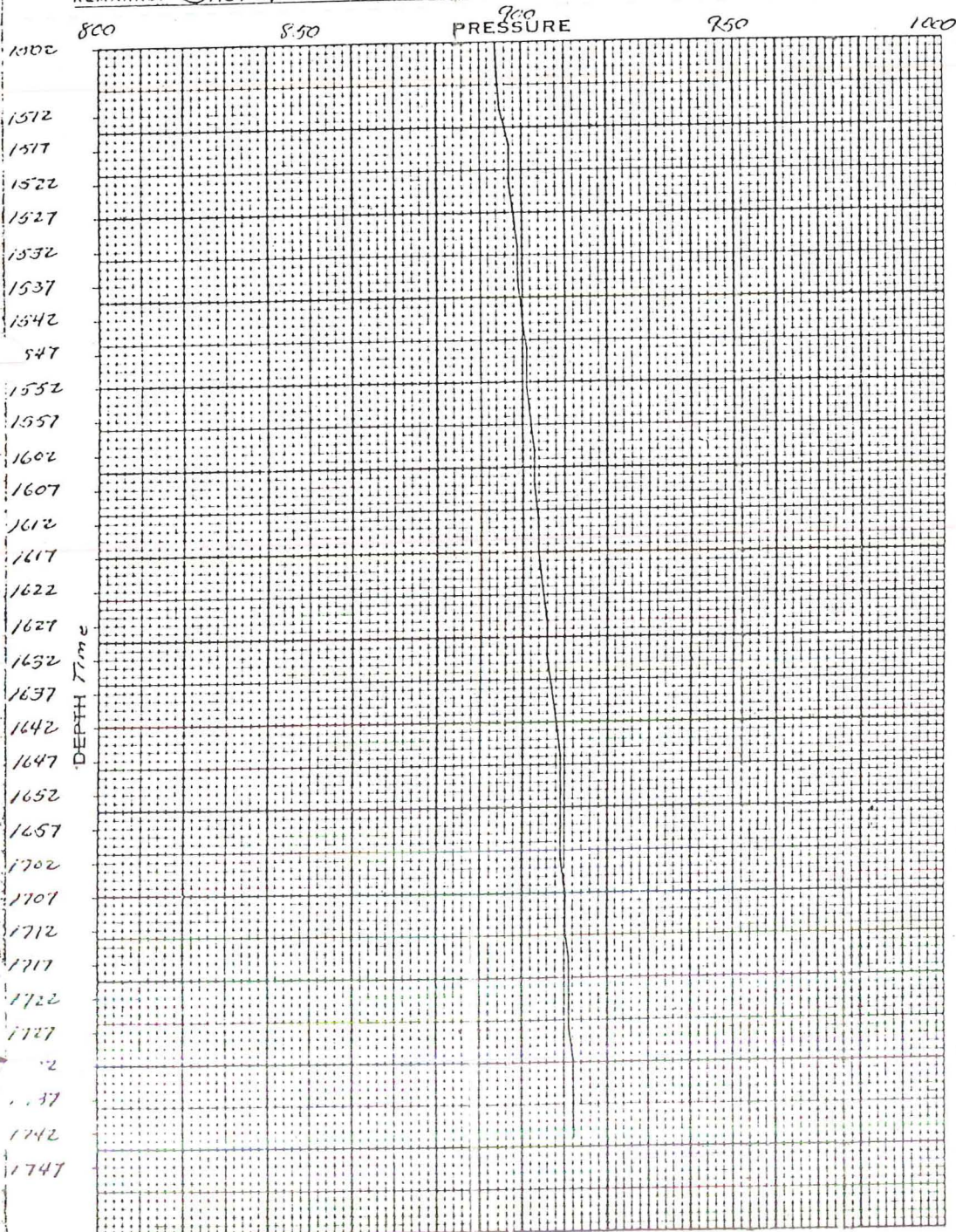
HOLE DESCRIPTION: _____

INSTRUMENT 3050
 SERIAL NO 7168N

PURPOSE Bottom hole pressure buildup @ 3690'
 REMARKS Shot-in well 1-16-73 @ 1133'

MAX TEMP 503.0 °F @ 1743'

STABILIZATION PERIOD _____



PRESSURES.	GAUGE	BOMB
CASING. PSI		

Time DEPTH	PRESSURE	GRADIENT
1502	893.79	
1512	894.83	
1517	896.90	
1522	896.90	
1527	897.93	
1532	898.97	
1537	898.97	
1542	900.00	
1547	901.03	
1552	901.03	
1557	902.07	
1602	903.10	
1607	903.10	
1612	904.14	
1617	904.14	
1622	905.17	
1627	906.21	
1632	906.21	
1637	907.24	
1642	908.28	
1647	909.31	
1652	909.31	
1657	909.31	
1702	909.31	
1707	910.34	
1712	910.34	
1717	911.38	
1722	911.38	
1727	911.38	
1732	912.41	
1737	912.41	
1742	912.41	
1743	912.41	

next Jan 1973

GEOHERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

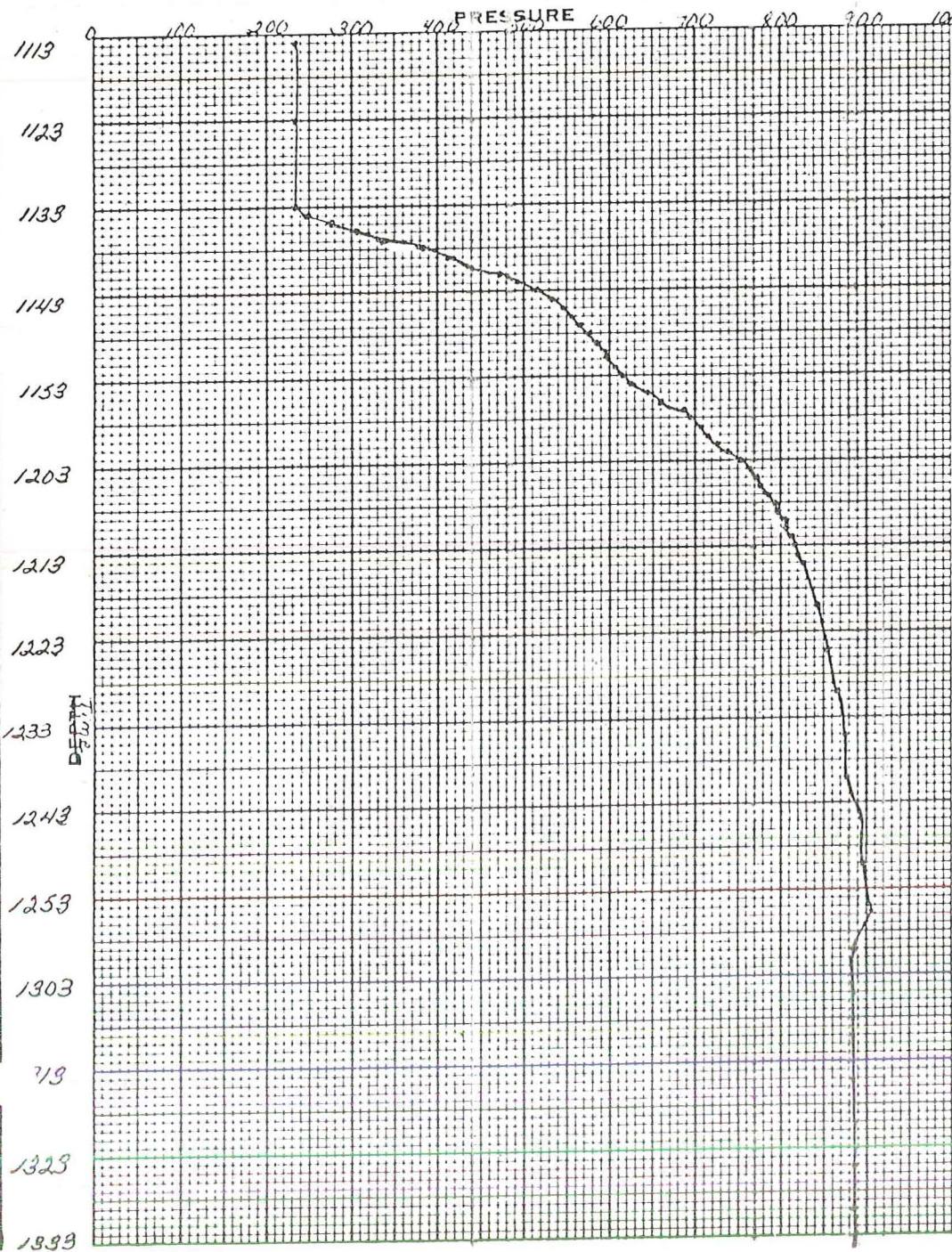
76

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Baca #6
 CASING 9 5/8" C from surface to 745' ELEV. 8700' DATE 1-16-73
 LINER DESCRIPTION: 7" liner from 692' to 3700', Perfor intervals ZERO POINT 14' above ground
from 2634'-2710'; 2956'-3177'; 3589'-3698' DEPTH 3715'

HOLE DESCRIPTION: _____ INSTRUMENT 2050 PSIC
 SERIAL NO 7168 N

PURPOSE Bottom hole pressure buildup @ 3690' MAX TEMP 887.59 °F @ Time 1333
 REMARKS: Shut-in well 1-16-73 @ 1333'

STABILIZATION PERIOD _____



PRESSURES.	GAUGE	BOMB
CASING. PSI		514 @ 0'

Time DEPTH	PRESSURE	GRADIENT
1113	232.82	1201 728.2
1123	232.87	1202 739.6
1133	232.87	1203 751.0
1134	249.65	1304 762.4
1135	279.02	1205 773.8
1136	305.25	1206 785.2
1137	309.18	1207 796.6
1138	351.44	1208 808.0
1139	416.34	1209 819.4
1140	444.27	1210 830.8
1141	471.13	1211 842.2
1142	491.75	1212 853.6
1143	519.40	1213 865.0
1144	531.96	1214 876.4
1145	546.79	1215 887.8
1146	555.88	1216 899.2
1147	565.07	1217 910.6
1148	575.23	1218 922.0
1149	585.57	1219 933.4
1150	594.52	1220 944.8
1151	599.94	1221 956.2
1152	592.87	1222 967.6
1153	597.94	1223 979.0
1154	604.7	1224 990.4
1155	614.48	1225 1001.8
1156	626.86	1226 1013.2
1157	642.41	1227 1024.6
1158	651.10	1228 1036.0
1159	694.48	1229 1047.4
1200	715.86	1230 1058.8

76

GEO THERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

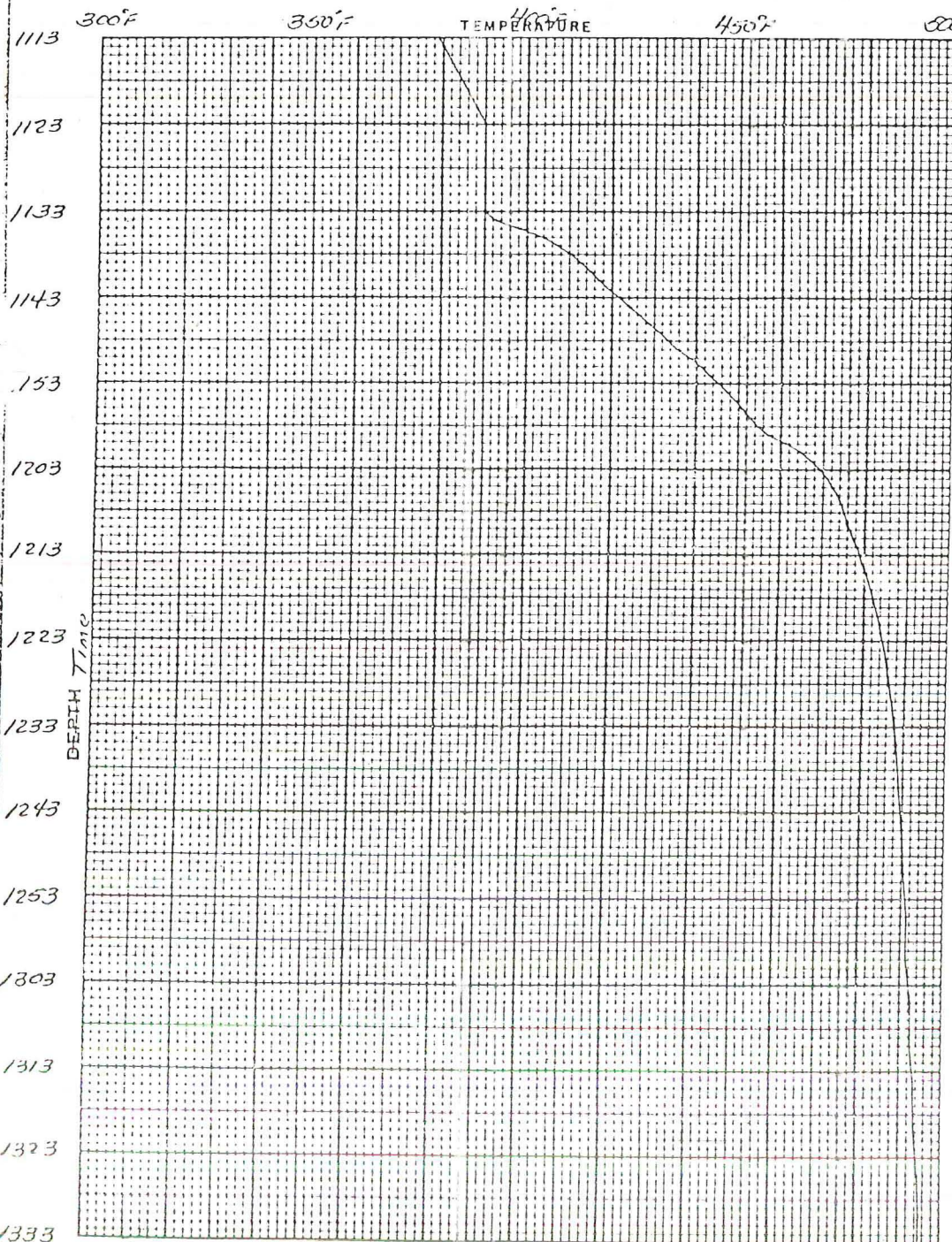
B6-512PT

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Raca #6
 CASING 9 5/8" C. from surface to 295' ELEV 8776' C.L. DATE 1-16-73
 LINER DESCRIPTION: 7" liner from 692' to 3700', Pert. intervals ZERO POINT 14' above ground
from 2634'-2710'; 2980'-3177'; 3559'-3698' DEPTH 3715'

HOLE DESCRIPTION:

INSTRUMENT 84°-646° FAI
 SERIAL NO KTB-10005

PURPOSE Bottom hole temperature buildup @ 3690' MAX TEMP 887.59° F @ 1333:55 Time
 REMARKS:



Time DEPTH	TEMP.	Time DEPTH	TEMP.
1113	378.7	1203	469.0
1123	390.3	1204	470.0
1133	390.3	1205	472.0
1134	392.7	1206	473.0
1135	398.5	1207	474.0
1136	404.1	1208	475.0
1137	407.5	1209	475.0
1138	410.4	1210	476.0
1139	412.8	1211	477.0
1140	415.2	1212	478.0
1141	417.3	1213	478.0
1142	419.7	1214	479.0
1143	422.1	1215	480.0
1144	424.0	1220	483.0
1145	426.6	1225	485.0
1146	428.7	1230	487.0
1147	431.4	1235	488.0
1148	433.5	1240	489.0
1149	435.9	1245	490.0
1150	438.5	1250	490.0
1151	441.2	1255	491.0
1152	443.3	1300	491.0
1153	445.7	1305	492.0
1154	447.6	1310	492.0
1155	449.7	1315	493.0
1156	451.3	1320	493.0
1157	453.1	1325	494.0
1158	454.7	1330	494.0
1159	457.6	1333:57	494.0
1200	461.6		
1201	464.8		
1202	467.5		

BY: Carl Junker

UNION

GEO THERMAL DIVISION B6-512PT

SUBSURFACE PRESSURE SURVEY

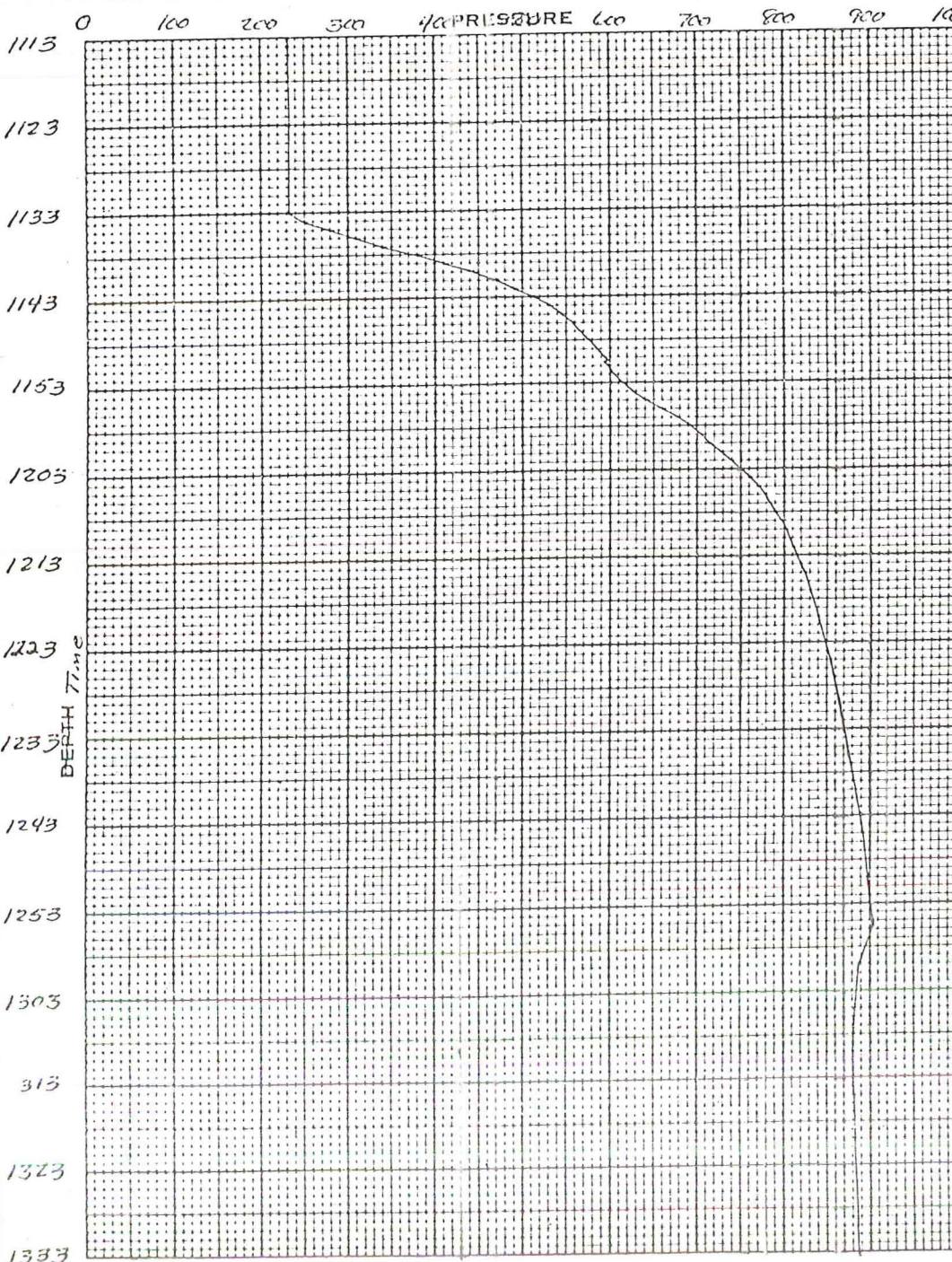
76

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Baca #6
 CASING 9 5/8" C. from surface to 295' ELEV 8700' 8726' DATE 1-16-73
 LINER DESCRIPTION: 7" liner from 692' to 3700' Perf. intervals ZERO POINT 14' above ground
from 2634'-2710'; 2780'-3177'; 3589'-3698' DEPTH 3715'

HOLE DESCRIPTION: _____ INSTRUMENT 2050
 SERIAL NO 7168N

PURPOSE Bottom hole pressure buildup @ 3690' MAX TEMP 887.59°F @ 1333'
 REMARKS: Spit-in well 1-16-73 @ 1133'

STABILIZATION PERIOD
 Well SI 1133 1-16-73



PRESSURE	GAUGE	BOM
CASING, PSI		51.4 @ C

Time	PRESSURE	GRADIE
1113	231.82	
1123	232.87	
1133	232.87	
1134	249.65	
1135	279.02	
1136	308.25	
1137	339.18	
1138	381.44	
1139	411.34	
1140	444.33	
1141	471.13	
1142	491.75	
1143	513.40	
1144	531.96	
1145	546.39	
1146	557.73	
1147	567.01	
1148	577.32	
1149	585.57	
1150	594.85	
1150:19	597.94	
1150:37	598.81	
1151	597.94	
1152	604.14	
1153	614.48	
1154	626.90	
1155	642.41	
1156	660.0	
1157	677.59	
1158	693.10	
1159	704.48	
1200	715.86	

BY: Carl Junker

76

UNION GEOHERMAL DIVISION

B6-512PT.c

SUBSURFACE PRESSURE SURVEY

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Baco #6
 CASING 9 7/8" C. From surface to 795' ELEV. 8700' 8726.61 DATE 1-16-73
 LINER DESCRIPTION: 7" liner from 692' to 3700'. Part. intervals ZERO POINT 14' above ground
from 2634'-2710'; 2980'-3177'; 3589'-3698' DEPTH 3715'

HOLE DESCRIPTION: _____

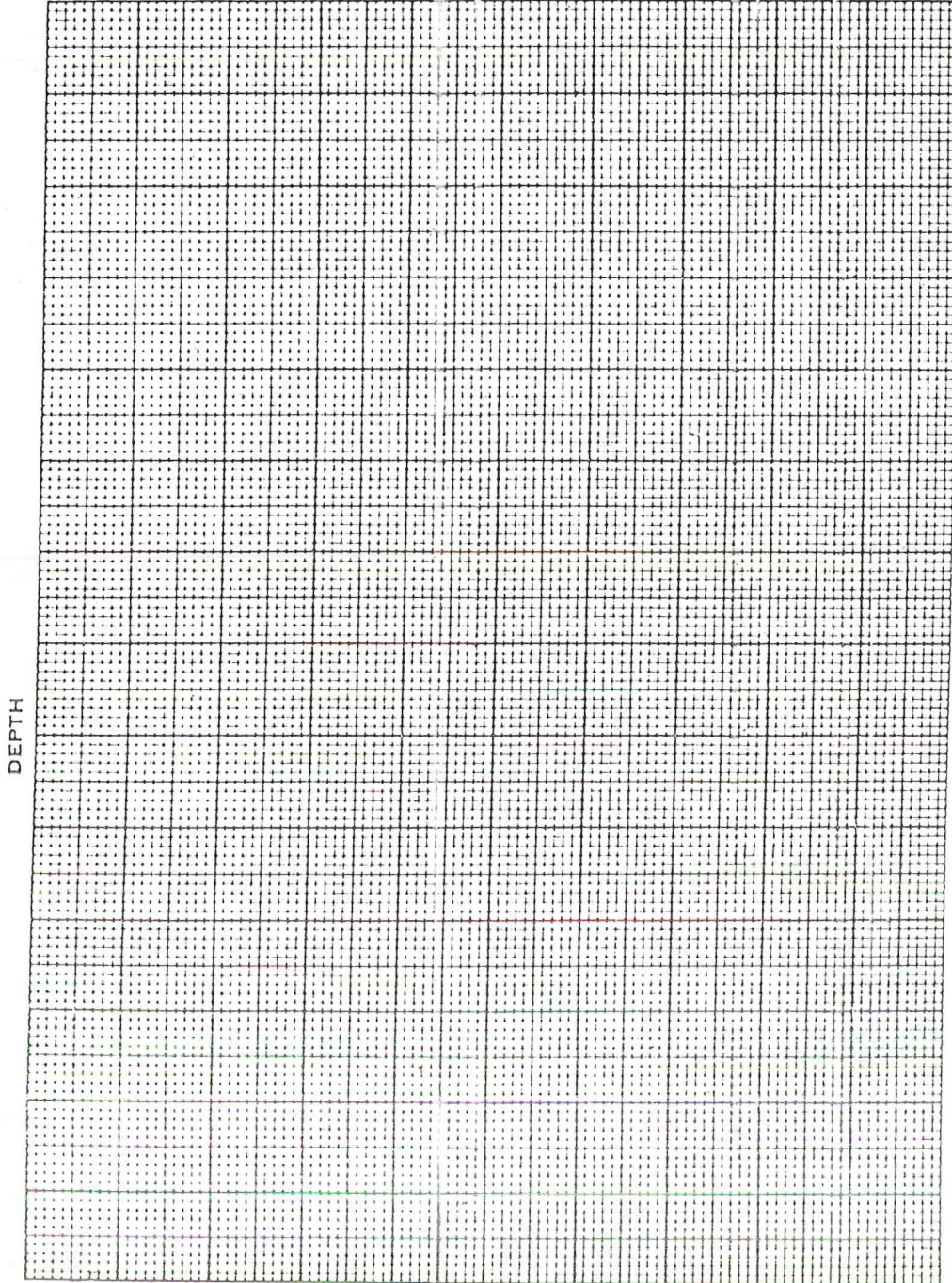
INSTRUMENT 2050 PS
 SERIAL NO 7168N

PURPOSE Bottom hole pressure buildup @ 3690'
 REMARKS: Shut-in well 1-16-73 @ 1133

MAX TEMP 887.59 °F @ 1133:57 Time

PRESSURE

STABILIZATION PERIOD



PRESSURES.	GAUGE.	BOMB
CASING, PSI		

Time DEPTH	PRESSURE	GRADIENT
1201	728.28	
1202	739.66	
1203	751.03	
1204	762.41	
1205	771.72	
1206	778.97	
1207	785.17	
1208	791.38	
1209	797.59	
1210	801.72	
1211	806.90	
1212	811.03	
1213	816.21	
1214	820.34	
1215	824.48	
1220	841.03	
1225	854.48	
1230	865.86	
1235	875.17	
1240	883.45	
1245	891.72	
1250	897.93	
1255	903.10	
1255:47	903.10	
1300	887.59	
1305	882.41	
1310	881.38	
1315	882.41	
1320	883.45	
1325	885.52	
1330	886.55	
1333:57	887.59	

BY: Carl Junker

76

WINN

GEO THERMAL DIVISION

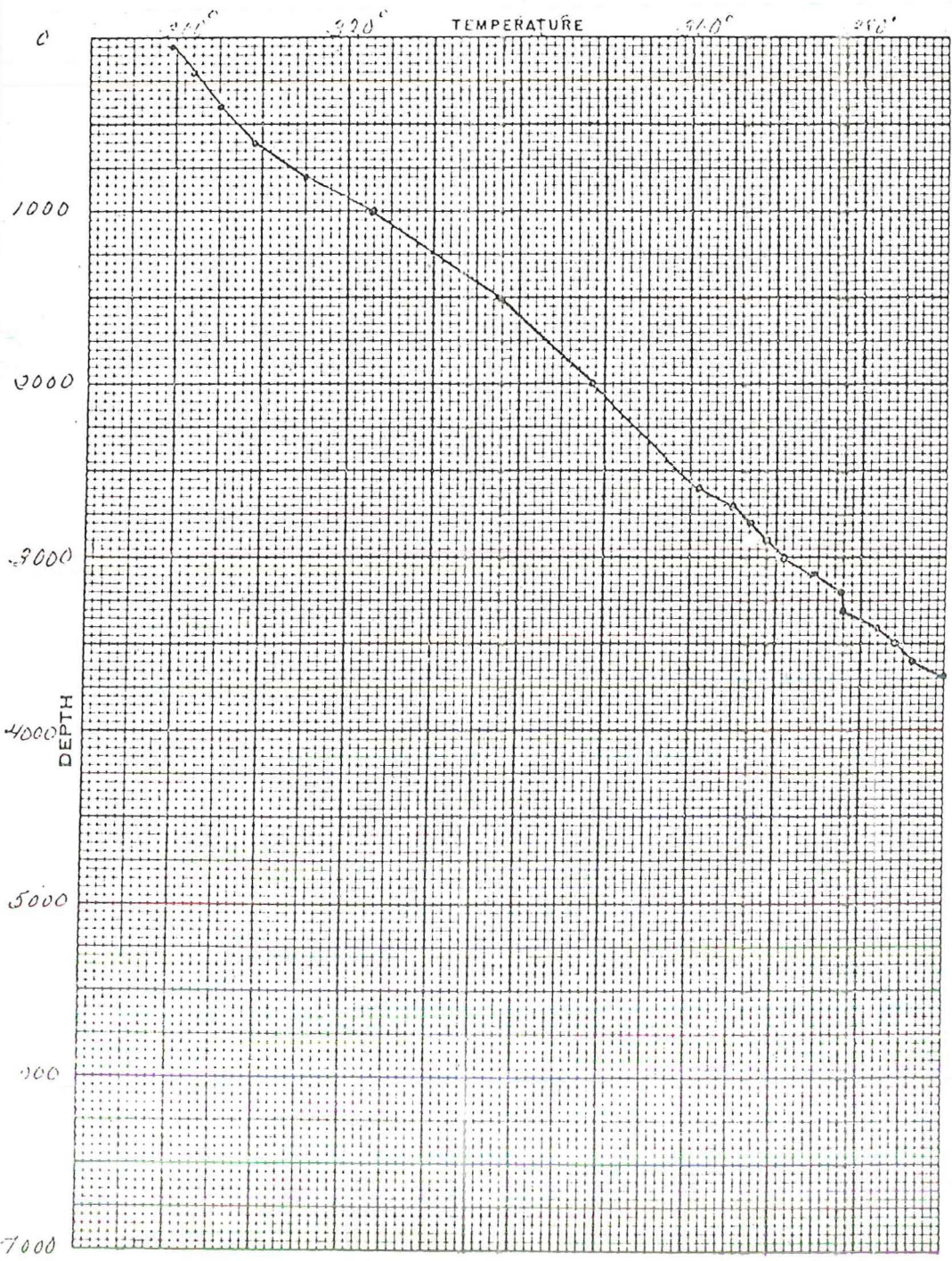
SU DSURFACE TEMPERATURE SURVEY

B6-311PT
(FLOWING)

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Baca #6
 CASING 2 3/4" ID from surface to 985' ELEV 3726' DATE 1-14-73
 LINER DESCRIPTION: 7" liner from 692' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2633' to 2710'; DEPTH 3715'
2986' to 3176'; 3589' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT 840F - 6460 FAH
 SERIAL NO RTB-10005

PURPOSE Tandem Temperature and Pressure Flowing Survey MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES,	GAUGE	BOMB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEM
50	298.2	65.21	
200	302.2	17.25	
400	305.3	75.51	
600	309.3	72.75	
800	315.3	53.81	
1000	323.0	7.53	
1500	337.5	114.13	
2000	348.7	132.50	
2600	361.7	156.36	
2700	365.0	162.75	
2800	367.2	167.41	
2900	369.4	172.10	
3000	371.6	176.77	
3100	374.6	183.41	
3200	377.6	190.30	
3300	379.8	195.01	
3400	382.0	200.61	
3500	384.2	205.70	
3600	386.4	211.00	
3690	390.3	211.10	

BY: _____

GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B6-311PT
(FLOWING)

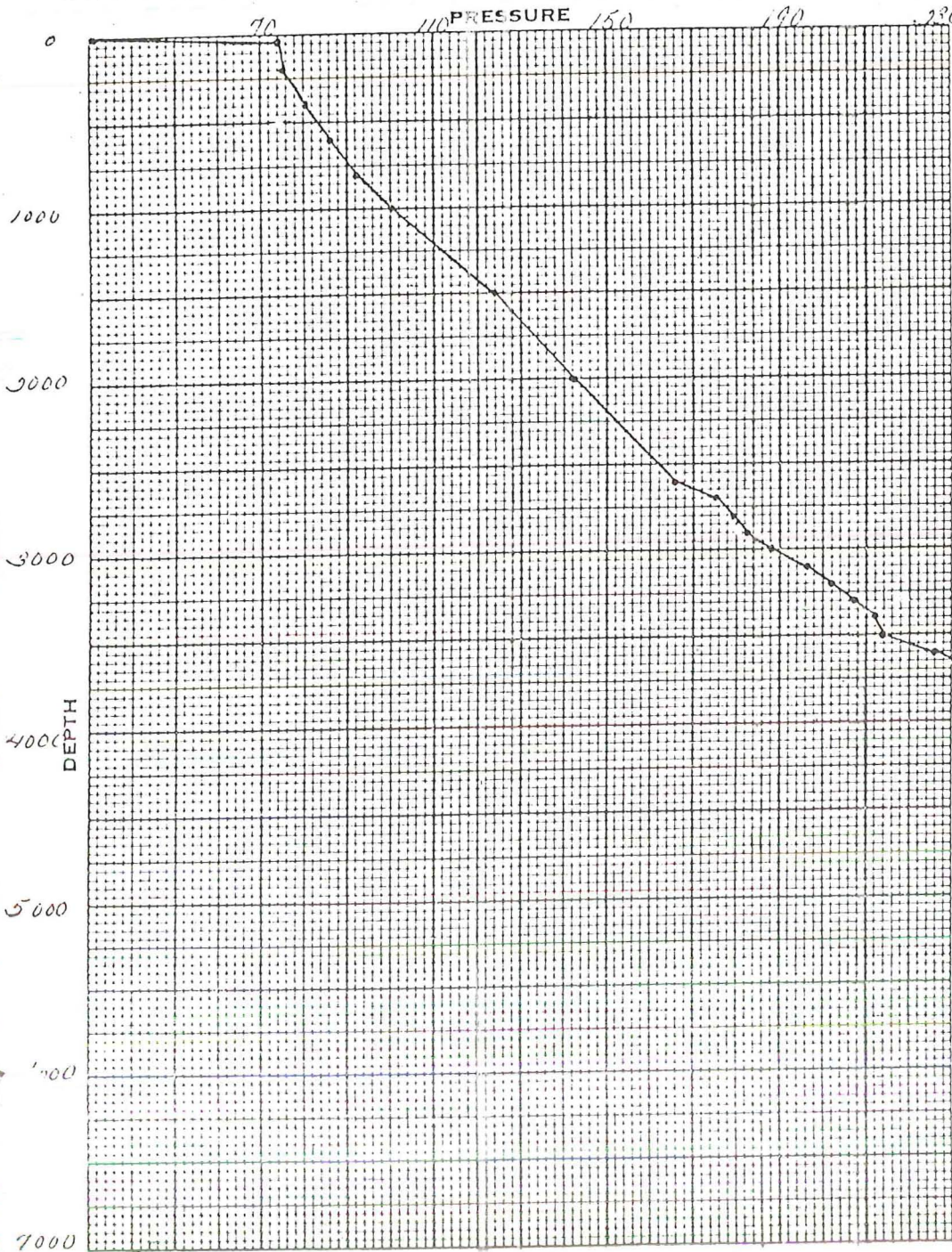
76

OWNER Union Oil Co. of Calif. FIELD Redondo Valley WELL NAME Baca # 6
 CASING 2 1/2" C. from surface to 795' ELEV 8726 DATE 1-14-73
 LINER DESCRIPTION: 7" liner from 192' to 3700' ZERO POINT 14' above ground
Decorated intervals from 2633' to 2710'; DEPTH 3715'
2980' to 3176'; 3589' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT 2050 PSI
 SERIAL NO 7168 N

PURPOSE Tandem Temperature and Pressure Flowing Survey MAX TEMP _____ °F @ _____

REMARKS: _____ STABILIZATION PERIOD _____



DEPTH	PRESSURE	GRADIENT
0	50.35	57.8
50	74.45	51.2
100	75.52	51.5
200	81.82	52.8
400	86.02	53.5
600	92.31	54.2
800	102.85	55.5
1000	124.83	58.8
1500	142.66	61.1
2000	166.78	66.6
2700	175.17	68.2
2800	179.37	69.8
2900	183.57	71.4
3000	188.81	73.0
3100	194.15	74.6
3200	202.45	77.0
3300	207.69	78.6
3400	212.94	80.2
3500	219.23	82.8
3600	226.57	85.4
5690	237.86	110.0

BY: _____

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GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY

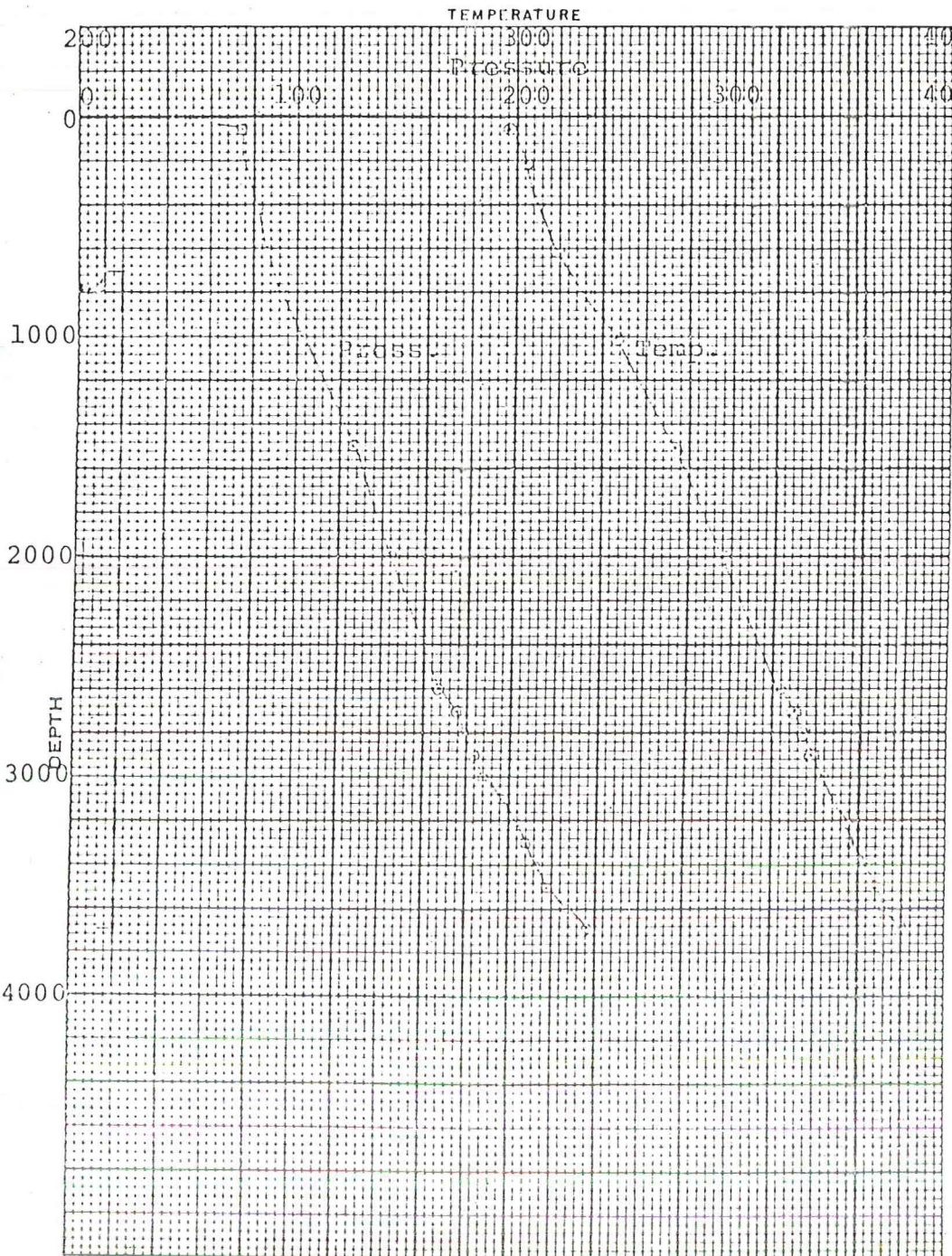
B6-511PT
(FLOWING)

OWNER Union Oil Co. of California FIELD Redondo Valley WELL NAME Baca No. 6
 CASING 9-5/8" C from surface to 795' ELEV 8726 DATE: Jan. 14, 1973
 LINER DESCRIPTION: 7" liner from 692' to 3700' ZERO POINT 14' above gl
 DEPTH _____

HOLE DESCRIPTION: _____

INSTRUMENT 84° - 646° FAH
 SERIAL NO KT-B 10005

PURPOSE Tandem Temperature & Pressure Flowing Survey MAX TEMP _____ °F @ _____
 REMARKS: _____ Flow rate 146,000 lb/h



STABILIZATION PERIOD _____

PRESSURES.	GAUGE	DOB
CASING. PSI		

DEPTH	TEMP.	DEPTH	TEMP.
Depth	Pres.	Grad.	Temp.
0	50.35		
50	74.48	.483	298.
200	75.52	.007	302.
400	81.82	.032	305.
600	86.02	.021	309.
800	92.31	.031	315.
1000	103.85	.058	323.
1500	124.83	.042	337.
2000	142.66	.036	348.
2600	166.78	.042	361.
2700	175.17	.083	365.
2800	179.37	.042	367.
2900	183.57	.042	369.
3000	188.81	.052	371.
3100	196.15	.073	374.
3200	202.45	.063	377.
3300	207.69	.052	379.
3400	212.94	.053	382.
3500	219.23	.070	384.
3600	226.57	.073	386.
3690	237.06	.117	390.

BY: JUNKER

GEOHERMAL DIVISION

B6-510P

SUBSURFACE PRESSURE SURVEY

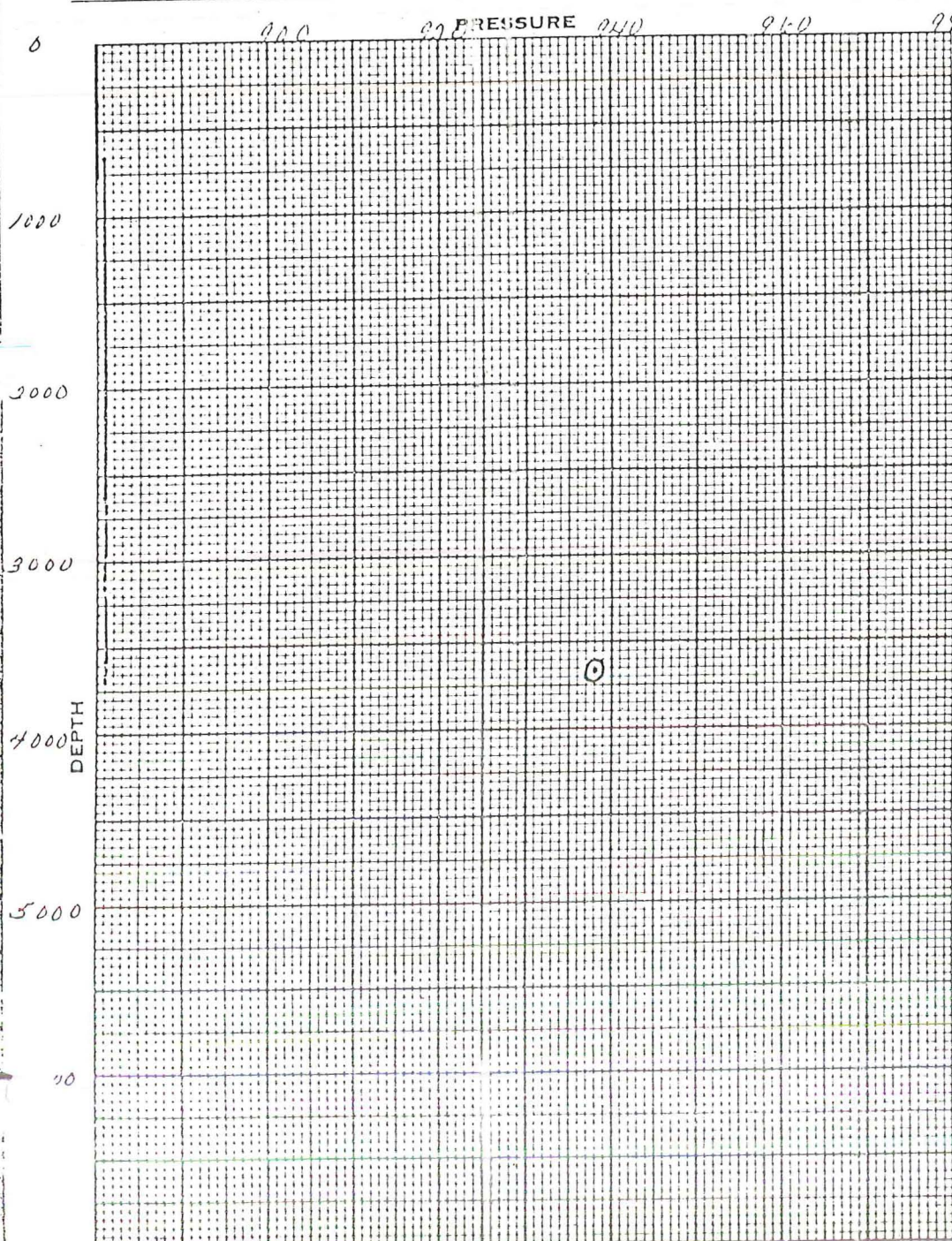
76

OWNER Acad Land & Cattle Co FIELD Redondo Valley WELL NAME Boca # 6
 CASING 2 3/4" C. from surface to 795' ELEV 8726 DATE 11/6/72
 LINER DESCRIPTION: 7" liner from 692' to 3700' ZERO POINT 14' above ground
Percutated intervals from 2633'-2710'; DEPTH 3715'
2786'-3176'; 3539'-3698'

HOLE DESCRIPTION: _____ INSTRUMENT 2050 PS
 SERIAL NO 7168 N

PURPOSE Static Bottom Hole Pressure Buildup MAX TEMP _____ °F @ _____

REMARKS: _____ STABILIZATION PERIOD
55 0957 11-3-72
ST TIME 4.348 MINS



PRESSURES.	GAUGE	BOMB
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
3490	931.28	
3690	943.28	
(CORRECTED FOR TEMP)		

BY: _____

UNION

GEOHERMAL DIVISION

B6-59P

SUBSURFACE PRESSURE SURVEY

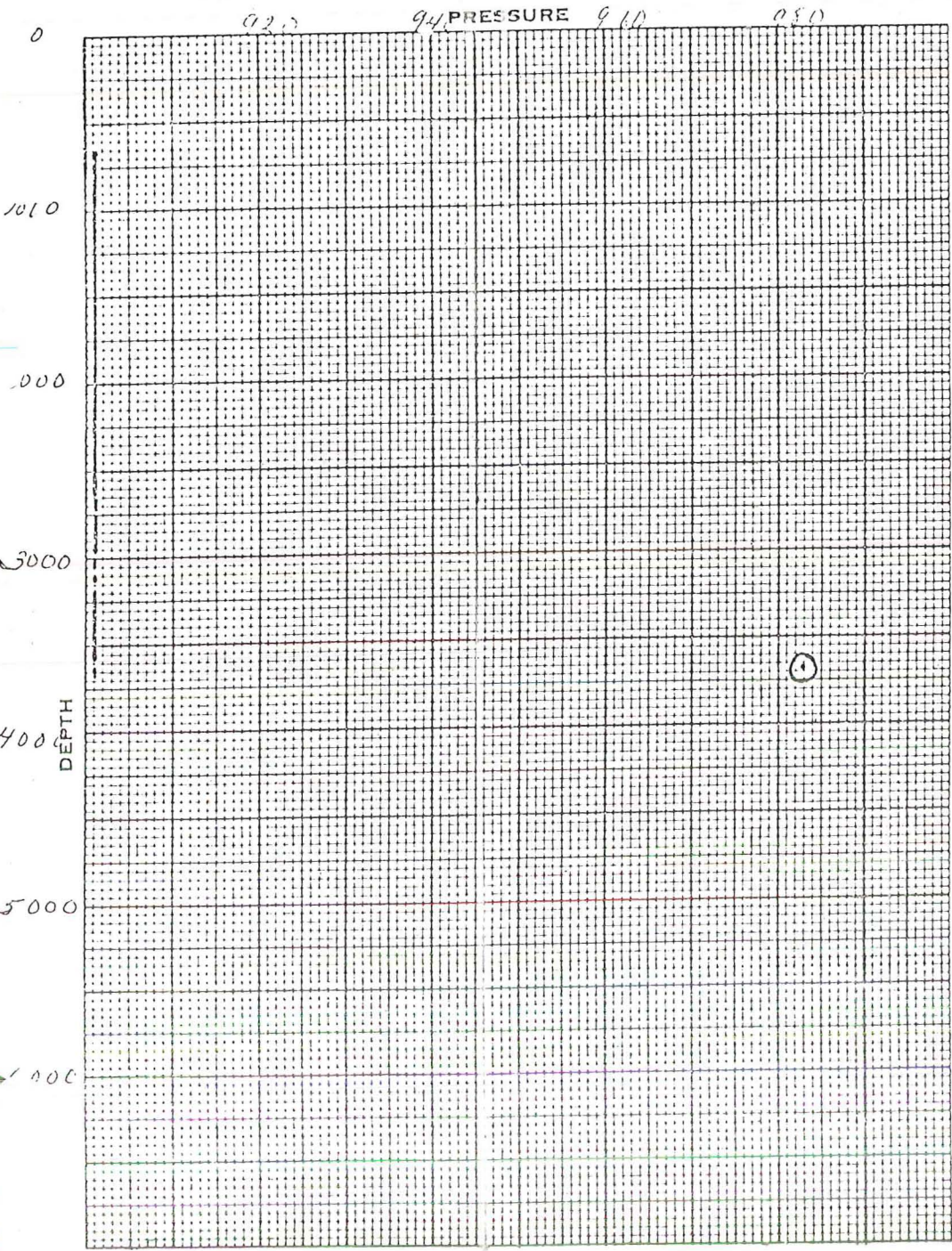
76

OWNER Baca Land & Cattle Co. FIELD Redondo Valley WELL NAME Baca # 6
 CASING 4 5/8" O from surface to 995' ELEV 5726 DATE 11/15/72
 LINER DESCRIPTION: 7" liner from 295' to 3900' ZERO POINT 1.4' above ground
Potterated intervals from 3633' to 3910' DEPTH 3915'
3956' to 3976'; 3589' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT 2050 PS
 SERIAL NO 7168 N

PURPOSE Static Bottom Hole Pressure Buildup MAX TEMP _____ °F @ _____
 REMARKS: _____

STABILIZATION PERIOD
SI 0957 11-3-72
SI 3153 11/15/72



PRESSURES	GAUGE	BOMB
CASING. PSI		

DEPTH PRESSURE GRADIENT
3690 983.79
 Time 1300

BY: _____

UNION

GEOHERMAL DIVISION 86-58P

SUBSURFACE PRESSURE SURVEY

76

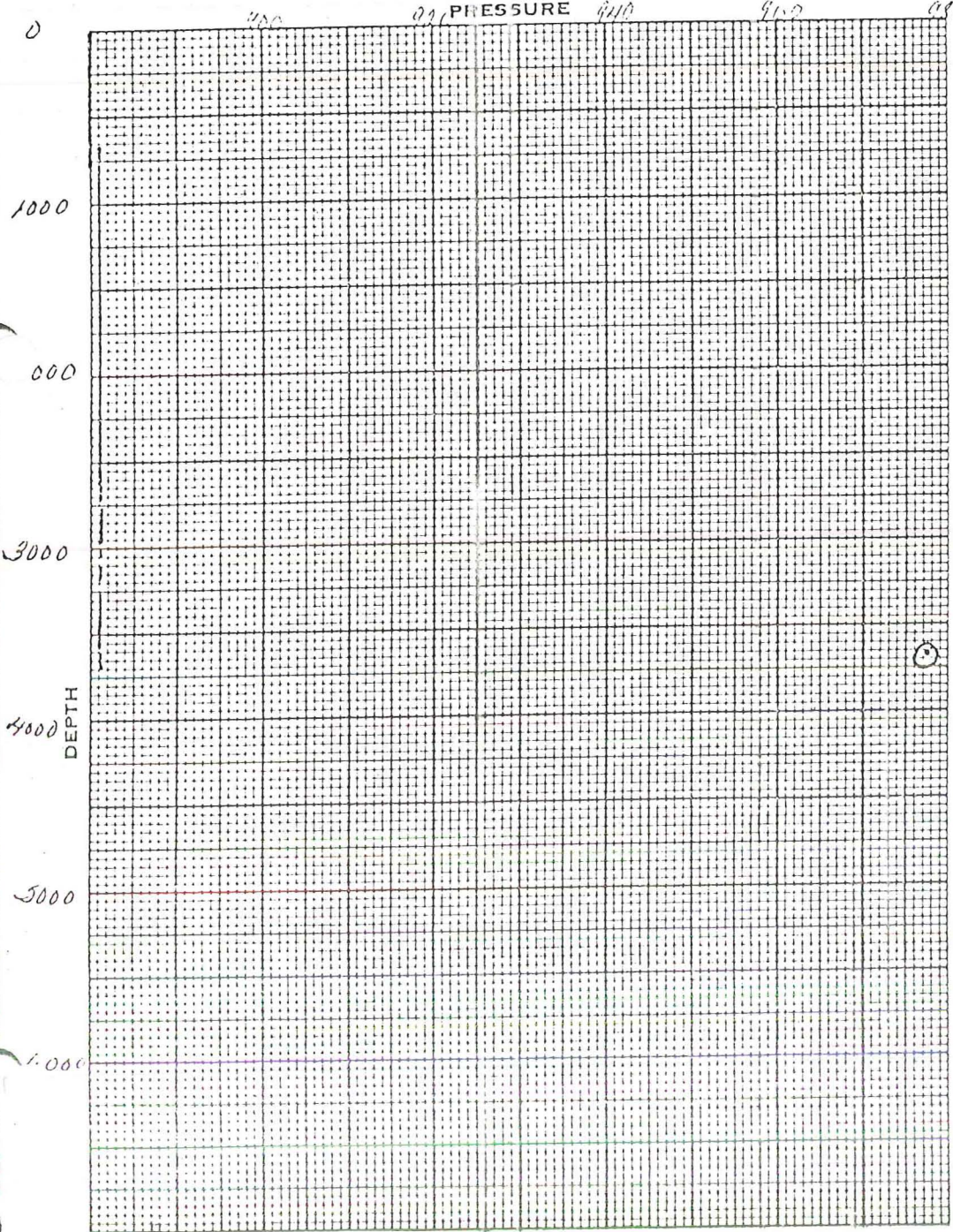
OWNER Baca Land & Cattle Co. FIELD Redondo Valley WELL NAME Baca #6
 CASING 9 5/8" C. from surface to 795' ELEV 8726 DATE 11/4/72
 LINER DESCRIPTION: 7" liner from 692' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2693' to 2710', 2986' to DEPTH 3715'
3176', 3589' to 3698'

HOLE DESCRIPTION: _____ INSTRUMENT J050 PSIG
 SERIAL NO 7168N

PURPOSE Static Bottom Hole Pressure Build up MAX TEMP _____ °F @ _____

REMARKS: _____

STABILIZATION PERIOD
SI 0957 11-3-72
1533 MINs S.I.



PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH PRESSURE GRADIENT
3690 978.62

Time 1130

BY: _____

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GEOTHERMAL DIVISION B6-57P

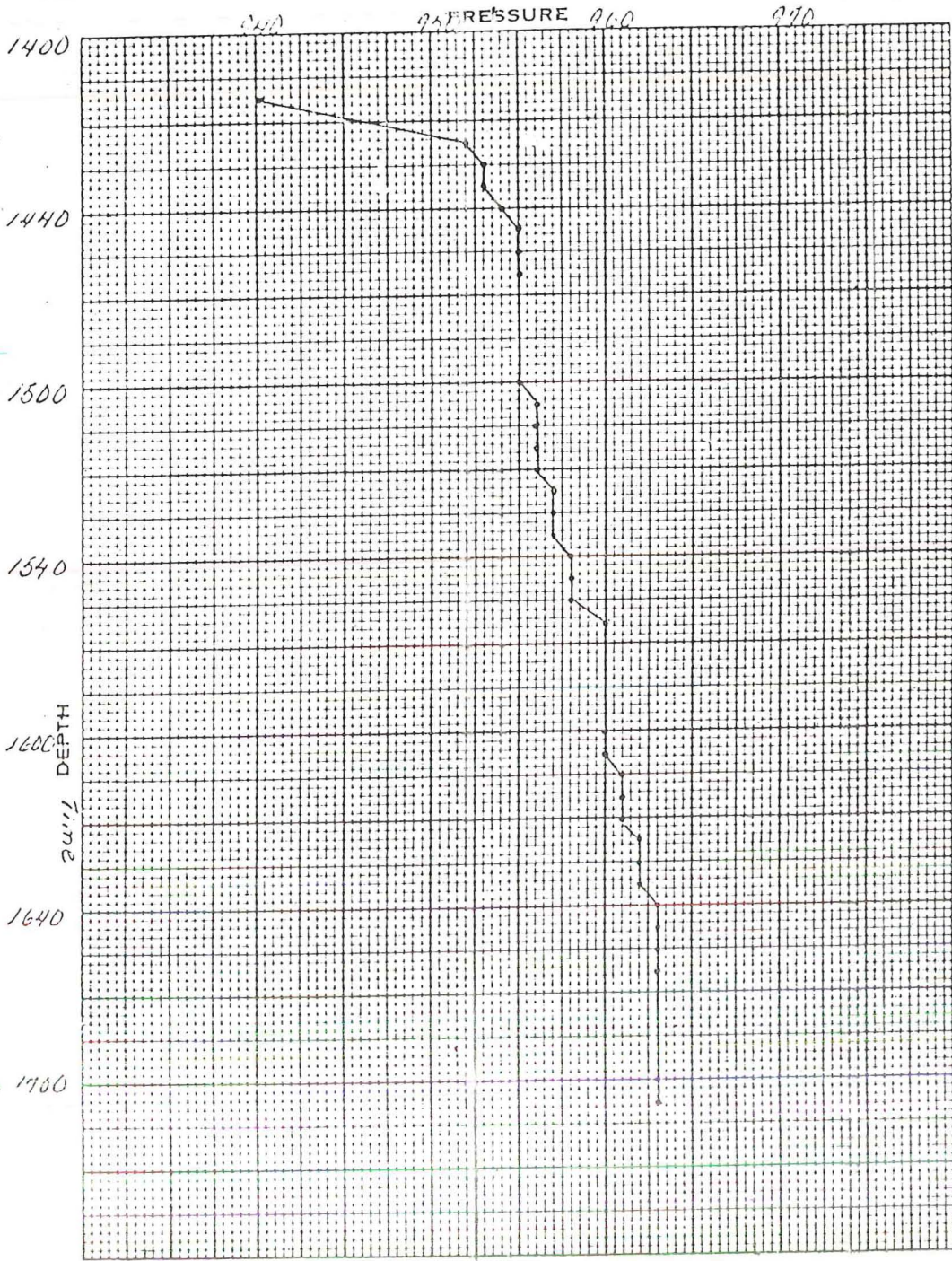
SUBSURFACE PRESSURE SURVEY

OWNER Baca Land & Cattle Co FIELD Redondo Valley WELL NAME Baca #6
 CASING 2 5/8" c. from surface to 795' ELEV 3736 DATE 11/3/72
 LINER DESCRIPTION: 7" liner from 692' to 8700' ZERO POINT 14' above ground
 DEPTH 3715'

HOLE DESCRIPTION: _____ INSTRUMENT 2050 PS
 SERIAL NO 7168N

PURPOSE Static Bottom Hole Pressure Buildup MAX TEMP _____ °F @ _____

REMARKS: _____ STABILIZATION PERIOD
21 0937 11-3-72



PRESSURES.	GAUGE	BOMB
CASING. PSI		
DEPTH	PRESSURE	GRADIENT
1415	940.34	
1425	952.76	
1430	953.74	
1435	953.79	
1440	954.83	
1445	955.86	
1450	955.86	
1455	955.86	
1500	955.86	
1505	956.90	
1510	956.90	
1515	956.90	
1520	956.90	
1525	957.93	
1530	957.93	
1535	957.93	
1540	958.97	
1545	958.97	
1550	958.97	
1555	960.00	
1600	960.00	
1605	960.00	
1610	961.03	
1615	961.03	
1620	961.03	
1625	962.07	
1630	962.07	
1635	962.07	
1640	963.10	
1645	963.10	
1650	963.10	
1655	963.10	
1700	968.12	
1705	968.12	

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UNION
GEO THERMAL DIVISION

B6-36P

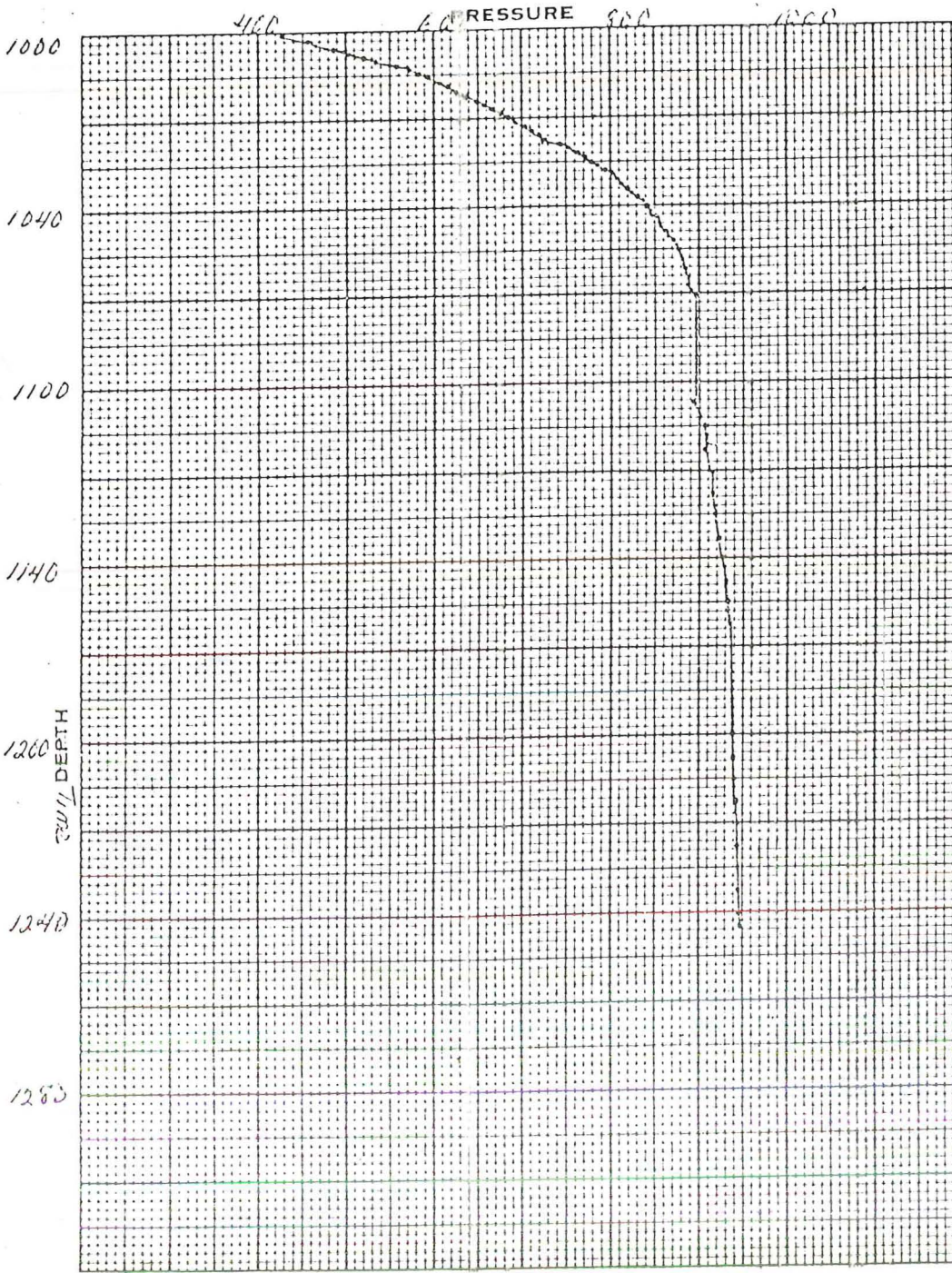
SUBSURFACE PRESSURE SURVEY

OWNER Bova Land & Cattle Co. FIELD Redondo Valley WELL NAME Bore # 6
 CASING 7 3/4" P from surface to 495' ELEV 5126 DATE 11/3/72
 LINER DESCRIPTION: 7" liner from 692' to 5900' ZERO POINT 1" above ground
 DEPTH 9715'

HOLE DESCRIPTION: _____ INSTRUMENT 2050 P.
 SERIAL NO 7168 N

PURPOSE Static BH Pressure Buildup MAX TEMP _____ °F @ _____
 REMARKS: _____

STABILIZATION PERIOD
SI 0757 11-3-72



PRESSURES.	GAUGE	BOMB
CASING. PSI		
TIME DEPTH	PRESSURE	GRADIENT
1056	92.36	1033 801.
1061	102.54	1034 802.
1062	112.61	1035 803.
1063	116.98	1036 819.
1064	125.57	1037 822.
1065	136.19	1038 830.
1066	142.28	1039 834.
1067	148.36	1040 838.
1068	157.78	1041 845.
1069	162.16	1042 848.
1070	163.51	1043 851.
1071	166.71	1044 855.
1072	168.38	1045 859.
1075	171.62	1046 862.
1074	173.27	1047 864.
1075	175.31	1048 867.
1076	176.69	1049 869.
1077	178.97	1050 874.
1078	177.34	1051 877.
1079	176.55	1052 879.
1080	174.53	1053 881.
1081	175.12	1054 883.
1082	175.45	1055 884.
1083	171.62	1056 881.
1084	168.05	1057 877.
1085	172.41	1058 881.
1086	171.73	1059 880.
1087	172.63	1060 881.
1088	172.41	1065 881.
1089	172.69	1110 902.
1090	171.73	1115 907.
1091	185.17	1120 912.
1092	193.45	1135 915.

GEOTHERMAL DIVISION

B6-56P

SUBSURFACE PRESSURE SURVEY

76

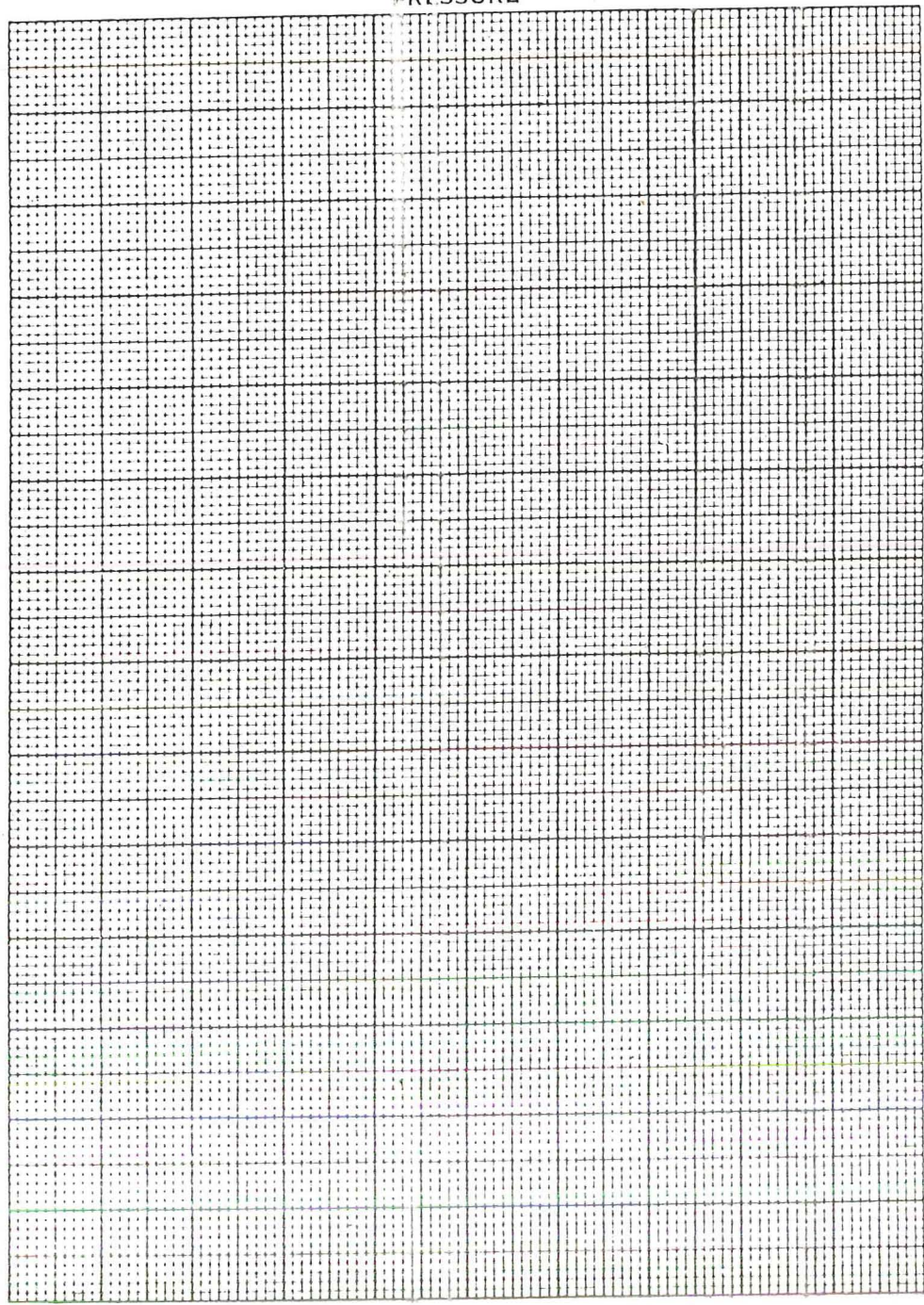
OWNER Baca Land & Cattle Co. FIELD Redondo Valley WELL NAME Baca #16
 CASING _____ ELEV. 8726 DATE 11/3/72
 LINER DESCRIPTION: _____ ZERO POINT 14' above ground
 _____ DEPTH 2715'

HOLE DESCRIPTION: _____ INSTRUMENT _____ P
 _____ SERIAL NO _____

PURPOSE _____ MAX TEMP _____ °F @ _____
 REMARKS: _____

STABILIZATION PERIOD

PRESSURE



PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	Time	PRESSURE	GRADE
1130		919.66	
1135		922.79	
1140		926.90	
1145		930.00	
1150		933.07	
1155		935.17	
1200		936.21	
1215		938.28	
1210		939.31	
1215		941.35	
1220		942.41	
1225		943.45	
1230		944.48	
1235		945.52	
1240		946.55	
1243		947.59	

BY:

76

UNION

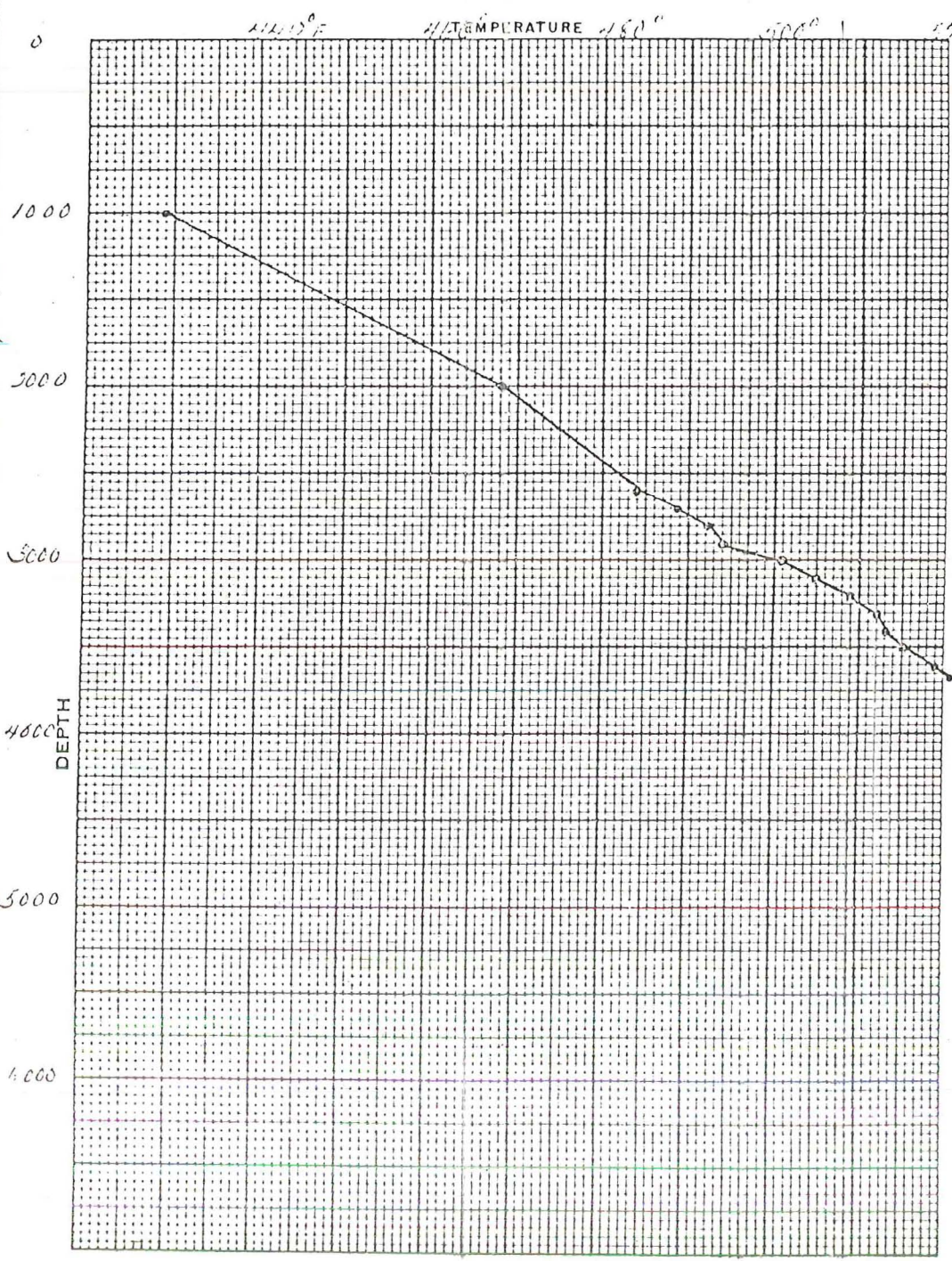
GEOTHERMAL DIVISION
SUBSURFACE TEMPERATURE SURVEY

B6-55 PT

OWNER Baca Land & Cattle Co FIELD Redondo Valley WELL NAME Baca #6
 CASING 4 1/2" D. from surface to 795' ELEV 8726 DATE 10/24/72
 LINER DESCRIPTION: 7" liner from 1022' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2699'-2710'; 2986'-3176' DEPTH 3715'

HOLE DESCRIPTION: 3589' - 3698'
 INSTRUMENT 84°F - 646°F FAM
 SERIAL NO KTB-10005

PURPOSE _____ MAX TEMP _____ °F @ _____
 REMARKS: _____



STABILIZATION PERIOD _____

PRESSURES	GAUGE	ROSB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
1000	429.0		
2000	465.0		
2600	484.7		
2700	488.9		
2800	492.1		
2900	494.2		
3000	501.7		
3100	505.1		
3200	509.4		
3300	513.0		
3400	513.5		
3500	515.6		
3600	519.7		
3690	522.7		

BY: _____

UNION

GEOHERMAL DIVISION

B6-55PT

SUBSURFACE PRESSURE SURVEY

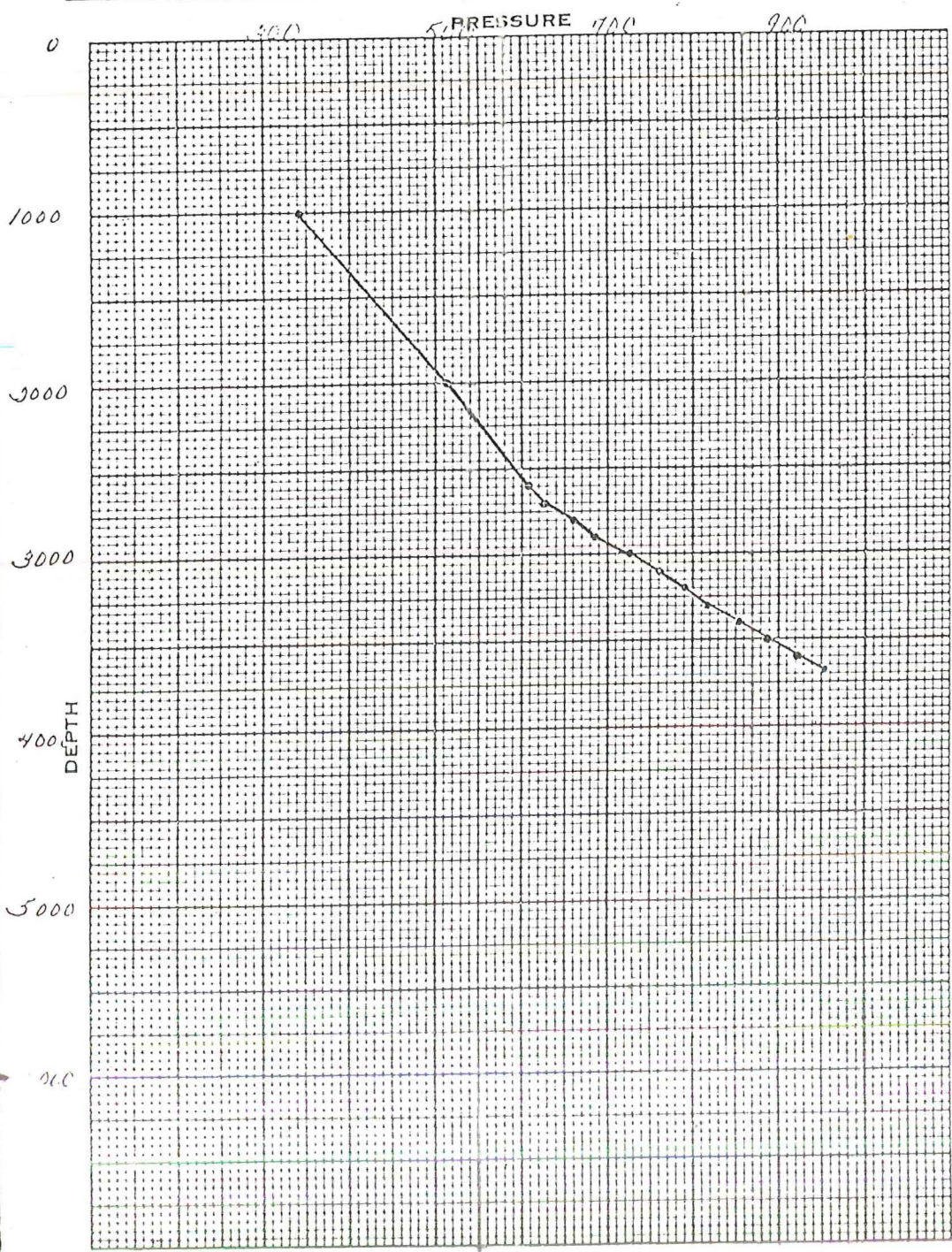
76

OWNER Baca Land & Cattle Co FIELD Redondo Valley WELL NAME Baca # 6
 CASING 4 1/2" C. from surface to 995' ELEV 5726 DATE 10/24/72
 LINER DESCRIPTION: 7" liner from 692' to 3700' ZERO POINT 14' above ground
Perforated intervals from 2633'-2710'; DEPTH 3715'
2986'-3176';

HOLE DESCRIPTION: 3599' - 3698' INSTRUMENT 2050 PS
 SERIAL NO 7168 N

PURPOSE _____ MAX TEMP _____ °F @ _____
 REMARKS: _____

STABILIZATION PERIOD
SI 1146 10-15-72



PRESSURES.	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
1000	340.21	
2000	512.37	
2600	606.21	
2700	627.93	
2800	660.00	
2900	694.14	
3000	727.24	
3100	760.34	
3200	790.34	
3300	819.31	
3400	852.41	
3500	886.55	
3600	922.76	
3698	933.79	

BY: _____

UNION

GEOHERMAL DIVISION

B6-SAP

SUBSURFACE PRESSURE SURVEY

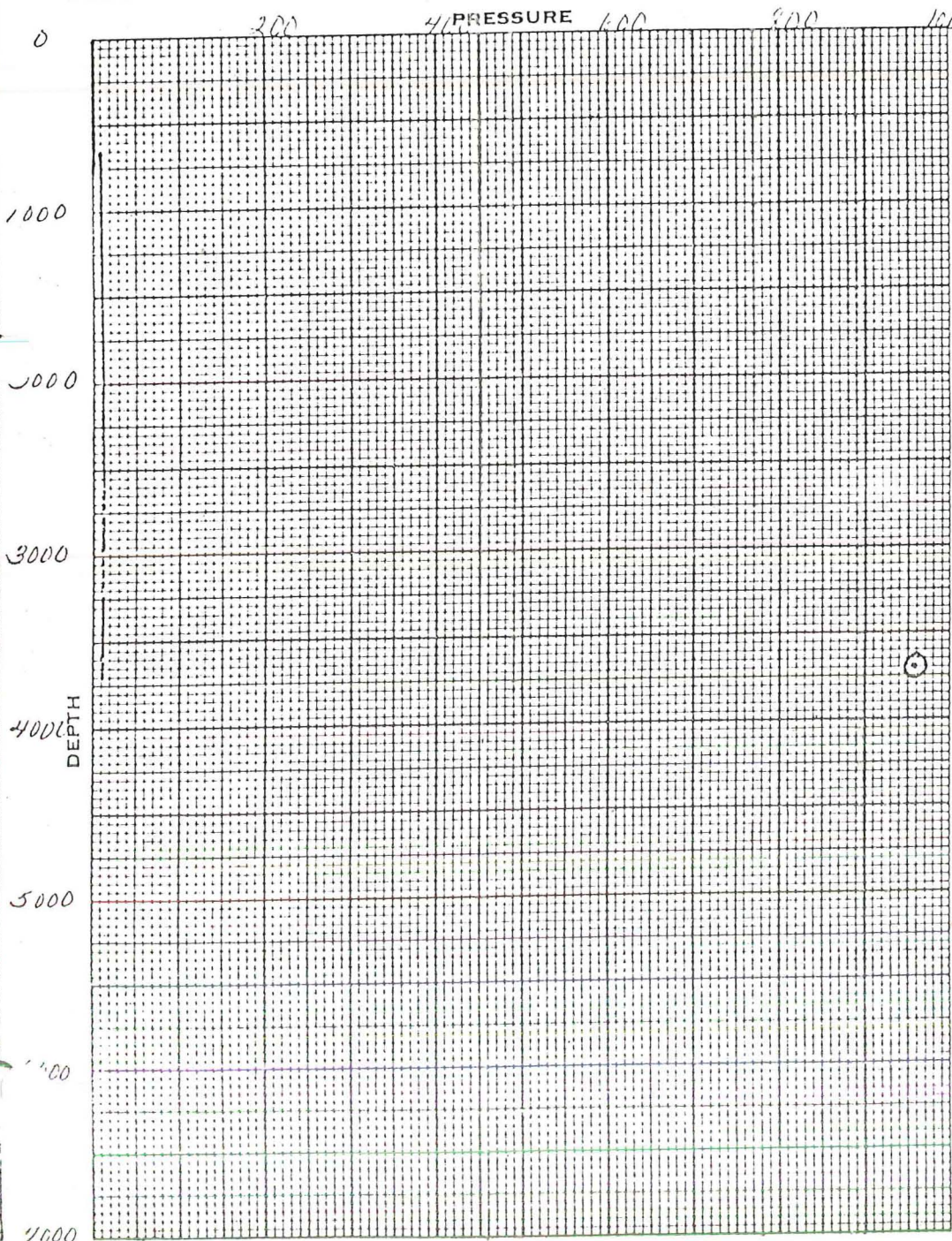
76

OWNER Baca Land & Cattle Co. FIELD Redondo Valley WELL NAME Baca #6
 CASING 9 5/8" C. from surface to 795' ELEV 8726 DATE 10/16/72
 LINER DESCRIPTION: 7" liner from 692' to 3700' ZERO POINT _____
Perforated intervals from 2638' to 2710'-2986' to 3176' DEPTH _____

HOLE DESCRIPTION: 3589' to 3698' INSTRUMENT J400 PSI
 SERIAL NO 6604N

PURPOSE Static Bottom Hole Pressure Buildup MAX TEMP _____ °F @ _____
 REMARKS: _____

STABILIZATION PERIOD
5I 1146 10-15-72



PRESSURES.	GAUGE	BOMB
CASING. PSI		

DEPTH 3690 PRESSURE 959.33 GRADIENT _____
 TIME 10:38

BY: _____

WELDON

GEO THERMAL DIVISION 86-53P

SUBSURFACE PRESSURE SURVEY

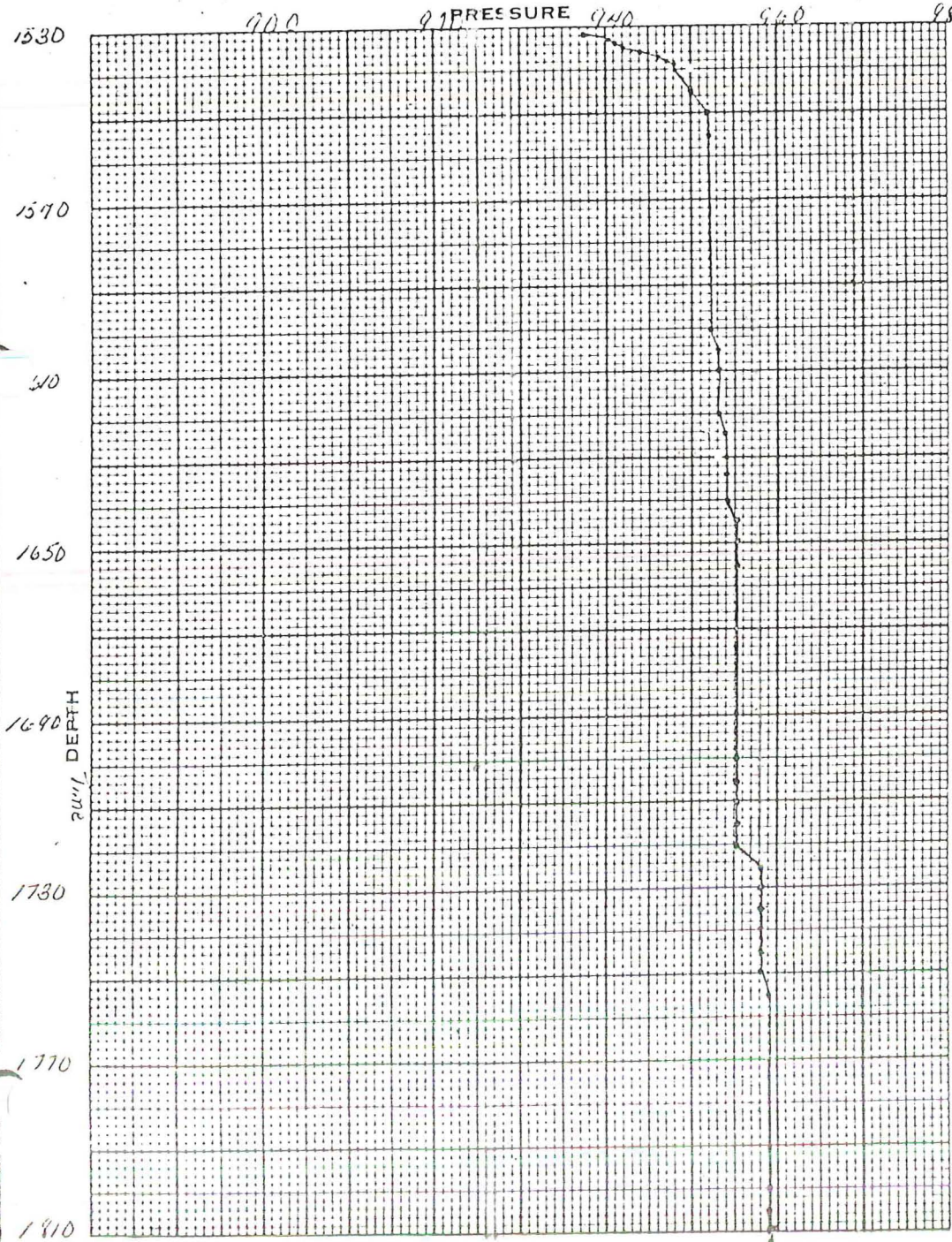
76

OWNER Baca Land & Cattle Co FIELD Redondo Valley WELL NAME Baca #6
 CASING 9-1/2" c from surface to 795' ELEV 8726 DATE 10/15/72
 LINER DESCRIPTION: 7" liner from 692' to 3900' ZERO POINT _____
Perforated intervals from 2633' to 2710' - 2986' to 3174' DEPTH _____

HOLE DESCRIPTION: 3589' to 3695' INSTRUMENT 3400 PSI
 SERIAL NO 4604 N

PURPOSE Static Bottom Hole Pressure Buildup MAX TEMP _____ °F @ _____
 REMARKS: _____

STABILIZATION PERIOD
25 1146 10-15-72



PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
1532	937.80	1740 93
1533	940.19	1745 93
1534	941.59	1750 93
1535	942.58	1755 93
1536	944.98	1800 93
1537	946.17	1805 93
1538	947.37	1810 93
1539	948.56	1815 93
1540	948.56	1820 93
1545	950.96	1821 93
1550	952.15	
1555	952.15	
1600	952.15	
1605	953.35	
1610	953.35	
1615	953.35	
1620	953.35	
1625	954.55	
1630	954.55	
1635	954.55	
1640	954.55	
1645	955.74	
1650	955.74	
1655	955.74	
1700	956.94	
1705	956.94	
1710	956.94	
1715	956.94	
1720	956.94	
1725	958.13	
1730	958.13	
1735	958.13	

BY: _____

76

UNION GEO THERMAL DIVISION

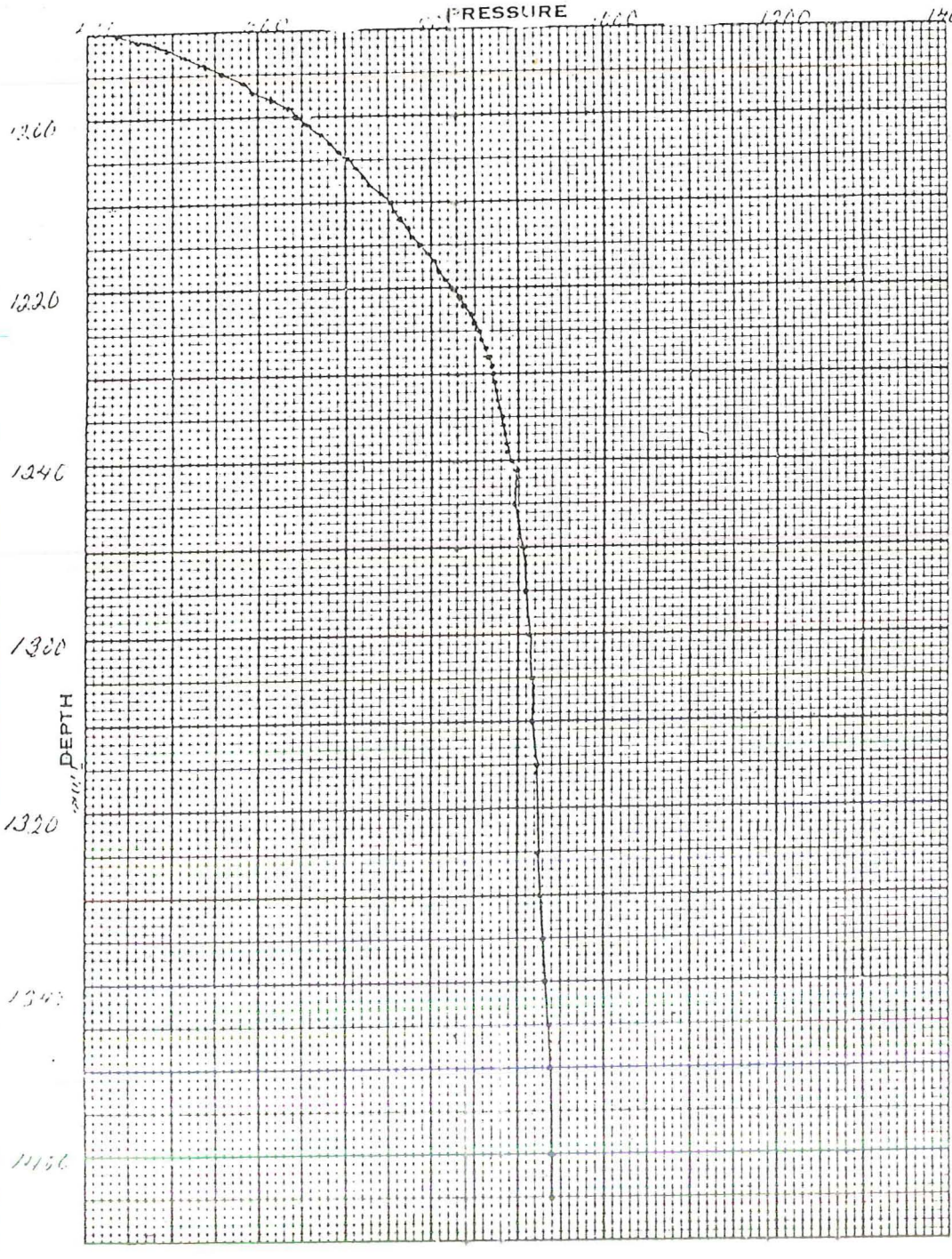
B6-52P

SUBSURFACE PRESSURE SURVEY

OWNER Buck Land & Cattle Co. FIELD Redondo Valley WELL NAME Baca #6
 CASING 2" to 1000 surface to 795' ELEV 5726 DATE 10/15/72
 LINER DESCRIPTION: 7 Loss from 492' to 5700' ZERO POINT _____
Perforated interval from 2653' to 2710' - DEPTH _____
2956' to 3176'
 HOLE DESCRIPTION: 3559' to 3698' INSTRUMENT J400 PSI _____
 SERIAL NO 6604 N

PURPOSE Static Bottom Hole Pressure Buildup @ 3690' MAX TEMP _____ °F @ _____
 REMARKS _____

STABILIZATION PERIOD
Well S.E. 1146 10-15-72



PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
1150	496.45	1224 872.0
1151	461.68	1225 854.0
1152	491.61	1226 852.0
1153	516.75	1227 861.0
1154	539.47	1228 869.0
1155	557.42	1229 864.0
1156	586.34	1230 869.0
1157	594.50	1231 872.0
1158	618.42	1232 872.0
1159	635.17	1233 872.0
1200	647.13	1234 874.0
1201	656.70	1235 881.0
1202	671.05	1236 882.0
1203	681.82	1237 885.0
1204	692.78	1238 885.0
1205	705.35	1239 885.0
1206	712.92	1240 881.0
1207	720.16	1245 881.0
1208	729.67	1251 881.0
1209	741.23	1255 881.0
1210	751.20	1260 881.0
1211	757.18	1265 881.0
1212	765.16	1270 881.0
1213	772.78	1275 881.0
1214	779.91	1280 881.0
1215	787.08	1285 881.0
1216	796.65	1290 881.0
1217	802.63	1295 881.0
1218	809.81	1300 881.0
1219	818.18	1305 881.0
1220	824.16	1310 881.0
1221	832.54	1305 881.0
1222	838.52	1300 881.0
1223	846.89	1300 881.0

GEOHERMAL DIVISION

B6-5IPT

SUBSURFACE TEMPERATURE SURVEY

76

OWNER Baca Land & Cattle Co. FIELD Redondo Valley WELL NAME Baca #6

CASING 7 1/2" P. from surface to 795' ELEV 8726 DATE 10-5-72

LINER DESCRIPTION: 4" liner from 692' to 3740' ZERO POINT _____

Perforated intervals from 2633' to 2710' - DEPTH _____
3986' to 3992'

HOLE DESCRIPTION: 3589' to 3698'

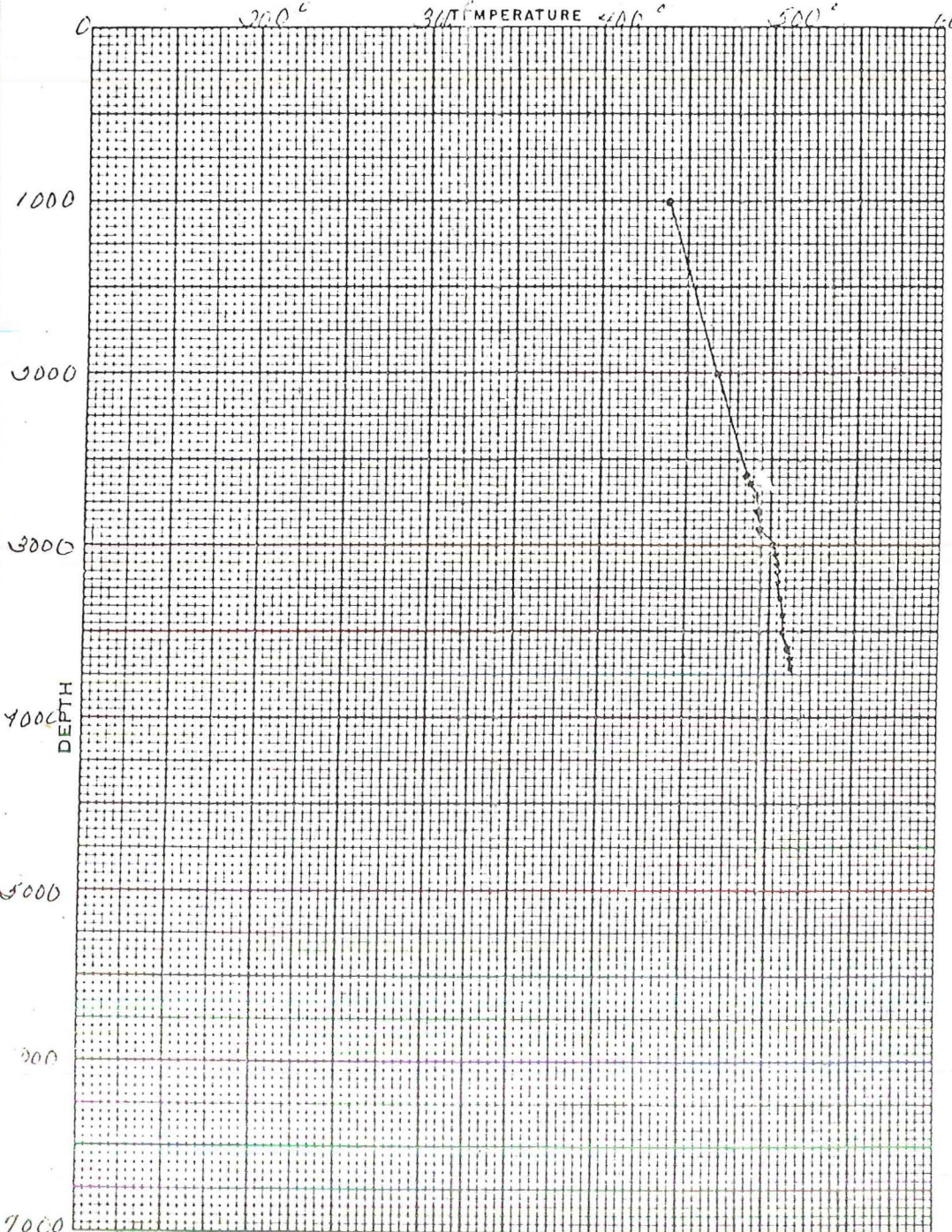
INSTRUMENT 84°F - 644°F FA

SERIAL NO KTB 10005

PURPOSE _____ MAX TEMP _____ °F @ _____

REMARKS: _____

STABILIZATION PERIOD _____



PRESSURES.	GAUGE	DEPTH
CASING. PSI		

DEPTH	TEMP.	DEPTH	TEMP.
1000	439.9		
2000	469.0		
2600	485.5		
2650	487.6		
2700	496.3		
2800	498.4		
2900	496.7		
3000	500.2		
3050	504.0		
3100	506.3		
3150	508.7		
3200	509.9		
3300	512.7		
3400	515.6		
3500	516.8		
3600	521.4		
3650	523.2		
3690	524.3		

BY: _____

76

UNION

GEOTHERMAL DIVISION

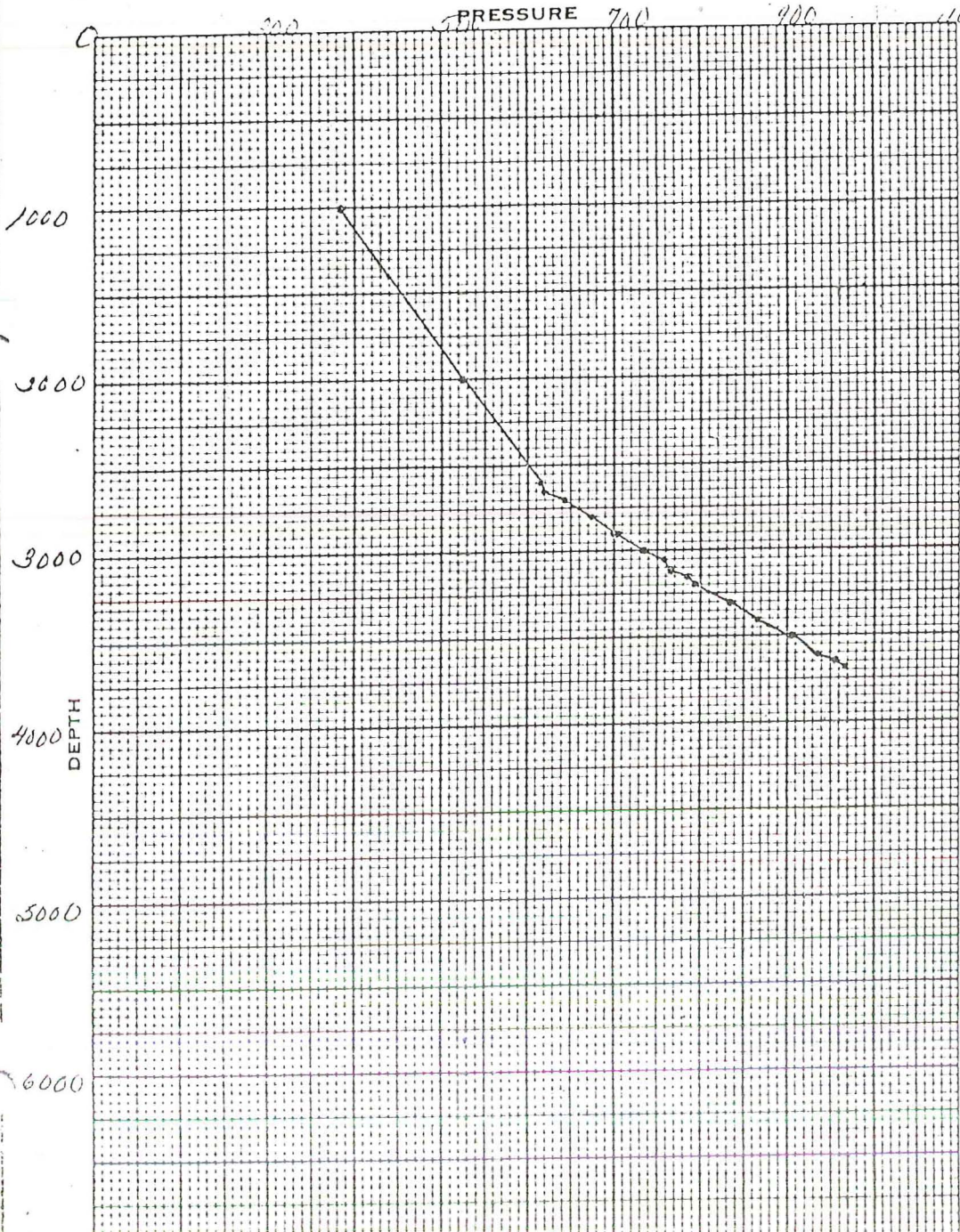
B6-31PT

SUBSURFACE PRESSURE SURVEY

OWNER Baca Land & Cattle Co FIELD Redondo Valley WELL NAME Baca #6
 CASING 9 5/8" c from surface to 795' ELEV. 8726 DATE 10-5-72
 LINER DESCRIPTION: 7" liner from 492' to 3760' ZERO POINT _____
Perforated intervals from 2633' to 2910' DEPTH _____
2986' to 3176'
 HOLE DESCRIPTION: 3589' to 3698' INSTRUMENT 2400 PS
 SERIAL NO 4604 N
 MAX TEMP _____ °F @ _____

PURPOSE _____
 REMARKS _____

STABILIZATION PERIOD _____



PRESSURES	GAUGE	BOMB
CASING PSI		

DEPTH	PRESSURE	GRADIENT
1000	381.29	
2000	526.32	
2600	616.03	
2650	629.19	
2700	641.15	
2800	672.25	
2900	700.76	
3000	734.45	
3050	751.20	
3100	767.94	
3150	783.49	
3200	799.04	
3300	833.73	
3400	868.42	
3500	903.11	
3600	935.41	
3650	952.15	
3698	967.70	

BY: _____