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GL03876

Open-File Report # NM/Baca- 19g

BACA PROJECT
DATA AND REPORTS

WELLS

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

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UNION

GEO THERMAL DIVISION

SEPERMENTS

SUBSURFACE SURVEY

Field Work Sheet

B⁷ 11 S 104 P/T

OWNER: Union Oil Co of CA, FIELD Valle Grande
 CASING 20" O 207'; 13 3/4" O 1336 ELEV. 9604'
 LINER DESCRIPTION: 9 5/8" Tieback 1219' 7 5/8" - 3380'

WELL NAME RA-E-F-11
 DATE: 9-11-76
 ZERO POINT C-L + L
 DEPTH 6540

TUBING DETAIL:

PURPOSE

REMARKS: Ran sinker bar prior to survey - Depth 6540

ELEMENT O-4700 SN. NO. 13012 12 hr 15 T

ELEMENT 30" - 646' SERIAL NO. 10052 CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P 1345 T 1346 DISENGAGE STYLUS

WELL HEAD 339

PICKUP O 6540 TIME ON BOTTOM 1547.70 1602 MAX. T 581

WELL STATUS

SHUT IN: 9-10-76

ON PRODUCTION:

RATE

Pressure

Temp.

Depth

T	DEPTH	DEFL.	P-T	GRAD.	Corr	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1	100	139	349	.002	0	1421	100	.037	42								
1433	1000	139	347	.022	-.004	1433	1000	1.552	252		21						
1445	2000	443	358	.011	-.001	1445	2000	1.066	402		243						
1457	3000	238	533	.015	0	1457	3000	1.357	482		56						
1469	3500	201	732	.028	0	1469	3500	1.427	501		677						
1481	4000	374	905	.026	0	1481	4000	1.467	511		75						
1493	5000	516	1239	.032	+.001	1493	5000	1.489	517		763						
1495	6000	658	1573	.031	+.002	1495	6000	1.510	523		825						
1497	6540	737	1758	.033	0	1497	6540	1.737	581		1377						

COMMENTS:

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UNION

GEO THERMAL DIVISION

SEPT 1976

SUBSURFACE SURVEY

Field Work Sheet

BPH 5124 9/T

OWNER Union Oil Co of CA Field Walle Grande

WELL NAME B-2-F-11

CASING 20" O 207' 13 3/4" (2133) ELEV. 9604'

DATE: 9-16-76

LINER DESCRIPTION: 9 5/8" Tri-back 1219' 9 5/8" - 3380'

ZERO POINT C-L + L

DEPTH 6540

TUBING DETAIL:

PURPOSE

REMARKS: Run sinker bar prior to survey - Depth 6540

Element D-4700 SN. NO. 13012 12 hr 15 T

ELEMENT 30" - 446' SERIAL NO. 10052 CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE SYLLUS 1315 T 1346 DISENGAGE SYLLUS

WELL HEAD 339

PICKUP @ 6570 TIME ON BOTTOM 1547 To 1602 MAX. T 581

WELL STATUS

SHUT IN: 9-10-76

ON PRODUCTION:

RATE

Pressure

Temp.

Depth

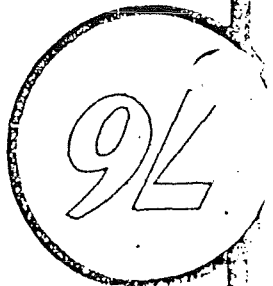
T	DEPTH	DEFL.	P-T	GRAD.	Corr	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1	100	.139	349	.002	0	1421	100	.037	92								
1433	1000	.139	347	.002	-.004	1433	1000	.152	252		21						
1445	2000	.443	358	.011	-.001	1445	2000	1.066	402		243						
1457	3000	.238	583	.003	0	1457	3000	1.357	482		56						
1509	3500	.201	732	.008	0	1509	3500	1.427	501		67						
1521	4000	.374	905	.006	0	1521	4000	1.467	511		71						
1533	5000	.516	1239	.004	+.001	1533	5000	1.489	517		72						
1545	6000	.658	1573	.004	+.002	1545	6000	1.510	523		73						
1602	6540	.737	1758	.003	0	1602	6540	1.737	581		77						

COMMENTS:



GEO THERMAL DIVISION SUBSURFACE PRESSURE SURVEY

B11-5104-PT



OWNER: White Gravel FIELD: BCHA #11

CASING: 96041 ELEV: 9116/76

LINER DESCRIPTION: 51.76'

DEPTH: 6540'

HOLE DESCRIPTION: STABILIZATION PERIOD

INSTRUMENT: PSIG

SERIAL NO: 15013

PURPOSE: MAX TEMP 581 °F @ 6540'

REMARKS:

STABILIZATION PERIOD

PRESSURE 800 1200 1600 2000

DEPTH 1000 2000 3000 4000 5000 6000

GRADIENT

GAUGE BOMB

PRESSURE 349 377 358 383 332 305 283 258 232 205 1758

DEPTH 100 1000 2000 3000 4000 5000 6000 6540

GRADIENT

GAUGE BOMB

PRESSURE 349 377 358 383 332 305 283 258 232 205 1758

DEPTH 100 1000 2000 3000 4000 5000 6000 6540

GRADIENT

GAUGE BOMB

PRESSURE 349 377 358 383 332 305 283 258 232 205 1758

DEPTH 100 1000 2000 3000 4000 5000 6000 6540

GRADIENT

GAUGE BOMB

PRESSURE 349 377 358 383 332 305 283 258 232 205 1758

DEPTH 100 1000 2000 3000 4000 5000 6000 6540

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PRESSURE 349 377 358 383 332 305 283 258 232 205 1758

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GAUGE BOMB

PRESSURE 349 377 358 383 332 305 283 258 232 205 1758

DEPTH 100 1000 2000 3000 4000 5000 6000 6540

GRADIENT

GAUGE BOMB

PRESSURE 349 377 358 383 332 305 283 258 232 205 1758

DEPTH 100 1000 2000 3000 4000 5000 6000 6540

GRADIENT

GAUGE BOMB

PRESSURE 349 377 358 383 332 305 283 258 232 205 1758

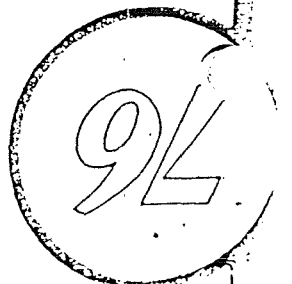
DEPTH 100 1000 2000 3000 4000 5000 6000 6540

GRADIENT

GAUGE BOMB

GEO THERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

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B11-S104-PT

WELL NAME *Grange #11* FIELD *Grange* ELEV *96041*

DATE *9/16/76*

ZERO POINT *51.76'*

DEPTH *6570'*

CASING DESCRIPTION:

HOLE DESCRIPTION:

INSTRUMENT

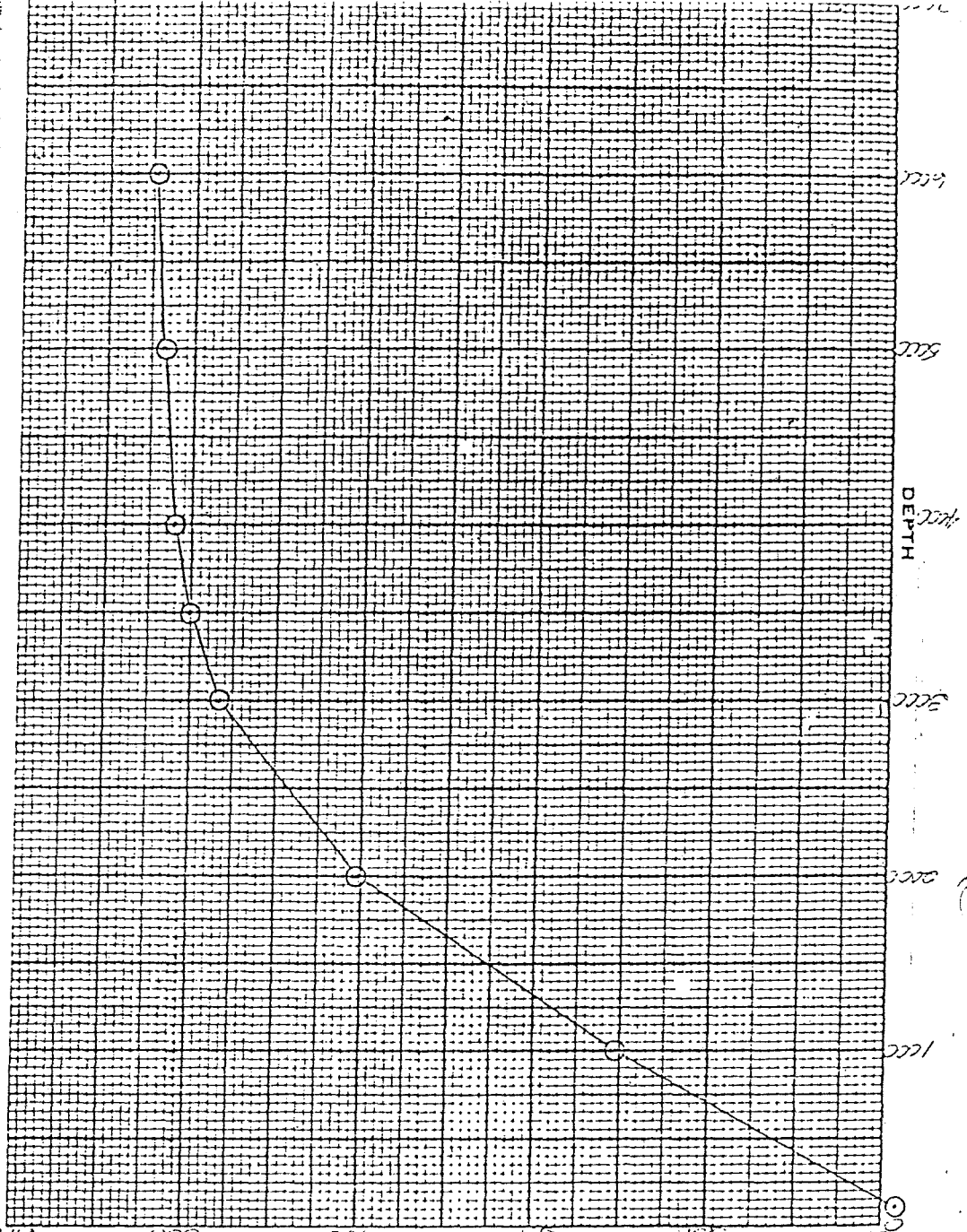
SERIAL NO *10052*

MAX TEMP *581 °F @ 6570'*

REMARKS:

STABILIZATION PERIOD

DEPTH	TEMP.	DEPTH	TEMP.
100	98	100	98
1000	252	1000	252
2000	402	2000	402
3000	482	3000	482
3500	501	3500	501
4000	511	4000	511
5000	517	5000	517
6000	523	6000	523
6570	581	6570	581



Blank lined area for additional notes or data.

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UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

BH11-5165-P/T

OWNER: UNION OIL CO. CALIF. FIELD: VALLE GRANDE WELL NAME: BH11-5165-P/T
 CASING: 30" @ 207' 113.75" @ 1336' ELEV. 9604' DATE: 9/25/71
 LINER DESCRIPTION: 9 5/8" @ 1219' TIENACK ZERO POINT: 6146'
 9 5/8" - 3380 - T.D. DEPTH: 6540'

TUBING DETAIL:

PURPOSE:

REMARKS:

P-C-11-50 7516. 9222 1212 15

ELEMENT T-1109-7924 SERIAL NO. 10095 CLOCK 1212 15 TURN

STABILIZATION PERIOD

ENGAGE STYLUS P-1150 T-1450 DISENGAGE STYLUS P-1638 F-1638

WELL HEAD 600

PICKUP @ 6540' TIME ON BOTTOM 1609-1619 MAX. 538

WELL STATUS SHUT IN

SHUT IN: 9-10-76 ON PRODUCTION:

RATE

PRESSURE

TEMPERATURE

TIME	DEPTH	DEFL.	P-W	GRAD.	CO2P	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1	100	.257	632	*	0	1507	100	0	0								
2	1000	.254	625		-1006	1516	1100	.333	251								
3	2100	.249	660		-1001	1525	2100	.773	375								
4	3000	.278	682		0	1534	3000	1.104	499								
5	3500	.314	717		0	1542	3500	1.132	519								
6	4100	.335	934		0	1550	4100	1.156	517								
7	5000	.534	1275		0	1559	5000	1.173	542								
8	6100	.675	1615		+1001	1608	6100	1.198	530								
9	6540	.735	1801		0	1619	6540	1.375	538								

COMMENTS: * NOTE! PRESSURE AT 100' COULD NOT BE CORRECTED DUE TO 100% MINIMUM TEMP. CORRECTION.

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UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11 5106 F17

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACH #11
 CASING 20" AT 207' 1 3/8" AT 1336' ELEV. 9064' DATE: 10/5/76
 LINER DESCRIPTION: 9 5/8" TIEBACK AT 1219' ZERO POINT C.L.+6' DEPTH 6540'
 TUBING DETAIL: 7" AT 3340'

PURPOSE

REMARKS:

ELEMENT - 0-4650 PSI SN 9222 CL - 12 hr 15T
 ELEMENT 100° - 792° SERIAL NO. 10098 CLOCK 12 hr 15 TURN STABILIZATION PERIOD
 ENGAGE SYLUS P-1030 T-1025 DISENGAGE SYLUS P-1345-T-1350
 WELL HEAD 600 PSIG
 PICKUP @ 6540 TIME ON BOTTOM 1228 - 1308 MAX. F 592
 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
1055	100	.251	618		-.008	1055	100	.1007	103								
1107	1000	.263	646		-.005	1107	1000	.1408	259								
1118	2000	.272	667		0	1118	2000	.752	383								
1129	3000	.279	684		0	1129	3000	1.110	501								
1142	3500	.318	776		0	1142	3500	1.139	511								
1153	4000	.389	943		0	1153	4000	1.157	517								
1225	5000	.535	1236	*	0	1225	5000	1.177	523								
1236	6000	.677	1619		0	1236	6000	1.201	531								
1308	6540	.759	1811	*	0	1308	6540	1.588	592								

* = 30 MINUTE STOPS

COMMENTS:

BY: [Signature]

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11 599 P17

OWNER UNION OIL COMPANY FIELD VALLE GRANDE

WELL NAME BADA #11

CASING 20" AT 207' 13 3/8 1336' ELEV. 9064'

DATE: 6/21/76

LINER DESCRIPTION: 9 5/8" TIEBACK 1219' 9 5/8" AT 2380'
7" AT 2340'

ZERO POINT CL + 2'

DEPTH 3000'

TUDING DETAIL:

PURPOSE

REMARKS:

ELEMENT - 0-2950 PSI SN 9236 CL - 12 HR 15 TURN

ELEMENT 100 - 792 °F SERIAL NO. 10018 CLOCK 12 HR 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P 1438 T 1440 DISENGAGE STYLUS P 1700 T 1700

WELL HEAD 925

PICKUP @ 3000 TIME ON BOTTOM MAX. °F

WELL STATUS

SHUT IN: 1400 4/19/76 ON PRODUCTION:

RATE

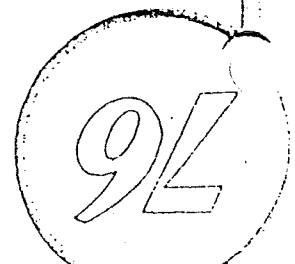
PRESSURE

TEMP.

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1	100	.605	927		-009	1518	100	.017	107								
1520	1000	.645	987		+001	1530	1000	.458	278								
1542	2000	.666	1018		+004	1542	2000	.776	392								
1544	3000	.687	1048		+001	1544	3000	1.251	549								
1614	3500	.687	1048		+001	1614	3500	1.251	548								
1644	3000	.687	1048			1644	3000	1.251	549								

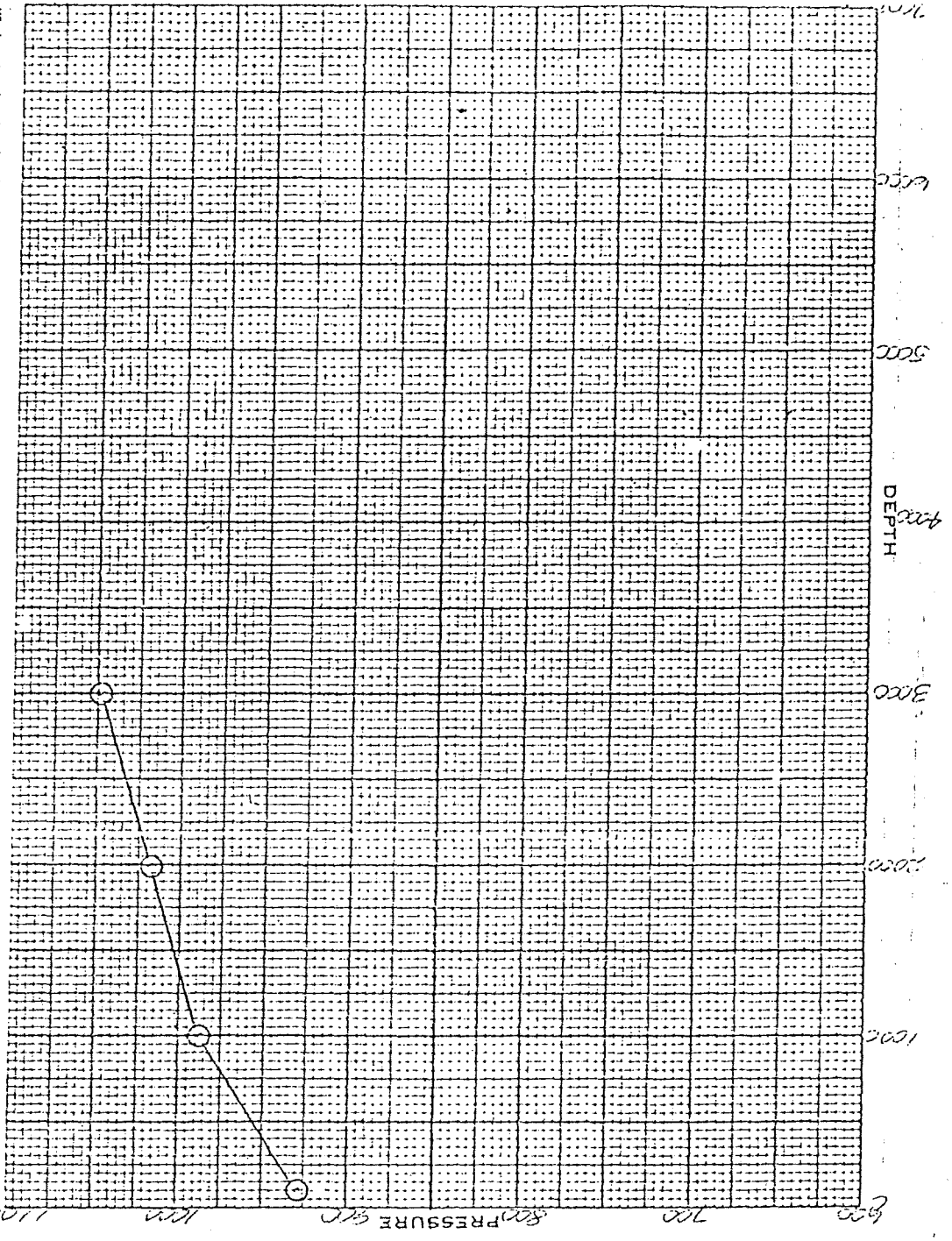
COMMENTS:

GEO THERMAL DIVISION
 SUSURFACE PRESSURE SURVEY



OWNER: *W. L. Gault* FIELD: *4044* ELEV: *4217.6*
 CASING: *4217.6* LINER DESCRIPTION:
 HOLE DESCRIPTION:
 INSTRUMENT SERIAL NO: *9235*
 MAX TEMP: *54.8* OF @ *3000*
 REMARKS:

DEPTH	PRESSURE	PRESSURE GRADIENT
100	92.2	
1000	93.7	
2000	101.8	
3000	105.8	



STABILIZATION PERIOD
 PRESSURE GAUGE
 CASING PSI
 DEPTH PRESSURE GRADIENT

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B#11 5-98 1/2

OWNER Union Oil Co. of Calif. FIELD Valle Grande WELL NAME Bern #11
 CASING 20' @ 207' @ 1 1/2" @ 1336' ELEV. 906.9' DATE: 6/15/76
 LINER DESCRIPTION: 9 5/8" Fiberglass @ 1219' @ 9 5/8" @ 3380' ZERO POINT CL 17'
7" @ 3340' DEPTH 5600'

TUBING DETAIL:

PURPOSE

REMARKS:

Element 0-2950 Pij SN- 9035 Clock 12 hr 15 turn

ELEMENT 100°-79.2°F SERIAL NO. 10098 CLOCK 12 hr 15 turn STABILIZATION PERIOD

ENGAGE STYLUS P. 0907° T-0911 DISENGAGE STYLUS P-1218° T-1218

WELL HEAD 9:20 Pij

PICKUP @ 3600' TIME ON BOTTOM 10:20-11:20 MAX. °F 548.2°F

WELL STATUS 5 1/2" h/d - in

SHUT IN: 1400, 4/19/76 ON PRODUCTION:

RATE

Pressure

Temp

TIME	DEPTH	DEFL.	P-T	GRAD.	MDR	TIME	DEPTH	DEFL.	P-T	GRAD.	TD	TIME	DEPTH	DEFL.	P-T	GRAD.	TD
0955	100	.015	105.9		-0.010	1008	1000	.445	272.7								
1019	2000	1.661	1010.3	.021	+0.004	1019	2000	.777	392								
1120	3600	1.679	1056.7	.027	+0.001	1120	3600	1.252	548.2								

COMMENTS:

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UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

5/11 5.94 1/2

OWNER Union Oil Co of Calif. FIELD *Valle Grande* WELL NAME *Boring #11*

CASING *20" x 207' x 13.8" @ 13.8'* ELEV. *966.4'* DATE: *6/11/76*

LINER DESCRIPTION: *9 3/4" tubular @ 1419' x 9 3/4" @ 3380'* ZERO POINT
7" @ 3380' - T.O. DEPTH

TUBING DETAIL:

PURPOSE

REMARKS:

Clear - C-2450 Pig SN- 9255 Clock 12 hr 15 Turn

ELEMENT *100"-792" F SERIAL NO. 10098* CLOCK *12 hr 15 TURN* STABILIZATION PERIOD

ENGAGE STYLUS *P-1030 T-1034* DISENGAGE STYLUS *P-1436 T-1458*

WELL HEAD *923 Pig*

PICKUP @ *3000'* TIME ON BOTTOM *1158-1413* MAX. T *550°F*

WELL STATUS *Shut in*

SHUT IN: *1400 4/19/76* ON PRODUCTION:

RATE

T	<i>Disc</i>				<i>Temp</i>				ID	TIME				
	DEPTH	DEFL.	P-T	GRAD.	DEPTH	DEFL.	P-T	GRAD.			DEPTH	DEFL.	P-T	GRAD.
	100	1.09	932.8		1125	100	1.632	113.2						
	1127	1.45	933.0		1137	1000	1.475	351.9						
	1152	1.72	932.4		1155	700	1.777	342						
	1413	1.91	931.2		1413	500	1.252	550						

COMMENTS:

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

B#11-597-P1T

OWNER UNION OIL CO CALIF FIELD VALLE GRANDE WELL NAME BCH 11
 CASING 20" @ 267' 13 3/5" @ 133' ELEV. 906.1' DATE: 6/11/76
 LINER DESCRIPTION: 9 5/8" TIE BACK 1219' 9 5/8" @ 3350' ZERO POINT 6647'
7" @ 3340' DEPTH 3000

TUBING DETAIL:

PURPOSE

REMARKS:

P-6-2950- 9235 12/1/76 15
 ELEMENT T-1069-79.1 SERIAL NO. 10095 CLOCK 12/17 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-1354 T-1354. DISENGAGE STYLUS P-1541 T-1541
 WELL HEAD 920
 PICKUP @ 3000 TIME ON BOTTOM 1415-1515 MAX. T° 545
 WELL STATUS SHUT IN
 SHUT IN: 1400 HRS 4/19/76 ON PRODUCTION:
 RATE

PSIG TEMP

TIME	DEPTH	DEFL	P-T	GRAD.	PSIG	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1413	100	6.10	924		-6.10	1413	100	6.09	111								
1515	3000	1.93			+6.01	1515	3000	1.252	545								

COMMENTS:

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UNION
GEO THERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

B11 596 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME B11 #71
 CASING 2 1/2" AT 201, 1 3/8" 1336 ELEV. 9004' DATE: 6/17/74
 LINER DESCRIPTION: 9 5/8" TUBING 1219, 9 5/8" AT 5380 ZERO POINT CL + 7'
7" AT 3340' DEPTH

TUBING DETAIL:

PURPOSE

REMARKS:

Element - C-2950 SN 9235 clock 12 hr 15 T

ELEMENT 100-792 SERIAL NO. 10095 CLOCK 12 hr 15 TURN 1310 STABILIZATION PERIOD

ENGAGE STYLUS P 0957 T 1000 DISENGAGE STYLUS P 1310 T 1310

WELL HEAD 919 P 519

PICKUP @ 3500 TIME ON BOTTOM 1174-1244 MAX. °F

WELL STATUS

SHUT IN: 1400 4/19/74 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
1053	100	608	951		-870	1053	100	620	108								
1107	1000	638	975		C	1107	1000	470	282								
1120	2000	660	1009		+004	1120	2000	777	392								
1124	3000	679	1037		+001	1124	3000	1250	545								
1154	5000	679	1037		+001	1154	5000	1250	545								
1224	5000	679	1037		+001	1224	5000	1250	545								
1244	5000	679	1037		+001	1244	5000	1250	545								

COMMENTS:

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B#11 S-93 P/T

OWNER Union Oil Co of Calif FIELD Valle Grande WELL NAME Bear #11
 CASING 20" @ 207' 1 1/2" @ 1536 ELEV. 906.4' DATE: 3/28/76
 LINER DESCRIPTION: 9 3/4" tubock @ 1919' ; 9 3/4" @ 3380 ZERO POINT GL. + 7'
7" - 3380 - T.D. DEPTH 3110'

TUBING DETAIL:

PURPOSE

REMARKS:

Checked @ 2950 Prg S.N. 9235 Clock 12 hr. 15 Turn
 ELEMENT 100° 79.2° E SERIAL NO. 10098 CLOCK 12 hr. 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-0911 ° T-0902 DISENGAGE STYLUS P-1230 ° T-1231
 WELL HEAD 9.20 Prg
 PICKUP @ 3000' TIME ON BOTTOM 1009-1209 MAX. T. 549.2° E
 WELL STATUS shut-in
 SHUT IN: 1400 4/19/76 ON PRODUCTION:
 RATE

Prgs

Temp

DEPTH	DEFL.	P-T	GRAD.	Corr/D	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
100	.613	938.8		-0.11	1002	100	.042	117.4								
3009	1.692	1035.7		1.001	1009	3000	1.255	549.2								
1024	"	"	"	"	1024	"	"	"								
1039	"	"	"	"	1039	"	"	"								
1054	"	"	"	"	1054	"	"	"								
1069	"	"	"	"	1069	"	"	"								
1084	"	"	"	"	1084	"	"	"								
1099	"	"	"	"	1099	"	"	"								
1114	"	"	"	"	1114	"	"	"								
1129	"	"	"	"	1129	"	"	"								
1144	"	"	"	"	1144	"	"	"								
1159	"	"	"	"	1159	"	"	"								
1174	"	"	"	"	1174	"	"	"								
1189	"	"	"	"	1189	"	"	"								
1209	1.692	1035.7		1.001	1209	3000	1.255	549.2								

COMMENTS:

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LOG

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11-599-P11

OWNER UNION OIL CO. CALIF. FIELD VALLE GRANDE WELL NAME BACT 11
 CASING 2 1/2" 407', 1 3/4" 813 30' ELEV. 9021' DATE: 5/23/70
 LINER DESCRIPTION: 9 3/8" 70000' 0.010", 9 3/8" 0.3550", ZERO POINT CL-7'
7" 0.3540" - T.O. DEPTH 3000'

TUBING DETAIL:

PURPOSE

REMARKS:

P-C-29507510 - 92.35 12 hr 15

ELEMENT T-110-7824 SERIAL NO. 70698 CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-1315 T-1317 DISENGAGE STYLUS P-1410 T-1411

WELL HEAD 925

PICKUP @ 3000 TIME ON BOTTOM 1416-1416 MAX. P. 551

WELL STATUS SHUT IN

SHUT IN: 1416-1416 - 4-19-70 ON PRODUCTION:

RATE:

PRESSURE

TEMPERATURE

TIME	DEPTH	DEFL.	PRESSURE			TEMPERATURE										
			P-T	GRAD.	TEMP.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID					
1350	111	.650	950		501	1350	111	.650	191							
1412	1000	.505	1000		502	1412	1000	.505	194							
1414	911	.702	1111		505	1414	911	.702	193							
1416	811	1.259	1116		501	1416	811	1.259	191							
1417	711	1.259	1117		501	1417	711	1.259	191							
1418	611	1.259	1118		501	1418	611	1.259	191							
1419	511	1.259	1119		501	1419	511	1.259	191							
1420	411	1.259	1120		501	1420	411	1.259	191							
1421	311	1.259	1121		501	1421	311	1.259	191							

COMMENTS:

76

UNION

2/20/76

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B#11 5.90 1/4

OWNER Union Oil Co of Calif FIELD Valle Grande WELL NAME Bacon #11
 CASING 30" @ 27' 13 3/4" @ 1336' ELEV. 906.4' DATE: 5/18/76
 LINER DESCRIPTION: 4 7/8" tie back @ 1219'; 4 7/8" @ 3380' ZERO POINT GL + 7'
7" 3340 - T.D. DEPTH 3000'

TUBING DETAIL:

PURPOSE

REMARKS:

Element - C-2950 Rig SN-9935 Clock 10 hr 15 TURN

ELEMENT-100-7995 F SERIAL NO. 10095 CLOCK 10 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0900 ; T-0855 DISENGAGE STYLUS P-1308 ; T-1309

WELL HEAD 935 Rig

PICKUP @ 3000' TIME ON BOTTOM 100-1306 MAX. *F 550.5° F

WELL STATUS - Shut-in

SHUT IN: 1359 - 9/19/76 ON PRODUCTION:

RATE

Pressure

Temp

TIME	DEPTH	DEFL.	P-T	GRAD.	LOG ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
0945	100	1.050	100.2	-0.11		0945	100	1.050	100.2								
	1000	1.57	1009.4	+1.002		0949	1000	1.509	1009.7								
	2000	1.89	1041.1	+1.005		1003	2000	1.780	1043.0								
	3000	1.769	1073.2	+1.001		1006	3000	1.259	1050.5								
							1036										
							1106										
							1136										
							1206										
							1236										
	3000	1.769	1073.2	+1.001		1306	3000	1.259	1050.5								

COMMENTS:

BY: CD (C.D.) AM.

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11-589-P1T

OWNER UNION OIL CO CALIF FIELD VALLE GRANDE WELL NAME BACD 11
 CASING 20" @ 207'; 13 3/8" @ 1336'; ELEV. 9064' DATE: 5/14/76
 LINER DESCRIPTION: 9 5/8" TIEBACK @ 1219'; 9 5/8" @ 3380'; ZERO POINT GL+7'
 7" @ 3310' — T.D. DEPTH 2000'

TUBING DETAIL:

PURPOSE

REMARKS:

P-0-2950 PSIG. 9235 12HR 15
 ELEMENT T-100°-787°F SERIAL NO. 10098 CLOCK 12HR 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-0951 T-0959 DISENGAGE STYLUS P-1520 T-1521
 WELL HEAD 925 (Chart)
 PICKUP @ 3000' TIME ON BOTTOM 1050-1250 MAX. 'F 551
 WELL STATUS SHUT IN
 SHUT IN: 1359 HRS 4/19/76, ON PRODUCTION:
 RATE

PSIG.					TEMP												
TIME	DEPTH	DEFL.	P-T	GRAD.	TEMP.	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1050	3100	.703	1072		551	1050	3100	1.260	551								
1120	3110	.703	1072		551	1120	3110	1.260	551								
1150	3160	.703	1072		551	1150	3160	1.260	551								
1220	3200	.703	1072		551	1220	3200	1.260	551								
1250	3260	.703	1072		551	1250	3260	1.260	551								

COMMENTS:

76

AMON

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11528 P/T

OWNER MINION OIL COMPANY FIELD VALLE GRANDE WELL NAME B11528 #11
 CASING 20" AT 207' 15 3/8" AT 1336' ELEV. 9064' DATE: 5/10/76
 LINER DESCRIPTION: 9 5/8" tieback 1219' ; 9 5/8" AT 3380' ZERO POINT CL 17'
7" AT 3340' DEPTH 3000'

TUBING DETAIL:

PURPOSE buildup

REMARKS:
 Element - 0-2450 PSI SN 9235 CLOCK - 12 hr 15 TURN
 ELEMENT 100" - 742°F SERIAL NO. 10098 CLOCK 12 hr 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-0942 ; T-0942 DISENGAGE STYLUS P-1312 ; T-1312
 WELL HEAD 628 PSI
 PICKUP @ 3100 TIME ON BOTTOM 1046 - 1246 MAX. °F 550.5
 WELL STATUS
 SHUT IN: 1359 hrs 4/19/76 ON PRODUCTION:
 RATE

PRESSURE TEMPERATURE

PRESSURE						TEMPERATURE											
TIME	DEPTH	DEFL.	P-T	GRAD.	TD	TIME	DEPTH	DEFL.	P-T	GRAD.	TD	TIME	DEPTH	DEFL.	P-T	GRAD.	TD
	100	.621	951		-011	1020	100	.606	102								
	1000	.657	1004	.059	+002	1032	1000	.502	298.7								
	2000	.680	1059	.034	+005	1044	2000	.782	348.7								
	3046	.676	1062		+001	1046	3000	1.253	548.6								
	1116	.701	1069	.031	+001	1116	3000	1.259	550.5								
	1146	.701	1069	"	+001	1146	3000	1.259	550.5								
	1216	.701	1069	"	+001	1216	3000	1.259	550.5								
	1246	.701	1069	"	+001	1246	3000	1.259	550.5								

COMMENTS:

76

UNION
GEO THERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

R# 11 S-27 PIT

OWNER UNION oil CO of CAL FIELD WALK GRANDE WELL NAME R# 11
 CASING 20" @ 207'; 13 3/8" @ 1336' ELEV. 9064' DATE: 5-6-76
 LINER DESCRIPTION: 9 5/8" @ 1219'; 9 5/8" @ 3386' ZERO POINT GL + 7
7" @ 3340' - TD DEPTH 3000

TUBING DETAIL:

PURPOSE Buildup

REMARKS:

ELEMENT 0-2950 OSP SN 9235 CLOCK 12hr 15 TR
 ELEMENT 100' - 292' SERIAL NO. 10092 CLOCK 12hr 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P1023 T 1019 DISENGAGE STYLUS P 1330 T 1330
 WELL HEAD 914
 PICKUP @ 300 TIME ON BOTTOM 10SR - 1303 MAX. *F 550
 WELL STATUS
 SHUT IN: 1:00 hrs 4-19-79 ON PRODUCTION:
 RATE

Pressure

Temperature

Pressure					Temperature												
TIME	DEPTH	DEFL.	P-T	GRAD.	CORR	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1100	3000	.687	1048		1.001	1100	3000	1.250	548								
1130	3000	.692	1056		1.001	1130	3000	1.256	550								
1200	3000	.692	1056		1.001	1200	3000	1.256	550								
1230	3000	.692	1056		1.001	1230	3000	1.256	550								
1300	3000	.692	1056		1.001	1300	3000	1.256	550								

COMMENTS:

110 1

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11-556-P/T

OWNER UNION OIL CO. OF CALIF FIELD VALLE GRANDE WELL NAME BAC111
 CASING 20" @ 207'; 15 3/8" @ 1336 ELEV. 9021' DATE: 5/11/76
 LINER DESCRIPTION: 9 5/8" TIEBACK @ 1919'; 9 5/8" @ 3350' ZERO POINT 0L+7'
 7" @ 3340 - T.D. DEPTH 3000'

TUBING DETAIL:

PURPOSE

REMARKS:

P-C-2950 PSIG 9235

ELEMENT T1001-792 SERIAL NO. 10098 CLOCK - TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0950 T-0952 DISENGAGE STYLUS P-1352, T-1353

WELL HEAD 905

PICKUP @ 3000' TIME ON BOTTOM 116-1316 MAX. P 546.5

WELL STATUS SHUT IN

SHUT IN: 1400 HRS 4/19/76 ON PRODUCTION:

RATE

PSIG

TEMPERATURE

TIME	DEPTH	DEFL.	P-C	GRAD.	PSIG	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1014	100	1210	934	-1.008	1014	100	1070	129									
1058	1000	1537	975	-1.002	1058	1100	1236	316									
1113	2000	1651	1010	-1.004	1113	2100	1281	393									
1116	3000	1676	1037	-1.001	1116	3000	1245	516									
1146	2000	1679	1037	-1.001	1146	3000	1247	516.5									
1216	3000	1680	1038	-1.001	1216	3000	1247	516.5									
1246	3000	1680	1038	-1.001	1246	3000	1247	516.5									
1316	3000	1680	1038	-1.001	1316	3000	1247	516.5									

COMMENTS:

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11 585 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #11
 CASING 2" AT 207, 1 3/8" AT 1336 ELEV. 906.4 DATE: 5/2/76
 LINER DESCRIPTION: 9 5/8 TUBACK AT 1219, 9 5/8" AT 3380 ZERO POINT GL + 7'
7" AT 3340 DEPTH 3000'

TUBING DETAIL:

PURPOSE buildup

REMARKS:

ELEMENT - 0-2950 PSI SN 9235 CLOCK 12hr 15 TURN

ELEMENT - 100-792 of SERIAL NO. 10098 CLOCK 12hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-1138 T-1140 DISENGAGE STYLUS P-1642 T-1643

WELL HEAD 904 PSIG

PICKUP @ 3000 TIME ON BOTTOM MAX. °F

WELL STATUS

SHUT IN: 1359 hrs 4/19/76 ON PRODUCTION:

RATE

PRESSURE

TEMPERATURE

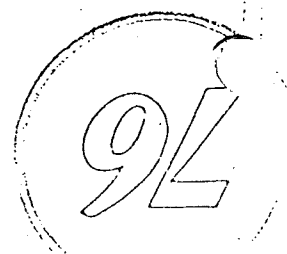
TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
12:00	3000	.666	1018		+ .001	1235	3010	1.179	522.8								
12:05	4	.676	1032		-	1305	✓	1.241	544.5								
13:55	4	.676	1032		-	1335	✓	1.241	544.5								
14:05	4	.676	1032		-	1405	✓	1.241	544.5								
14:55	4	.676	1032		-	1435	✓	1.241	544.5								

COMMENTS:

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet



OWNER: UNION OIL COMPANY FIELD: WALLE GRANDE
 CASING: 20" AT 207', 13 3/8" AT 155', ELEV. 964'
 LINE: DESCRIPTION: 1 3/8" TIBBACK AT 1219', 1 5/8" AT 380'
 TUBING DETAIL: 7" AT 3340'
 DEPTH: 3000'
 ZERO POINT: G.L.T.
 DATE: 4/30/73
 WELL NAME: BACP #11

PURPOSE: BUILDUP

REMARKS:

ELEMENT: 0-2950 PSI 5N 9235 CLCK-12 hr 15 TURN

ELEMENT: 100' - 972' SERIAL NO. 10098 CLOCK 12 hr 15 TURN

ENGAGE STYLUS: F.0929 T-0925 DISENGAZE STYLUS: F.1537 T-1536

WELL HEAD: 882 PSI9

PICKUP: 0 3000 TIME ON BOTTOM: 1520-1520 MAX. F. 543.5

WELL STATUS:

SHUT IN: 1559 hrs 4/19/76 ON PRODUCTION:

RATE:

TEMPERATURE

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
1520	5650	1.652	994		7.001	1050	3000	1.175	522.8		
1510	1019	1.667	1019			1030		1.235	542.6		
1500	1019	1.667	1019			1120		1.235	542.6		
1450	1019	1.667	1019			1130		1.236	542.9		
1400	1019	1.667	1019			1200		1.236	542.9		
1350	1019	1.667	1019			1230		1.236	542.9		
1300	1019	1.667	1019			1300		1.237	543.2		
1250	1019	1.667	1019			1330		1.237	543.2		
1200	1019	1.667	1019			1400		1.238	543.5		
1150	1019	1.667	1019			1430		1.238	543.5		
1100	1019	1.667	1019			1500		1.238	543.5		

COMMENTS:

BY: JBP/CO

76

Handwritten notes

Handwritten notes

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11585 PIT

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME SAC11 #11
 CASING 20" AT 207' 15 3/8 133L ELEV. 9064' DATE: 4/23/76
 LINER DESCRIPTION: 9 5/8" Tubnck 1219; 9 5/8" AT 3380 ZERO POINT GLT 7'
7" AT 3340' DEPTH 3100'

TURING DETAIL:

PURPOSE buildup

REMARKS:

ELEMENT - 0-2950 PSI SN 9235 CLOCK 12 hr 15 TURN

ELEMENT - 100 - 792° SERIAL NO. 10098 CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-1007 T-1010 DISENGAGE STYLUS P-1507 T-1508

WELL HEAD 363 PSIG

PICKUP @ 3100 TIME ON BOTTOM 1121 - 1151 MAX. T 538.6

WELL STATUS

SHUT IN: 1359 hrs 4/19/76 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
1121	3100	.651	966		1.001	1121	3000	1.198	530.0								
✓	✓	.647	990		✓	1151	✓	1.223	538.6								
✓	✓	.647	990		✓	1221	✓	1.223	538.6								
1251	✓	.647	990		✓	1251	✓	CLOCK STOPPED									
1321	✓	.647	990		✓	1321	✓	}									
1351	✓	.647	990		✓	1351	✓										
1421	✓	.647	990		✓	1421	✓										
1451	✓	.647	990		✓	1451	✓										
1521	✓	.647	990		✓	1521	✓	1.223	538.6								

COMMENTS:

BY: *Handwritten signature*

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11 582 P1

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #11
 CASING 20" AT 207', 13 3/8" 1336' ELEV. 9064 DATE: 4/27/76
 LINER DESCRIPTION: 9 5/8" TIEBACK 1219'; 9 5/8" 1219' 3380' ZERO POINT GL + 7'
7" 3340' - TD DEPTH 5110'

TUDING DETAIL:

PURPOSE backlog

REMARKS:

ELEMENT - 0-2950 PSI SN 9255 CLOCK - 12 hr 15 TURN
 ELEMENT 100-792° SERIAL NO. 10098 CLOCK 12 hr 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-0056 T-0059 DISENGAGE STYLUS P-0458 T-0459
 WELL HEAD 856 PS19
 PICKUP @ 3110' TIME ON BOTTOM 0230-0430 MAX. F 539.9
 WELL STATUS
 SHUT IN: 4/19/76 AT 1359 HRS 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
0110	100	.566	869		7.008	0146	100	.155	163.5								
0115	100	.570	875		7.008	0150	100	.155	163.5								
0200	1000	.584	903		7.002	0203	1000	.535	306.0								
0207	1000	.583	909		7.002	0207	1000	.535	306.0								
0221	2000	.609	933		7.003	0221	2000	.844	414.5								
0225	2000	.613	937		7.003	0225	2000	.846	415.2								
0230	3000	.625	957		7.001	0230	3000	1.224	538.9								
0234	3000	.629	963		7.001	0234	3000	1.227	539.9								
0238	3000	.625	957		7.001	0238	3000	1.224	538.9								
0242	3000	.625	963		7.001	0242	3000	1.227	539.9								
0426	3000	.625	957		7.001	0426	3000	1.224	538.9								
0430	3000	.629	963		7.001	0430	3000	1.227	539.9								

NO VISIBLE CYCLE

NOTE: TOOLS WERE ON BOTTOM FROM 0230 HRS TO 0430 HRS. CYCLES OCCUR APPROX EVERY 3.5 MINUTES.

COMMENTS:

76

Jack ...

ENRON

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11 581 PIT

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #11
 CASING 20" AT 207' 13 3/8 1336 ELEV. 9064 DATE: 4/24/76
 LINER DESCRIPTION: 9 5/8" Tieback AT 1219' ; 9 5/8 1219-3380 ZERO POINT GL+7
7" AT 3340' DEPTH 5000'

TUBING DETAIL:

PURPOSE buildup

REMARKS:

Element - 0-2950 PSI SN 9235 CLOCK 12 HR 15 TURN

ELEMENT 100-792°F SERIAL NO. 10098 CLOCK 17 HR 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-1355 T-1400 DISENGAGE STYLUS P-1840 T-1845

WELL HEAD 632

PICKUP @ 3000 TIME ON BOTTOM 1430-1830 MAX. T 534.3

WELL STATUS

SHUT IN: 1359 hrs 4/19/76 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
1430	3000	.612	937		7.001	1430	3000	1.202	532.0								
1530	3000	.619	948		7.001	1530	3000	1.210	534.3								
1630	3000	.619	948		7.001	1630	3000	1.210	534.3								
1730	3000	.619	948		7.001	1730	3000	1.210	534.3								
1830	3000	.619	948		7.001	1830	3000	1.210	534.3								

COMMENTS:

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B#11 5-80 P/T

OWNER Union Oil Co. of Calif. FIELD Valle Grande WELL NAME B#11
 CASING 20' @ 207' @ 13 7/8" @ 13.56 ELEV. 9064' DATE: 4/23/76
 LINER DESCRIPTION: 9 5/8" Fiberglass @ 1219, 9 5/8" 1219-3340' ZERO POINT GL + 7'
7" @ 3340' DEPTH 3000'

TUBING DETAIL:

PURPOSE

REMARKS:

Element - 0.2950 Big SN-9035 Clock 12 hr 15 TURN

ELEMENT - SERIAL NO. CLOCK 12 hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS DISENGAGE STYLUS

WELL HEAD - 575 Big

PICKUP @ 3000' TIME ON BOTTOM 1120-1520 MAX. °F 533.0

WELL STATUS shut in

SHUT IN: 1259, 4/19/76 ON PRODUCTION:

RATE Temperature

PRESSURE TIME DEPTH def. Temp

TIME	DEPTH	DEFL.	P-T	GRAB.	ID	TIME	DEPTH	DEFL.	P-T	GRAB.	ID	TIME	DEPTH	DEFL.	P-T	GRAB.	ID
1120	3000	.611	936			1120	3000	1.199	530.7								
1220	3000	.617	945			1220	3000	1.206	533.0								
1320	3000	.617	945			1320	3000	1.206	533.0								
1420	3000	.617	945			1420	3000	1.206	533.0								
1520	3000	.617	945			1520	3000	1.206	533.0								

COMMENTS:

76

Spk Field

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

B11 579 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BHC #1
 CASING 20" AT 201; 13 3/8" AT 1336 ELEV. 9064' DATE: 4/22/76
 LINER DESCRIPTION: 9 3/8" TIEBACK AT 1215; 9 3/8" 1219-3380 ZERO POINT 6647'
 7" AT 3340 DEPTH 3000'

TUBING DETAIL:

PURPOSE *buildup*

REMARKS:
 ELEMENT 0-2450 SN 9233 CLOCK 12 hr 15 T
 ELEMENT 100-7924 SERIAL NO. 10098 CLOCK 12 hr 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-0323 T-0325 DISENGAGE STYLUS P-0750 T-0750
 WELL HEAD SEE ATTACHED SHEET
 PICKUP 0.3000' TIME ON BOTTOM 0423 - 0723 MAX. °F 529.7
 WELL STATUS
 SHUT IN: 4/14/76 1359 HA ON PRODUCTION:
 RATE

PRESSURE

TEMPERATURE

PRESSURE					TEMPERATURE						
TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
0255	100	.345	539		-0.09	0355	100	.187	175.9		
0300	1070	.360	561		-0.01	0407	1000	.552	312.2		
0350	1500	.371	518		0	0420	2000	.767	388.5		
0423	2500	.612	937		+0.01	0423	2500	1.191	528.0		
0523	3000	.616	943		+0.01	0523	3000	1.196	529.7		
0623	3000	.616	943		+0.01	0623	3000	1.196	529.7		
0723	3000	.616	943		+0.01	0723	3000	1.196	529.7		

COMMENTS:

BY: *luc . l. l.*

GEO THERMAL DIVISION

SUBSURFACE TEMPERATURE CURVE

316

B11 574 T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BALP #11
 CASING 20" AT 207, 1338 1336 ELEV. 706.4 DATE: 4/22/70
 LINE DESCRIPTION: 9519 3950 ZERO POINT G.L. +7
7" 3340 DEPTH. 3000

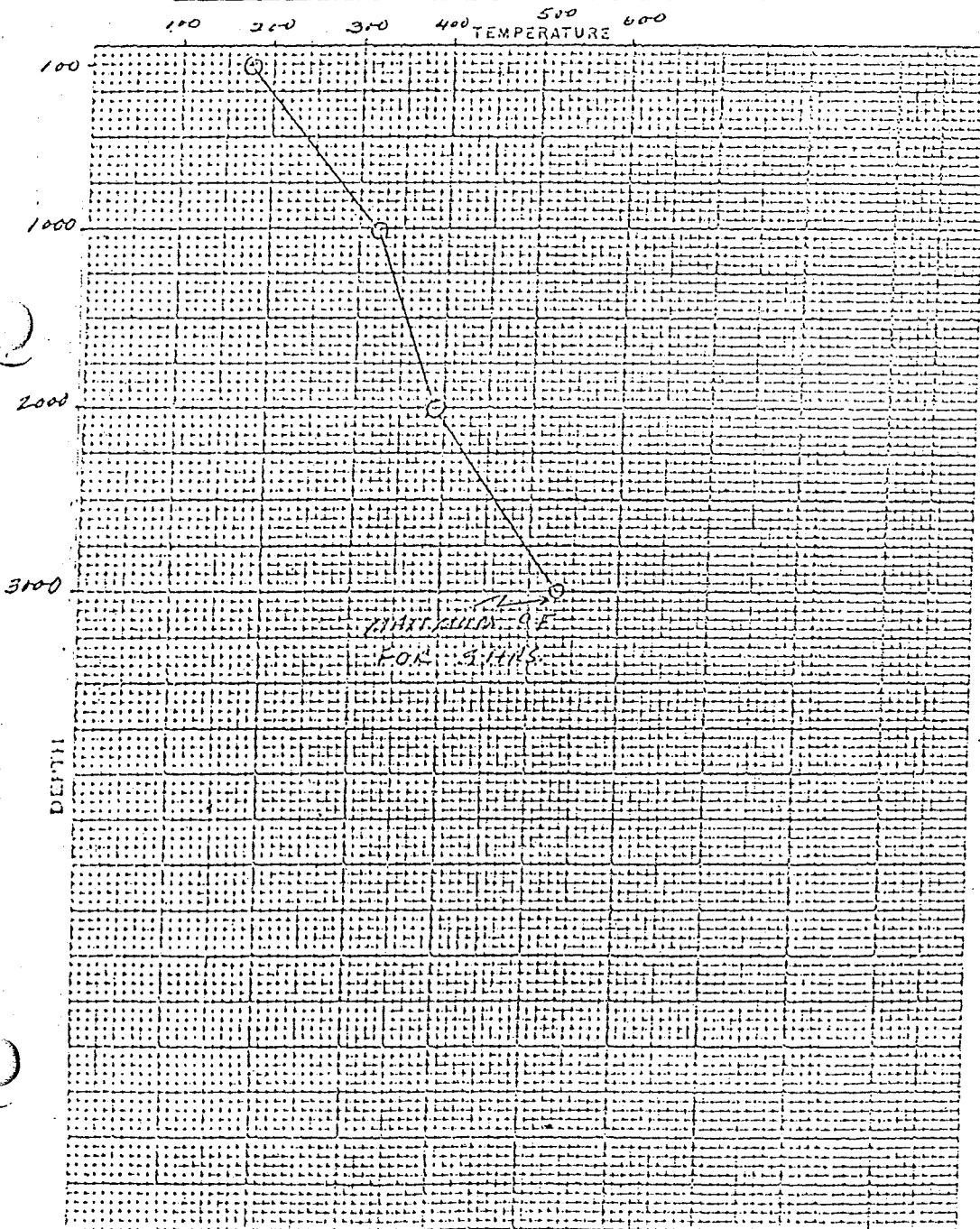
HOSE DESCRIPTION: _____

INSTRUMENT 100-792
 SERIAL NO 10099

PURPOSE _____

MAX TEMP. 529.7 OF 3 3000

REMARKS: _____



STABILIZATION PERIOD _____

DEPTH	TEMP.	DEPTH	TEMP.
100	176.9		
1000	317.2		
2000	388.5		
3000	528.0		
3000	529.7		
3000	529.7		
3000	529.7		
3000	529.7		

JP

GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B11 579 P

716

OWNER <u>UNION OIL COMPANY</u>	FIELD <u>VALLE GRANDE</u>	WELL NAME <u>BALIX-11</u>
CASING <u>20" NT 2-7 13 3/8 1336</u>	ELEV. <u>9064</u>	DATE: <u>4/22/76</u>
LINER DESCRIPTION: <u>9 3/8 3380</u>		ZERO POINT <u>GL 17</u>
<u>7" 3340 - TD</u>		DEPTH <u>3117</u>

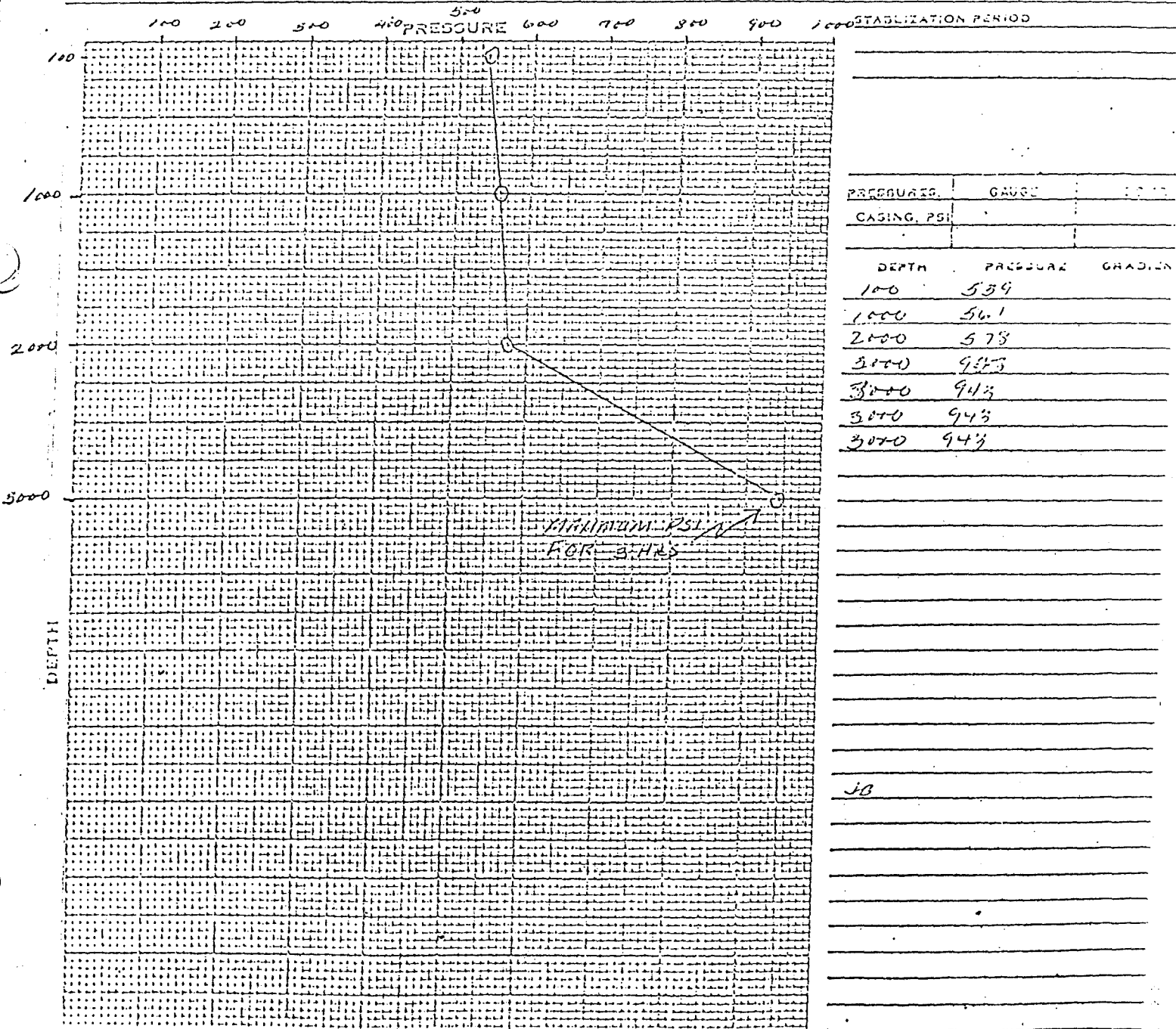
HOLE DESCRIPTION:

INSTRUMENT	<u>D-2950</u>
SERIAL NO	<u>9235</u>

PURPOSE:

MAX. TEMP	<u>2529.7</u>
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REMARKS:



JB

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

BH 578 PIT

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACH #11
 CASING 20" AT 209'; 15 3/8" AT 1336' ELEV. 9064' DATE: 4/22/76
 LINER DESCRIPTION: 9 5/8" AT 1219'; 9 5/8" AT 1219'-5380' ZERO POINT GLTT'
7" AT 3540' DEPTH 3110'

TUBING DETAIL:

PURPOSE buildup

REMARKS:

ELEMENT - 0-2450 PSI SN 9235 CLOCK 12 HR 15 TURN

ELEMENT 100-792 1/2 SERIAL NO. 10098 CLOCK 12 HR 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-1332 T-1336 DISENGAGE STYLUS P-0250 T-0236

WELL HEAD SEE ATTACHED SHEET

PICKUP @ 2100 TIME ON BOTTOM 1400 - 0200 MAX. F 528.7

WELL STATUS

SHUT IN: 1359 HRS. 4/19/76 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
1	3110	.596	913		1.001	1410	3000	1.187	526.7								
10	✓	.612	937		✓	1500	✓	1.193	528.7								
100	✓	.612	937		✓	1600	✓	1.193	528.7								
170	✓	.612	937		✓	1700	✓	1.193	528.7								
1810	✓	.612	937		✓	1800	✓	1.193	528.7								
1900	✓	.612	937		✓	1900	✓	1.193	528.7								
2010	✓	.612	937		✓	2000	✓	1.193	528.7								
2110	✓	.612	937		✓	2100	✓	1.193	528.7								
2200	✓	.612	937		✓	2200	✓	1.193	528.7								
2300	✓	.612	937		✓	2300	✓	1.193	528.7								
2400	✓	.612	937		✓	2400	✓	1.193	528.7								
2500	✓	.612	937		✓	2500	✓	1.193	528.7								
2600	✓	.612	937		✓	2600	✓	1.193	528.7								

COMMENTS:

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11 577 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME B11 #11
 CASING 20" AT 207; 13 3/8" AT 1336' ELEV. 9064' DATE: 4/21/76
 LINER DESCRIPTION: 7 5/8" TICBACK AT 1219; 7 5/8" 1219' - 3380' ZERO POINT CL #7'
 7" AT 3340' DEPTH 3000'

TUBING DETAIL:

PURPOSE *buildup*

REMARKS:

ELEMENT - 0-2950 PSI SN 9235 CLOCK 12hr 15 TURN

ELEMENT 100- 792 °F SERIAL NO. 10098 CLOCK 12hr 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P 2345 - T: 2344 DISENGAGE STYLUS P- 1242 T- 1245

WELL HEAD SEE ATTACHED CHART

PICKUP @ 3000 TIME ON BOTTOM 0007-1207 MAX. °F

WELL STATUS

SHUT IN: 4/19/76 AT 1359 HISON 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
	3000	.591	906		1.001	0007	3000	1.187	526.7								
	✓	.606	928		✓	0107	✓	1.193	528.7								
0207	✓	.606	928		✓	0207	✓	1.193	528.7								
0307	✓	.606	928		✓	0307	✓	1.193	528.7								
0407	✓	.607	930		✓	0407	✓	1.193	528.7								
0507	✓	.608	931		✓	0507	✓	1.193	528.7								
0607	✓	.609	933		✓	0607	✓	1.193	528.7								
0707	✓	.609	933		✓	0707	✓	1.193	528.7								
0807	✓	.610	934		✓	0807	✓	1.193	528.7								
0907	✓	.610	934		✓	0907	✓	1.193	528.7								
1007	✓	.611	936		✓	1007	✓	1.193	528.7								
1107	✓	.611	936		✓	1107	✓	1.193	528.7								
1207	✓	.611	936		✓	1207	✓	1.193	528.7								

COMMENTS:

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11 576 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACN # 11
 CASING 20' AT 20'; 1 3/8" AT 1356' ELEV. 9064' DATE: 4/20/76
 LINER DESCRIPTION: 9 3/8 Tieback AT 1219'; 9 3/8" 1219-3550' ZERO POINT 6617'
7" 3340' - TD DEPTH 3050'

TUBING DETAIL:

PURPOSE buildup

REMARKS:

ELEMENT 0-2950 SN 9235 CLOCK 12 HR 15 TURN
 ELEMENT P-1000 T-1001 SERIAL NO. 10098 CLOCK 12 HR 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-1000 T-1001 DISENGAGE STYLUS P-2300 T-2301

WELL HEAD

PICKUP @ 3000 TIME ON BOTTOM 1020-2220 MAX. °F 529.0

WELL STATUS

SHUT IN: 1359 HRS; 4/19/76 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
	3000	1586	899.0		1.001	1020	3000	1.194	529.0								
	3000	596	913.0		1.001	1120	✓	1.194	529.0								
						1220	✓	1.194	529.0								
NOTE:						1320	✓	1.194	529.0								
						1420	✓	1.194	529.0								
						1520	✓	1.194	529.0								
						1620	✓	1.194	529.0								
						1720	✓	1.194	529.0								
						1820	✓	1.194	529.0								
						1920	✓	1.194	529.0								
						2020	✓	1.194	529.0								
						2120	✓	1.194	529.0								
						2220	✓	1.194	529.0								

COMMENTS:

76

UNION

GEOHERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B11 575 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACH #11
 CASING 20" AT 207'; 13 7/8" AT 1334' ELEV. 9064 DATE: 4/19 + 4/30/76
 LINER DESCRIPTION: 9 5/8" AT 1215'-3380'; 9 5/8" FIEBACK AT 1219' ZERO POINT GL + 7'
7" 3340' - TD DEPTH 3000'

TUBING DETAIL:

PURPOSE BUILD UP

REMARKS:

ELEMENT - 0-2450 B1 SN 9235 CLOCK - 12 HR 15 T

ELEMENT - 100-792 °F SERIAL NO. 10098 CLOCK 12 HR 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-2418 T 2010 DISENGAGE STYLUS P 1010 T 1011

WELL HEAD

415 4/20

PICKUP @ 3440

TIME ON BOTTOM 2140-0940 MAX. °F 529.0 °F

WELL STATUS

SHUT IN: 1359 4/19/76

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
1	3000	.568	872		+ .001	2140	3000	1.194	529.0								
9	3100	.581	891		+ .001	2240	✓	1.194	529.0								
						2340	✓	1.194	529.0								
						0040	✓	1.194	529.0								
						0140	✓	1.194	529.0								
						0155	✓	1.194	529.0								

COMMENTS: PRESSURE ELEMENT STOPPED RECORDING AFTER 15 MIN. IN HOLE.
TEMP. CLOCK STOPPED AFTER 4 HR + 15 MIN. IN HOLE

76

UNION
GEOHERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

B11-574-P/T

OWNER: UNION OIL CO. OF CALIF. FIELD: VALLE GRANDE WELL NAME: B11-574-P/T
 CASING: 20" @ 207'; 13 1/2" @ 1336'; ELEV. 9064' DATE: 4/19/76
 LINER DESCRIPTION: 9 5/8" PIPE BACK @ 1219'; 9 5/8" @ 1219-3350' ZERO POINT: CL+7'
 7" 3350' - T.D. DEPTH: 3000'

TUBING DETAIL:

PURPOSE: BUILD UP

REMARKS:

ELEMENT - 0-2450 PSI SN-9235 CLOCK-12 hr 15 T
 ELEMENT - 100° - 792° SERIAL NO. 10098 CLOCK 12 hr 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-1253 T-1300 DISENGAGE STYLUS P-2050 T-2050
 WELL HEAD SEC ATTACHED CHART
 PICKUP @ 3000' TIME ON BOTTOM 1404-2015 MAX. °F 529.4 °F
 WELL STATUS
 SHUT IN: 1359 HC 4/19/76 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
1404	3000	1.489	754		1.001	2004	3000	1.579	888		1.001	1734	3000	1.193	525.7		
		.492	758		L	2015		.579	888		L	1804		1.195	529.4		
06		.496	764		L							34		1.195	529.4		
07		.501	772		L	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	1904		1.195	529.4		
08		.504	776		L	TEMPERATURE						34		1.195	529.4		
09		.505	778		L	1404	3000	1.078	491.0			2004		1.195	525.4		
10		.508	782		L	05		1.092	495.4			2015		1.195	529.4		
11		.510	785		L	06		1.103	499.0								
12		.512	788		L	07		1.117	503.6								
13		.513	790		L	08		1.125	506.3								
14		.514	791		L	09		1.132	508.6								
19		.517	796		L	10		1.138	510.5								
24		.520	800		L	11		1.144	512.5								
29		.523	805		L	12		1.147	513.5								
34		.524	806		L	13		1.150	514.5								
49		.533	819		L	14		1.152	515.2								
504		.541	831		L	19		1.160	517.8								
19		.546	839		L	24		1.163	518.8								
34		.551	846		L	29		1.164	519.1								
49		.554	851		L	34		1.165	519.5								
1604		.558	857		L	49		1.170	521.0								
34		.561	861		L	1504		1.175	522.8								
1704		.568	872		L	19		1.178	523.7								
31		.574	881		L	34		1.180	524.4								
1804		.577	888		L	49		1.183	525.4								
1		.579	888		L	1604		1.184	525.7								
3		.579	888		L	34		1.188	527.0								
3		.579	888		L	1704		1.192	528.4								

COMMENTS: CALIBRATION CHECK AT 70° WITH DEAD WEIGHT TESTER
 def cor c. def c. PSI
 1.325 +.007 1.332 1997.1

TO FILE / /

Routine	
Well	B-11
Date Shut-in	7-17-76
Time Flowed	-
Day	MON
Days-in-month	30
Hour	13
Minute	59

Run (ENGR)/PBU/
BHFP= _____ psia

B-11 SURFACE BUILDUP

Psi Correction		Depth to MPS	
----------------	--	--------------	--

	0 Sec.	12 Min.	Day, Hr., Min., Press.
1359	120	430	
	140	1412-435	
	145	1413-439	
	160	1414-445	
	170	1419-445	
	180	1424-446	
	190	1429-436	
	195	1434-436	
	210	1439-435	
	220	1444-430	
	220	1449-430	
	230	1454-430	
1400	1 Min. 235	1459 Hr. 428	
	275	1:15 1514-422	
	300	1:30 1529-422	
	320	1:45 1544-422	
	345	2:00 1559-420	
1405	360		
	375	Day, Hr., Min., Press.	
	390		
	400		
	415		
1410	420		

76

Union

Jack

GEO THERMAL DIVISION DEL PYLE

SUBSURFACE SURVEY
Field Work Sheet

OCT 8 1975

B11-573 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BAH #11
 CASING 20" AT 301' 13 3/8" AT 1330' ELEV. 9064' DATE: 9/26/75
 LINER DESCRIPTION: 1 3/8" Tubing AT 1219' 9 3/8" 1219' - 3380' ZERO POINT 62' 7'
 TUBING DETAIL: 2 3/8" SURFACE TO 5000' DEPTH 6665'

PURPOSE

REMARKS:

ELEMENT - 0-4750 PSI SN 7198 CLOCK 12 HR IS TURN
 ELEMENT 92.0-686.0 SERIAL NO. 10055 CLOCK 12 HR IS TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-1016 T-1012 DISENGAGE STYLUS P-1550 T-1356
 WELL HEAD 948 PSI
 PICKUP @ 4980 TIME ON BOTTOM 1207-1307 MAX. *F 564.9
 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
1117	100	.425	896	0							
1124	1000	.550	262.0	.192							
1140	2000	1.412	531.3	.269							
1153	3000	1.485	549.2	.018							
1205	4000	1.505	554.9	.006							
1207	4980	1.531	562.3	*							
1237	4980	1.540	564.9	*							
1307	4980	1.540	564.9	.010							
* - NO GRADIENT											

COMMENTS:

110

GEOTHERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

B11 573 P

OWNER WILCOX OIL COMPANY FIELD WHEEL DEWIDE WELL NAME
 CASING 20 1/2" 13 3/8" AT 1336' A.S.V. 9064'
 LINE DESCRIPTION: 9 3/8" TIEBACK AT 1219', 9 5/8" 1219'-3380' ZERO POINT

DATE: 9/26/75
 LOGS: ACT 7'
 DEPTH 1205'

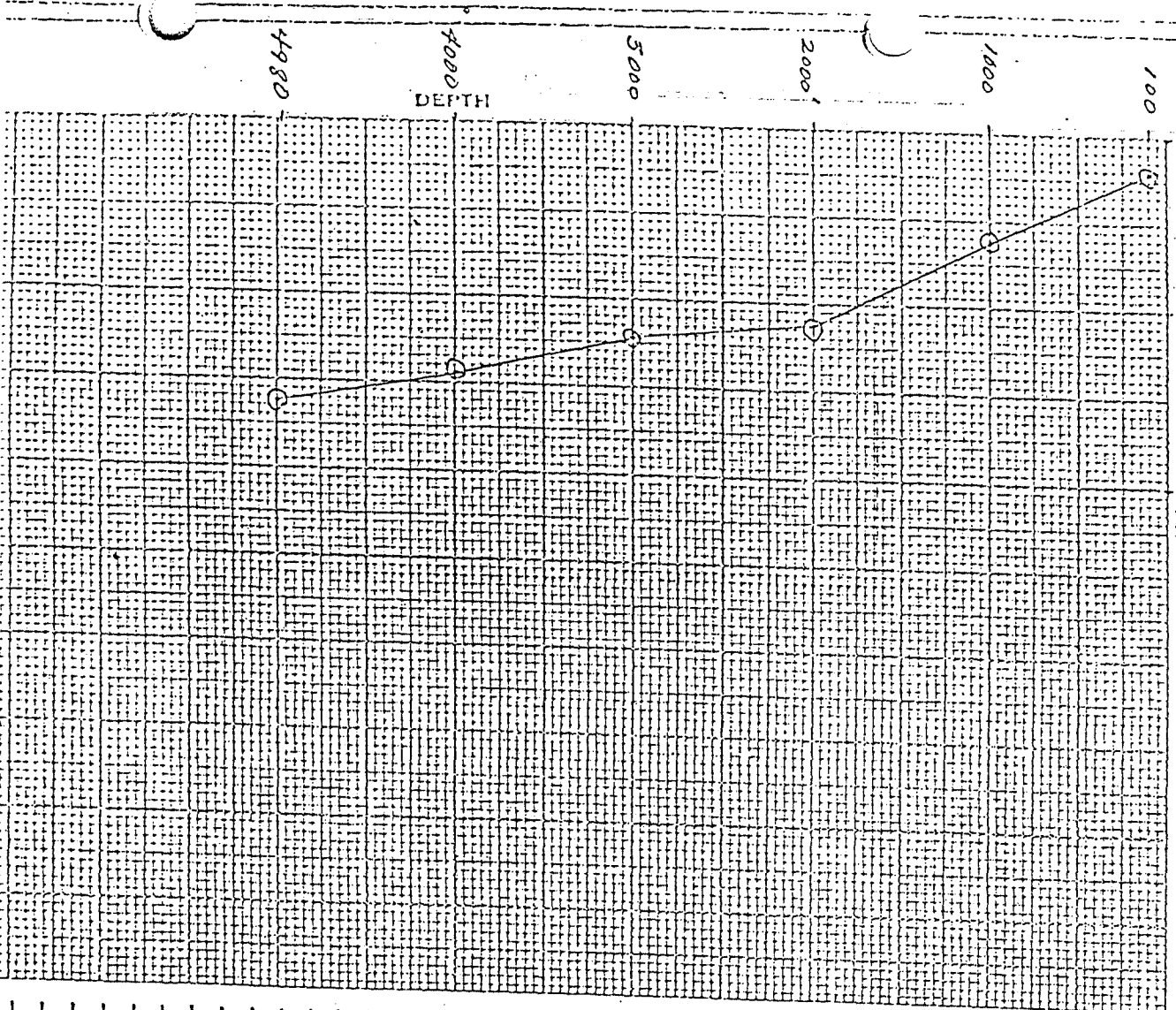
WELL DESCRIPTION: TIEBACK SURFACE - 5006'

INSTRUMENT 0-42.50
 SERIAL NO 7198

MAX. TEMP 564.90°F @ 4980'

PURPOSE:
 REMARKS:

STABILIZATION PERIOD



PRESSURE	GAUGE	CORR.
1021.0		
1067.3		
1113.4		
1123.9		
1145.0		
1159.7		
1161.8		
1161.8		

X - NO GRADIENT

ALS

GEOTHERMAL DIVISION
SURFACE TEMPERATURE SURVEY

26

B11 573 T

OWNER: LINCOLN OIL COMPANY FIELD: WALLE GAUDDC WELL NAME: BRAC #11

CASING: 20" AT 207, 13 3/8" AT 1530' ELEV: 9/26/75

LINE DESCRIPTION: 9 3/8" TIEBACK AT 1219', 9 3/8" AT 3350'

DEPTH: 6605

HOLE DESCRIPTION: WELB # - SURFACE TO 5060'

INSTRUMENT: 82°-686°

SERIAL NO: 10055

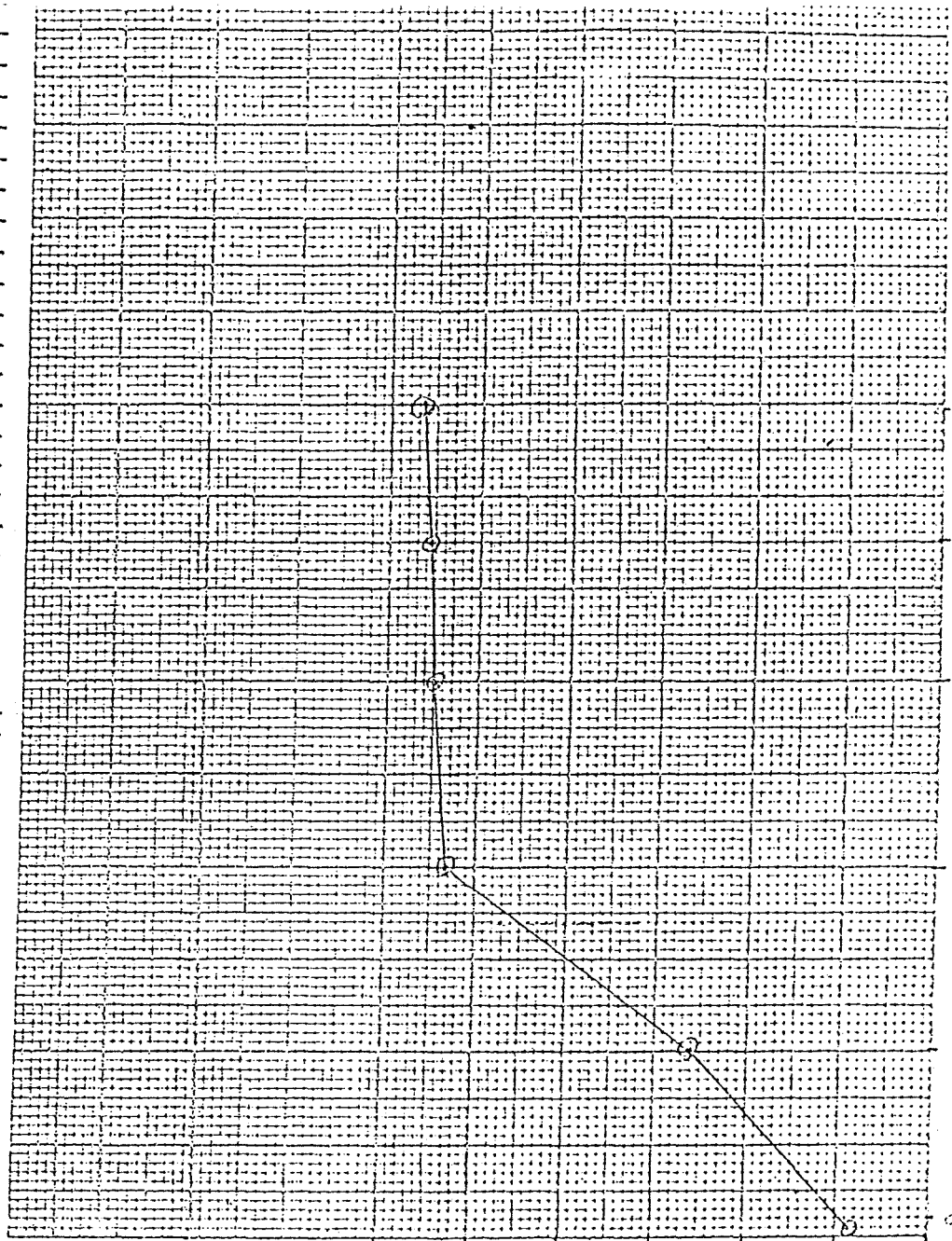
PURPOSE: MAX TEMP: 57.4 °F @ 4980'

STABILIZATION PERIOD:

DEPTH	TEMP.	DEPTH	TEMP.
100	39.6	100	39.6
1000	26.2	1000	26.2
2000	53.1	2000	53.1
3000	54.9	3000	54.9
4000	55.4	4000	55.4
4980	56.2	4980	56.2
4980	56.4	4980	56.4
4980	56.4	4980	56.4

* - NO GRADIENT

UP



DEPTH: 4980, 4122, 3500, 2662, 1000, 100

REMARKS:

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B-11 S-72 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #11
 CASING 20" AT 207; 13 3/8" - 1336' ELEV. 9064' DATE: 5/9/75
 LINER DESCRIPTION: 9 5/8" Tieback AT 1219'; 9 5/8" 12-19' - 3380' ZERO POINT GL + 10'
7" - 3320' - TD DEPTH 6605'

TUBING DETAIL:

PURPOSE

REMARKS:

0-4250 PSI SN 7198 CLOGK 13375 15 TURN

ELEMENT 82° - 686°F SERIAL NO. 10055 CLOCK 13374 15 TURN STABILIZATION PERIOD

ENGAGE STYLUS P-0914; T-0917 DISENGAGE STYLUS P-1325; T-1326

WELL HEAD - Meter 344 PSIG; GAUGE - 341 PSIG; SEE CHART

PICKUP @ 6605 TIME ON BOTTOM 1000 - 1300 MAX. °F 593.1

WELL STATUS STATIC

SHUT IN: 1035 hrs 11/17/74 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
	6605	.651	1405.5	-	+.001	1000	6605	1.586	578.0								
	6605	.662	1428.6	-	+.001	1015	6605	1.624	578.5								
1030	6605	.687	1481.1	-	+.001	1030	6605	1.628	589.6								
1045	6605	.722	1555.1	-	+.001	1045	6605	1.631	590.4								
1100	6605	.770	1656.8	-	+.001	1100	6605	1.634	591.2								
1115	6605	.820	1762.7	-	+.001	1115	6605	1.636	591.7								
1130	6605	.842	1809.3	-	+.001	1130	6605	1.639	592.5								
1145	6605	.847	1819.9	-	+.001	1145	6605	1.641	593.1								
1200	6605	.847	1819.9	-	+.001	1200	6605	1.641	593.1								
1215	6605	.847	1819.9	-	+.001	1215	6605	1.641	593.1								
1230	6605	.847	1819.9	-	+.001	1230	6605	1.641	593.1								
1245	6605	.847	1819.9	-	+.001	1245	6605	1.641	593.1								
1300	6605	.847	1819.9	-	+.001	1300	6605	1.641	593.1								

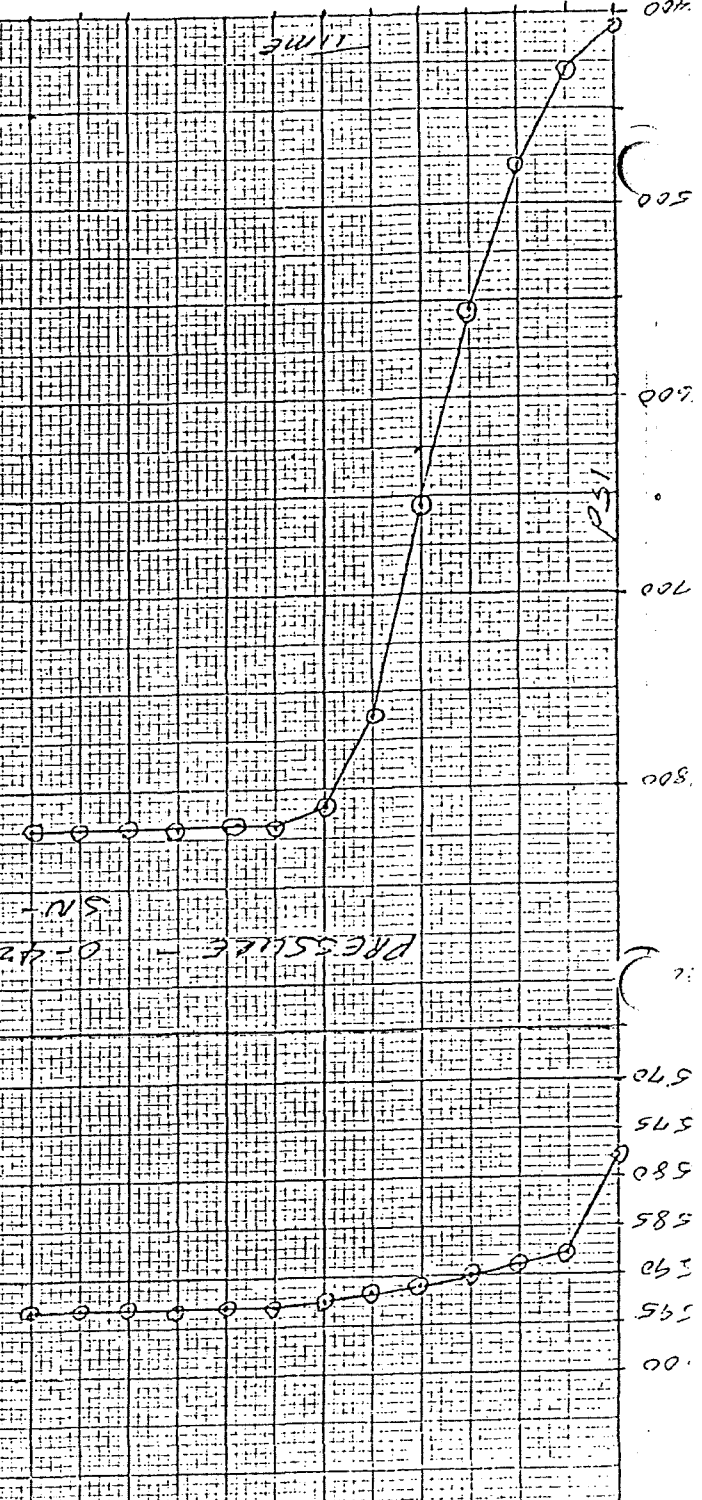
COMMENTS: NEW T.D. 6605'

BY: IA

BAR # 11 5-72 P/T 5/9/75

TEMPERATURE
82°-65°F
SN-10055

PRESSURE - 0-4250 PSI
SN-7198



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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B-11 S-71 P/T

OWNER: UNION OIL COMPANY FIELD: VALLE GRANDE WELL NAME: BACA #11
 CASING: 20" PT 209; 15 3/8" AT 1336' ELEV. 900.4' DATE: 4/1/75
 LINER DESCRIPTION: 9 5/8" Tublock AT 1219'; 9 5/8" 1219'-3380' ZERO POINT: C.L. + 10'
7"-3320' - TD DEPTH: 6630'

TUBING DETAIL:

PURPOSE:

REMARKS:

0-2250 PSIG; 7198 CLOCK 15375-L 15 TURN

ELEMENT: 82°-680° F SERIAL NO.: 10055 CLOCK: 13374-L 15 TURN STABILIZATION PERIOD:

ENGAGE STYLUS: P-0911; T-0916 DISENGAGE STYLUS: P-1628; T-1628

WELL HEAD: *

PICKUP: 0 TIME ON BOTTOM: 0907-1247 MAX. 'F: 591.7°

WELL STATUS: STATIC

SHUT IN: 1055 hrs 11/17/74 ON PRODUCTION:

RATE:

PRESSURE

TEMPERATURE

TIME	DEPTH	DEFL.	P-E	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
0907	6000	1748	1610.2		1.001	0947	6000	1582	576.9								
	6000	752	1618.6		"	0957	6000	1622	587.9								
1007	6000	752	1618.6		"	1007	6000	1623	588.2								
1017	6000	752	1618.6		"	1017	6000	1623	588.2								
1027	6000	752	1618.6		"	1027	6000	1624	588.5								
1037	6000	752	1618.6		"	1037	6000	1624	588.5								
1047	6000	752	1618.6		"	1047	6000	1625	588.7								
1057	6000	752	1618.6		"	1057	6000	1626	589.0								
1107	6000	751	1616.5		"	1107	6000	1627	589.3								
1117	6000	751	1616.5		"	1117	6000	1628	589.6								
1127	6000	751	1616.5		"	1127	6000	1630	590.1								
1137	6000	750	1614.4		"	1137	6000	1632	590.6								
1147	6000	750	1614.4		"	1147	6000	1632	590.6								
1157	6000	749	1612.3		"	1157	6000	1634	591.2								
1207	6000	749	1612.3		"	1207	6000	1635	591.4								
1217	6000	736	1594.7		"	1217	6000	1636	591.7								
1227	6000	594	1296.2		"	1227	6000	1583	577.2								
1237	6000	585	1242.8		"	1237	6000	1575	574.3								
1247	6000	582	1210.5		1.001	1247	6000	1570	573.4								

COMMENTS: UMP - 297 PSIG AT 0947 HRS
* UMP - 285 PSIG AT 1247 HRS } 0-600 T/C

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UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

B-11 5-71 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACH #11
 CASING 2" AT 207'; 1 1/2" AT 1336' ELEV. 9064' DATE: 4/11/75
 LINER DESCRIPTION: 9 5/8" TIEBACK AT 1219'; 9 5/8" 1219' - 3380' ZERO POINT CL +10'
7" - 3320' - TD DEPTH 6630
 TUBING DETAIL:

 PURPOSE:
 REMARKS:
D-4250 PSIC SN 7198 CLOCK 13375-L 15 TURN
 ELEMENT 82° - 686° F SERIAL NO. 10055 CLOCK 13374-L 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS P-0911; T-0916 DISENGAGE STYLUS P-1628; T-1628
 WELL HEAD ✕
 PICKUP @ 6630' TIME ON BOTTOM 1248 - 1548 MAX. °F 597.1
 WELL STATUS STATIC
 SHUT IN: 1035 HRS 11/17/74 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
1248	6630	653	1469.7		+ .001	1248	6630	1.594	581.7								
	6630	654	1452.7		+ .001	1258	6630	1.641	593.1								
1303	6630	653	1472.7		+ .001	1303	6630	1.644	593.8								
1318	6630	706	1521.2		+ .001	1318	6630	1.646	594.4								
1328	6630	737	1530.9		+ .001	1328	6630	1.647	594.7								
1338	6630	769	1654.7		+ .001	1338	6630	1.649	595.2								
1348	6630	804	1728.8		---	1348	6630	1.651	595.7								
1358	6630	828	1779.7		---	1358	6630	1.652	596.0								
1408	6630	845	1811.4		---	1408	6630	1.653	596.3								
1418	6630	845	1815.7		---	1418	6630	1.654	596.6								
1428	6630	845	1815.7		---	1428	6630	1.654	596.6								
1438	6630	845	1815.7		---	1438	6630	1.654	596.6								
1448	6630	845	1815.7		---	1448	6630	1.655	596.9								
1458	6630	845	1815.7		---	1458	6630	1.655	596.9								
1508	6630	845	1815.7		---	1508	6630	1.656	597.1								
1518	6630	845	1815.7		---	1518	6630	1.656	597.1								
1528	6630	845	1815.7		---	1528	6630	1.656	597.1								
1538	6630	845	1815.7		---	1538	6630	1.656	597.1								
1548	6630	845	1815.7		---	1548	6630	1.656	597.1								

COMMENTS: UMP 285 PSIC AT 1248 HRS
UMP 261 PSIC AT 1548 HRS

BY: IMA

UNION OIL COMPANY OF CALIFORNIA
GEOTHERMAL DIVISION

Foreman's Report for 1 - 11, 1974

Project: BACA Well No 11 AFE _____ WO _____

Report: Opened up well @ 11:00 AM - 850' SITP

TIME	FTP	SP	ST	
12:31	220'	97'	327°	Sep - Pressure Values open
14:31	160	80	310	✓ ✓ ✓ ✓
Office Readings: Steam				9" 174/60
				Water 7" 83/81
				2 φ 145/85
Estimated Steam Volume				230,000 #/Hr

COST:

Project: _____ AFE _____ WO _____

Report: Well started out showing lot of rocks but has calmed down. Nothing cutting out except end of line near masthead

Made some repairs on steam masthead.

COST:

Project: _____ AFE _____ WO _____

Report: _____

COST:

BY: J Jones

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

665
B#11-565-T/P

OWNER UNION OIL OF CALIF FIELD VALLE GRANDE WELL NAME BACA #411
 CASING 20" @ 207'; 9 5/8" 7166' @ 1219' ELEV. 9064' DATE: 2/11/75
 LINER DESCRIPTION: 13 3/8" @ 1336'; 9 5/8" - 1219' - 5330' ZERO POINT GL+10'
SLOTTED LINER 7" HUNG 3330' - T.D. DEPTH 6630'

TUBING DETAIL:

PURPOSE

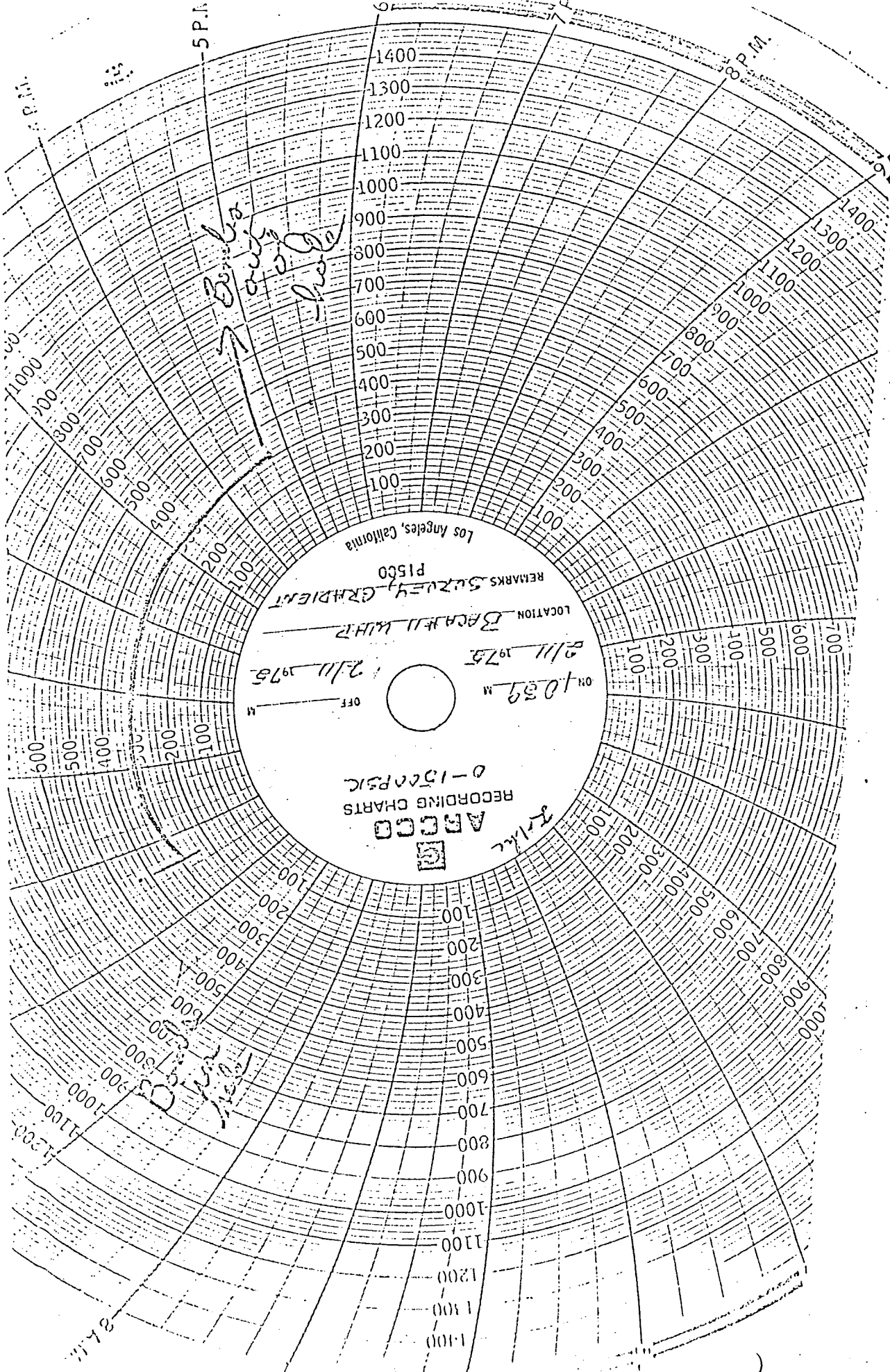
REMARKS:

ELEMENT: 88-698°F SERIAL NO. 10065 CLOCK 12hr 13790L ¹⁵ TURN STABILIZATION PERIOD
 ENGAGE STYLUS T-1017 DISENGAGE STYLUS T-1700
 WELL HEAD 298 PSIG
 PICKUP @ 6630 TIME ON BOTTOM 1621-1631 MAX. F 601.9
 WELL STATUS SHUT IN
 SHUT IN: 1035 HRS 11/17/74 ON PRODUCTION:
 RATE

TEMPERATURE

ID	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
15-1100	100	.044	102.9	—	—												
15-1111	250	.146	139.1	—	—												
2-1124	500	.278	154.5	—	—												
15-1135	750	.405	227.6	—	—												
2-1146	1000	.548	279.8	—	—												
147-1207	1250	.673	313.4	—	—												
208-1219	1500	.759	403.0	—	—												
249-1229	1750	1.046	429.3	—	—												
130-1240	2000	1.121	451.1	—	—												
241-1257	2250	1.186	469.9	—	—												
252-1302	2500	1.297	501.0	—	—												
003-1313	2750	1.315	506.8	—	—												
314-1334	3000	1.329	516.9	—	—												
335-1345	3250	1.363	520.5	—	—												
335-1345	3500	1.388	527.6	—	—												
342-1359	3750	1.424	537.7	—	—												
40-1410	4000	1.459	547.5	—	—												
411-1421	4250	1.493	557.0	—	—												
422-1432	4500	1.510	561.8	—	—												
433-1443	4750	1.547	572.2	—	—												
444-1504	5000	1.572	578.2	—	—												
505-1515	5250	1.554	574.1	—	—												
576-1526	5500	1.558	575.2	—	—												
627-1547	5750	1.571	578.9	—	—												
678-1608	6000	1.596	585.9	—	—												
678-1608	6250	1.627	574.4	—	—												
610-1620	6500	1.623	544.7	—	—												
621-1631	6630	1.653	601.9	—	—												

COMMENTS:



5 P.M.
3 P.M.
2 P.M.
1 P.M.

Los Angeles, California
REMARKS SURVEY GRADIENT
P1500
LOCATION BACHILLI WHT

OR 1059 M
OFF M
2/11/75
2/11/75

ARCCO RECORDING CHARTS
0-1500PSIC



10:59 M

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

66
BACAF11-535-P/T

OWNER UNION OIL CO. OF CALIF. FIELD VALLE GRANDE WELL NAME BACAF11
 CASING 20" @ 207; 9 5/8" TRSACK @ 1216' ELEV. 9664 DATE: 2/11/75
 LINER DESCRIPTION: 13 9/8" @ 1336'; 9 5/8" - 1219' - 3380' ZERO POINT GL+10'
 SLOTTED 7" HUNG - 3320 - T.D. DEPTH 6630'

TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENT P- 0-4250 SERIAL NO. 7198 CLOCK 12hr. 13375L TURN STABILIZATION PERIOD
 ENGAGE STYLUS P- 1012 hrs. DISENGAGE STYLUS T- 1700 hrs.
 WELL HEAD 298 PSIG
 PICKUP @ 6630 TIME ON BOTTOM 16.21-16.31 MAX. F 601.9
 WELL STATUS SHUT IN
 SHUT IN: 10:56hr. 11/17/74 ON PRODUCTION:
 RATE

PRESSURE

TIME	DEPTH	DEFL.	P-W	GRAD.	CDP	TIME	DEPTH	DEFL.	P-W	GRAD.	CDP	TIME	DEPTH	DEFL.	P-W	GRAD.	CDP
1209	100	.134	301.8	—	0	1324	3250	.333	735.2	—	0	1610	6500	.720	1550.8	—	7.005
1214	100	.134	301.8	—	0	1334	3250	.333	735.2	—	0	1620	6500	.748	1610.2	—	7.005
1222	250	.136	306.3	—	0	1335	3500	.372	817.8	—	+1.001	1621	6630	.772	1661.0	—	7.005
1100	250	.136	306.3	—	0	1345	3500	.372	817.8	—	+1.001	1631	6630	.805	1730.1	—	7.005
1101	500	.140	315.3	—	0	1346	3750	.412	902.5	—	+1.001						
1111	500	.140	315.3	—	0	1359	3750	.412	902.5	—	+1.001						
1112	750	.145	326.6	—	0	1400	4000	.449	980.9	—	+1.001						
1124	750	.145	326.6	—	0	1410	4000	.449	980.9	—	+1.001						
1123	1000	.150	337.8	—	0	1411	4250	.488	1063.0	—	+1.002						
1135	1000	.150	337.8	—	0	1421	4250	.488	1063.0	—	+1.002						
1136	1250	.150	337.8	—	0	1422	4500	.526	1142.9	—	+1.002						
1146	1250	.150	337.8	—	0	1432	4500	.526	1142.9	—	+1.002						
1147	1500	.156	351.4	—	0	1433	4750	.563	1220.6	—	+1.003						
1157	1500	.156	351.4	—	0	1443	4750	.563	1220.6	—	+1.003						
1207	1500	.156	351.4	—	0	1444	5000	.602	1302.5	—	+1.004						
1208	1750	.200	450.5	—	0	1454	5000	.602	1302.5	—	+1.004						
1218	1750	.200	450.5	—	0	1504	5000	.602	1302.5	—	+1.004						
1219	2000	.237	531.8	—	-1.001	1505	5250	.630	1361.3	—	+1.004						
1229	2000	.235	527.5	—	-1.001	1515	5250	.546	1184.9	—	+1.003						
1230	2250	.270	601.7	—	0	1516	5500	.561	1216.4	—	+1.004						
1240	2250	.265	591.1	—	0	1526	5500	.553	1199.6	—	+1.003						
1244	2500	.293	650.4	—	0	1527	5750	.567	1228.9	—	+1.003						
1251	2500	.286	635.6	—	0	1527	5750	.569	1233.2	—	+1.003						
1252	2750	.307	680.1	—	0	1547	5750	.573	1241.6	—	+1.003						
1253	2750	.298	661.0	—	0	1548	6000	.599	1286.2	—	+1.004						
1254	3000	.311	688.6	—	0	1558	6000	.615	1329.8	—	+1.004						
1313	3000	.304	673.7	—	0	1559	6250	.649	1401.3	—	+1.004						
1314	3250	.333	735.2	—	0	1609	6250	.674	1453.8	—	+1.004						

COMMENTS:

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY
Field Work Sheet

65
B-11-5-44 P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #11
 CASING 20" @ 207'; 9 3/8" Tieback @ 1219' ELEV. 9064' DATE: 1/25/75
 LINER DESCRIPTION: 13 3/8" @ 1326'; 9 3/8" @ 1219' - 3320' ZERO POINT CL + 10'
 SLOTTED LINER 7" HUNG 3320' - TD DEPTH 6670'
 TUBING DETAIL:

PURPOSE

REMARKS:

ELEMENTO-4250 PSIG SERIAL NO. 7199 CLOCK 1242; 13375; 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS 0910 HRS. DISENGAGE STYLUS 1642 HRS.
 WELL HEAD SEE ATTACHED CHART
 PICKUP @ 6630' TIME ON BOTTOM 0940-1610 HRS MAX. F 602.9
 WELL STATUS SHUT IN
 SHUT IN: 1035 HRS 11/17/74 ON PRODUCTION:
 RATE

PRESSURE

TIME	DEPTH	DEFL.	P-W	GRAD.	ID	TIME	DEPTH	DEFL.	P-W	GRAD.	ID	TIME	DEPTH	DEFL.	P-W	GRAD.	ID
1235	6630	.841	1807.2	-	t.006	1605	6630	.746	1506.0	-	t.006						
1240	"	.842	1809.3	-	"	1610	"	.751	1516.5	-	t.006						
1250	"	.842	1809.3	-	"												
1300	"	.842	1809.3	-	"												
1310	"	.842	1809.3	-	"												
1320	"	.842	1809.3	-	"												
1330	"	.842	1809.3	-	"												
1340	"	.842	1809.3	-	"												
1350	"	.842	1809.3	-	"												
1400	"	.842	1809.3	-	"												
1410	"	.842	1809.3	-	"												
1420	"	.842	1809.3	-	t.005												
1430	"	.842	1809.3	-	t.005												
1440	"	.842	1809.3	-	t.005												
1450	"	.842	1809.3	-	t.005												
1500	"	.841	1807.2	-	t.005												
1505	"	.830	1783.9	-	t.005												
1510	"	.738	1589.0	-	t.005												
1515	"	.688	1433.2	-	t.005												
1520	"	.678	1422.2	-	t.006												
1525	"	.674	1453.8	-	"												
1530	"	.671	1447.5	-	"												
1535	"	.673	1451.7	-	"												
1540	"	.678	1462.2	-	"												
1545	"	.687	1491.1	-	"												
1550	"	.697	1502.1	-	"												
1555	"	.712	1533.9	-	"												
1600	"	.726	1563.6	-	"												

COMMENTS:

76

UNION

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B-11 5-44 ⁶⁵ P/T

OWNER UNION OIL COMPANY FIELD VALLE GRANDE WELL NAME BACA #11
 CASING 20" @ 207'; 9 3/8" Tieback @ 1219' ELEV. 9034' DATE: 1/25/74
 LINER DESCRIPTION: 13 3/4" @ 1356'; 9 5/8" @ 1219' - 3380' ZERO POINT CL +10'
 SLOTTED LINER: 7" HUNG 3320' - TD DEPTH 6640'
 TUBING DETAIL:

PURPOSE

REMARKS:

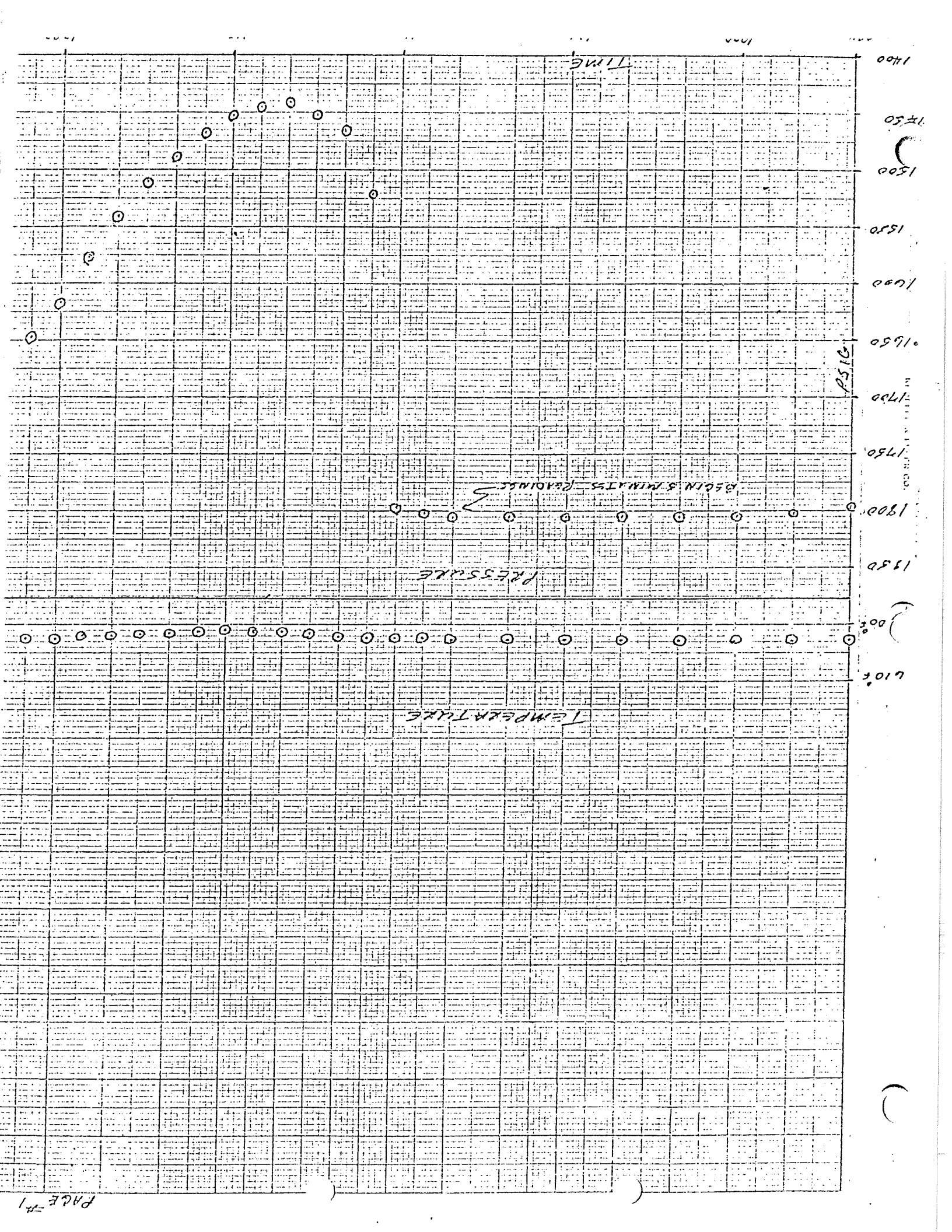
ELEMENT 98° - 698° SERIAL NO. 10055 CLOCK 12 HR 13324; 15 TURN STABILIZATION PERIOD
 ENGAGE STYLUS - 0903 HXS DISENGAGE STYLUS - 1642 HXS
 WELL HEAD SEE ATTACHED CHART
 PICKUP @ 6630' TIME ON BOTTOM - 0940 - 1610 HXS MAX. T 602.9
 WELL STATUS - SHUT IN
 SHUT IN: 1035 HXS 11/17/74 ON PRODUCTION:
 RATE

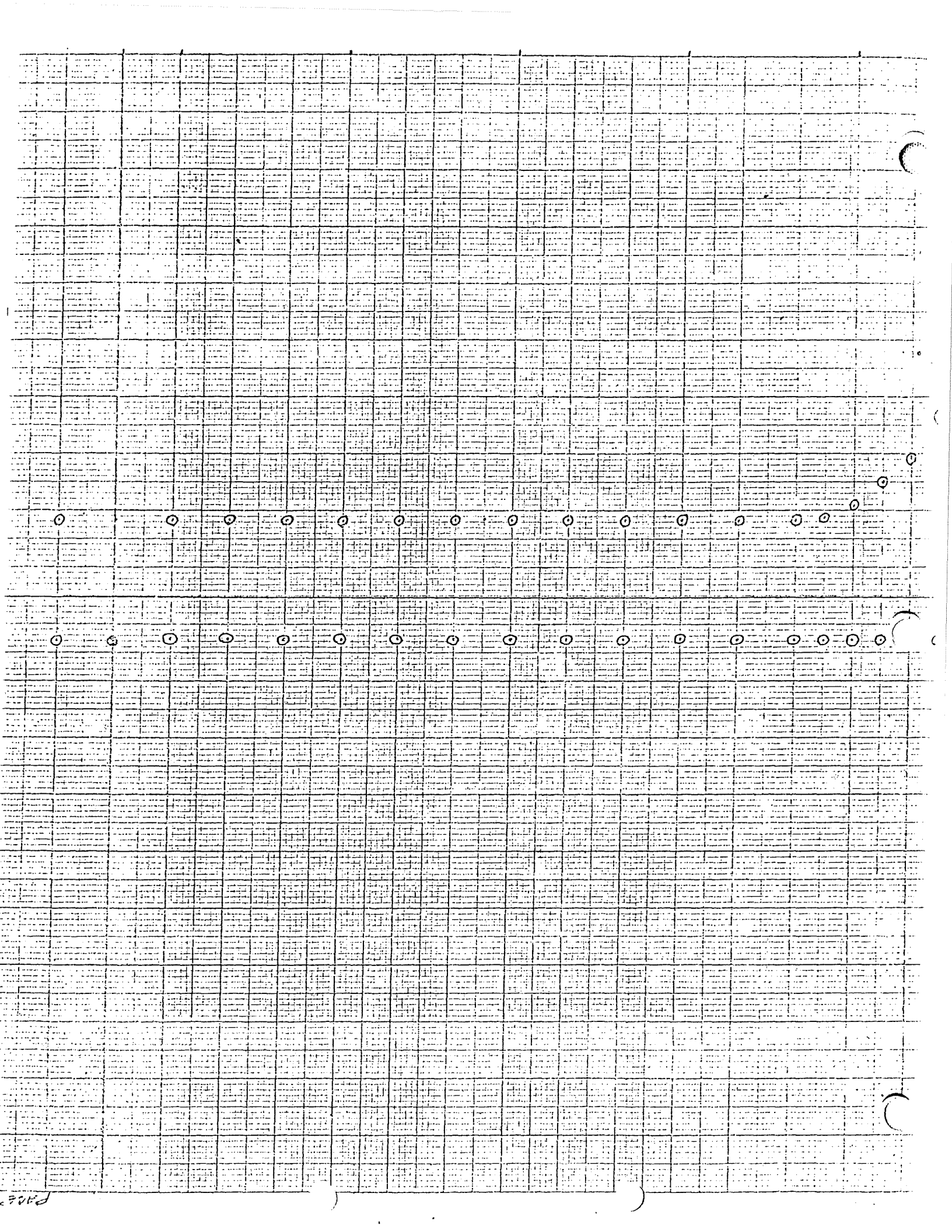
TEMPERATURE

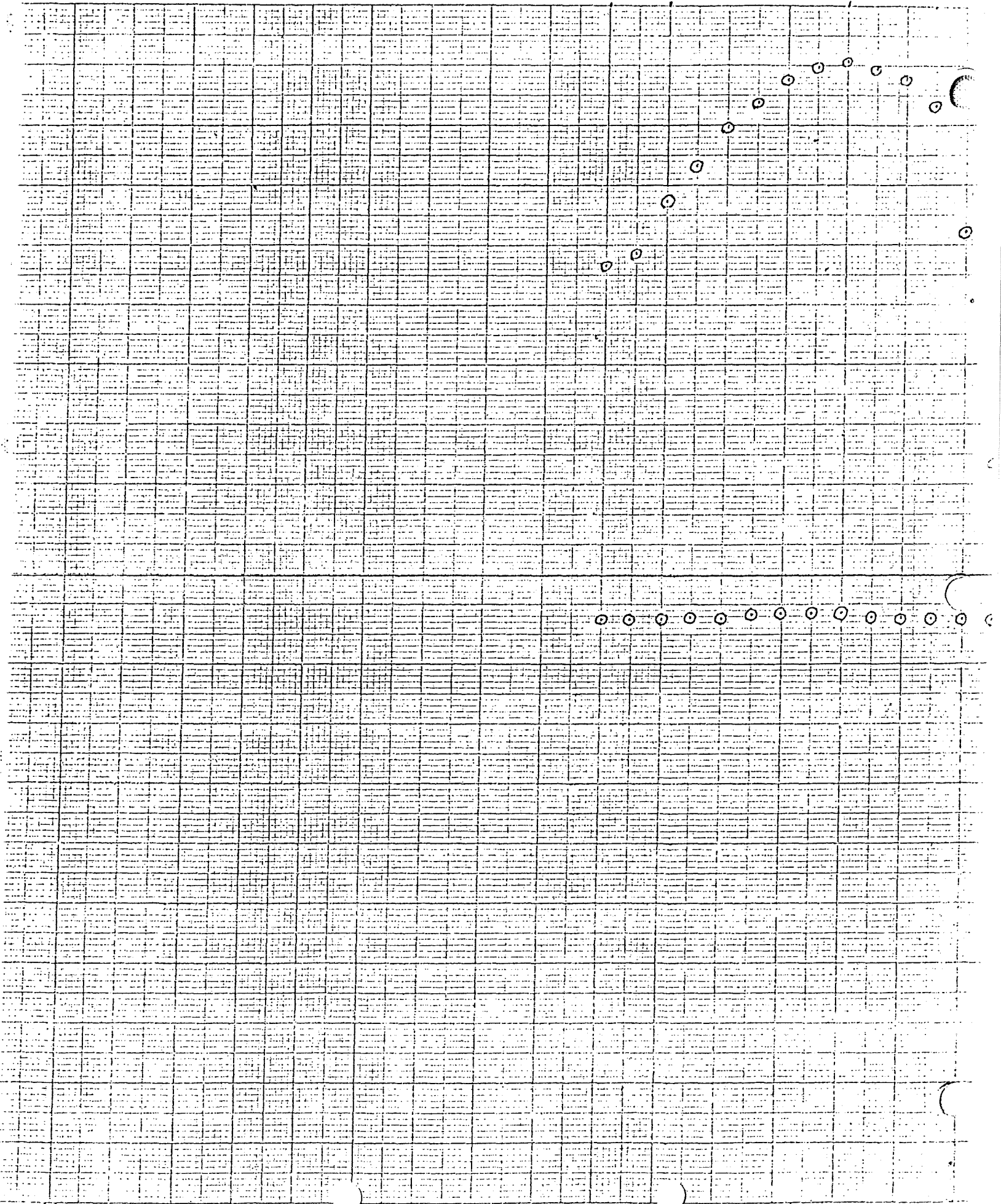
TIME	DEPTH	DEFL.	# - T	GRAD.	ID	TIME	DEPTH	DEFL.	# - T	GRAD.	ID	TIME	DEPTH	DEFL.	# - T	GRAD.	ID
0940	6630	1.658	602.9			1235	6630	1.658	602.9			1605	6630	1.657	602.7	-	-
9	"	1.658	602.9			1240	"	1.658	602.9			1610	"	1.657	602.7	-	-
1000	"	1.658	602.9			1250	"	1.658	602.9								
1010	"	1.658	602.9			1300	"	1.658	602.9								
1020	"	1.658	602.9			1310	"	1.658	602.9								
1030	"	1.658	602.9			1320	"	1.658	602.9								
1040	"	1.658	602.9			1330	"	1.658	602.9								
1050	"	1.658	602.9			1340	"	1.658	602.9								
1055	"	1.658	602.9			1350	"	1.658	602.9								
1100	"	1.659	602.7			1400	"	1.658	602.9								
1105	"	1.656	602.4			1410	"	1.658	602.9								
1110	"	1.655	602.1			1420	"	1.658	602.9								
1115	"	1.654	601.8			1436	"	1.658	602.9								
1120	"	1.653	601.6			1440	"	1.658	602.9								
1125	"	1.652	601.3			1450	"	1.658	602.9								
1130	"	1.651	601.0			1500	"	1.658	602.9								
1135	"	1.652	601.3			1505	"	1.658	602.9								
1140	"	1.652	601.3			1510	"	1.658	602.9								
1145	"	1.653	601.6			1515	"	1.657	602.7								
1150	"	1.654	601.8			1520	"	1.656	602.4								
1155	"	1.654	601.8			1525	"	1.655	602.1								
1200	"	1.655	602.1			1530	"	1.654	601.8								
1205	"	1.655	602.1			1535	"	1.654	601.8								
1210	"	1.656	602.4			1540	"	1.653	601.6								
1215	"	1.657	602.7			1545	"	1.654	601.8								
1220	"	1.657	602.7			1550	"	1.655	602.1								
1225	"	1.658	602.9			1555	"	1.655	602.1								
1230	"	1.658	602.9			1600	"	1.656	602.4								

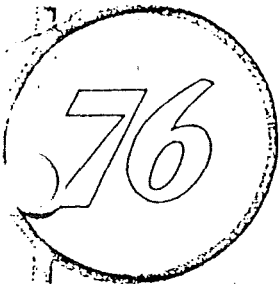
COMMENTS:

BY: / /









UNION

DEL' PYLE

FEB 6 1975

GEO THERMAL DIVISION

SUBSURFACE SURVEY

Field Work Sheet

B#11-508-TIT
Bitch #11

OWNER UNION OIL Co. OF CALIF FIELD VALLE GRANDE WELL NAME - BACFF#13
CASING 20" @ 207, 9 5/8" @ 1212' TIEBACK ELEV. 9064 DATE: 1/24/75
LINER DESCRIPTION: 13 3/8" @ 1336 - 9 7/8" @ 1219 - 3380' ZERO POINT GLT 10'
SLOTTED LINER - 7" - HVN9 - @ .3320 - T.D. DEPTH 6630'
TUBING DETAIL:

PURPOSE

REMARKS:

T₁ - 88°F - 698°F 10055 12hr - 13374 15
ELEMENT T₂ - 80°F - 646°F SERIAL NO. 10052 CLOCK 12hr - 13375 15 TURN STABILIZATION PERIOD
ENGAGE STYLUS T₁ - 1426, T₂ 1429 DISENGAGE STYLUS T₁ - 1720 T₂ 1722
WELL HEAD 310 PSIG
PICKUP @ 6630 - TIME ON BOTTOM 1554 - 1654 MAX. P.T. - 521, T₂ - 588
WELL STATUS SHUT IN
SHUT IN: 1035 hrs - 11/17/74 ON PRODUCTION:
RATE

T₁ 10055

T₂ - 10052

TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID	TIME	DEPTH	DEFL.	P-T	GRAD.	ID
	100	.054	106.4	0		"	100	.015	25.2	0							
	1000	.545	272.4	.18		"	1000	.566	255.8	.19							
16-1526	3000	1.363	520.5	.12	213.5	"	3000	1.459	509.3	.13	213.5						
33-1543	4000	1.463	548.6	.02	102.7	"	4000	1.558	535.1	.02	97.2						
54-1654	6630	1.485	602.1	.02	102.7	"	6630	1.767	587.7	.02	102.7						
<p>REFER TO Bore #11 S-33 - T₁/T₂ - 4/4/74 THIS DIFFERENCE IN TEMPERATURE ELEMENTS WAS DETECTED AND THE ELEMENTS WERE SENT IN FOR A CALIBRATION CHECK. THEY WERE OKAY & THE DIFFERENCE IS STILL EVIDENT.</p>																	

COMMENTS:

GEO THERMAL DIVISION SUBSURFACE TEMPERATURE SURVEY

36

64
B-11 5-13 T-17

OWNER: UNION OIL COMPANY
 FIELD: VALLE GRANDE
 WELL NAME: BACH #11
 DATE: 1/24/75
 ZERO POINT: 67+10'
 DEPTH: 6650'

HOLE DESCRIPTION:

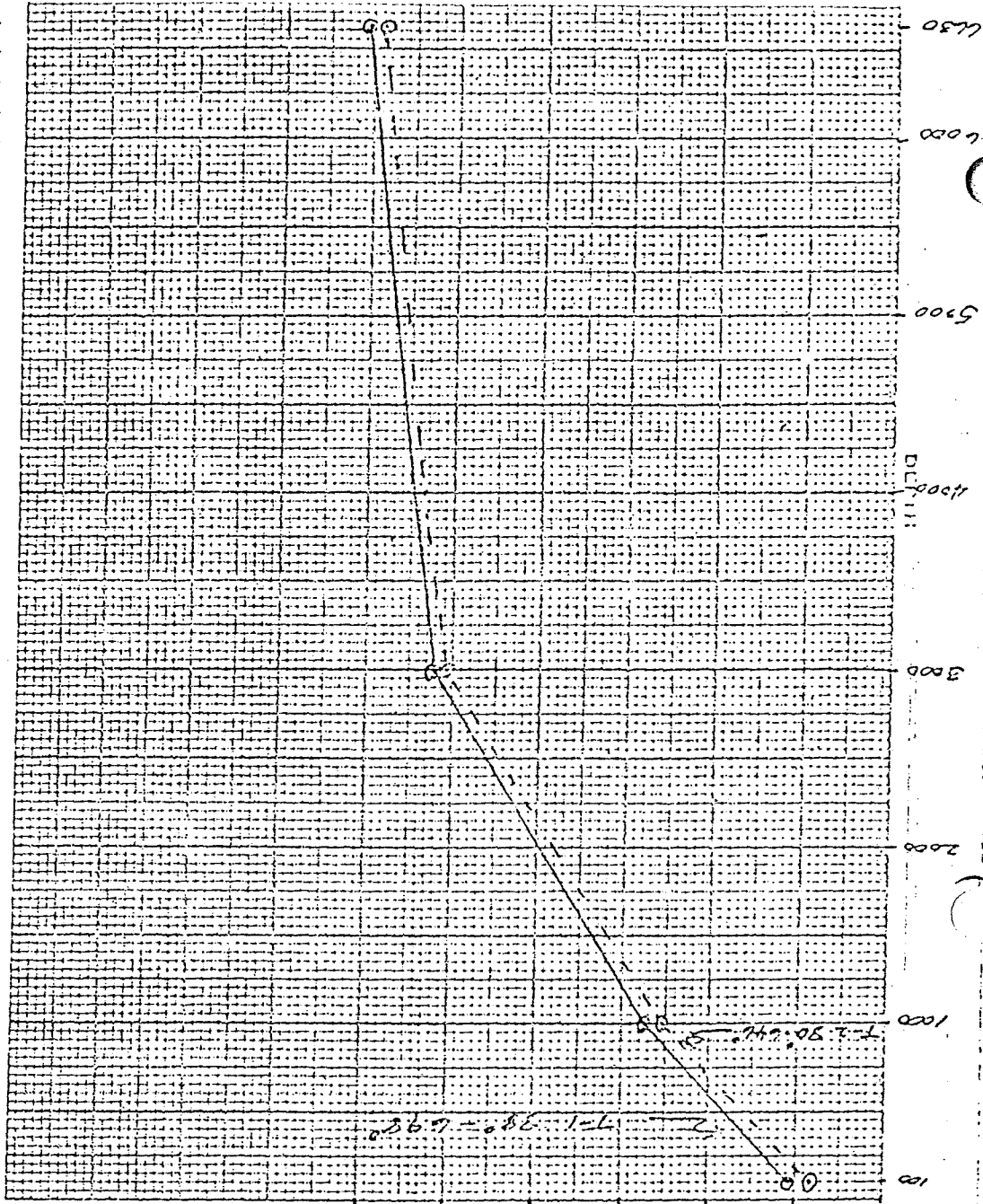
INSTRUMENT T-1 98°-698° FAH
 SERIAL NO T-2 80°-646°
 T-1 602.1° 6630

PURPOSE:
 REMARKS:
 MAX TEMP T-2 587.7° @ 6650

STABILIZATION PERIOD

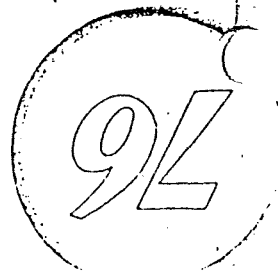
DEPTH	TEMP.	DEPTH	TEMP.
100	80°-646°	100	106.4°
1000	253.8°	1000	272.4°
5000	504.3°	5000	520.5°
4000	535.1°	4000	543.6°
6650	587.7°	6650	602.1°

DEPTH	TEMP.	DEPTH	TEMP.
100	85.2°	100	106.4°
1000	253.8°	1000	272.4°
5000	504.3°	5000	520.5°
4000	535.1°	4000	543.6°
6650	587.7°	6650	602.1°



GEO THERMAL DIVISION

SURFACE PRESSURE SURVEY



SURFACE PRESSURE SURVEY

B#11-568-PP
62

WELL NAME: WALLE GRANDE FIELD: WALLE GRANDE
 CASING 20 3/8 TIEBACK AT 1218' ELV 9064
 LINE DESCRIPTION: 18 3/8 - 13.36' - 9 5/8" 1214 - 3280
SPLITTED LINER - 7" hung - 3330 - T.D.
 DEPTH: 6630

HOLE DESCRIPTION:

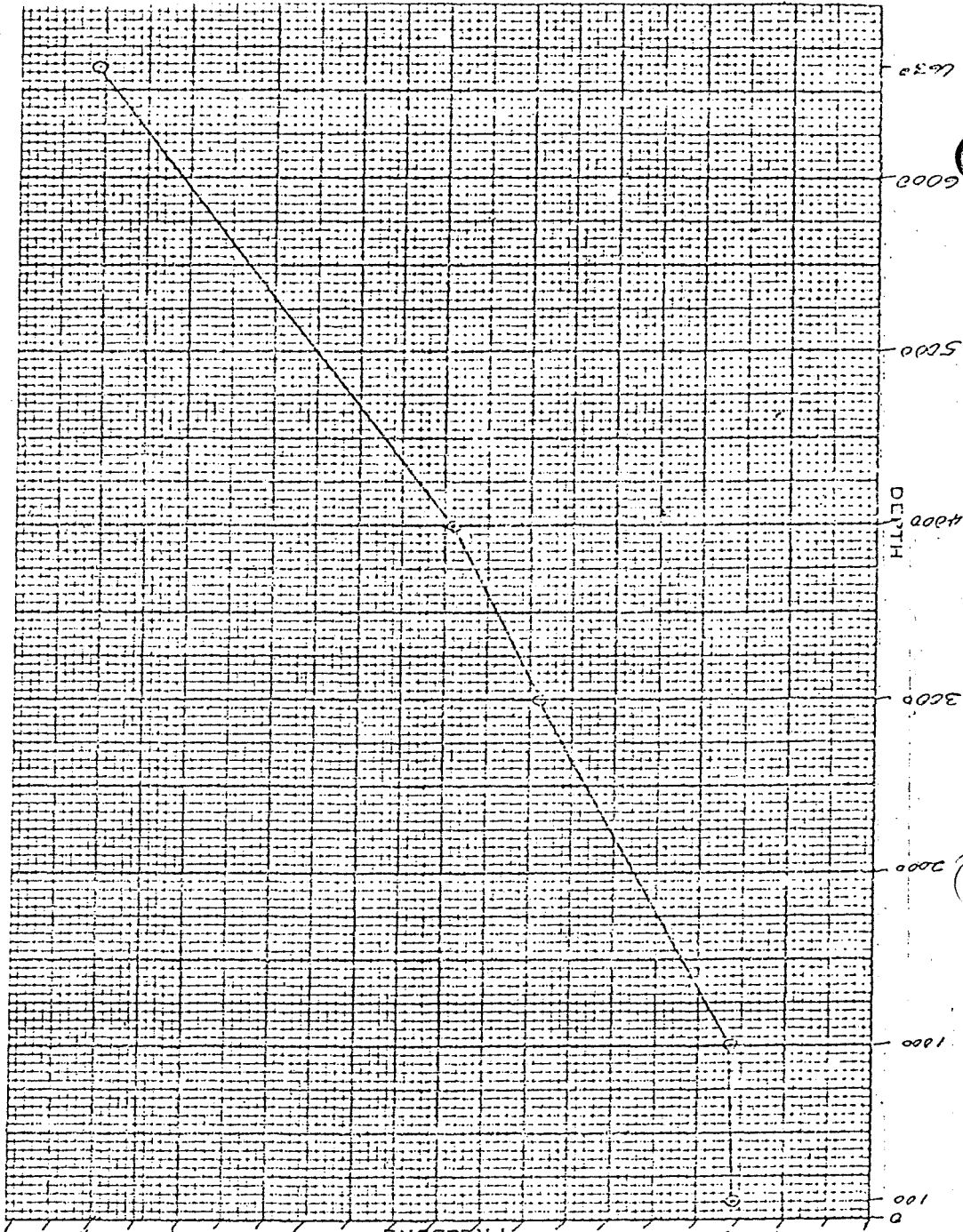
INSTRUMENT: 0-4250 PSI
 SERIAL NO: 7198

MAX TEMP: 603 °F @ 6630

PURPOSE:

STABILIZATION PERIOD

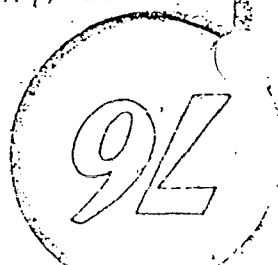
DEPTH	PRESSURE	GRADIENT
100	315.3	0
1000	324.3	.015
3000	779.6	.23
4000	980.6	.203
6630	1811.4	.323



W.P.M.

GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY



67
BTH-567-P/P

OWNER: UNION OIL CO. OF CALIF. FIELD: VALLE GRANDE WELL NAME: BACH #11
 CASING 20" @ 207, 9 5/8" THE PARK @ 1219' ELEV: 9264 DATE: 1/24/75
 HOLE DESCRIPTION: 1 1/2" @ 135', 9 5/8" @ 1219' - 3380' ZERO POINT: 6770' DEPTH: 6630

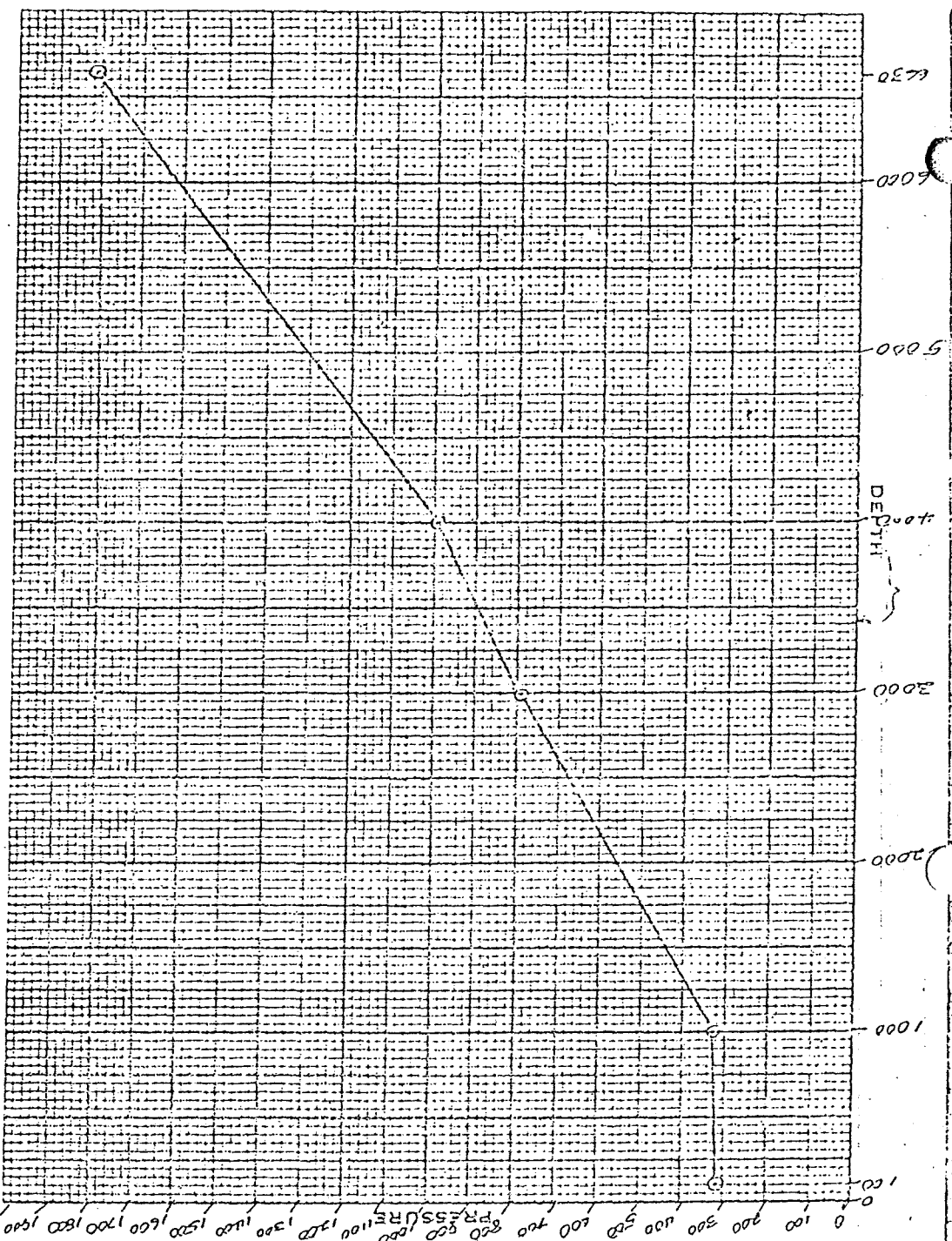
HOLE DESCRIPTION: INSTRUMENT: D-2950 SERIAL NO: 9235

MARKS: MAX TEMP: 60.3 OF @ 6630

DEPTH	PRESSURE	GRADIENT
100	319.3	0
1000	327.1	.013
3000	327.2	.023
4000	327.6	.021
6630	1816.6	.214

PRESSURES	GAUGE	CASING PSI
BOB	GAUGE	310
		100' 319.3

BY: J.M.



GEO THERMAL DIVISION

SUBSURFACE PRESSURE SURVEY

WELL NO. 63



63
BWH-588-P/P

OWNER UNION OIL CO. OF CALIF. FIELD VALLE GRANDE

WELL NAME BACH #11

CASING 20" @ 607, 9 5/8" THE BARK @ 1219' ELEV 9064

LINEAR DIMENSION: 13 7/8" / 335', 9 5/8" / 1219' - 3380'

SCOTCHED LINER - 7" HUNG - @ 3320' - T.D.

DEPTH 6630

INSTRUMENT D-2950

SERIAL NO 9235

MAX TEMP 60.3 °F @ 6630

WELL POINT

MEMBER:

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000

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0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000

0 100 200 300 400 500 600 700 800 900 1000 1100 1200 1300 1400 1500 1600 1700 1800 1900 2000

DEPTH	PRESSURE	GRADIENT
100	319.3	0
1000	327.1	.01
3000	712.2	.23
4000	992.6	.20
6630	1816.6	.31

PRESSURE	Gauge	CASING PSI
B019	310	100' 319.3

BY: J M