

THIS COPY REPRESENTS THE BEST POSSIBLE REPRODUCTION  
OF THE MATERIAL PROVIDED TO US FOR DISTRIBUTION.  
WHENEVER POSSIBLE, THE MATERIAL HAS BEEN ENHANCED  
TO REGAIN LEGIBILITY.

GL03882

Open-File Report # NM/Baca- 19 L

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.

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

JUL 1976

B16 546 P17

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" AT 2905 ELEV. 96.22 DATE: 6/22/76  
 LINER DESCRIPTION: ZERO POINT GL + 10'  
 DEPTH 674'

TUBING DETAIL:

PURPOSE

REMARKS:  
 ELEMENT - 0-2950 PSI SN 9735 CL 12hr 15 TURN  
 ELEMENT - 80-646 °F SERIAL NO. 10052 CLOCK 12hr 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P 1522 T 1520 DISENGAGE STYLUS P 1835 T 1835  
 WELL HEAD 168 PSIG  
 PICKUP @ 674' TIME ON BOTTOM 1727-1741 MAX. °F 571  
 WELL STATUS  
 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
1610	100	.104	176	-014		1610	100	.002	80								
1622	1100	.109	185	-013		1622	1050	.236	154								
1634	2100	.115	195	-007		1634	2100	.725	303								
1646	3100	.293	461	0		1646	3080	1.140	423								
1658	4100	.534	821	+002		1658	4080	1.335	476								
1710	5000	.765	1163	+002		1710	5000	1.460	510								
1722	6000	.989	1491	+004		1722	6000	1.548	533								
1741	6742	1.148	1723	+002		1741	6746	1.700	571								

COMMENTS:

76

UNION

GEOHERMAL DIVISION  
SUBSURFACE TEMPERATURE SURVEY

B16-546-DT

CITY

FIELD Little Grande

WELL NAME

BACP #16

CASING

ELEV 94.22'

DATE

6/22/74

LINER DESCRIPTION:

ZERO POINT

GL. T. 19'

DEPTH

6746'

HOLE DESCRIPTION:

INSTRUMENT

PAGE

SERIAL NO

10052

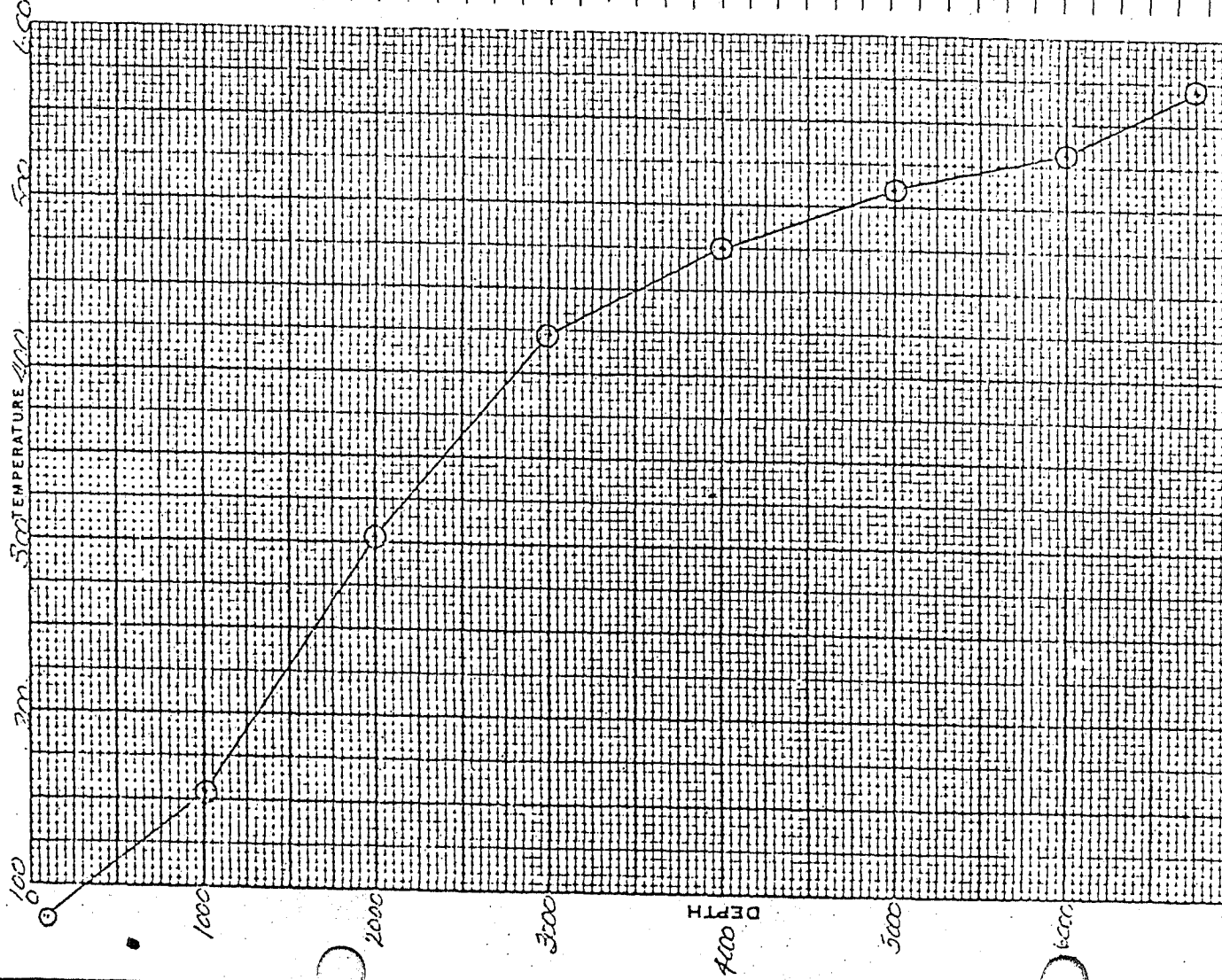
PURPOSE

MAX TEMP

5.71 °F @ 6746'

REMARKS:

STABILIZATION PERIOD



PRESSURE	Gauge	8043
CASING PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100	80		
1000	154		
2000	223		
3000	423		
4000	476		
5000	510		
6000	533		
6746	571		

76

UNION

GEOHERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B16-S46-PT

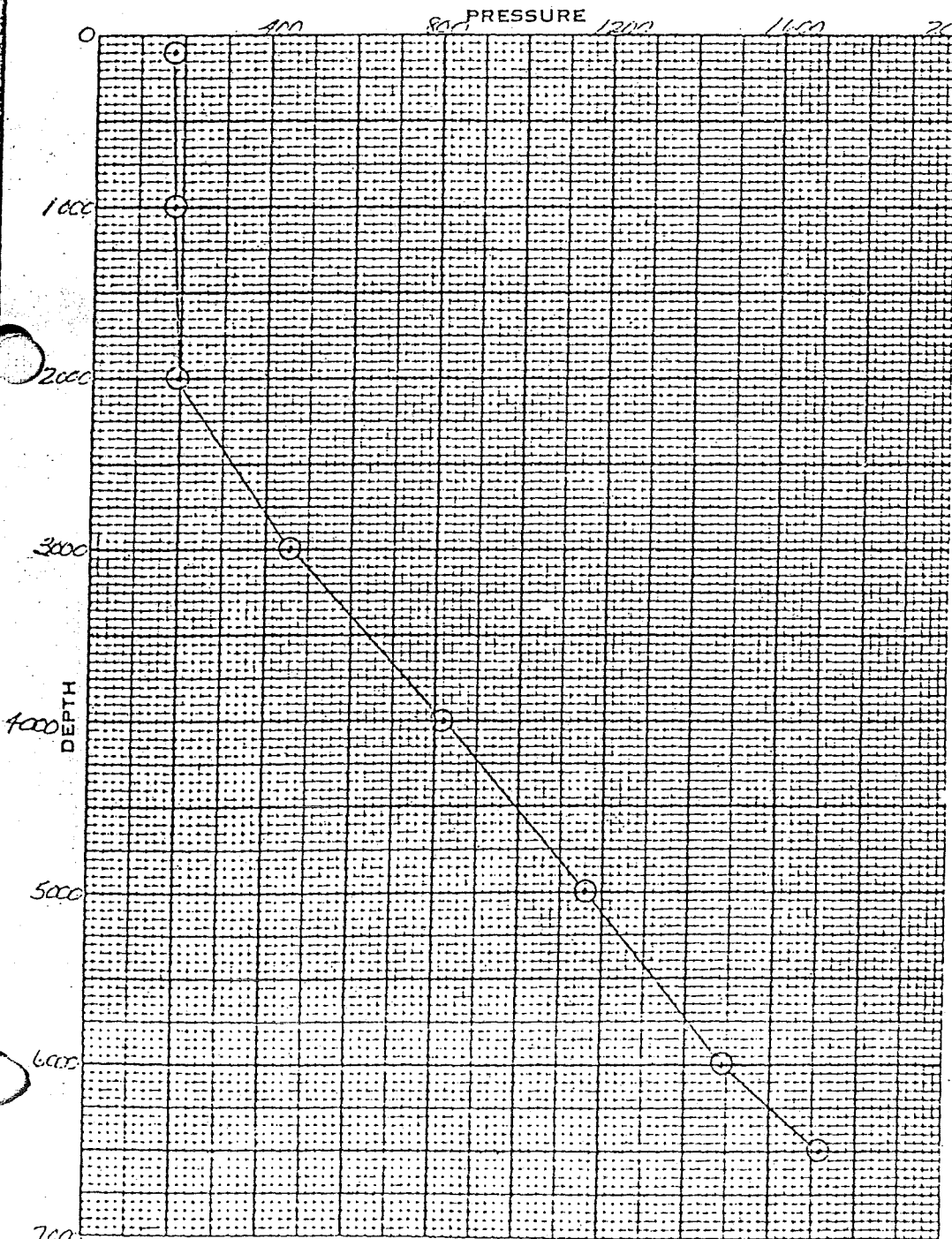
OWNER \_\_\_\_\_ FIELD Valle Grande WELL NAME BCCA #16  
 CABING \_\_\_\_\_ ELEV 9622' DATE 6/22/76  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT GL = 10'  
 \_\_\_\_\_ DEPTH 6746'

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT \_\_\_\_\_ PSIG  
 \_\_\_\_\_ SERIAL NO 9235

PURPOSE \_\_\_\_\_ MAX TEMP 571 °F @ 6746'

REMARKS:

STABILIZATION PERIOD



PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
100	176	
1000	185	
2000	195	
3000	461	
4000	821	
5000	1163	
6000	1491	
6746	172.3	

BY:

76

# UNION

## GEO THERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

B16 549 P/P

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACK #16  
 CASING 7/8 AT 2905' ELEV. 9622' DATE: 7/19/76  
 LINER DESCRIPTION: ZERO POINT CL + 10'  
 DEPTH 6746

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT P<sub>1</sub> 0-4700 PSI SN 13012 CL-12hr 15 TURN  
 ELEMENT P<sub>2</sub> 0-2950 SERIAL NO. 9255 CLOCK-12 hr 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P<sub>1</sub> 1100' P<sub>2</sub> 1445 1100<sup>2</sup> DISENGAGE STYLUS P<sub>1</sub>-1442' P<sub>2</sub> 1445  
 WELL HEAD 179 PSIg  
 PICKUP @ 6746 TIME ON BOTTOM 1342-1412 MAX. F 57'  
 WELL STATUS  
 SHUT IN: ON PRODUCTION:  
 RATE

P<sub>1</sub> 0-4700 PSI P<sub>2</sub> 0-2950 PSI

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1218	100	.075	192		0	1218	100	.110	186		-013						
1236	150	.068	179		-007	1236	100	.113	192		-013						
1252	200	.072	189		-003	1252	200	.119	202		-007						
1304	300	.176	436		-001	1304	300	.292	460		0						
1316	400	.326	791		0	1316	400	.537	825		+002						
1328	500	.470	1131		+001	1328	500	.770	1170		+003						
1340	600	.609	1458		+001	1340	600	.995	1500		+005						
1342	6746	708	1690		+001	1342	6746	1.152	1732		+002						
1412	6746	708	1690		+001	1412	6746	1.152	1732		+002						

500# CALIBRATION CHECK WITH DWI

2500# CALIBRATION CHECK WITH DWI

DLF = 1.042  
PSI = 2474

DLF = 1.691  
PSI = 2527

COMMENTS: TEMPERATURE CORRECTIONS FROM B16 546

# 76

## UNION

### GEOTHERMAL DIVISION

#### SUBSURFACE PRESSURE SURVEY

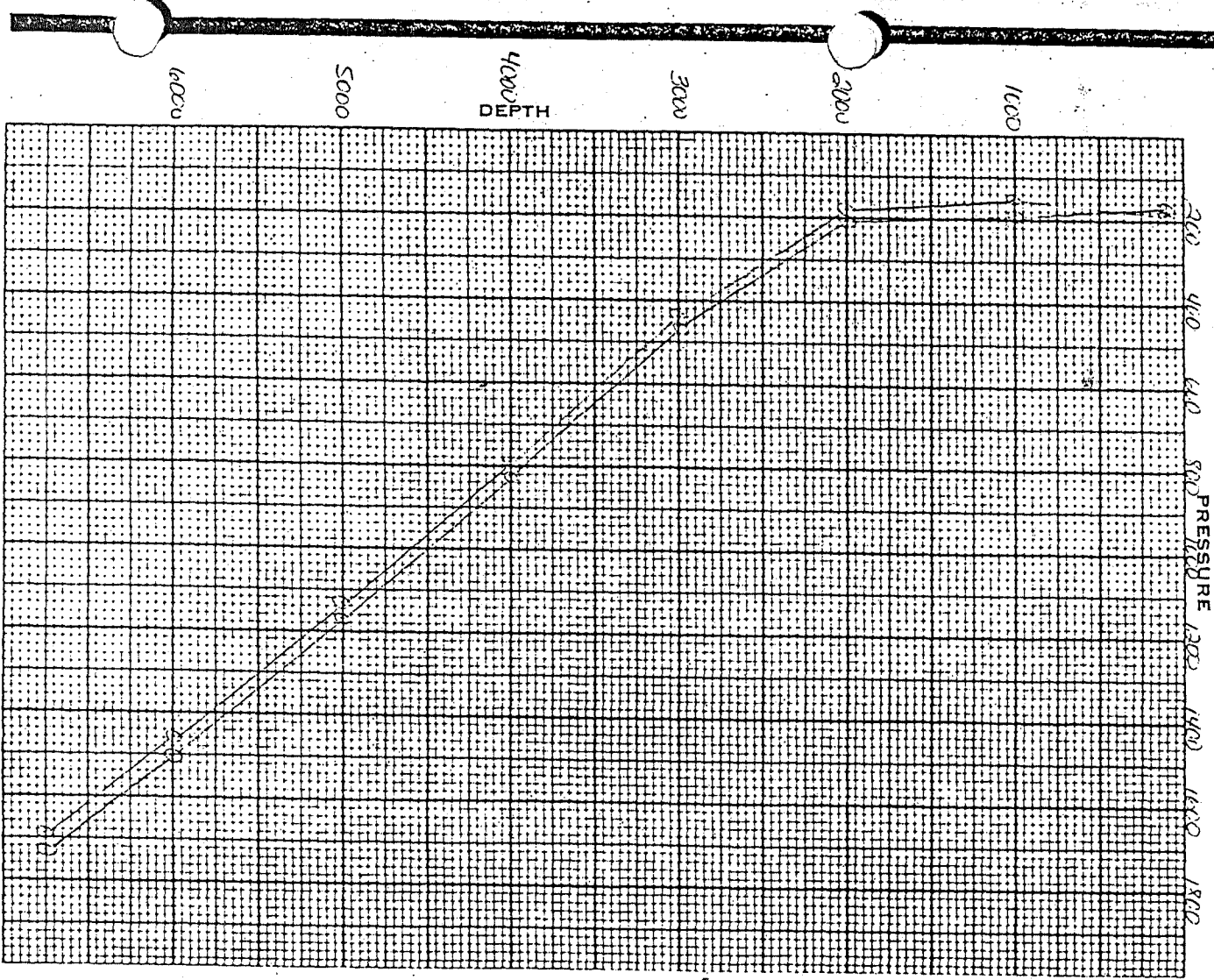
B16 S49 P/P

OWNER \_\_\_\_\_ FIELD VALLE GRANDE WELL NAME BORG #16  
 CASING \_\_\_\_\_ DATE 7-9-76  
 LINER DESCRIPTION \_\_\_\_\_ ELEV 9632' ZERO POINT G.L. + 10'

HOLE DESCRIPTION: \_\_\_\_\_ DEPTH 6746'

PURPOSE \_\_\_\_\_ INSTRUMENT \_\_\_\_\_ PSIG  
 SERIAL NO \_\_\_\_\_  
 MAX TEMP \_\_\_\_\_ °F @ \_\_\_\_\_

REMARKS: \_\_\_\_\_ STABILIZATION PERIOD \_\_\_\_\_



PRESSURES.	GAUGE	BOMB
CASING, PSI		

DEPTH	PSI	GRADIENT
100	179	
1000	189	
2000	202	
3000	216	
4000	230	
5000	244	
6000	1458	
6746	1232	

S.H. 405-E

100	186
1000	192
2000	202
3000	216
4000	230
5000	244
6000	1500
6746	1232

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

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

B16 548 P/T

OWNER: UNION OIL COMPANY FIELD: VALLE GRANDE WELL NAME: BACA #16  
 CASING: 9 5/8 AT 2905' ELEV.: 9622' DATE: 7/2/76  
 LINER DESCRIPTION: 2905 - TD = OPEN HOLE ZERO POINT: GLT 10'  
 DEPTH: 6746

TUBING DETAIL:

PURPOSE:

REMARKS:

ELEMENT: 0-4700 PSI SN 13012 CL-12 HR 15 T  
 ELEMENT: 80-646 SERIAL NO. 10052 CLOCK 12 HR 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P1430; T1430 DISENGAGE STYLUS P1640; T1640  
 WELL HEAD: 377  
 PICKUP @ 6746 TIME ON BOTTOM 1525-1555 MAX. P 506  
 WELL STATUS: SHUT IN  
 SHUT IN: ON PRODUCTION:  
 RATE:

PSI

TEMP

TIME	DEPTH	DEFL.	P-T	GRAD.	CORR	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1512	100	.068	179		-	1512	100	.001	80								
1520	6746	.703	1678		+0.001	1555	6746	1.700	571								

COMMENTS:



76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

BH16-SH7-P/T

OWNER UNION CALCO CALIF FIELD WALLE GRANDE WELL NAME BARRA 16.  
 CASING 7 3/8" @ 2965' ELEV. 9629' DATE: 6-1-56/76.  
 LINER DESCRIPTION: OPEN HOLE 2965' - T.D. ZERO POINT 66+10'  
 DEPTH 2716'

TUBING DETAIL:

PURPOSE

REMARKS:

P-C-2950 PSIC (S/N) 9235 12HR 15  
 ELEMENT T-30-616 SERIAL NO. S/N 10052 CLOCK 12HR 15TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P-1054 T-1051 DISENGAGE STYLUS P-1456 T-1156  
 WELL HEAD 17H  
 PICKUP @ 2716' TIME ON BOTTOM 1312-1317 MAX. F 563  
 WELL STATUS SHUT IN  
 SHUT IN: 8-21-75 ON PRODUCTION:  
 RATE

PSIC

TEMP

DEPTH	DEFL.	P-T	GRAD.	CLIP	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
116	103	183		-0.014	1251	100	1001	80								
174	116	1737		+0.003	1317	1671	1681	563								

COMMENTS:

76

UNION

DEE PYLE

GEO.THERMAL DIVISION JUN 3 1975

SUBSURFACE SURVEY  
Field Work Sheet

616 5 15 PIT

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" AT 2905 ELEV. 9622' DATE: 5/21/75  
 LINER DESCRIPTION: ZERO POINT CL+10'  
 DEPTH 6746

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT 0-4000 PSI SN-7198 CLOCK-12 HR 15 TURN

ELEMENT 80° 6.46° SERIAL NO. 10052 CLOCK-12 HR 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0911; T-0913 DISENGAGE STYLUS P-1305; T-1307

WELL HEAD 142 PSIG

PICKUP @ 6746 TIME ON BOTTOM 1145-1215 MAX. °F 570.5

WELL STATUS SHUT IN

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
1027	100	.065	148		0	1027	110	0	0								
1042	1050	.067	152		0	1042	1050	.268	163.8								
1054	2000	.068	155		0	1054	2000	.728	503.8								
1110	3000	.195	444		-002	1110	3000	1.132	420.6								
1121	4000	.369	815		-001	1121	4000	1.325	473.7								
1132	5000	.529	1153		+001	1132	5000	1.448	506.5								
1143	6000	.684	1478		+003	1143	6000	1.539	520.1								
1145	6746	.792	1704		+001	1145	6746	1.698	570.5								
1215	6746	.792	1704		+001	1215	6746	1.698	570.5								

COMMENTS:

76

# Union GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

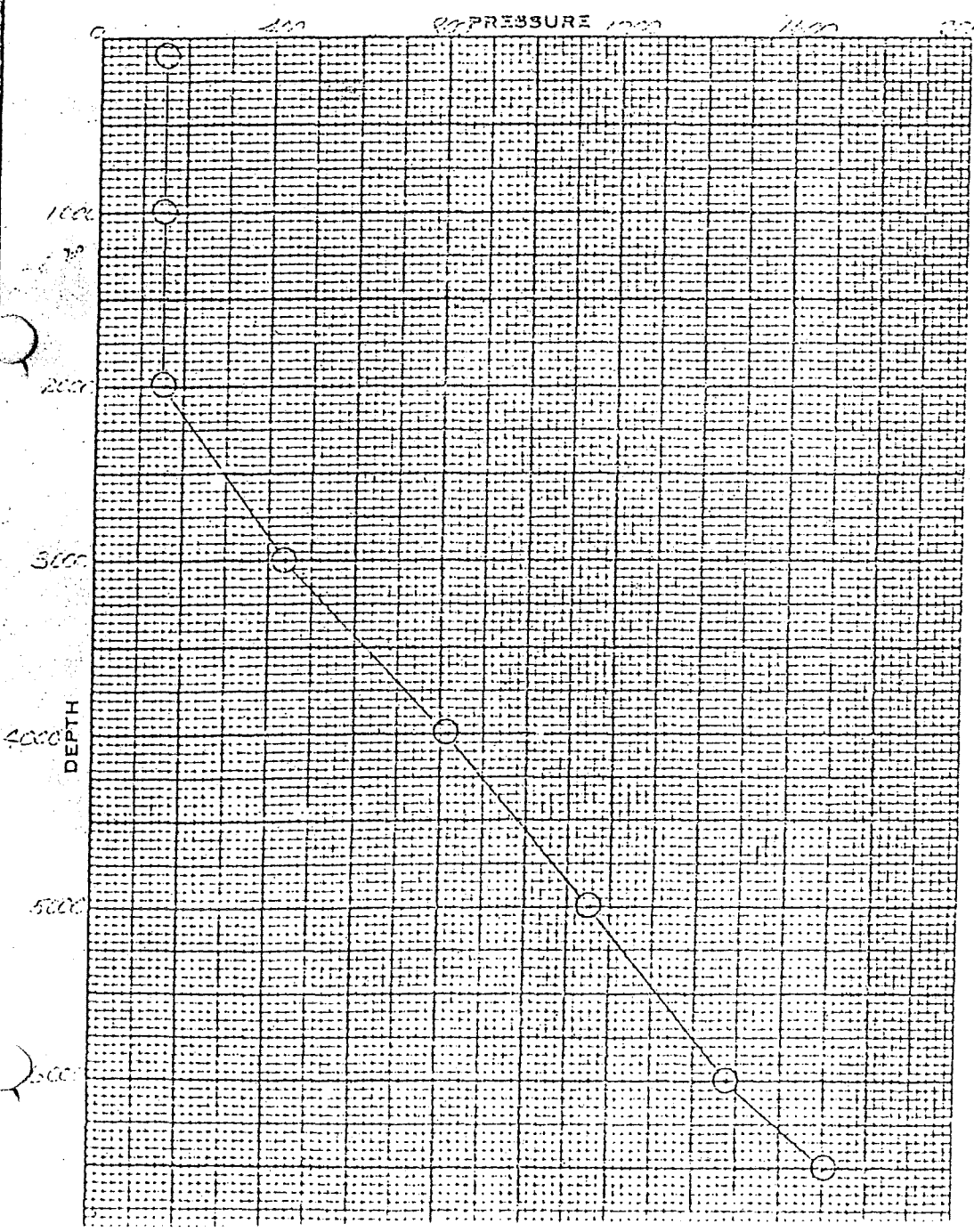
B16-345-PT

OWNER \_\_\_\_\_ FIELD Little George WELL NAME LR01 #16  
 CASING \_\_\_\_\_ ELEV 5623' DATE 5/21/76  
 LINER DESCRIPTION \_\_\_\_\_ ZERO POINT GL + 10'  
 \_\_\_\_\_ DEPTH 6746'

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT \_\_\_\_\_ PSI  
 \_\_\_\_\_ SERIAL NO 2198

PURPOSE \_\_\_\_\_ MAX TEMP 570.5 DEE 6746'

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



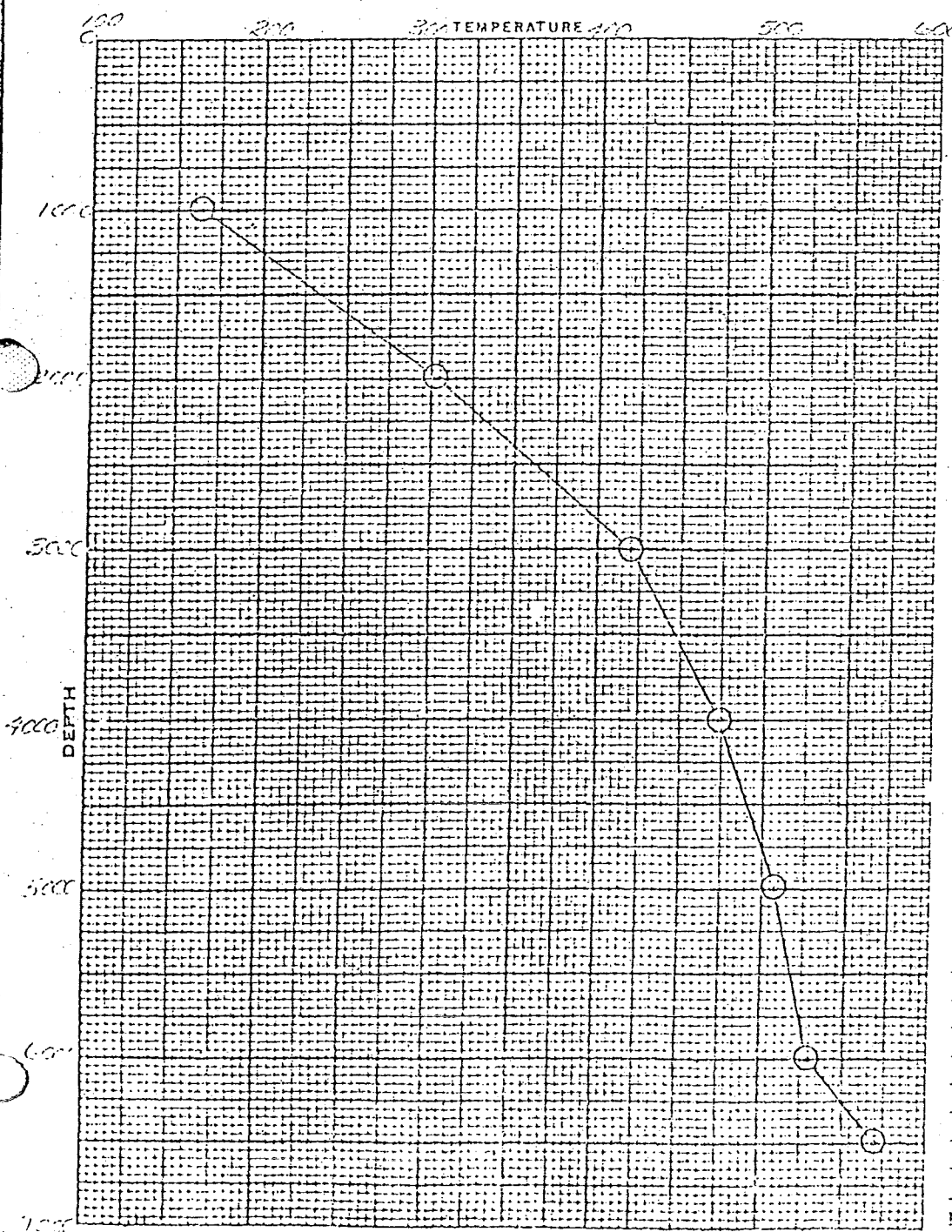
STABILIZATION PERIOD		
PRESSURE	GAUGE	BOHS
CASING PSI		
DEPTH	PRESSURE	GRADIENT
100	127	
1000	152	
2000	177	
3000	202	
4000	227	
5000	252	
6000	277	
6746	302	

76

UNION  
GEOHERMAL DIVISION  
SUBSURFACE TEMPERATURE SURVEY

B10-545-DT

OWNER \_\_\_\_\_ FIELD Little Grande WELL NAME RDPA #16  
 CASING \_\_\_\_\_ ELEV 94.20 DATE 5/21/76  
 LINER DISCRIPION \_\_\_\_\_ ZERO POINT SL 418'  
 \_\_\_\_\_ DEPTH 6746'  
 HOLE DESCRIPTION: \_\_\_\_\_  
 \_\_\_\_\_  
 INSTRUMENT \_\_\_\_\_ FA-9  
 SERIAL NO 10052  
 PURPOSE \_\_\_\_\_ MAX TEMP 570.5 @ 6746'  
 REMARKS \_\_\_\_\_



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

PRESSURES	GAUGE	DEPTH
CASING, PSI		
DEPTH	TEMP.	DEPTH
100	0	
1000	143.8	
2000	313.8	
3000	429.6	
4000	473.7	
5000	516.5	
6000	550.1	
6746	570.5	

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

76

UNION

GEO THERMAL DIVISION

DELIVER  
LIVE 25 1976

SUBSURFACE SURVEY

Field Work Sheet

816-S44-P1T

OWNER UNION OIL OF CALIF. FIELD VALLE GRANDE WELL NAME BACA 16  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 5/14/76  
 LINER DESCRIPTION: 2905' TO T.D. OPEN HOLE ZERO POINT 6710'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE:

REMARKS:

P-0-4000 PSIG - S/N 7195 12 1/2 15  
 ELEMENT T-80°F-644°F SERIAL NO. 10052 CLOCK 12 1/2 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P-1004 T-1005 DISENGAGE STYLUS P-1338 T-1312  
 WELL HEAD 139  
 PICKUP @ 6746' TIME ON BOTTOM 1157-1227 MAX. °F 571  
 WELL STATUS SHUT IN  
 SHUT IN: ON PRODUCTION:  
 RATE

PRESSURE

TEMPERATURE

PRESSURE						TEMPERATURE											
TIME	DEPTH	DEFL.	P-T	GRAD.	NOTE	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1131	100	—	—	—	—	1131	100	—	—	—	—						
1155	6100	1234	1478		7003	1155	6666	1510	530								
1227	6746	792	1704		7001	1227	6746	1700	571								

COMMENTS:

76

UNION

GEOHERMAL DIVISION

DEL PYLE  
MAY 17 1976

SUBSURFACE SURVEY  
Field Work Sheet

EF#16 5-43 1/4

OWNER Union Cal Co. of Calif. FIELD Valle Grande WELL NAME Bona #16  
 CASING 4 1/2" @ 2005' ELEV. 46.22' DATE: 5/7/76  
 LINER DESCRIPTION: 2905' - T.D. open hole ZERO POINT 4.2 + 16'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE

REMARKS:

Element - 0-4000' Big 5N - 7198 Clock 12 hr 15 Turn

ELEMENT - 50° - 156°F SERIAL NO. 10050 CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0932; T-0936 DISENGAGE STYLUS P-1341; T-1341

WELL HEAD 1.50

PICKUP @ 6746' TIME ON BOTTOM 1117-1147 MAX. F 570.7°F

WELL STATUS shut-in

SHUT IN:

ON PRODUCTION:

RATE

PSIG.

TEMP

TIME	DEPTH	DEFL.	P-T	GRAD.	WIP	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	110	1.61	137.6		-0-	1058	100	-	-								
	1105	1.60	1.54	1478	7.062	1115	1000	1.54	526.9								
	7-1147	1.74	.788	1696	7.001	1147	6746	1.699	570.7								

COMMENTS:

76

UNION

GEOHERMAL DIVISION DEC PYLE

MAY 10 1976

SUBSURFACE SURVEY

Field Work Sheet

B#16 S-42 P/T

OWNER Union Oil Corp of Cal FIELD Valle Grande WELL NAME B#16  
 CASING 9 3/8" @ 2905' ELEV. 9622 DATE: 4-28-76  
 LINER DESCRIPTION: 2905' TOTD Open hole ZERO POINT GLT 10  
 DEPTH 6746

TUBING DETAIL:

PURPOSE

REMARKS:

Element 0-4000 psi 7198 Clock 12hr 15T

ELEMENT 80'-646°F SERIAL NO. 10052 CLOCK 12hr 15TURN STABILIZATION PERIOD

ENGAGE STYLUS P 0944-T0945 DISENGAGE STYLUS P1345-T1345

WELL HEAD 128

PICKUP @ 6746 TIME ON BOTTOM 1234-1304 MAX. °F

WELL STATUS SHUT IN

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
	100	.058	131.8		0	1057	100	-	-								
1112	1000	.059	134.0		0	1112	1000	.256	159.9								
1123	2000	.060	136.1		0	1123	2000	.725	302.9								
1135	3000	.148	448.1		-002	1135	3000	1.129	419.8								
1147	4000	.1369	814.9		-.001	1147	4000	1.325	475.7								
1159	5000	.528	1150.9		+.001	1159	5000	1.448	506.5								
1232	6000	.683	1475.9		+.002	1232	6000	1.540	530.4								
1304	6746	.788	1696.0		+.001	1304	6746	1.697	570.2								

COMMENTS:

# 76

**UNION**

DEPT. PWT

## GEOTHERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

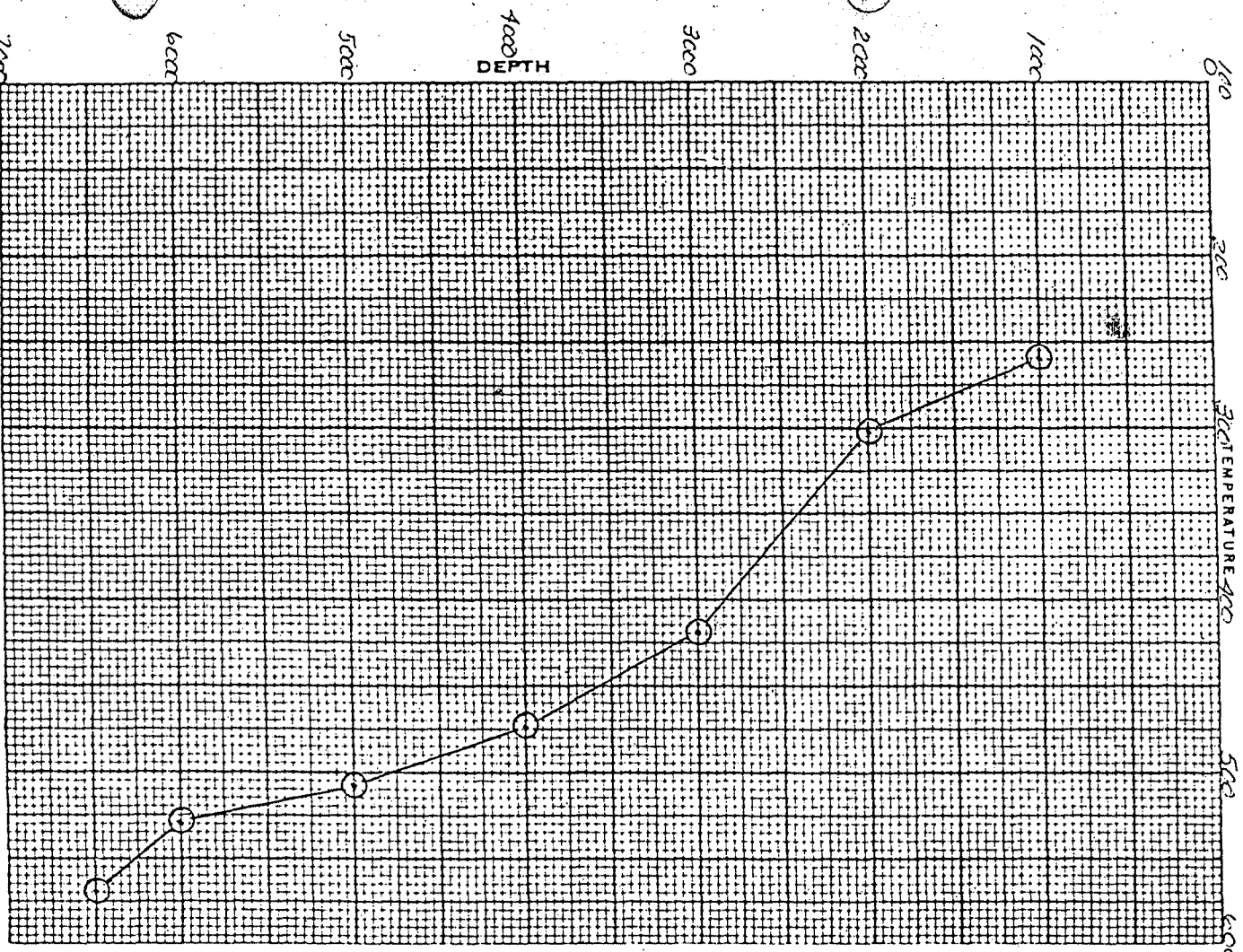
NOV 10 1976

B16-S42-DT

OWNER \_\_\_\_\_  
 CASING \_\_\_\_\_  
 LINER DESCRIPTION \_\_\_\_\_

FIELD Little Grade WELL NAME BCHA #16  
 ELEV 9622' DATE 9/28/76  
 ZERO POINT SL 710'  
 DEPTH 6746'

HOLE DESCRIPTION: \_\_\_\_\_  
 INSTRUMENT 80°-646° FAHF  
 SERIAL NO 10052  
 MAX TEMP 570.2 °F @ 6746'  
 PURPOSE \_\_\_\_\_  
 REMARKS \_\_\_\_\_



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

PRESSURES	GAUGE	BOMB
CASING PSI		

DEPTH	TEMP.	DEPTH	TEMP.
<u>100</u>	<u>-</u>		
<u>1000</u>	<u>159.9</u>		
<u>2000</u>	<u>302.9</u>		
<u>3000</u>	<u>419.8</u>		
<u>4000</u>	<u>473.7</u>		
<u>5000</u>	<u>506.5</u>		
<u>6000</u>	<u>530.4</u>		
<u>6746</u>	<u>570.2</u>		

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



# 76

## GEO THERMAL DIVISION

### SUBSURFACE PRESSURE SURVEY

WINDYBORN

DEPT. POWER

B16-S42-DT

OWNER \_\_\_\_\_ FIELD Valle Grande WELL NAME BQ09 #16

CASING \_\_\_\_\_ DATE 4/28/76

LINER DESCRIPTION \_\_\_\_\_ ZERO POINT GL +10'

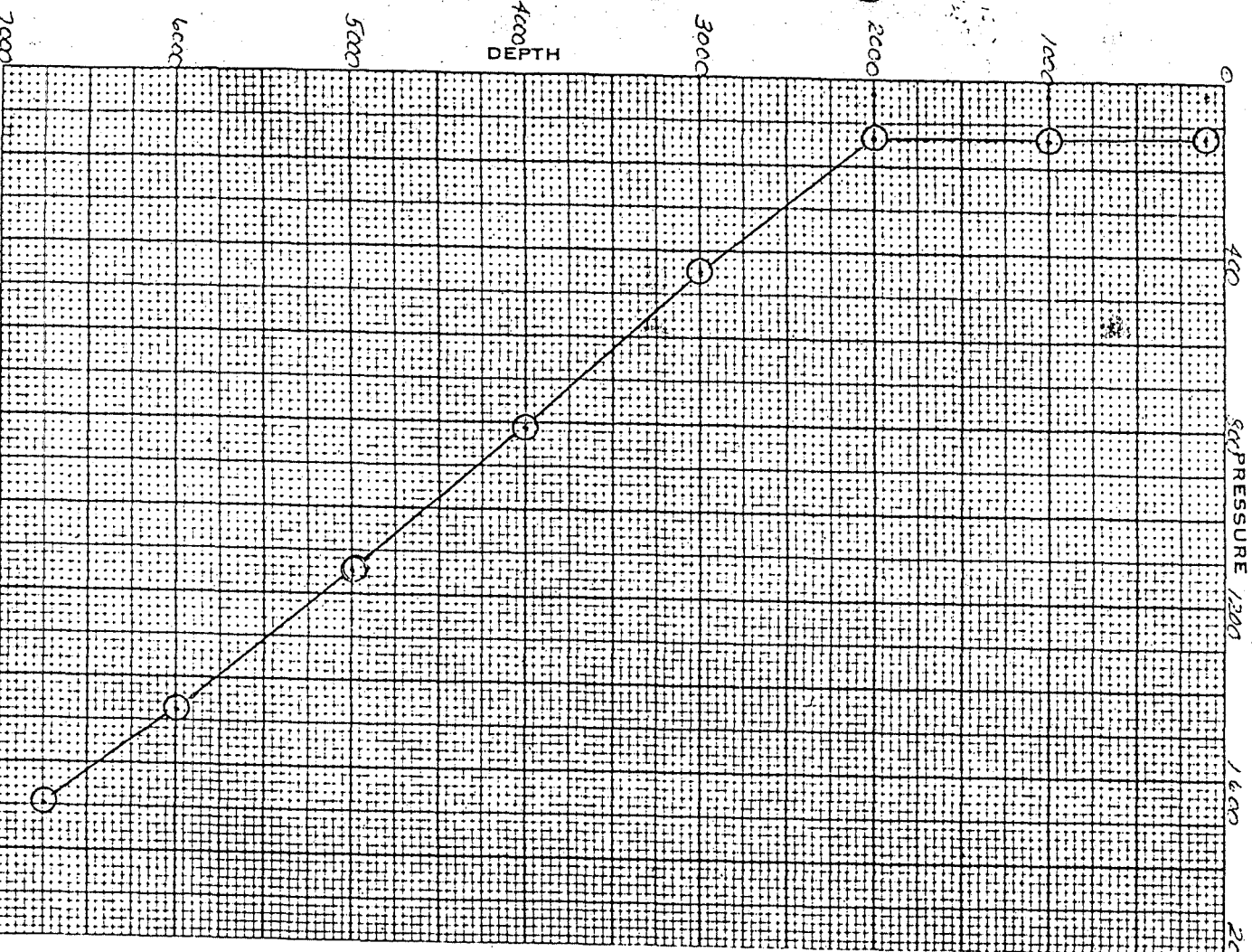
DEPTH \_\_\_\_\_ 6746'

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

INSTRUMENT 0-4000 PSI  
SERIAL NO 7198

PURPOSE \_\_\_\_\_ MAX TEMP 570.2 °F @ 6746'

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



PRESSURES	GAUGE	BOM <sup>n</sup>
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
100	131.8	
1000	134.0	
2000	136.1	
3000	148.1	
4000	150.9	
5000	1475.9	
6000	1475.9	
6746	1696.0	

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

76

UNION

GEO THERMAL DIVISION

DEL' PYLE

MAY 3 1976

SUBSURFACE SURVEY

Field Work Sheet

BIG-S41-P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME B-716  
 CASING 7 3/8" @ 2905' ELEV. 9627' DATE: 1/22/76  
 LINER DESCRIPTION: 2905' - T.O. OPEN HOLE ZERO POINT G.L. 716'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE

REMARKS:

0-1000 B516 7195.  
 ELEMENT 50°-616 SERIAL NO. 10055 CLOCK \_\_\_\_\_ TURN \_\_\_\_\_ STABILIZATION PERIOD \_\_\_\_\_  
 ENGAGE SYLUS P-0930 T0934 DISENGAGE SYLUS D-1335T-1337  
 WELL HEAD 120  
 PICKUP @ 6746 TIME ON BOTTOM 1120-1205 MAX. P. 570.2  
 WELL STATUS SHUT IN.  
 SHUT IN: \_\_\_\_\_ ON PRODUCTION: \_\_\_\_\_  
 RATE \_\_\_\_\_

R516

TEMP

TIME	DEPTH	DEFL.	P-T	GRAD.	IP	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	1661	139		0	1250	100	-									
	1100	1687	1134		7.003	1115	6600	1.539	530								
	6746	1794	1208.6		4.001	1205	6746	1.697	570.2								

COMMENTS:

BY: AD P.R. V.P.

76

UNION

DEL FYLE

APR 2 1976

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B16 539 P/1

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" AT 2905' ELEV. 9622' DATE: 4/8/76  
 LINER DESCRIPTION: 2905 - TD = OPEN HOLE ZERO POINT CL+10'  
 DEPTH 6746

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT - P<sub>1</sub> 0-4000 PSI; SN 7198; CLOCK 12 HR 15 TURN  
ELEMENT P<sub>2</sub> 0-4750 SERIAL NO. 13012 CLOCK 12 HR 15 TURN STABILIZATION PERIOD  
ENGAGE STYLUS P<sub>1</sub> 0918 P<sub>2</sub> 0921 DISENGAGE STYLUS P<sub>1</sub> -1316 P<sub>2</sub> 1317  
 WELL HEAD 110 PSI  
 PICKUP 0 6746 TIME ON BOTTOM 119-149 MAX. °F  
 WELL STATUS SHUT IN  
 SHUT IN: 8/21/76 ON PRODUCTION:  
 RATE

P<sub>1</sub> 0-4000 PSI P<sub>2</sub> 0-4750 PSI

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	.051	116.0		0	1005	100	.046	137.5		0						
1017	1500	.051	116.0		0	1017	1500	.047	140.3		0						
1029	2000	.052	118.2		0	1029	2000	.048	143.3		0						
1041	3000	.199	950.4		-0.002	1041	3000	.176	965.9		-0.001						
1053	4000	.368	812.8		+0.001	1053	4000	.326	826.9		+0.001						
1105	5000	.529	1153.0		+0.001	1105	5000	.471	1171.2		+0.003						
1117	6000	.682	1473.8		+0.002	1117	6000	.605	1494.0		+0.003						
1149	6746	.792	1704.4		+0.001	1149	6746	.699	1718.4		+0.001						

COMMENTS: NOTE: B16-538 #10052 USED IN CORRECTIONS

# 76

UNIVERSITY  
**GEOTHERMAL DIVISION**  
 SUBSURFACE PRESSURE SURVEY

E16-S39-PP

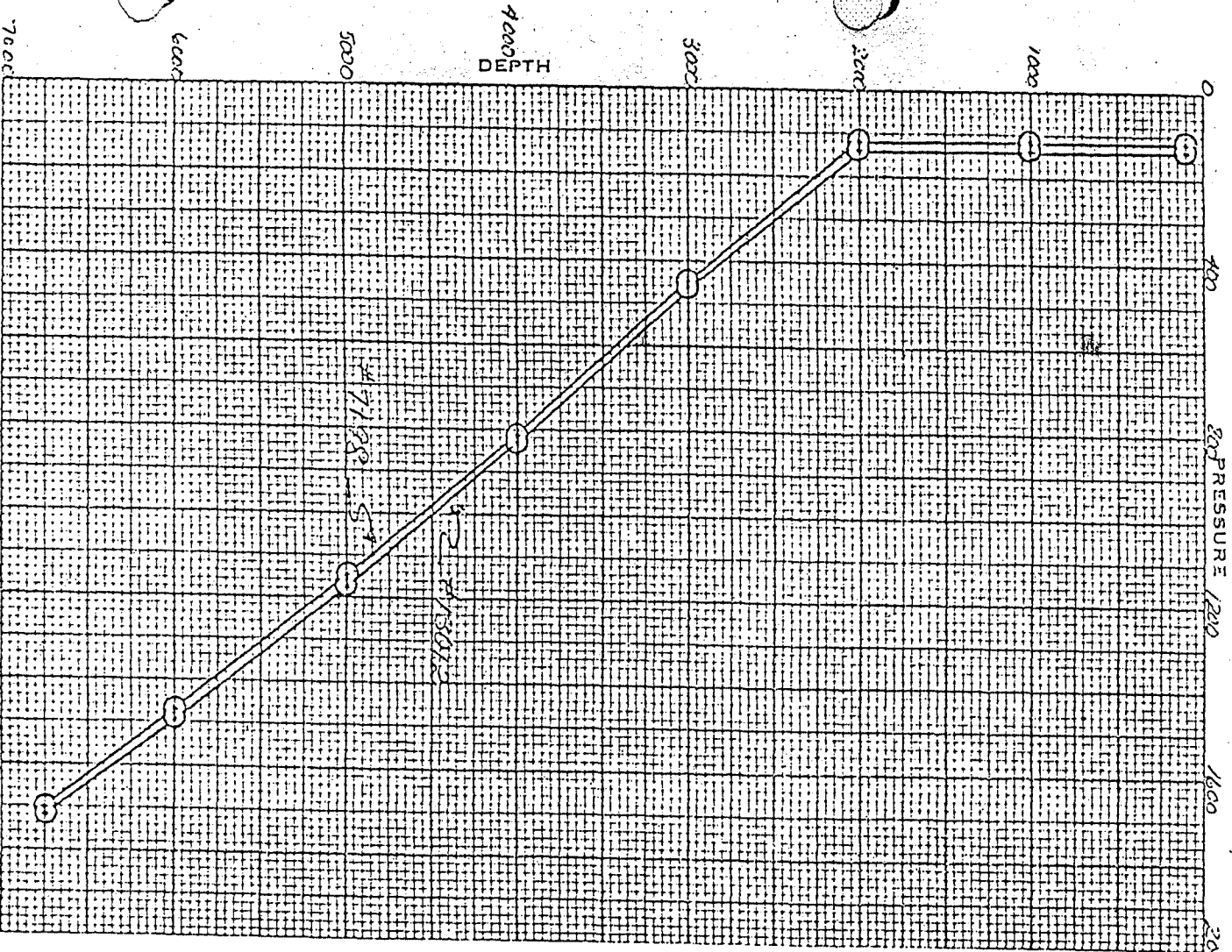
OWNER \_\_\_\_\_  
 CASING \_\_\_\_\_  
 LINER DESCRIPTION: \_\_\_\_\_

FIELD NAME Valle Grande WELL NAME B1009 #16  
 ELEV 9622' DATE 4/8/76  
 ZERO POINT SLT 10'  
 DEPTH 6796'

INSTRUMENT \_\_\_\_\_ PSI  
 SERIAL NO 7198 & 13012

MAX TEMP \_\_\_\_\_ °F @ \_\_\_\_\_

PURPOSE \_\_\_\_\_  
 REMARKS: \_\_\_\_\_  
 STABILIZATION PERIOD \_\_\_\_\_



PRESSURE	GAUGE	BOYS
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
<u>100</u>	<u>116.0</u>	
<u>1000</u>	<u>118.2</u>	
<u>2000</u>	<u>126.9</u>	
<u>3000</u>	<u>142.8</u>	
<u>4000</u>	<u>173.8</u>	
<u>5000</u>	<u>194.2</u>	
<u>6000</u>	<u>173.8</u>	
<u>6796</u>	<u>1702.4</u>	

DEPTH	PRESSURE	GRADIENT
<u>100</u>	<u>137.3</u>	
<u>1000</u>	<u>140.3</u>	
<u>2000</u>	<u>143.3</u>	
<u>3000</u>	<u>435.9</u>	
<u>4000</u>	<u>826.9</u>	
<u>5000</u>	<u>1174.2</u>	
<u>6000</u>	<u>1494.0</u>	
<u>6746</u>	<u>1718.4</u>	

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

76

UNION

DEC FILE

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B#16 S-38 T<sub>1</sub>

OWNER Union Oil Co. of Calif. FIELD Valle Grande WELL NAME Bore #16  
 CASING 9 7/8" @ 2905' ELEV. 4622' DATE: 4/17/76  
 LINER DESCRIPTION: Open hole - 2905' - T.D. ZERO POINT C.L. +10'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE

REMARKS:

T<sub>1</sub> - 50° - 64.0°E SN-10052 13790-L 12hr 15T  
 T<sub>2</sub> ELEMENT 100° - 79.2°E SERIAL NO. 10098 CLOCK 12590-L 12hr 15TURN STABILIZATION PERIOD  
 ENGAGE STYLUS T<sub>1</sub>-0914 ; T<sub>2</sub>-0917 DISENGAGE STYLUS T<sub>1</sub>-1309 ; T<sub>2</sub>-1310  
 WELL HEAD 110 Psi  
 PICKUP @ 6746' TIME ON BOTTOM 1144 - 1214 MAX. °F 582.2 °F  
 WELL STATUS Shut-in  
 SHUT IN: 8/21/75 ON PRODUCTION:  
 RATE

T<sub>1</sub> 10052

10098

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1030	100	-	-			1030	100	-	-								
1042	1000	.257	153.5			1042	1000	.166	167.7								
1054	2000	.732	304.9			1054	2000	.564	511.7								
1106	3000	1.132	420.6			1106	3000	.887	429.4								
1118	4000	1.327	474.3			1118	4000	1.049	481.7								
1130	5000	1.448	526.5			1130	5000	1.150	514.5								
1142	6000	1.547	530.9			1142	6000	1.229	540.6								
1214	6746	1.697	571			1214	6746	1.357	582.2								

COMMENTS:

76

UNION  
 GEOTHERMAL DIVISION  
 SUBSURFACE TEMPERATURE SURVEY

B16-S38-77

OWNER \_\_\_\_\_

FIELD WELL NAME Valle Grande BPGW #16

CASING \_\_\_\_\_

DATE 4/7/76

LINER DESCRIPTION \_\_\_\_\_

ELEV 9622' ZERO POINT 64+10'

DEPTH 6746'

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

INSTRUMENT \_\_\_\_\_

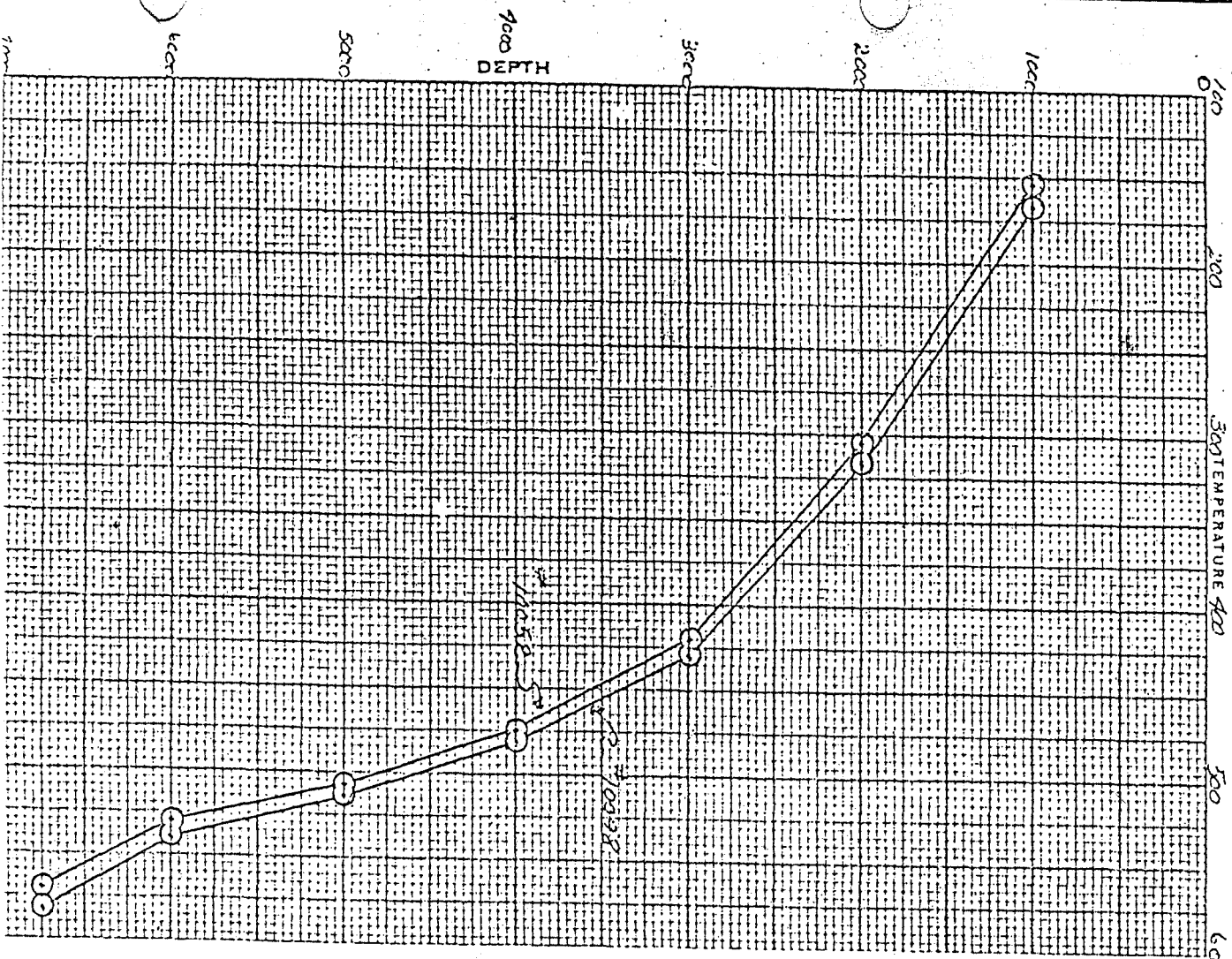
SERIAL NO 10052 & 10098

MAX TEMP \_\_\_\_\_ °F @ \_\_\_\_\_

PURPOSE \_\_\_\_\_

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

REMARKS \_\_\_\_\_

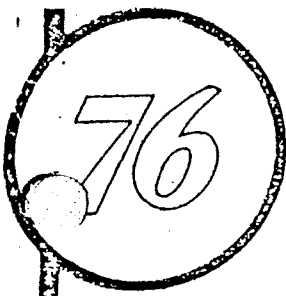


PERMITS.	GAUGE	ROWB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
<u>10052</u>			

100	--		
1000	153.8		
2000	304.5		
3000	420.6		
4000	474.3		
5000	506.5		
6000	530.9		
6746	571		
<u>10098</u>			
100	--		
1000	167.7		
2000	316.7		
3000	422.4		
4000	481.7		
5000	514.5		
6000	570.6		
6746	582.2		

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



UNION

GEOTHERMAL DIVISION

DEL PYLE

APR 12 1976

SUBSURFACE SURVEY

Field Work Sheet

B#16-S37-P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACP #16  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 3/31/76  
 LINER DESCRIPTION: 2905' - 6746' - OPEN HOLE ZERO POINT GLT10'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE

REMARKS:

P-0-4000 7510 7198 12412-13374-L  
 ELEMENT T-80°F-6460°F SERIAL NO. 10052 CLOCK 12412-12838-L TURN  
 ENGAGE STYLUS P-0958 T 0955 DISENGAGE STYLUS P-1320 T-1319  
 WELL HEAD 105  
 PICKUP @ 6746' TIME ON BOTTOM 1154-1224 MAX. °F 571  
 WELL STATUS SHUT IN.  
 SHUT IN: 8/21/75 ON PRODUCTION:  
 RATE

PRESSURE

TEMPERATURE

PRESSURE					TEMPERATURE											
TIME	DEPTH	DEFL.	P-T	GRAD.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	1050	114		0	1110	100	1005	81							
	6160	1675	1459		1.002	1150	660	1543	531							
	6746	1785	1690		1.002	1224	6746	1699	571							

COMMENTS:

RY:

76

UNION

GEOTHERMAL DIVISION NEEL PYLE

SUBSURFACE SURVEY  
Field Work Sheet

APR 5 1975

BACA #16-536-P1T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA#16  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 3/19/76  
 LINER DESCRIPTION: OPEN HOLE 2905' - T.O. ZERO POINT GL+10'  
 DEPTH 6746'

TUBING DETAILS:

PURPOSE

REMARKS:

P-Q-1000 PSIG- 7198 12889-L 15

ELEMENT 7-800F-6469F SERIAL NO. 10052 CLOCK 13374-L 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0920, T-0930 DISENGAGE STYLUS P-1200, T-1301

WELL HEAD 95

PICKUP @ 6746' TIME ON BOTTOM 1212-1242 MAX. 'F 570

WELL STATUS SHUT IN

SHUT IN: 8/21/75 ON PRODUCTION:

RATE

PSIG					TEMP												
TIME	DEPTH	DEFL.	P-#	GRAD.	IR CORR	TIME	DEPTH	DEFL.	#-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1050	100	.045	102		0	1050	100	.100	23								
1105	1000	.046	105		0	1105	1000	.239	155								
1117	2000	.047	107		0	1117	2000	.733	305								
1130	3000	.198	448		-0.02	1130	3000	1.132	421								
1142	4000	.367	811		-0.01	1142	4000	1.325	474								
1157	5000	.528	1151		+0.01	1157	5000	1.450	507								
1209	6000	.631	1472		+0.02	1209	6000	1.542	531								
1242	6746	.793	1706		+0.01	1242	6746	1.697	570								

COMMENTS:



76

UNION

GEOTHERMAL DIVISION

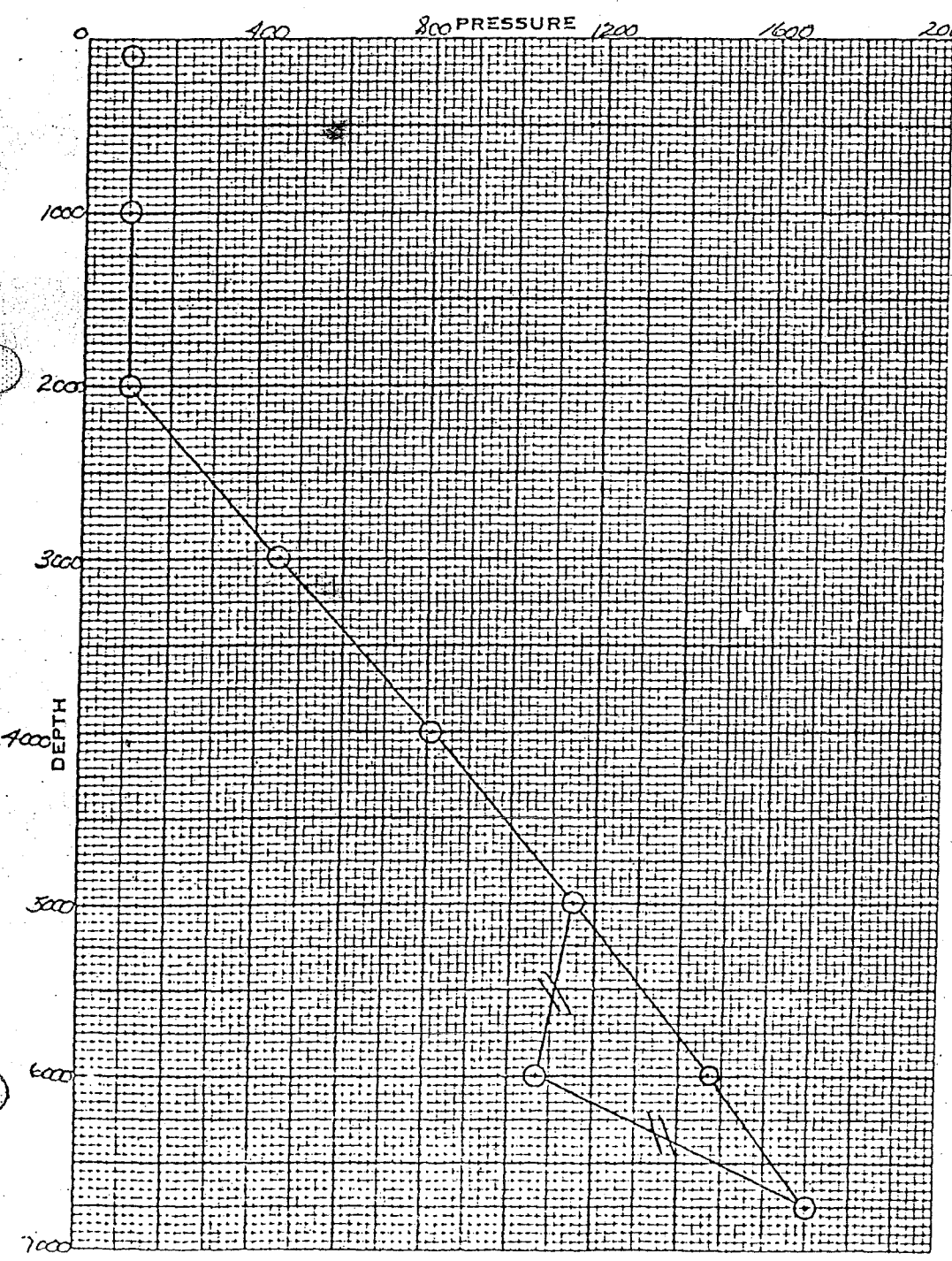
SUBSURFACE PRESSURE SURVEY

B14-S36-PT

OWNER \_\_\_\_\_ FIELD \_\_\_\_\_ WELL NAME BACA #16  
 CASING \_\_\_\_\_ ELEV \_\_\_\_\_ DATE 3/19/76  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT GL +10'  
 \_\_\_\_\_ DEPTH 6746'

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT \_\_\_\_\_ PSI  
 \_\_\_\_\_ SERIAL NO 7198

PURPOSE \_\_\_\_\_ MAX. TEMP 570 °F @ 6746  
 REMARKS: \_\_\_\_\_



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

PRESSURES*	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
100	102	
1000	105	
2000	107	
3000	448	
4000	811	
5000	1151	
6000	1472	
6746	1706	

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

76

WINTON

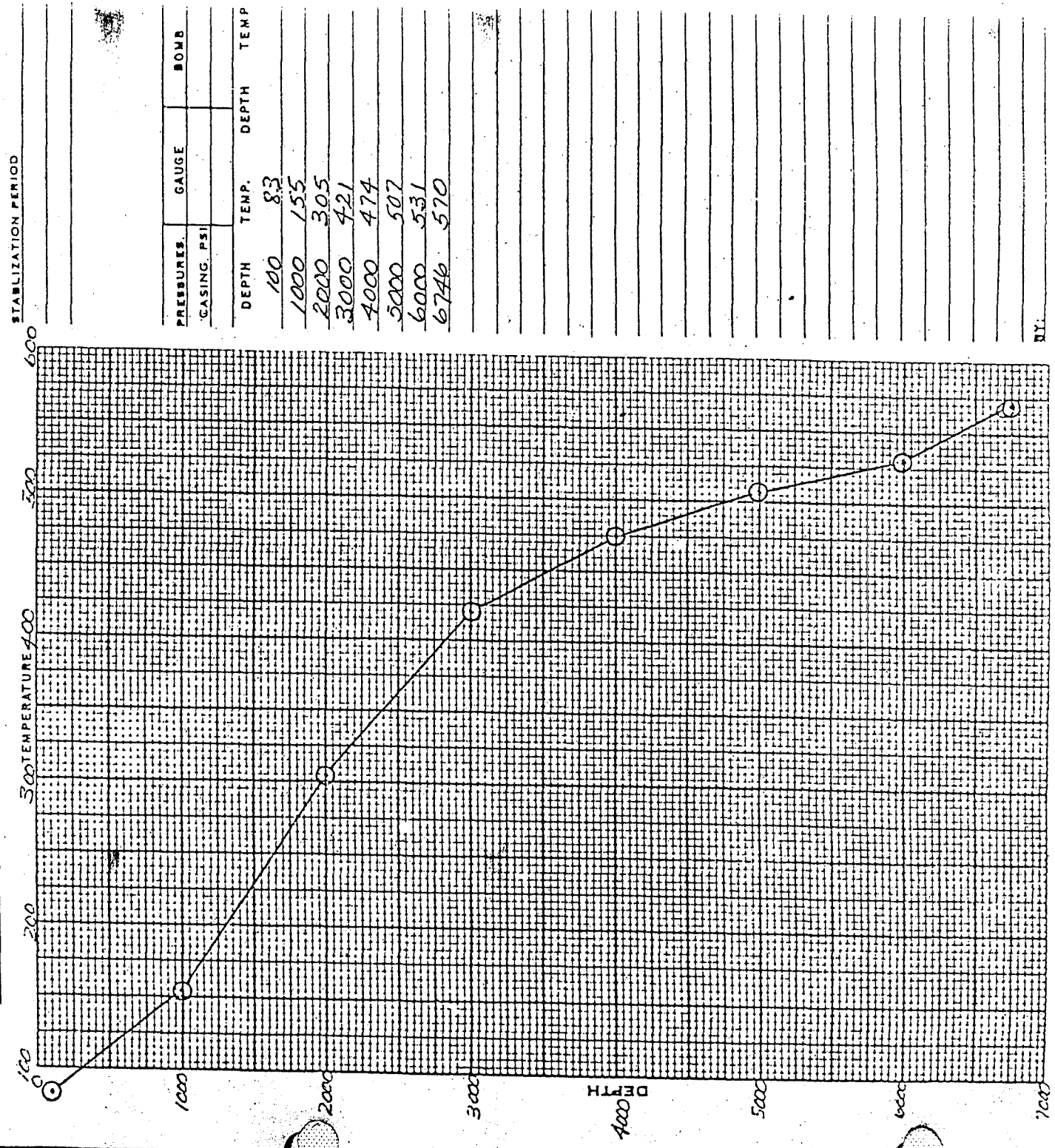
GEOHERMAL DIVISION  
SUBSURFACE TEMPERATURE SURVEY

B16-536-PT

OWNER \_\_\_\_\_ FIELD \_\_\_\_\_  
 CASING \_\_\_\_\_ ELEV \_\_\_\_\_  
 WELL NAME BACA #16  
 DATE 3/19/76  
 ZERO POINT GL 710'  
 DEPTH 6746'

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

PURPOSE \_\_\_\_\_  
 REMARKS \_\_\_\_\_  
 MAX TEMP 510 °F @ 6746'



PRESURES.	GAUGE	BOMB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP
100	83		
1000	155		
2000	305		
3000	421		
4000	474		
5000	507		
6000	531		
6746	510		

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

76

UNION

GEO THERMAL DIVISION

DEL PYLE

MAR 24 1976

SUBSURFACE SURVEY

Field Work Sheet

B16 535 P

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BRIA #16  
 CASING 9 5/8" AT 2905' ELEV. 9622 DATE: 3/11/76  
 CENER DESCRIPTION: 2905' - T.D. = OPEN HOLE ZERO POINT CL +10'  
 DEPTH 6746

LOGGING DETAIL:

PURPOSE

REMARKS:

ELEMENT 0-4000 PSI SN 7198 CLOCK 12 HC 15 TURN

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

ENGAGE STYLUS P-0936 T-0942 DISENGAGE STYLUS P-1539 T-1539

WELL HEAD 89 0-100 T/G

PICKUP @ 6746 TIME ON BOTTOM 1133-1233 MAX. T

WELL STATUS

SHUT IN: 8/21/76 ON PRODUCTION:

RATE

PRESSURE

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	.047	960		0												
	6500	.680	1470		±.002												
	6746	.788	1696		±.001												

COMMENTS: TEMPERATURE ELEMENT DEFECTIVE (NO READINGS)

76

union

GEOTHERMAL DIVISION DEL PYLE

SUBSURFACE SURVEY  
Field Work Sheet

MAR 17 1976

816-534-P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACD#16  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 3/5/76  
 LINER DESCRIPTION: 2905' - T.D. = OPEN HOLE ZERO POINT 66410'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT - C-4000 PSIG 7198 10889- 15  
 ELEMENT - 80°F-600°F SERIAL NO. 10055 CLOCK 13374 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P-0950 T-0955 DISENGAGE STYLUS P-1400 T-1400  
 WELL HEAD 84  
 PICKUP @ 6746' TIME ON BOTTOM 1220-1250 MAX. °F 577.4  
 WELL STATUS SHUT IN.  
 SHUT IN: 8/21/75 ON PRODUCTION:  
 RATE

PRESSURE

TEMPERATURE

PRESSURE					TEMPERATURE					
TIME	DEPTH	DEFL.	P-T	GRAD.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1138	100	040	91		1138	100	-	-	-	-
1216	6060	677	146.3	7.002	1216	6060	1.447	538.4		
1250	6746	783	169.5	7.001	1250	6746	1.584	577.4		

COMMENTS:

BY: J.B. CD

76



GEOHERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

B16-533-P1/P

OWNER UNION OIL CO. OF CALIF. FIELD VALLE GRANDE  
 CASING 95/8" @ 2905' ELEV. 9622'  
 LINER DESCRIPTION: 2905' - 6746' OPEN HOLE  
 WELL NAME BACA #16  
 DATE: 2/24/76  
 ZERO POINT C.L. + 10'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE:

REMARKS:

P<sub>1</sub> - 0 - 4000 PSIG. 7198 125896 - 15  
 ELEMENT P<sub>2</sub> - 0 - 2950 SERIAL NO. 9235 CLOCK 13374 - 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P<sub>1</sub> - 0945 P<sub>2</sub> 0950 DISENGAGE STYLUS P<sub>1</sub> - 1500, P<sub>2</sub> 1525  
 WELL HEAD 79 PSIG  
 PICKUP @ 6746' TIME ON BOTTOM 1300 - 1330 MAX. 'F  
 WELL STATUS SHUT IN  
 SHUT IN: 8/21/75 ON PRODUCTION:

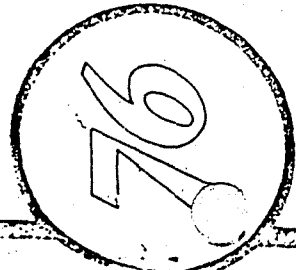
RATE 7198 PRESSURE

9235 PRESSURE

TIME	DEPTH	DEFL.	P-T	GRAD.	TEMP.	TIME	DEPTH	DEFL.	P-T	GRAD.	TEMP.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	.039	89		-	1140	100	.048	81		-						
1201	1000	.040	91		-	1151	1000	.049	83		-						
1203	2000	.040	91		-	1203	2000	.049	83		-						
1220	3000	.195	441		-0.003	1220	3000	.280	442		+0.001						
1232	4000	.364	804		-0.001	1232	4000	.530	800		+0.002						
1244	5000	.528	1151		+0.001	1244	5000	.750	1141		+0.003						
1258	6000	.679	1468		+0.002	1258	6000	.970	1463		+0.005						
1315	6746	.785	1690		+0.002	1315	6746	1.129	1698		+0.002						
1330	6746	.785	1690		+0.002	1330	6746	1.129	1698		+0.002						

COMMENTS:

NOTE: USED TEMP. GRADIENT B#16-531-P1T FOR CORRECTIONS.



**UNION**

# GEOHERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

1216-533-PP

OWNER \_\_\_\_\_ FIELD \_\_\_\_\_ WELL NAME BACA #16

CASING \_\_\_\_\_ ELEV \_\_\_\_\_ DATE 2/24/76

LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT GL + 10'

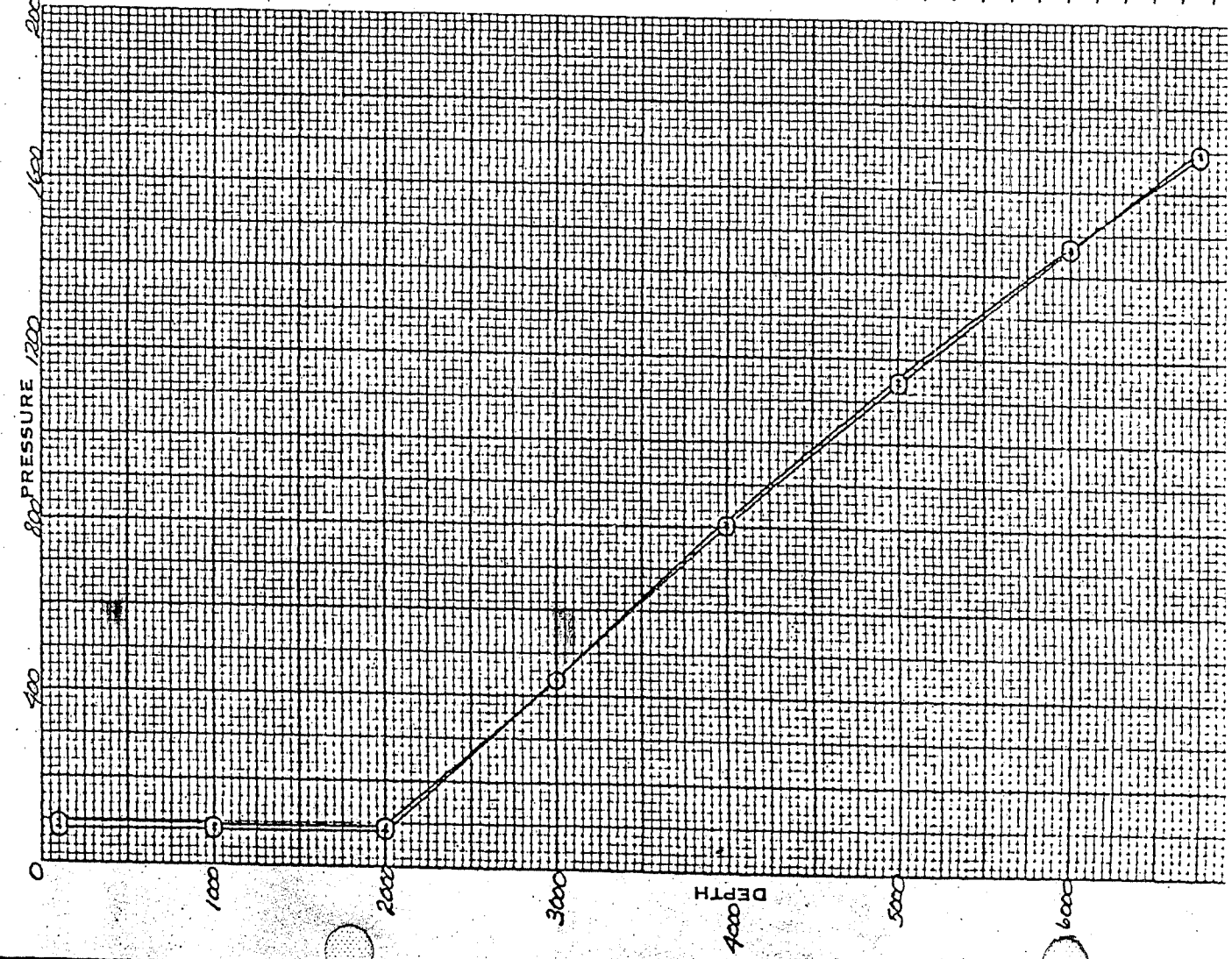
DEPTH 6746'

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT \_\_\_\_\_ PSIC \_\_\_\_\_

PURPOSE \_\_\_\_\_ SERIAL NO 9235

REMARKS: \_\_\_\_\_ MAX TEMP \_\_\_\_\_ °F @ \_\_\_\_\_

DEPTH	#9235 PRESSURE	GRADIENT	PRESSURES, CASING, PSI	GAUGE	BOMB
100	81				
1000	83				
2000	83				
3000	442				
4000	800				
5000	1141				
6000	1563				
6746	1698				



DEPTH	#9235 PRESSURE	GRADIENT
100	81	
1000	83	
2000	83	
3000	442	
4000	800	
5000	1141	
6000	1563	
6746	1698	

76

UNION

GEOTHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

DATE

BACA#16-532 P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA#16.  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 2/13/76.  
 LINER DESCRIPTION: ZERO POINT GLT 10'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT - 0-4000 PSIG. 7198 13374-L. 15  
 ELEMENT - 820F-6860F SERIAL NO. 10055 CLOCK 12889-L 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P-0906 T-0989 DISENGAGE STYLUS P-1147T-1145  
 WELL HEAD 75.5  
 PICKUP @ 6746' TIME ON BOTTOM 1017 - 1032 MAX. 'F 576.9  
 WELL STATUS SHUT IN.  
 SHUT IN: 8/21/75 ON PRODUCTION:  
 RATE

PSIG.

TEMP

TIME	DEPTH	DEFL.	P.#	GRAD.	TO	TIME	DEPTH	DEFL.	P.T	GRAD.	ID	TIME	DEPTH	DEFL.	P.T	GRAD.	ID
0950	100	.035	74.5		0	0950	100	-	-								
1015	6600	.682	1473.8		7.002	1015	6600	1.442	537.0								
1032	6746	.788	1696.0		7.003	1032	6746	1.682	576.9								

COMMENTS:

011 11

76

UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B#16 S-31 P/T

OWNER Union Oil Co. FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 7/8 @ 2905' ELEV. 9622' DATE: 2-2-76  
 LINER DESCRIPTION: 2905' - T.D. = Open Hole ZERO POINT GL + 10  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE Interference Test

REMARKS:

Element 0.4000 PSTG SP 7198 Clock 12hr 15 T

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

ENGAGE SYLUS P 0908 T 0910 DISENGAGE SYLUS P 1620 T 1620

WELL HEAD 71.5

PICKUP @ 6746 TIME ON BOTTOM 1143 - 1243 MAX. F 575.4

WELL STATUS

SHUT IN: 8-21-75 ON PRODUCTION:

RATE

Pressure

Temperature

TIME	DEPTH	DEFL.	P-T	GRAD.	GRAD.	TIME	DEPTH	DEFL.	R-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1023	100	.032	72.7		0	1023	100	0	0								
1035	1000	.033	75.0		0	1035	1000	.270	169.8								
1048	2000	.034	77.3		0	1048	2000	.696	308.2								
1100	3000	.115	441.4		-1.002	1100	3000	1.058	422.4								
1114	4000	.366	808.5		-1.001	1114	4000	1.237	476.9								
1127	5000	.528	1150.9		+1.002	1127	5000	1.354	511.4								
1140	6000	.681	1471.7		+1.002	1140	6000	1.437	536.1								
1143	6746	.788	1696.0		+1.002	1143	6746	1.577	575.4								
1213	6746	.788	1696.0		+1.002	1213	6746	1.577	575.4								
1243	6746	.788	1696.0		+1.002	1243	6746	1.577	575.4								

COMMENTS:

ov. 1 0 1.11



## GEOTHERMAL DIVISION

### SUBSURFACE TEMPERATURE SURVEY

B16-S31-PT

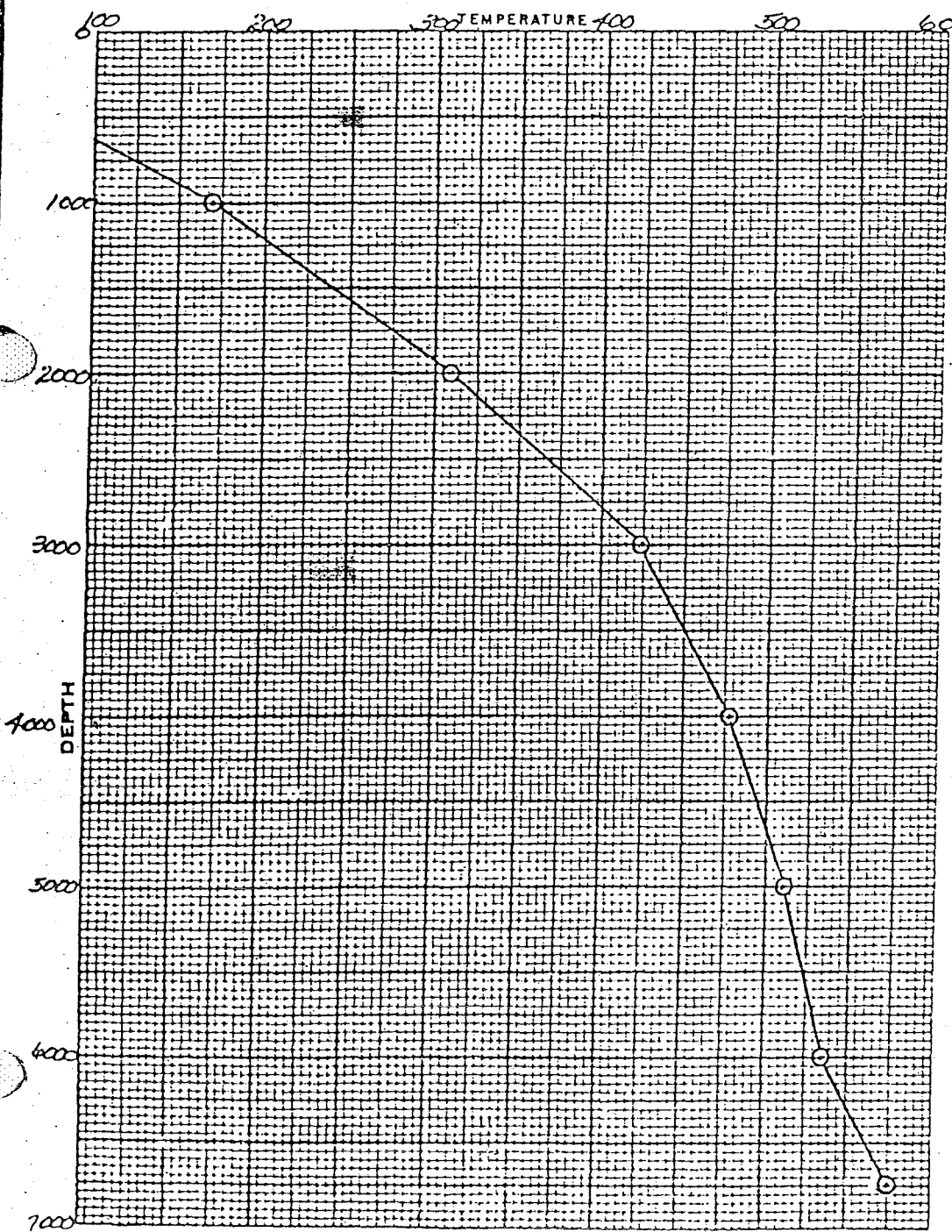
76

OWNER \_\_\_\_\_ FIELD \_\_\_\_\_ WELL NAME BACA #16  
 CASING \_\_\_\_\_ ELEV \_\_\_\_\_ DATE 2/2/76  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT GL +10'  
 \_\_\_\_\_ DEPTH 6746'

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT \_\_\_\_\_ FAXP \_\_\_\_\_  
 \_\_\_\_\_ SERIAL NO 10055

PURPOSE \_\_\_\_\_ MAX TEMP 575.4 °F @ 6746'  
 REMARKS: \_\_\_\_\_

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



PRESSURES	GAUGE	BOMB
CASING PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100	0		
1000	169.8		
2000	308.2		
3000	422.4		
4000	476.9		
5000	511.4		
6000	536.1		
6746	575.4		

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

76

WINN-DIXIE

# GEOHERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

B16 - S31-PT

OWNER \_\_\_\_\_ WELL NAME BARR #16  
 CASING \_\_\_\_\_ DATE 2/2/76  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT 54.710'  
 \_\_\_\_\_ DEPTH 6746'

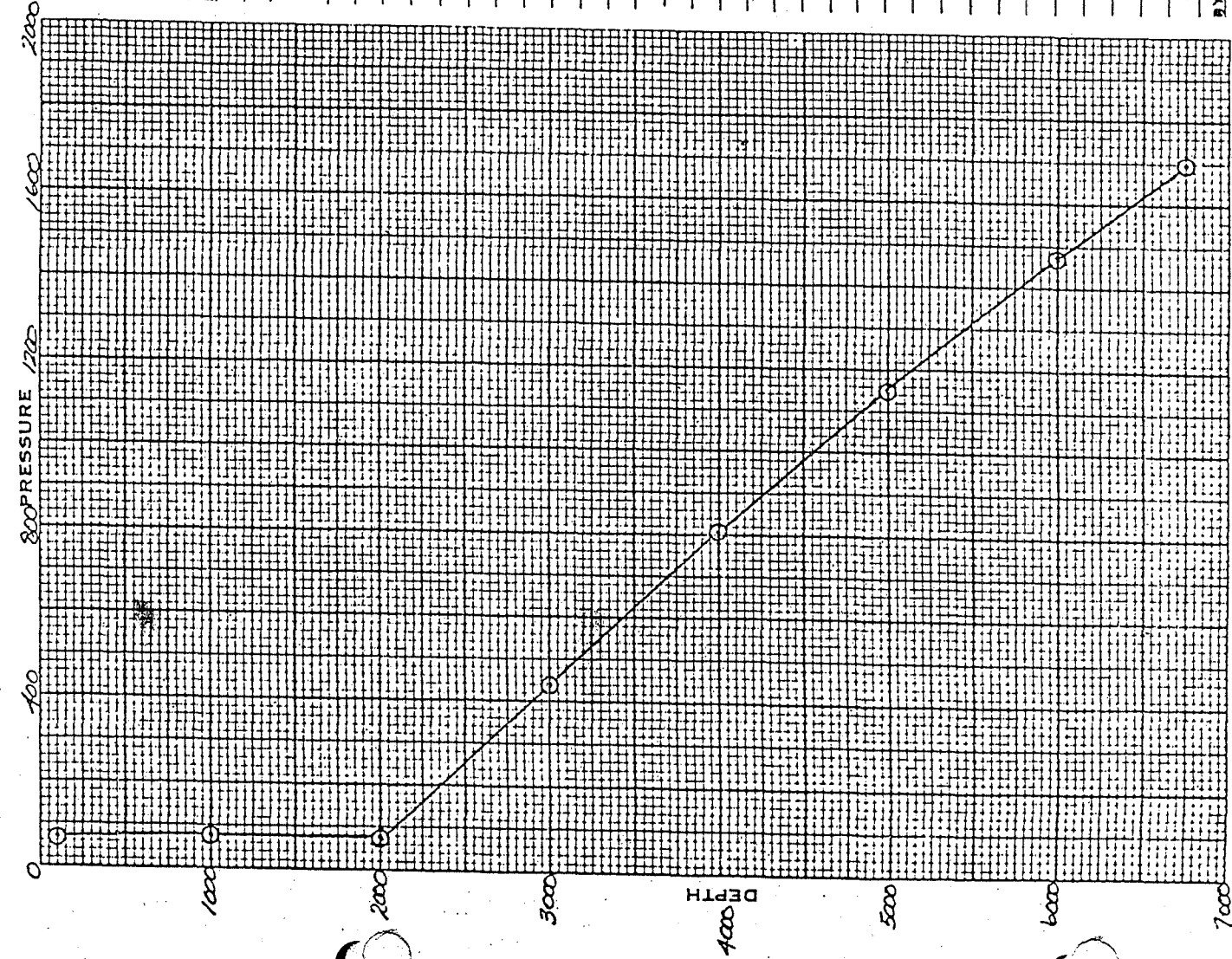
FIELD ELEV \_\_\_\_\_

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

INSTRUMENT \_\_\_\_\_ SERIAL NO 7198  
 \_\_\_\_\_

PURPOSE \_\_\_\_\_ MAX TEMP 575.4 °F @ 6746'

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



PRESSURES	GAUGE	BOMB

DEPTH	PRESSURE	GRADIENT
100	72.7	
1000	75.0	
2000	72.3	
3000	741.4	
4000	808.5	
5000	1150.9	
6000	1771.7	
6746	1696.0	



76

UNION

GEO THERMAL DIVISION

DEL PYLE

JAN 29 1975

SUBSURFACE SURVEY

Field Work Sheet

B16 28 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" AT 2905 ELEV. 9622' DATE 12/30/75  
 LINER DESCRIPTION: 2905 - TD = OPEN HOLE ZERO POINT CL + 10'  
 DEPTH 746'

TUBING DETAIL:

PURPOSE INTERFERENCE TEST

REMARKS:

ELEMENT 0-4000 PSIG SN 7199 CLOCK 12HR 15 TURN

ELEMENT 82'-6.86" SERIAL NO. 10055 CLOCK 12HR 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0936 T-0942 DISENGAGE STYLUS P-1350 T-1350

WELL HEAD 52 PSIG 0-100 T16

PICKUP @ 6746 TIME ON BOTTOM 1216-1316 MAX. F 572.9

WELL STATUS

SHUT IN: 5/21/76

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
10	110	.025	56.8	-	0	1008	110	0	0								
111	6000	.682	1473.8	-	+ .002	1115	6000	1.435	535.0								
1145	6000	.682	1473.8	-	+ .002	1145	6000	1.435	535.0								
1215	6000	.682	1473.8	-	+ .002	1215	6000	1.435	535.0								
1216	6746	.787	1693.9	.295	+ .002	1216	6746	1.568	572.9								
1246	6746	.787	1693.9	-	+ .002	1246	6746	1.568	572.9								
1316	6746	.787	1693.9	-	+ .002	1316	6746	1.568	572.9								

COMMENTS:

76

UNION

DEL PYLE

GEO THERMAL DIVISION

JAN 21 1976

SUBSURFACE SURVEY

Field Work Sheet

B# 529 P/T

OWNER: UNION OIL CO. OF CAL. FIELD: VALLE GRANDE WELL: WME B# 16  
 CASING: 9 3/8" @ 2905' ELEV.: 9622 DATE: 1-10-76  
 LINER DESCRIPTION: 2905' To TD = Open Hole ZERO POINT: 36' + 10'  
 DEPTH: 6' 46'

TUBING DETAIL:

PURPOSE: Interference Test

REMARKS:

Element 0-4000 P/BG SN 7198 clock 12 hr 15T  
 ELEMENT 80° - 686°F SERIAL NO. 10055 CLOCK 12 hr 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P 1050 T 1052 DISENGAGE STYLUS P 1454 T 1454  
 WELL HEAD 57.5  
 PICKUP @ 6746 TIME ON BOTTOM 1326 - 1426 MAX. °F 573.2  
 WELL STATUS  
 SHUT IN: 8-21-76 ON PRODUCTION:  
 RATE

Pressure

Temp.

TIME	DEPTH	DEFL.	P-T	GRAD.	CORP.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DE	P-T	GRAD.	ID
	100	.028	63.6		0	1217	106										
1217	6000	.683	1476		+002	1226	6000	1.436	573.2								
1256	6000	.683	1476		+002	1256	6000	1.436	573.2								
1326	6746	.789	1689		+002	1326	6746	1.569	573.2								
1356	6746	.789	1689		+002	1356	6746	1.569	573.2								
1426	6746	.789	1689		+002	1426	6746	1.569	573.2								

COMMENTS:

M. L. O.



76

UNION 76

GEO THERMAL DIVISION

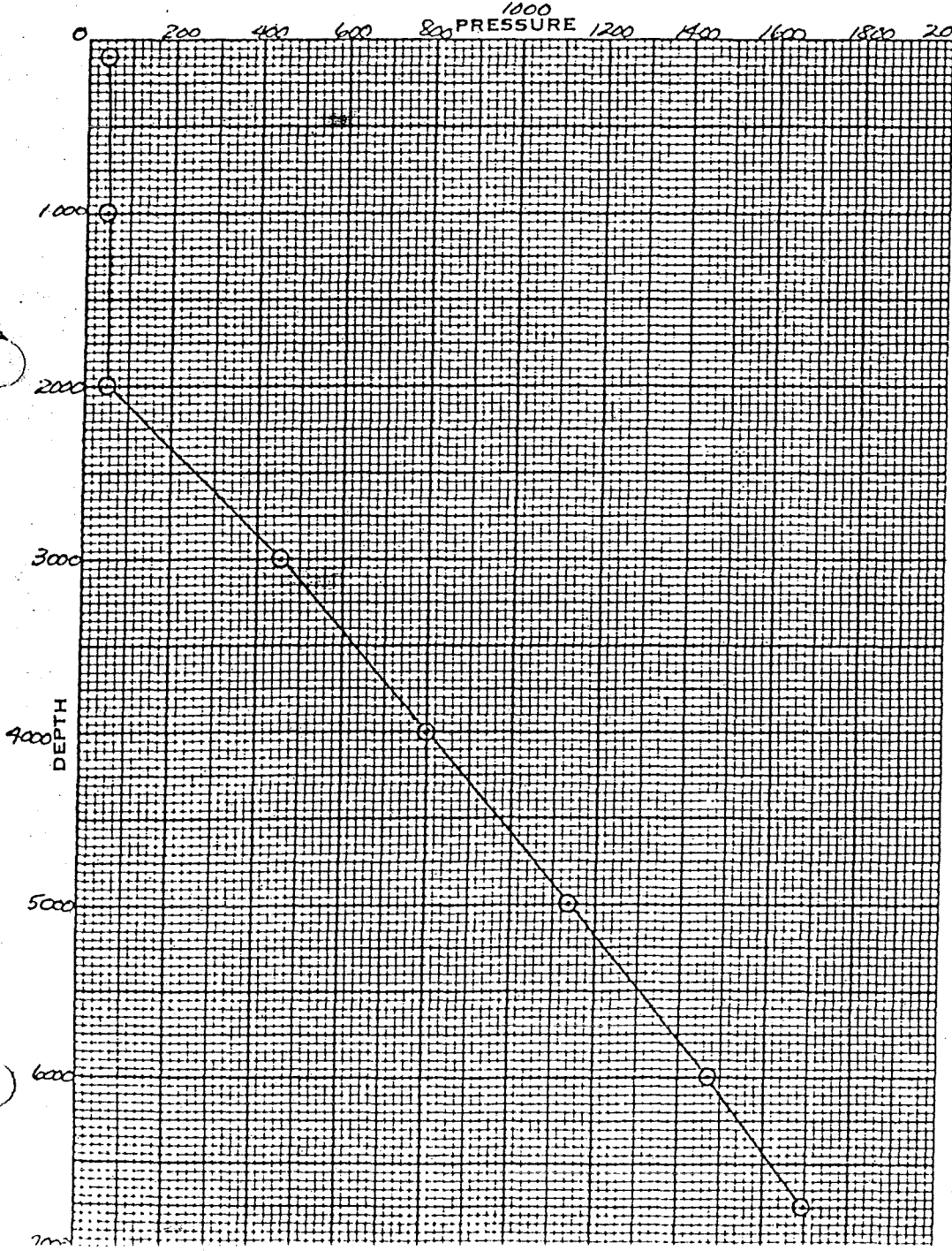
SUBSURFACE PRESSURE SURVEY

OWNER Union Oil Company FIELD Valle Grande WELL NAME Baca #16  
 CASING \_\_\_\_\_ ELEV \_\_\_\_\_ DATE 12/20/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT G.L. + 10'  
 \_\_\_\_\_ DEPTH 6746'

HOLE DESCRIPTION: \_\_\_\_\_  
 \_\_\_\_\_ INSTRUMENT 0 - 4000 PSI  
 \_\_\_\_\_ SERIAL NO 7198

PURPOSE Interference Test MAX TEMP 571.5 °F @ 6746'

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



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

PRESSURES	GAUGE	BOMB
CASING, PSI		

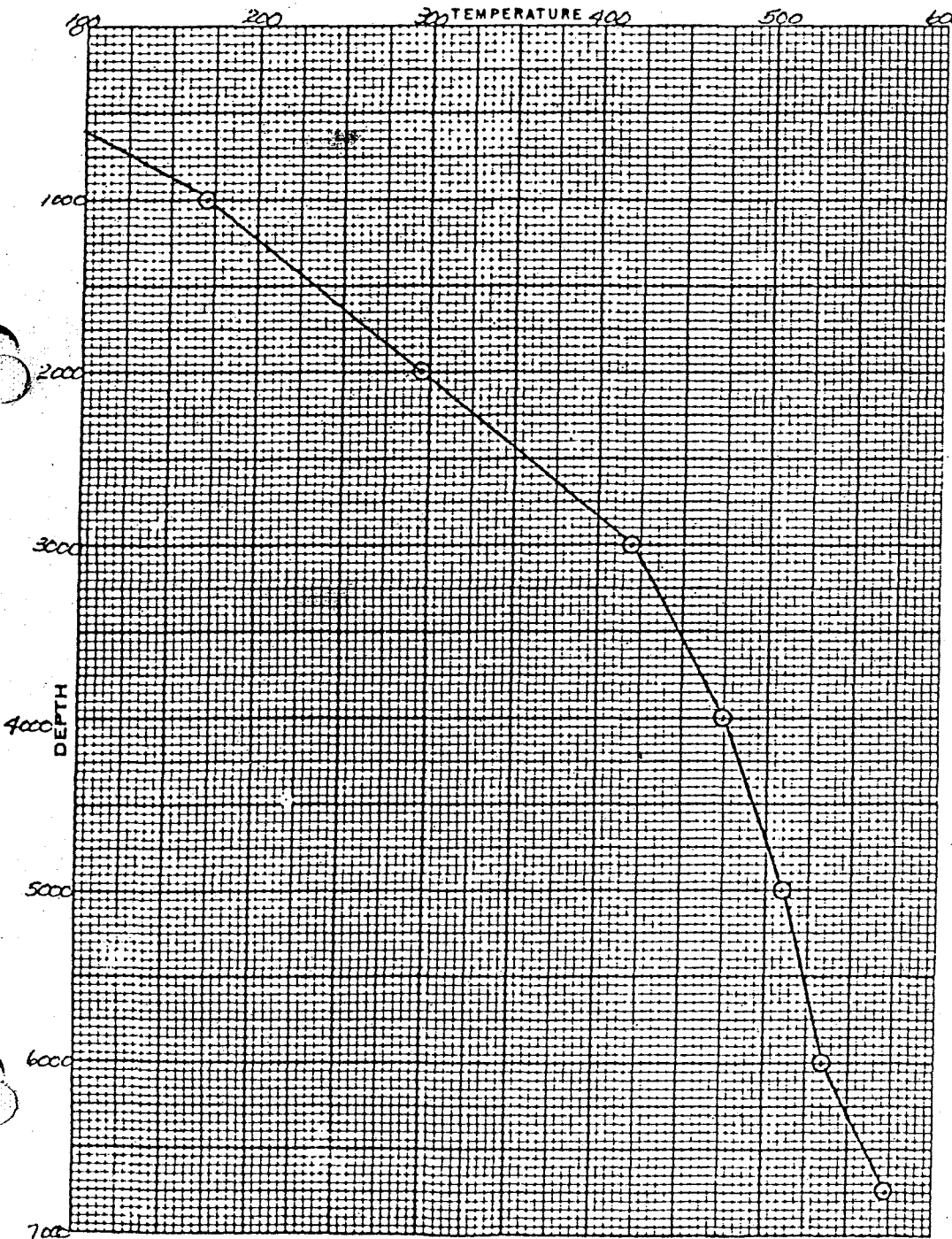
DEPTH	PRESSURE	GRADIENT
100	47.7	
1000	50.0	
2000	52.3	
3000	434.6	
4000	800.0	
5000	1136.3	
6000	1469.6	
6746	1693.9	

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

76

**UNION**  
**GEO THERMAL DIVISION**  
**SUBSURFACE TEMPERATURE SURVEY**

OWNER Union Oil Company FIELD Valle Grande WELL NAME Baca #16  
 CASING \_\_\_\_\_ ELEV \_\_\_\_\_ DATE 12/20/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT G.L. + 10'  
 \_\_\_\_\_ DEPTH 6746'  
 HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 82° - 686° FAHR  
 \_\_\_\_\_ SERIAL NO 10055  
 PURPOSE Interference Test MAX TEMP 571.5 °F @ 6746'  
 REMARKS: \_\_\_\_\_



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

PRESSURES	GAUGE	BOMB
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100	0		
1000	171.5		
2000	296.0		
3000	420.3		
4000	474.3		
5000	510.2		
6000	534.1		
6746	571.5		

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



76

UNION

DEL PYLE

GEOTHERMAL DIVISION

JAN 6 1975

SUBSURFACE SURVEY

Field Work Sheet

B16 526 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" AT 2905' ELEV. 9622' DATE: 12/16/75  
 LINER DESCRIPTION: ZERO POINT GL+10  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE INTERFERENCE TEST

REMARKS:

ELEMENT - 0-400 PSI SN 7198 CLOCK - 12 hr 15 TURN  
ELEMENT 82°-686° SERIAL NO. 10055 CLOCK - 12 hr 15 TURN STABILIZATION PERIOD  
ENGAGE SYLUS P-1027 F-1025 DISENGAGE SYLUS P-1532 T 1528  
 WELL HEAD 50 PSIG  
 PICKUP @ 6740 TIME ON BOTTOM 1253 - 1353 MAX. T 571.5  
 WELL STATUS \_\_\_\_\_  
 SHUT IN: 8/21/75 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
11	6000	.680	1469.6		+ .002	1140	6000	1.429	533.3								
12	6000	.680	1469.6		+ .002	1210	6000	1.429	533.3								
1240	6000	.680	1469.6		+ .002	1240	6000	1.429	533.3								
1253	6746	.788	1696.0		+ .001	1253	6746	1.563	571.5								
1323	6746	.788	1696.0		+ .001	1323	6746	1.563	571.5								
1353	6746	.788	1696.0		+ .001	1353	6746	1.563	571.5								

COMMENTS: CALIBRATION CHECK W/ DWI DEF = .923  
 AT 75 °F  
 COR = +.011  
 COR DEF = .934

76

UNION

DEE PYLE

GEO THERMAL DIVISION DEC 18 1975

SUBSURFACE SURVEY

Field Work Sheet

B#16 S25 OT

OWNER Union Oil Company FIELD Challe Grande WELL NAME BACA #16  
 CASING 9 7/8 @ 2905' ELEV. 9622' DATE: 12-9-75  
 LINER DESCRIPTION: ZERO POINT GL + 10  
 DEPTH 6748

TUBING DETAIL:

PURPOSE Interference Test

REMARKS:

Element 0-4000 PSIG SN7198 Clock 12 hr 15T

ELEMENT 22°-686°F SERIAL NO. 10055 CLOCK 12hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P0938 T0936 DISENGAGE STYLUS P1416 T1418

WELL HEAD 48

PICKUP @ 6748' TIME ON BOTTOM 1146 - 1256 MAX. P. 571.5

WELL STATUS

SHUT IN: 8/21/75

ON PRODUCTION:

RATE

PSI

only

Temp.

TIME	DEPTH	DEFL.	P-T	GRAD.		TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100					1015	100										
	6000	680	1469.6		±.002	1040	6000	1.432	534.0								
	6000	675	1469.6		±.002	1110	6000	1.432	534.0								
	6000	680	1469.6		±.002	1140	6000	1.432	534.0								
	6748	785	1689.7		±.001	1146	6748	1.563	571.5								
	1216	6748	785	1689.7		±.001	1216	6748	1.563	571.5							
	1256	6748	785	1689.7		±.001	1256	6748	1.563	571.5							

COMMENTS:

BY: [Signature]

76

UNION

GEO THERMAL DIVISION

DEL PYLE

DEC 16 1975

SUBSURFACE SURVEY

Field Work Sheet

616 534 PIT

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" AT 2905' ELEV. 9622' DATE: 12/3/75  
 LINER DESCRIPTION: ZERO POINT CL+10'  
 DEPTH 6748'

TUBING DETAIL:

PURPOSE INTERFERENCE TEST

REMARKS:

ELEMENT - 0-4000 PSIG SN 7198 CLOCK - 12 HR 15 TURN  
 ELEMENT 82°-686 °F SERIAL NO. 10055 CLOCK 12 HR 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P-0930 T-0933 DISENGAGE STYLUS 17-1348 T 1348  
 WELL HEAD 46.5 PSIG 0-100 T/6  
 PICKUP @ 6748' TIME ON BOTTOM 1153 - 1253 MAX. °F  
 WELL STATUS  
 SHUT IN: 8/21/75 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
	100	.018	41.0		0	1059	110	.005	83.3								
10	150	.019	43.0		0	1216	150	.270	170.0								
1053	200	.020	45.5		0	1053	200	.656	296.0								
1110	300	.191	432.0		- .002	1110	300	1.050	420.0								
1123	400	.360	776.0		- .001	1123	400	1.228	474.0								
1137	500	.519	1132.0		+ .001	1137	500	1.349	510.0								
1150	600	.673	1455.0		+ .002	1150	600	1.432	534.0								
1153	6748	.785	1690.0		+ .002	1153	6748	1.560	570.6								
1223	6748	.785	1690.0		+ .002	1223	6748	1.560	570.6								
1253	6748	.786	1690.0		+ .002	1253	6748	1.560	570.6								

COMMENTS:

716

# GEO THERMAL DIVISION

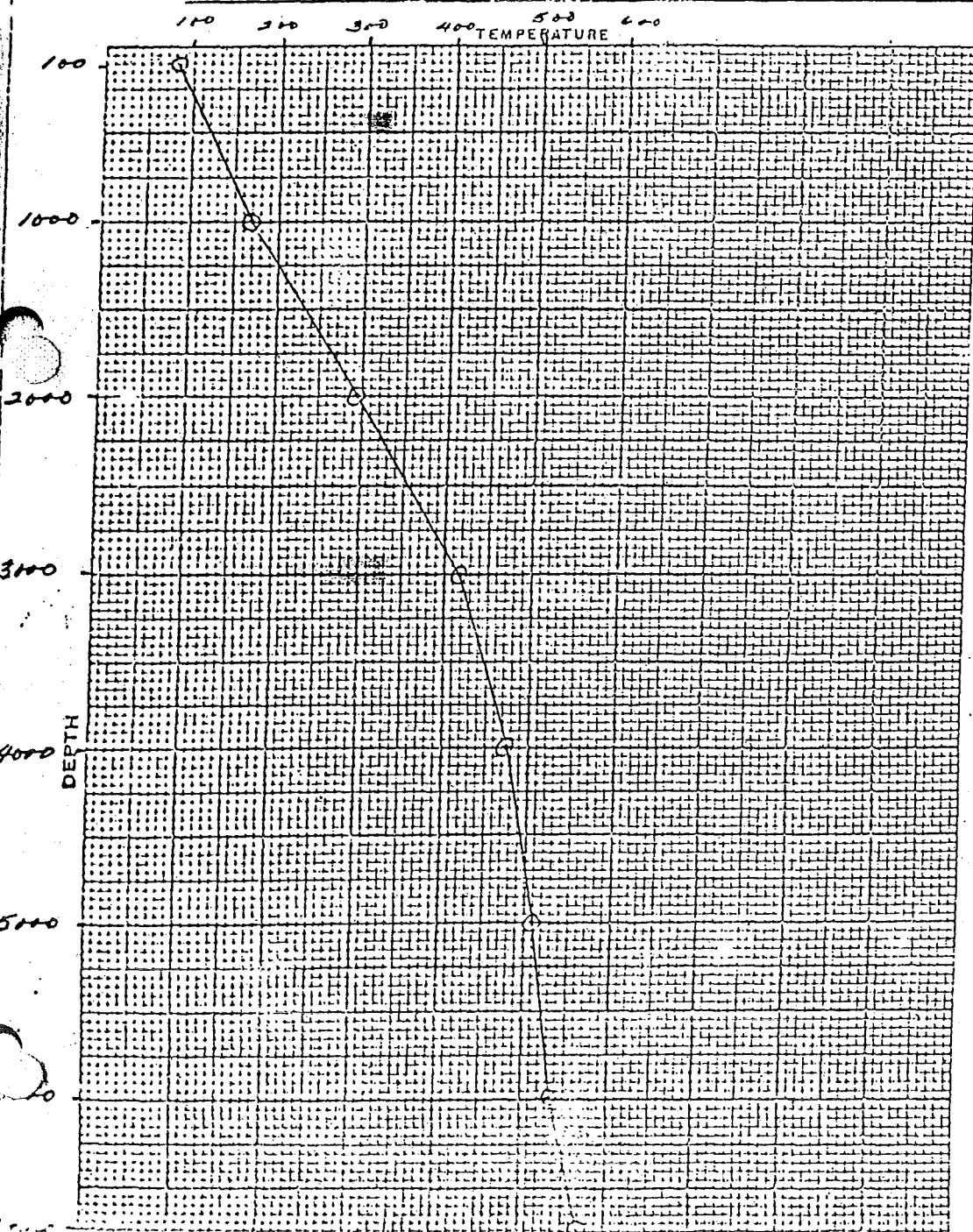
## SUBSURFACE TEMPERATURE SURVEY

B16 524 T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" AT 2905' ELEV. 9672' DATE: 12/13/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT 6.2 ± 10'  
 DEPTH 6748'

HOLE DESCRIPTION: 2905 - TD = OPEN HOLE  
 INSTRUMENT 82°-686° PAN  
 SERIAL NO 10055

PURPOSE INTERFERENCE TEST MAX TEMP. 570.6 °F @ 6748'  
 REMARKS: \_\_\_\_\_



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

PRESSURE	GAUGE	DEPTH
CASING PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100	83.3		
1000	170		
2000	296		
3000	420		
4000	474		
5000	510		
6000	534		
6748	570.6		
6748	570.6		
6748	570.6		

JB

# GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

76

B16 524 P

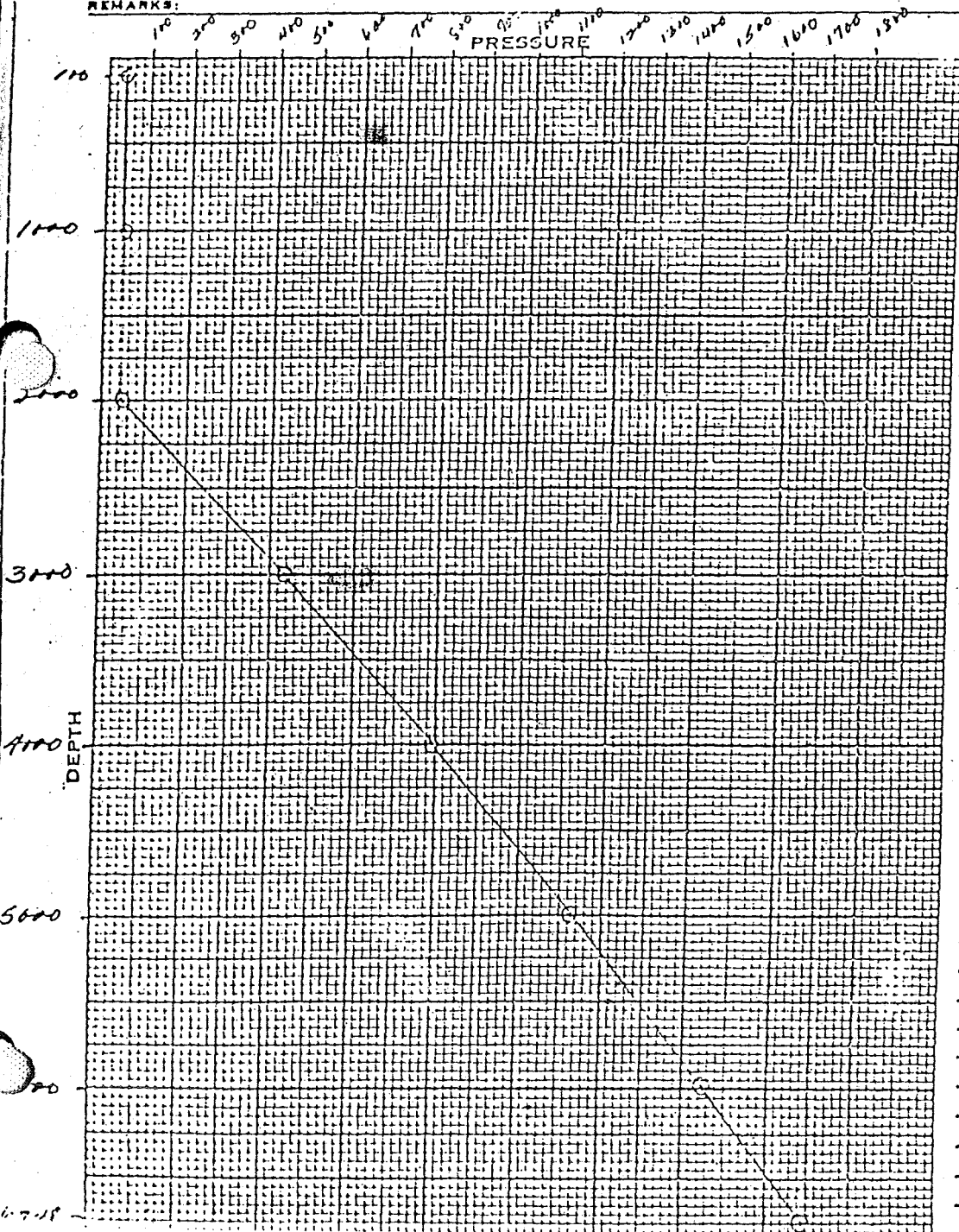
OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BAC-16  
 CASING 9.516" AT 2905 ELEV. 9622' DATE: 12/3/75  
 LINEAR DESCRIPTION: \_\_\_\_\_ ZERO POINT GL +10'  
 \_\_\_\_\_ DEPTH 6748'

HOLE DESCRIPTION: 2905' - TD = OPEN HOLE  
 \_\_\_\_\_ INSTRUMENT 0-4000 PSI  
 \_\_\_\_\_ SERIAL NO 7198

PURPOSE \_\_\_\_\_ MAX. TEMP 570.6 °F @ 6748

REMARKS:

STABILIZATION PERIOD



PRESSURES.	GAUGE	0049
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
100	41	
1000	45	
2000	45.5	
3100	45.2	
4000	796	
5000	1132	
6000	1455	
6748	1690	
6748	1690	
6748	1690	

JB

76

UNION

DEL' PYLE

GEOHERMAL DIVISION DEC 5 1975

SUBSURFACE SURVEY

Field Work Sheet

8#16 S-23 PT

OWNER UNION Oil Company FIELD VALLE GRANDE WELL NAME B#16  
 CASING 9 1/2" C 2905 ELEV. 9622' DATE: 11-24-75  
 LINER DESCRIPTION: 2905 To TD = OPEN Hole ZERO POINT CL # 10'  
 DEPTH 6748'

TUBING DETAIL:

PURPOSE Interference Test

REMARKS:

Element - 0-4000 PSI SN 7198 Clock 12 hr 15 T

ELEMENT 8 1/2" - 686° F SERIAL NO. 10055 CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0930 ~~7~~ 0936 DISENGAGE STYLUS P-1415 T-1415

WELL HEAD 44.25 PSI 0-100 T/C

PICKUP @ 6748 TIME ON BOTTOM 1056 - 1306 MAX. F 567.7

WELL STATUS

SHUT IN: 8-21-75

ON PRODUCTION:

RATE

Pressure

T	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	R-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	.30	45.5			1056	100										
1164	6000	.673	1454.9			1124	6000	1.245	479.3								
131	6000	.673	1454.9			1134	6000	1.245	479.3								
201	6000	.673	1454.9			1204	6000	1.245	479.3								
1206	6748	.785	1639.7			1206	6748	1.550	567.7								
1236	6748	.785	1639.7			1236	6748	1.550	567.7								
306	6748	.785	1639.7			1306	6748	1.550	567.7								

COMMENTS: New Depth - 6748' - From 6746'

76

UNION

DEI' PYLE

GEOHERMAL DIVISION

DEC 5 1975

SUBSURFACE SURVEY

Field Work Sheet

1316 S-22 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BASH #16  
 CASING 9 5/8" AT 2905 ELEV. 9622' DATE: 11/17/75  
 LINER DESCRIPTION: 2905 - TD = OPEN HOLE ZERO POINT: G.L. 110'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE INTERFERENCE TEST

REMARKS:

ELEMENT 0-9000 PSI SN 7195 CLOCK 12 hr 15 TURN  
 ELEMENT 82°-6864 SERIAL NO. 10055 CLOCK 12 hr 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P: 0941 T: 0938 DISENGAGE STYLUS P: 1438 T: 1438  
 WELL HEAD 42.5 PSIG 0-100 T/C  
 PICKUP @ 6746' TIME ON BOTTOM 1217-1317 MAX. 567.7  
 WELL STATUS  
 SHUT IN: 5/21/75 ON PRODUCTION:  
 RATE

PRESSURE

TEMPERATURE

PRESSURE					TEMPERATURE											
DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
11	6.000	.672	1452.8		1115	6000	1.425	532.1								
11	6.000	.672	1452.8		1145	6000	1.425	532.1								
1215	6.000	.672	1452.8		1215	6000	1.425	532.1								
1217	6.746	.785	1639.7		1217	6746	1.550	567.7								
1247	6.746	.785	1639.7		1247	6746	1.550	567.7								
1317	6.746	.785	1639.7		1317	6746	1.550	567.7								

COMMENTS: FIELD CALIB. CORR. +.011  
DWIT 1900# DECL. 0.870 CORR. 316.881 Pressure = 1891

BAT CAT



# GEO THERMAL DIVISION

NOV 19 1975  
DEL RYLE

## SUBSURFACE SURVEY Field Work Sheet

B#16 - S-21 P/T



OWNER Union Oil Company FIELD Valle Grande WELL NAME B#16  
 CASING 9 7/8 @ 2905 ELEV. 9622' DATE: 11-11-75  
 LINER DESCRIPTION: 2905' - TD = Open Hole ZERO POINT CL +10'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE Gradient Survey

REMARKS:

Element 0-4000 PSI SN 7198 clock 12 hr 15T

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

ENGAGE STYLUS P 0911 T 0909 DISENGAGE STYLUS P-1350 T 1350

WELL HEAD 43 PSI

PICKUP @ 6746 TIME ON BOTTOM 1138-1248 MAX. 564.6

WELL STATUS

SHUT IN: 8-21-75 ON PRODUCTION:

RATE

Pressure

Temperature

Pressure					Temperature													
TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	R-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	
07	100				0	1021	100											
08	200	.020	45.5		0	1033	1000	.276	171.8									
09	300	.027	61.4		0	1045	2000	.642	291.2									
17	3000	.200	452.6		-.002	1057	3000	1.036	416.0									
19	4000	.368	812.8		-.001	1109	4000	1.215	470.1									
22	5000	.527	1148.8		+1.003	1122	5000	1.340	507.3									
25	6000	.676	1461.2		+1.003	1135	6000	1.422	531.3									
25	6746	.789	1698.1		+1.002	1205	6746	1.539	564.6									
35	6746	.789	1698.1		+1.002	1235	6746	1.539	564.6									
21	6746	.789	1698.1		+1.002	1248	6746	1.539	564.6									

COMMENTS:

BY: M/A Cap



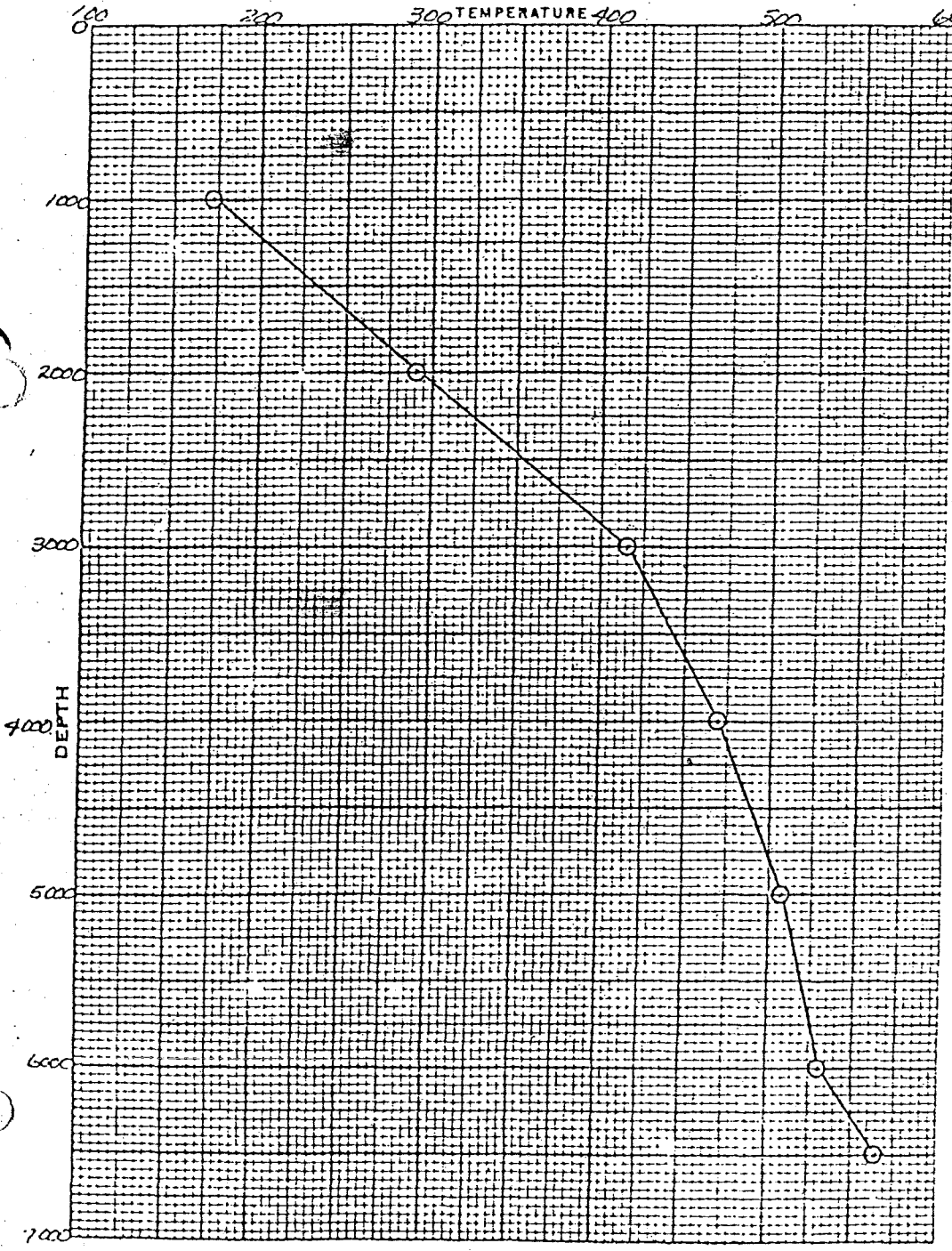
76

GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE SURVEY B16-S21-PT

OWNER Union Oil Company FIELD Valle Grande WELL NAME Baca #16  
 CASING \_\_\_\_\_ ELEV 9622' DATE 11/11/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT G.L. +10'  
 \_\_\_\_\_ DEPTH 6746'  
 HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 82 - 686° FAHF  
 \_\_\_\_\_ SERIAL NO 10055  
 PURPOSE \_\_\_\_\_ MAX TEMP 564.6°F @ 6746'  
 REMARKS \_\_\_\_\_

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



PRESSURES	GAUGE	BOMB	
CASING PSI			
DEPTH	TEMP.	DEPTH	TEMP.
100			
1000	171.8		
2000	291.2		
3000	416.0		
4000	470.1		
5000	507.3		
6000	531.3		
6746	564.6		

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

76

UNION

**GEO THERMAL DIVISION**  
**SUBSURFACE PRESSURE SURVEY**      B16-S21-PT

OWNER Union Oil Company      FIELD Valle Grande      WELL NAME Baca #16

CABING \_\_\_\_\_      DATE 11/11/75

LINER DESCRIPTION: \_\_\_\_\_      ZERO POINT G.L. +10'

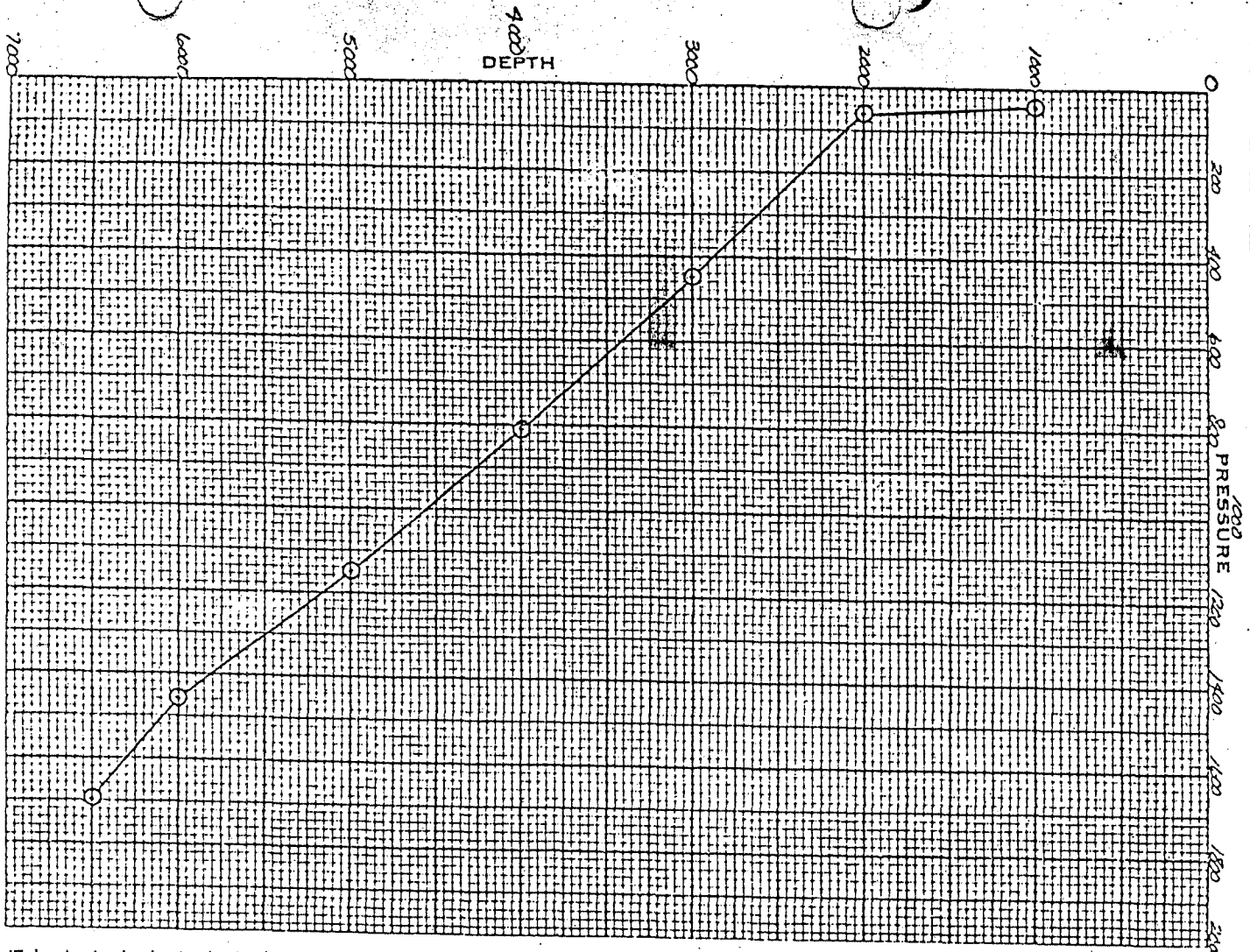
DEPTH 6746'

HOLE DESCRIPTION:

INSTRUMENT 0 - 4000      PSIC  
 SERIAL NO 7198

PURPOSE \_\_\_\_\_      MAX TEMP 564.6°F @ 6746'

REMARKS: \_\_\_\_\_      STABILIZATION PERIOD \_\_\_\_\_



PRESSURES	GUAGE	BOMB
CASING PSI		
DEPTH	PRESSURE	GRADIENT
100		
1000	45.5	
2000	61.4	
3000	452.6	
4000	812.8	
5000	1148.8	
6000	1461.2	
6746	1698.1	

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

76

UNION

GEOHERMAL DIVISION

JOHN D. HARTZ  
NOV 06 1975

SUBSURFACE SURVEY  
Field Work Sheet

B16 519 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" AT 2905' ELEV. 9622 DATE: 10/31/75  
 LINER DESCRIPTION: 2905' - TD = OPEN HOLE ZERO POINT GL+10'  
 DEPTH 6746

TUBING DETAIL:

PURPOSE

REMARKS:

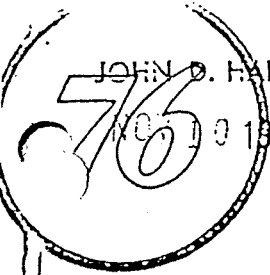
ELEMENT - 0-9000 PSI SN 7193 CLOCK - 12 hr 16 T  
 ELEMENT 87°-6.86°F SERIAL NO. 10055 CLOCK 12 hr 16 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P1250 T 4250 DISENGAGE STYLUS P1650 T 1650  
 WELL HEAD 39 PSIG  
 PICKUP @ 6746 TIME ON BOTTOM 1450-1550 MAX. °F 565  
 WELL STATUS STATK.  
 SHUT IN: 8/21/75 ON PRODUCTION:  
 RATE

PRESSURE

TEMPERATURE

PRESSURE					TEMPERATURE											
TIME	DEPTH	DEFL.	P-T	GRAD.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1335	100	0.20	45.5	-	0	1335	100	0	0							
1444	2000	1.80	1470	-	+1002	1444	2000	1.470	531.3							
1550	6746	1.790	1700.2	-	+1002	1550	6746	1.540	565							

COMMENTS:



JOHN D. HARTZ

NOV 19 1975



# GEO THERMAL DIVISION

## SUBSURFACE SURVEY

### Field Work Sheet

B#16 5-20 PH

OWNER Union Oil Co. of Calif. FIELD Valle Grande WELL NAME BACA#16  
 CASING 9 5/8 @ 2905' ELEV. 9622' DATE: 11/6/75  
 LINER DESCRIPTION: 2905' - T.D. - open hole ZERO POINT GL + 10'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE

REMARKS:

Element 0-4000 Rig SN-7198 Clock-12hr 25T  
 ELEMENT 82°-686°F SERIAL NO. 10055 CLOCK 12 hr 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P-0853 ~~T-0857~~ DISENGAGE STYLUS P-1425 ~~T-1426~~  
 WELL HEAD 41.5 Rig  
 PICKUP @ 6746' TIME ON BOTTOM 1135-1245 MAX. 'F 565°F  
 WELL STATUS Static  
 SHUT IN: 8/21/75 ON PRODUCTION:  
 RATE

PRESSURE

TEMPERATURE

PRESSURE					TEMPERATURE												
TIME	DEPTH	DEFL.	P-T	GRAD.	CO. EX.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	.022	50	—	0	1019	100	0	0	—							
	6000	.682	1474	—	+1.002	1130	6000	1.416	529.6	—							
	6746	.787	1694	—	+1.002	1245	6746	1.540	564.9	—							

COMMENTS:

76

PHENIX

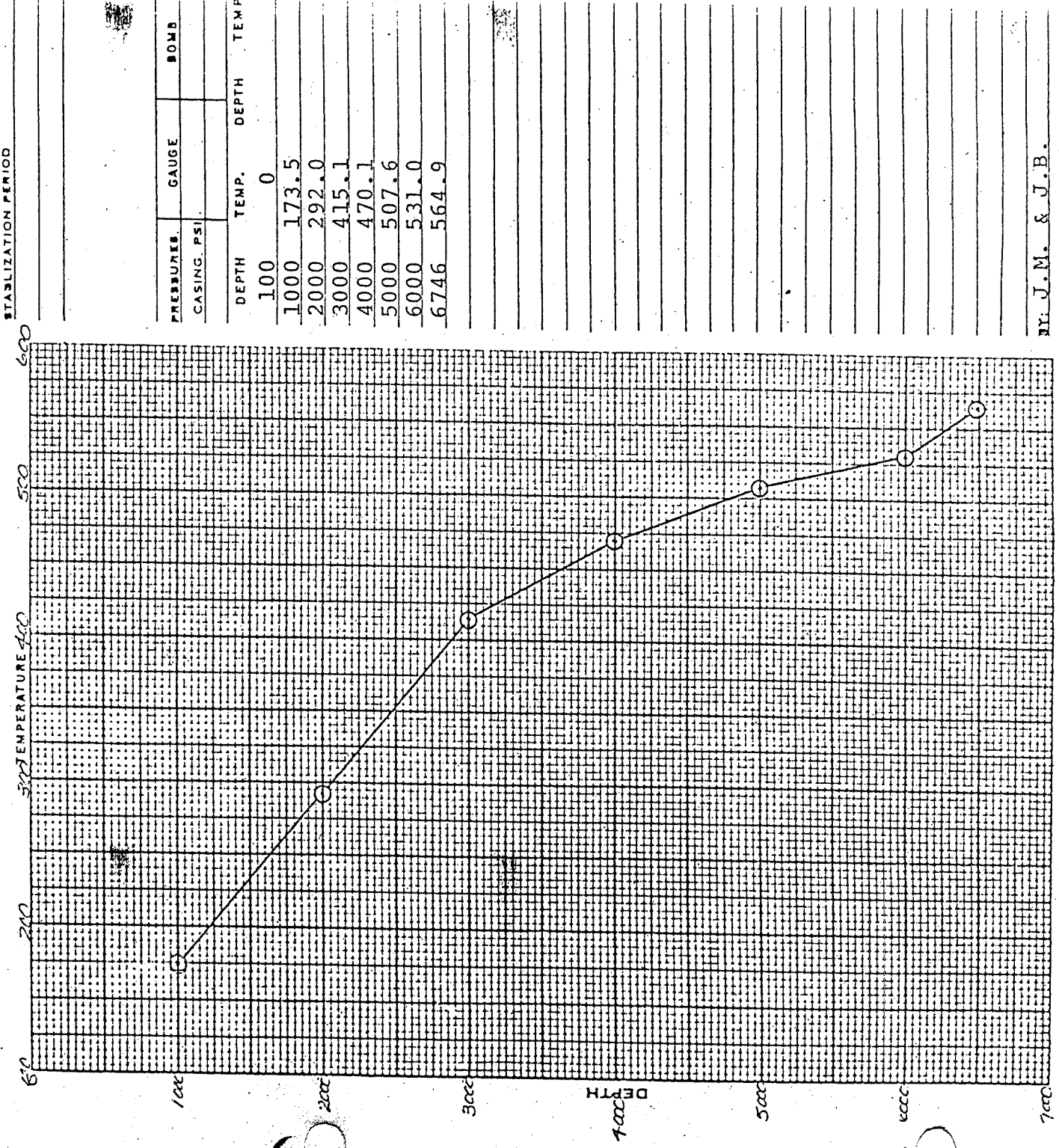
# GEOHERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

B16-518-PT

OWNER Union Oil Company FIELD Valle Grande WELL NAME Baca #16  
 CASING ELEV DATE 10/25/75  
 LINER DESCRIPTION \_\_\_\_\_ ZERO POINT G.L. +10'  
 \_\_\_\_\_ DEPTH 6746'

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT \_\_\_\_\_ FAH? \_\_\_\_\_  
 \_\_\_\_\_ SERIAL NO 10055

PURPOSE \_\_\_\_\_ MAX TEMP 564.9 °F @ 6746'  
 REMARKS \_\_\_\_\_



PRESSURES	GAUGE	BOMB
CASING PSI		
DEPTH	TEMP.	DEPTH
100	0	
1000	173.5	
2000	292.0	
3000	415.1	
4000	470.1	
5000	507.6	
6000	531.0	
6746	564.9	

BY: J.M. & J.B.

76

# GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

B16-S18-PT

OWNER Union Oil Company FIELD Valle Grande WELL NAME Baca #16

CASING \_\_\_\_\_ ELEV \_\_\_\_\_ DATE 10/25/75

LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT G.L. ±10'

DEPTH 6746'

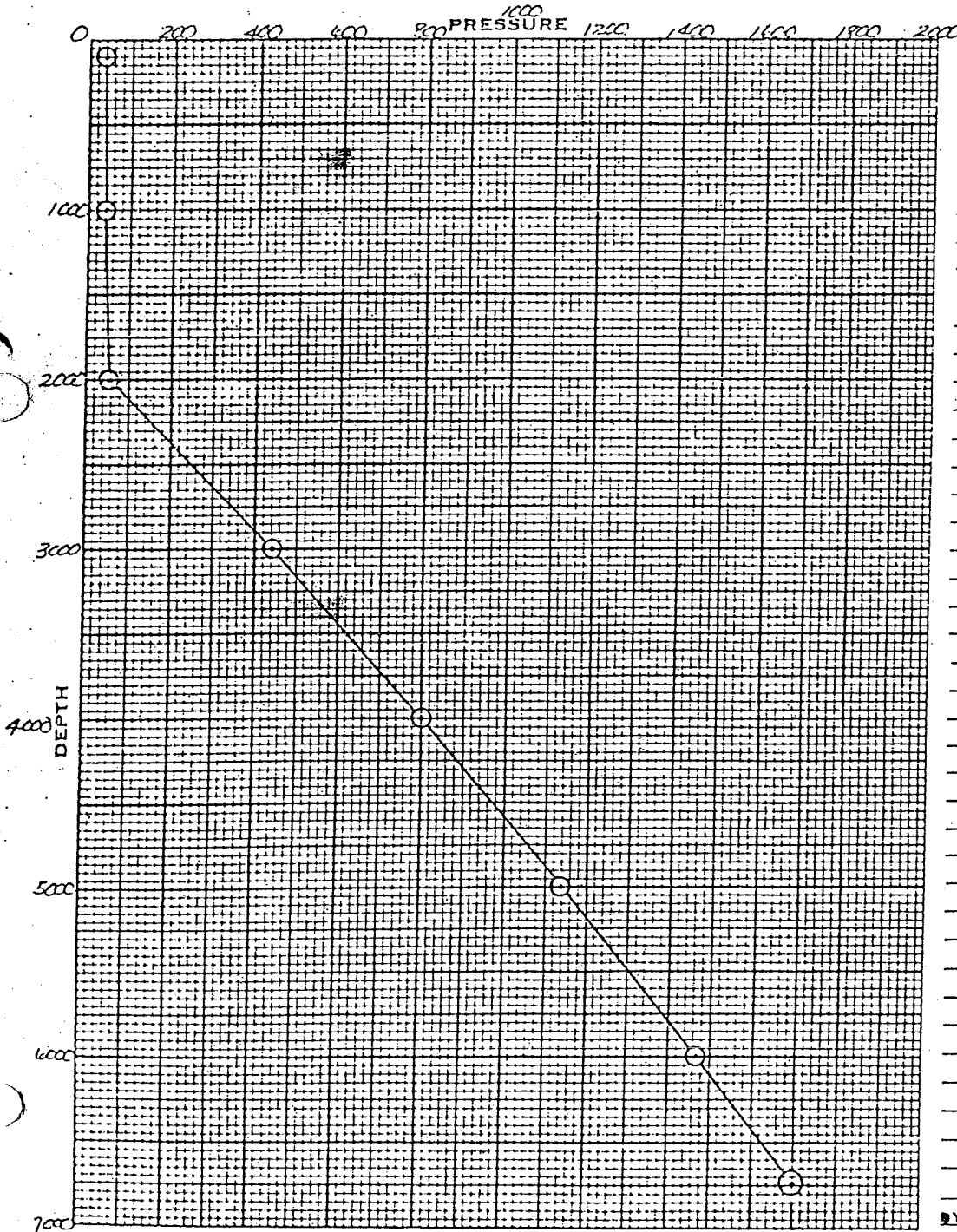
HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 0 - 4000 PSI

SERIAL NO 7198

PURPOSE Gradient Survey MAX TEMP 564.9°F @ 6746'

REMARKS:

STABILIZATION PERIOD



PRESSURES.	GAUGE	BOMB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
100	40.9	
1000	43.2	
2000	56.8	
3000	441.4	
4000	800.0	
5000	1140.5	
6000	1472.0	
6746	1700.2	

BY: J.M. and J.B.

76

UNION

DEL PYLE

NOV 7 1975

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

BIL 518 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8 AT 2905 ELEV. 9622' DATE: 10/25/75  
 LINER DESCRIPTION: 2905 - TD = OPEN HOLE ZERO POINT GLT 10'  
 DEPTH 6746'

TUBING DETAIL:

PURPOSE GRADIENT SURVEY

REMARKS:

ELEMENT - 0-4000 PSI SN 7198 CLOCK 12 hr 15 T  
 ELEMENT 820-6860 PSI SERIAL NO. 10055 CLOCK 12 hr 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P-1002 T-1002 DISENGAGE STYLUS P-1358 T-1402  
 WELL HEAD 37.5 PSI  
 PICKUP @ 6746 TIME ON BOTTOM 1213-1313 MAX. T 564.9  
 WELL STATUS  
 SHUT IN: 8/21/75 ON PRODUCTION:  
 RATE

PRESSURE

TEMPERATURE

PRESSURE					TEMPERATURE											
DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
100	.018	40.9		C	1058	100	0	0								
1100	.019	43.2		0	1110	1000	1.281	175.5								
1122	.025	56.8		0	1122	2000	1.643	292.0								
1134	.195	441.4		-002	1134	3000	1.033	415.1								
1147	.362	800.0		-001	1147	4000	1.214	470.1								
1159	.523	1140.5		+001	1159	5000	1.341	507.6								
1210	.481	1472.0		+003	1210	6000	1.421	531.0								
1213	.790	1700.2		+002	1213	6746	1.540	564.9								
1243	.790	1700.2		+002	1243	6746	1.540	564.9								
1313	.790	1700.2		+002	1313	6746	1.540	564.9								

COMMENTS:

76

LEHIGH

GEO THERMAL DIVISION

SUBSURFACE SURVEY

DEL PYLE

Field Work Sheet

OCT 22 1975 316 517 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #46  
 CASING 7 5/8" AT 2905' ELEV. DATE: 10/7/75  
 LINER DESCRIPTION: 2905 - TD OPEN HOLE ZERO POINT CL +10  
 DEPTH 6746

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT - 0-4250 PSIG SN 7198 CLOCK - 12 hr 15 T

ELEMENT 820 - 686° SERIAL NO. 10055 CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0949 T-0946 DISENGAGE STYLUS P-1421 T-1421

WELL HEAD 28 PSIG 50-100 T/C

PICKUP @ 6746' TIME ON BOTTOM 1110 - 1340 MAX. F 559.2

WELL STATUS

SHUT IN: 3/21/75 AT 1700 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
	6746	.797	1715.9		+.003	1110	6746	1.505	555.0								
	6746	.797	1715.9		+.003	1140	6746	1.511	558.0								
	6746	.797	1715.9		+.003	1210	6746	1.514	555.0								
	6746	.797	1715.9		+.003	1240	6746	1.516	558.2								
	6746	.797	1715.9		+.003	1310	6746	1.518	558.3								
	6746	.797	1715.9		+.003	1340	6746	1.520	559.2								

COMMENTS:

BY: JLS + RB



76

UNION

DEL DIV 15

GEOHERMAL DIVISION 8 1975

SUBSURFACE SURVEY

Field Work Sheet

B#16-516-T/T

OWNER UNION OIL CO. OF AMT FIELD VALLE GRANDE WELL NAME BPP#16  
 CASING 9-5/8" @ 3265' ELEV. 9199' DATE: 9/25/75  
 LINER DESCRIPTION: 2905 - 6746' - OPEN HOLE ZERO POINT 644-10'  
 DEPTH 6950'

TUBING DETAIL:

PURPOSE

REMARKS:

T<sub>1</sub> - 10655 - 87°F - 686°F 12hr - 13375 - 1 12

ELEMENT T<sub>2</sub> - 10652 SERIAL NO. 90°F - 646°F CLOCK 12hr 146914 TURN 10 STABILIZATION PERIOD

ENGAGE STYLUS T<sub>1</sub> - 0853, T<sub>2</sub> - 0942 DISENGAGE STYLUS T<sub>1</sub> - 1153, T<sub>2</sub> - 1157

WELL HEAD 20 F36

PICKUP @ 6746' TIME ON BOTTOM 1104 - 1119 MAX. °F T<sub>1</sub> = 531  
T<sub>2</sub> = 512.6

WELL STATUS SHUT IN

SHUT IN: 8/31/75 @ 1706hr ON PRODUCTION:

RATE

T<sub>1</sub> 10655

T<sub>2</sub> 10652

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1036	1000	282	1682	0	-	1036	1000	282	1682	0	-						
1056	640	1471	513	0.69%	-	1056	640	1471	513	0.69%	-						
1119	6746	1587	542.1	0.37%	-	1119	6746	1587	542.1	0.37%	-						
												NOTE, THIS TOOL WAS BOTTOM TOOL ON STRING.					

COMMENTS:

BY: O.M. 100

76

UNION

*Frank*

GEO THERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

DEC PYLE  
OCT 8 1975 *File 515 P/P*

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BAC #16  
 CASING 9 5/8" AT 2905' ELEV. DATE: 9/24/75  
 LINER DESCRIPTION: 2905' - TD = OPEN HOLE ZERO POINT CL 110'  
 DEPTH 6950'

TUBING DETAIL:

PURPOSE

REMARKS:

*P*  
ELEMENT P<sub>1</sub>-4250 PSIG SN 7198 CLOCK 12 hr 15 TURN

ELEMENT P<sub>2</sub>-2950 PSISERIAL NO. 9235 CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P<sub>1</sub>-1133 P<sub>2</sub>-1145 DISENGAGE STYLUS P<sub>1</sub>-1620 P<sub>2</sub>-1630

WELL HEAD 20 PSIG

PICKUP @ 6746' TIME ON BOTTOM 1445-1500 MAX. °F

WELL STATUS SHUT IN

SHUT IN: 1700 hrs 8/21/75 ON PRODUCTION:

RATE

*P<sub>1</sub> # 7198*

*P<sub>2</sub> 9235*

TIME	DEPTH	DEFL.	P-#	GRAD.	ID	TIME	DEPTH	DEFL.	P-#	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	110	.009	20.3		0	1213	150	.012	19.0	0							
	1000	.010	22.5		0	1225	1000	.015	23.3	0							
12	2000	.016	36.0		0	1237	2000	.020	31.2	0							
1250	3000	.188	423.4		0	1250	3000	.028	436.1	0							
1503	4100	.354	779.7		0	1303	4100	.521	797.6	+ .001							
1315	5000	.518	1126.1		+ .002	1315	5000	.758	1174.6	+ .003							
1327	6000	.674	1453.8		+ .004	1327	6000	.973	1466.1	+ .004							
1338	6100	.696	1479.0		+ .004	1338	6100	.992	1494.1	+ .004							
1349	6200	.704	1517.0		+ .004	1349	6200	1.017	1531.1	+ .004							
1359	6300	.722	1555.1		+ .004	1359	6300	1.034	1556.2	+ .004							
1409	6400	.736	1594.7	1584.7	+ .004	1409	6400	1.058	1591.7	+ .004							
1419	6500	.748	1610.3		+ .003	1419	6500	1.077	1619.8	+ .004							
1434	6600	.764	1644.1		+ .003	1434	6600	1.099	1652.4	+ .003							
1445	6700	.779	1675.8		+ .003	1445	6700	1.125	1690.8	+ .003							
1500	6746	.786	1690.7		+ .003	1500	6746	1.132	1701.2	+ .003							

COMMENTS:

BY:

76

# GEO THERMAL DIVISION

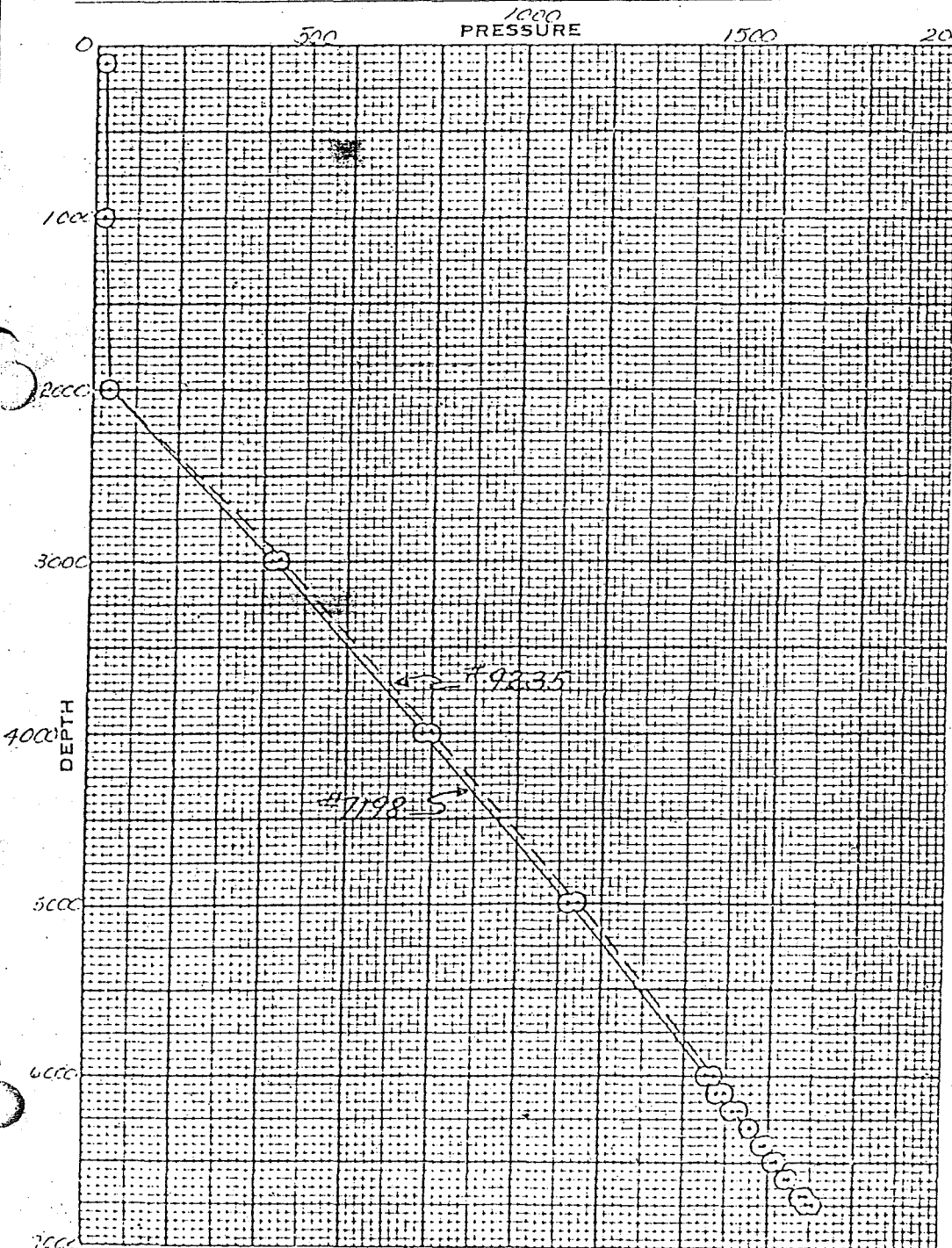
## SUBSURFACE PRESSURE SURVEY

B-16-S15-PP

OWNER Union Oil Company FIELD Valle Grande WELL NAME Baca #16  
 CASING \_\_\_\_\_ ELEV \_\_\_\_\_ DATE 9/24/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT G.L. + 10'  
 \_\_\_\_\_ DEPTH 6950'

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT \_\_\_\_\_ PSI  
 \_\_\_\_\_ SERIAL NO 7198 & 9235

PURPOSE \_\_\_\_\_ MAX TEMP \_\_\_\_\_ °F @ \_\_\_\_\_  
 REMARKS \_\_\_\_\_



STABILIZATION PERIOD

PRESSURES	GAUGE	BOMB
CASING. PSI		

DEPTH	PRESSURE	GRADIENT
S.N. #7198		
100	20.3	0
1000	22.5	0
2000	36.0	0
3000	423.4	0
4000	779.7	0
5000	1126.1	.002
6000	1453.8	.004
6100	1479.0	.004
6200	1517.0	.004
6300	1555.1	.004
6400	1584.7	.004
6500	1610.2	.003
6600	1644.1	.003
6700	1675.8	.003
6746	1690.7	.003

S.N. #9235		
100	19.2	0
1000	23.2	0
2000	31.2	0
3000	436.1	0
4000	797.6	.001
5000	1144.6	.003
6000	1466.1	.004
6100	1494.1	.004
6200	1531.1	.004
6300	1556.2	.004
6400	1591.7	.004
6500	1619.8	.004
6600	1652.4	.003
6700	1690.8	.003
6746	1701.2	.003

76

UNION

OCT 8 1975

GEOTHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

BACA #16-514-T1T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 9/21/75  
 LINER DESCRIPTION: 2905' - T.D. - OPEN HOLE ZERO POINT 61+10'  
 DEPTH 6950'

TUBING DETAIL:

PURPOSE

REMARKS:

T<sub>1</sub> - 820F - 686F 10055 12hr 13375-L 15  
 ELEMENT T<sub>2</sub> - 80F - 614F SERIAL NO. 106552 CLOCK 12hr 14191-L TURN/5 STABILIZATION PERIOD  
 ENGAGE STYLUS T<sub>1</sub> - 0780 T<sub>2</sub> 0718 DISENGAGE STYLUS T<sub>1</sub> - 1304 T<sub>2</sub> 1316  
 WELL HEAD 21  
 PICKUP @ 6950 TIME ON BOTTOM 1109-1122 MAX. \*T<sub>1</sub> 553, T<sub>2</sub> - 560  
 WELL STATUS SHUT IN  
 SHUT IN: 1700 hrs ON 8/21/75 PRODUCTION:  
 RATE

T<sub>1</sub>-10055 T<sub>2</sub>-10052

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
0820	100	.004	83	0		0820	100	.005	81	0							
0834	1100	.303	181	.109		0834	1100	.280	168	.097							
0848	2000	.600	278	.097		0848	2000	.616	271	.103							
0900	3000	.999	405	.127		0900	3000	1.052	398	.127							
0912	4000	1.183	461	.056		0912	4000	1.253	454	.056							
0924	5000	1.313	499	.038		0924	5000	1.400	494	.04							
0936	6000	1.385	521	.022		0936	6000	1.480	515	.021							
0947	7000	1.381	519	0		0947	7000	1.471	513	0							
0957	8000	1.388	524	.05		0957	8000	1.490	517	.04							
1009	9000	1.417	530	.06		1009	9000	1.510	523	.06							
1020	10000	1.437	535	.05		1020	10000	1.533	529	.06							
1035	11000	1.457	541	.06		1035	11000	1.556	535	.06							
1047	12000	1.473	546	.05		1047	12000	1.571	540	.05							
1058	13000	1.488	550	.04		1058	13000	1.597	545	.05							
1108	14000	1.498	553	.03		1108	14000	1.605	547	.02							
1122	15000	1.438	536	0		1122	15000	1.657	560	.087							

\* NOTE: THIS TEMP. ELEMENT WAS ON TOP OF TOOL STRING.

COMMENTS:

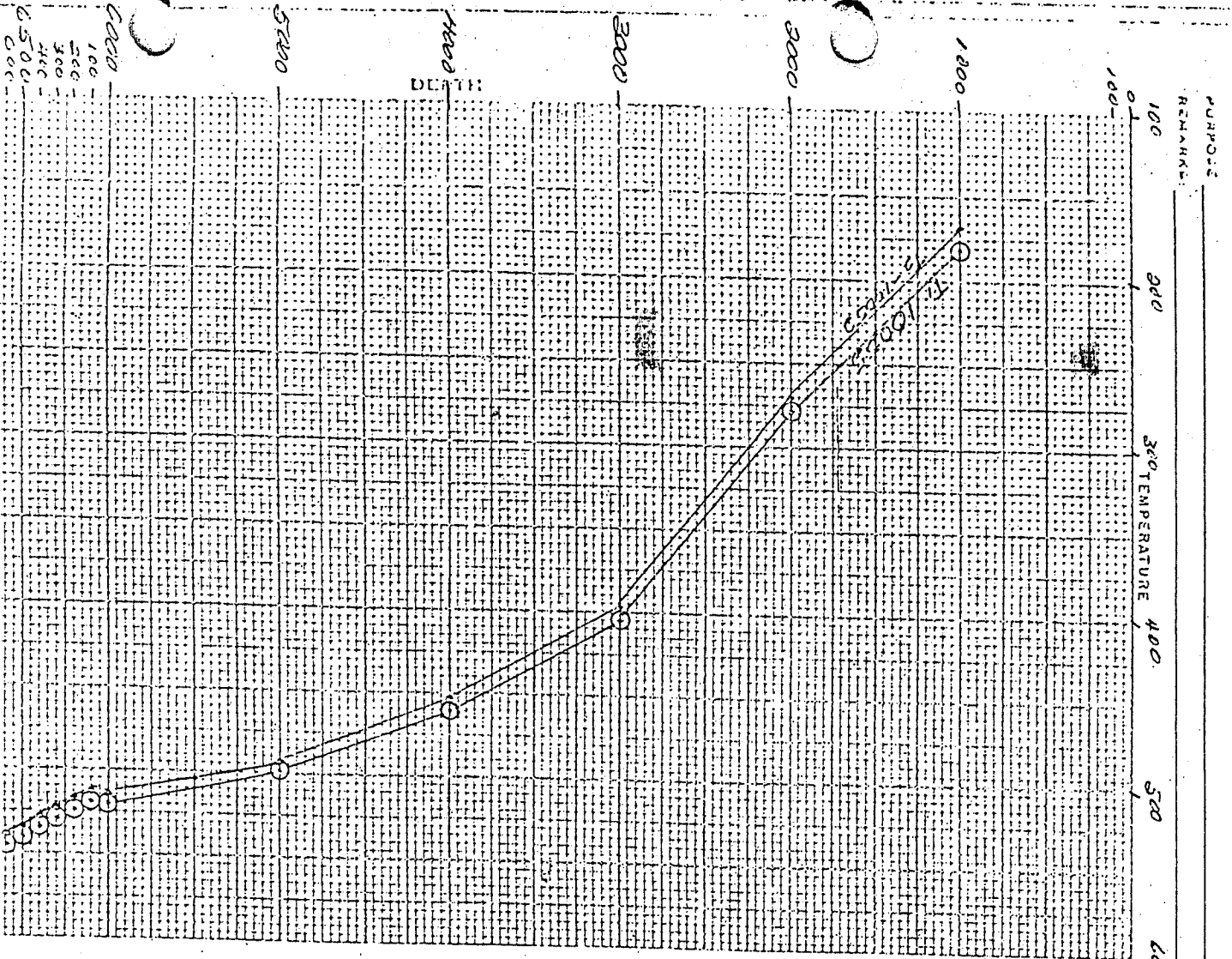
110

GEOTHERMAL DIVISION  
SUBSURFACE TEMPERATURE SURVEY

147,175  
BH-525

WELL NAME: BAWATHLA  
 Casing: 9 5/8" @ 2925' REC'D: 96329' DATE: 9/24/75  
 LITH DESCRIPTION: 29451-TD OPEN HOLE ZERO POINT: GLT 101'  
 DEPTH: 6950'

WELL DESCRIPTION: TI - 120255  
 INSTRUMENT: TA-120253  
 SERIAL NO: \_\_\_\_\_  
 PURPOSE: TI-560 @ 6950  
 MAX TEMP: TI-553 °F @ 6900



DEPTH TI 120253	TEMP.	CASING PSI	GAUGE	NO.
100	83			
1000	181			
2000	278			
3000	405			
4000	411			
5000	499			
6000	521			
6100	519			
6200	524			
6300	530			
6400	535			
6500	541			
6600	546			
6700	550			
6800	553			
6950	576			

6000  
5000  
4000  
3000  
2000  
1000  
0

PURPOSE:  
REMARKS:

TEMPERATURE 0 100 200 300 400 500 600  
 STABILIZATION PERIOD

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

B#16-513-P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA#16  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 9/16/75  
 LINER DESCRIPTION: 2905' - T.D. OPEN HOLE ZERO POINT 66+10'  
 DEPTH 6950'

TUBING DETAIL:

PURPOSE

REMARKS:

P-0-4250 PSIG 7198 CLOCK 12/12 13375-L 15  
 ELEMENT T-82°F-686°F SERIAL NO. 10055 CLOCK 12/12 14091-L 15 TURN STABILIZATION PERIOD  
 ENGAGE SYLUS P-1035 T-1033 DISENGAGE SYLUS P-1320 T-1032 28 DAYS  
 WELL HEAD 14 PSIG  
 PICKUP @ 6950' TIME ON BOTTOM 1235-1335 MAX. F 536°F  
 WELL STATUS SHUT IN.  
 SHUT IN: 6900 6/17/75 ON PRODUCTION:  
 RATE

PRESSURE TEMPERATURE

PRESSURE						TEMPERATURE											
TIME	DEPTH	DEFL.	P-V	GRAD.	CORR.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	1116	136	0	-	"	100	1008	84.3	0							
	1000	1167	153	1002	-	"	1000	1290	177	103							
	1150	3180	169	202	1004	-	"	2000	563	266	1089						
	1300	3600	182	4099	390	-	"	3000	965	394	128						
	1211	4600	319	769.1	359	-	"	4000	1148	450	128						
	1223	5000	513	1115.5	346	+003	"	5000	1290	493	1043						
	1234	6000	169	1443	328	+004	"	6000	1360	514	1021						
	1235	6950	507	1735.2	-	+004	"	6950	1440	536	-						
	1305	6950	811	1743.0	-	+006	"	6950	1313	499	-						
	1335	6950	811	1743.0	316	+006	"	6950	1303	496	-						

Temperature showed a distinct cooling trend during the 1 hour stop for T.D. since the temp. went down 200 degrees. 7/11/75 - where temp. had gone down for 2 hrs on bottom. T.P.S.

COMMENTS:

BY: O.M. I.O.B.

216

GEOTHERMAL DIVISION  
SUBSURFACE TEMPERATURE SURVEY

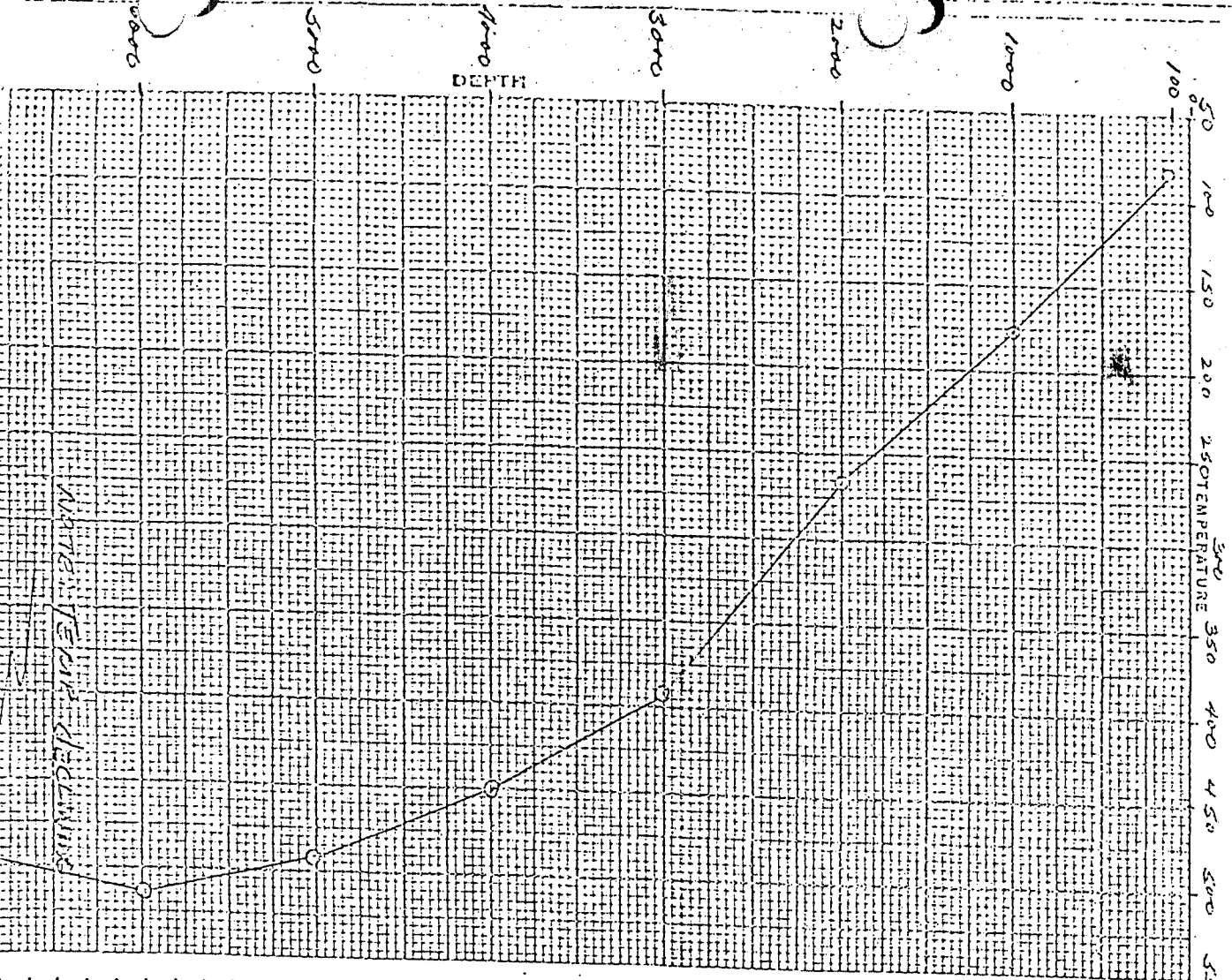
B-16 S-13 T

OWNER: AMERICAN OIL COMPANY FIELD: WILE BEARDE WELL NAME: FRAC #16  
 CASING: 9578 3905' ELEV: 9622 DATE: 9/27/73  
 LINER DESCRIPTION: 2905' - TD = OPEN HOLE ZERO POINT: CEL 410  
 DEPTH: 6850

HOLE DESCRIPTION:

INSTRUMENT: 890° - 6.86°  
 SERIAL NO: 10055

PURPOSE: \_\_\_\_\_  
 MAX TEMP: 5 °F  
 REMARKS: \_\_\_\_\_



WATER TEMPERATURE

DEPTH	TEMP.	DEPTH	TEMP.
1000	74.3		
1000	176.6		
2000	266.2		
5000	395.8		
4000	450.1		
5000	492.6		
6000	513.5		
6950	536.0		
6950	496.5		
6950	496.4		

END

716

# GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

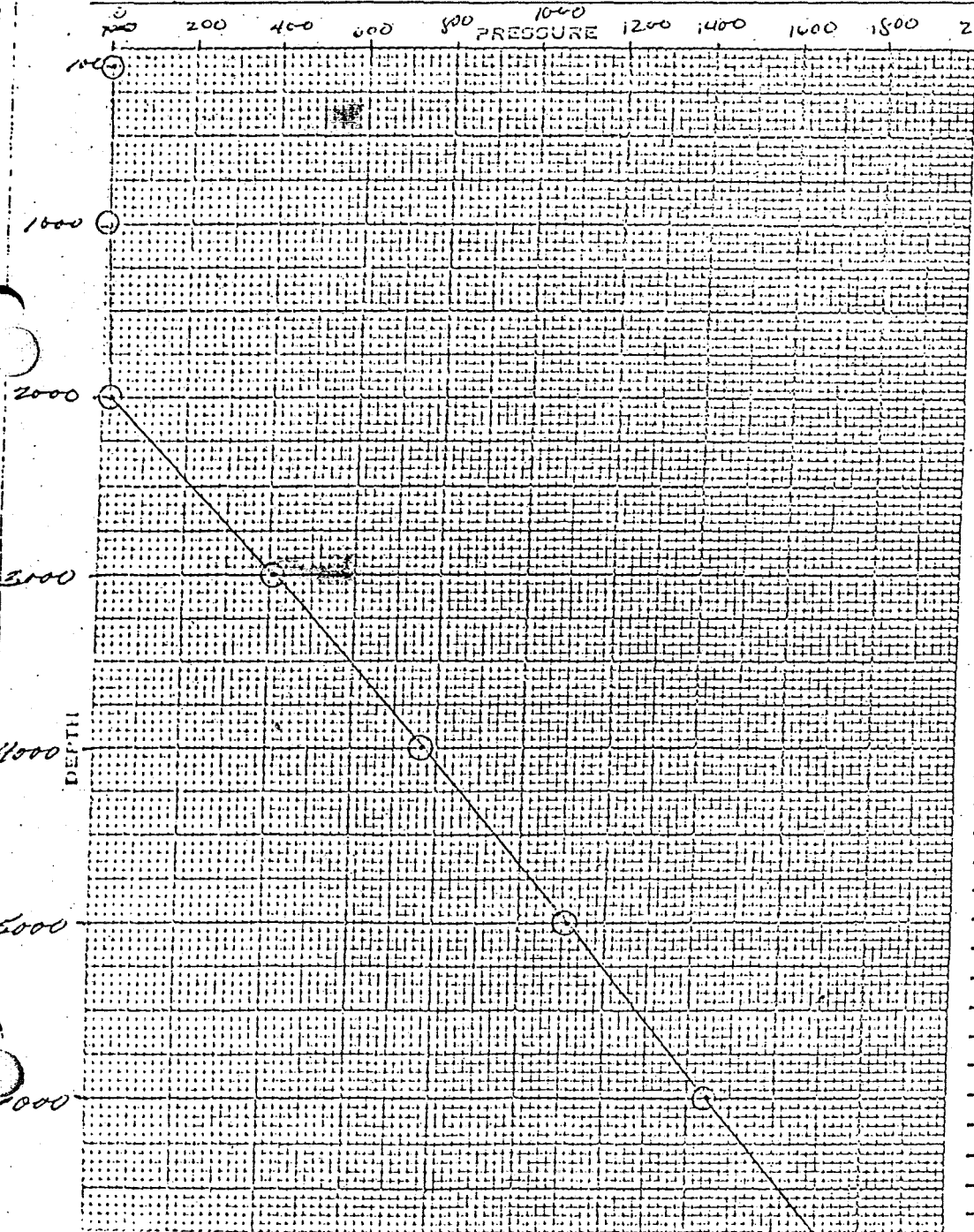
B-16 S13 P

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACT #16  
 CASING 9 5/8 AT 2905 ELEV. 9622' DATE: 9/16/75  
 LINER DESCRIPTION: 2905 - TD = OPEN HOLE ZERO POINT C.L. + 10'  
 DEPTH 6950'

WELL DESCRIPTION: \_\_\_\_\_  
 INSTRUMENT 0-4250  
 SERIAL NO. 7198

PURPOSE: \_\_\_\_\_ MAX. TEMP. ?  
OF 10

REMARKS: \_\_\_\_\_  
 STABILIZATION PERIOD \_\_\_\_\_

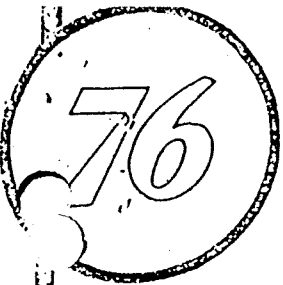


PRESSURE	GAUGE
CASING, PSI	

DEPTH	PRESSURE	GRADIENT
100	13.6	
1000	16.8	
2000	20.2	
5000	409.9	
4000	769.1	
5000	1115.5	
6000	1445.3	
6950	1735.2	
6950	1743.6	
6950	1743.6	

*Jim S13*





union

GEO THERMAL DIVISION DEL PYLE

SUBSURFACE SURVEY
Field Work Sheet

SEP 22 1975
B# 12-573-177

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BARA#16.
CASING 9 5/8" @ 2905' ELEV. 96.22' DATE: 9/16/75
LINER DESCRIPTION: 2905' - T.D. OPEN HOLE ZERO POINT CL+10'
DEPTH 6950'

TUBING DETAIL:

PURPOSE

REMARKS:

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

ELEMENT T-820F-686 SERIAL NO. 10055 CLOCK 12HR 14091-L 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-1035 T-1033 DISENGAGE STYLUS P-1520 T-1522

WELL HEAD 14 PSIG

PICKUP @ 6950' TIME ON BOTTOM 1235-1335 MAX. F 536°F

WELL STATUS SHUT IN.

SHUT IN:

ON PRODUCTION:

RATE

PRESSURE

TEMPERATURE

Table with columns for TIME, DEPTH, DEFL., P-F, GRAD., CORR., and P-T. Contains handwritten data points for pressure and temperature at various depths.

Temperature showed a distinct cooling trend during the 1 hour stop on T.D.

COMMENTS:

BY: J.M. / J.B.

# GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

B-16 S13 P

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8 AT 2905 ELEV. 962.2' DATE 9/16/75  
 LINER DESCRIPTION: 2905 - TD = OPEN HOLE ZERO POINT GL+10'  
 DEPTH 6950'

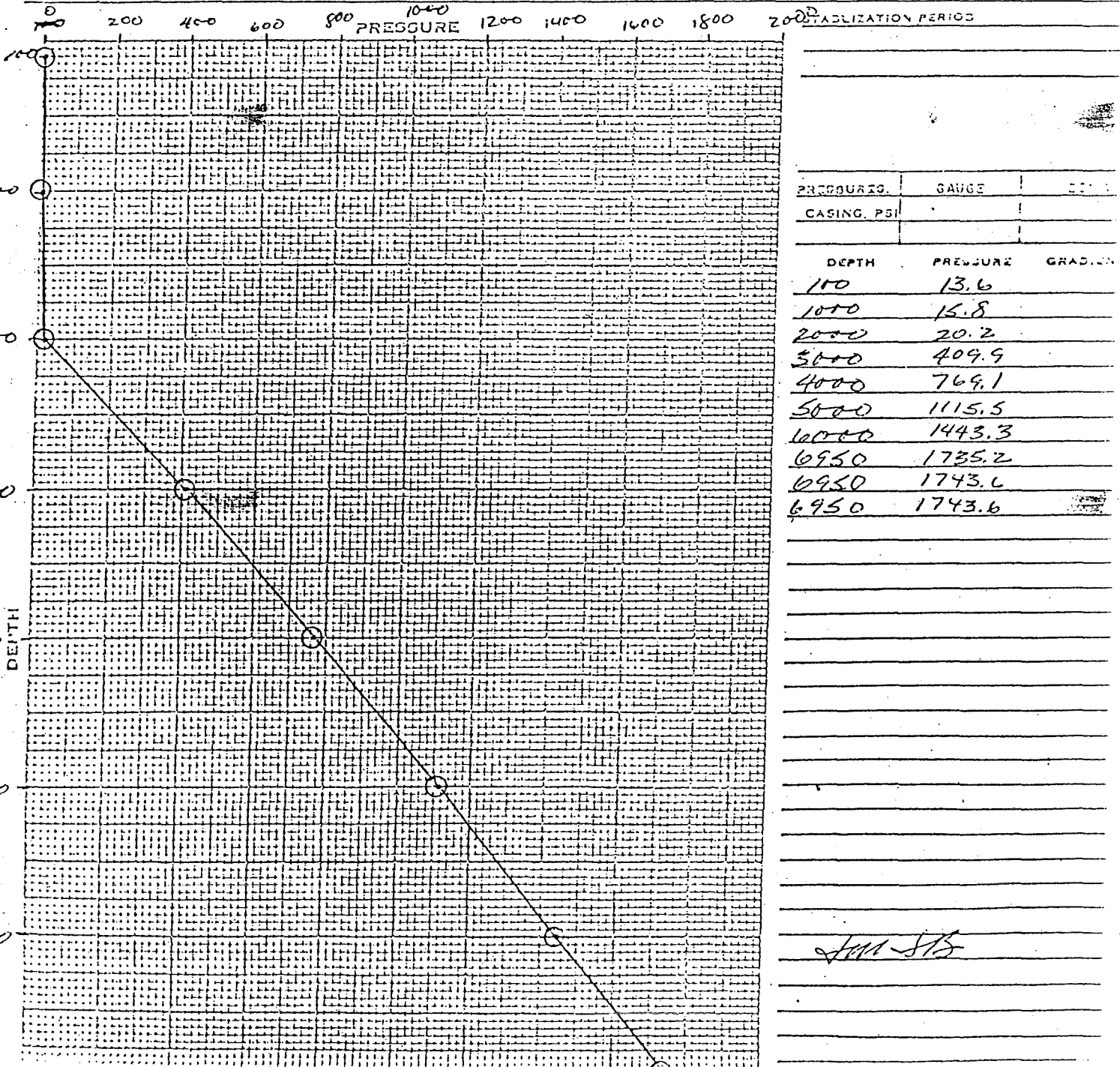
WELL DESCRIPTION:

INSTRUMENT 0-4250  
 SERIAL NO 7198

PURPOSE

MAX TEMP ? °F

REMARKS:



*J.M. S.B.*

416

# GEO THERMAL DIVISION

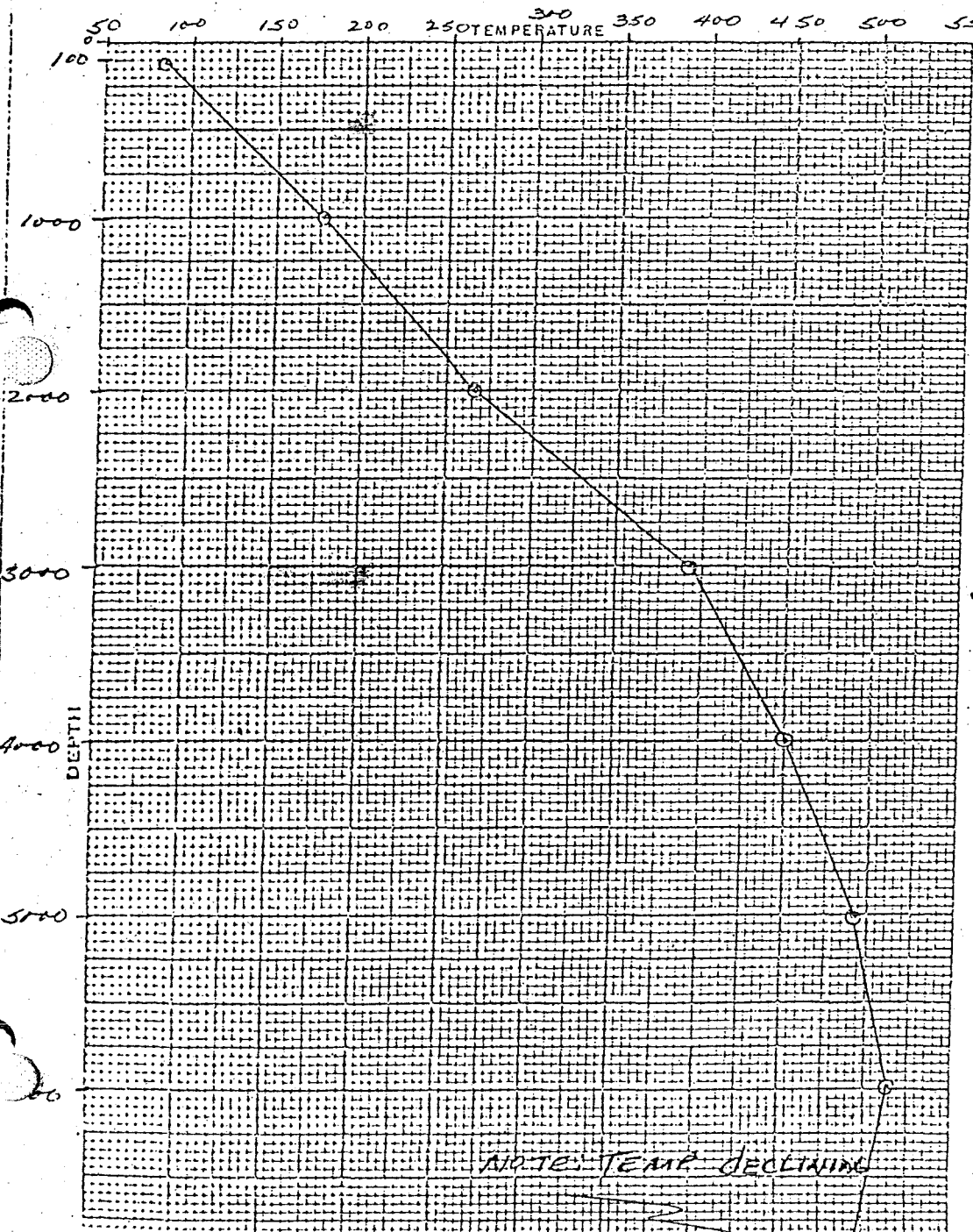
## SUBSURFACE TEMPERATURE SURVEY

B-16 S-13 T

OWNER MINN OIL COMPANY FIELD VALLE GRANDE WELL NAME BRA #16  
 CASING 9 5/8 2905' ELEV. 9622 DATE: 7/16/75  
 LINER DESCRIPTION: 2905' - TD = OPENHOLE ZERO POINT GL #10  
 DEPTH 6950

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 80°-686°  
 SERIAL NO 10055

PURPOSE: \_\_\_\_\_ MAX TEMP. 5 °F  
 REMARKS: \_\_\_\_\_



STABILIZATION PERIOD

PRESSURE	GAUGE	DEPTH
CASING, PSI		

DEPTH	TEMP.	DEPTH	TEMP.
100	89.3		
1000	176.6		
2000	266.2		
5000	393.8		
4000	450.1		
5000	492.6		
6000	513.5		
6950	536.0		
6950	499.3		
6950	496.4		

NOTE: TEMP. DECLINING

J.M. JB

76

UNION

GEOHERMAL DIVISION DEL PYLE

SUBSURFACE SURVEY  
Field Work Sheet

SEP 22 1975

B-16 5-12 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" AT 2905 ELEV. 9622' DATE: 9/11/75  
 LINER DESCRIPTION: 2905 - TD = OPEN HOLE ZERO POINT GL #10  
 DEPTH 6950'

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT - D-4250 RS16 SN 7198 CLOCK 12 hr 15 TURN

ELEMENT 82°-656° SERIAL NO. 10055 CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-1231 T-1229 DISENGAGE STYLUS P1526 T1527

WELL HEAD 14 RS16

PICKUP @ 6950' TIME ON BOTTOM 1300-1500 MAX. °F 535.0

WELL STATUS

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
13	6950	.781	1680.1		+ .004	1310	6950	1.435	535.0								
12	"	"	"		"	1330	"	"	"								
14	"	"	"		"	1400	"	"	"								
1430	"	"	"		"	1430	"	"	"								
500	6950	.781	1680.1		+ .004	1500	6950	1.435	535.0								

COMMENTS:

BY: JM JB CP

76



# GEO THERMAL DIVISION

## SUBSURFACE SURVEY

Field Work Sheet

BACA #16-S11-P/T

OWNER UNION OIL CO. OF CALIF. FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 8/7/75  
 LINER DESCRIPTION: OPEN HOLE - 2905 - 6203' ZERO POINT RT + 10'  
 DEPTH 6203'

TUBING DETAIL:

PURPOSE FLOWING SURVEY.

REMARKS:

P-0-4250 PSIG. 7198 12hr-14091L 15  
 ELEMENT-820F-686°F SERIAL NO. 10055 CLOCK 12hr-13375-L TURN/STABILIZATION PERIOD  
 ENGAGE STYLUS P-1410 T-1343 DISENGAGE STYLUS P-1752 T-1752  
 WELL HEAD 5 PSIG 0-200 T/G  
 PICKUP @ 6203' 6170 TIME ON BOTTOM 1710-1716 MAX. °F 392  
 WELL STATUS FLOWING.  
 SHUT IN: ON PRODUCTION:  
 RATE

PRESSURE TEMPERATURE

TIME	DEPTH	DEFL.	P-#	GRAD.	ID	CORR.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1510	100	.002	5.0				1510	100	.375	205								
1517	1000	.003	7.0				1517	1000	.421	220								
1522	2000	.004	9.0				1522	2000	.505	248								
1528	2500	.007	16.0				1528	2500	.579	271								
1534	3000	.010	23.0				1534	3000	.637	290								
1540	3200	.013	29.0				1540	3200	.648	293								
1545	3400	.013	29.0				1545	3400	.646	293								
1551	3600	.013	29.0				1551	3600	.641	291								
1557	3800	.013	29.0				1557	3800	.636	289								
1603	4000	.013	29.0				1603	4000	.630	288								
1609	4200	.014	32.0				1609	4200	.628	287								
1615	4400	.015	34.0				1615	4400	.628	287								
1621	4600	.016	36.0				1621	4600	.630	288								
1627	4800	.017	38.0				1627	4800	.636	289								
1633	5000	.020	45.0				1633	5000	.647	293								
1639	5200	.023	52.0				1639	5200	.667	295								
1645	5400	.030	69.0				1645	5400	.708	312								
1651	5600	.038	86.0				1651	5600	.758	328								
1657	5800	.065	146.0				1657	5800	.868	363								
1703	6000	.100	225.0				1703	6000	.959	392								
1709	6100	.122	275.0				1709	6100	.919	378								
1716	6203	.154	347.0				1716	6203	.960	392								

COMMENTS: WHP @ 1510 hrs - 5 PSIG - 0-200 T/G.  
 WHP @ 1540 hrs - 12 PSIG - 0-200 T/G.  
 WHP @ 1630 hrs - 3.5 PSIG - 0-200 T/G.

BY: J.B. J.M.

716

# GEO THERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

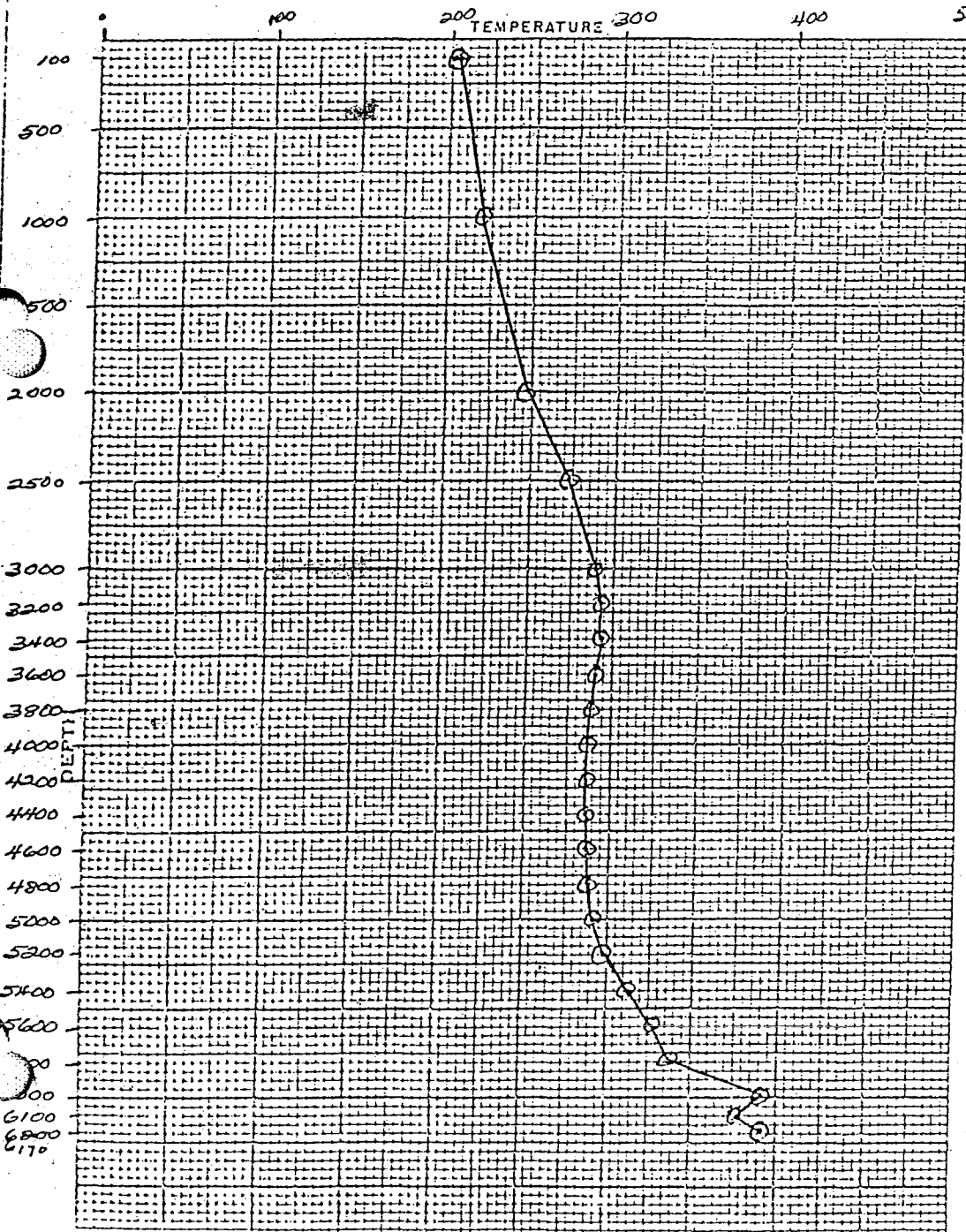
BACA #16 - S11 - P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 8/7/75  
 LINER DESCRIPTION: OPEN HOLE - 2905' - 6203' ZERO POINT RT + 10'  
 DEPTH 6203'

HOLE DESCRIPTION: \_\_\_\_\_  
 INSTRUMENT 82°F - 686 FA: \_\_\_\_\_  
 SERIAL NO 10055

PURPOSE FLOWING SURVEY MAX TEMP. 6170  
 °F @ 6253

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



PRESSURE	GAUGE	DATE
CASING, PSI	5	8/7/75

DEPTH	TEMP.	DEPTH	TEMP.
100	205		
1000	220		
2000	248		
2500	271		
3000	290		
3200	293		
3400	293		
3600	291		
3800	289		
4000	288		
4200	287		
4400	287		
4600	288		
4800	289		
5000	293		
5200	299		
5400	312		
5600	328		
5800	363		
6000	392		
6100	378		
6170	392		

# GEO THERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

BACA #16-S11- P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA #16  
 CAGING 9 5/8" @ 2905' ELEV. 9622' DATE: 8/7/75  
 LINER DESCRIPTION: OPEN HOLE - 2905' - 6203' ZERO POINT RT +10'  
 DEPTH 6203'

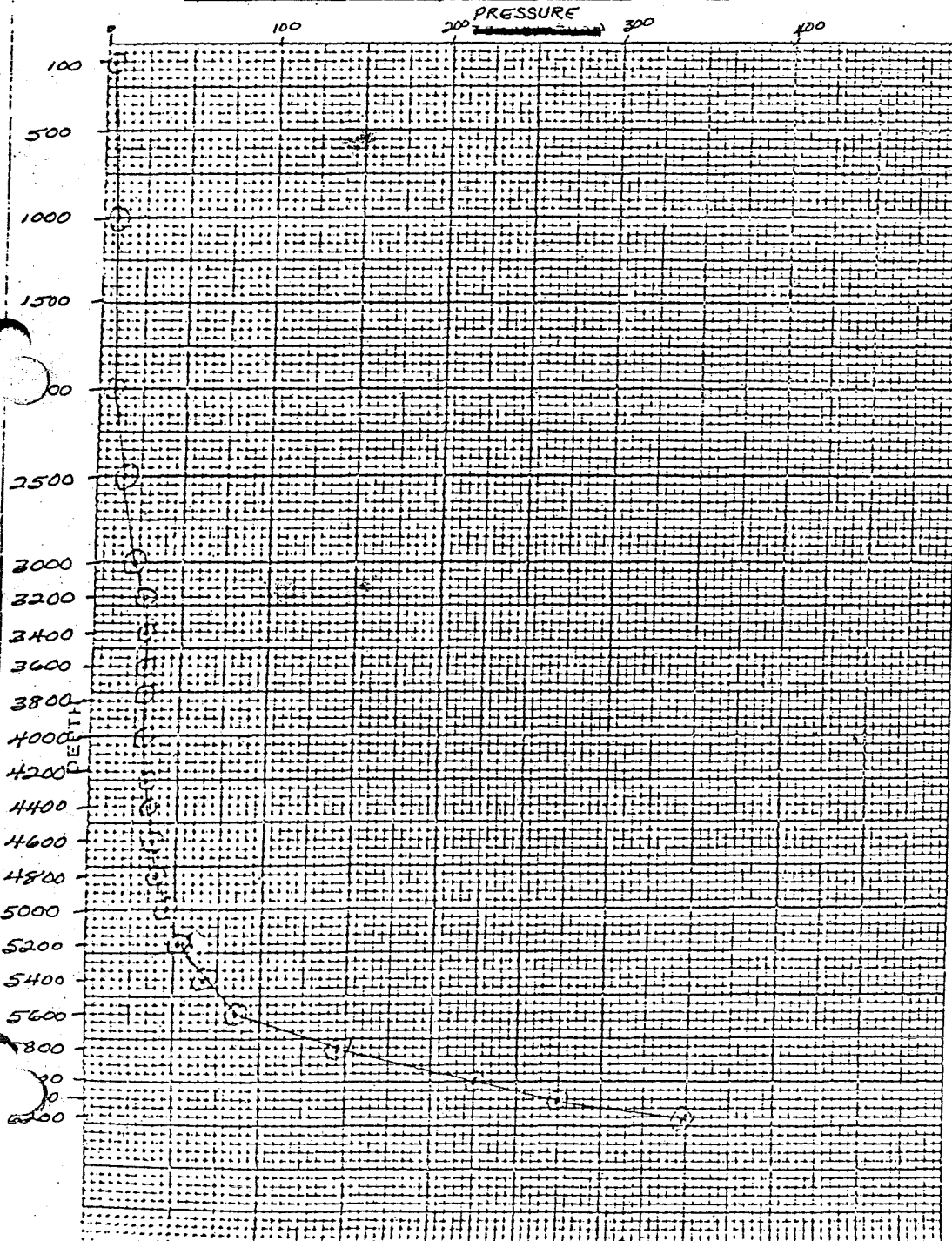
HOLE DESCRIPTION:

INSTRUMENT 0-4250 - PSIG.  
 SERIAL NO 7198

PURPOSE FLOWING SURVEY

MAX TEMP 6170  
 °F @ 6200

REMARKS:



STABILIZATION PERIOD

PRESSURES	GAUGE	CONF.
CASING, PSI	5 PSIG	0.10

DEPTH	PSIG.	DEPTH	PSI
100	5		
1000	7		
2000	9		
2500	16		
3000	23		
3200	24		
3400	29		
3600	29		
3800	29		
4000	29		
4200	32		
4400	34		
4600	36		
4800	38		
5000	45		
5200	52		
5400	68		
5600	86	0.009	
5800	146	0.395	
6000	225	0.395	
6100	275	0.5	
6170	347	0.423	

76

union

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B#16-S10-T17

OWNER UNION OIL CO. OF CALIF. FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 8/5/75  
 LINER DESCRIPTION: OPEN HOLE - 2905' - 6203' ZERO POINT RT-10'  
 DEPTH 6203'

TUBING DETAIL:

PURPOSE STATIC GRADIENT

REMARKS:

T<sub>1</sub> - 82°F - 686°F 10055 12hr - 13375 L 15  
 ELEMENT T<sub>2</sub> - 80°F - 646°F SERIAL NO. 10052 CLOCK 12hr 140916 15 TURN STABILIZATION PERIOD  
 ENGAGE STYLUS T<sub>1</sub> - 0427 T<sub>2</sub> - 0425 DISENGAGE STYLUS T<sub>1</sub> - 0900 T<sub>2</sub> - 0900  
 WELL HEAD -  
 PICKUP @ 6200 TIME ON BOTTOM 0817 - 0826 MAX. F. -  
 WELL STATUS SHUT IN  
 SHUT IN: 1800 hrs 8/4/75 ON PRODUCTION:  
 RATE - STOPPED INJECTION -

TEMP - 10055

TEMP - 10052

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	.059	101			0506	100	.064	100								
0505	1000	.226	155			0517	1000	.211	146								
0505	2000	.351	197			0529	2000	.345	188								
0540	2500	.454	231			0540	2500	.465	225								
0551	3000	.515	251			0551	3000	.527	244								
0600	3200	.545	260			0600	3200	.569	257								
0609	3400	.540	259			0609	3400	.565	256								
0618	3600	.504	247			0618	3600	.532	246								
0628	3800	.563	266			0628	3800	.582	261								
0637	4000	.622	285			0637	4000	.645	279								
0646	4200	.634	289			0646	4200	.659	283								
0655	4400	.654	295			0655	4400	.681	290								
0704	4600	.671	300			0704	4600	.707	298								
0714	4800	.650	294			0714	4800	.690	293								
0723	5000	.630	288			0723	5000	.668	286								
0732	5200	.603	279			0732	5200	.640	278								
0741	5400	.574	270			0741	5400	.610	269								
0750	5600	.548	275			0750	5600	.619	272								
0759	5800	.675	302			0759	5800	.702	296								
0808	6000	.704	311			0808	6000	.734	306								
0817	6100	.812	345			0817	6100	.874	347								
0826	6200	1.078	429			0826	6200	1.136	422								

COMMENTS: STOPPED INJECTION AT 1800 hrs 8/4/75  
 WELL SHUT IN FOR STATIC BUILDUP AT 1830 hrs 8/4/75.

BY: J.M. J.B.



76

# GEO THERMAL DIVISION

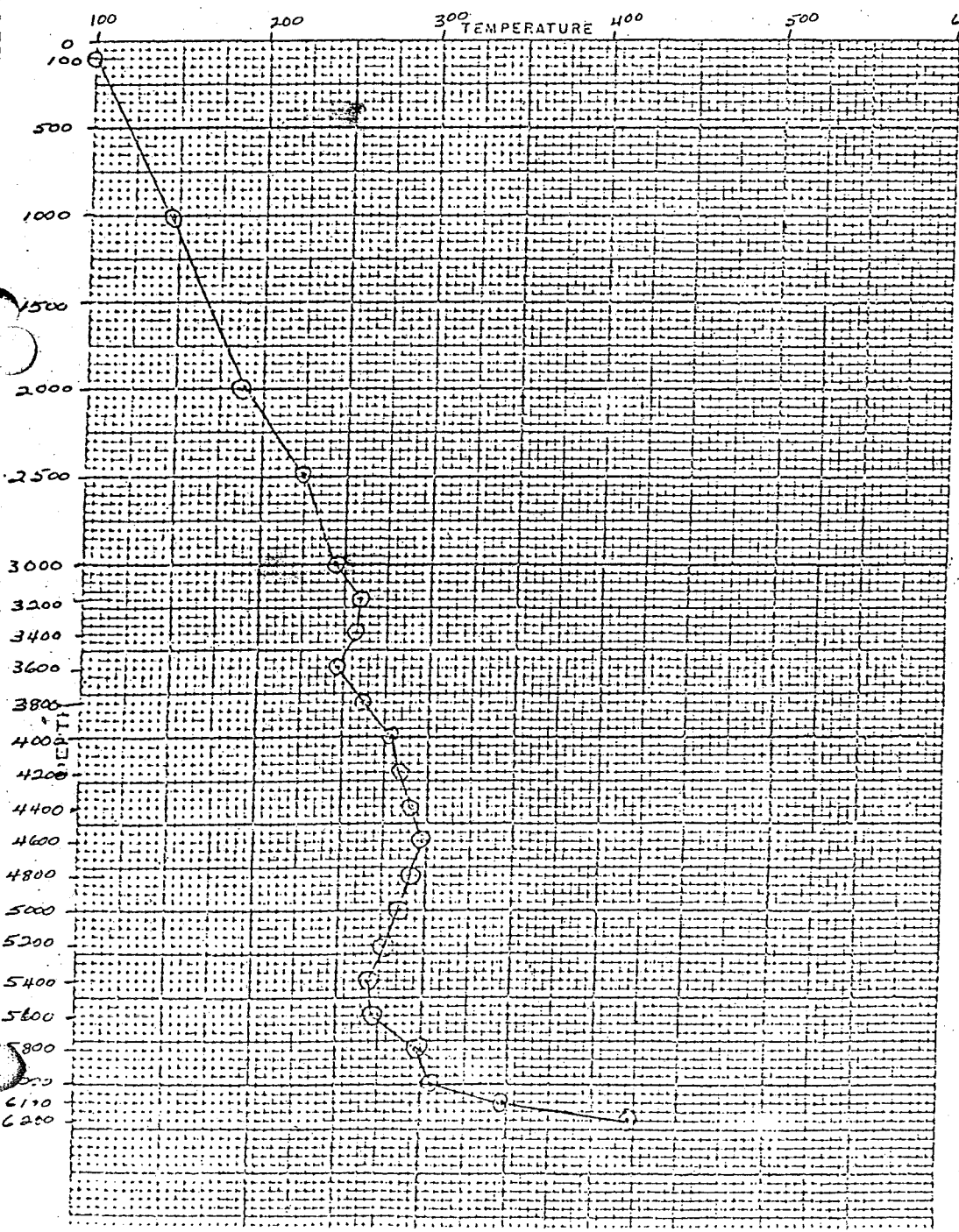
## SUBSURFACE TEMPERATURE SURVEY

BACA #16-S10-T17

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" @ 2905' ELEV. 9622' DATE: 8/5/75  
 LINER DESCRIPTION: OPEN HOLE - 2905' - 6203' ZERO POINT RT+10'  
 DEPTH 6203'

HOLE DESCRIPTION: \_\_\_\_\_  
 INSTRUMENT 80°F - G46°  
 SERIAL NO 10052

PURPOSE STATIC GRADIENT MAX TEMP. 422° OF @ 6203'  
 REMARKS: \_\_\_\_\_



100 STABILIZATION PERIOD			
PRESSURE	Gauge	DEPTH	TEMP.
CASING, PSI			
		100	100
		1000	146
		2000	188
		2500	225
		3000	244
		3200	257
		3400	256
		3600	246
		3800	261
		4000	279
		4200	283
		4400	290
		4600	298
		4800	293
		5000	286
		5200	278
		5400	269
		5600	272
		5800	296
		6000	306
		6100	347
		6200	422

516

# GEO THERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

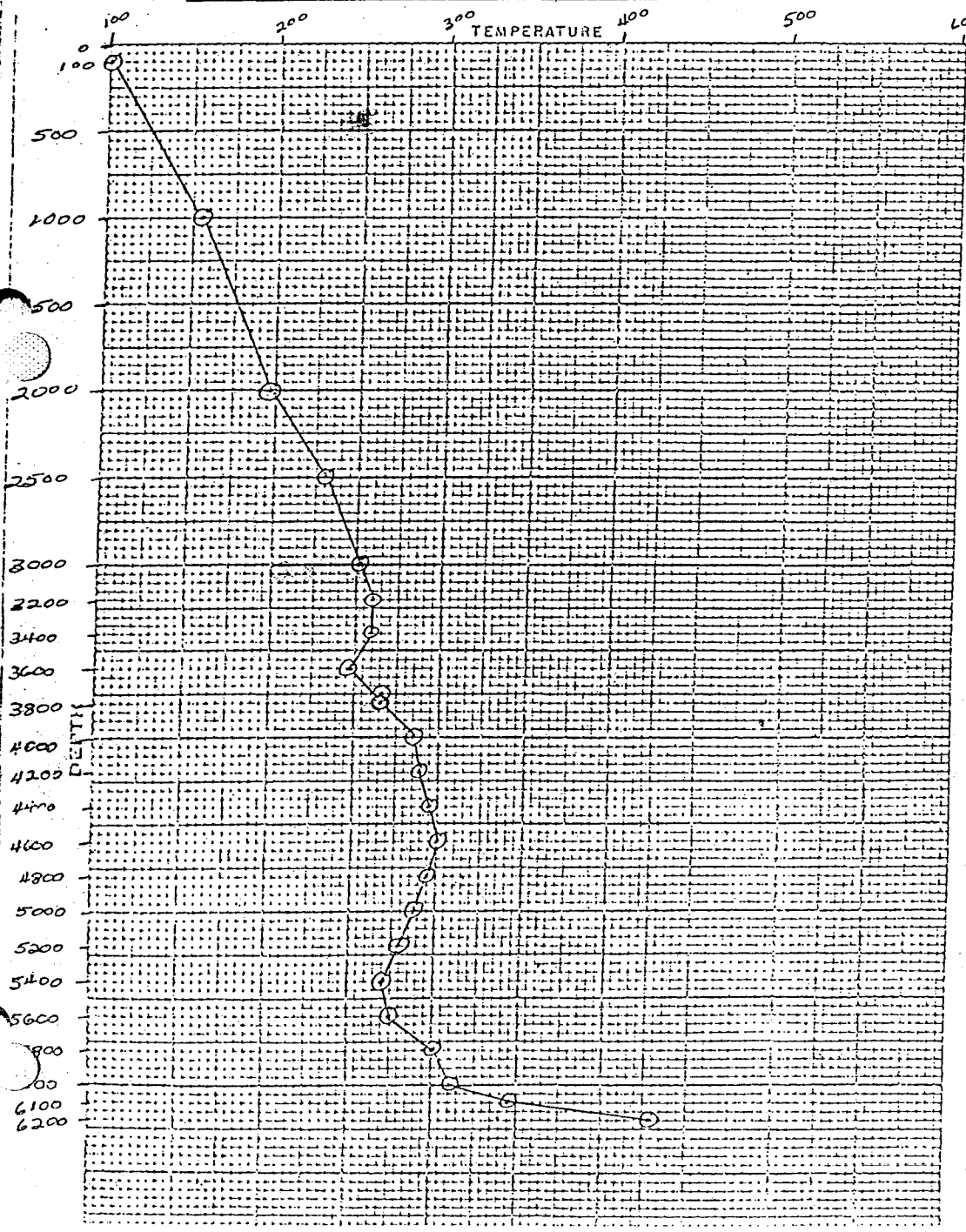
G#16-S10-T/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING 9 5/8" @ 2905' ELEV 9622 DATE: 8/5/75  
 LINE DESCRIPTION: OPEN HOLE - 2905' - 6200' ZERO POINT RT+10'  
 DEPTH 6203'

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 82°F-686°F  
 SERIAL NO 10055

PURPOSE STATIC GRADIENT MAX TEMP. 429 °F @ 6200'

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



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

PRESSURED CASING, PSI	GAUGE	DOGS
	-	-

DEPTH	TEMP.	DEPTH	TEMP.
100	101		
1000	155		
2000	197		
2500	231		
3000	251		
3200	260		
3400	259		
3600	247		
3800	266		
4000	285		
4200	289		
4400	295		
4600	300		
4800	294		
5000	288		
5200	279		
5400	270		
5600	275		
5800	302		
6000	311		
6100	345		
6200	429		

JACK

# GEO-THERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

FORM 12

WELL NAME: WELL 028002 WELL NAME: WELL 028002  
 DATE: 11/1/55 DATE: 11/1/55  
 DEPTH: 3200' DEPTH: 3200'

DESCRIPTION: OPEN HOLE - 2905' - 3200'

TEMPERATURE SURVEY

TEMPERATURE: T<sub>1</sub> - 156°F 10055 12HR - 1337.5-L 15  
 SERIAL NO. 14659 CLOCK 10HR 11091-4 TURNS STABILIZATION PERIOD  
 DISENGAGE STYLUS T<sub>2</sub> - 1734

TIME ON BOTTOM 11 3 - 17 50 MAX. °F

ON PRODUCTION:

DEPTH	DEPTH	PT	GRAD.	ID	TIME	DEPTH	DEFL.	PT	GRAD.	ID	TIME	DEPTH	DEFL.	PT	GRAD.	ID
100	100	.065	83		1210	110	.084	81								
135	1000	.050	98		1451	1600	.125	84								
146	2000	.063	103		1451	2100	.142	93								
1413	2500	.075	106		1413	2500	.053	97								
1424	3000	.090	111		1424	3100	.071	102								
1435	3200	.093	112		1435	3200	.079	104								
1440	3400	.098	113		1440	3400	.082	106								
1450	3600	.103	115		1450	3600	.134	107								
1500	3800	.108	117		1500	3800	.147	109								
1516	4000	.112	118		1516	4100	.097	115								
1526	4200	.117	119		1526	4200	.104	112								
1536	4400	.124	122		1536	4400	.109	115								
1546	4600	.128	123		1546	4600	.117	116								
1550	4800	.137	126		1550	4800	.124	119								
1606	5000	.144	128		1606	5000	.134	121								
1616	5200	.146	129		1616	5200	.139	123								
1626	5400	.156	132		1626	5400	.147	126								
1636	5600	.183	141		1636	5600	.167	132								
1646	5800	.223	154		1646	5800	.215	140								
1656	6000	.255	165		1656	6000	.242	155								
1700	6200	.888	369.2		1700	6200	.248	153								

COMMENTS: NOTE - TEMPERATURE ELEMENT # 10055 WAS USED IN SURVEY 13-10-5-5

416

# GEOHERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

B-10 3-9 T

OWNER UNITED OIL COMPANY FIELD WATSON WELL NAME W-10 #1  
 CASING 1 1/2" X 1 3/4" GALV. PIPE ELEV. 4100 DATE: 3-7-15  
 LINER DESCRIPTION: 1 1/2" X 1 3/4" GALV. PIPE ZERO POINT Surface  
 DEPTH: \_\_\_\_\_

WELL DESCRIPTION: W-10 #1 - TD = OPEN HOLE  
 INSTRUMENT 1000  
 SERIAL NO. 1000

PURPOSE Q MAX TEMP. 170 OF 0  
 REMARKS: \_\_\_\_\_

DEPTH	TEMPERATURE	
	100	300
0		
100		
200		
300		
400		
500		
600		
700		
800		
900		
1000		
1100		
1200		
1300		
1400		
1500		
1600		
1700		
1800		
1900		
2000		
2100		
2200		
2300		
2400		
2500		
2600		
2700		
2800		
2900		
3000		
3100		
3200		
3300		
3400		
3500		
3600		
3700		
3800		
3900		
4000		
4100		
4200		
4300		
4400		
4500		
4600		
4700		
4800		
4900		
5000		
5100		
5200		
5300		
5400		
5500		
5600		
5700		
5800		
5900		
6000		
6100		
6200		

STABILIZATION PERIOD			
PRESSURES			
CASING, PSI			
DEPTH	TEMP.	DEPTH	TEMP.
100	61		
1500	57		
2000	63		
2500	67		
3000	100		
3500	100		
4000	107		
4500	109		
5000	110		
5500	113		
6000	114		
6200	115		

5/6

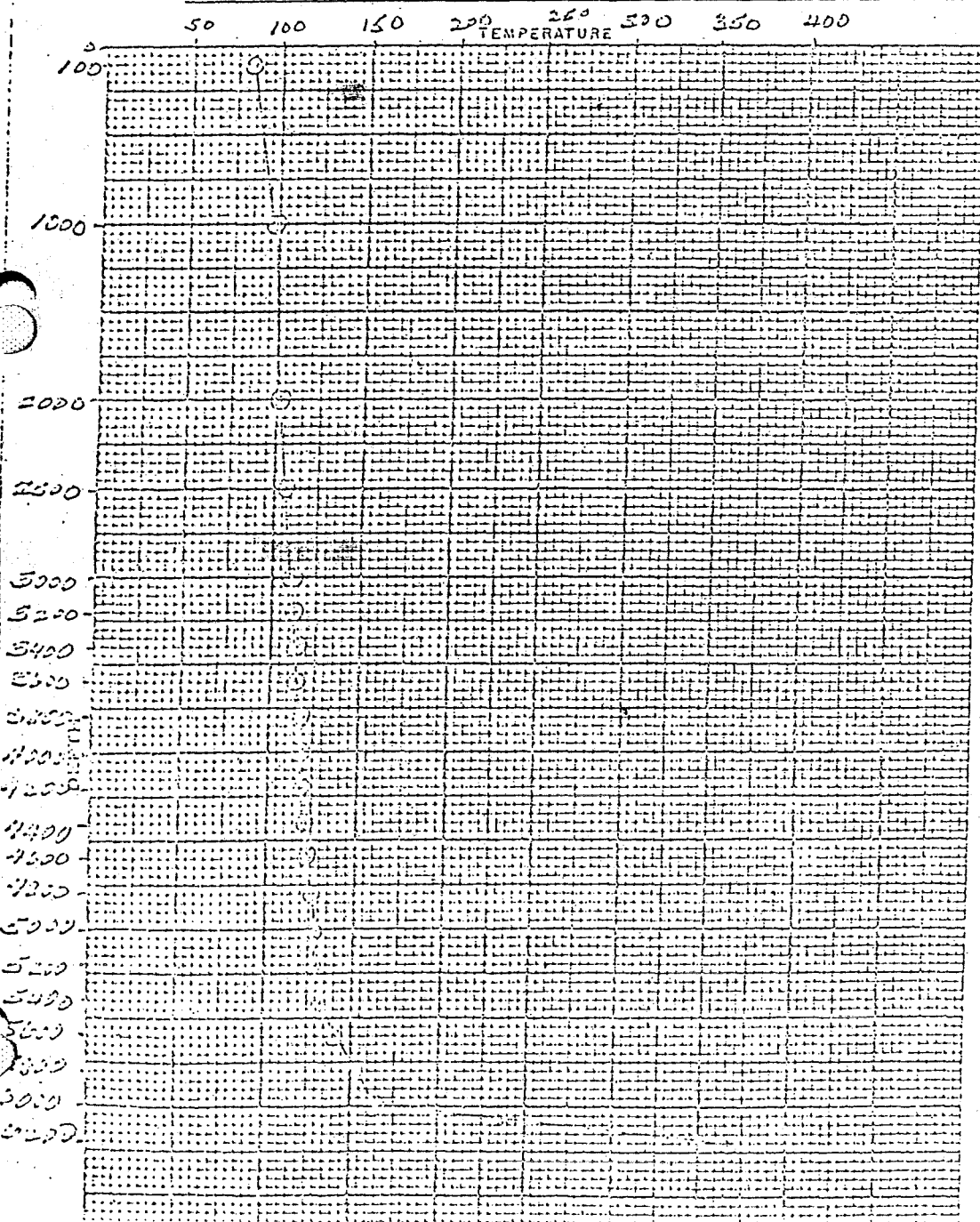
# GEOHERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

B-10 3-9 T

OWNER U.S. GEOLOGICAL SURVEY FIELD WATER RESOURCES WELL NAME W-10  
 CASING 3" DIA. TUBING ELEV. 1100 DATE: 8-1-72  
 LINER DESCRIPTION: 1 1/2" DIA. TUBING ZERO POINT GROUND SURFACE  
 DEPTH 2100

HOLE DESCRIPTION: OPEN HOLE TTY-2000  
 INSTRUMENT 2 1/4" DIA. ST. THERM.  
 SERIAL NO. 10055

PURPOSE GRAVITY MAX TEMP. OF @  
 REMARKS:



STABILIZATION PERIOD			
DEPTH	TEMP.	DEPTH	TEMP.
1000	83		
1100	93		
1200	107		
1300	100		
1400	111		
1500	117		
1600	124		
1700	115		
1800	117		
1900	118		
2000	119		
2100	120		
2200	121		
2300	122		
2400	123		
2500	124		
2600	125		
2700	126		
2800	127		
2900	128		
3000	129		
3100	130		
3200	131		
3300	132		
3400	133		
3500	134		
3600	135		
3700	136		
3800	137		
3900	138		
4000	139		
4100	140		
4200	141		
4300	142		
4400	143		
4500	144		
4600	145		
4700	146		
4800	147		
4900	148		
5000	149		
5100	150		
5200	151		
5300	152		
5400	153		
5500	154		
5600	155		
5700	156		
5800	157		
5900	158		
6000	159		
6100	160		
6200	161		
6300	162		
6400	163		
6500	164		
6600	165		
6700	166		
6800	167		
6900	168		
7000	169		
7100	170		
7200	171		
7300	172		
7400	173		
7500	174		
7600	175		
7700	176		
7800	177		
7900	178		
8000	179		
8100	180		
8200	181		
8300	182		
8400	183		
8500	184		
8600	185		
8700	186		
8800	187		
8900	188		
9000	189		
9100	190		
9200	191		
9300	192		
9400	193		
9500	194		
9600	195		
9700	196		
9800	197		
9900	198		
10000	199		

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B116-38-P/T

OWNER UNION OIL OF CALIF FIELD WALL GRANDE WELL NAME B116-38-P/T  
 CASING 2 7/8" (2.905) ELEV. 3 DATE: 8/3/75  
 LINER DESCRIPTION: OPEN HOLE - 2905' - 6203' ZERO POINT RT + 121'  
 DEPTH 6203'

TUBING DETAIL:

PURPOSE FLOWING SURVEY

REMARKS:

P-1-11940 PSIG 718.8 1247 1337.56 12  
 ELEMENT 7-501-4589 SERIAL NO. 10005 CLOCK 12/2-110811 TURNS STABILIZATION PERIOD  
 ENGAGE STYLUS P-1216 T-1218 DISENGAGE STYLUS P-1220 T-1500  
 WELL HEAD PSIG  
 PICKUP @ 3200' TIME ON BOTTOM 1413-1419 MAX. F. 353.8  
 WELL STATUS FLOWING  
 SHUT IN: ON PRODUCTION:  
 RATE

PSIG

TEMP

DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
2000	.000	13.5	01	—	—	2000	.000	249	01							
2500	.010	22.5	.011	—	—	2500	.010	263	.017							
3000	.019	27.0	.013	—	—	3000	.019	268	.021							
3500	.014	33.5	.009	—	—	3500	.014	279	.022							
4000	.017	38.2	.013	—	—	4000	.017	286	.015							
4500	.019	42	.009	—	—	4500	.019	293	.014							
5000	.017	45	.004	—	—	5000	.017	296	.006							
5500	.018	51	.003	—	—	5500	.018	304	.016							
6000	.033	74	.016	—	—	6000	.033	320	.019							
6203	.055	124	.018	—	—	6203	.055	354	.070							

COMMENTS:

376

# GEOTHERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

UNIVERSITY OF CALIFORNIA

OWNER UNIV OF CALIF. FIELD Wille Grade Well NAME Bach # 16  
CASING 9 5/8 E 2 1/2 ELEV. 6303' DATE: 8-3-75  
LINER DESCRIPTION: ADDED HOLE - 2905' - 6303' ZERO POINT 17 FT 12"  
DEPTH: 1203

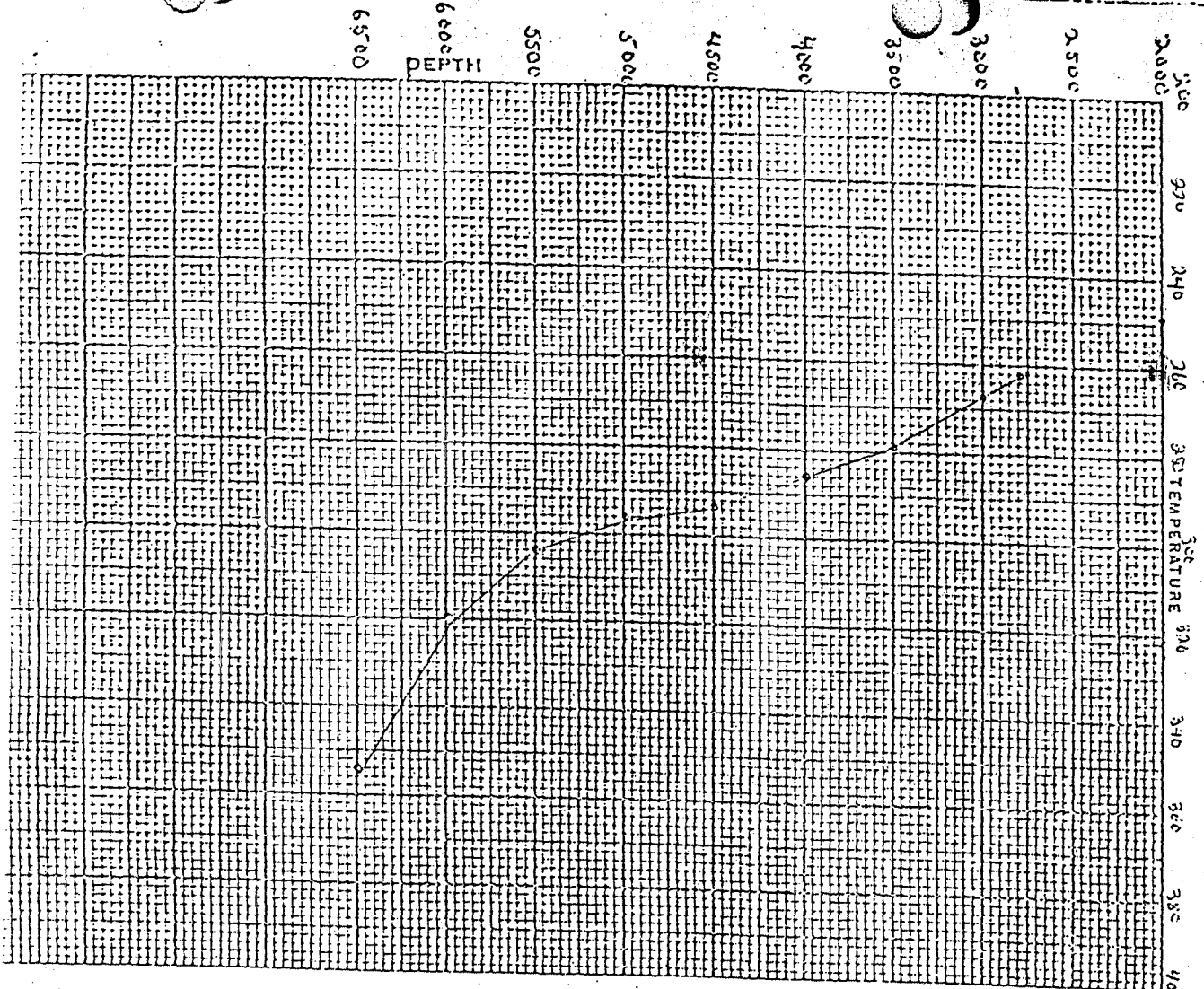
HOLE DESCRIPTION:

INSTRUMENT 82° F - 686° F BAR  
SERIAL NO 10055

MAX. TEMP. 353 °F @ 6200

PURPOSE:  
REMARKS:

STABILIZATION PERIOD



DEPTH	TEMP.	DEPTH	TEMP.
2000	2412		
2500	2424		
3000	2436		
3500	2448		
4000	2460		
4500	2472		
5000	2484		
5500	2496		
6000	2508		
6200	2520		

PRESSURES	GAUGE	DOING
CASING, PSI	5 PSIG	-

# GEOHERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

716

OWNER UNION OIL OF CALIF. FIELD Valle Grande WELL NAME BACH #16  
 CASING 4 3/4 @ 2905' ELEV. \_\_\_\_\_ DATE: 2-3-75  
 LINER DESCRIPTION: Open Hole - 2905' - 6203' ZERO POINT RT + 12'  
 DEPTH 6203

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

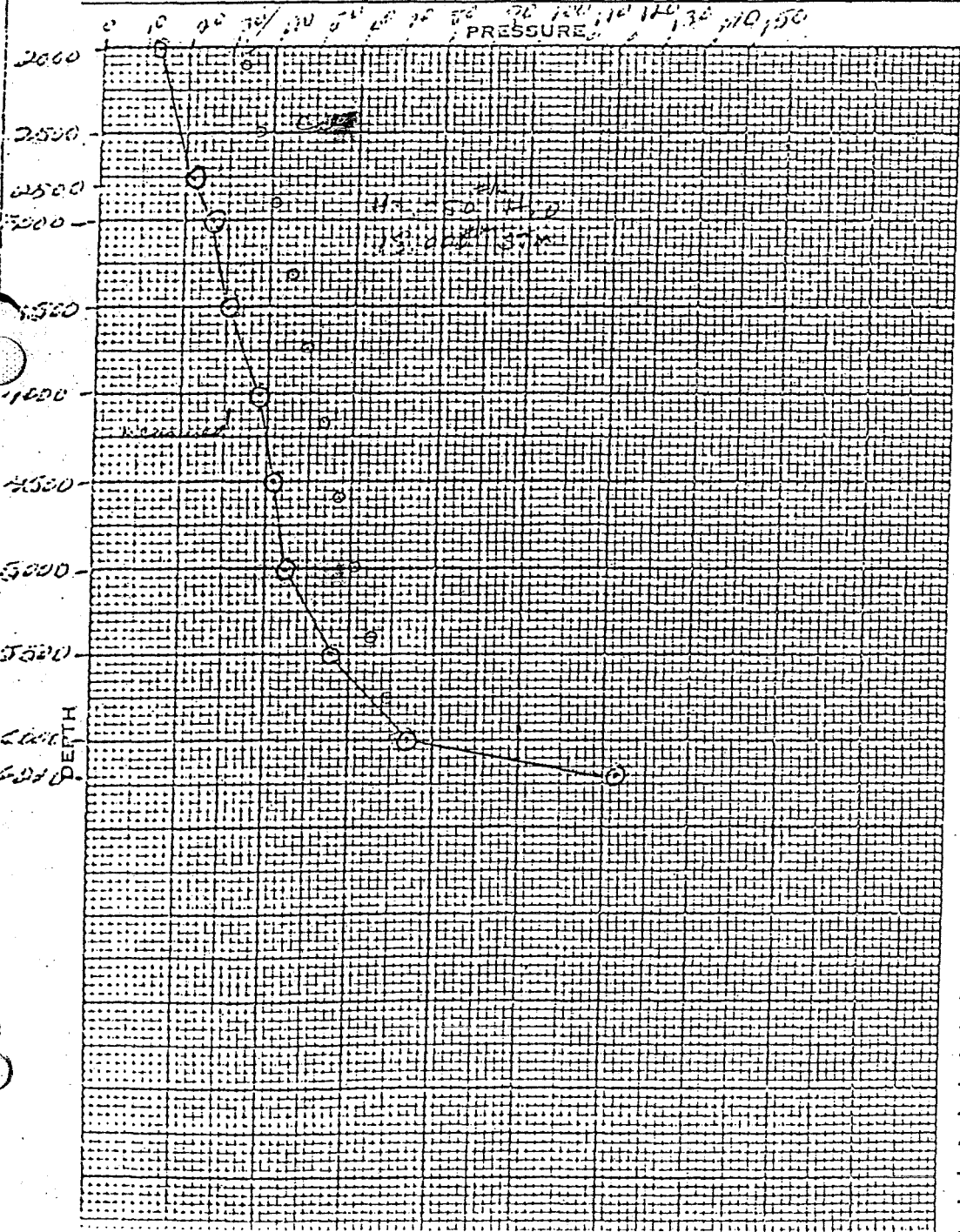
INSTRUMENT 0-4250 PS  
 SERIAL NO. 7198

PURPOSE \_\_\_\_\_

MAX. TEMP 353 °F @ 6200

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

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



PRESSURES,	GAUGE	BOND
CASING, PSI	5 1/8 16.	-

DEPTH	PRESSURE	GRADIENT
2000	13.5	0.11
2500	22.5	0.11
3000	27.0	0.13
3500	31.5	0.09
4000	38.2	0.13
4500	42.8	0.09
5000	45.0	0.04
5500	56.3	0.23
6000	74.3	0.31
6200	123.8	0.75



JH

76

# UNION GEOTHERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

B-16 S-7 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE: 7/10/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT ROTARY TABLE  
 \_\_\_\_\_ DEPTH 2580

TUBING DETAIL:

PURPOSE RIG SURVEY

REMARKS:

ELEMENT 0-A250 PSIG SN 7198 CLOCK-13375-L 15 TURN  
 ELEMENT B2-686°F SERIAL NO. 10055 CLOCK-11091-L 15 TURN STABILIZATION PERIOD \_\_\_\_\_  
 ENGAGE STYLUS P-0707 T-0706 DISENGAGE STYLUS P-0720 T-0926  
 WELL HEAD \_\_\_\_\_  
 PICKUP @ 2580 TIME ON BOTTOM 0815-0855 MAX. °F 370.4  
 WELL STATUS \_\_\_\_\_  
 SHUT IN: \_\_\_\_\_ ON PRODUCTION: \_\_\_\_\_  
 RATE \_\_\_\_\_

PRESSURE

TEMPERATURE

	DEPTH	DEFL.	P-G	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1000	0	0	0	0		"	1000	.208	147.4	0							
1500	0	0	0	0		"	1500	.340	193.2	.092							
1750	.025	56.3	0			"	1700	.378	205.7	.060							
1900	.064	144.1	.490			"	1900	.419	219.3	.070							
2100	.104	234.2	.450			"	2100	.478	238.7	.095							
2300	.141	317.6	.415			"	2300	.606	274.9	.210							
2580	.190	427.9	.396			"	2580	.872	370.4	.321							

COMMENTS: STOPPED CIRCULATION 7/8/75. 0945 HRS.

376

# GEO THERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

U.S. DEPARTMENT OF ENERGY

BPM#16-57-71

OWNER: UNION CO. CO. DE CHILE FIELD: VALLE GRANDE WELL NAME: RAVAILL  
CASING: 1.375" OD AISI 51 ELEV.: \_\_\_\_\_ DATE: 7/10/75  
LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT: P.T.  
DEPTH: 2550'

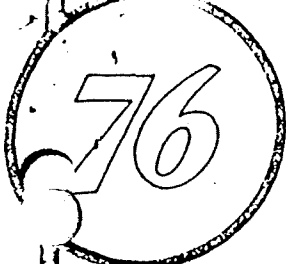
HOLE DESCRIPTION: \_\_\_\_\_  
INSTRUMENT: 8201-1510  
SERIAL NO: 11055

PURPOSE: \_\_\_\_\_  
REMARKS: \_\_\_\_\_  
MAX TEMP: -37.04°F @ 2550'  
140 STABILIZATION PERIOD

DEPTH	TEMPERATURE
100	300
200	300
300	300
400	300
500	300
600	300
700	300
800	300
900	300
1000	300
1100	300
1200	300
1300	300
1400	300
1500	300
1600	300
1700	300
1800	300
1900	300
2000	300
2100	300
2200	300
2300	300
2400	300
2500	300
2550	300

PRESURE	GAUGE	BORIS
1900	1917	
1800	1913	
1700	2016	
1600	2119	
1500	2230	
1400	2330	
1300	2430	
1200	2530	





JH

# GEOHERMAL DIVISION

## SUBSURFACE SURVEY Field Work Sheet

B-16 S-L P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACH #16

CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE: 7/9/75

LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT ROTARY TABLE

\_\_\_\_\_ DEPTH 2580'

TUBING DETAIL: \_\_\_\_\_

PURPOSE RIG SURVEY CASING PT

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

0-4250 PSIG SN 7198 CLOCK 13375-L 15 TURN

ELEMENT 82°-686° SERIAL NO. 10055 CLOCK 14091-L 15 TURN STABILIZATION PERIOD \_\_\_\_\_

ENGAGE STYLUS P- ; T DISENGAGE STYLUS P- T-

WELL HEAD \_\_\_\_\_

PICKUP @ 2580 TIME ON BOTTOM 1846-1946 MAX. F 358.6

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
	1000	0	0			"	1000	.173	137.3	0							
	1500	0	0			"	1500	.291	176.9	.198							
15	1700	.032	72.1	0		"	1700	.325	188.2	.056							
1532	1900	.073	164.4	.462		"	1900	.368	202.4	.071							
1535	2100	.110	247.7	.416		"	2100	.419	219.2	.084							
1544	2300	.150	337.8	.450		"	2300	.534	256.8	.188							
1946	2580	.200	450.5	.403		"	2580	.855	358.6	.509							

COMMENTS: STOPPED CIRCULATION 7/8/75 0945 HRS

BY: JB HS

# GEO THERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

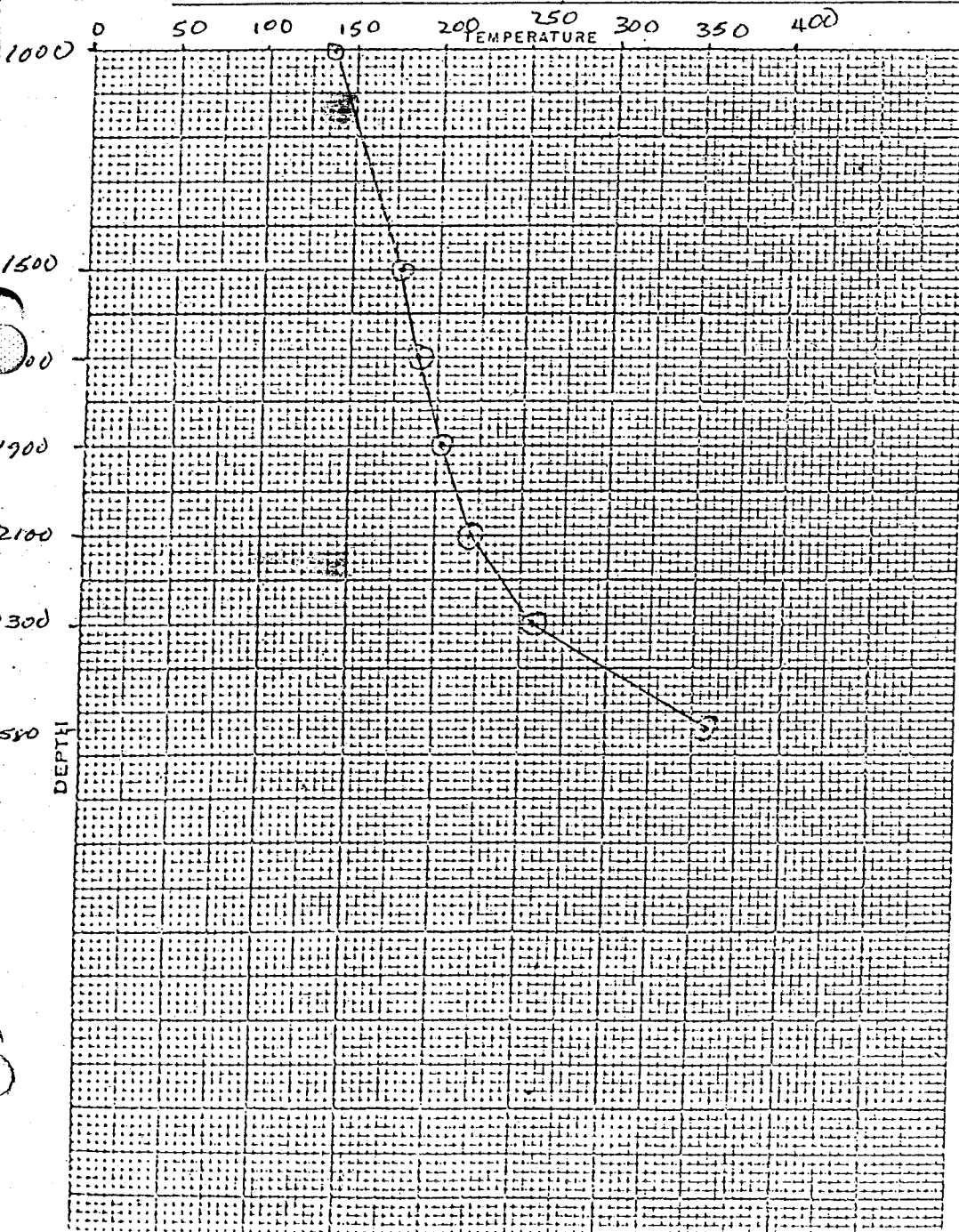
76

B-16 S-6 T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE: 7/9/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT ROTARY TABLE  
 \_\_\_\_\_ DEPTH 2580

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 820-686° FA  
 \_\_\_\_\_ SERIAL NO 10055

PURPOSE RIG SURVEY CASING PT MAX TEMP. 358.6 °F @ 2580  
 REMARKS: \_\_\_\_\_



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

PRESSURES	GAUGE	CORR	
CASING, PSI			
DEPTH	TEMP.	DEPTH	TEMP.
1000	137.3		
1500	176.9		
1700	188.2		
1900	202.4		
2100	219.2		
2300	256.8		
2580	358.6		

*JB + HRS*

76

# GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

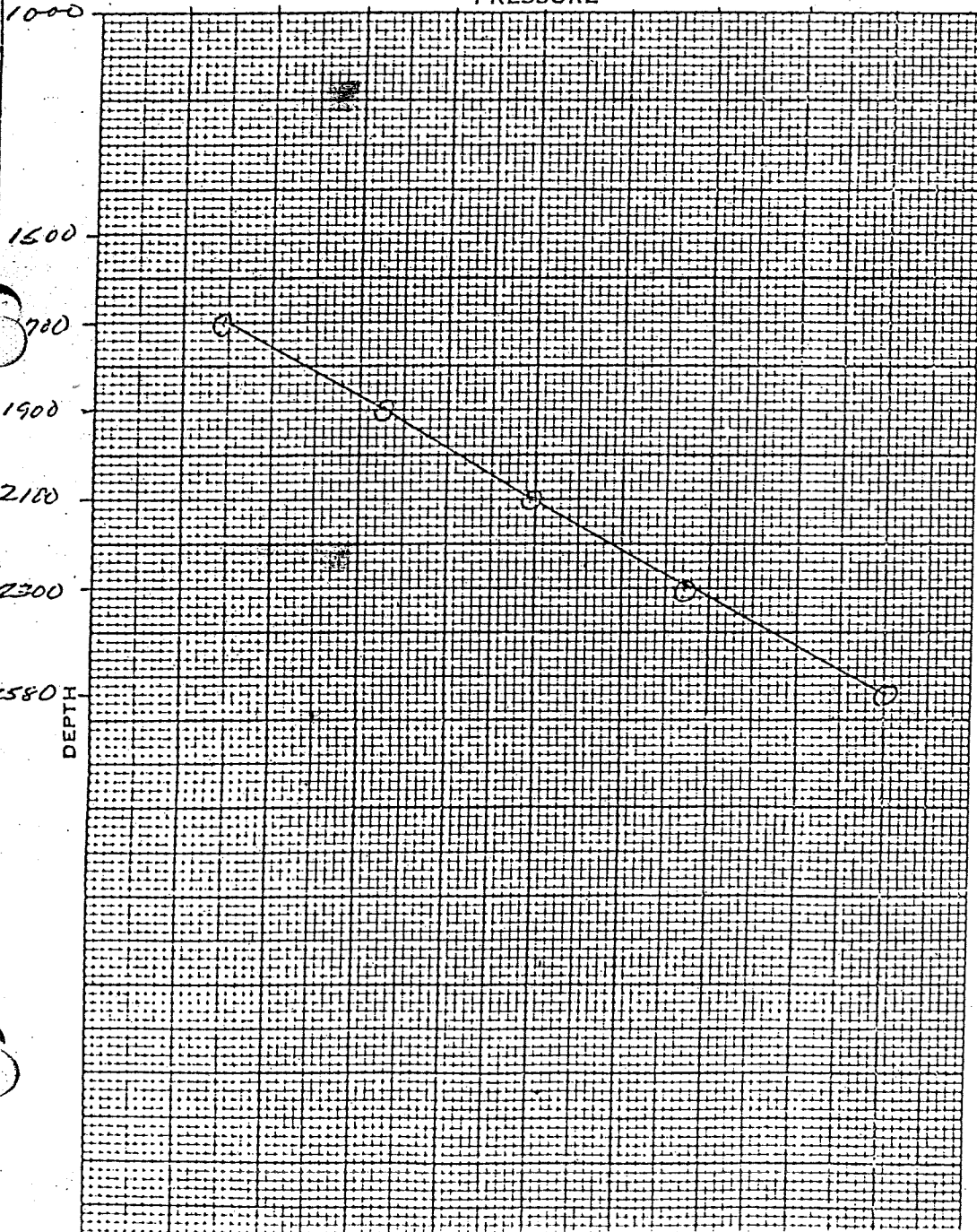
B-16 S-6 P

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE 7/9/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT ROTARY TABLE  
 \_\_\_\_\_ DEPTH 2580

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 0-4250 PS  
 \_\_\_\_\_ SERIAL NO 7198

PURPOSE RIG SURVEY CASING PT MAX TEMP 358.6 °F @ 2580  
 REMARKS: \_\_\_\_\_

50 100 150 200 <sup>250</sup> PRESSURE 300 350 400 450 500 STABILIZATION PERIOD



PRESSURES.	GAUGE	BONB
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
1000	0	0
1500	0	0
1700	72.1	0
1900	164.4	.462
2100	247.7	.416
2300	337.8	.450
2580	450.5	.403

JG + HB

76

# GEOHERMAL DIVISION

## SUBSURFACE SURVEY

### Field Work Sheet

3416-55-717

OWNER UNITED OIL COMPANY FIELD WALLE GRANDE WELL NAME 73007116  
 CASING 13-7/8 @ 1215' ELEV. --- DATE: 7/19/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT RT  
 \_\_\_\_\_ DEPTH \_\_\_\_\_

TUBING DETAIL: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

PURPOSE \_\_\_\_\_

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

ELEMENT 1-500P-1316 SERIAL NO. 10055 CLOCK 12:02 UIC/L 1575L RETURN 15 STABILIZATION PERIOD \_\_\_\_\_

ENGAGE STYLUS 7-1032 7-1034 DISENGAGE STYLUS P-1316 T-1216

WELL HEAD \_\_\_\_\_

PICKUP @ 2530' TIME ON BOTTOM 1133-1143 MAX. 'F 296

WELL STATUS STABLE

SHUT IN: 09/13/75 7/5/75 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
	1080	0	0	0	0	1100	1080	.166	135	0							
	1080	0	0	0	0	1108	1080	.278	173	-.08							
1100	1100	.038	80	.43	0	1114	1100	.320	187	-.07							
1120	1120	.076	171	.43	0	1120	1120	.355	198	-.06							
1126	1126	.113	255	.42	0	1126	1126	.400	213	-.08							
1132	1132	.153	345	.45	0	1132	1132	.515	251	-.19							
1143	1143	.204	450	.34	0	1143	1143	.815	346	-.34							

COMMENTS:

BY: A.M. A.R.

376

# GEOTHERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

BH16-SS-P17

OWNER MINN OIL CO OIL FIELD WILLIAMS WELLS WELL NAME BH16-SS-P17

CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE: 7/16/75

LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT 121

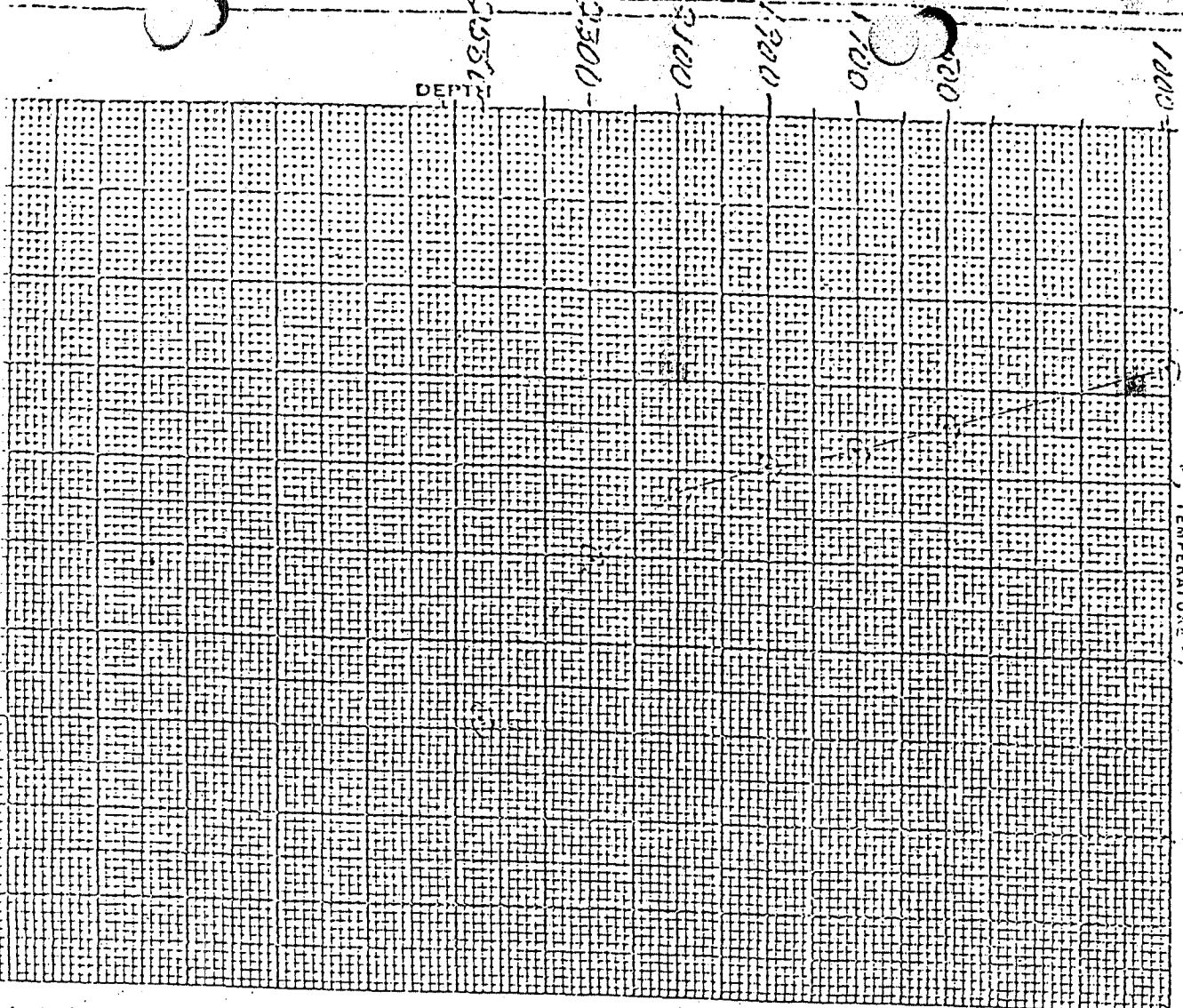
DEPTH: \_\_\_\_\_

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 3-1225-15684

SERIAL NO 10055

PURPOSE \_\_\_\_\_ MAX TEMP. 311.6 OF @ 2550

REMARKS: \_\_\_\_\_ SWESTADIZATION PERIOD \_\_\_\_\_



DEPTH	TEMP.	DEPTH	TEMP.
1000	135		
1500	173		
1700	187		
1900	193		
2100	213		
2300	251		
2550	311.6		



516

# GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

57116-55-P17

OWNER: UNION OIL CO. FIELD: CHILE WELL NAME: WHITE GEAR

CARING: \_\_\_\_\_ ELEV.: \_\_\_\_\_ DATE: 7/9/75

LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT: RT.

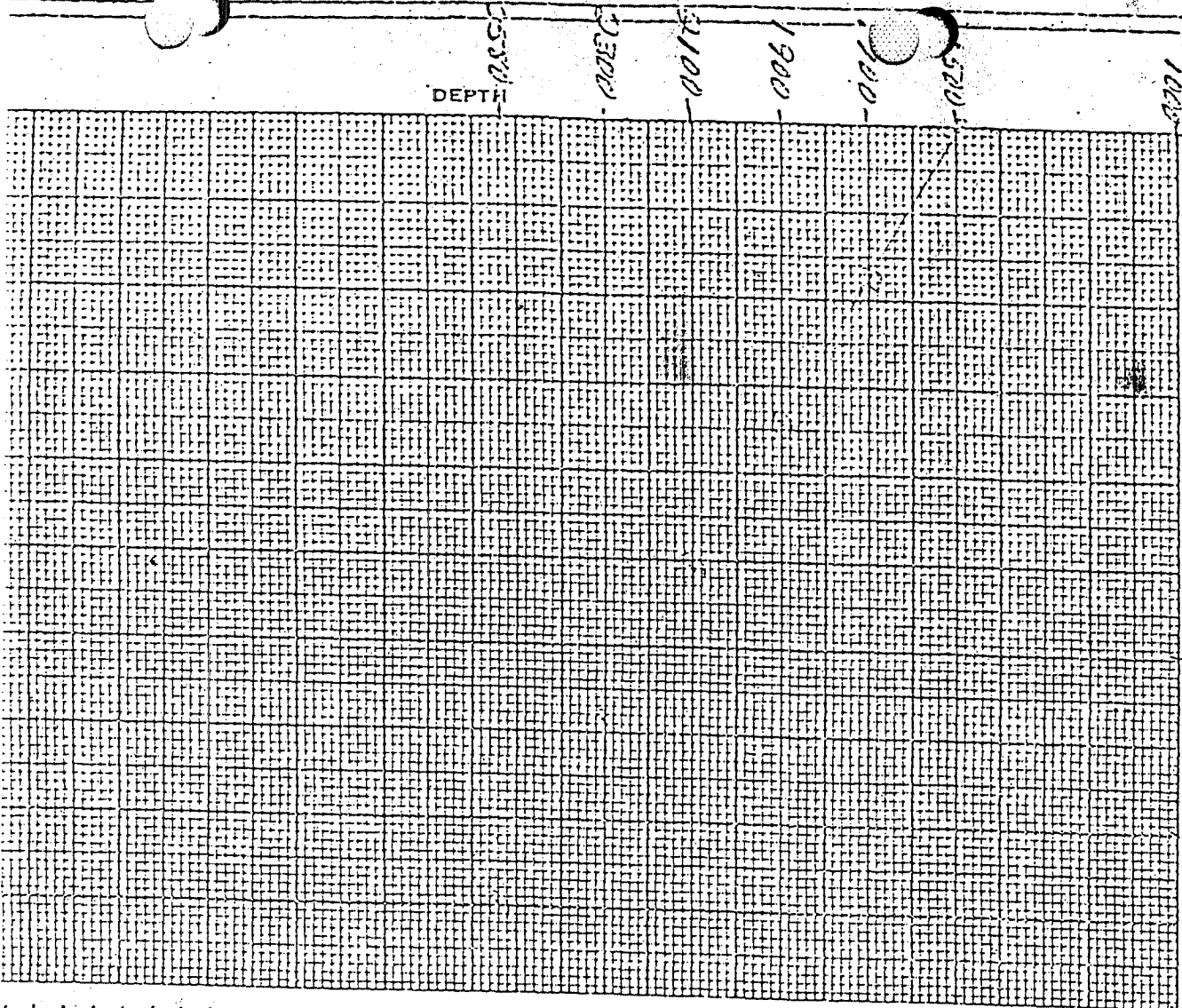
HOLE DESCRIPTION: \_\_\_\_\_ DEPTH: \_\_\_\_\_

INSTRUMENT: 0-1050 PS  
SERIAL NO: 7198

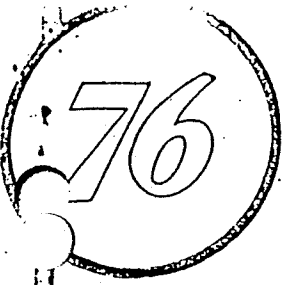
MAX TEMP: 216 OF @ 2580

PURPOSE: \_\_\_\_\_ STABILIZATION PERIOD: \_\_\_\_\_

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



DEPTH	PRESSURE	GAUGE	GRADIENT
1200	0	0	0
1300	0	0	0
1400	0	0	0
1500	0	0	0
1600	0	0	0
1700	0	0	0
1800	0	0	0
1900	0	0	0
2000	0	0	0
2100	0	0	0
2200	0	0	0
2300	0	0	0
2400	0	0	0
2580	0	0	0



UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

B-16 S-4 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BPOD #16  
CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE: 7/9/75  
LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT ROTARY TABLE  
DEPTH 2580'

TUBING DETAIL:

PURPOSE CASING PT

REMARKS:

0-4250 PSI SN 7198 Clock 13375-L 15 TURN

ELEMENT 82°-686°F SERIAL NO. 10055 CLOCK 14091-L 15 TURN STABILIZATION PERIOD \_\_\_\_\_

ENGAGE STYLUS P-0434 T-0436 DISENGAGE STYLUS P-0629 T-0626

WELL HEAD \_\_\_\_\_

PICKUP @ 2580' TIME ON BOTTOM 0540-0553 MAX. °F 346.4

WELL STATUS \_\_\_\_\_

SHUT IN: \_\_\_\_\_

ON PRODUCTION: \_\_\_\_\_

RATE \_\_\_\_\_

PRESSURE

TEMPERATURE

PRESSURE						TEMPERATURE											
TIME	DEPTH	DEFL.	P-S	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
03-003	1100	0	0	0	0	"	1000	.149	129.7	0							
04	1500	.009	21	.042	0	"	1500	.256	165.0	.070							
05	1700	.048	108	.435	0	"	1700	.298	179.3	.070							
21-0-26	1900	.088	198	.450	0	"	1900	.328	189.2	.050							
07-0532	2100	.126	284	.430	0	"	2100	.370	203.1	.070							
09-0538	2300	.165	372	.440	0	"	2300	.482	240.1	.185							
10-0552	2580	.213	480	.390	0	"	2580	.817	346.4	.380							

COMMENTS: STOPPED CIRCULATION 7/8/75 0945 HRS

BY: JIM JB

76

# GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

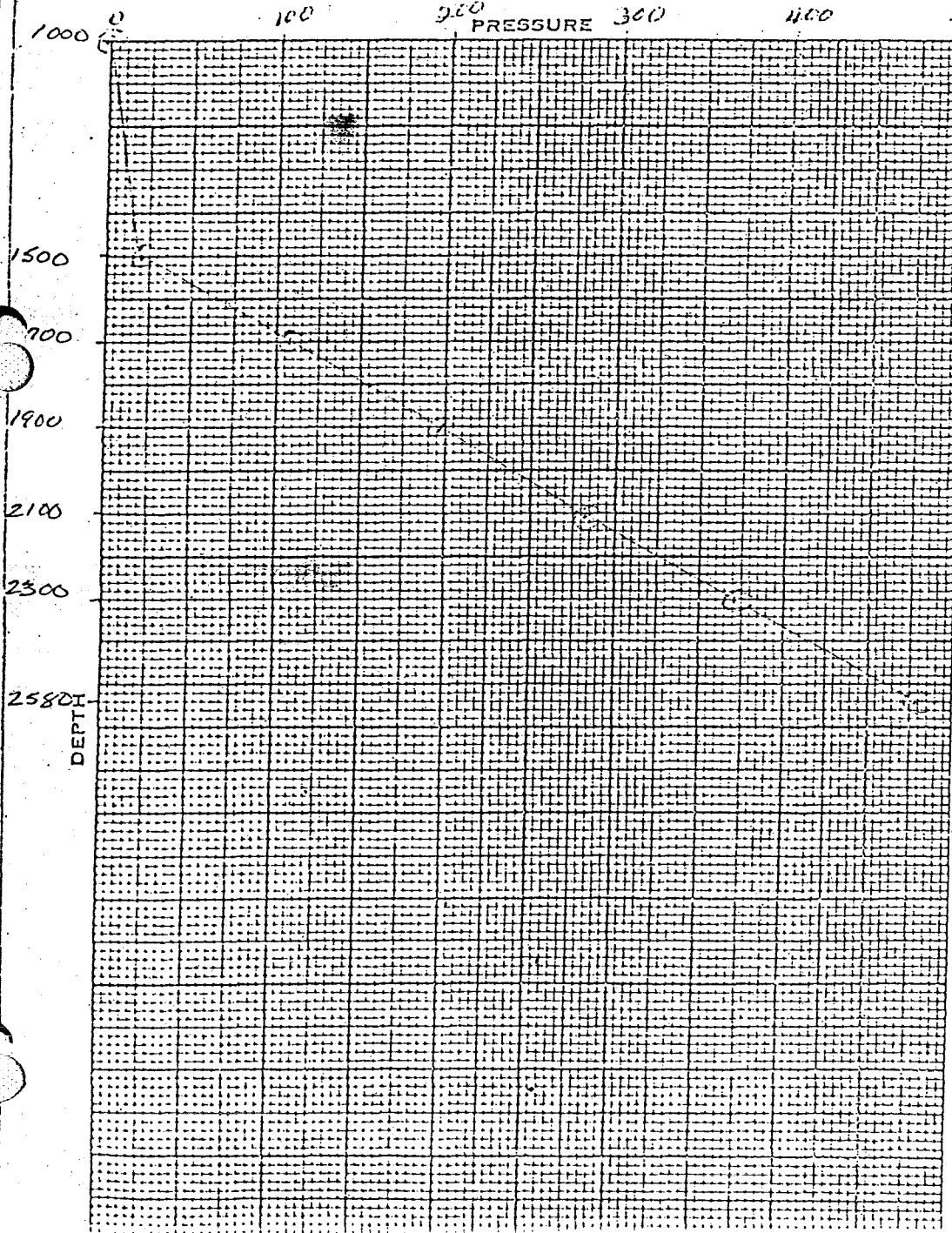
B-16 S-4 P

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE 7/9/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT ROTARY TABLE  
 \_\_\_\_\_ DEPTH 2580

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT D-4250 PS  
 \_\_\_\_\_ SERIAL NO 7198

PURPOSE RIG SURVEY FOR CASING PT. MAX TEMP \_\_\_\_\_ °F @ \_\_\_\_\_

REMARKS:



PRESSURE	GAUGE	BOMB
CASING, PSI	—	—

DEPTH	PRESSURE	GRADIENT
1000	0	0
1500	31	.04
1700	105	.143
1900	195	.145
2100	284	.143
2300	372	.144
2580	1480	.139

JM JB

76

# GEOHERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

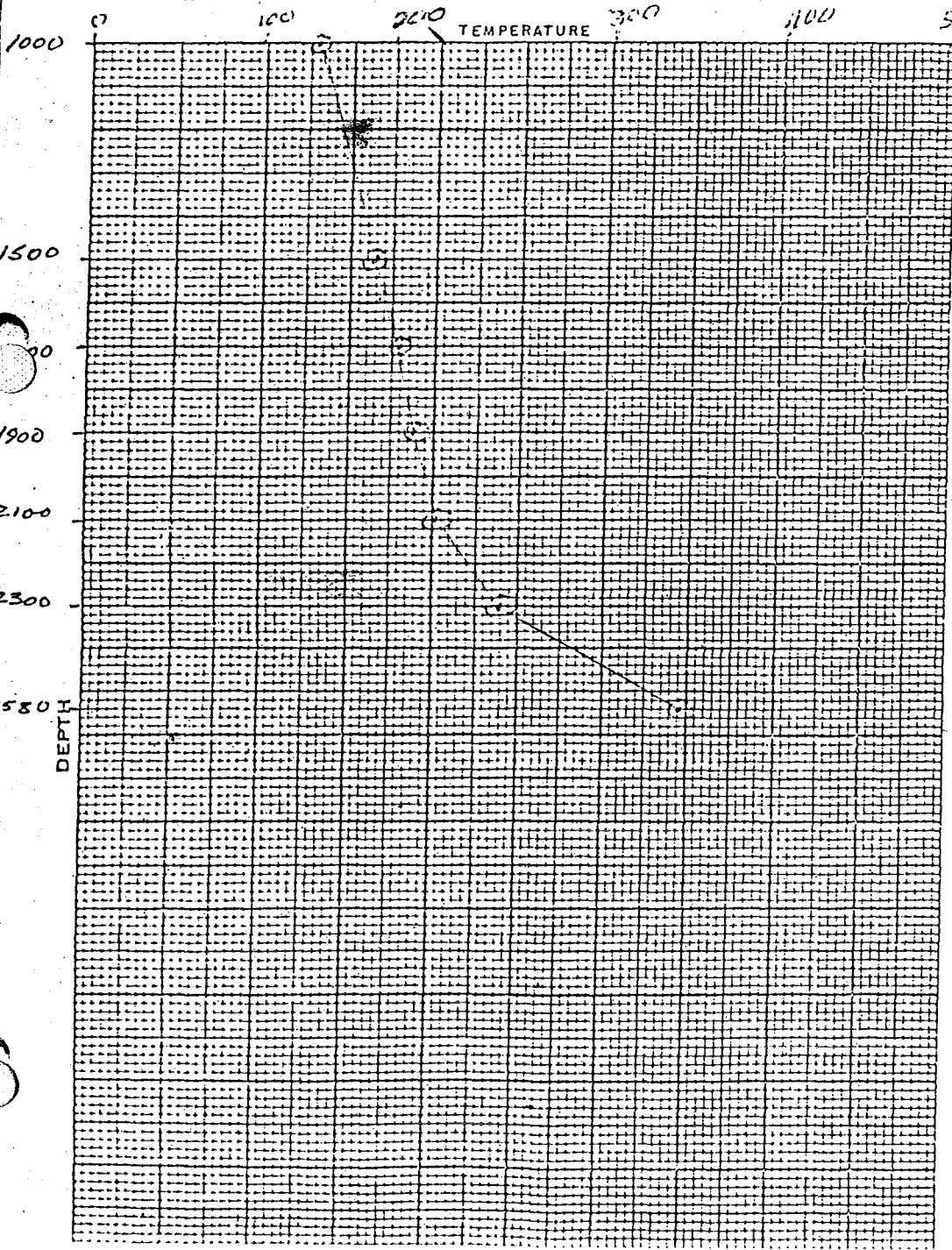
B-16 S-4 T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16  
 CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE: 7/9/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT ROTARY TABLE  
 \_\_\_\_\_ DEPTH 2580

HOLE DESCRIPTION: \_\_\_\_\_ INSTRUMENT 820 - 6860 FAH.  
 \_\_\_\_\_ SERIAL NO 10055

PURPOSE PIG SURVEY FOR CASING PT MAX TEMP. 346.4 °F @ 2580

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



500 STABILIZATION PERIOD

PRESSURE	GAUGE	CORD
CASING, PSI	—	—

DEPTH	TEMP.	DEPTH	TEMP.
1000	130		
1500	165		
1700	179		
1900	189		
2100	203		
2300	240		
2580	346		

JMI LIS

BY:

76

UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

13-16 S-3 PIT

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BHA # 16  
 CASING ELEV. DATE: 6/8/75  
 LINER DESCRIPTION: ZERO POINT POT-HY TABLE  
 DEPTH 2580'

TUBING DETAIL:

PURPOSE RIG SURVEY FOR CASING PIT

REMARKS:

0-2250 PSIG SN 7198 CLOCK-13375 L 15 TURN

ELEMENT 82° 486° SERIAL NO. 10055 CLOCK 14091-L 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0933; T-0931 DISENGAGE STYLUS P-7829 T-7830

WELL HEAD

PICKUP @ 2580 TIME ON BOTTOM 1034-1104 MAX. 'F 320.0°

WELL STATUS

SHUT IN: ON PRODUCTION:

RATE

PRESSURE

TEMPERATURE

PRESSURE						TEMPERATURE											
TIME	DEPTH	DEFL.	P-F	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	1050	0	0	0	0	"	1050	.125	122.0	0							
	1500	.052	72.0	.144	0	"	1500	.210	149.0	.054							
	1700	.072	162.0	.451	0	"	1700	.242	160.0	.055							
15-1021	1900	.111	256.0	.441	0	"	1900	.267	169.0	.045							
12-1027	2100	.150	338.0	.440	0	"	2100	.300	182.0	.055							
15-1033	2300	.190	427.0	.445	0	"	2300	.403	214.0	.017							
14-1104	2580	.233	523.0	.343	-1.007	"	2580	.755	320.0	.578							

COMMENTS: STOPPED CIRCULATION 0945 HRS 7/8/75

BY: J.M. LIS

# GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

16

B-116-53-P17

OWNER MURAL CO. OF PALE FIELD PALE WELL NAME BW 3411

CASING          DATE 7/2/75

LINER DESCRIPTION:          ZERO POINT R1

DEPTH 2550

HOLE DESCRIPTION:         

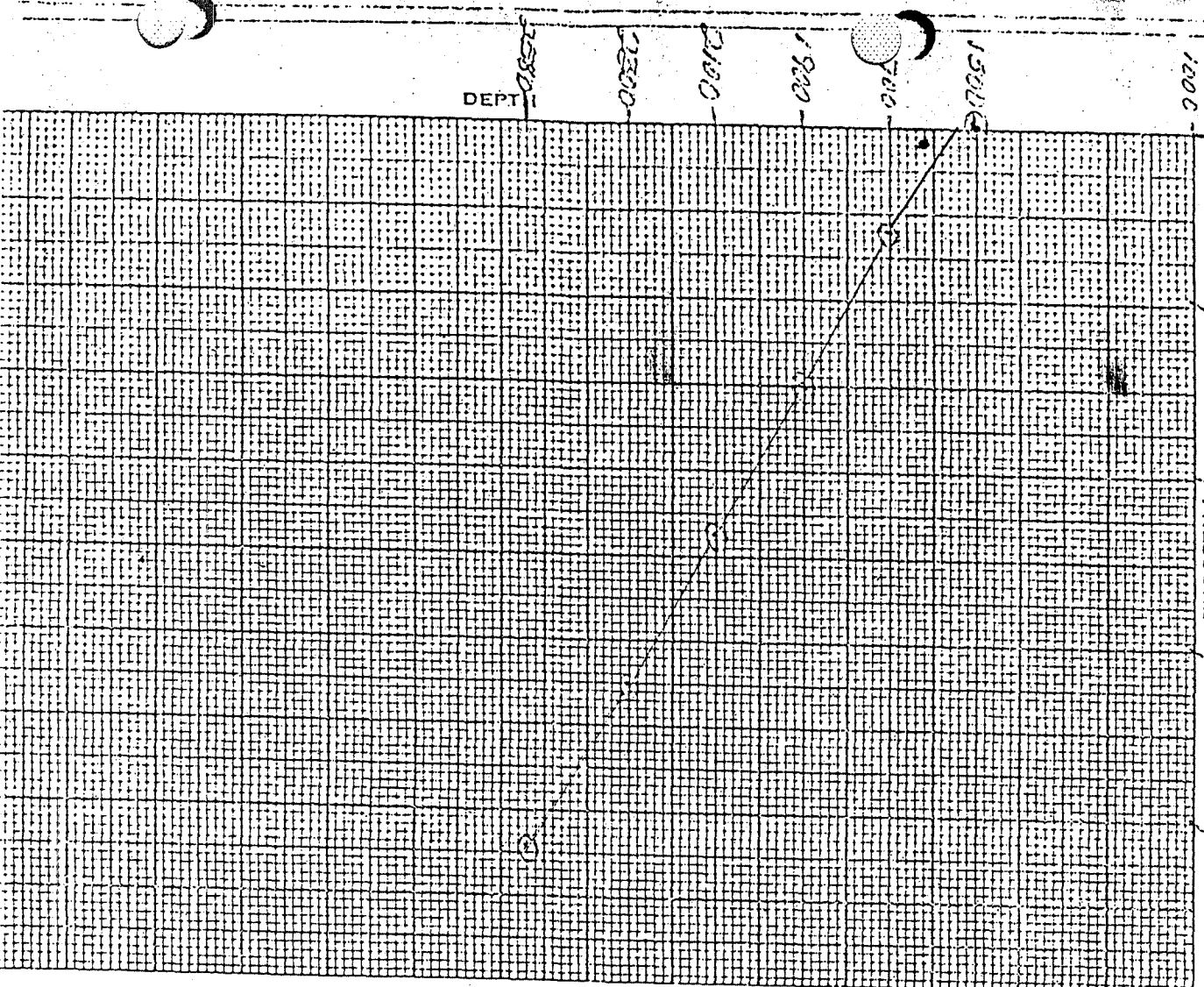
INSTRUMENT 0-4550 PSIC

SERIAL NO 7198

MAX TEMP 390 OF @ 2550

PURPOSE          STABILIZATION PERIOD         

REMARKS:         



PRESSURE	GAUGE	BOHM
CASING, PSI		

DEPTH	PRESSURE	GRADIENT
1000	0	0
1500	72	114
1700	167	143
1900	250	140
2100	335	140
2300	427	145
2550	523	143

# GEO THERMAL DIVISION

## SUBSURFACE TEMPERATURE CURVE

B-16 S-3 D

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #16

CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE: \_\_\_\_\_

LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT \_\_\_\_\_

DEPTH \_\_\_\_\_

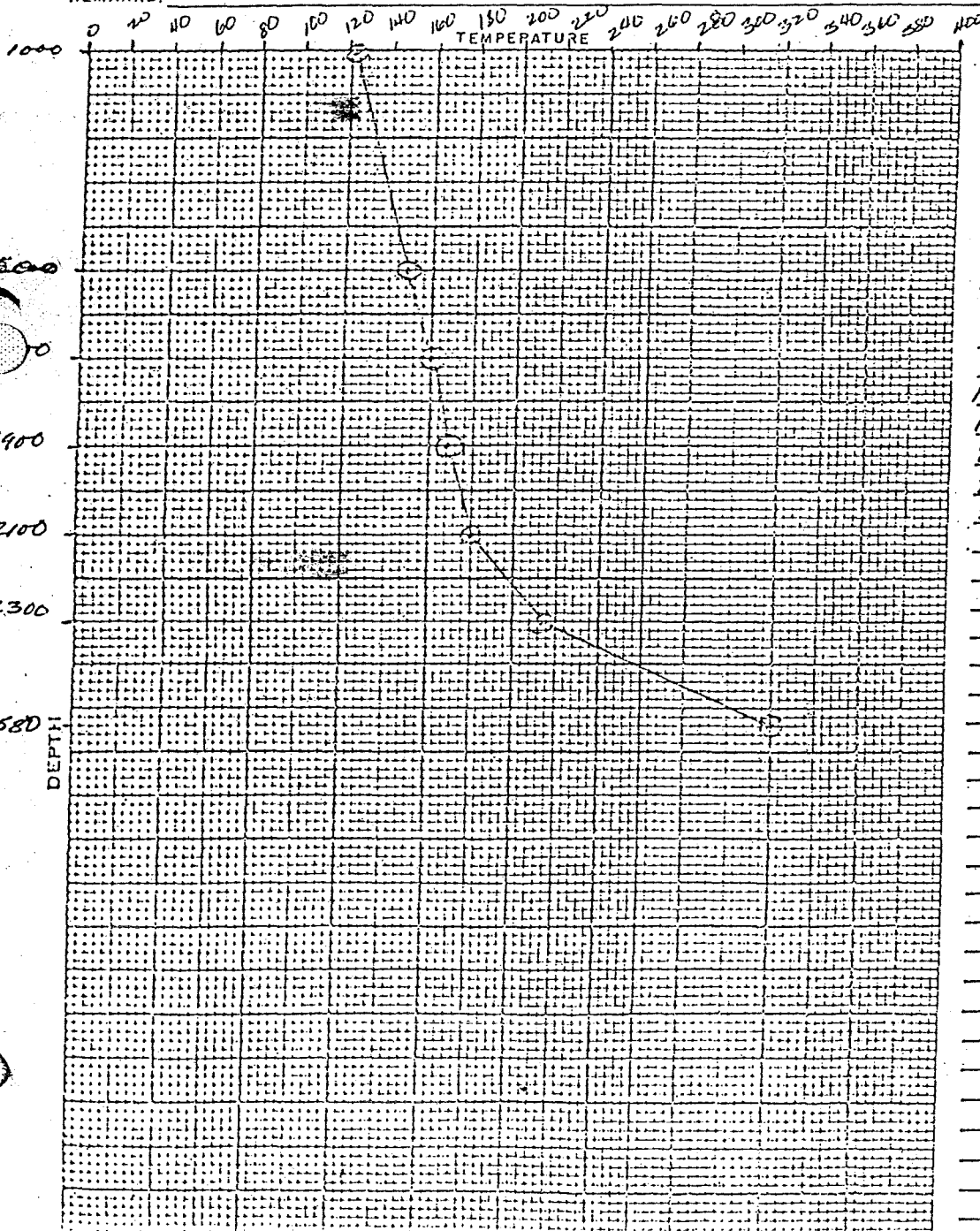
HOLE DESCRIPTION: RIG SURVEY

INSTRUMENT 0-4250 82-6560 FAH

SERIAL NO 7148 10055

PURPOSE \_\_\_\_\_ MAX TEMP. 320 °F @ 2580'

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

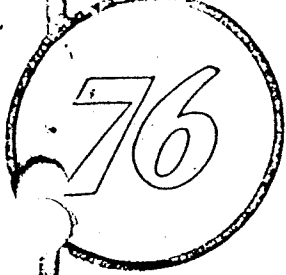


STABILIZATION PERIOD \_\_\_\_\_

PRESSURES,	GAUGE	COND
CASING, PSI	_____	_____

DEPTH	TEMP.	DEPTH	TEMP.
1000	120		
1500	140		
1700	160		
1900	180		
2100	200		
2300	240		
2580	320		

*J.M. HB*



union

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B-16 S-2 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BXN #16  
 CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE: 7/8/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT ROTPLY TABLE  
 \_\_\_\_\_ DEPTH 2580'  
 TUBING DETAIL: \_\_\_\_\_  
 \_\_\_\_\_  
 PURPOSE RIG SURVEY  
 REMARKS:  
ELEMENT - 0-4250 RSIG SN 7198. CLOCK 13375-L 15 TURN  
ELEMENT 82°-686° SERIAL NO. 10055 CLOCK 14091-L 15 TURN STABILIZATION PERIOD  
ENGAGE STYLUS P-1633 T-1631 DISENGAGE STYLUS P-1815; T1817  
 WELL HEAD 0  
 PICKUP @ 2580' TIME ON BOTTOM 1732-1802 MAX. F 263°  
 WELL STATUS \_\_\_\_\_  
 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
56-001	1000	0	0	0	0	"	1100	.083	109.0	0							
02	1500	.075	169.0	.338	0	"	1500	.194	144.0	.070							
08	1700	.113	255.0	.430	0	"	1700	.218	152.0	.040							
14-1719	1900	.150	338.0	.415	0	"	1900	.238	159.0	.040							
20-1725	2100	.187	421.0	.415	0	"	2100	.263	167.0	.040							
26-1731	2300	.215	484.0	.315	-009	"	2300	.343	194.0	.040							
2-1802	2580	.263	587.0	.368	-008	"	2580	.553	263.0	.246							

COMMENTS: STOP CIRCULATION 7/8/75 0945 HRS

BY: JM + JB



76

# GEOHERMAL DIVISION

## SUBSURFACE TEMPERATURE SURVEY

15-16 S-2 T

OWNER ATHON OIL COMPANY FIELD VALLEDBRAND WELL NAME BADA #16

CASING \_\_\_\_\_ DATE: 8/8/75

LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT 1 Rotary Tank

DEPTH 2580

HOLE DESCRIPTION: P/B SWELLEY

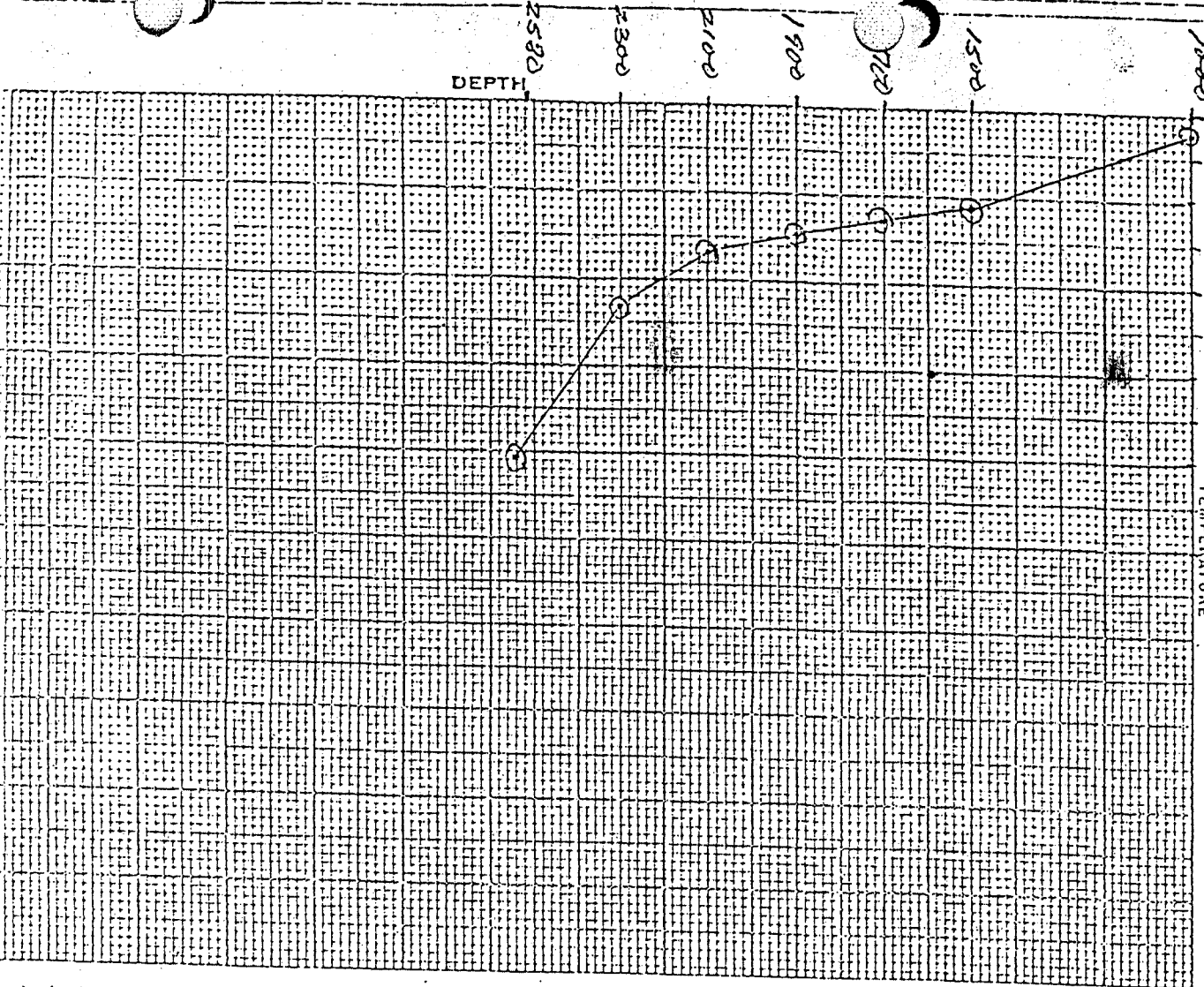
INSTRUMENT 82-656 ° FAN  
SERIAL NO 10055

MAX TEMP 26.5 °F @ 2580

PURPOSE \_\_\_\_\_

REMARKS: AD 120 140 160 180 200 220 240 260 280 300

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



PRESSURED	GAUGE	DEPTH	DOING
CASING, PSI	—		

DEPTH	TEMP.	DEPTH	TEMP
1000	109.0		
1500	144.0		
1740	152.0		
1800	159.0		
2100	167.0		
2300	194.0		
2580	263.0		

JM + JLB

76

# GEO THERMAL DIVISION

## SUBSURFACE PRESSURE SURVEY

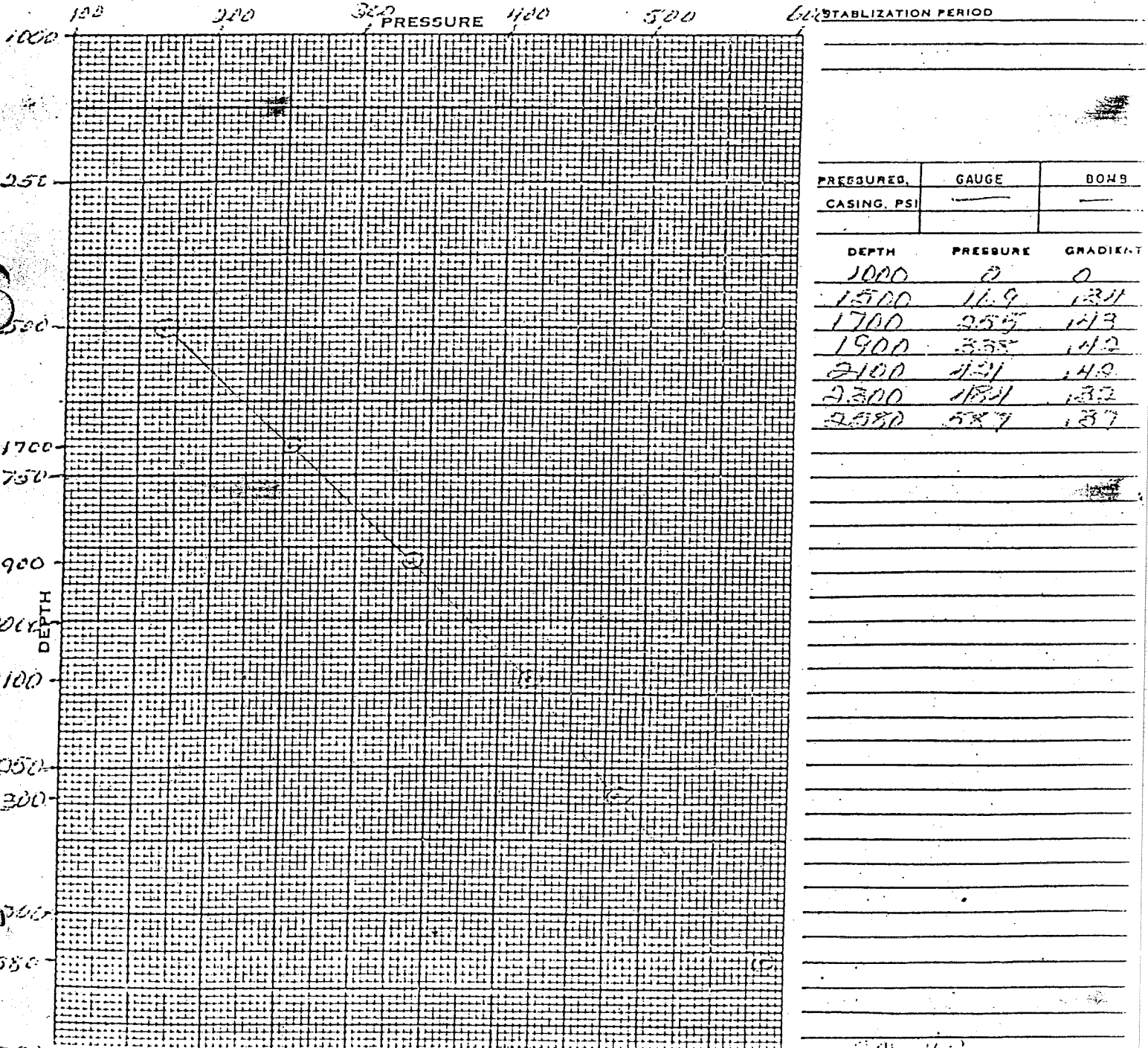
BH16-59-P11

OWNER UNION OIL CO OF CALIF FIELD WALDE GRANDE WELL NAME BACH16  
 CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE 7/5/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT RT.  
 \_\_\_\_\_ DEPTH 2580

HOLE DESCRIPTION: \_\_\_\_\_  
 \_\_\_\_\_  
 INSTRUMENT 0-1250 PSI  
 SERIAL NO 7198

PURPOSE \_\_\_\_\_ MAX TEMP 263 °F @ 2580

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



76

UNION

JACK

# GEO THERMAL DIVISION

SUBSURFACE SURVEY  
Field Work Sheet

B#16-SI-PIT

OWNER UNION OIL CO. CALIF FIELD VALLE GRANDE WELL NAME BACH#16  
 CASING \_\_\_\_\_ ELEV. \_\_\_\_\_ DATE: 7/5/75  
 LINER DESCRIPTION: \_\_\_\_\_ ZERO POINT RT  
 DEPTH 2169'  
 TUBING DETAIL: OPEN HOLE  
 PURPOSE ?  
 REMARKS: DRILL PIPE IN HOLE TO 2144'  
P-C-1250 PSIG 719.8 13375L 15  
 ELEMENT 3.0°F-684F SERIAL NO. 10055 CLOCK 14091 L 15TURN STABILIZATION PERIOD  
 ENGAGE STYLUS P-1421 T-1425 DISENGAGE STYLUS P-1633, T-1633  
 WELL HEAD 0  
 PICKUP @ 2144' TIME ON BOTTOM 1522-1622 MAX. 'F 260.7  
 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
	1111	0	0	-	-	"	1100	1012	95.3	-	-						
	1500	0	0	-	-	"	1500	1305	181.7	-	-						
	2144	0.060	1.351	-	-	"	2144	1546	260.7	-	-						

COMMENTS:

0.01 117