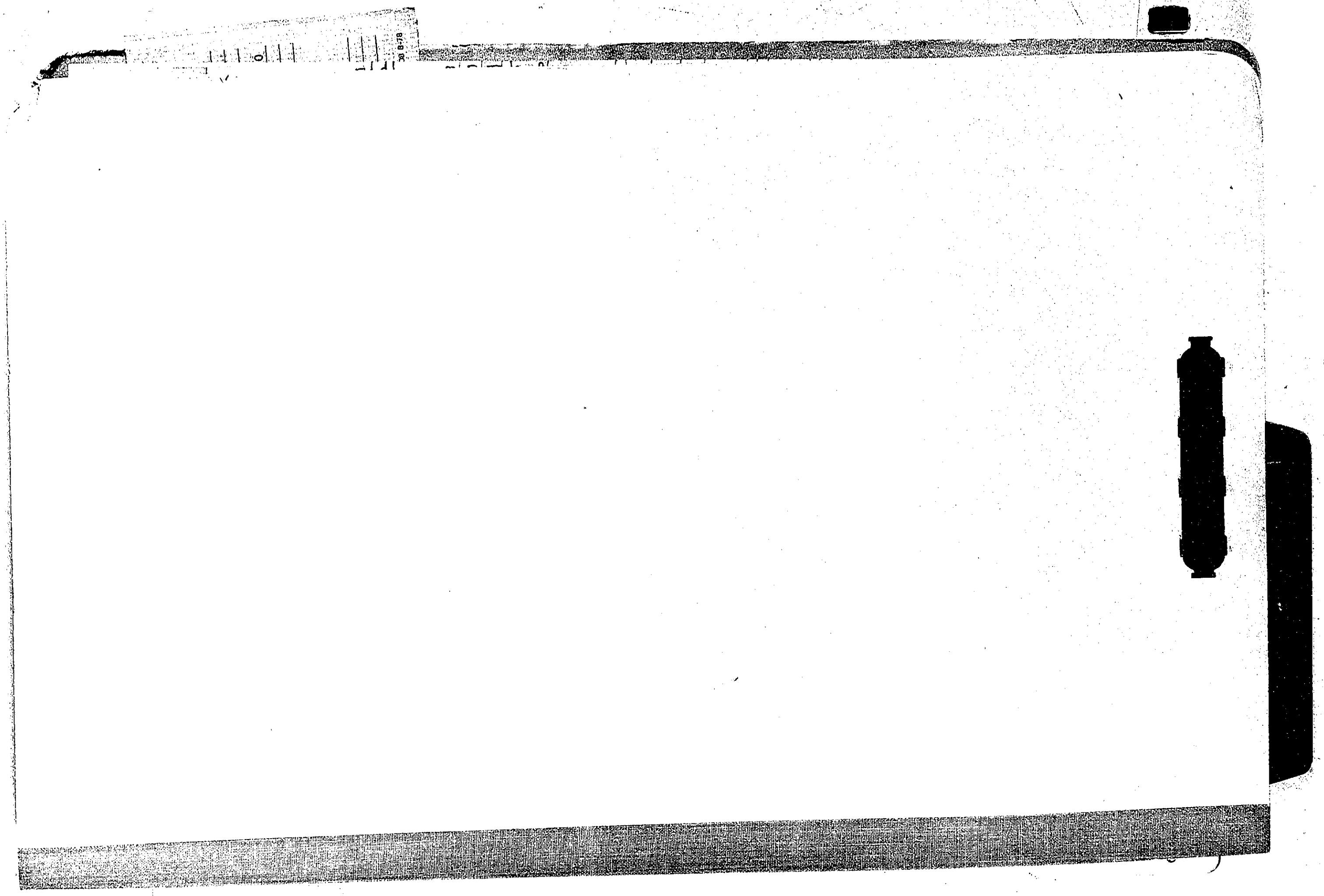


COUNTY Yuma & Maricopa AREA Hyder Valley LEASE NO. BLM

WELL NAME 30 Phyllips Petroleum Shallow temperature gradient holes -- see attached listing

Completed 2-1-82

RECEIVED
AUG 13 1981
O & G CONS. COMM.

PHILLIPS PETROLEUM COMPANY

TABLE OF LOCATIONS

LIST OF SHALLOW (300') TEMPERATURE GRADIENT HOLES IN & AROUND HYDER VALLEY AREA:

Changes 9-18-81

PERMIT	HOLE NO.	COUNTY	LOCATION	FOOTAGE	API NO.
733	H-1 FED.	Yuma	T.2N., R.13W., Sec. 19, NE, NW, SE	2420 ~~2380~~ FSL/1420 ~~1515~~ FEL	02-027-~~20009~~ 90001
734	H-2 "	"	T.1N., R.14W., Sec. 22, NW, SW, NE	1600 FNL/2250 FEL	02-012-~~20010~~ 90002
735	H-3 "	Yuma	T.1N., R.13W., Sec. 22, SE, SE, SW	100 FSL.2120 FWL	02-027-20011
736	H-4 "	"	T.1N., R.12W., Sec. 21, NE, NE, SE	2590 FSL/610 FEL	-20012
737	H-5 "	"	T.1S., R.14W., Sec. ~~23~~ 22 ~~NW~~ SE ~~NW~~ SE ~~SW~~ NE	2680 ~~2250~~ FSL/435 ~~130~~ FEL	90003 -20013
738	H-6 "	"	T.1S., R.12W., Sec. 15, SW, NE, SW	1385 ~~1685~~ FSL/1470 ~~1385~~ FWL	90019 -20014
739	H-7 "	"	T.2S., R.13W., Sec. 4, SE, NW, NW	750 FNL/1060 FWL	90004 -20015
740	H-8 "	"	T.1S., R.11W., Sec. 33, SW, NW, NW	820 FNL/605 FWL	90005 -20016
741	H-9 "	"	T.2S., R.12W., Sec. 9, NE, SE, NE	1470 FNL/325 FEL	90006 -~~20017~~
742	H-10 "	Maricopa	T.2S., R.10W., Sec. 17, NW, SW, SW	980 FSL/130 FWL	90001 02-013-20011
743	H-11 "	Yuma	T.2S., R.13W., Sec. 25, NW, SE, SW	1040 FSL/1640 FWL	02-027-20018
744	H-12 "	"	T.3S., R.13W., Sec. 5, NW, SE, SW	1210 FSL/1560 FWL	90007 -~~20019~~
745	H-13 "	"	T.3S., R.12W., Sec. 11, NE, NW, SE	2290 FSL/1680 FEL	90008 -~~20020~~
746	H-14 "	Maricopa	T.3S., R.10W., Sec. 8, SW, NW, SE	1850 FSL/2280 FEL	90002 02-013-20012
747	H-15 "	Yuma	T.3S., R.12W., Sec. 29, NE, NW, SW	2335 FSL/1300 FWL	90009 02-027-~~20021~~
748	H-16 "	"	T.4S., R.12W., Sec. 1, SE, SE, SE	300 FSL/350 FEL	90010 -~~20022~~
749	H-17 "	Maricopa	T.3S., R.10W., Sec. 26, SE, SE, SE	575 FSL/300 FEL	90003 02-013-20013
750	H-18 "	Yuma	T.4S., R.13W., Sec. 20, NE, NE, NW	390 FNL/2380 FWL	90011 02-027-~~20023~~
751	H-19 "	"	T.4S., R.12W., Sec. 31, NW, SE, NE	1900 FNL/1040 FEL	90012 -~~20024~~
752	H-20 "	Maricopa	T.4S., R.9W., Sec. 20, NW, SE, SE	1040 FSL/865 FEL	90004 02-013-~~20014~~
753	H-21 "	Yuma	T.5S., R.13W., Sec. 27, SW, SW, SW	430 FSL/650 FWL	90013 02-027-~~20025~~
754	H-22 "	Maricopa	T.5S., R.9W., Sec. 23, NE, NE, NE	175 FNL/430 FEL	90005 02-013-~~20015~~
755	H-23 "	"	T.5S., R.8W., Sec. 11, ~~NE, NE, SW~~ NW SW NE	1425 1990 ~~3030 FNL/2160~~ FWL	90011 -~~20016~~
756	H-24 "	Yuma	T.6S., R.12W., Sec. 10, NW, NW, NW	390 FNL/280 FWL	90020 02-027-~~20026~~
757	H-25 "	"	T.6S., R.11W., Sec. 9, SE, SE, SE	165 FSL/100 FEL	-20027
758	H-26 "	Maricopa	T.6S., R.10W., Sec. 10, NE, SW, NW	1680 FNL/1240 FWL	90006 02-013-~~20017~~
759	H-27 "	"	T.6S., R.9W., Sec. 9, SE, NE, SW	1775 FSL/2160 FWL	90007 -~~20018~~
760	H-28 "	"	T.6S., R.8W., Sec. 8, SE, SE, NE	2500 FNL/430 FEL	90012 -~~20019~~
761	H-29 "	Yuma	T.7S., R.11W., Sec. 6, SE, SW, NW	2415 FNL/990 FWL	90014 02-027-~~20028~~
762	H-30 "	Maricopa	T.7S., R.10W., Sec. 7, SW, NW, NW	1080 FNL/200 FWL	90008 02-013-~~20020~~

Changes 9-18-81

CONFIDENTIAL

Release Date

6/22/81

LOCATION _____ SEC _____ TWP _____ RANGE _____ FOOTAGE _____

ELEV _____ GR _____ KB SPUD DATE _____ STATUS _____ TOTAL DEPTH _____
COMP. DATE _____

CONTRACTOR _____

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH

DRILLED BY ROTARY _____
DRILLED BY CABLE TOOL _____
PRODUCTIVE RESERVOIR _____
INITIAL PRODUCTION _____

FORMATION TOPS	DEPTHS	SOURCE L.L.	SOURCE E.L.	REMARKS

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS

SAMPLE LOG _____
SAMPLE DESCRP. _____
SAMPLE NO. _____
CORE ANALYSIS _____
DSTs _____

REMARKS _____

APP. TO PLUG _____
PLUGGING REP. _____
COMP. REPORT _____

WATER WELL ACCEPTED BY _____

BOND CO. Safeco Ins. Co. of America (See File 763 thru 769) BOND NO. 41 00 ~~511~~ 446
DATE ~~9-20-80~~ 1-27-81

BOND AMT. $ 25,000 CANCELLED _____ ORGANIZATION REPORT x

FILING RECEIPT 2115 LOC. PLAT x WELL BOOK x PLAT BOOK x

API NO. see attached listing DATE ISSUED 8-14-81 DEDICATION N/A

PERMIT NUMBER 733 thru 762

(over)

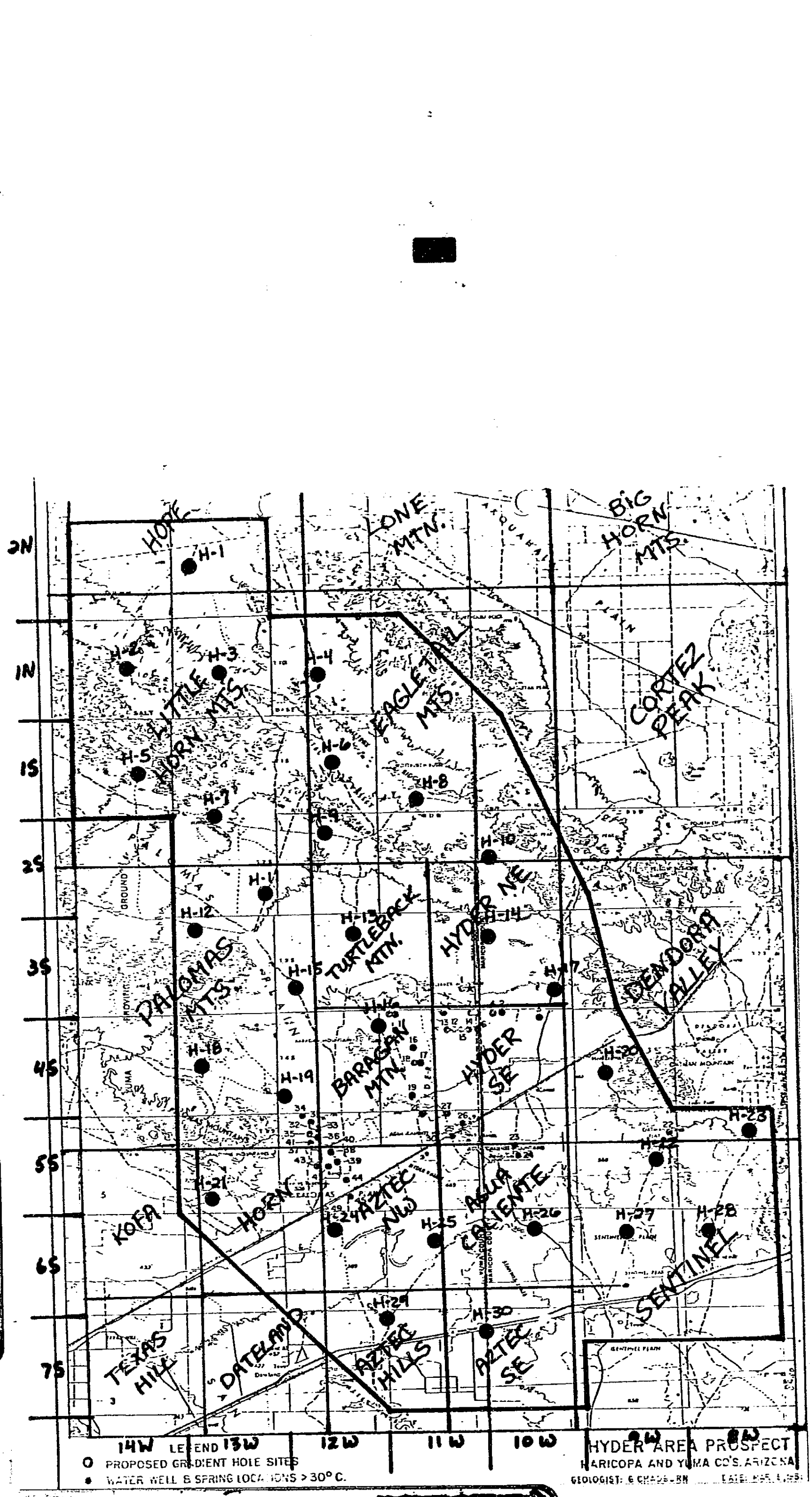
RECEIVED
AUG 13 1981
O & G CONS. COMM.

PHILLIPS PETROLEUM COMPANY

TABLE OF LOCATIONS

HOLE NO.	LOCATION
H-1	T.2N., R.13W., Sec. 19, NE, NW, SE
H-2	T.1N., R.14W., Sec. 22, NW, SW, NE
H-3	T.1N., R.13W., Sec. 22, SE, SE, SW
H-4	T.1N., R.12W., Sec. 21, NE, NE, SE
H-5	T.1S., R.14W., Sec. 23, NW, NW, SW
H-6	T.1S., R.12W., Sec. 15, SW, NE, SW
H-7	T.2S., R.13W., Sec. 4, SE, NW, NW
H-8	T.1S., R.11W., Sec. 33, SW, NW, NW
H-9	T.2S., R.12W., Sec. 9, NE, SE, NE
H-10	T.2S., R.10W., Sec. 17, NW, SW, SW
H-11	T.2S., R.13W., Sec. 25, NW, SE, SW
H-12	T.3S., R.13W., Sec. 5, NW, SE, SW
H-13	T.3S., R.12W., Sec. 11, NE, NW, SE
H-14	T.3S., R.10W., Sec. 8, SW, NW, SE
H-15	T.3S., R.12W., Sec. 29, NE, NW, SW
H-16	T.4S., R.12W., Sec. 1, SE, SE, SE
H-17	T.3S., R.10W., Sec. 26, SE, SE, SE
H-18	T.4S., R.13W., Sec. 20, NE, NE, NW
H-19	T.4S., R.12W., Sec. 31, NW, SE, NE
H-20	T.4S., R.9W., Sec. 20, NW, SE, SE
H-21	T.5S., R.13W., Sec. 27, SW, SW, SW
H-22	T.5S., R.9W., Sec. 23, NE, NE, NE
H-23	T.5S., R.8W., Sec. 11, NE, NE, SW
H-24	T.6S., R.12W., Sec. 10, NW, NW, NW
H-25	T.6S., R.11W., Sec. 9, SE, SE, SE
H-26	T.6S., R.10W., Sec. 10, NE, SW, NW
H-27	T.6S., R.9W., Sec. 9, SE, NE, SW
H-28	T.6S., R.8W., Sec. 8, SE, SE, NE
H-29	T.7S., R.11W., Sec. 6, SE, SW, NW
H-30	T.7S., R.10W., Sec. 7, SW, NW, NW

6/22/81


HOPE
LONE MTN.
BIG HORN MTS.
H-1
H-2
H-3
H-4
LITTLE HORN MTS.
EAGLETAIL MTS.
CORTEZ PEAK
H-5
H-6
H-7
H-8
H-9
H-10
H-11
H-12
H-13
TURTLEBACK MTN.
HYDER NE
H-14
H-15
H-16
H-17
DENDORA VALLEY
PAJOMAS MTS.
BARAGAN MTN.
HYDER SE
H-18
H-19
H-20
H-21
H-22
H-23
KOFA
HORN
AZTEC NW
H-24
H-25
AGUA CALIENTE
H-26
H-27
H-28
SENTINEL
H-29
H-30
TEXAS HILL
DATELAND
AZTEC HILLS
AZTEC SE
2N
1N
1S
2S
3S
4S
5S
6S
7S
14W
13W
12W
11W
10W
9W
8W
LEGEND
PROPOSED GRADIENT HOLE SITES
WATER WELL & SPRING LOCATIONS > 30° C.
HYDER AREA PROSPECT
MARICOPA AND YUMA CO'S. ARIZONA

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-1 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 2420' N 1420' W fr SE cor. Sec. 19	COUNTY: ~~Yuma~~ La Paz
SEC. TWP-RANGE OR BLOCK & SURVEY: T2N-R13W Sec. 19 NE NW SE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR))	ELEVATION OF CASING HD. FLANGE
1-4-82	1-5-82		1318' FEET	FEET

TOTAL DEPTH	P.B.T.D.	ROTARY TOOLS (INTERVAL)	CABLE TOOLS (INTERVAL)
270'		To T.D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE	DEPTH SET	PACKER SET AT
IN.	FT.	FT.

LINER RECORD

SIZE	TOP	BOTTOM	SACKS CEMENT	SCREEN (FT.)
IN.	FT.	FT.		

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 733

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-3

(COMPLETE REVERSE SIDE)

IZONA
UMA
XCE
IC
19
2N 13W
ALTITUDE
PRODUCTION

Phillips Petroleum
HYDER
SURVEY
LEASE NO.
H-1
Temp. Grad. Well
TOTAL DEPTH
270'
CONTRACTOR Buret Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 1-26-82

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Mayfield 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

FINE SAND & GRAVEL
MEDIUM GRAVEL & FINE SAND
AS ABOVE
A.A.
A.A.
A.A.
A.A.
SAND W. FINE SAND GRAVEL
MEDIUM GRAVEL & SAND
A.A.
A.A.
A.A.

A.A.
A.A.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☒ RE-ENTER OLD WELL ☐

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 655 East 4500 South CITY ~~Murray~~ Salt Lake City STATE Utah 84107

DRILLING CONTRACTOR
Burt Drilling Inc.

ADDRESS 2755 South 1600 West, Mapleton, Utah

RECEIVED
SEP 16 1981
O & G CONS. COMM.

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-1	1318'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
2420'N 1420'W fr SE cor. Sec. 19	T2N, R13W, Sec 19, NE NW SE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature gradient well	Yuma ~~La Paz~~

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	Sept. 20, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Co. (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbury
SIGNATURE

September 14, 1981
DATE

PERMIT NUMBER: 733
APPROVAL DATE: 9-[illegible]-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

Corrected location

1. OPERATOR SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

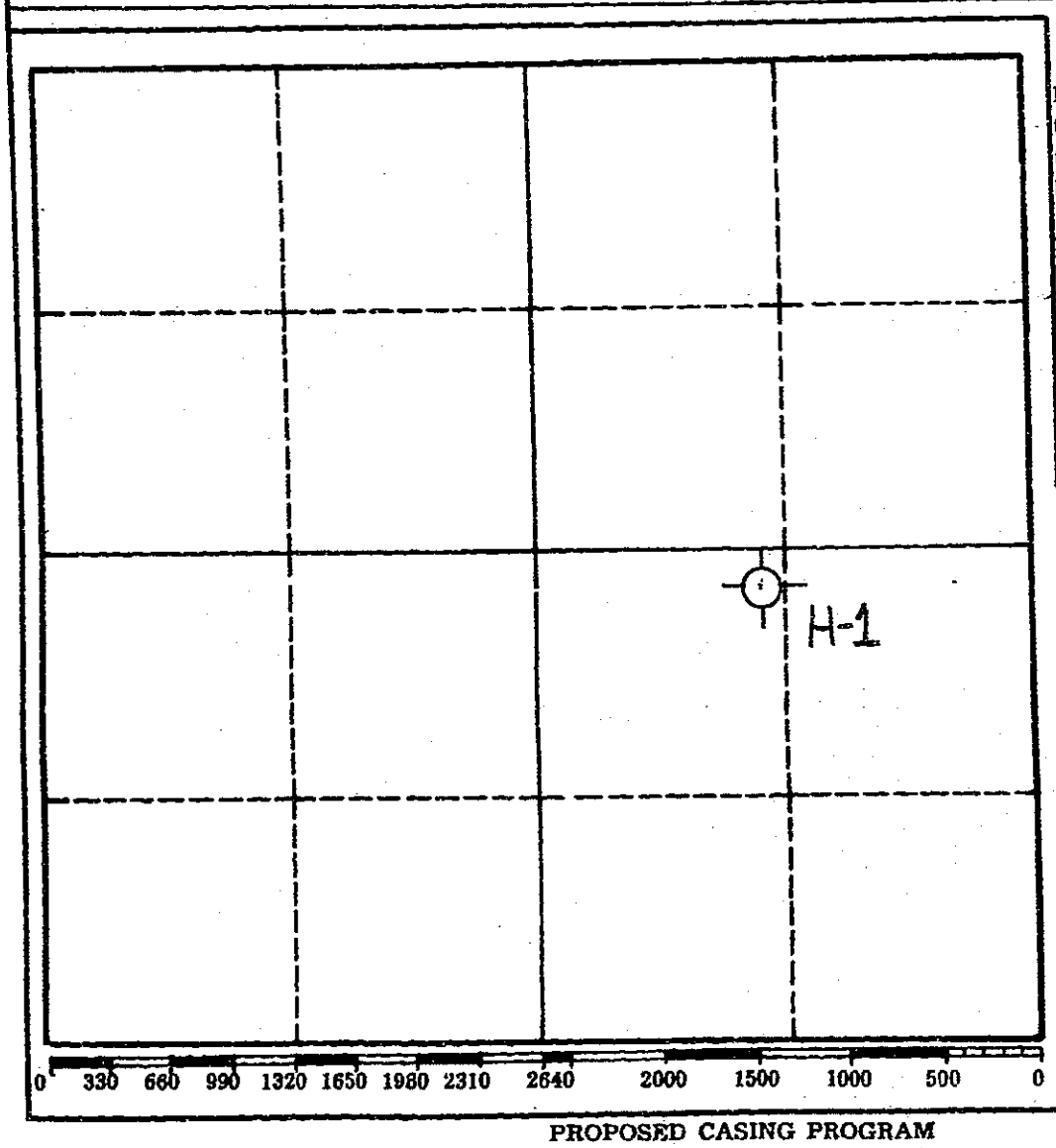
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES____ NO ____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T 2 N, R 13 W, Section 19



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: Gary Gadbury

Position: Geologist

Company: Phillips Petroleum Co.

Date: 9/14/81

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein Plug and abandon within one year.						

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL [illegible]

RECEIVED

AUG 13 1981

O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-1	1318'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

See Estimated 2420 fsl 1420 fel

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
~~2380' N 1515' W fr SE cor. Sec. 19~~	T2N, R13W, Sec. 19, NE NW SE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	~~Yuma~~ La Paz County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbury
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 733
APPROVAL DATE: 8-14-81
APPROVED BY: [signature]

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

1. OPERATOR SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

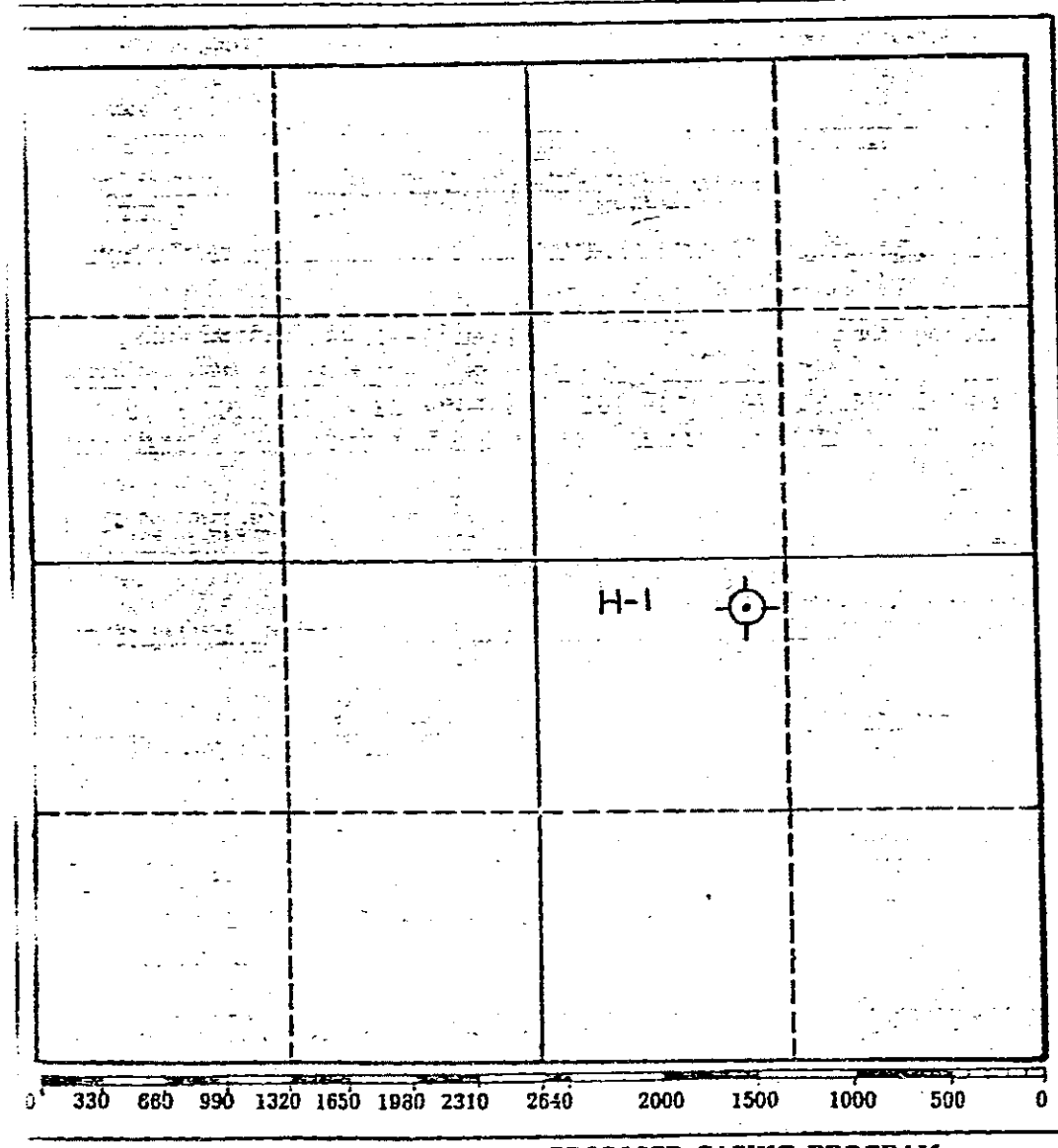
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T2N, R13W, Sec. 19



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name	X Ivan Gadbaw
Position	Geologist
Company	Phillips Petroleum Co.
Date	July 22, 1981

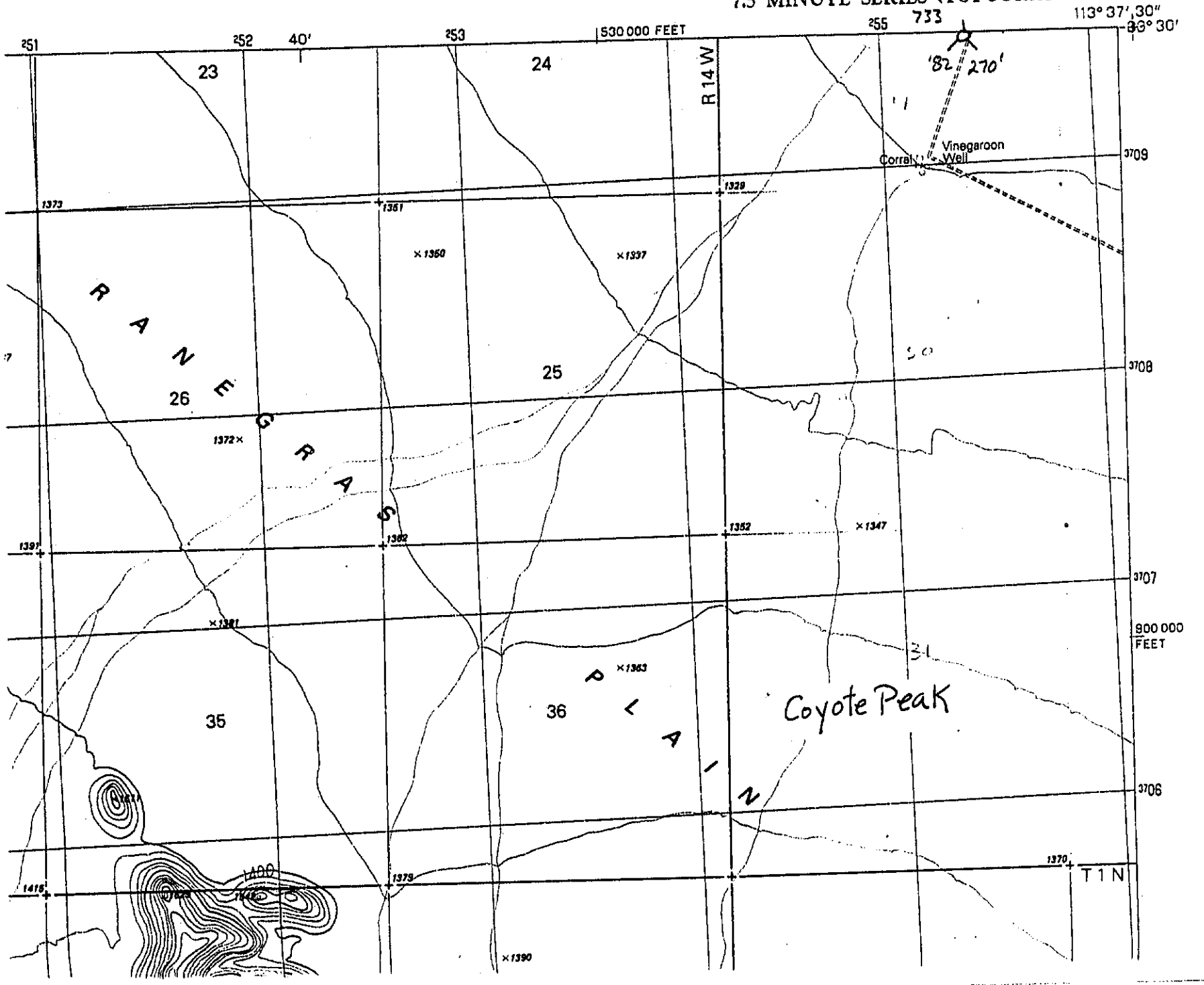
I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed	
Registered Professional Engineer and/or Land Surveyor	
Certificate No.	

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						

COYOTE PEAK QUADRANGLE
ARIZONA
7.5 MINUTE SERIES (TOPOGRAPHIC)



PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-1 FEDERAL (GEOTHERMAL)
(WELL NAME)

See corrected
located ~~2380' FROM SOUTH LINE, 1515' FROM EAST LINE~~ (NE/NW/SE)
2420 fsl 1420 fel

Section 19 Township 2 NORTH Range 13 WEST, La Paz YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 05, SECTION A THRU G (SEC. .G), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 733

RECEIPT NO. 2115

API NO. ~~02-027-20009~~ 012-90001

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-2
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 2250' W 1600' S fr NE cor. Sec. 22	COUNTY: ~~Yuma~~ La Paz
SEC. TWP-RANGE OR BLOCK & SURVEY: T1N-R14W Sec. 22 NW SW NE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
1-3-82	1-4-82		1535'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
280'		to T.D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD / LINER RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.	SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD / ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL	AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 734

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY YUMA
BLOCK
SEC. 22
T. 1N R. 14W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FARM HYDER WELL NO. H-2
SURVEY Temp. Grad. Well
TOTAL DEPTH 280'
CONTRACTOR Burt Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadbuen 1-26-82

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Reed Roller Bit 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

SAND & GRAVEL
AS ABOVE
A.A.
SAND & Fine Gravel
A.A.
A.A.
A.A.
A.A.
ANDESITIC FLOW
ROFA VOLCANICS
A.A. (ANDESITIC TO RHYOLITIC IN COMPOSITION)
A.A.
A.A.
A.A.
A.A.

260
280
A.A.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR: Bureau of Land Management	WELL NUMBER: H-2	ELEVATION (GROUND): 1535'
NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET	
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:	
IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME	ADDRESS	
WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES): 2250' W 1600' S fr NE cor. Sec. 22	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY: T1N, R14W, Sec. 22, NW,SW,NE	DEDICATION (COMPLY WITH RULE G-105)
FIELD AND RESERVOIR (IF WILDCAT, SO STATE): Temperature Gradient Well	COUNTY: Yuma County	
DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE		
PROPOSED DEPTH: 300'	ROTARY OR CABLE TOOLS: Rotary	APPROX. DATE WORK WILL START: September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT: AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 734
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SIGN ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

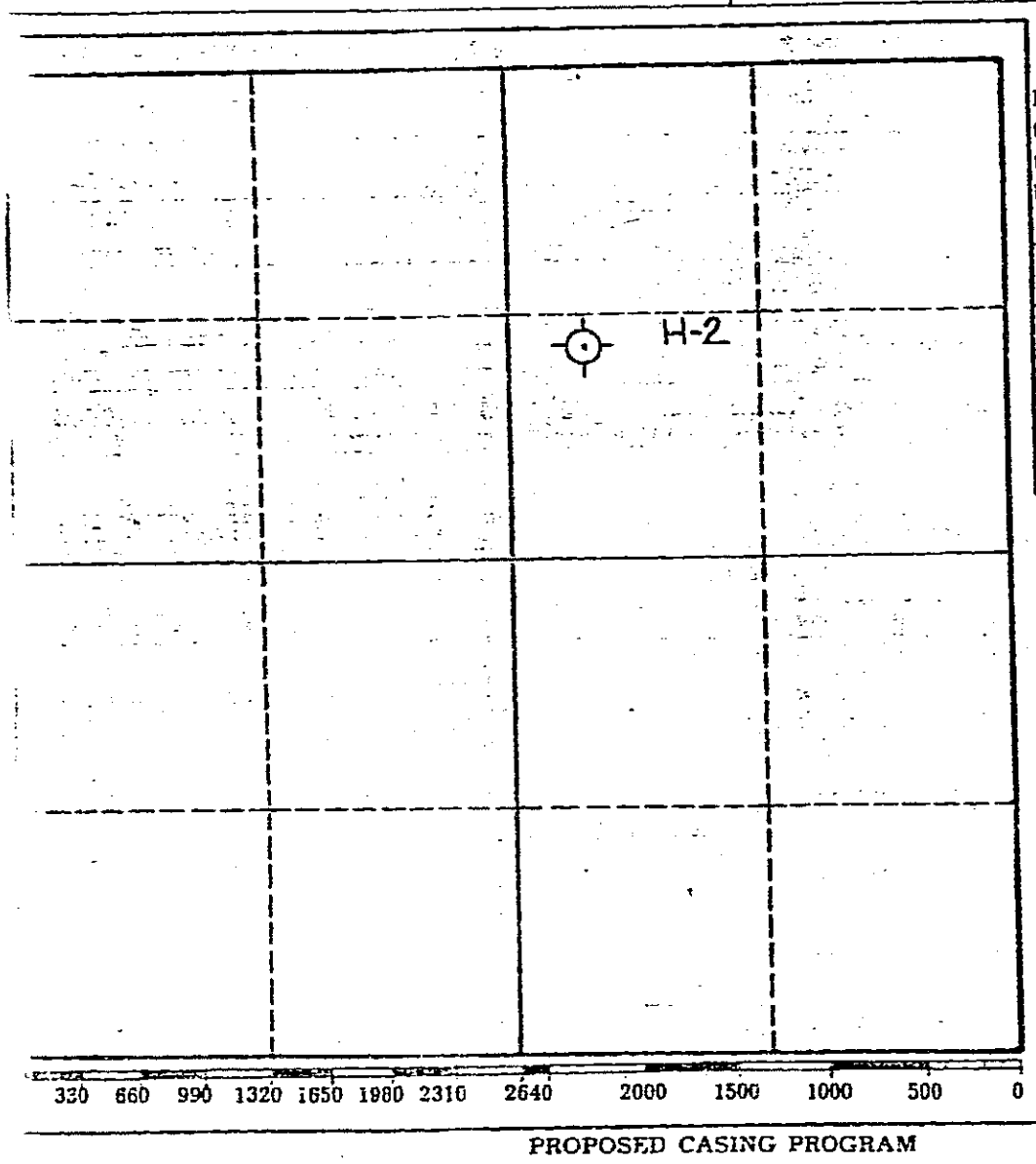
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T1N, R14W, Sec. 22



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: Irwin Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

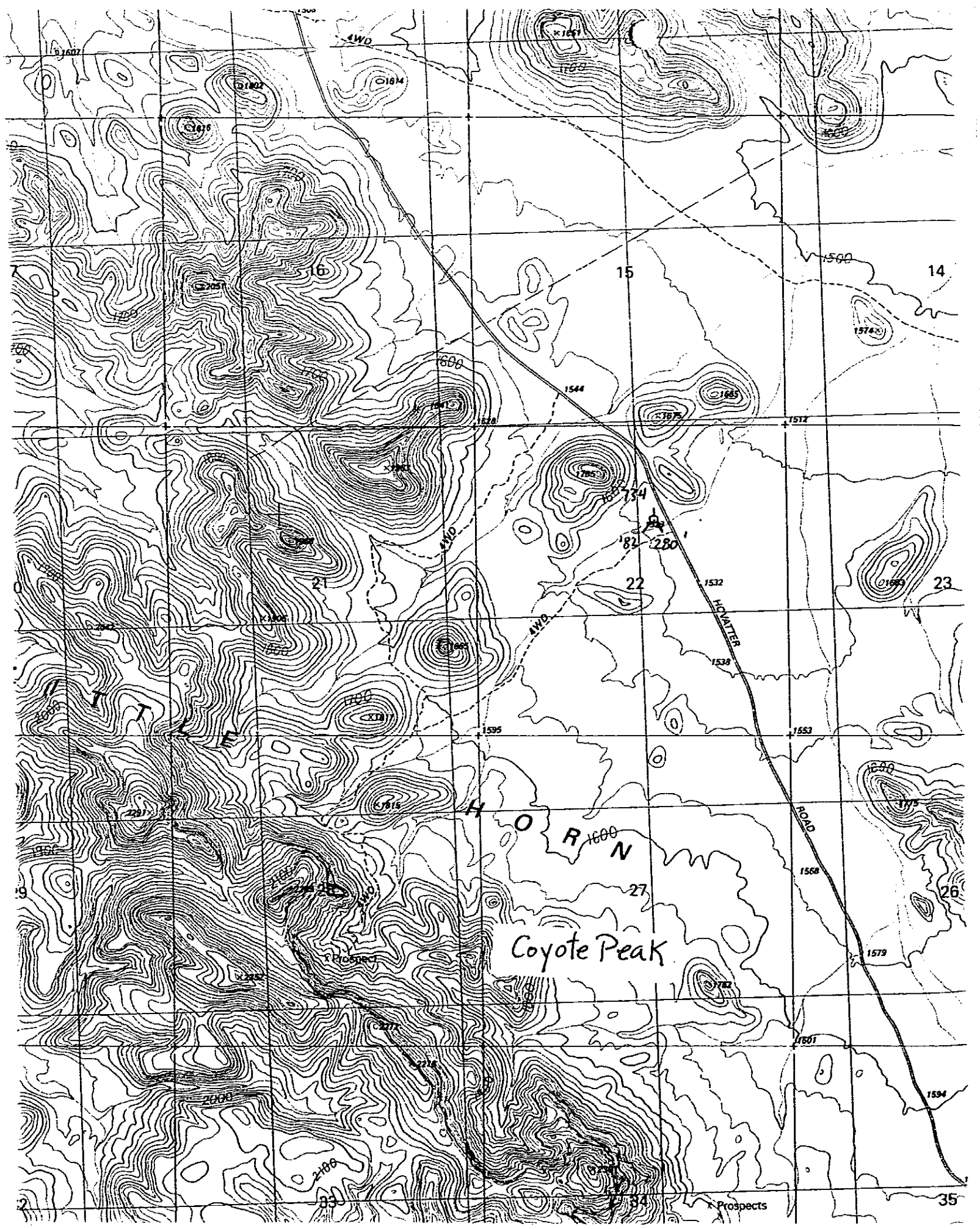
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


4WD
1600
1500
1544
1512
1532
HOVATTER
ROAD
1538
1595
1553
1568
1579
1501
1594
1574
1665
1675
1655
1693
1775
1782
16
15
14
21
22
23
27
26
33
34
35
734
280
Prospect
Prospects
Coyote Peak
H O R N
T I T L E

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-2 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1600' FROM NORTH LINE, 2250' FROM EAST LINE (NW/SW/NE)

Section 22 Township 1 NORTH Range 14 WEST, La Paz YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL
YOU MUST BE IN FULL COMPLIA CE WITH RULE
, SECTION A THRU G (S.. C...G, WITH RESPEC
THE PRODUCT TO BE PRODUCED.

PERMIT Nº 734

RECEIPT NO. 2115
API NO. 02-027-~~20010~~ 012 90002

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-3 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 2120' E 100' N fr SW cor. Sec. 22	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T1N-R13W Sec. 27 SE SE SW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR.)) FEET	ELEVATION OF CASING HD. FLANGE FEET
(Not Drilled)			1425'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 735

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

DETAIL OF FORMATIONS PENETRATED

FORMATION	TOP	BOTTOM	DESCRIPTION*
*See attached lithologic log and/or driller's log			

* SHOW ALL IMPORTANT ZONES OF POROSITY, DETAIL OF ALL CORES, AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES.

INSTRUCTIONS:

ATTACH DRILLERS LOG OR OTHER ACCEPTABLE LOG OF WELL.

THIS WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG SHALL BE FILED WITH THE STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION NOT LATER THAN THIRTY DAYS AFTER PROJECT COMPLETION.

FORM NO. G-4

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR: Bureau of Land Management	WELL NUMBER: H-3	ELEVATION (GROUND): 1425'
NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET	
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:	
IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME	ADDRESS	

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES): 2120' E 100' N fr SW cor. Sec. 22	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY: T1N, R13W, Sec. 22, SE,SE,SW	DEDICATION (COMPLY WITH RULE G-105)
FIELD AND RESERVOIR (IF WILDCAT, SO STATE): Temperature Gradient Well	COUNTY: Yuma County	

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH: 300'	ROTARY OR CABLE TOOLS: Rotary	APPROX. DATE WORK WILL START: September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 735
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[redacted]

[redacted]

...L SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

... REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL ...OW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

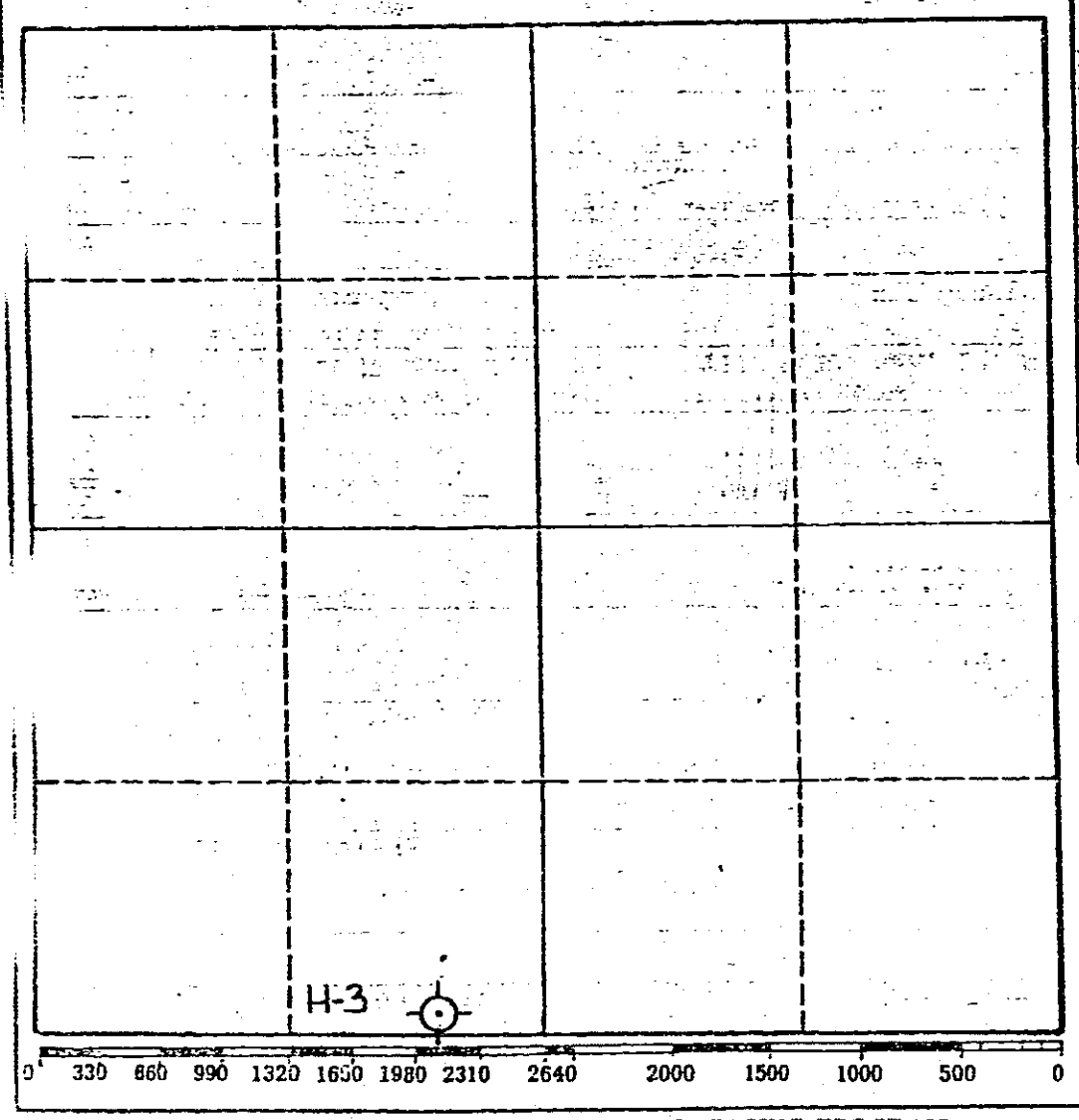
...L DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

...S THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO_____

...F THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT ...R OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION_____

...F THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

...wner	Land Description
Bureau of Land Management	T1N, R13W, Sec. 22



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: [signature]

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
...6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. ...n and abandon within one year.						

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPA PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-3 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 100' FROM SOUTH LINE, 2120' FROM WEST LINE (SE/SE/SW)

Section 22 Township 1 NORTH Range 13 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 103, SECTION A [illegible] TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 735

RECEIPT NO. 2115

API NO. 02-027-20011

Permit expired

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-4
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 2590' N 610' W fr SE cor. Sec. 21	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T1N-R12W Sec. 21 NE NE SE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
(Not Drilled)			1480'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 736

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

DETAIL OF FORMATIONS PENETRATED

FORMATION	TOP	BOTTOM	DESCRIPTION*
*See attached lithologic log and/or driller's log			

* SHOW ALL IMPORTANT ZONES OF POROSITY, DETAIL OF ALL CORES, AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES.

INSTRUCTIONS:

ATTACH DRILLERS LOG OR OTHER ACCEPTABLE LOG OF WELL.

THIS WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG SHALL BE FILED WITH THE STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION NOT LATER THAN THIRTY DAYS AFTER PROJECT COMPLETION.

FORM NO. G-4

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES

APPLICATION TO DRILL ☐ DEEPEN ☐ PLUG BACK ☐ RE-ENTER ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-4	1480'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL- COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
2590' N 610' W fr SE cor. Sec. 21	T1N, R12W, Sec. 21, NE, NE, SE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Mary Sadbury
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 736
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

2. OPERATOR SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

3. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

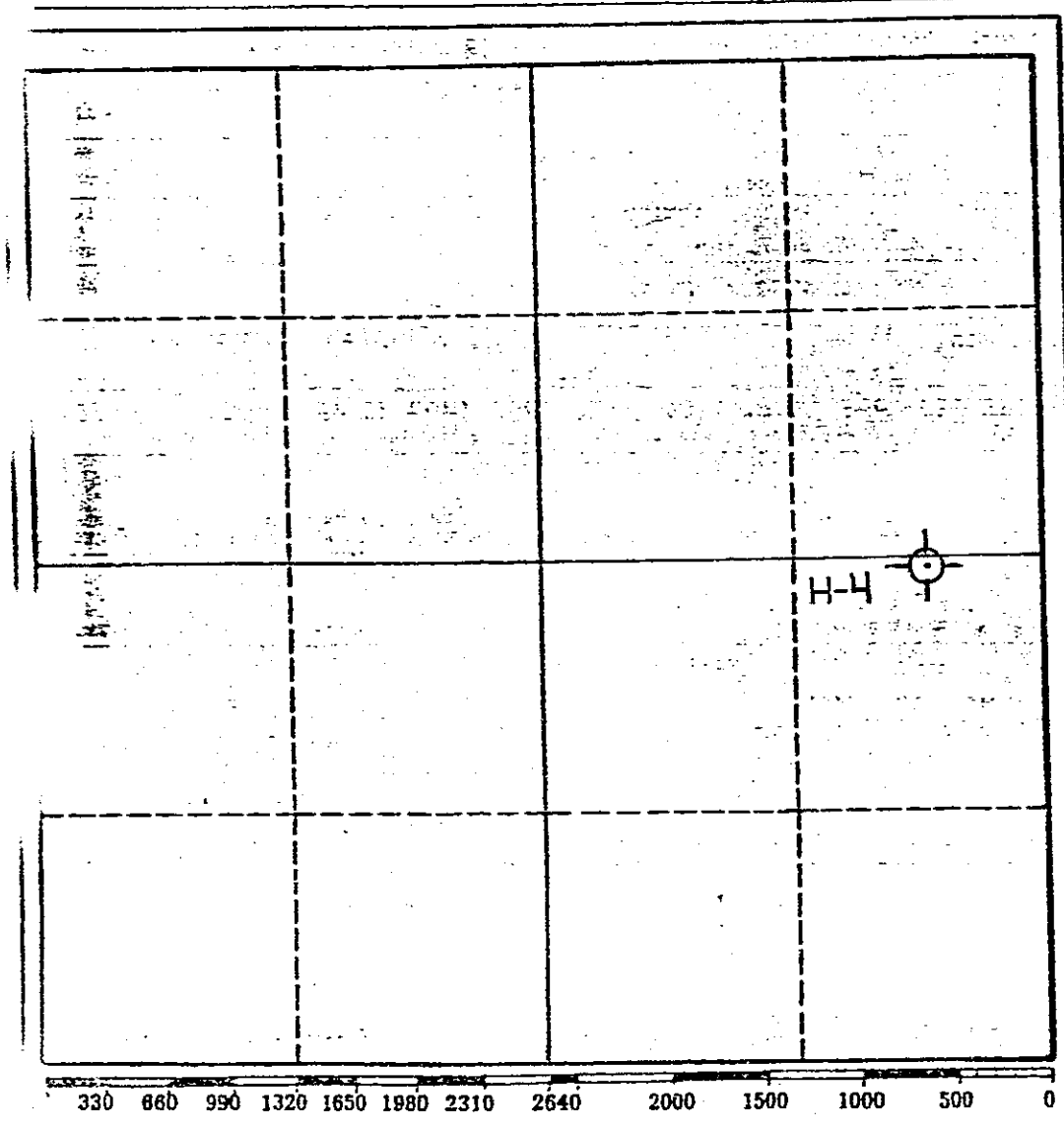
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

F THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

ner	Land Description
Bureau of Land Management	T1N, R12W, Sec. 21



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: L. Truc Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-4 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 2590' FROM SOUTH LINE, 610' FROM EAST LINE (NE/NE/SE)

Section 21 Township 1 NORTH Range 12 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A AND B OF THE C.C. WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 736

RECEIPT NO. 2115

API NO. 02-027-20012

permit expired

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED

FEB 4 19

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-5
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 2680' N 435' W fr SE cor. Sec. 22	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T1S-R14W Sec. 22 SE SE NE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
1-1-82	1-2-82		1530'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
302'		To T.D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 737

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-1

(COMPLETE REVERSE SIDE)

ARIZONA ..... Phillips Petroleum

COUNTY

BLOCK

SEC. 22

T. 15 S. R. 14 W.

ALTITUDE

PRODUCTION

FARM HYDER WELL NO. H-5

SURVEY Temp. Grad. Well

TOTAL DEPTH 302'

CONTRACTOR Burt Drilling Inc.

COMMENCED

COMPLETED

REMARKS Logged by G. Chadburn 1-26-82

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Reeves 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

BOULDERS & SAND

COARSE GRAVEL

FINE GRAVEL & SAND

BOULDERS & SAND

FINE GRAVEL & SAND

TUFF

A.A.

FINE GRAVEL

ANDESITE KOFA VOLCANICS

A.A.

A.A.

A.A.

A.A.

A.A.

A.A.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☒ Amended Location RE-ENTER OLD WELL ☐

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 655 East 4500 South CITY Murray STATE Utah

RECEIVED
SEP 16 1981
O & G CONS. COMM.

DRILLING CONTRACTOR
Burt Drilling Inc.

ADDRESS 2755 S. 1600 W., Mapleton, Utah

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-5	1530'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
2680' N 435' W fr SE cor. Sec 22	T1S, R14W, Sec. 22, SE,SE,NE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature gradient well	Yuma

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 20, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Co. (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Cadburn
SIGNATURE

September 14, 1981
DATE

PERMIT NUMBER: 737
APPROVAL DATE: 9-18-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

Corrected location

1. OPERATOR SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

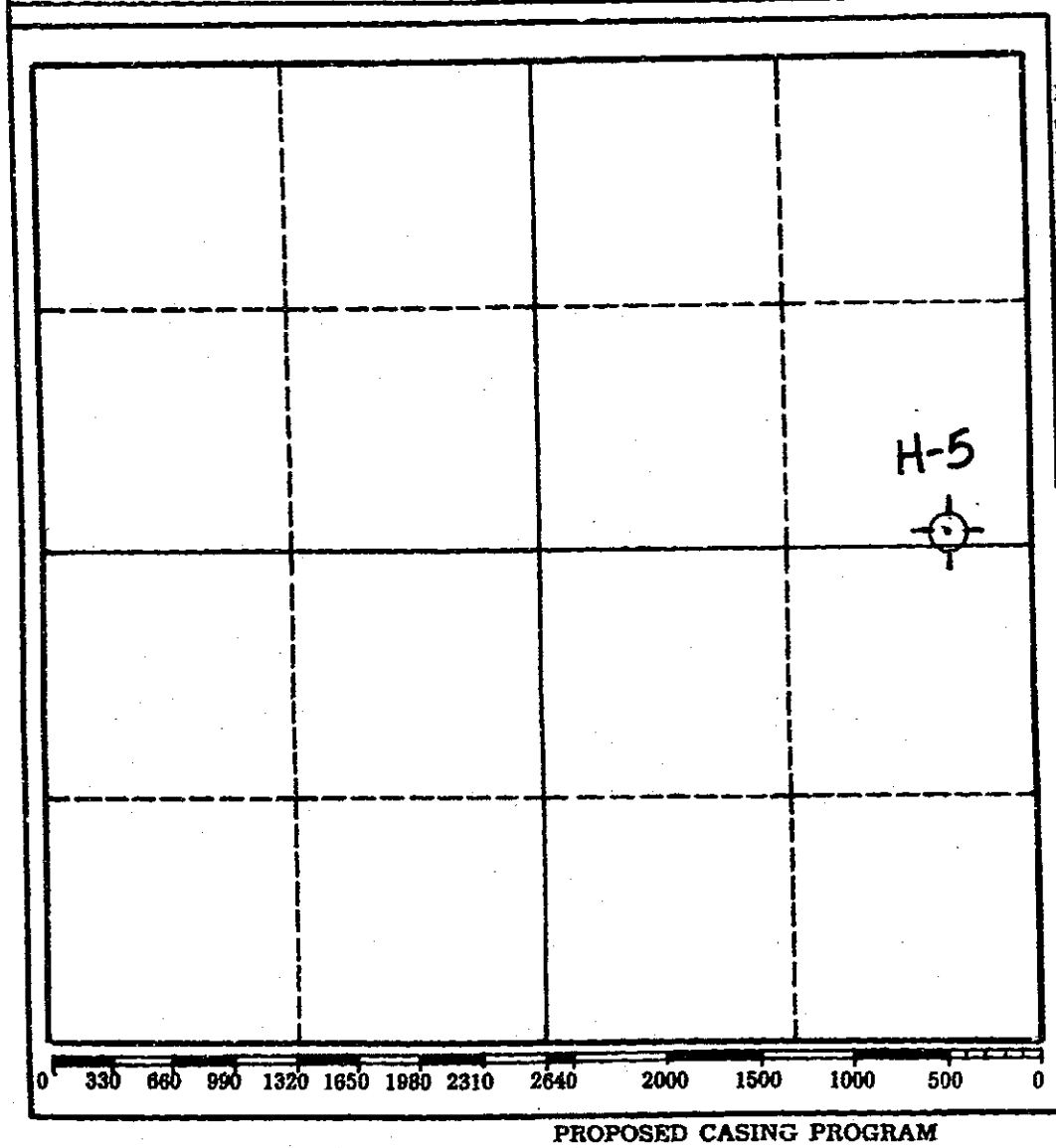
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T 1 S, R 14 W, Section 22



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: Gary Gladburn

Position: Geologist

Company: Phillips Petroleum Co.

Date: September 14, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. filled with water. Measure temperature herein. Plug and abandon within one year.		Install 1" PVC pipe to T.D. Plugged at bottom and				

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-5	1530'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
2250' N, 130' E fr. SW cor. Sec. 23	T1S, R14W, Sec. 23, NW,NW,SW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT: AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gradburn
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 737
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES

FORM NO. G-3

(COMPLETE REVERSE SIDE)

. [illegible] SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

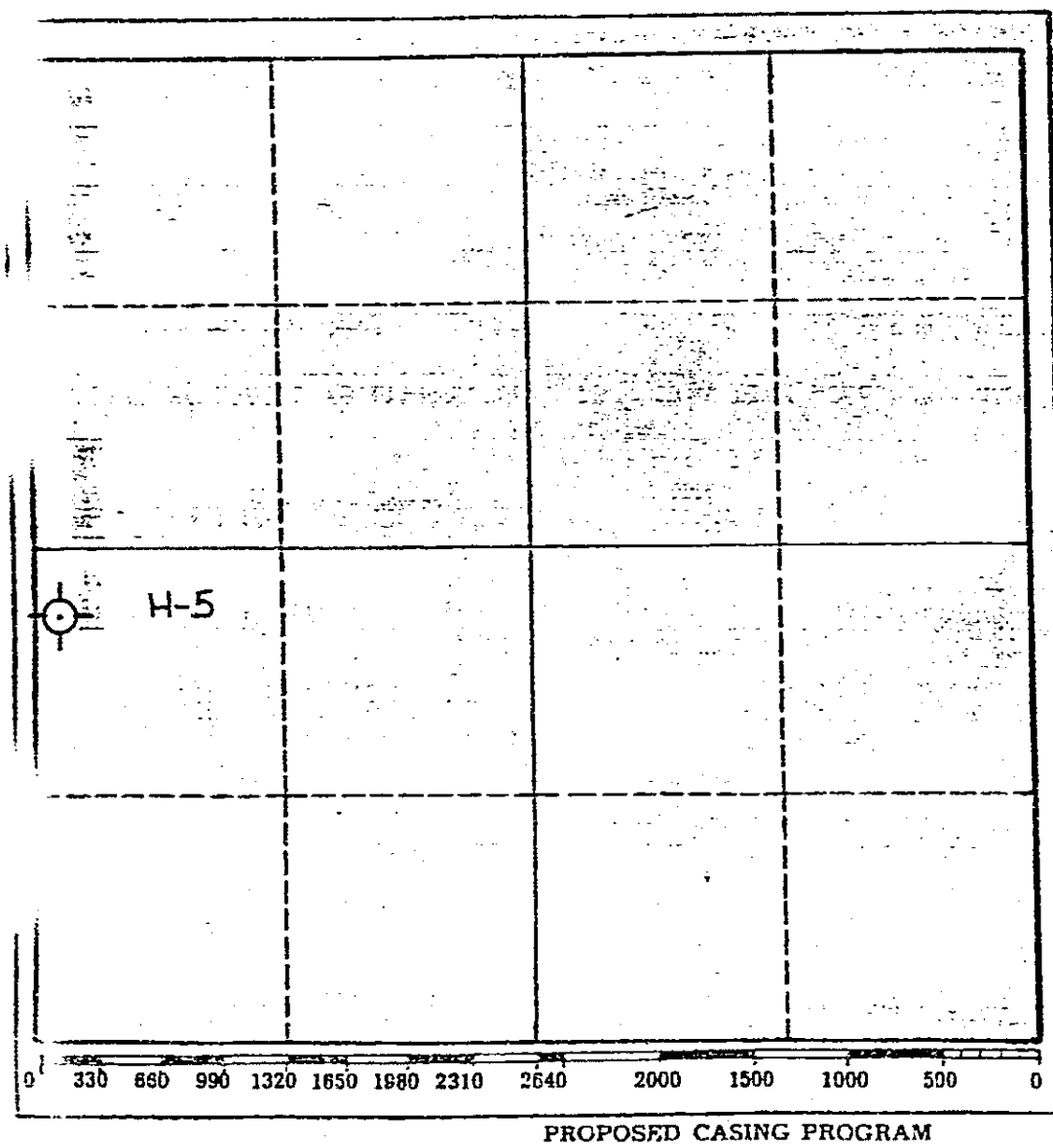
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T1S, R14W, Sec. 23



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: K. Thru Gradbaen

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

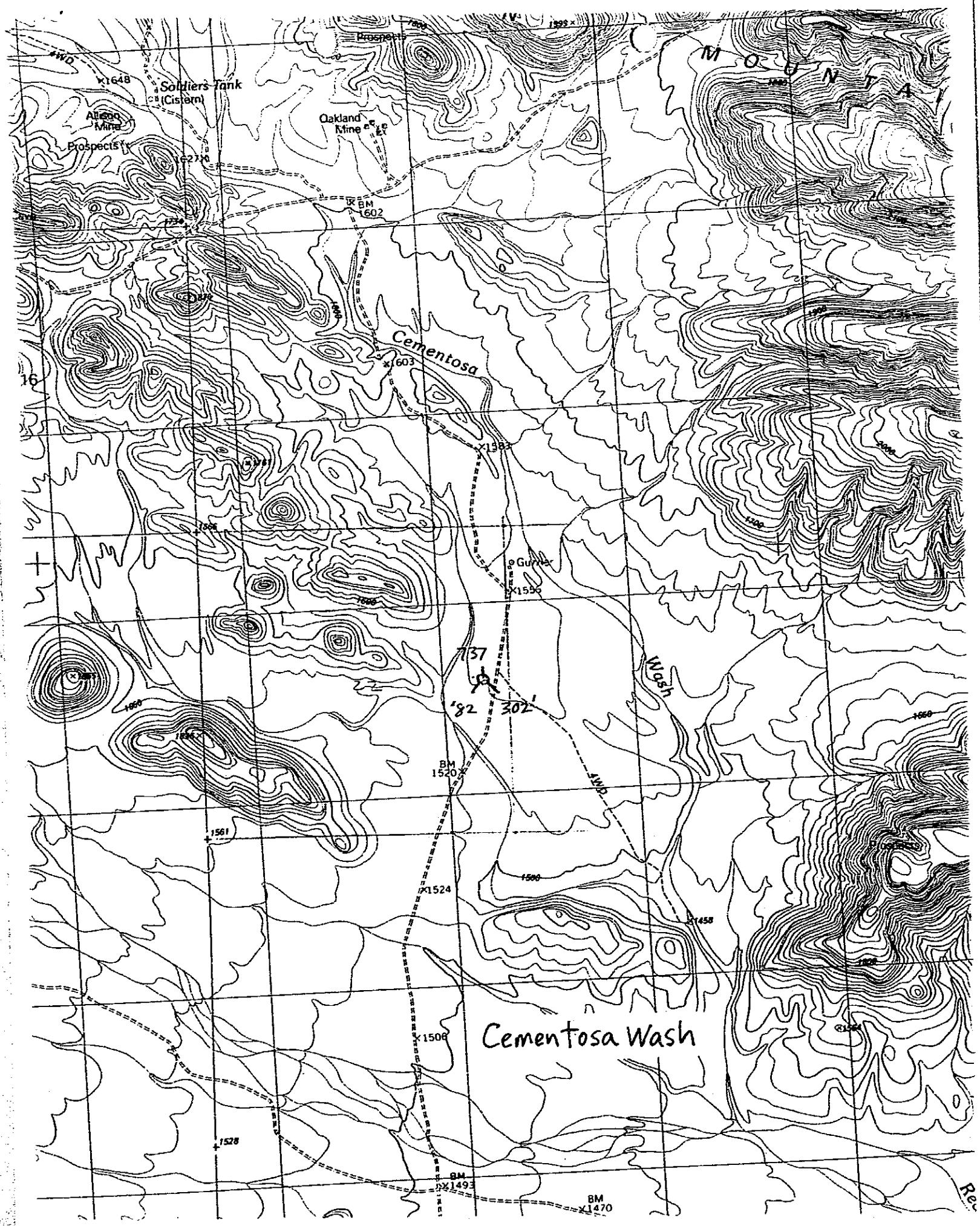
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


Prospects
4WD
×1648
Soldiers Tank
(Cistern)
Allegro
Mine
Prospects
Oakland
Mine
MOUNTAIN
BM
1602
Cementosa
×1603
16
×1582
Gunner
×1559
737
'82
302'
Wash
4WD
BM
1520
1561
×1524
×1458
×1506
Cementosa Wash
1528
BM
×1493
BM
×1470

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-5 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 2250' FROM SOUTH LINE, 130' FROM WEST LINE (NW/NW/SW)

Section 23 Township 1 SOUTH Range 14 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 737

RECEIPT NO. 2115

API NO. 02-027-~~20015~~ 90003

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB. 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPER [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-6 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 1385' N 1470' E fr SW cor. Sec. 15	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T1S-R12W Sec. 15 SW NE SW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
12-16-81	12-16-81		1265'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
249'		To T.D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES — TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 738

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-3

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY YUMA
BLOCK
SEC. 15
1S 12W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FARM HYDER WELL NO. H-6
SURVEY Temp. Grad. Well
TOTAL DEPTH 249'
CONTRACTOR Burt Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadbuen 2-1-82

CASING RECORD

SIZE | SHOT | FROM | QUARTS | BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Electrolog 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

0	CLAY
10	MINOR SAND
0	SAND & GRAVEL
	MINOR CLAY
	SAND & GRAVEL
	AS ABOVE
	A.A.
	A.A.
	A.A.
	A.A.
	A.A.
	A.A.
	A.A.
	A.A.
	A.A.

200

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL [X] RE-ENTER OLD WELL [ ]

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 655 East 4500 South CITY Murray STATE Utah

RECEIVED
SEP 16 1981
O & G CONS. COMM.

DRILLING CONTRACTOR Burt Drilling Inc.

ADDRESS 2755 S. 1600 W., Mapleton, Utah

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-6	1265'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
1385' N 1470' E fr SW cor. Sec 15	T1S, R12W, Sec 15, SW NE SW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature gradient well	Yuma

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 20, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Co. (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gladburn
SIGNATURE

September 14, 1981
DATE

PERMIT NUMBER: 738
APPROVAL DATE: 9/18/81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

corrected location

1. OPERATOR SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

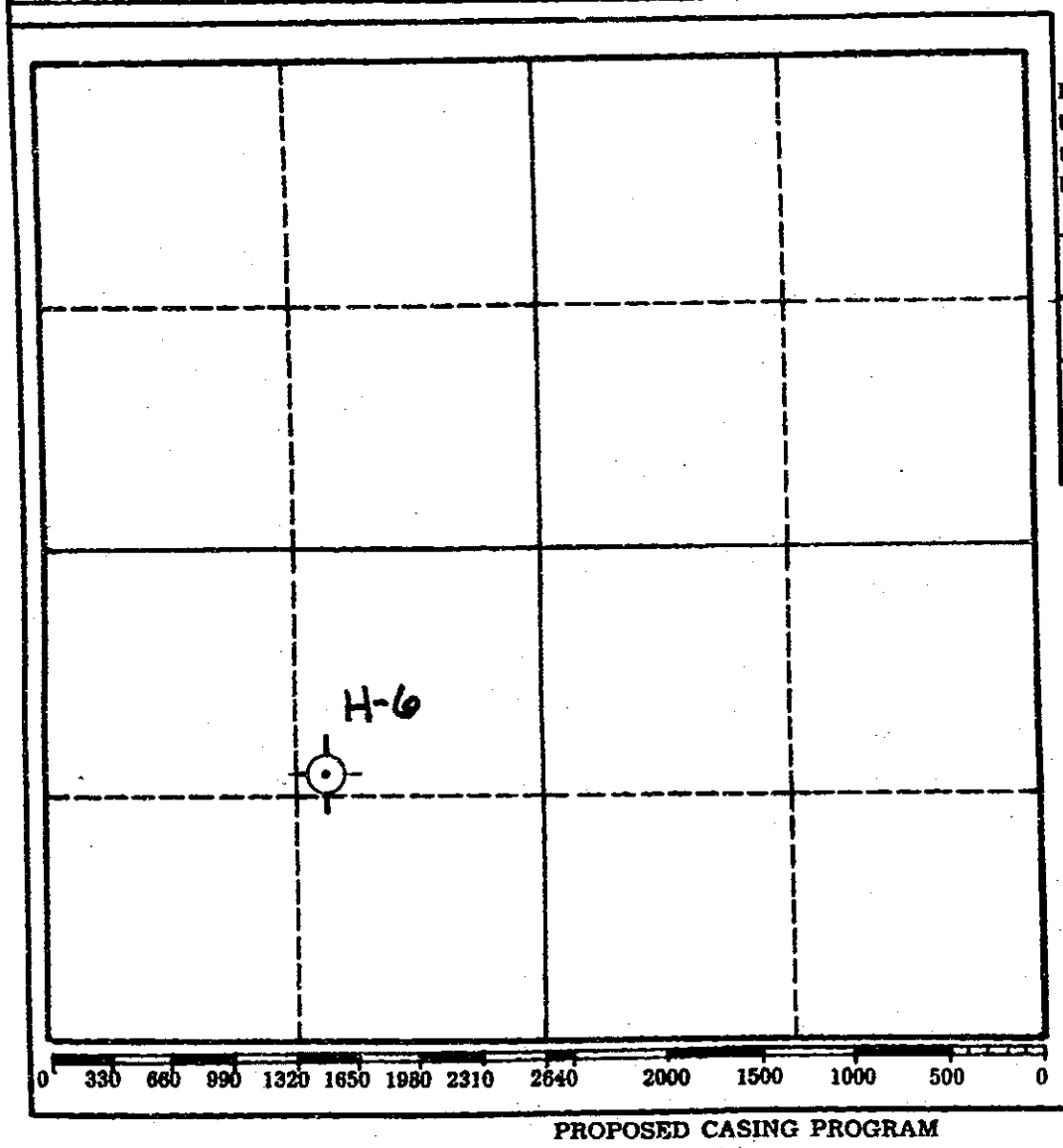
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T 1 S, R 12 W, Section 15



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: Gary Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: September 14, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed:

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year						

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR: Phillips Petroleum Company		
ADDRESS: 431 South 300 East	CITY: Salt Lake City	STATE: Utah
DRILLING CONTRACTOR: Dixie Drilling Company (if available)		
ADDRESS: Fernley, Nevada		

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE. NAME OF LESSOR: Bureau of Land Management	WELL NUMBER: H-6	ELEVATION (GROUND): 1265'
NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET	
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:	
IF LEASE PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME	ADDRESS	
1385 1470		
WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES): ~~1685'~~ N ~~1385~~ E fr SW cor. Sec. 15	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY: T1S, R12W, Sec. 15, SW, ~~NE~~, SW	DEDICATION (COMPLY WITH RULE G-105)
FIELD AND RESERVOIR (IF WILDCAT, SO STATE): Temperature Gradient Well	COUNTY: Yuma County	
DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE		
PROPOSED DEPTH: 300'	ROTARY OR CABLE TOOLS: Rotary	APPROX. DATE WORK WILL START: September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT: ON FILE OR ATTACHED	FILING FEE OF $25.00: ATTACHED
REMARKS:		

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Mary Ladburn
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 738
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES

FORM NO. G-3

(COMPLETE REVERSE SIDE)

[redacted]

[redacted]

...T'R SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

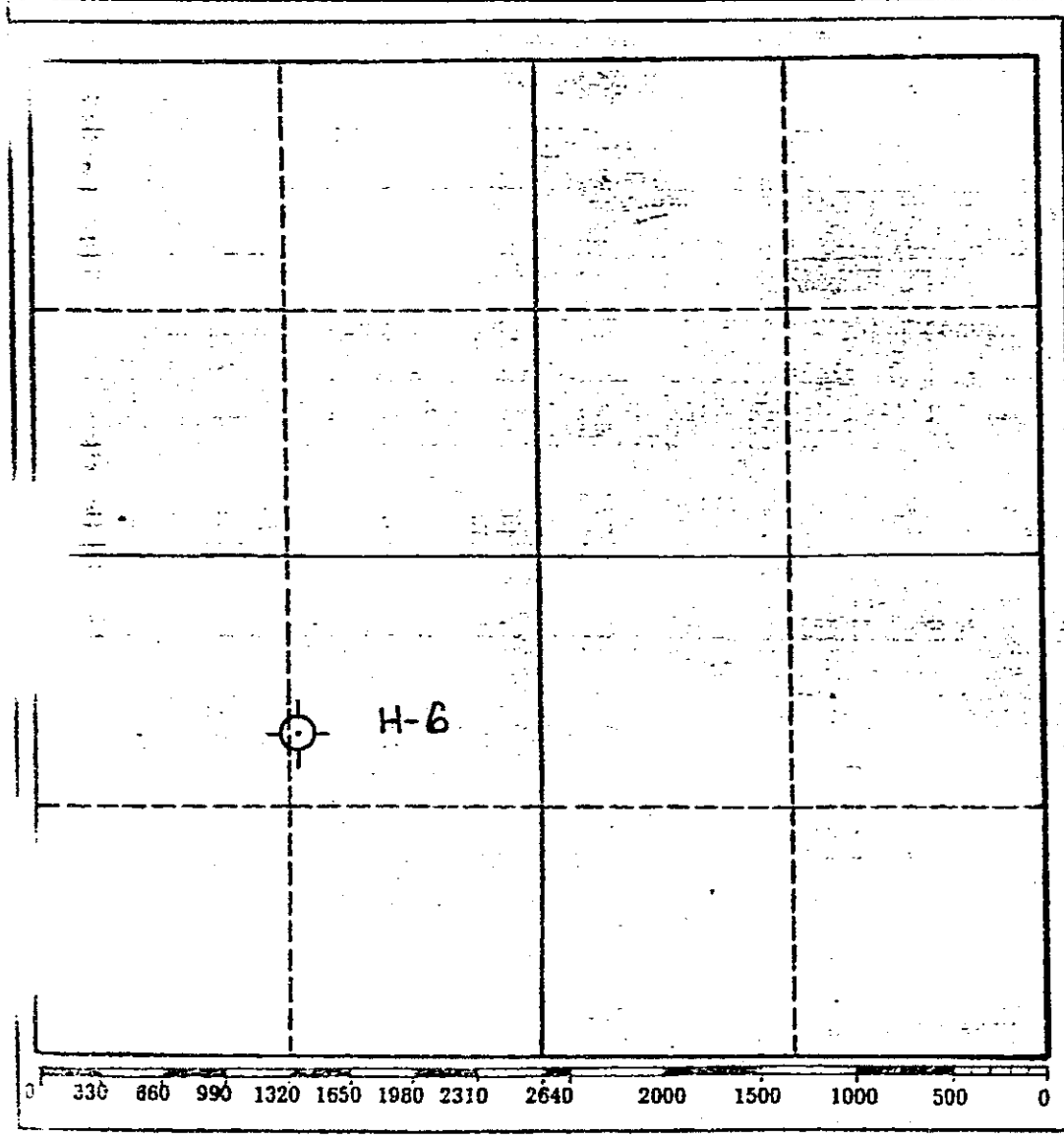
ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

S THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

F THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

...ner	Land Description
Bureau of Land Management	T1S, R12W, Sec. 15



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: [signature]

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

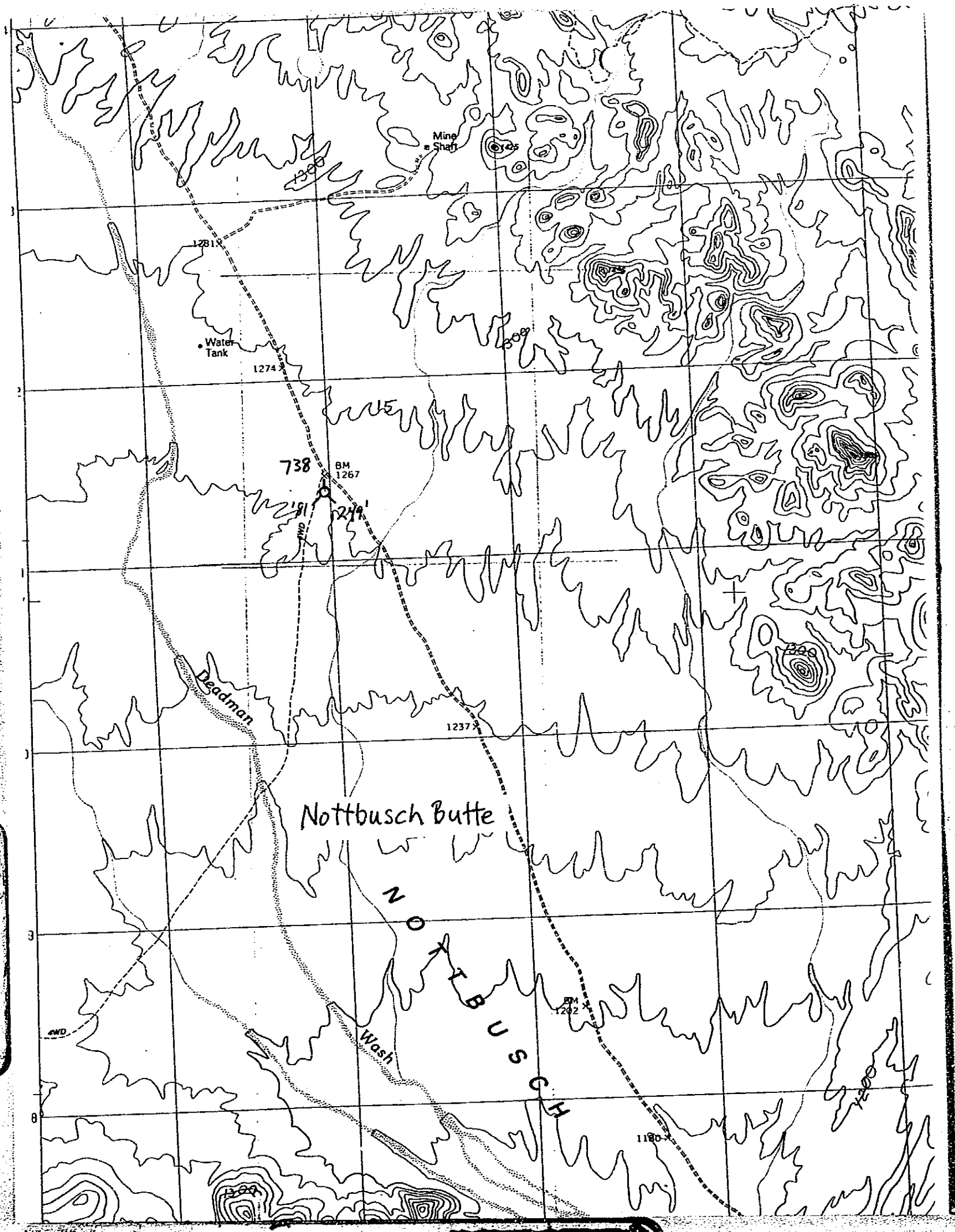
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


Mine Shaft
1265
1300
1281
Water Tank
1274
1300
738
BM 1267
1249
Deadman
1237
Nottbusch Butte
NOTTBUSCH
BM 1202
4WD
Wash
1200
1180
1300

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-6 FEDERAL (GEOTHERMAL)
(WELL NAME)

located ~~1685'~~ 1385' FROM SOUTH LINE, ~~1385'~~ 1470' FROM WEST LINE (~~SW/NE/SW~~)

Section 15 Township 1 SOUTH Range 12 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 10b, SECTION A THRU G (S.R.C. .G), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 738

RECEIPT NO. 2115

API NO. 02-027-~~20014~~ 90019

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-7
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 750' S 1060' E fr NW cor. Sec. 4	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T2S-R13W Sec. 4 SE NW NW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT. OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
12-31-81	1-1-82		1270'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
305		To T.D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 739

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA
STATE YUMA
BLOCK
SEC. 4
T. 2S R. 13W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FARM HYDER WELL NO. A-7
SURVEY Temp. Grad. Well

TOTAL DEPTH 305'
CONTRACTOR Burt Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chatburn 1-26-82

CASING RECORD

SHOE | QUARTS | BETWEEN

TIME RATE SCALE 1/10" = MINUTES

Neo-Log 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

0
10
20
30
40
50
60
70
80
90
100
110

BOULDERS & SAND
AS ABOVE
COARSE GRAVEL & SAND
A.A.
A.A.
GRAVEL (Loosely packed) & SAND
A.A.
A.A.
A.A.
SAND some GRAVEL
SAND (COARSE) white
SAND (FINE)

260
280
300

SAND (COARSE)
SAND (FINE) red brown

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☒ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-7	1270'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL: COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
750' S 1060' E fr NW cor. Sec. 4	T2S, R13W, Sec. 4, SE, NW, NW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'-	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gladburn
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 739
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION MUST SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

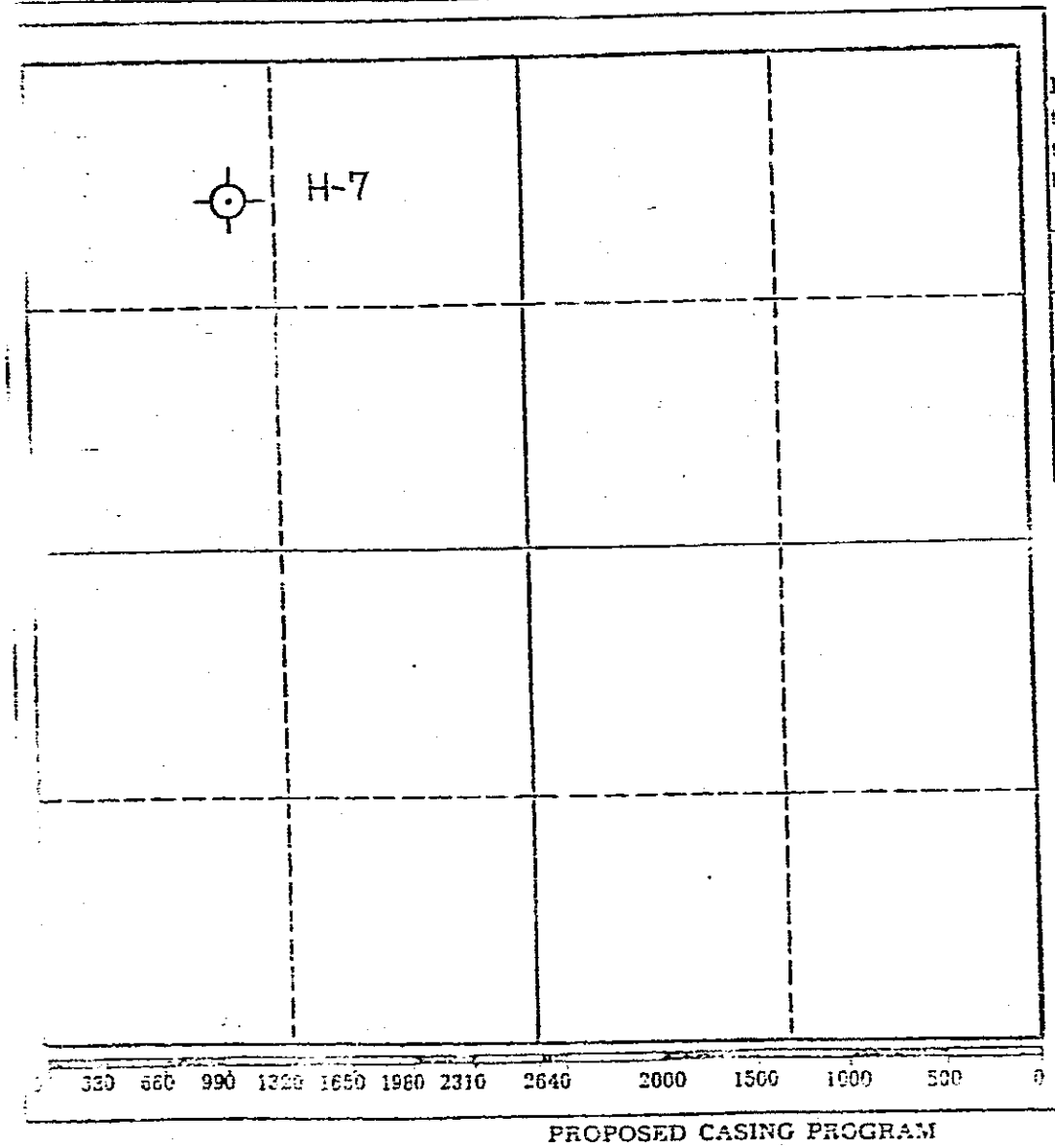
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T2S, R13W, Sec. 4



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: [illegible] Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						

1. [illegible] SHOW OUTLINE THE ACREAGE [illegible]

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHOWN ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

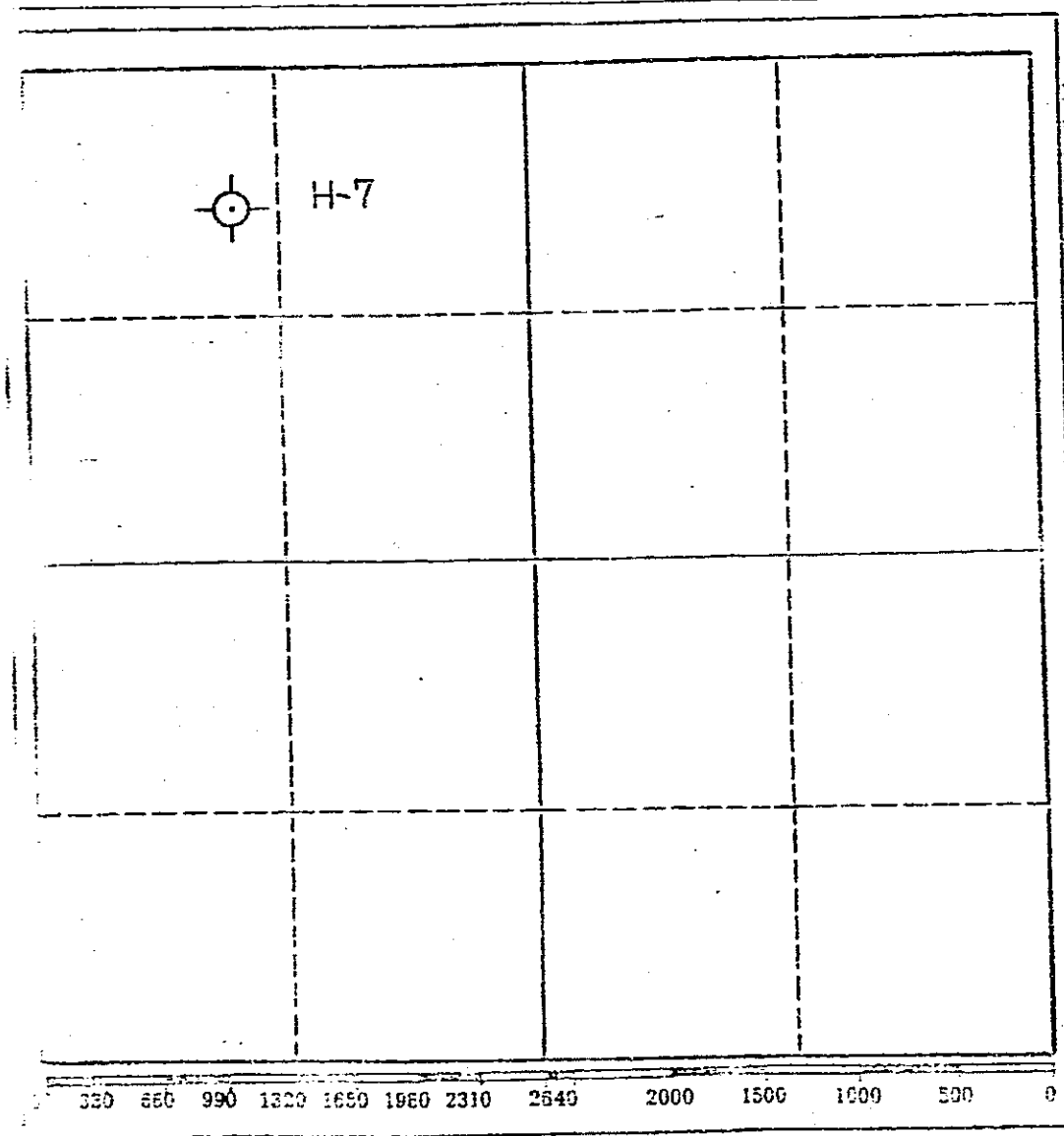
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO_____

IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T2S, R13W, Sec. 4



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: M. L. Gradbeer

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

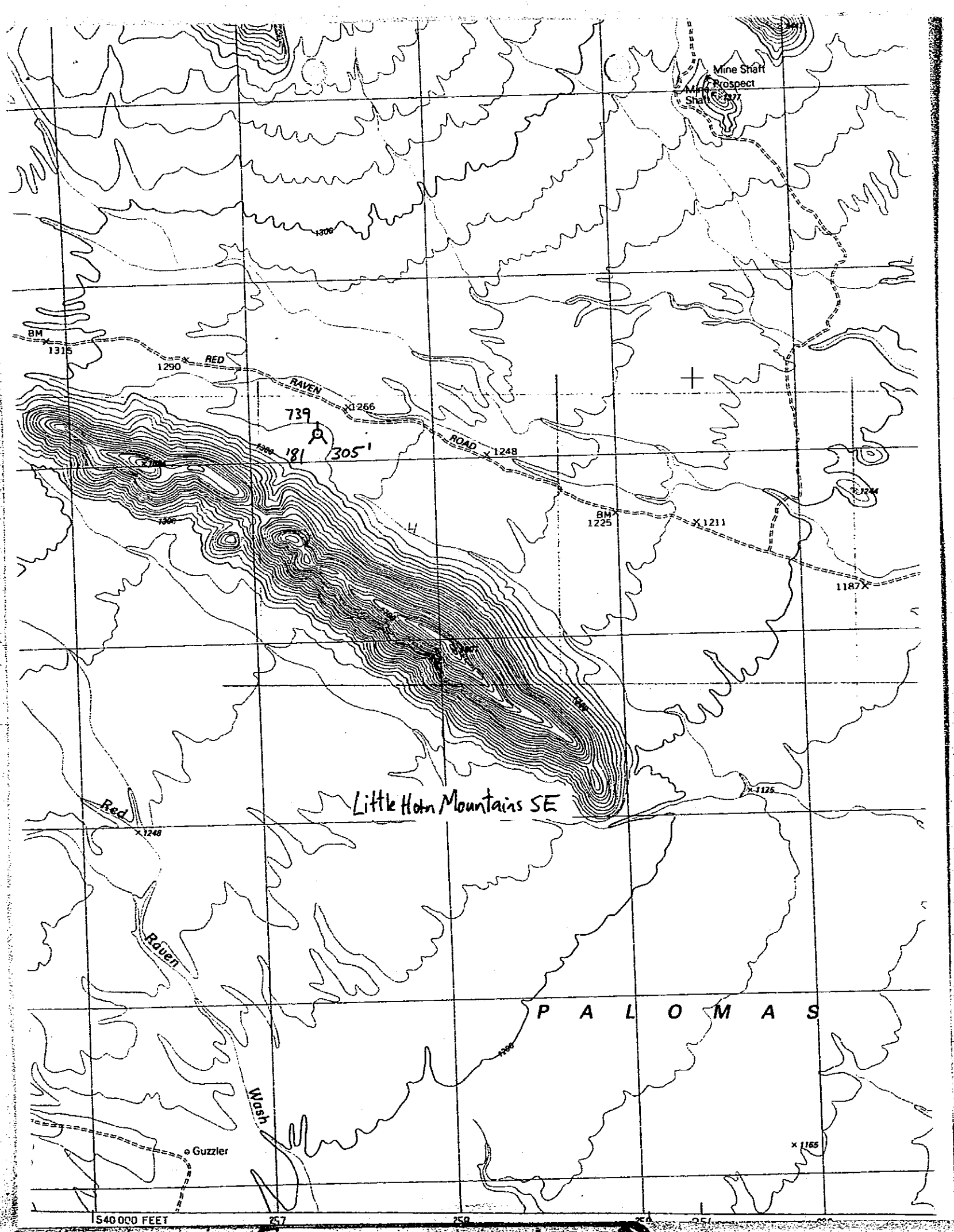
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


Mine Shaft
Prospect
Mine Shaft
1306
BM
1315
RED
1290
RAVEN
1266
739
181
305'
ROAD
1248
1306
BM
1225
1211
1187
1244
Little Horn Mountains SE
Red
1248
Raven
Wash
Guzzler
1125
1165
P A L O M A S
1200
540 000 FEET
257
258

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-7 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 750' FROM NORTH LINE, 1060' FROM WEST LINE (SE/NW/NW)

Section 4 Township 2 SOUTH Range 13 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 739

RECEIPT NO. 2115 20004
API NO. 02-027-~~20015~~

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-8
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 605' E 820' S fr NW cor. Sec. 33	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T1S-R11W Sec 33 SW NW NW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
11-15-81	11-16-81		1223	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
303'			To T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG	LBS./HR	TEMP. °F	PRES. PSIG	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO: 740

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY YUMA
BLOCK
SEC. 33
T. 1S R. 11W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FARM HYDER WELL NO. H-8
SURVEY Temp. Grad. Well
TOTAL DEPTH 303'
CONTRACTOR BURT Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 2-1-82

CASING RECORD

SHOT | QUARTS | BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Kroflite 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

SAND & GRAVEL
AS ABOVE
A.A.
A.A.
A.A.
A.A.
A.A.
SAND & FINE GRAVEL
A.A.
BASALT
SAND & GRAVEL

A.A.
A.A.
A.A.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OIL WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-8	1223'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
605' E 820' S fr NW cor. Sec. 33	T1S, R11W, Sec. 33, SW, NW, NW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 740
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

1. OPERATOR SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES AND/OR GAS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

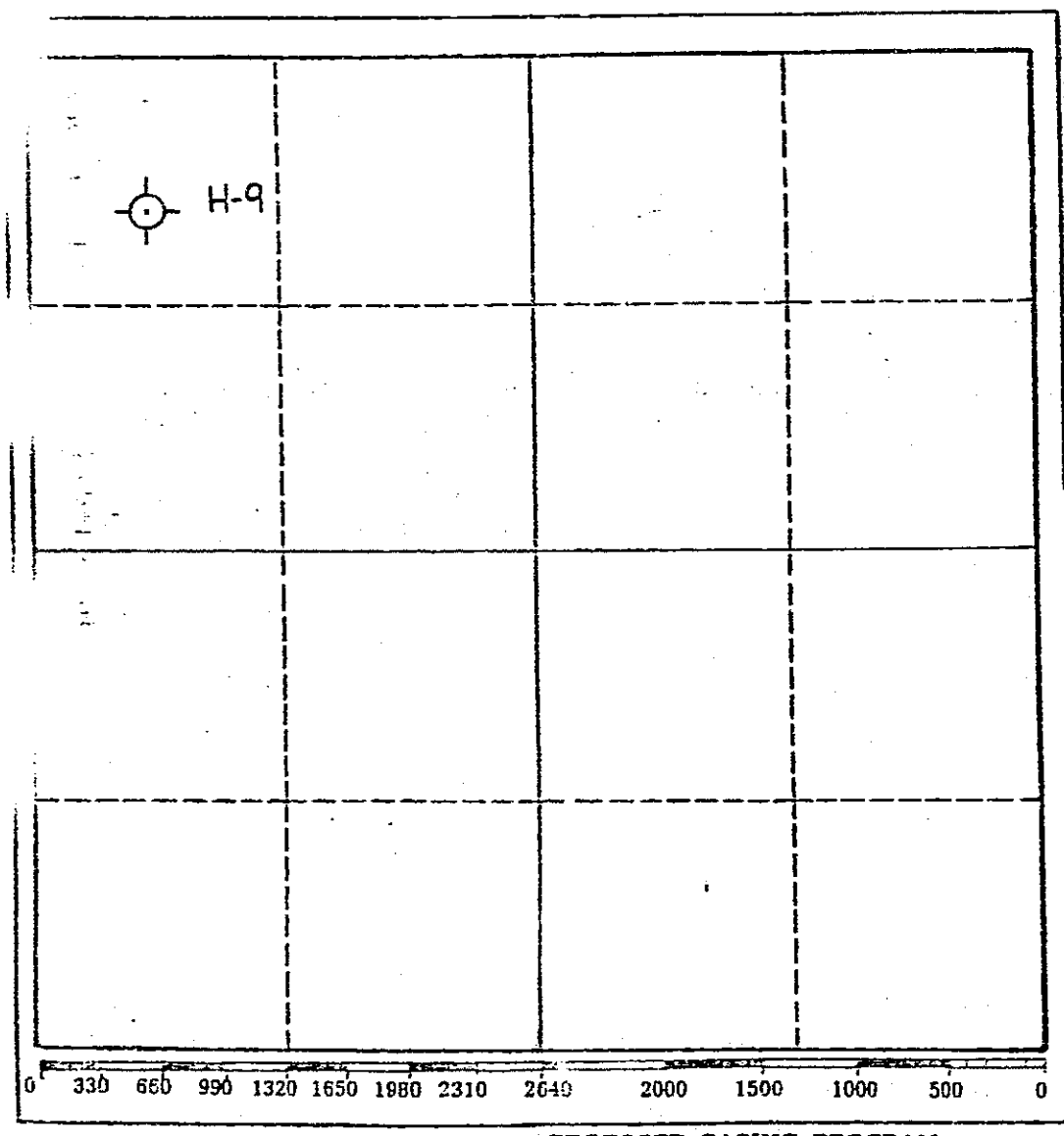
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T1S, R11W, Sec. 33



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: Ivan Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

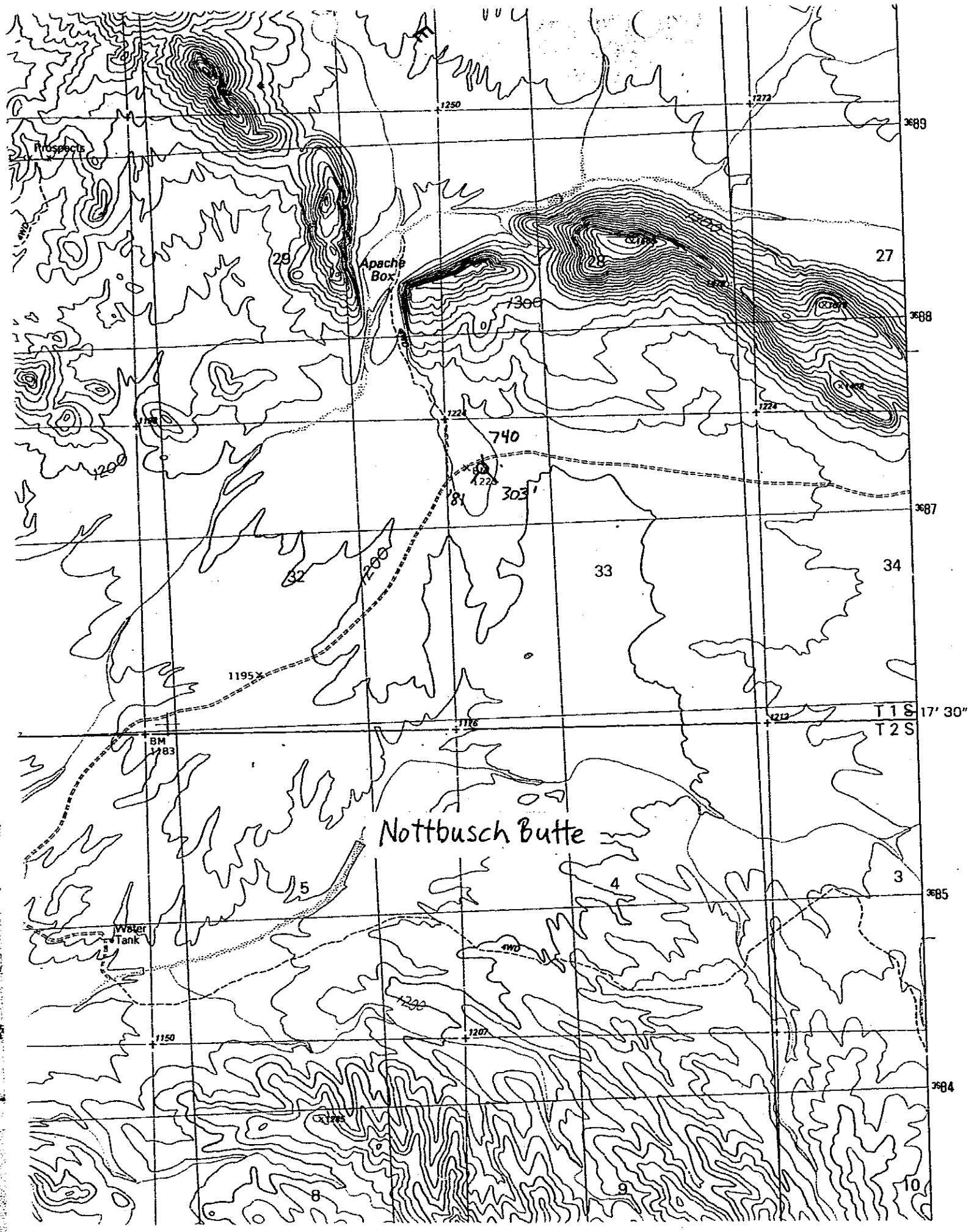
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


Prospects
Apache Box
28
27
33
34
32
740
303'
1300
1200
1195
BM 1183
Nottbusch Butte
Water Tank
5
4
3
8
9
10
T 1 S
T 2 S
17' 30"
3689
3688
3687
3685
3684

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-8 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 820' FROM NORTH LINE, 605' FROM WEST LINE (SW/NW/NW)

Section 33 Township 1 SOUTH Range 11 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (S-O-G-G) WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 740

RECEIPT NO. 2115
API NO. 02-027-~~20016~~ 90005

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-9
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 325' W 1470' S fr NE cor. Sec. 9	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T2S-R12W Sec. 9 NE SE NE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
11-17-81	11-18-81		1080'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
303'			to T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 741

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE ~~REVERSE~~ SIDE)

ARIZONA
COUNTY YUMA
BLOCK
SEC. 9
T. 2S R. 12W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FIELD HYDER
FARM H-9
STATE Temp. Grad. Well
TOTAL DEPTH 303'
CONTRACTOR Burt Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 2-1-82

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

KIMSEY 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

SAND & MED. GRAVEL
AS ABOVE
A.A
SAND & BOULDERS
SAND & MEDIUM GRAVEL
A.A.
A.A.
SAND
SOME GRAVEL
SAND & MEDIUM GRAVEL
A.A.
A.A.
A.A.

SAND & FINE GRAVEL

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☒ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-9	1080'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE C-105)
325' W 1470' S fr NE cor. Sec. 9	T2S, R12W, Sec. 9, NE, SE, NE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Cadburn
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 741
APPROVAL DATE: 8-19-81
APPROVED BY: [signature]

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[illegible] STATE ON THIS THE DEDICATED ACREAGE FOR [illegible] AS [illegible] ON THE PLAT.

2. REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE [illegible] SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

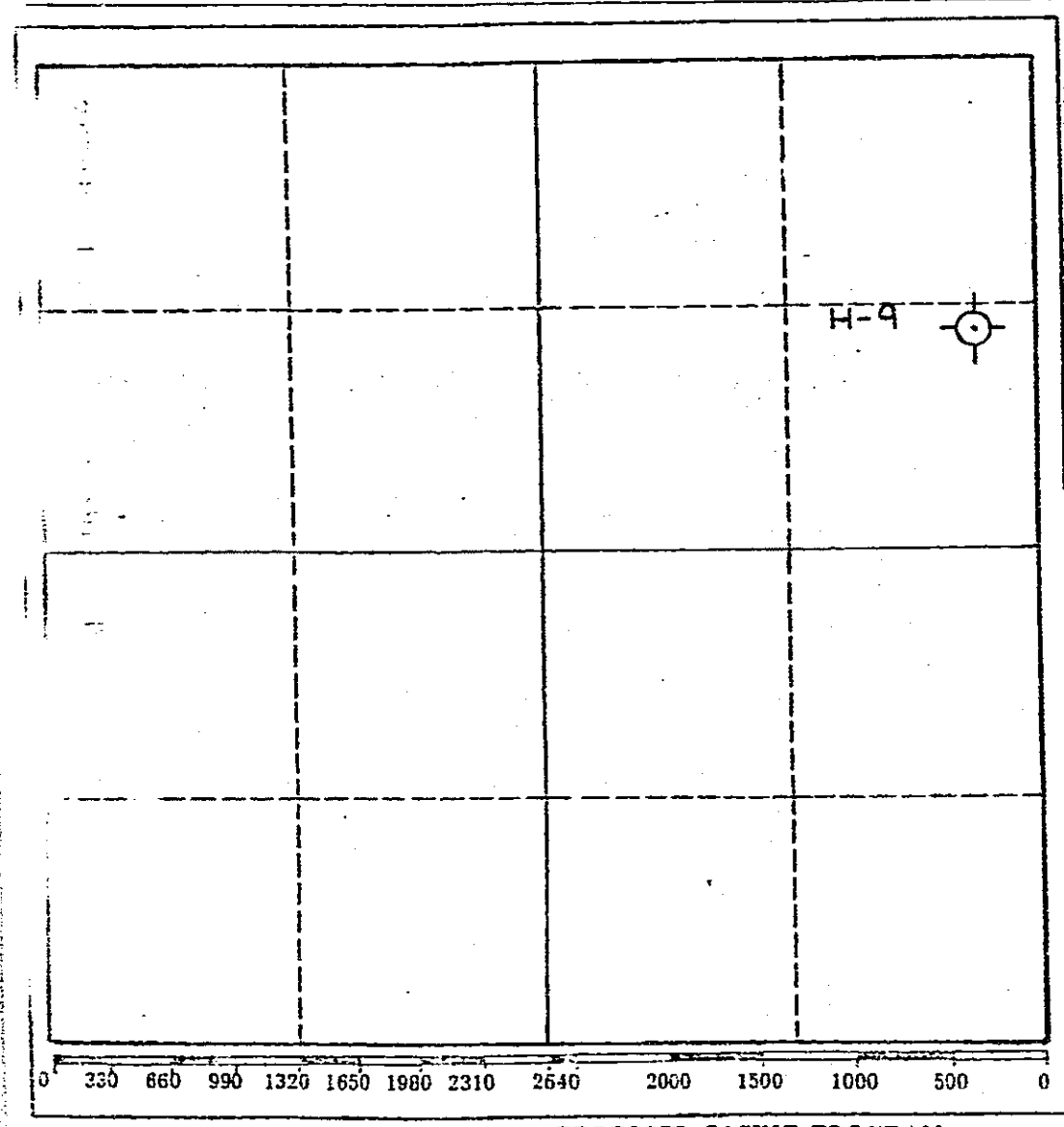
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T2S, R12W, Sec. 9



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: L. Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

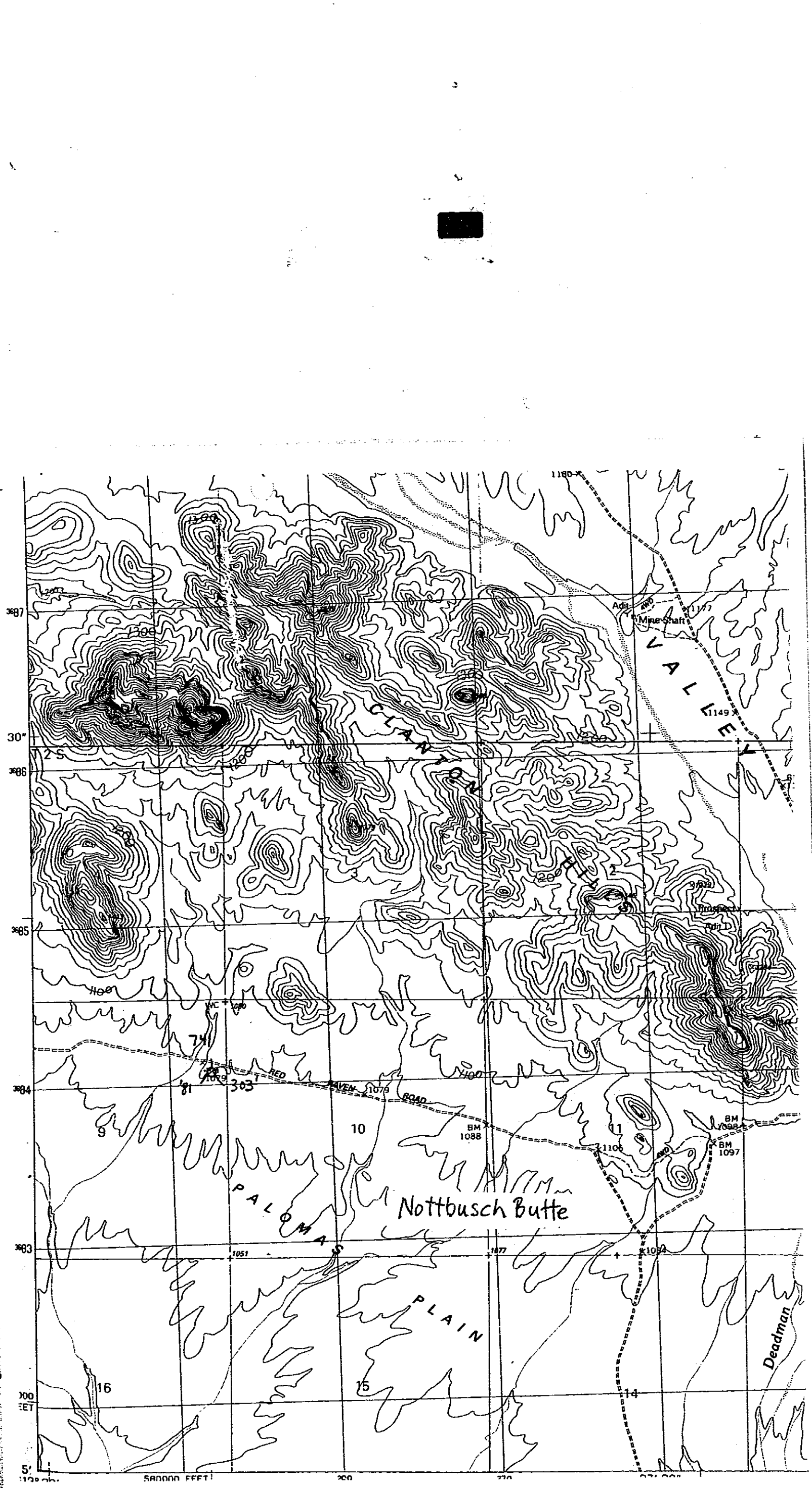
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


1180
Adit
Mine Shaft
1177
VALLEY
1149
CLANTON
HILL
Prospect
Adit
1100
741
RED RAVEN
1079
ROAD
BM 1088
BM 1098
BM 1097
1106
Nottbusch Butte
PALOMAS
PLAIN
Deadman
1051
1077
1084
9
10
11
16
15
14
3687
3686
3685
3684
3683
30"
2 S
303
81

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-9 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1470' FROM NORTH LINE, 325' FROM EAST LINE (NE/SE/NE)

Section 9 Township 2 SOUTH Range 12 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 741

RECEIPT NO. 2115 90006

API NO. 02-027-~~20017~~

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-10
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 130' E 980' N fr SW cor. Sec. 17	COUNTY: Maricopa
SEC. TWP-RANGE OR BLOCK & SURVEY: T2S-R10W Sec. 17 NW SW SW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
11-8-81	11-8-81		1205'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
287'		to T.D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION)	DATE FILED
None	

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 742

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY MARICOPA
BLOCK
SEC. 17
T. 2S R. 10W
ALTITUDE
PRODUCTION

Philips Petroleum
FIELD HYDER
WELL NO. H-10
SURVEY Temp. Grad. Well

TOTAL DEPTH 287'
CONTRACTOR BURT DRILLING IND.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 12-18-81

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE 1/10" = MINUTES

Neufeldt 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

MEDIUM GRAVEL & FINE SAND
FINE GRAVEL & FINE SAND
AS ABOVE
SAND
(very FINE + POWDERY)
MEDIUM GRAVEL
FINE GRAVEL & V.F. SAND
A.A.
FINE GRAVEL
A.A.
A.A.
FINE GRAVEL & FINE SAND
FINE GRAVEL & V.F. SAND
A.A.
FINE GRAVEL & V.F. SAND
CLAY WITH V.F. SAND

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ NOTICE OF INTENTION TO RE-ENTER WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-10	1205'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
130' E 980' N fr SW cor. Sec. 17	T2S, R10W, Sec. 17, NW,SW,SW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Maricopa County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 742
APPROVAL DATE: 8-17-81
APPROVED BY: [signature]

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

...SHOW THE DEDICATED ACREAGE FOR SOUTHLAND ROYALTY AS REQUIRED ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION MUST SPOT ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

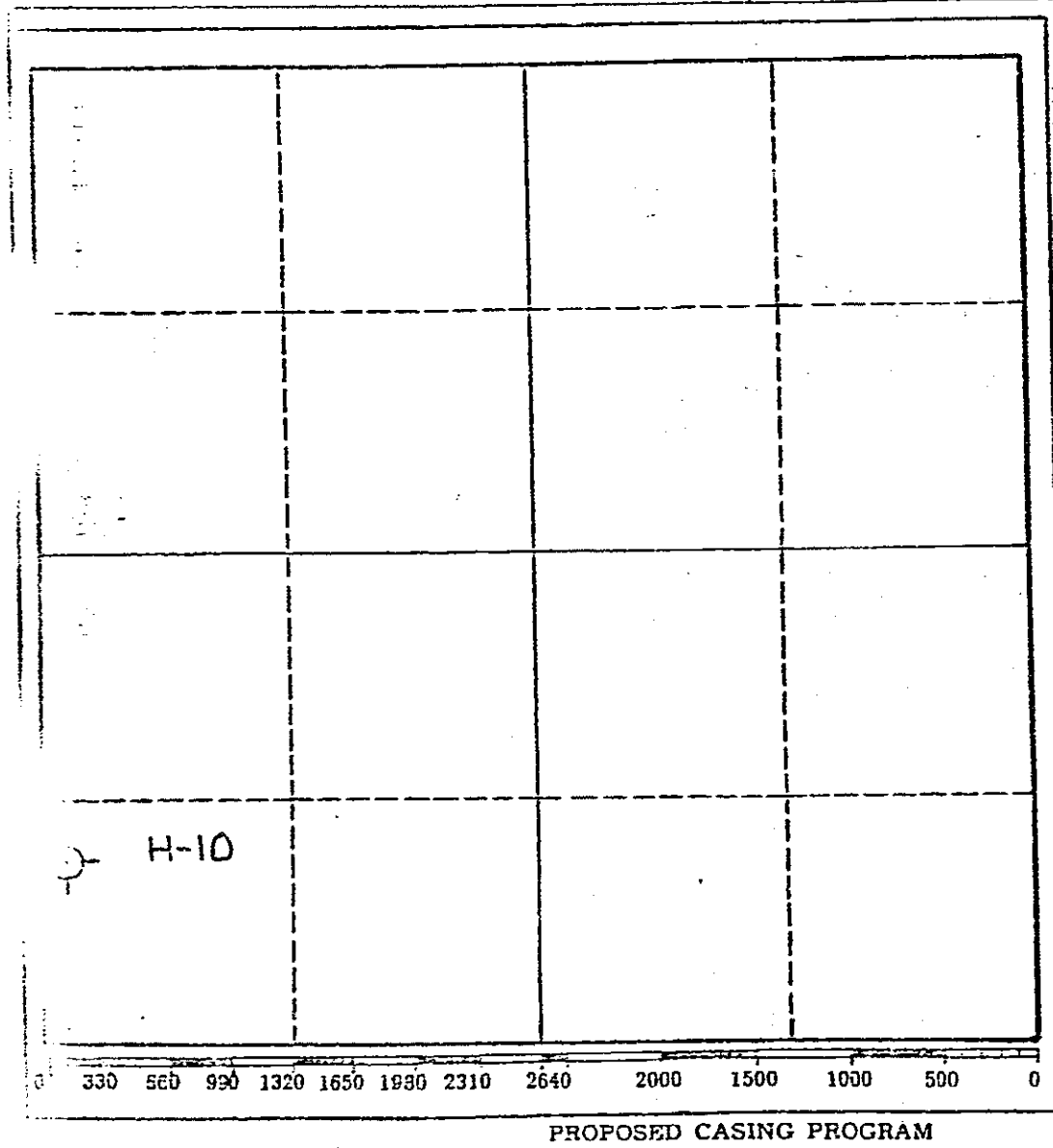
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T2S, R1OW, Sec. 17



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: ~~X~~ Ira Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

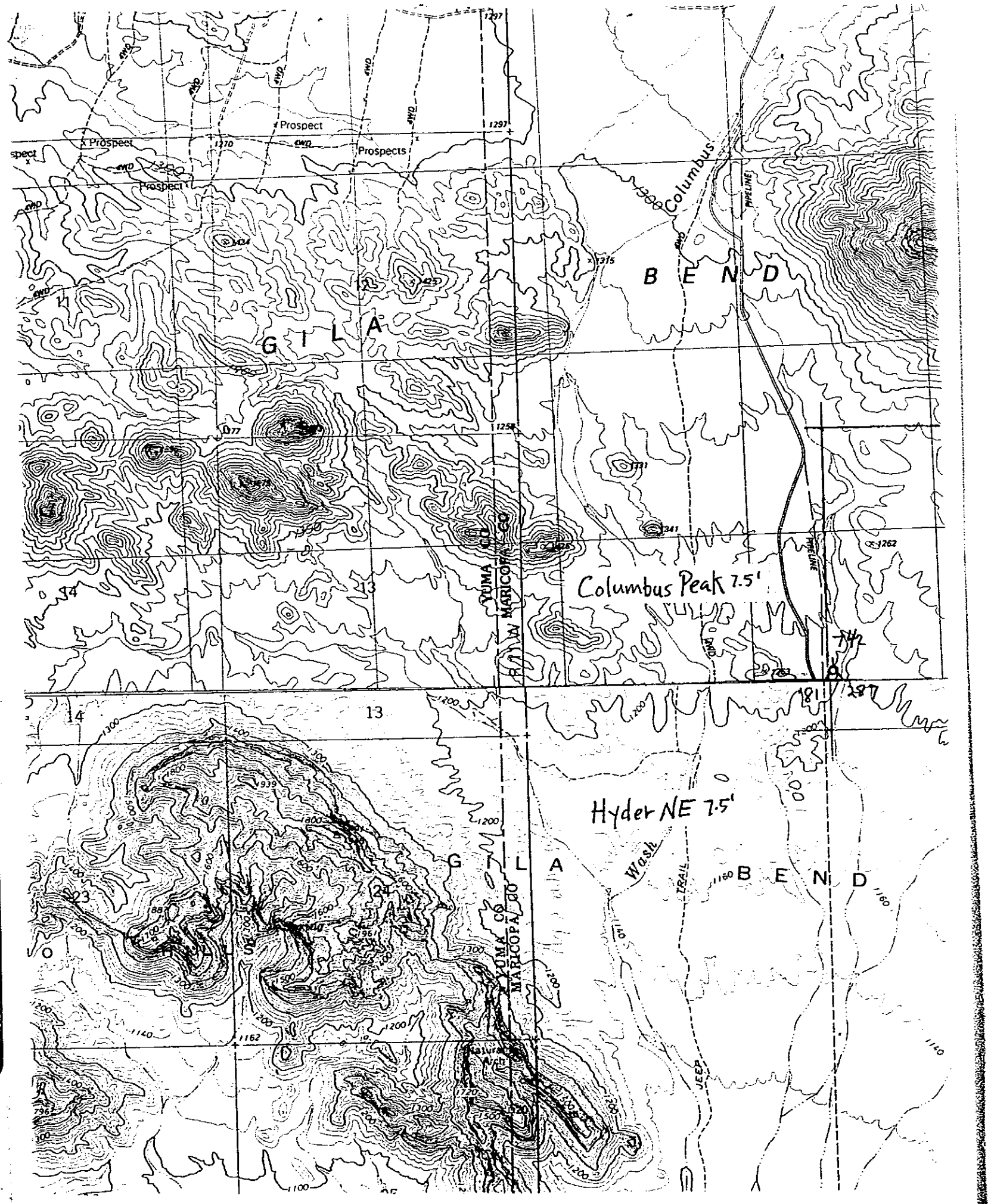
Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Measure temperature therein. Plug and abandon within one year.					Plugged at bottom and filled with water.	

[redacted]


Prospect
Prospect
Prospects
Prospect
Columbus
PIPELINE
B E N D
G I L A
YUMA CO
MARICOPA CO
Columbus Peak 7.5'
Hyder NE 7.5'
Wash
TRAIL
JEEP
Natural Arch
PIPELINE

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-10 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 980' FROM SOUTH LINE, 130' FROM WEST LINE (NW/SW/SW)

Section 17 Township 2 SOUTH Range 10 WEST, MARICOPA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 742

RECEIPT NO. 2115 (Good!)

API NO. 02-013-~~20011~~

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-11 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 1040' N 1640' E fr SW cor. Sec. 25	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T2S R13W Sec. 25 NW SE SW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR))	ELEVATION OF CASING HD. FLANGE
(Not Drilled)			1055' FEET	FEET

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD TEMP. °F	STATIC TEST SHUT IN WELL HEAD PRES. PSIG.	ANALYSES OF FLUIDS & GASES — TOTAL MASS FLOW DATA LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	SEPARATOR DATA WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. -743

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-1

(COMPLETE REVERSE SIDE)

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company
ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management
WELL NUMBER: H-11
FIELD & RESERVOIR: Temperature gradient well
LOCATION: 1040' N 1640' E fr SW cor. Sec. 25
COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T2S R13W Sec. 25 NW SE SW

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
(Not Drilled)			1055'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES					SEPARATOR DATA			
			TOTAL MASS FLOW DATA								
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 743

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

DETAIL OF FORMATIONS PENETRATED

FORMATION	TOP	BOTTOM	DESCRIPTION[c]
*See attached lithologic log and/or driller's log			

[c] SHO- L IMPORTANT ZONES OF POROSITY, DETAIL OF ALL CORES, AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUS USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES.

INSTR ONS:

ATTA(LLERS LOG OR OTHER ACCEPTABLE LOG OF WELL.

THIS COMPLETION OR RECOMPLETION REPORT AND WELL LOG SHALL BE FILED WITH THE STATE OF ARIZONA OIL & GAS CONSERVATION COMM NOT LATER THAN THIRTY DAYS AFTER PROJECT COMPLETION.

FOR G-4

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-11	1055'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE C-105
1040' N 1640' E fr SW cor. Sec. 25	T2S, R13W, Sec. 25, NW,SE,SW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 743
APPROVAL DATE: 8-19-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[redacted]

[redacted]

... A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION ... SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

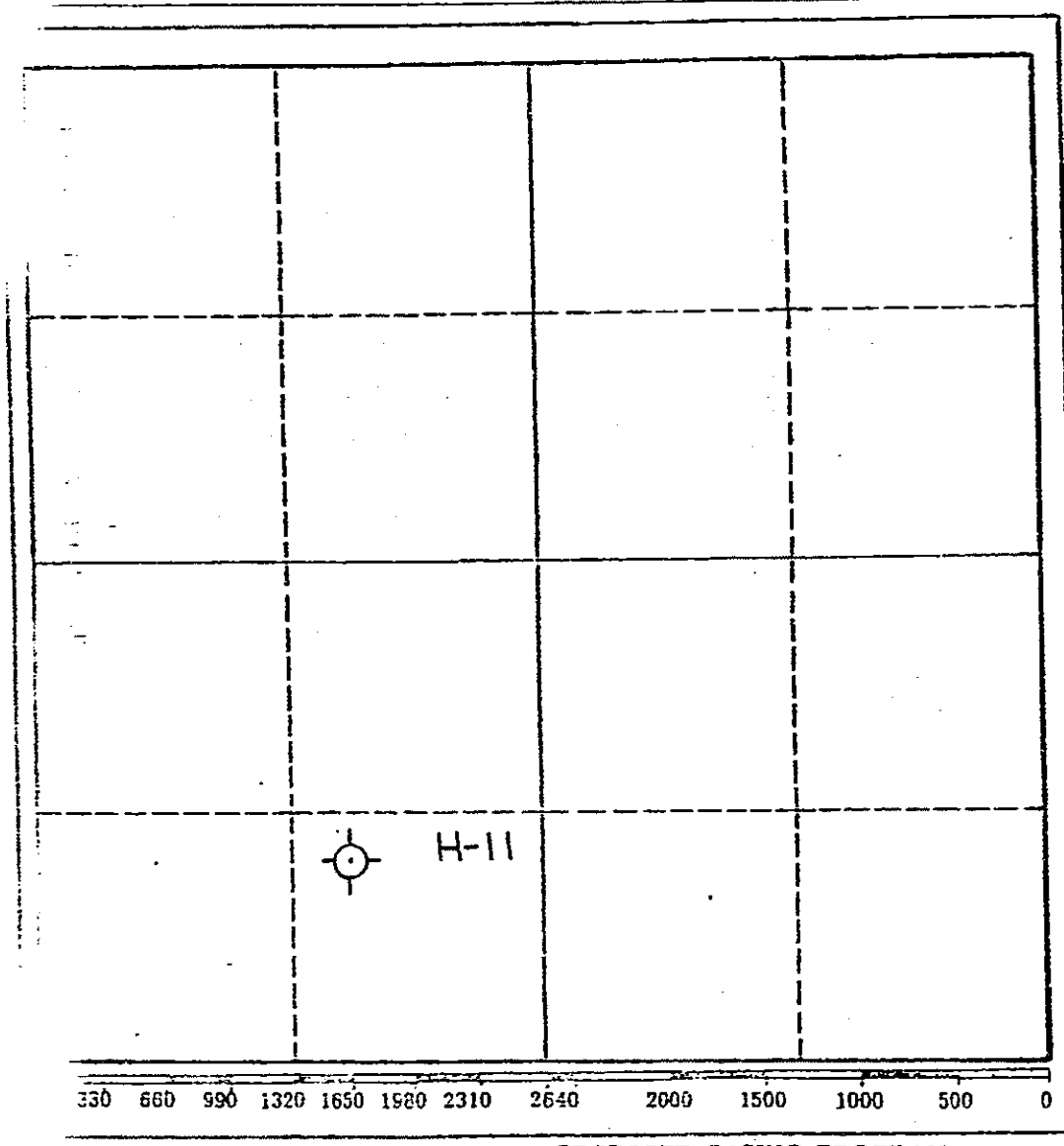
2. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

3. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

4. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T2S, R13W, Sec. 25



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: [redacted]

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. File this section within one year.						

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-11 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1040' FROM SOUTH LINE, 1640' FROM WEST LINE (NW/SE/SW)

Section 25 Township 2 SOUTH Range 13 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 10b, SECTION A THRU G (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT Nº 743

RECEIPT NO. 2115

API NO. 02-027-20018

Permit expired

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-12
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 1560' E 1210' N fr SW cor. Sec. 5	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T3S R13W Sec. 5 NW SE SW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
11-9-81	11-11-81		1180	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
300'		0-120'	120' - T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES (TOTAL MASS FLOW DATA)					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 744

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA

COMPANY Phillips Petroleum

COUNTY YUMA

FARM HYDER

WELL NO. H-12

BLOCK

SURVEY Temp. Grad. Well

SEC. 11

T. 3S R. 13W

TOTAL DEPTH 300'

CONTRACTOR Burt Drilling Inc.

COMMENCED

COMPLETED

REMARKS Logged by G. Chadbuck 2-1-82

ALTITUDE

PRODUCTION

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Kraftbilt 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

Depth	Description
	SAND & GRAVEL
20	AS ABOVE
40	A.A.
60	A.A.
80	A.A.
00	A.A.
20	A.A.
40	A.A.
60	A.A.
80	A.A.
00	A.A.
20	A.A.
40	
260	A.A.
	A.A.
280	A.A.
300	

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR: Phillips Petroleum Company		
ADDRESS: 431 South 300 East	CITY: Salt Lake City	STATE: Utah
DRILLING CONTRACTOR: Dixie Drilling Company (if available)		
ADDRESS: Fernley, Nevada		

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR: Bureau of Land Management	WELL NUMBER: H-12	ELEVATION (GROUND): 1180'
NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET	
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:	
IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME	ADDRESS	
WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES): 1560' E 1210' N fr SW cor. Sec. 5	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY: T3S, R13W, Sec. 5, NW, SE, SW	DEDICATION (COMPLY WITH RULE G-105)
FIELD AND RESERVOIR (IF WILDCAT, SO STATE): Temperature Gradient Well	COUNTY: Yuma County	
DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE		

PROPOSED DEPTH: 300'	ROTARY OR CABLE TOOLS: Rotary	APPROX. DATE WORK WILL START: September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT: AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Cradburn
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 744
APPROVAL DATE: 8-14-81
APPROVED BY: [signature]

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

DEDICATED ACREAGE IN SECTION [illegible] AS SHOWN ON THE PLAT.

A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION IS REQUIRED TO SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

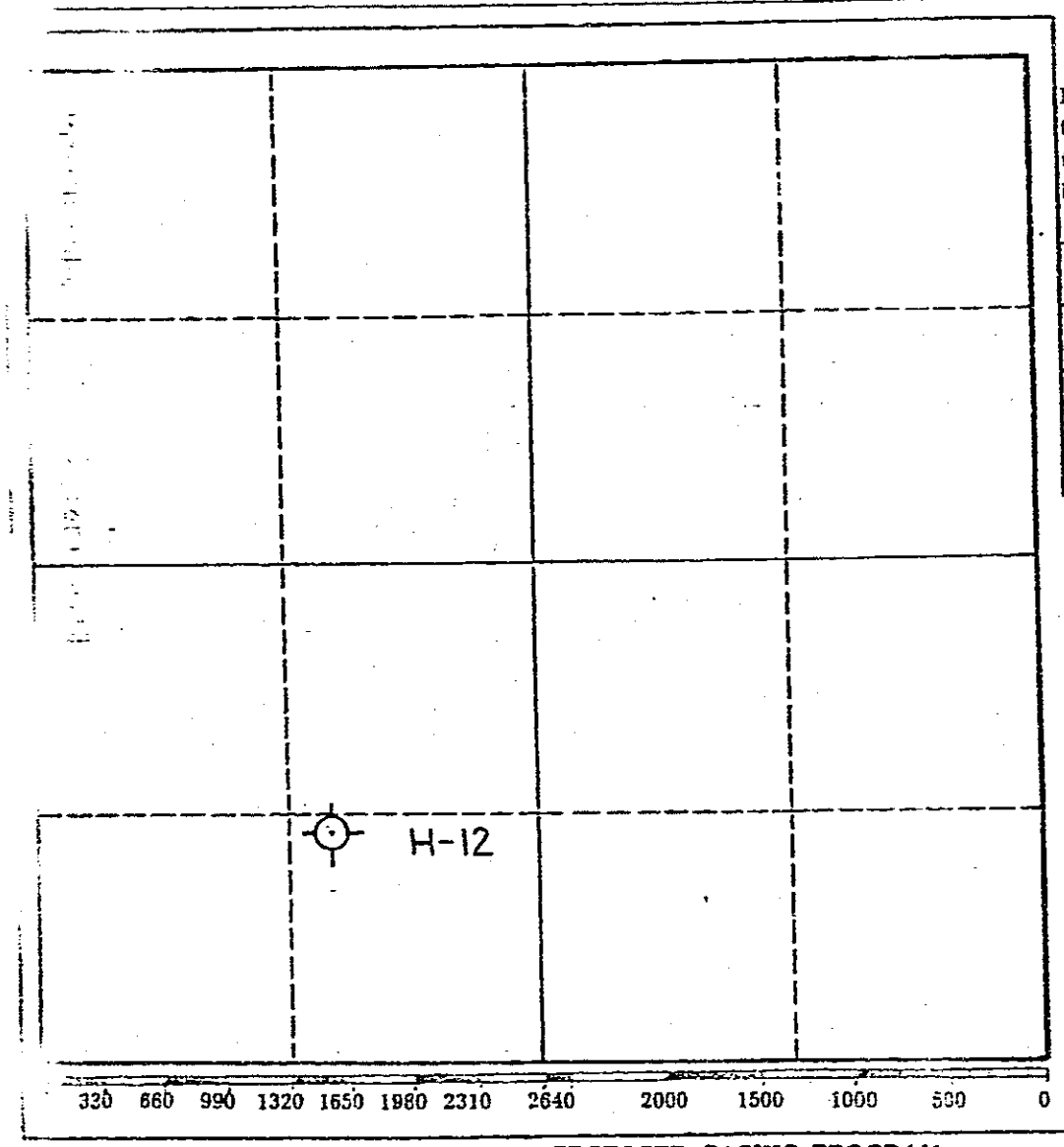
ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T3S, R13W, Sec. 5



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: [signature]

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

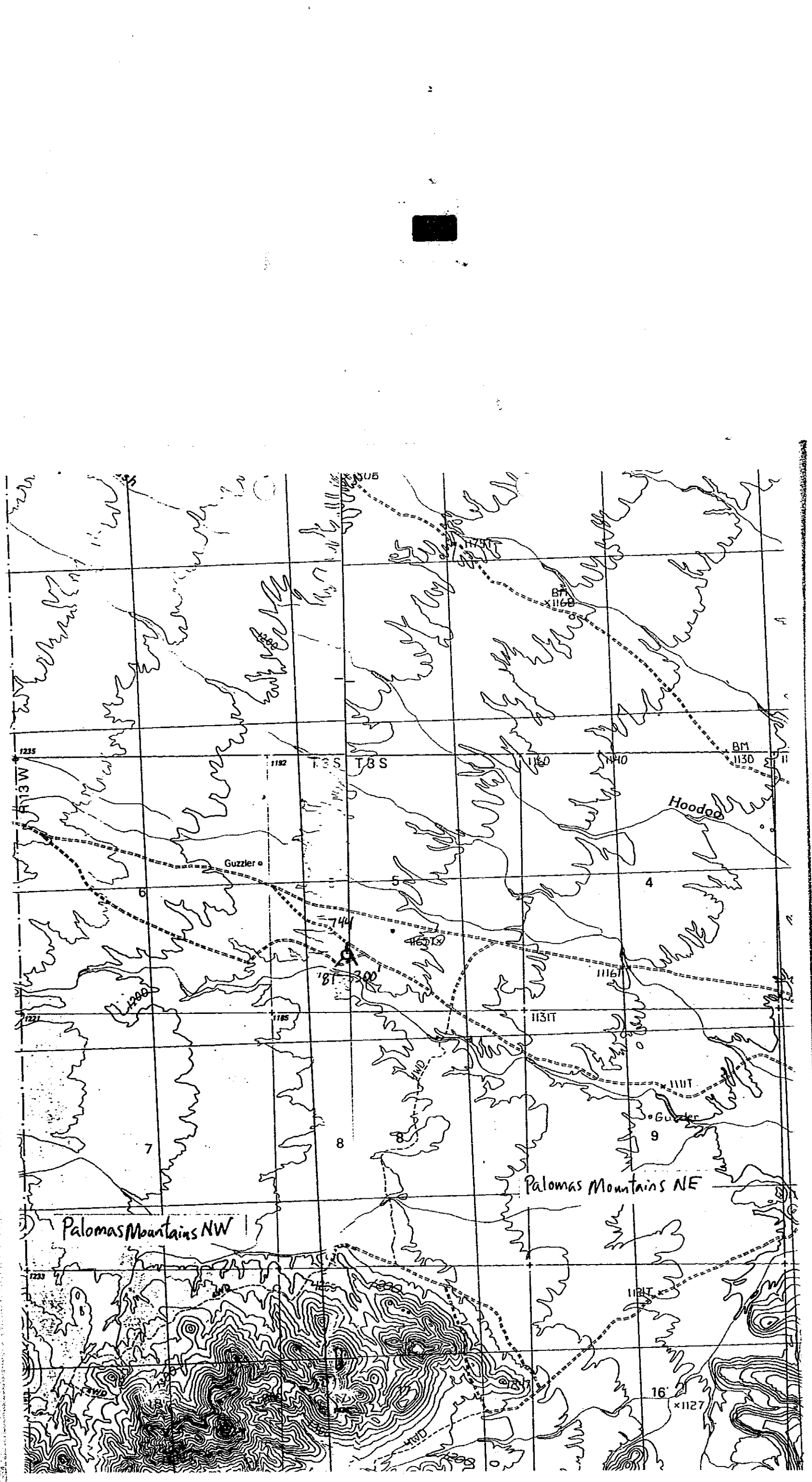
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


T3S T3S
R13W
Hoodoo
Guzzler
Palomas Mountains NW
Palomas Mountains NE
BM
x1168
BM
1130
1160
1140
1175T
1131T
1111T
1121T
1127
1144
1185
1192
1235
1221
1233
4WD
16'

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-12 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1210' FROM SOUTH LINE, 1560' FROM WEST LINE (NW/SE?SW)

Section 5 Township 3 SOUTH Range 13 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT Nº 744

RECEIPT NO. 2115

API NO. 02-027-20019

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-13
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 2290' N 1680' W fr SE cor. Sec. 11	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T3S-R12W Sec. 11 NE NW SE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
11-12-81	11-15-81		925'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
304'		-	to T. D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES					SEPARATOR DATA			
			TOTAL MASS FLOW DATA								
	TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 745

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA ..... Philips Petroleum
COUNTY YUMA FIELD HYDER WELL NO. H-13
BLOCK SURVEY Temp. Grad. Well
SEC. 11
T. 3S R. 12W
TOTAL DEPTH 304'
CONTRACTOR Burt Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 12-18-81
ALTITUDE
PRODUCTION

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Electrolog 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

0 MEDIUM GRAVEL
FINE GRAVEL & COARSE SAND
AS ABOVE
A.A.
BOULDERS
BOULDERS & COARSE SAND
BOULDERS
COARSE SAND
A.A.
A.A.
A.A.
A.A.
A.A.

260 MEDIUM GRAVEL & COARSE SAND
280 A.A.
300

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-13	925'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
2290' N, 1680' W fr SE cor. Sec 11	T3S, R12W, Sec. 11, NE,NW,SE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT: AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbury
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 745
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

... A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE ... SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

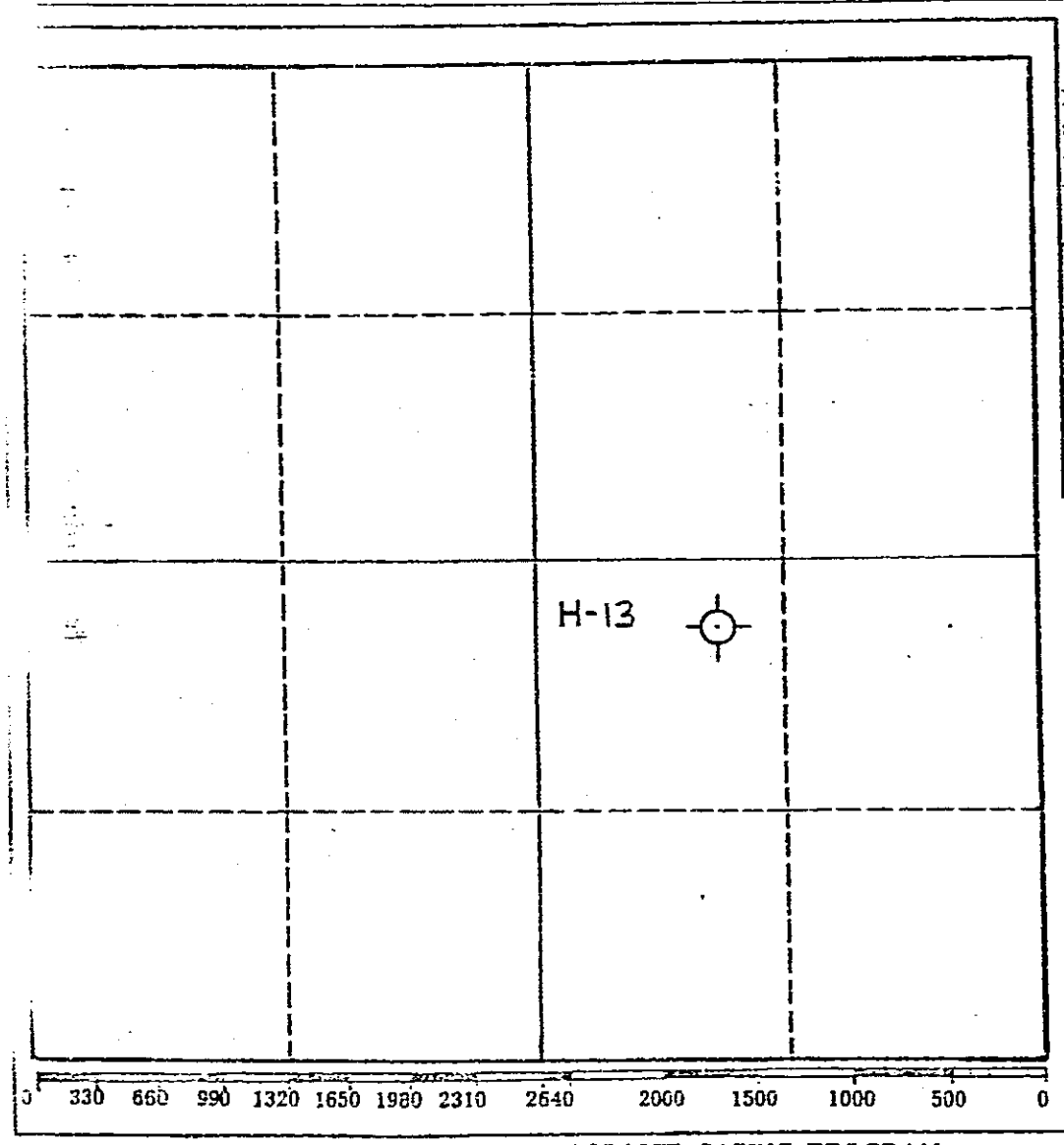
. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT ... OTHERWISE" YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T3S, R12W, Sec. 11



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: K. Bruce Gradbury

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

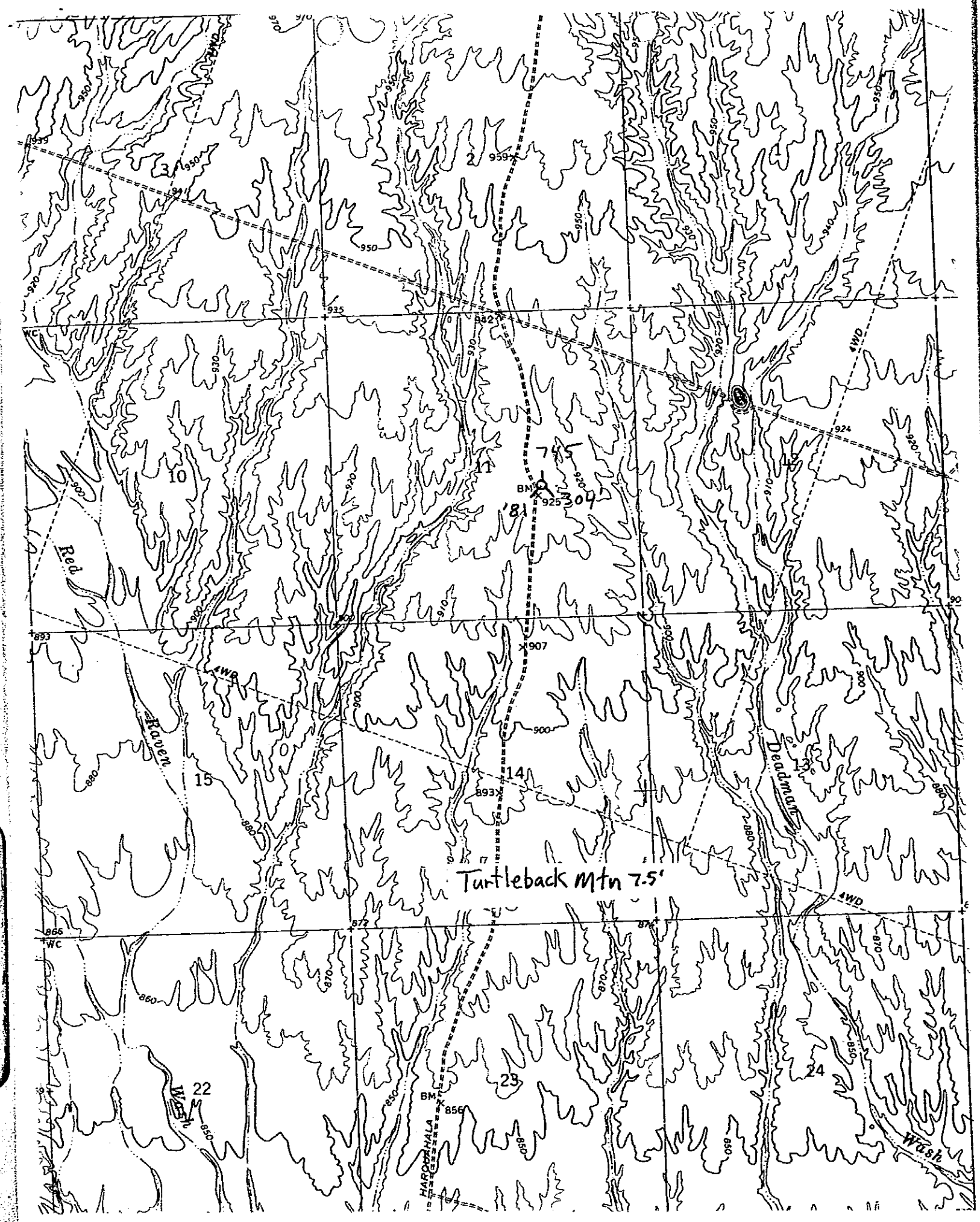
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Measure temperature therein. Plug and ...	Install 1" PVC pipe to T.D.				Plugged at bottom and filled with water.	


Red
Raven
Deadman
Wash
Wash
Turtleback Mtn 7.5'
HARQUAHALA
BM
BM
4WD
WC
10
11
14
15
22
23
24
795
807
907
893
925
856
959
842
924

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-13 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 2290' FROM SOUTH LINE, 1680' FROM EAST LINE (NE/NW/SE)

Section 11 Township 3 SOUTH Range 12 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 745

RECEIPT NO. 2115
API NO. 02-027-20020

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

RECEIVED

FEB. 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-14 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 1850' N 2280' W fr SE cor. Sec. 8	COUNTY: Maricopa
SEC. TWP-RANGE OR BLOCK & SURVEY: T3S R10W Sec. 8 SW NW NE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, REB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
11-6-81	11-6-81		940'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
305'			To T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD TEMP. °F	STATIC TEST SHUT IN WELL HEAD PRES. PSIG.	ANALYSES OF FLUIDS & GASES — TOTAL MASS FLOW DATA LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	SEPARATOR DATA WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 746

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA	COMPANY Philips Petroleum
COUNTY MARICOPA	FARM HYDER WELL NO. H-14
BLOCK	SURVEY Temp. Grad. Well
SEC. 8	
T. 3S R. 10W	TOTAL DEPTH 305'
	CONTRACTOR Burt Drilling Inc
	COMMENCED
	COMPLETED
ALTITUDE	REMARKS Logged by G. Chadburn
PRODUCTION	12-17-81

CASING RECORD

SHOT | QUARTS | BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

KeyDrill 450 - TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

BOULDERS & COARSE SAND

20 BOULDERS & FINE SAND

10 MEDIUM GRAVEL & COARSE SAND

20 AS ABOVE

30 A.A.

?0 BOULDERS

?0 COARSE GRAVEL & COARSE SAND

10 A.A.

?0 A.A

30 A.A.

20 A.A.

20 MEDIUM GRAVEL & FINE SAND

40

260 A.A.

MEDIUM GRAVEL

280 MEDIUM GRAVEL & FINE SAND

300

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR: Phillips Petroleum Company		
ADDRESS: 431 South 300 East	CITY: Salt Lake City	STATE: Utah
DRILLING CONTRACTOR: Dixie Drilling Company (if available)		
ADDRESS: Fernley, Nevada		

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR: Bureau of Land Management	WELL NUMBER: H-14	ELEVATION (GROUND): 940'
NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET	
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:	
IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME	ADDRESS	
WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES): 1850' N 2280' W fr SE cor. Sec. 8	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY: T3S, R10W, Sec. 8, SW, NW, SE	DEDICATION (COMPLY WITH RULE G-105)
FIELD AND RESERVOIR (IF WILDCAT, SO STATE): Temperature Gradient Well	COUNTY: Maricopa County	
DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE		
PROPOSED DEPTH: 300'	ROTARY OR CABLE TOOLS: Rotary	APPROX. DATE WORK WILL START: September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT: ON FILE OR ATTACHED	FILING FEE OF $25.00: ATTACHED
REMARKS:		

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Mary Cradburn
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 746
APPROVAL DATE: 8-14
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[redacted]

[redacted]

... SHOW ... THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION ... SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

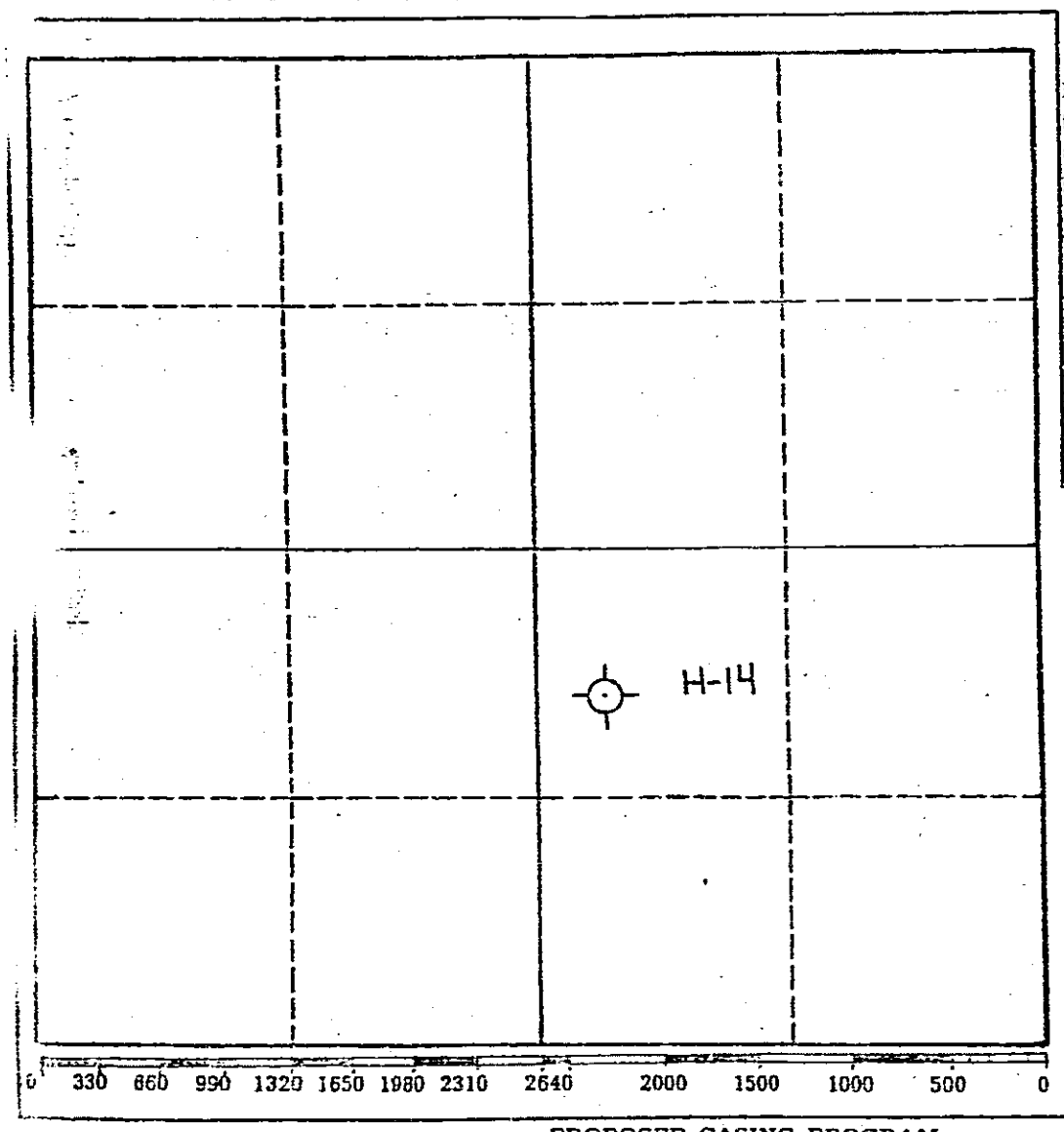
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T3S, R10W, Sec. 8



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: K. Thru Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

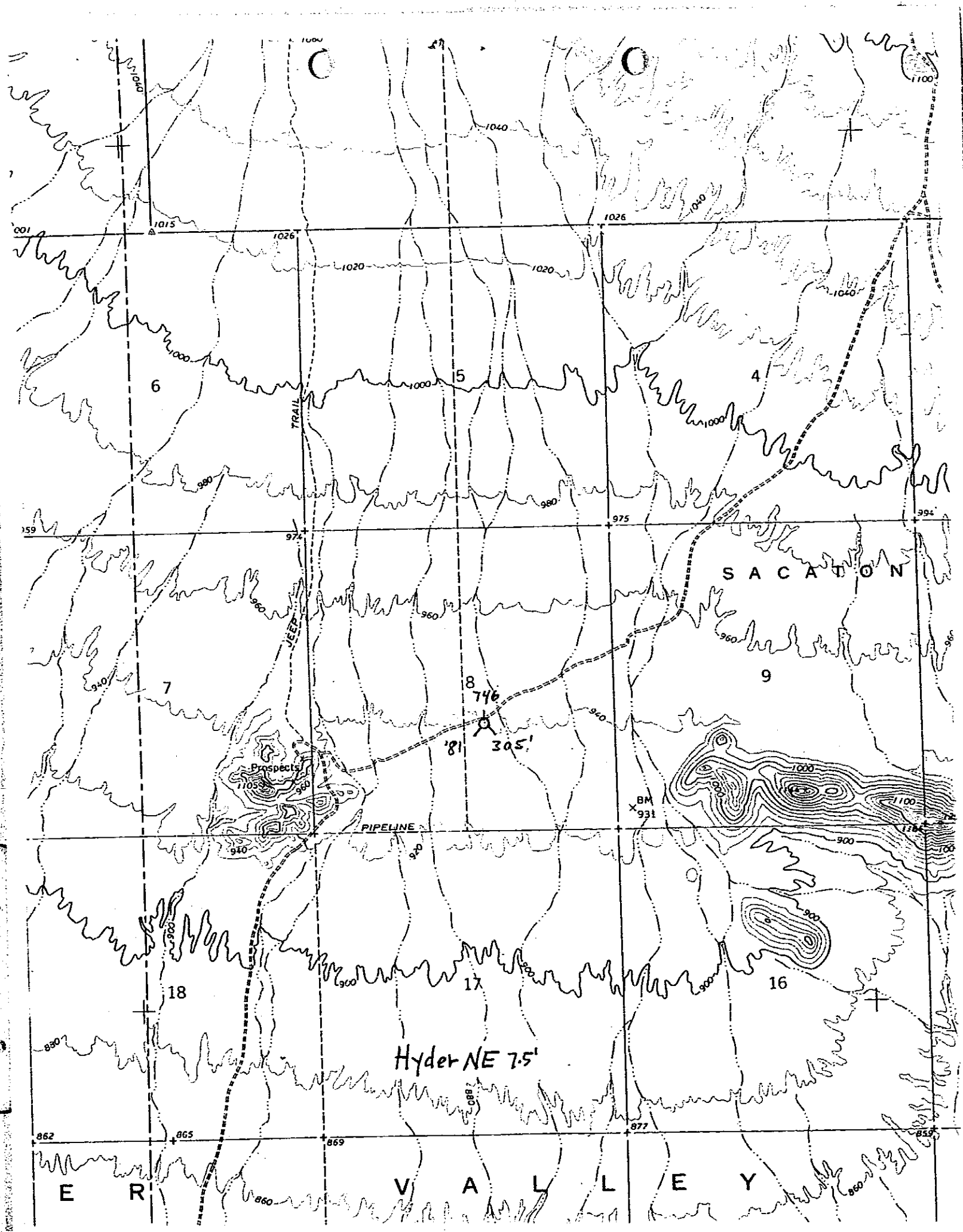
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


1040
1015
1026
1020
1000
980
975
954
960
940
900
1100
6
5
4
7
8
9
18
17
16
TRAIL
JEEP
PIPELINE
Prospects
1105
BM
931
746
'81
305'
SACATON
Hyder NE 7.5'
862
865
869
877
ERVALLEY

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-14 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1850' FROM SOUTH LINE, 2280' FROM EAST LINE (SW/NW/SE)

Section 8 Township 3 SOUTH Range 10 WEST, MARICOPA County, Arizona.

The N/A of said

Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 746

RECEIPT NO. 2115

API NO. 02-013-20012

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company

ADDRESS: 655 E 4500 S, Murray, Utah 84107

FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management

WELL NUMBER: H-15

FIELD & RESERVOIR: Temperature gradient well

LOCATION: 2335' N 1300' E fr SW cor. Sec. 29

COUNTY: Yuma

SEC. TWP-RANGE OR BLOCK & SURVEY: T3S R12W Sec. 29 NE NW SW

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
11-8-81	11-8-81		895'	

TOTAL DEPTH	P.B.T.D.	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
297'		To T.D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION

AIRDRILLED (INTERVAL): To T. D.

FLUIDDRILLED (INTERVAL)

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None

DATE FILED

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES					SEPARATOR DATA			
			TOTAL MASS FLOW DATA								
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 747

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-15 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 2335' N 1300' E fr SW cor. Sec. 29	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T3S R12W Sec. 29 NE NW SW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED. READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
11-8-81	11-8-81		895	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
297'		To T. D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 747

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-1

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY YUMA
BLOCK
SEC. 29
E 35 E 12W

Phillips Petroleum
FARM HYDER WELL NO. H-15
SURVEY TEMP. GRAD. WELL

TOTAL DEPTH 297'
CONTRACTOR Burt Drilling Int.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 12-10-81
ALTITUDE
PRODUCTION

CASING RECORD

SHOT QUARTR BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Kreisler 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

GRAVEL & SAND
SAND & GRAVEL
A.S ABOVE
A.A
COARSE GRAVEL
A.A. minor SAND
COARSE GRAVEL & SAND
A.A.
COARSE GRAVEL
MEDIUM GRAVEL & SAND
ANDESITE
A.A.

A.A.
A.A.
A.A.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☒ RE-ENTER ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-15	895'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
2335' N 1300' E fr SW cor. Sec. 29	T3S, R12W, Sec. 29, ~~NE~~, ~~NW~~, SW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT: AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbury
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 747
APPROVAL DATE: 8-14-81
APPROVED BY: [signature]

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

...DEDICATED ACREAGE FOR GEOTHERMAL ...

...EGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION S... A ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

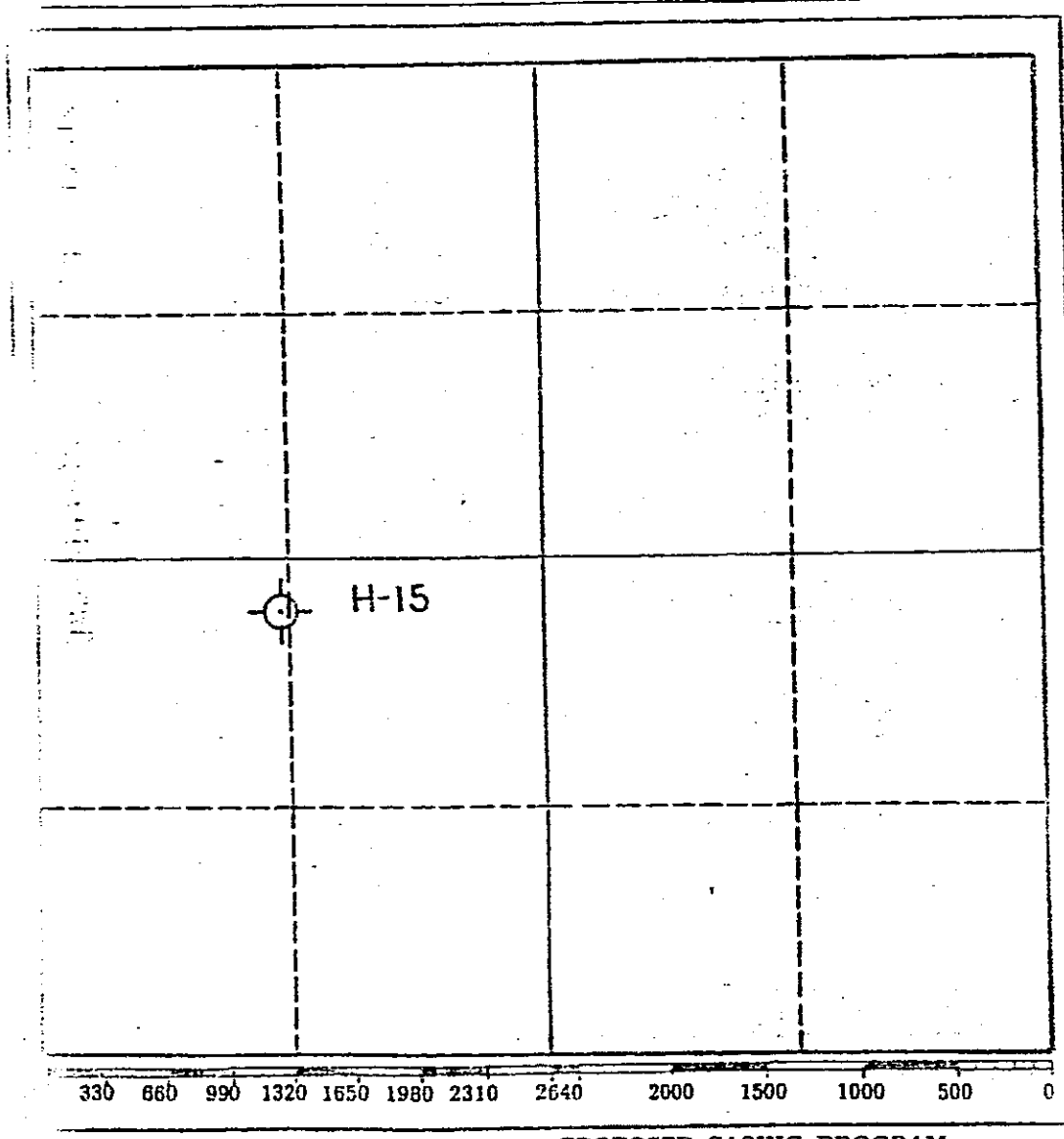
...L DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

S THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

...F THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEME... ...R OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

...F THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

...ner	Land Description
Bureau of Land Management	T3S, R12W, Sec. 29



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: K. Thru Gadbaen
Position: Geologist
Company: Phillips Petroleum Co.
Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

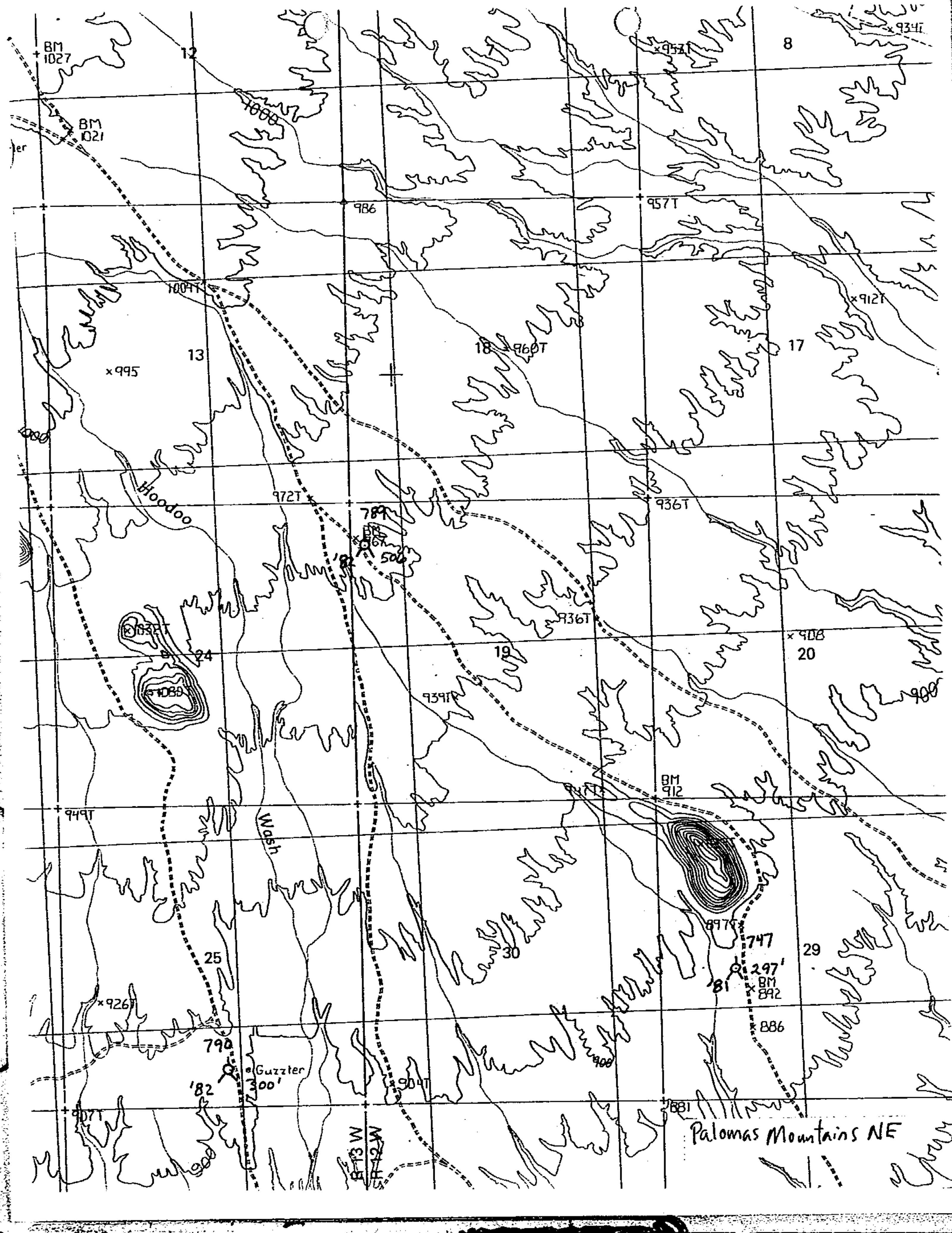
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


BM 1027
12
7
8
x934T
x953T
1000
BM 1021
986
957T
1004T
x912T
13
x995
18
960T
17
Hoodoo
972T
789
BM 867
'82
500
936T
936T
x908
19
20
1032T
24
1080
939T
900
BM 912
949T
Wash
897T
747
29
297'
'81
BM 892
886
25
30
x926T
790
Guzzler
300'
'82
904T
907T
900
881
R 13 W
R 12 W
Palomas Mountains NE

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-15 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 2335' FROM SOUTH LINE, 1300' FROM WEST LINE (NE/NW/SW)

Section 29 Township 3 SOUTH Range 12 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (SEC. C.G), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 747

RECEIPT NO. 2115

API NO. 02-027-20021

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED

FEB 4 1982

O & G CONS. COMM

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-16 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 300' N 350' W fr SE cor. Sec. 1	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T4S R12W Sec. 1 SE SE SE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
12-12-81	12-14-81		751'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
503'			To T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

ANALYSES OF FLUIDS & GASES

DATE	STATIC TEST SHUT IN WELL HEAD		TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 748

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA ..... Phillips Petroleum

COUNTY YUMA FIELD HYDER WELL NO. H-16

BLOCK SURVEY Temp. Grad. Well

SEC. 1

T. 4S R. 12W

TOTAL DEPTH 503'

CONTRACTOR BURT DRILLING INC.

COMMENCED

COMPLETED

REMARKS Logged by G. Chadburn 1-29-82

ALTITUDE

PRODUCTION

CASING RECORD

SIZE	WEIGHT	DEPTH	SACKS CEMENT

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Reed Roller Bit 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

0	SAND & GRAVEL
10	AS ABOVE
10	A.A.
	A.A.
	A.A.
	SAND & FINE GRAVEL
	SAND & GRAVEL
	A.A.
	A.A.
	SAND & FINE GRAVEL
	SAND & GRAVEL

280	GRAVEL MEDIUM
290	SAND QUARTZ-CEMENTED
300	SAND & FINE GRAVEL
320	N.A.
340	COARSE GRAVEL & RHYOLITE FRAGMENTS
360	RHYOLITE
380	A.A.
400	A.A.
420	A.A.
440	A.A.
460	A.A.
480	A.A.
500	

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☒ RE-ENTER (IF WELL EXISTS) ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-16	751'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
300' N 350' W fr SE cor. Sec. 1	T4S, R12W, Sec. 1, SE, SE, SE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT: AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 748
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[redacted]

[redacted]

2. OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL [illegible] ON THE PLAT.

A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

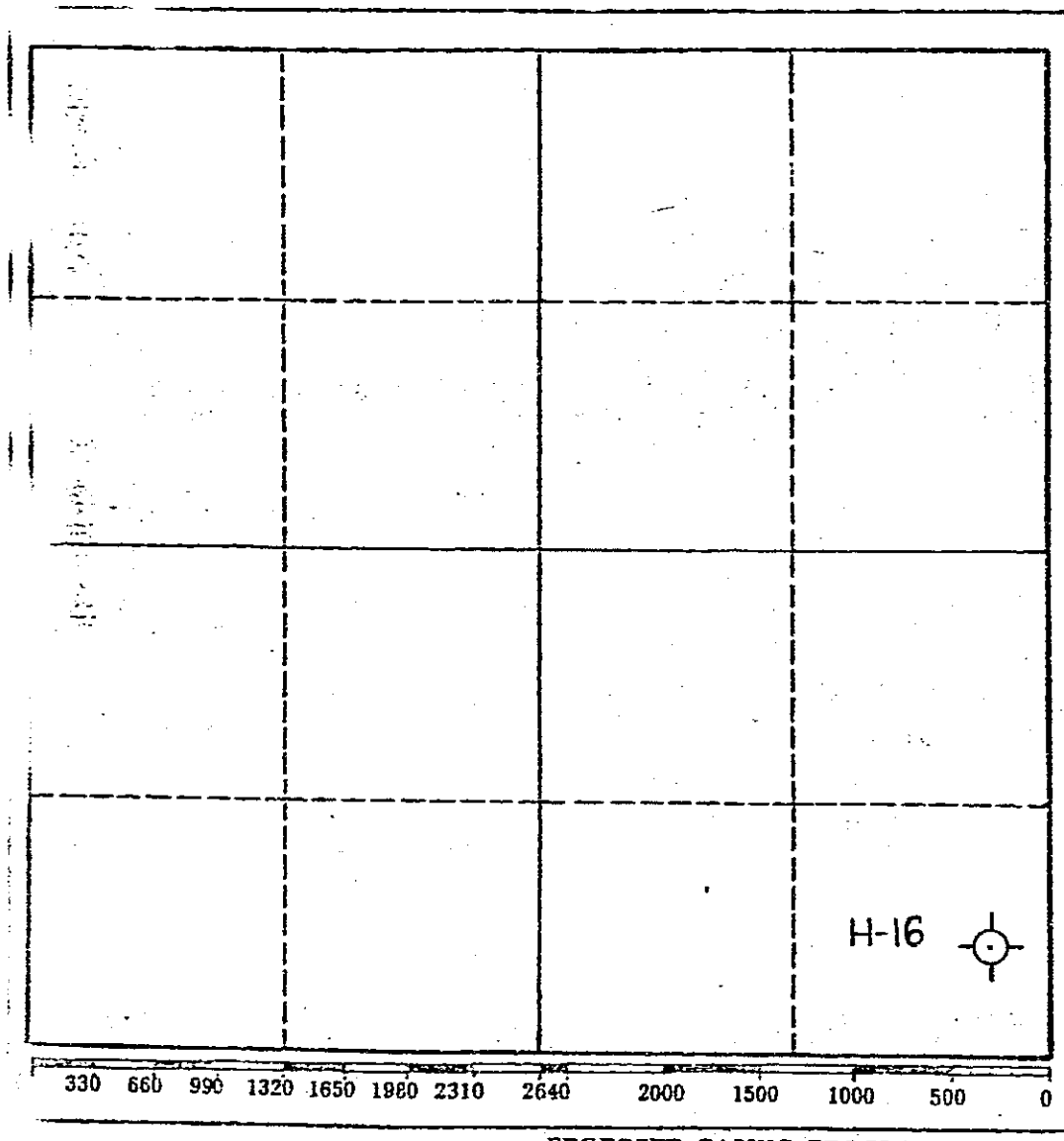
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

ner	Land Description
Bureau of Land Management	T4S, R12W, Sec. 1



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: [redacted]

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

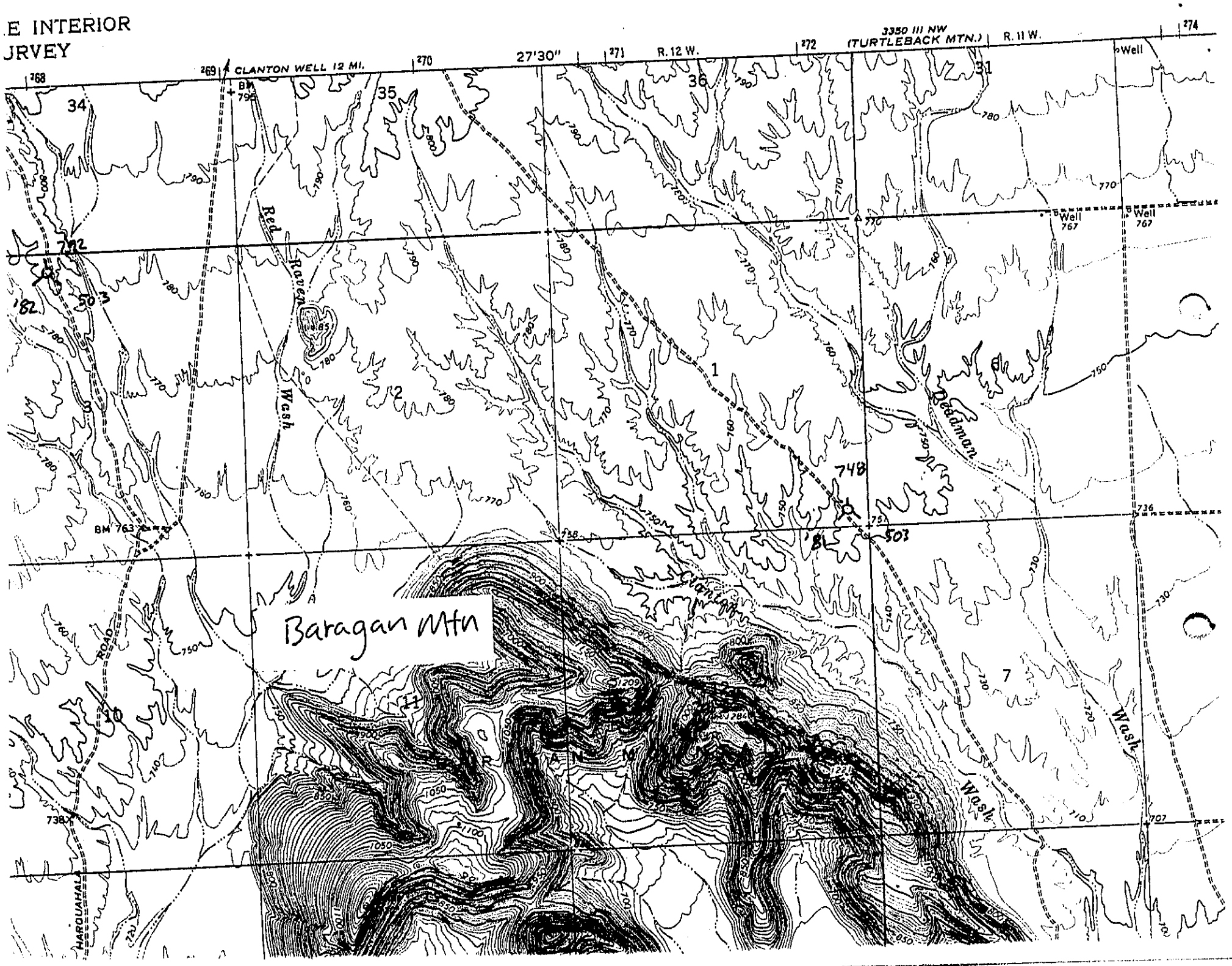
Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						

E INTERIOR
JRVEY



PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-16 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 300' FROM SOUTH LINE, 350' FROM EAST LINE (SE/SE/SE)

Section 1 Township 4 SOUTH Range 12 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 103, SECTION A THRU G (1) (2) (3), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 748

RECEIPT NO. 2115

API NO. 02-027-20022

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-17
FIELD & RESERVOIR: Temperature gradient well	
LOCATION: 575' N 300' W fr SE cor. Sec. 26	COUNTY: Maricopa
SEC. TWP-RANGE OR BLOCK & SURVEY: T3S-R10W Sec. 26 SE SE SE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED. READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
10-31-81	11-6-81		780'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
302'			To T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION)	DATE FILED
None	

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD TEMP. °F	STATIC TEST SHUT IN WELL HEAD PRES. PSIG.	ANALYSES OF FLUIDS & GASES — TOTAL MASS FLOW DATA LBS/HR	TOTAL MASS FLOW DATA TEMP. °F	TOTAL MASS FLOW DATA PRES. PSIG.	TOTAL MASS FLOW DATA ENTHALPY	TOTAL MASS FLOW DATA ORIFICE	SEPARATOR DATA WATER CUFT/HR	SEPARATOR DATA STEAM LBS/HR	SEPARATOR DATA PRES. PSIG.	SEPARATOR DATA TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 749

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY MARICOPA
BLOCK
SEC. 26
T. 3S R. 10W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FARM HYDER WELL NO. H-17
SURVEY TEMP. GRAD. WELL
TOTAL DEPTH 302'
CONTRACTOR BURT DRILLING INC.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 12-10-81

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Mrofloff 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

COARSE GRAVEL
BOULDERS
COARSE GRAVEL
AS ABOVE
A.A.
A.A.
FINE GRAVEL
A.A.
BOULDERS
MEDIUM GRAVEL
A.A.
BOULDERS

A.A.
A.A.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East | CITY Salt Lake City | STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-17	780'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE C-105
575' N 300' W fr SE cor. Sec. 26	T3S, R10W, Sec. 26, SE,SE,SE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Maricopa County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Cadbury
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 749
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION STAFF SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

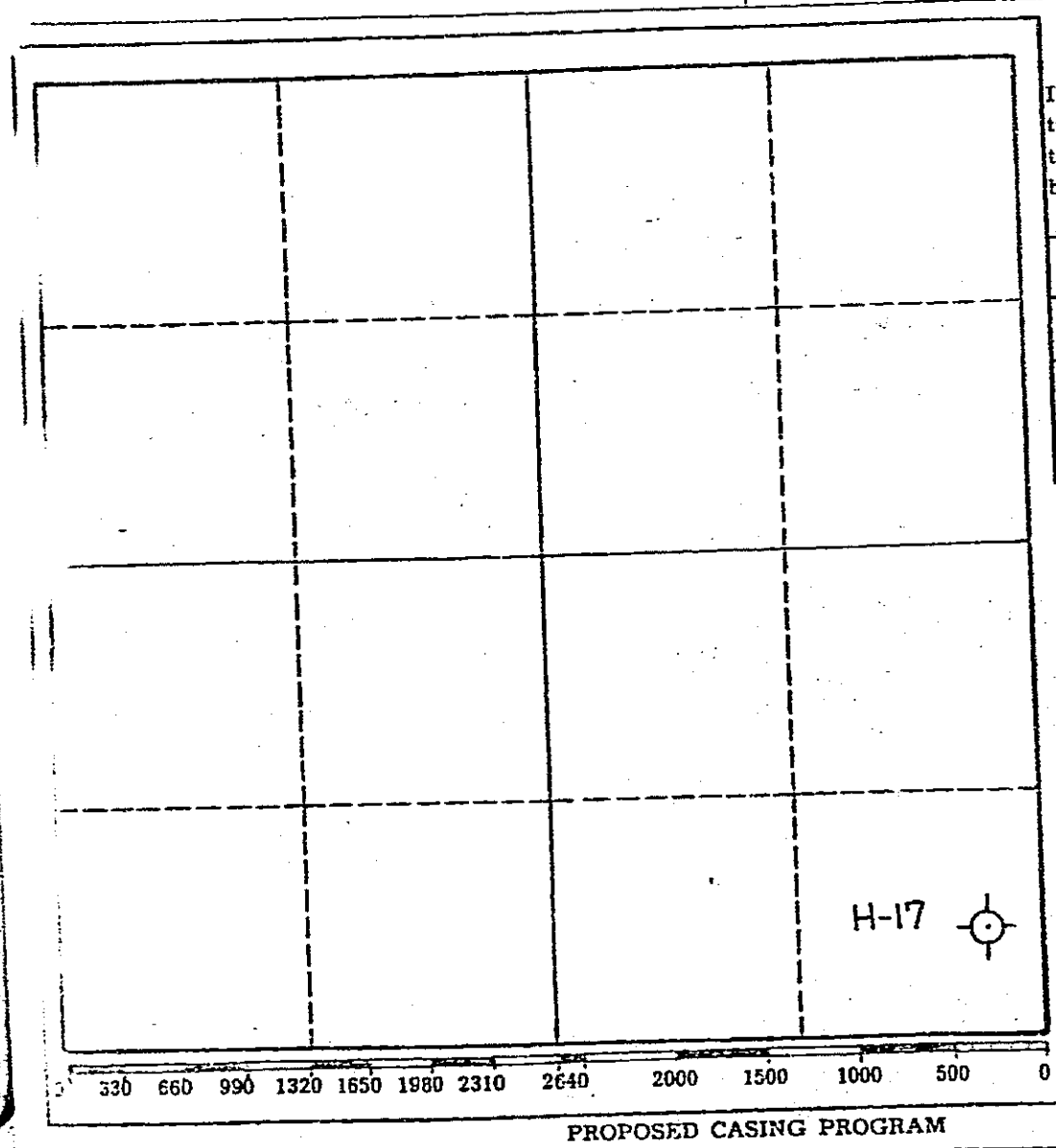
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T3S, R10W, Sec. 26



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: Ernest Gadbury
Position: Geologist
Company: Phillips Petroleum Co.
Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

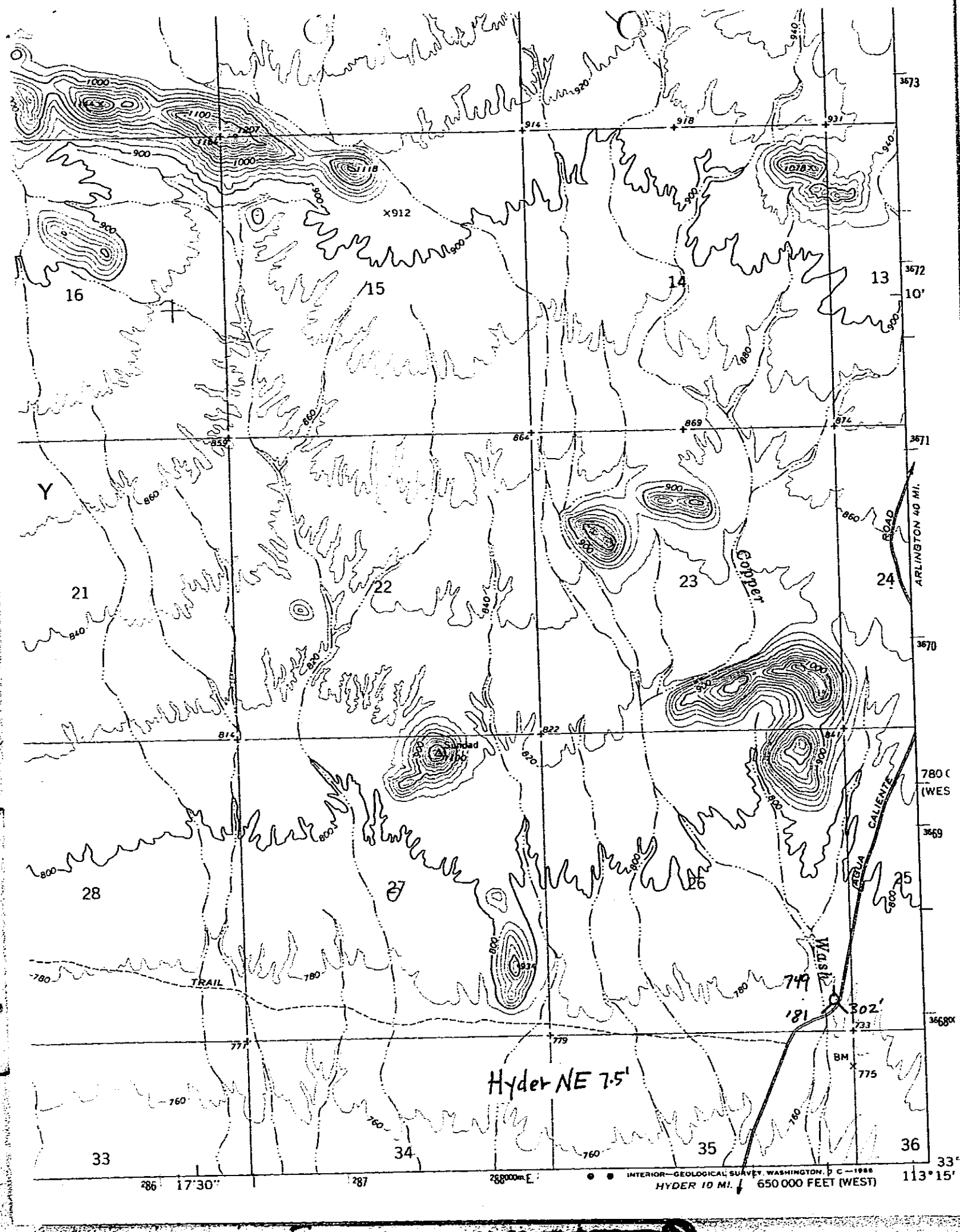
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


1000
1100
1207
1184
900
1000
1118
X912
914
918
931
1078
940
3673
3672
10'
16
15
14
13
869
874
3671
Y
860
880
900
920
940
Copper
ARLINGTON 40 MI.
R040
21
22
23
24
840
3670
822
Sundad
780
(WES
3669
ATOLIA CALIENTE
25
28
27
26
800
TRAIL
749
WASH
181
302'
733
3668
BM
775
Hyder NE 7.5'
33
34
35
36
760
779
772
814
33°
113°15'
286
17'30"
287
260000m E.
INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D. C.—1966
HYDER 10 MI.
650 000 FEET (WEST)

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-17 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 575' FROM SOUTH LINE, 300' FROM EAST LINE (SE/SE/SE)

Section 26 Township 3 SOUTH Range 10 WEST, MARICOPA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 103, SECTION A AND B (1) C (3), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT Nº 749

RECEIPT NO. 2115

API NO. 02-013-20013

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-18 — FIELD & RESERVOIR: Temperature gradient well
LOCATION: 2380' E 390' S fr NW cor. Sec. 20	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T4S-R13W Sec. 20 NE NE NW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
12-8-81	12-10-81		805'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
507'			To T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 750

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA — Phillips Petroleum

COUNTY YUMA FIELD HYDER WELL NO. H-18

BLOCK

SURVEY Temp. Grad. Well

SEC. 20

T. 4S R. 13W

TOTAL DEPTH 507'

CONTRACTOR BURT Drilling Inc.

COMMENCED

COMPLETED

REMARKS Logged by G. Chadburn 2-1-82

ALTITUDE

PRODUCTION

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Petrolog 450 · TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

GRAVELY

AS ABOVE

SAND & GRAVEL

A.A.

A.A.

A.A.

SAND

SAND & FINE GRAVEL

A.A.

SAND & CLAY

SAND

A.A. ANDESITIC

A.A.

A.A.

SAND QUARTZITIC

SAND

A.A.

A.A.

A.A.

A.A.

A.A.

A.A.

A.A.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☒ RE-ENTER OLD HOLE ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-18	805'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
2380' E 390' S fr NW cor. Sec. 20	T4S, R13W, Sec. 20, NE, NE, NW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 750
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

...TION SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

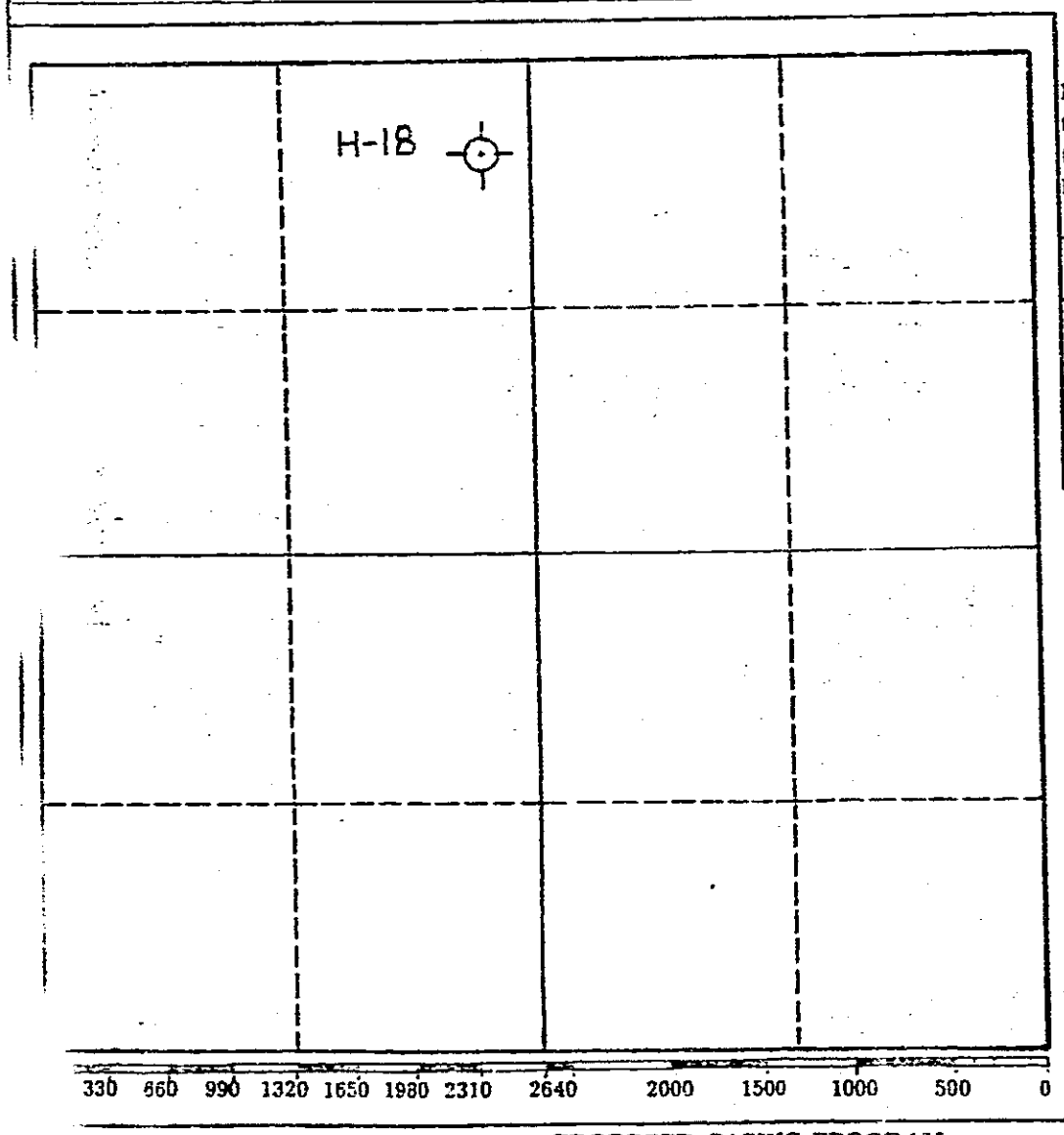
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T4S, R13W, Sec. 20



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: L. Thurston Gadbury

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

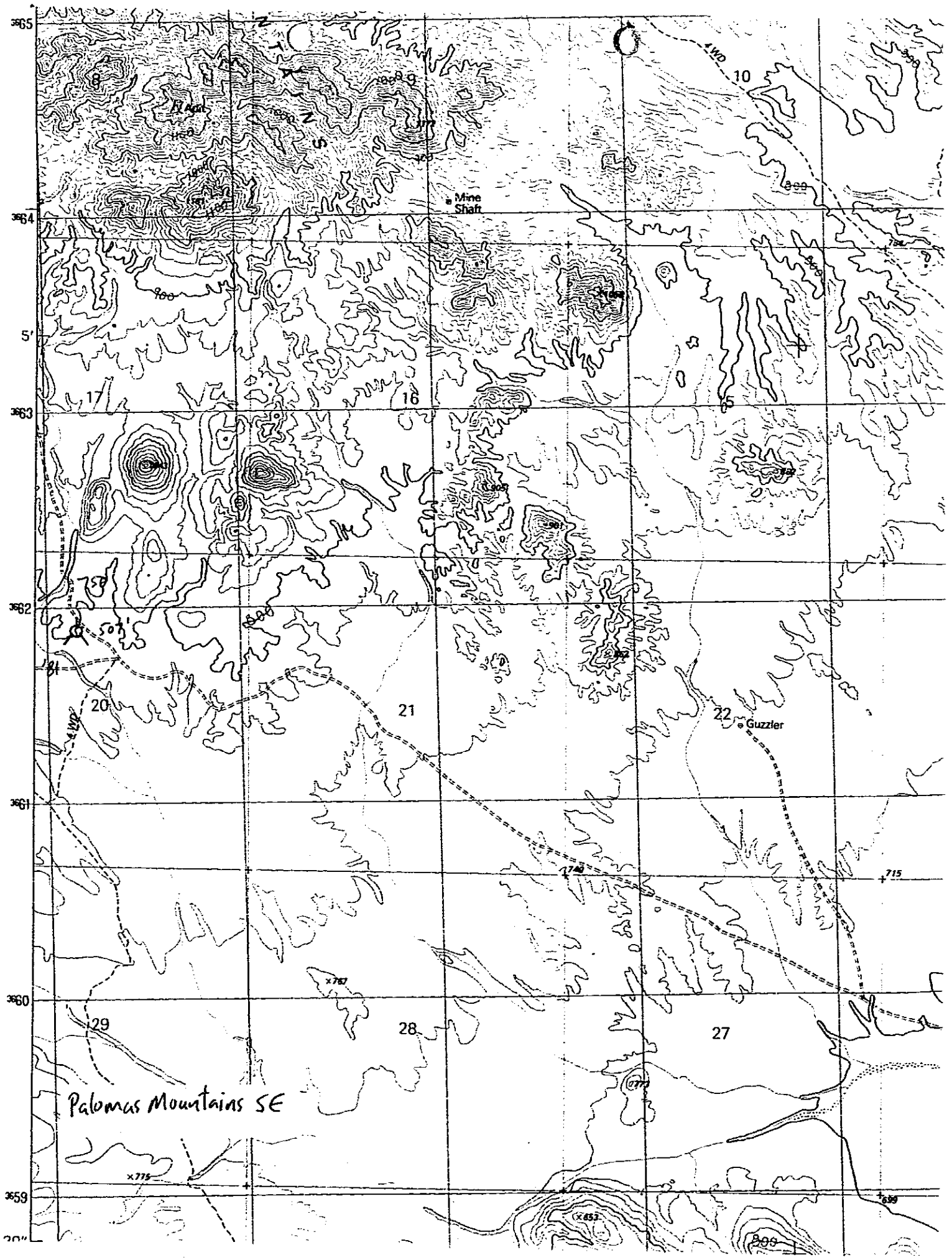
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


3665
3664
5'
3663
3662
3661
3660
3659
Mine Shaft
Guzzler
4WD
10
16
17
20
21
22
27
28
29
Palomas Mountains SE

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-18 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 390' FROM NORTH LINE, 2380' FROM WEST LINE (NE/NE/NW)

Section 20 Township 4 SOUTH Range 13 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 10b, SECTION A AND B, WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 750

RECEIPT NO. 2115
API NO. 02-027-20023

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-19
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 1900' S 1040' W fr NE cor. Sec. 31	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T4S-R12W Sec. 31 NW SE NE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
12-4-81	12-7-81		642'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
502'			To T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTON FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 751

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA ..... Phillips Petroleum

COUNTY YUMA | WELL NO. HYDER H-19

BLOCK | SURVEY Temp. Grad. Well

SEC. 31

T. 4 S | R. 12 W

TOTAL DEPTH 502'

CONTRACTOR Burt Drilling Inc.

COMMENCED

COMPLETED

REMARKS Logged by G. Chadburn 1-29-82

ALTITUDE

PRODUCTION

CASING RECORD

SHOE	QUARTS	BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Rec/Shell 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

0 BOULDERS

SAND & GRAVEL

10 AS ABOVE

0 A.A.

30 A.A.

20 A.A.

40 A.A.

60 A.A.

80 A.A.

100 A.A.

120 A.A.

260 SAND & FINE GRAVEL

280 A.A.

300 SAND & MEDIUM GRAVEL

320 A.A.

340 A.A.

360 SAND & FINE GRAVEL

380 A.A.

400 A.A.

420 A.A.

440 A.A.

460 A.A.

480 A.A.

500

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR: Phillips Petroleum Company		
ADDRESS: 431 South 300 East	CITY: Salt Lake City	STATE: Utah
DRILLING CONTRACTOR: Dixie Drilling Company (if available)		
ADDRESS: Fernley, Nevada		

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR: Bureau of Land Management	WELL NUMBER: H-19	ELEVATION (GROUND): 642'
NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET	
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:	
IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED:	NAME	ADDRESS
WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES): 1900' S 1040' W fr NE cor. Sec. 31	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY: T4S, R12W, Sec. 31, NW, SE, NE	DEDICATION (COMPLY WITH RULE G-105)
FIELD AND RESERVOIR (IF WILDCAT, SO STATE): Temperature Gradient Well	COUNTY: Yuma County	
DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE:		
PROPOSED DEPTH: 300'	ROTARY OR CABLE TOOLS: Rotary	APPROX. DATE WORK WILL START: September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbury
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 251
APPROVAL DATE: 8-14-81
APPROVED BY: [signature]

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION S SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

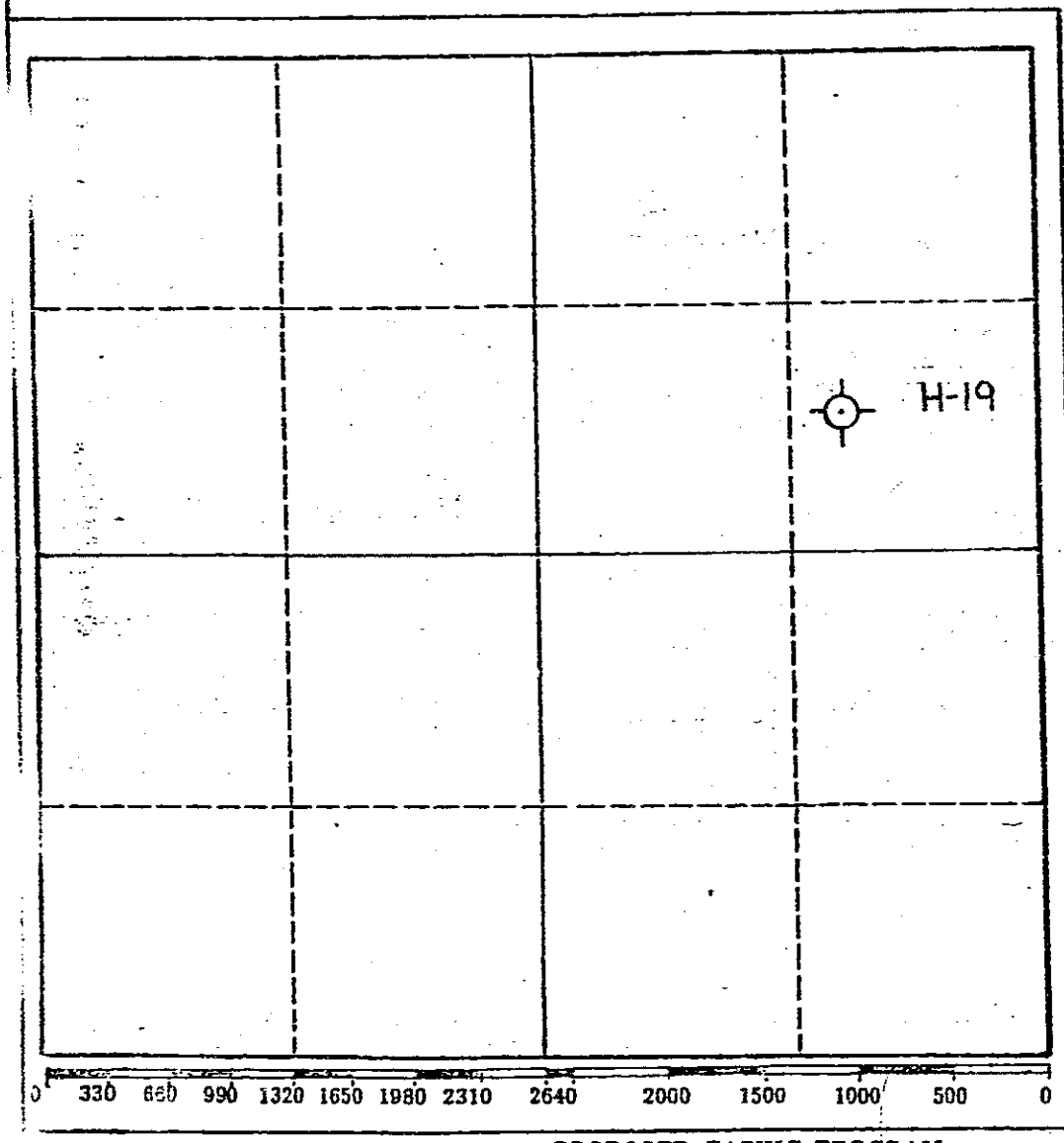
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T4S, R12W, Sec. 31



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: Tony Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

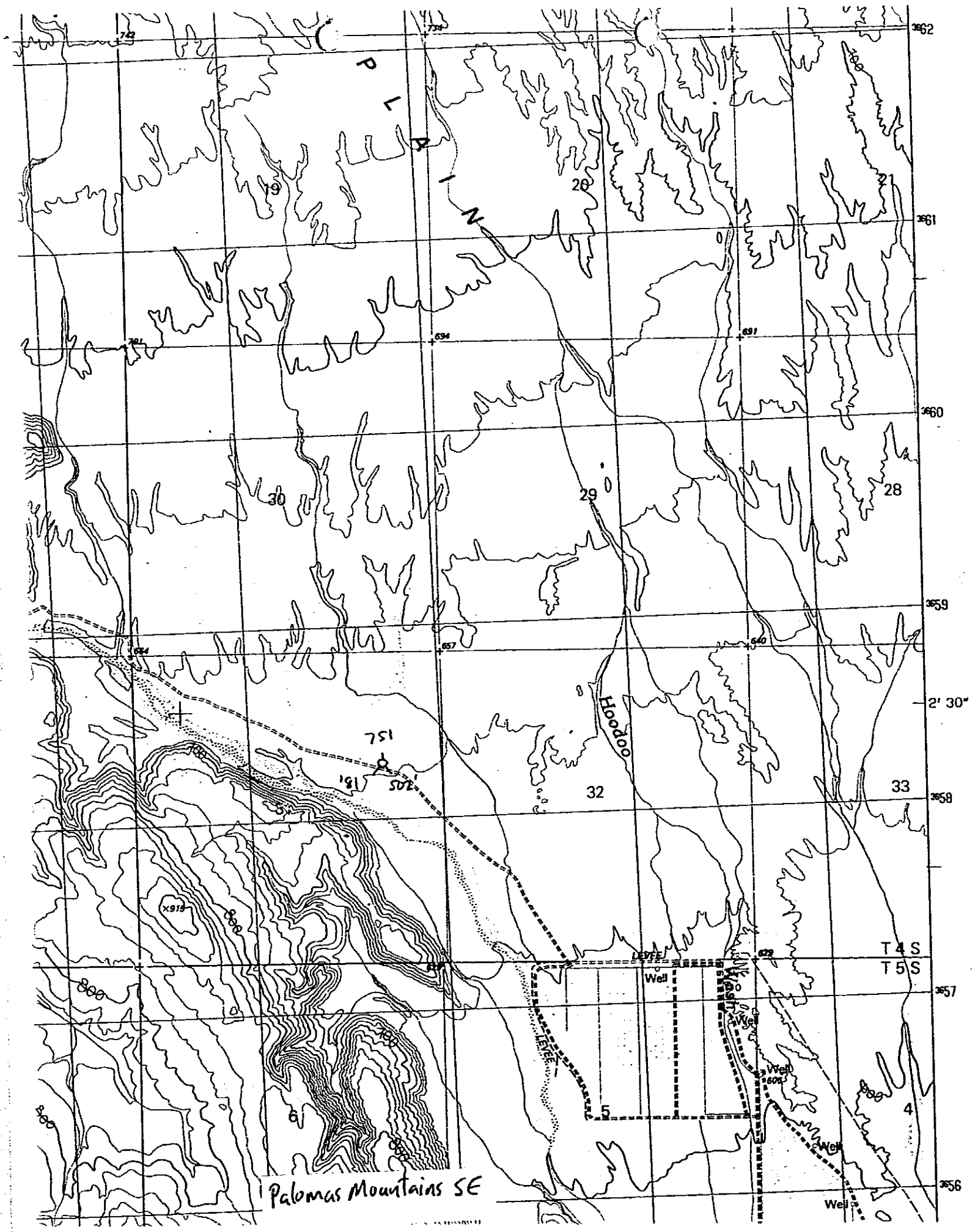
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


PLAIN
Hoodoo
LEVEE
Well
Palomas Mountains SE
T 4 S
T 5 S
2' 30"
3662
3661
3660
3659
3658
3657
3656
19
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21
30
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28
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4
6

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-19 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1900' FROM NORTH LINE, 1040' FROM EAST LINE (NW/SE/NE)

Section 31 Township 4 SOUTH Range 12 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 10a, SECTION A [illegible] (1) (2) (3), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT Nº 751

RECEIPT NO. 2115
API NO. 02-027-20024

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-20
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 865' N 1040' N fr cor. Sec. 20	COUNTY: Maricopa
SEC. TWP-RANGE OR BLOCK & SURVEY: T4S R9W Sec. 20 NW SE SE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
10-30-81	10-30-81		560'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
305'			To T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

ANALYSES OF FLUIDS & GASES

DATE	STATIC TEST SHUT IN WELL HEAD TEMP. °F	STATIC TEST SHUT IN WELL HEAD PRES. PSIG.	TOTAL MASS FLOW DATA LBS./HR	TOTAL MASS FLOW DATA TEMP. °F	TOTAL MASS FLOW DATA PRES. PSIG.	TOTAL MASS FLOW DATA ENTHALPY	TOTAL MASS FLOW DATA ORIFICE	SEPARATOR DATA WATER CUFT/HR	SEPARATOR DATA STEAM LBS/HR	SEPARATOR DATA PRES. PSIG.	SEPARATOR DATA TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 752

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY MARICOPA
BLOCK
SEC. 20
T. 4S R. 9W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FARM HYDER WELL NO. H-20
SURVEY Temp. Grad Wells
TOTAL DEPTH 305'
CONTRACTOR BURT DRILLING INC.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadbuen 12-18-81

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Kreisler 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

0 0
0
0 0
20
40
60
80
00
20
40
50
80
20
30
40

CONCRETE GRAVEL
CLAY
WITH VF SAND
AS ABOVE
A.A.
A.A.
A.A.
A.A.
A.A.
A.A.
A.A.
A.A.
A.A.
A.A.

260
280
300

A.A.
A.A.
A.A.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-20	560'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE C-105)
865' W 1040' N fr SE cor. Sec. 20	T4S, R9W, Sec. 20, NW,SE,SE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Maricopa County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 752
APPROVAL DATE: 8-14-81
APPROVED BY: M. Base

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

...ELL OUTLINE THE DEDICATED ACREAGE ... PRODUCING WELLS ON THE PLAT.

2. REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION TO SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

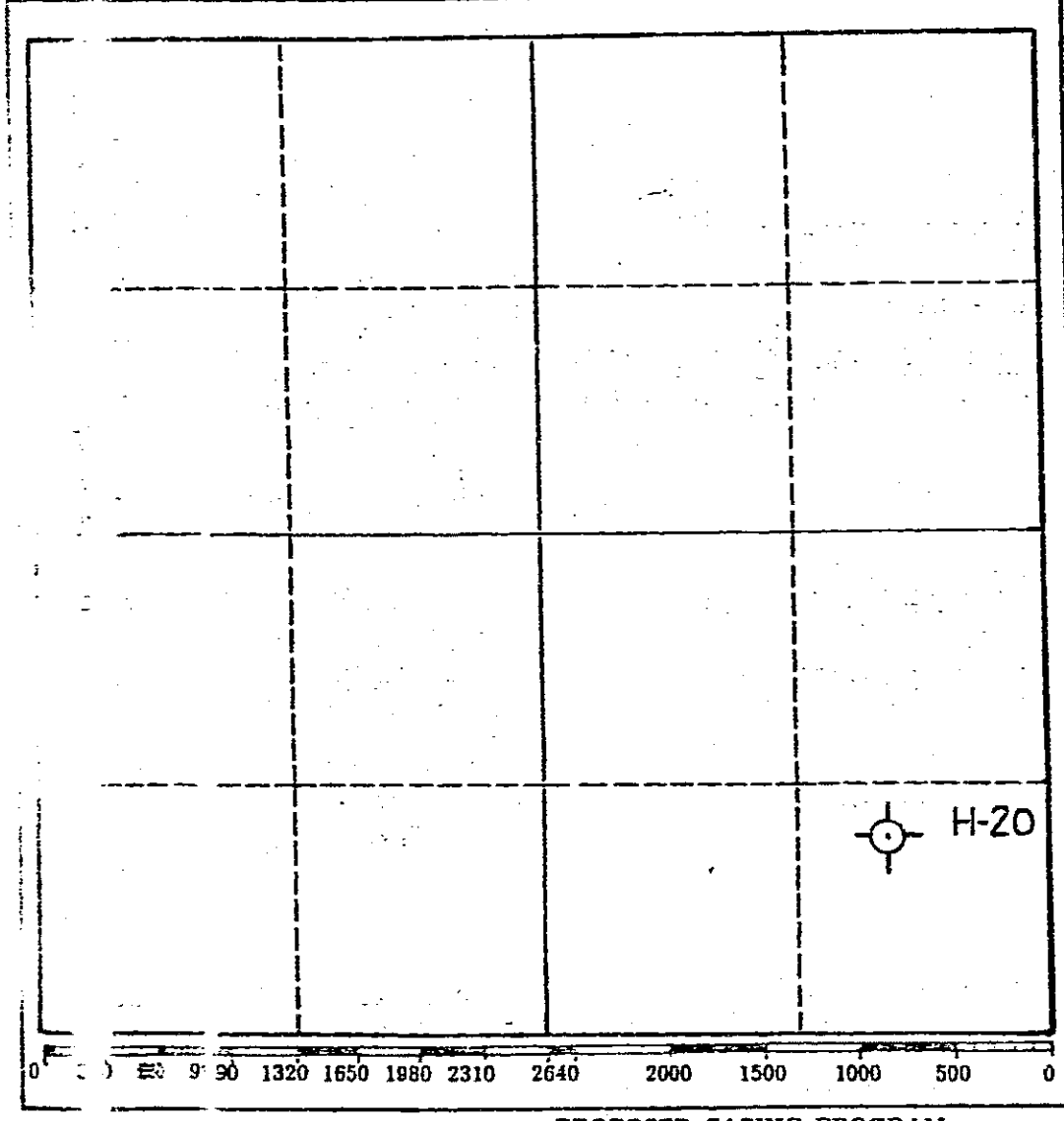
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T4S, R9W, Sec. 20



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: L. Thurston Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

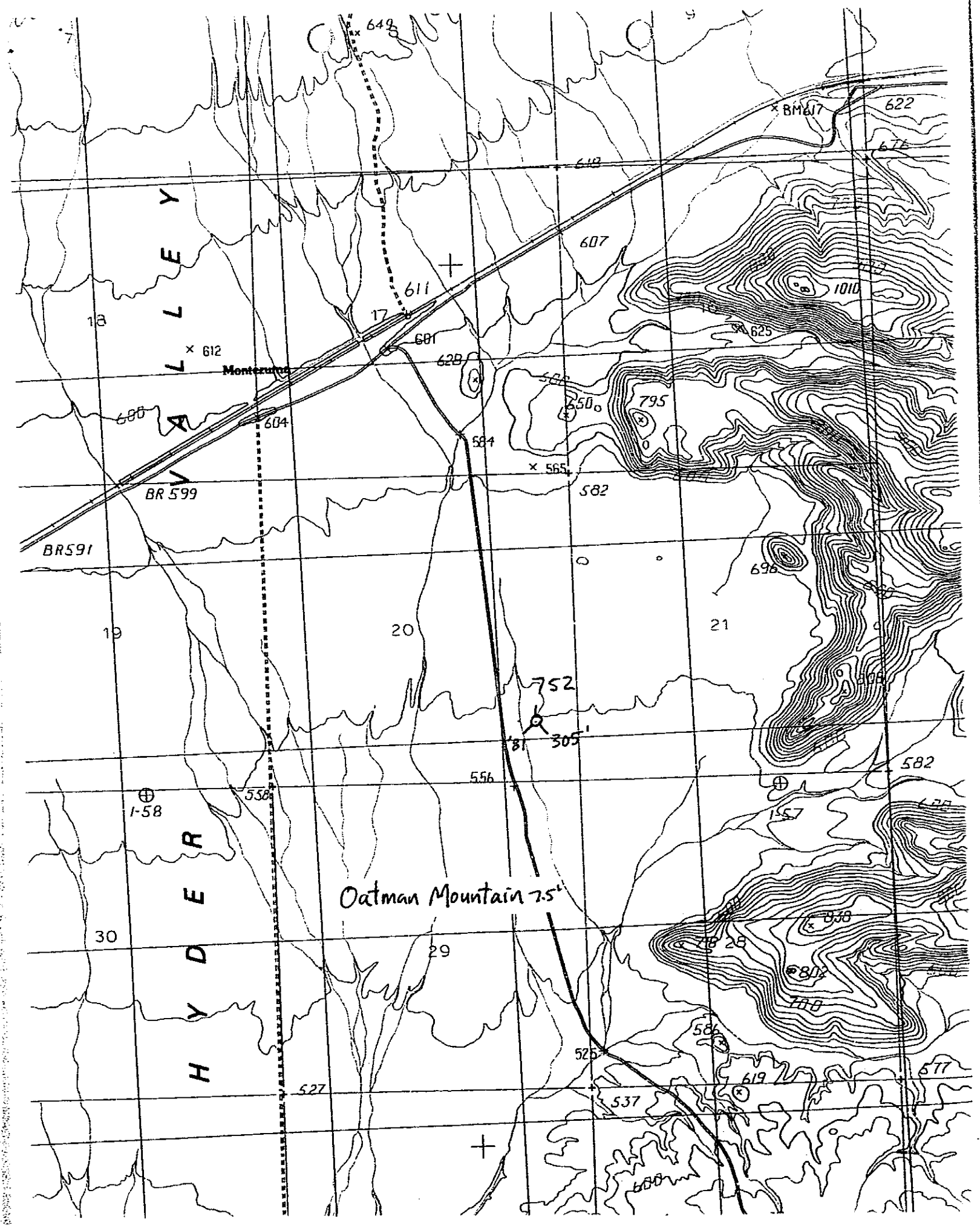
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Sizes of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


649
BM617
622
618
607
611
17
18
1010
625
601
628
612
Montezuma
606
604
650
795
584
565
582
BR 599
BR591
698
19
20
21
752
305'
81
556
558
582
1-58
157
HYDER
Oatman Mountain 7.5'
30
29
28
838
810
586
525
619
577
537
527
680

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-20 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1040' FROM SOUTH LINE, 865' FROM EAST LINE (NW/SE/SE)

Section 20 Township 4 SOUTH Range 9 WEST, MARICOPA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST [illegible] FULL COMPLIANCE WITH RULE 103, SECTION A [illegible] (STORAGE), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 752

RECEIPT NO. 2115

API NO. 02-013-20014

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-21 — FIELD & RESERVOIR: Temperature gradient well
LOCATION: 650' E 430' N fr SW cor Sec. 27	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T5S R13W Sec. 27 SW SW SW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR))	ELEVATION OF CASING HD. FLANGE
10-28-81	10-29-81		591' FEET	FEET

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
305'			To T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 753

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA
YUMA
Phillips Petroleum
HYDER
H-21
Temp. Grad. Well
27
5S
13W
TOTAL DEPTH 305'
CONTRACTOR Burt Drilling Inc
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 1-29-82
ALTITUDE
PRODUCTION
CASING RECORD
SHOT
QUARTR
BETWEEN
TIME RATE SCALE: 1/10" = MINUTES
Mesa-Bill 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.
TIME RATE-1/10" SQUARES

SAND & CLAY
SAND FINE GRAVEL
AS ABOVE
A.A.
A.A.
SAND, GRAVEL, CLAY
SAND & COARSE GRAVEL
A.A.
SAND & CLAY
A.A.
A.A.
A.A.

0
10
20
30
40
50
60
70
80
90
100
280
300

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-21	591'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
650' E 430' N fr SW cor Sec. 27	T5S, R13W, Sec. 27, SW, SW, SW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Cadbury
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 253
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE

...ATOR SHALL OUTLINE THE DEDICATED ACREAGE FOR PETROLEUM RESOURCE LEASES ON THE PLAT.

3. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

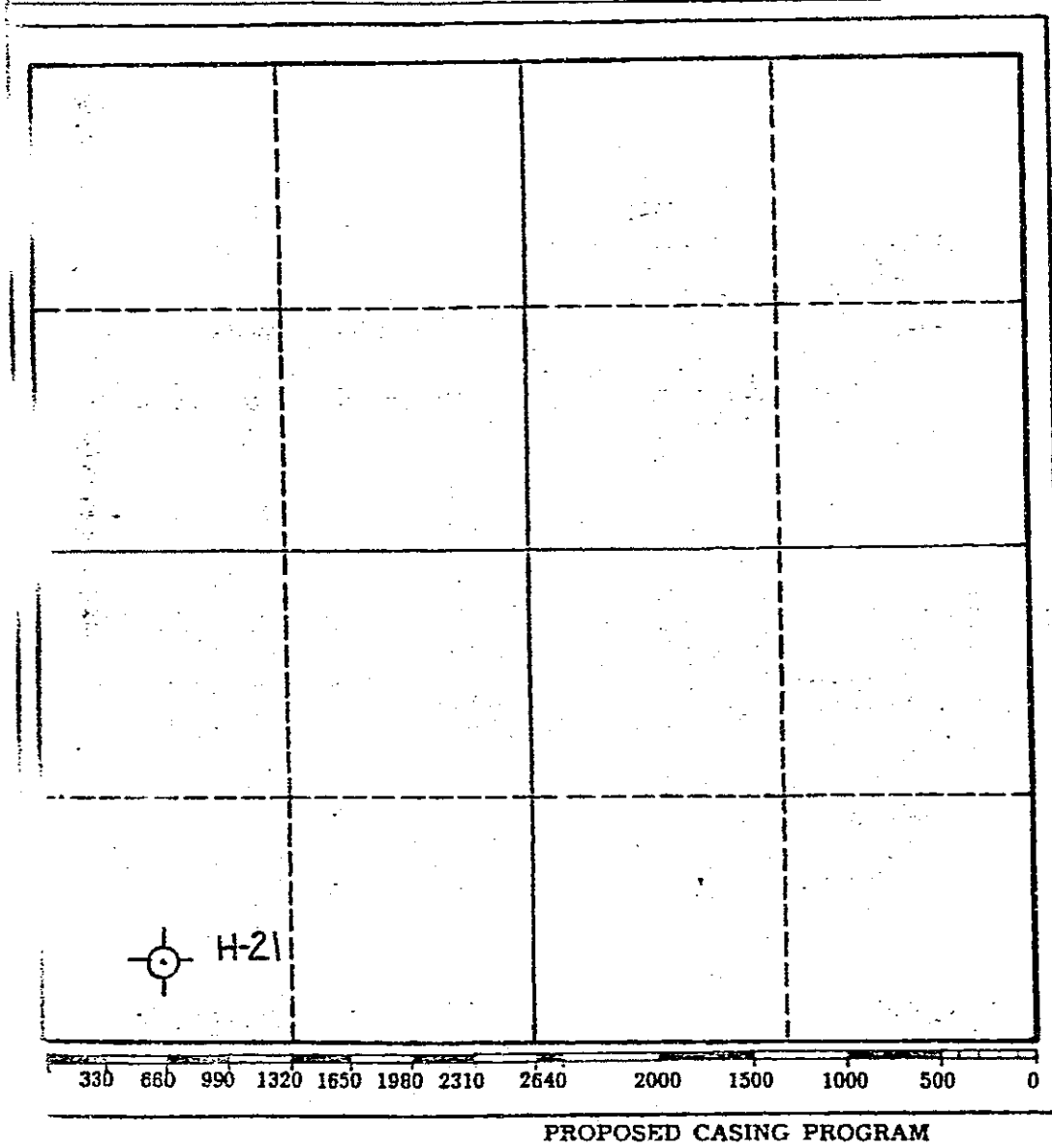
2. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T5S, R13W, Sec. 27



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: T. Gradbur

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

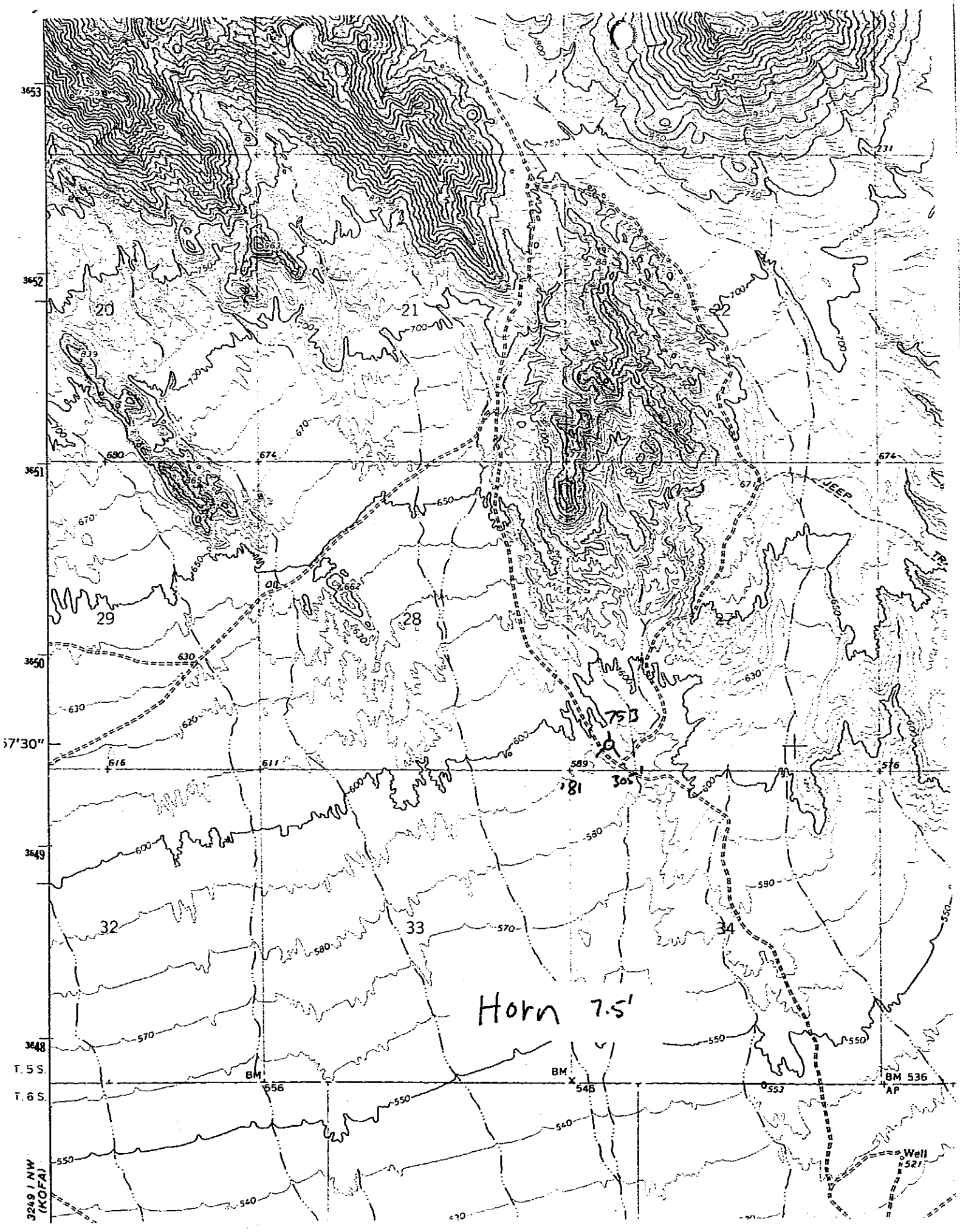
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


3653
3652
3651
3650
57'30"
3649
3648
T. 5 S.
T. 6 S.
3249 I NW
(KOFA)
20
21
22
29
28
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32
33
34
JEEP
BM
BM
BM 536
AP
Well
Horn 7.5'

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPA PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-21 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 430' FROM SOUTH LINE, 650' FROM WEST LINE (SW/SW/SW)

Section 27 Township 5 SOUTH Range 13 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 10b, SECTION A THRU G (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 753

RECEIPT NO. 2115
API NO. 02-027-20025

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-22 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 175' S 430' W fr NE cor. Sec. 23	COUNTY: Maricopa
SEC. TWP-RANGE OR BLOCK & SURVEY: T5S-R9W Sec. 23 NE NE NE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
10-16-81	10-16-81		615'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
307		0-65'	65' - T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

ANALYSES OF FLUIDS & GASES

DATE	STATIC TEST SHUT IN WELL HEAD		TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 754

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY MARICOPA
BLOCK
SEC. 23
T. 5S R. 9W

COMPANY Phillips Petroleum
FARM HYDER WELL NO. H-22
SURVEY Temp. Grad. Well

TOTAL DEPTH 307'
CONTRACTOR BURT Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 9-10-81

ALTITUDE
PRODUCTION

CASING RECORD

SHOE QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Form 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

BASALT FLOW

SAND & BASALT FRAGMENTS

CLAY & GRAVEL

INTERBEDDED SAND & BASALT

INTERBEDDED SAND BASALT & CLAY

AS ABOVE

A.A.

A.A.

A.A. NO CLAY

A.A. with CLAY

SAND & CLAY

A.A.

300
280
260
240
220
200
180
160
140
120
100
80
60
40
20
0

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR: Phillips Petroleum Company		
ADDRESS: 431 South 300 East	CITY: Salt Lake City	STATE: Utah
DRILLING CONTRACTOR: Dixie Drilling Company (if available)		
ADDRESS: Fernley, Nevada		

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE. NAME OF LESSOR: Bureau of Land Management	WELL NUMBER: H-22	ELEVATION (GROUND): 615'
NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET	
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:	
IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME	ADDRESS	

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES): 175' S 430' W fr NE cor. Sec. 23	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY: T5S, R9W, Sec. 23, NE,NE,NE	DEDICATION (COMPLY WITH RULE G-105)
FIELD AND RESERVOIR (IF WILDCAT, SO STATE): Temperature Gradient Well	COUNTY: Maricopa County	
DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE		

PROPOSED DEPTH: 300'	ROTARY OR CABLE TOOLS: Rotary	APPROX. DATE WORK WILL START: September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 754
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[redacted]

[redacted]

[redacted]

1. [illegible] SHALL OUTLINE THE [illegible] ACRE FOR GEOTHERMAL RESOURCES [illegible] ON THIS PLAT.

2. REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

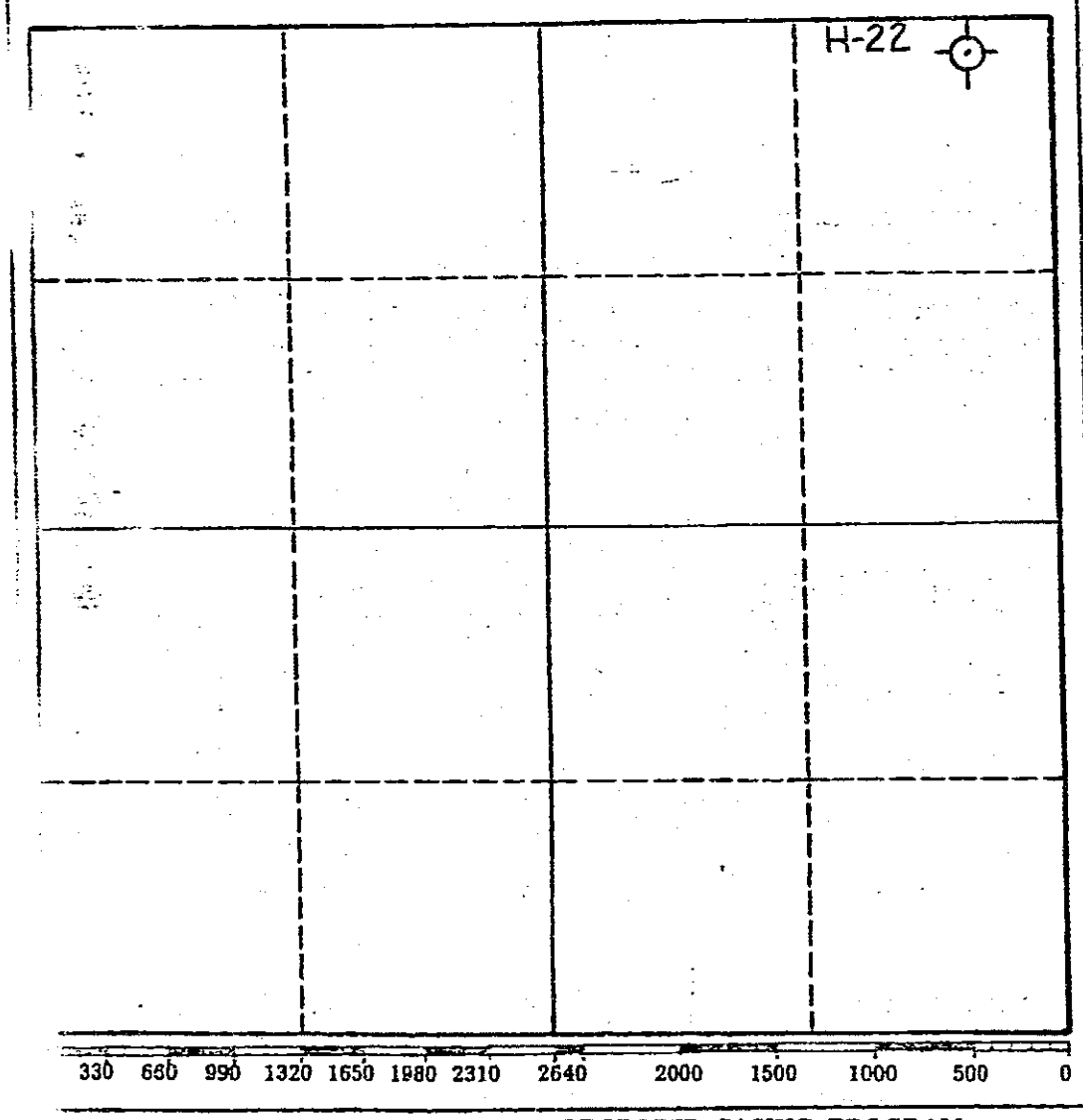
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
[illegible] of Land Management	T5S, R9W, Sec. 23



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: [signature]

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

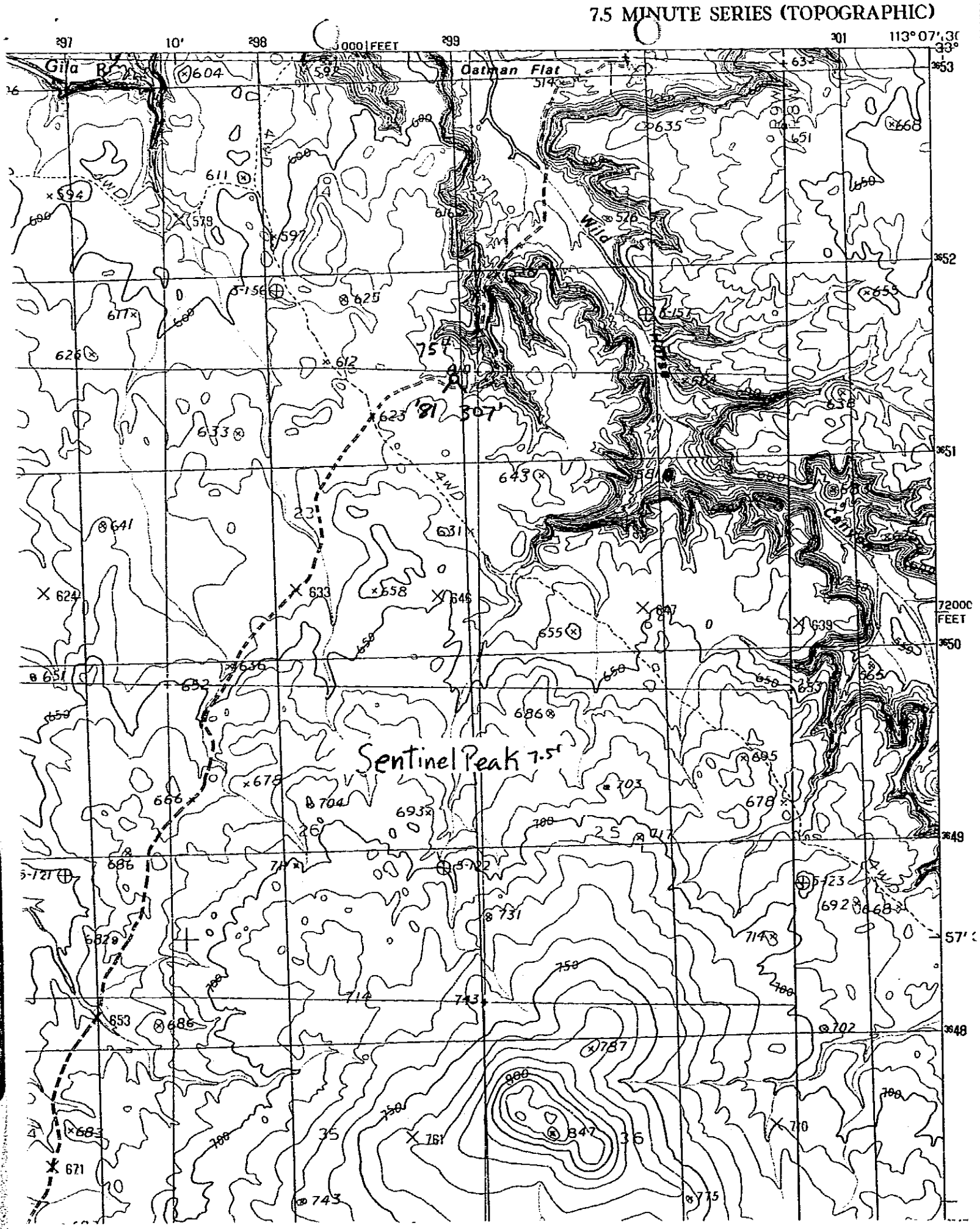
Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						

7.5 MINUTE SERIES (TOPOGRAPHIC)



PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-22 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 175' FROM NORTH LINE, 430' FROM EAST LINE (NE/NE/NE)

Section 23 Township 5 SOUTH Range 9 WEST, MARICOPA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 10a, SECTION A THROUGH E (S.C.C. 5), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 754

RECEIPT NO. 2115

API NO. 02-013-20015

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-23 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 1990' W 1425' S fr NE cor. Sec. 11	COUNTY: Maricopa
SEC. TWP-RANGE OR BLOCK & SURVEY: T5S R8W Sec. 11 NW SW NE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR))	ELEVATION OF CASING HD. FLANGE
9-24-81	9-24-81		580' FEET	FEET

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
165'		To T.D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 755

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY MARICOPA
BLOCK
SEC. 11
T 5S R 8W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FARM HYDER WELL NO. H-23
SURVEY Temp. Grad. Well
TOTAL DEPTH 165'
CONTRACTOR BURT DRILLING INC
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 12-17-81

CASING RECORD

SHOT | QUARTS | BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Kardex 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

20 BOULDERS & MF SAND
40 AS ABOVE
60 COARSE GRAVEL & MF SAND
30 A.A.
00 A.A.
20 A.A.
40 A.A.
60 BOULDERS

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER GEOTHERMAL RESOURCES WELL

RECEIVED
OCT 1 1981
O & G CONS. COMM.

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐ AMENDED LOCATION

NAME OF COMPANY OR OPERATOR: Phillips Petroleum Company

ADDRESS: 655 East 4500 South CITY: Murray STATE: Utah

DRILLING CONTRACTOR: Burt's Drilling, Inc.

ADDRESS: 2755 South 1600 West, Mapleton, Utah

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-23	580'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
1990'W 1425'S fr NE cor, Sec. 11	T5S, R8W, Sec 11, NW,SW,NE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE): Temperature Gradient Well

COUNTY: Maricopa

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Co. (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT: AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gladburn
SIGNATURE

September 28, 1981
DATE

PERMIT NUMBER: 755
APPROVAL DATE: 10-2-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

Amended location

1. OPERATOR SHALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELLS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

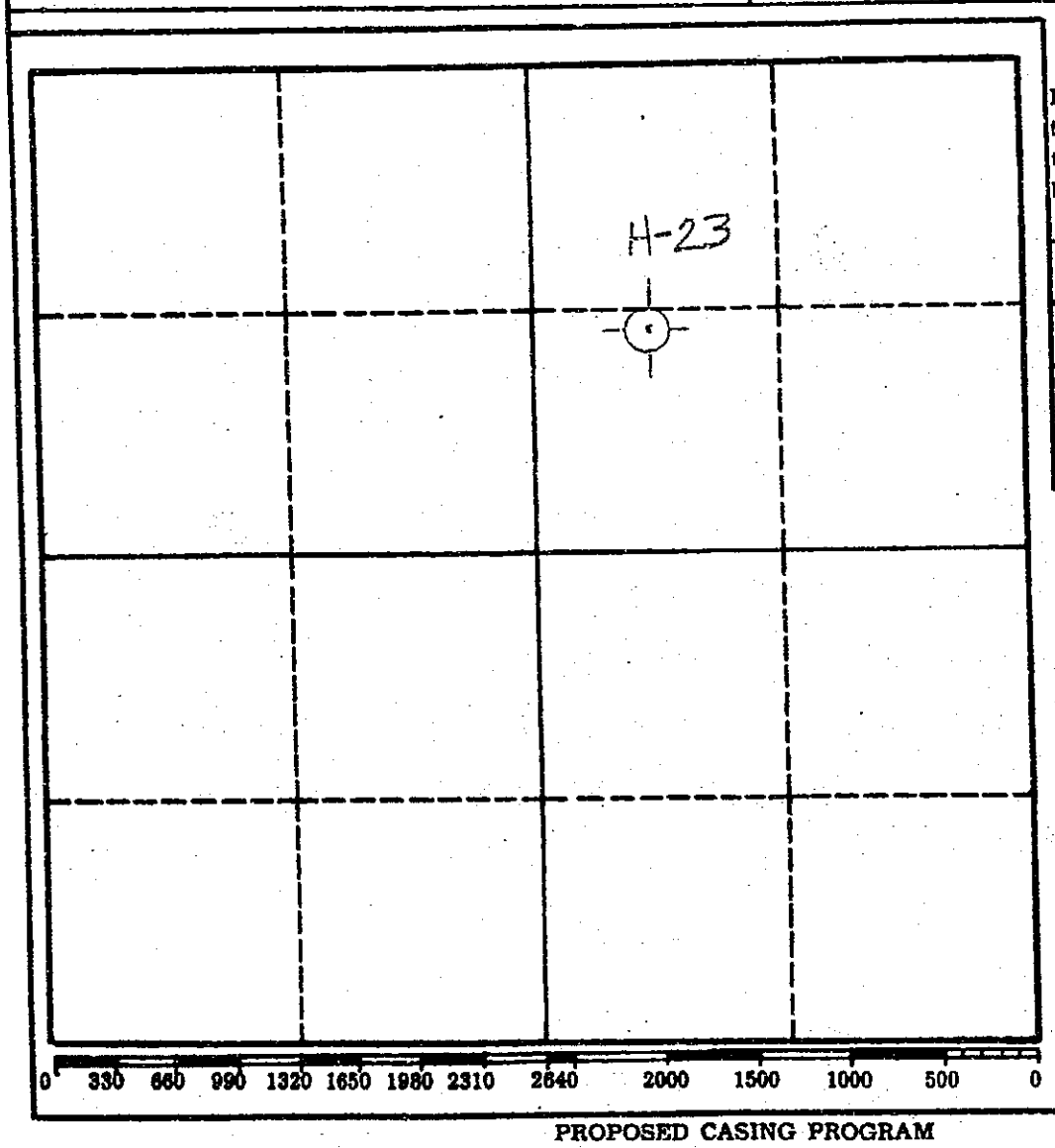
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T5S, R8W, Sec. 11



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: Gary Gladburn

Position: Geologist

Company: Phillips Petroleum

Date: September 28, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. filled with water. Measure temperature therein. Plug and abandon within one year.		Install 1" PVC pipe to T.D.			Plugged at bottom and	

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR: Phillips Petroleum Company		
ADDRESS: 431 South 300 East	CITY: Salt Lake City	STATE: Utah
DRILLING CONTRACTOR: Dixie Drilling Company (if available)		
ADDRESS: Fernley, Nevada		

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR: Bureau of Land Management	WELL NUMBER: H-23	ELEVATION (GROUND): 585'
NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET	
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:	
IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME	ADDRESS	
1990 fel 1425 fsl		
WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES): ~~2160' E 3030' S fr NW cor.~~ Sec. 11	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY: T5S, R8W, Sec. 11, NE,NE,SW	DEDICATION (COMPLY WITH RULE G-105)
FIELD AND RESERVOIR (IF WILDCAT, SO STATE): Temperature Gradient Well	COUNTY: Maricopa County	
DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE		

PROPOSED DEPTH: 300'	ROTARY OR CABLE TOOLS: Rotary	APPROX. DATE WORK WILL START: September 1, 1981
BOND STATUS: AMOUNT	ORGANIZATION REPORT: ON FILE OR ATTACHED	FILING FEE OF $25.00: ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 755
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION MUST SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

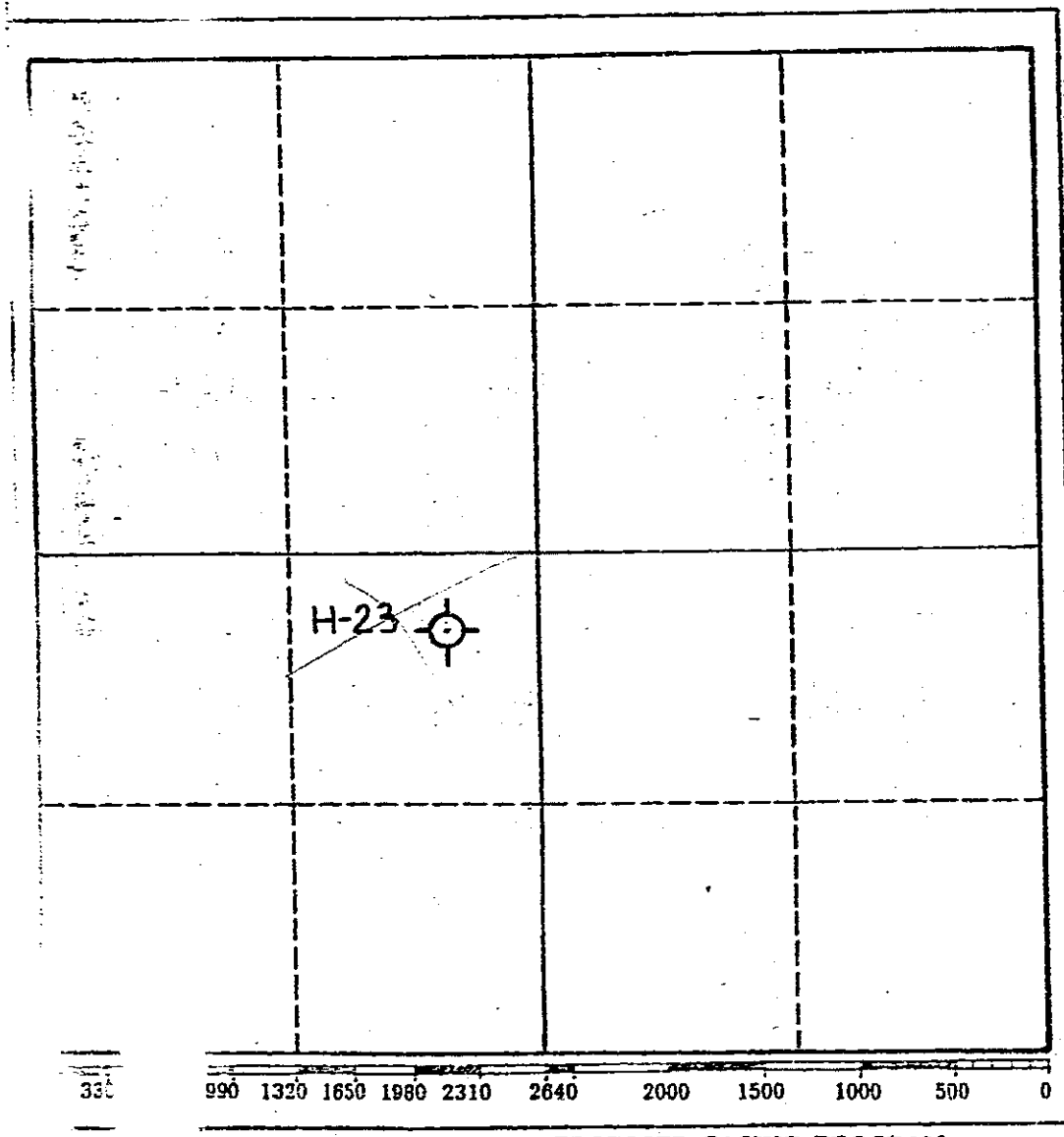
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T5S, R8W, Sec. 11



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: K. Thru Bradbury

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

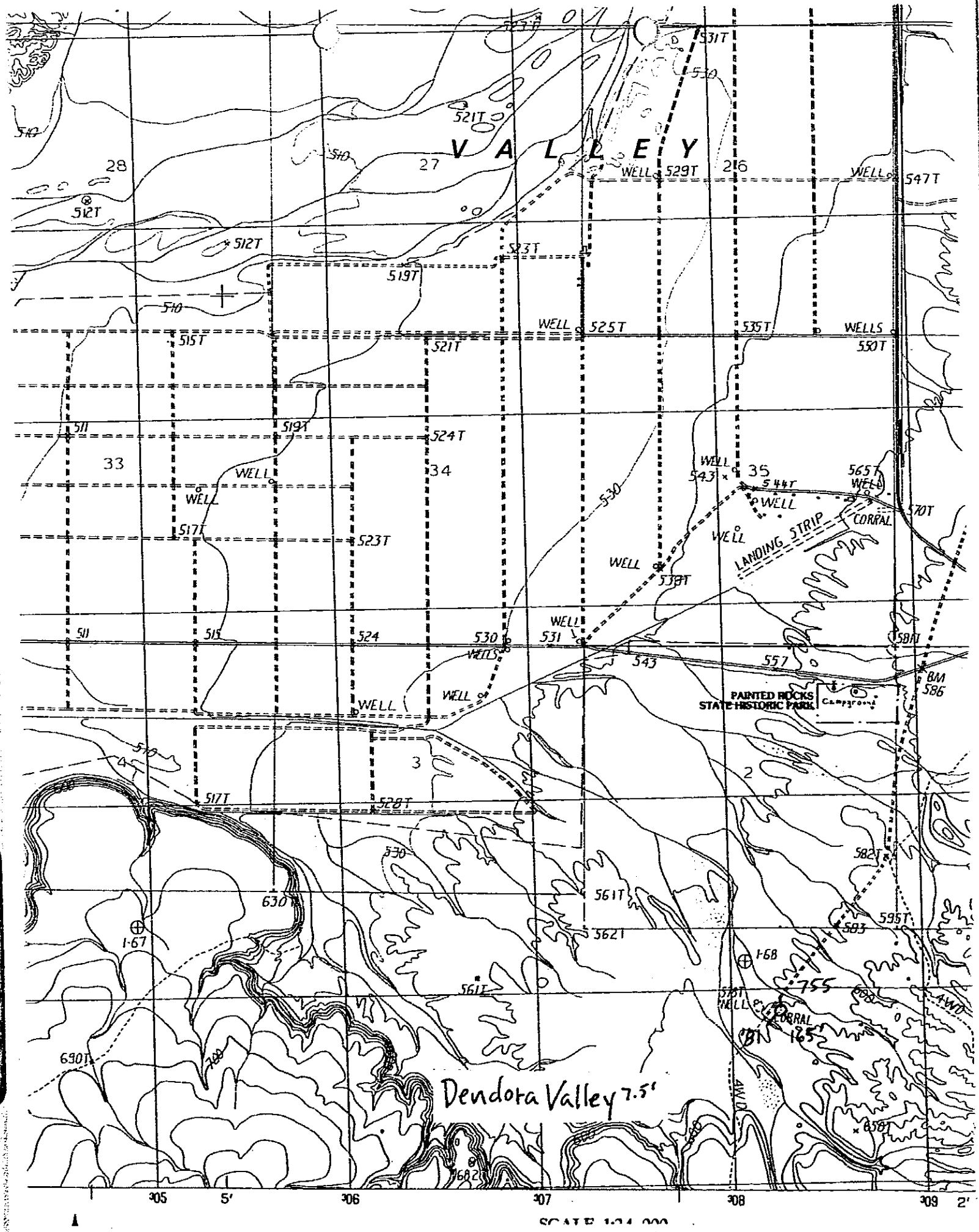
Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement

" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water.
easure temperature therein.
lug and abandon within one year.


VALLEY
WELL 529T
WELL 547T
WELL 525T
535T
WELLS 550T
WELL 543
544T
565T
570T
CORRAL
LANDING STRIP
538T
WELL 531
WELLS
543
557
581T
BM 586
PAINTED ROCKS STATE HISTORIC PARK
Campground
582T
595T
583
561T
562T
561T
1-67
1-68
755
CORRAL
BM 165
4WD
630T
Dendora Valley 7.5'
28
27
26
33
34
35
3
2
305
306
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PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-23 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1425 3030' FROM NORTH LINE, ~~2160~~ 1990 EAST FROM WEST LINE (NE/NE/SW)

Section 11 Township 5 SOUTH Range 8 WEST, MARICOPA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 10b, SECTION A 1 AND 6 (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 755

RECEIPT NO. 2115

API NO. 02-013-20016

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-24
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 280' E 390' S fr NW cor. Sec. 10	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T6S R12W Sec. 10 NW NW NW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
10-29-81	10-30-81		435'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
110'			To T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS/HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 756

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-1

(COMPLETE REVERSE SIDE)

DETAIL OF FORMATIONS PENETRATED

FORMATION	TOP	BOTTOM	DESCRIPTION*
*See attached lithologic log and/or driller's log			

* SHOW ALL IMPORTANT ZONES OF POROSITY. DETAIL OF ALL CORES, AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES.

INSTRUCTIONS:

ATTACH DRILLERS LOG OR OTHER ACCEPTABLE LOG OF WELL.

THIS WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG SHALL BE FILED WITH THE STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION NOT LATER THAN THIRTY DAYS AFTER PROJECT COMPLETION.

FORM NO. G-1

ARIZONA
COUNTY YUMA
BLOCK
SEC. 10
T. 6S R. 12W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FARM HYDER WELL NO. H-24
SURVEY Temp. Grad. Well
TOTAL DEPTH 110'
CONTRACTOR Burt Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadbuen 12-17-81

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Kirsten 450 - TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

12-17-81

GRAVEL & SAND
AS ABOVE
MEDIUM SAND
COARSE GRAVEL
A.A.
FINE SAND

0
10
20
30
00
0

ARIZONA
COUNTY YUMA
BLOCK
SEC. 10
T. 6S R. 12W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FARM HYDER WELL NO. H-24
SURVEY Temp. Grad. Well
TOTAL DEPTH 110'
CONTRACTOR Burt Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadbuen 12-17-81

CASING RECORD

SHOT QUARTR BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Neff 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

GRAVEL & SAND
AS ABOVE
FINE SAND
COARSE GRAVEL
A.A.
FINE SAND

10
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APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-24	435'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
280' E 390' S fr NW cor. Sec. 10	T6S, R12W, Sec. 10, NW,NW,NW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT: AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Cadburn
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 756
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[redacted]

[redacted]

... WELL OUTLINE THE DEDICATED ACREAGE ... SECTION'S RESOURCES WELLS ON THE PLAT.

... REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION ... SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

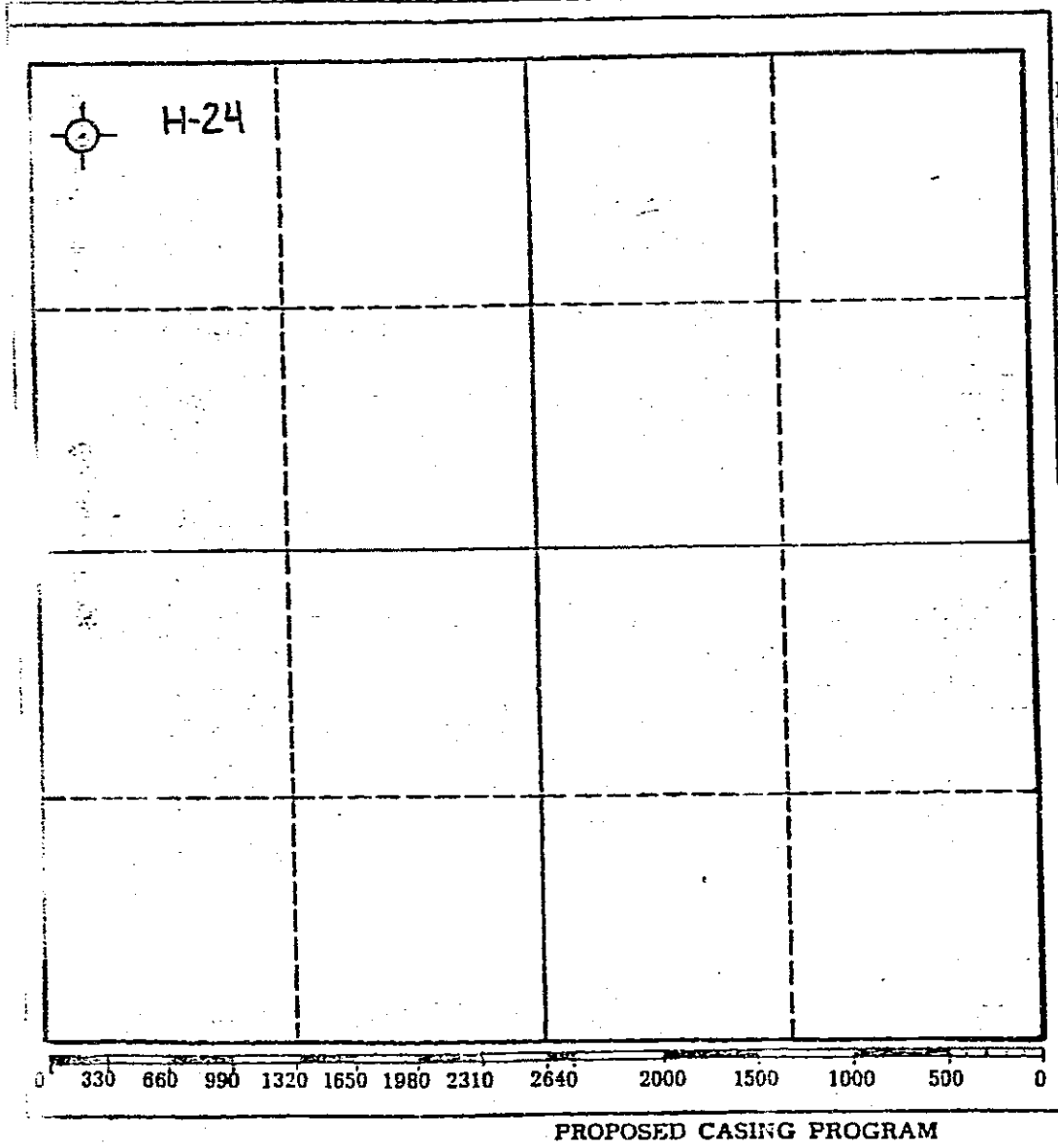
ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T6S, R12W, Sec. 10,



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: L. Thurston Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

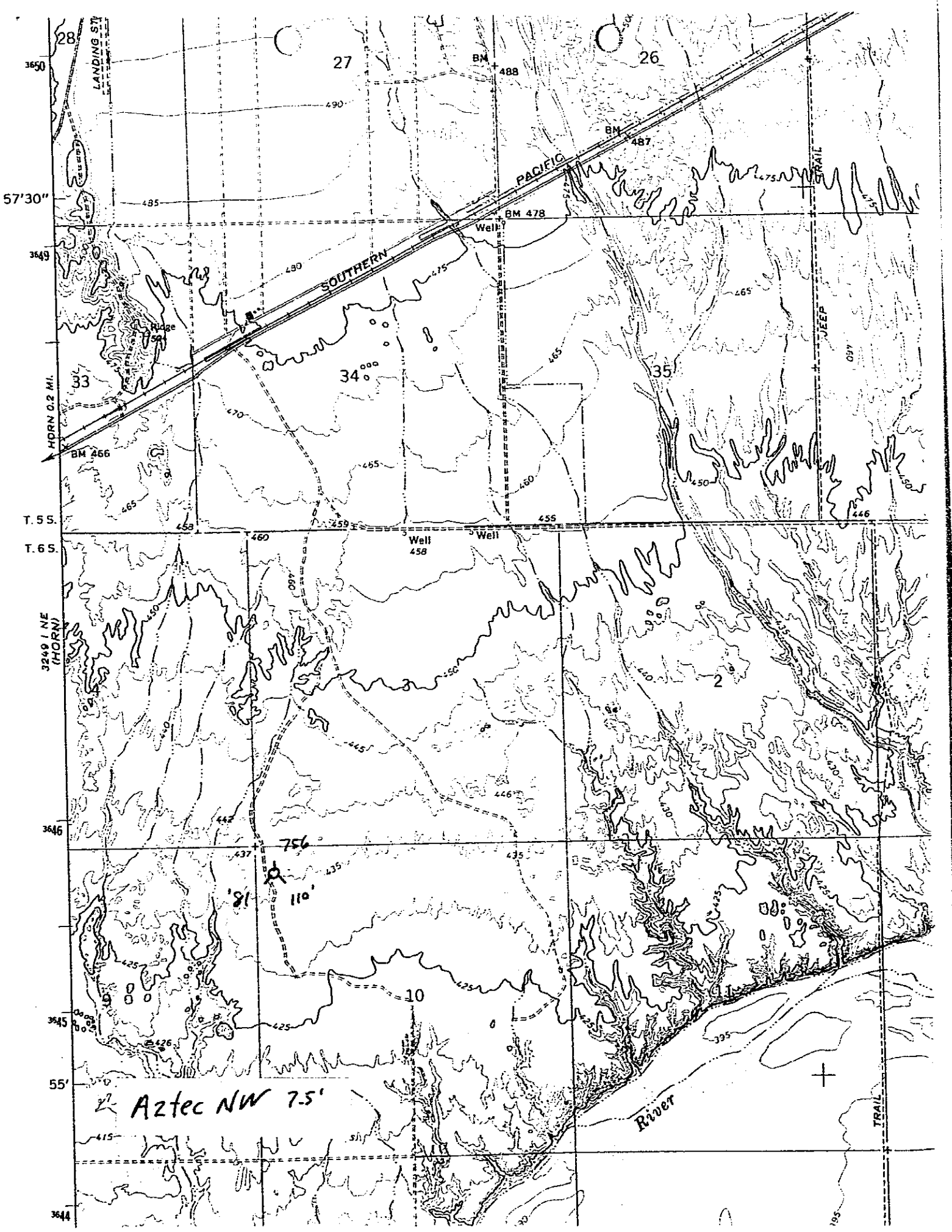
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


28
27
26
LANDING ST
BM 488
BM 487
PACIFIC
TRAIL
57'30"
BM 478
Well
SOUTHERN
JEEP
Ridge
33
34
35
HORN 0.2 MI.
BM 466
T. 5 S.
T. 6 S.
Well
Well
458
3249 I NE (HORN)
2
10
'81
110'
River
TRAIL
Aztec NW 7.5'

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-24 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 390' FROM NORTH LINE, 280' FROM WEST LINE (NW/NW/NW)

Section 10 Township 6 SOUTH Range 12 WEST, YUMA County, Arizona.

The N/A of said

Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 10b, SECTION A [illegible] (S.C.C.), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT Nº 756

RECEIPT NO. 2115

API NO. 02-027-20026

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-25 — FIELD & RESERVOIR: Temperature gradient well
LOCATION: 100' W 165' N fr SE cor. Sec. 9	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T6S R11W Sec. 9 SE SE SE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
(Not Drilled)			474'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES — TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 757

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

DETAIL OF FORMATIONS PENETRATED

FORMATION	TOP	BOTTOM	DESCRIPTION*
*See attached lithologic log and/or driller's log			

* SHOW ALL IMPORTANT ZONES OF POROSITY, DETAIL OF ALL CORES, AND ALL DRILL-STEM TESTS, INCLUDING DEPTH INTERVAL TESTED, CUSHION USED, TIME TOOL OPEN, FLOWING AND SHUT-IN PRESSURES, AND RECOVERIES.

INSTRUCTIONS:

ATTACH DRILLERS LOG OR OTHER ACCEPTABLE LOG OF WELL.

THIS WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG SHALL BE FILED WITH THE STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION NOT LATER THAN THIRTY DAYS AFTER PROJECT COMPLETION.

FORM NO. [illegible]

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-25	474'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
100' W 165' N fr SE cor. Sec. 9	T6S, R11W, Sec. 9, SE,SE,SE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Yuma County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Mary Cadburn
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 757
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[illegible] OUTLINING THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES WELL[illegible] ON THE PLAT.

[illegible] A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION [illegible] SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

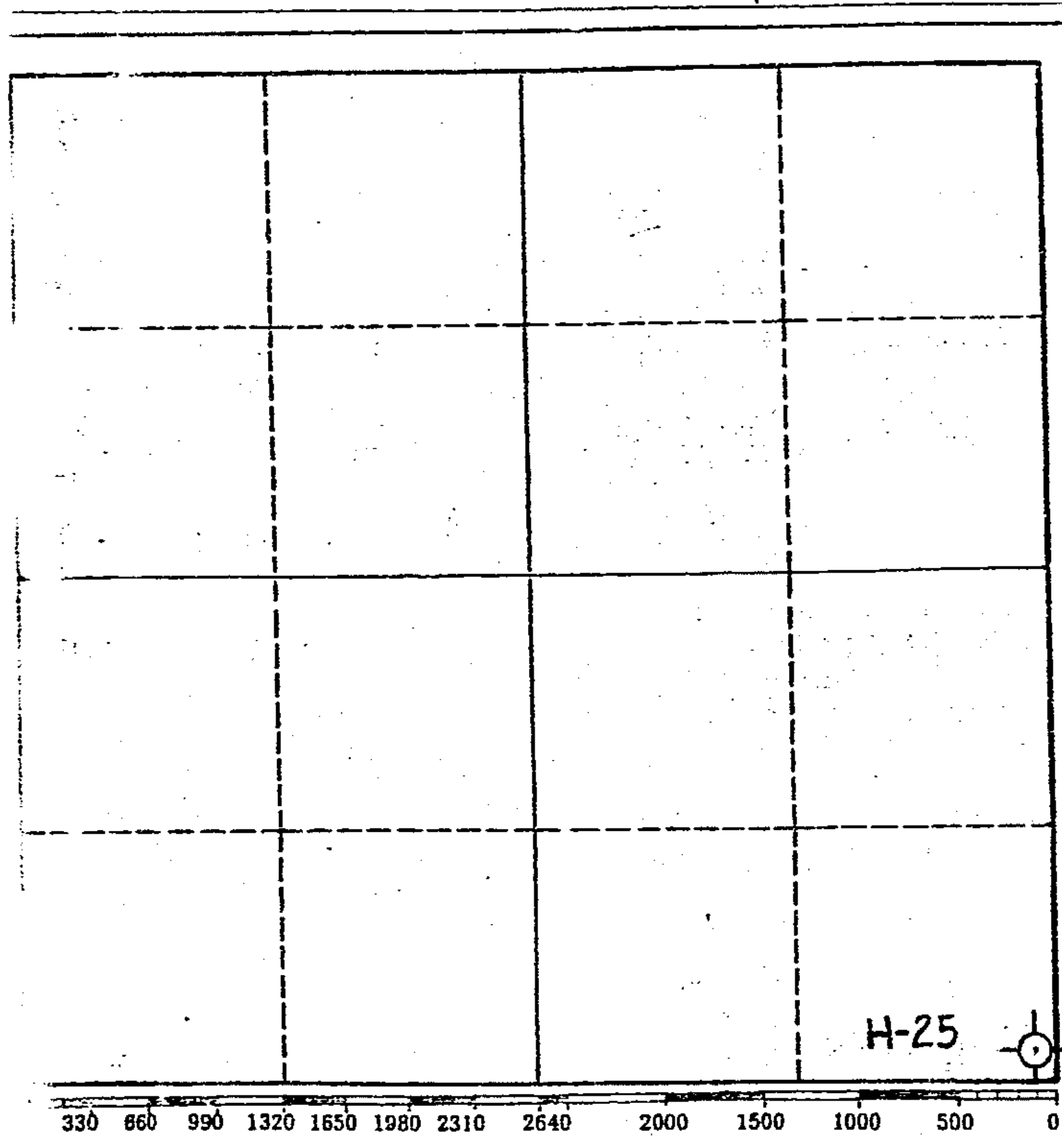
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES ________ NO ________. IF ANSWER IS "YES" TYPE OF CONSOLIDATION ________________

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T6S, R11W, Sec. 9



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name [signature]

Position
Geologist

Company
Phillips Petroleum Co.

Date July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement

6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water.
Measure temperature therein.
Plug and abandon within one year.

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-25 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 165' FROM SOUTH LINE, 100' FROM EAST LINE (SE/SE/SE)

Section 9 Township 6 SOUTH Range 11 WEST, YUMA County, Arizona.

The N/A of said

Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (SPECIAL), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 757

RECEIPT NO. 2115

API NO. 02-027-20027

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [XX] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-26 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 1240' E 1680' S fr NW cor. Sec. 10	COUNTY: Maricopa
SEC. TWP-RANGE OR BLOCK & SURVEY: T6S R10W Sec. 10 NE SW NW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED. READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR) FEET	ELEVATION OF CASING HD. FLANGE FEET
10-10-81	10-11-81		572'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
303'		To T.D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

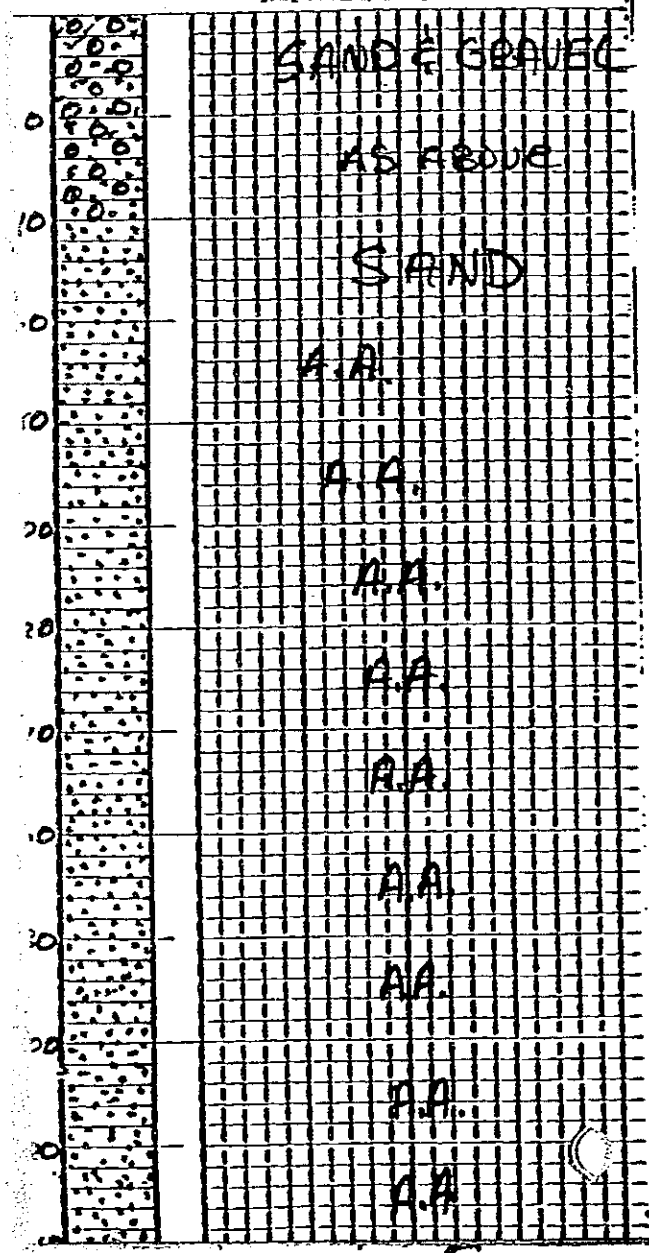
Gary Gladburn
SIGNATURE

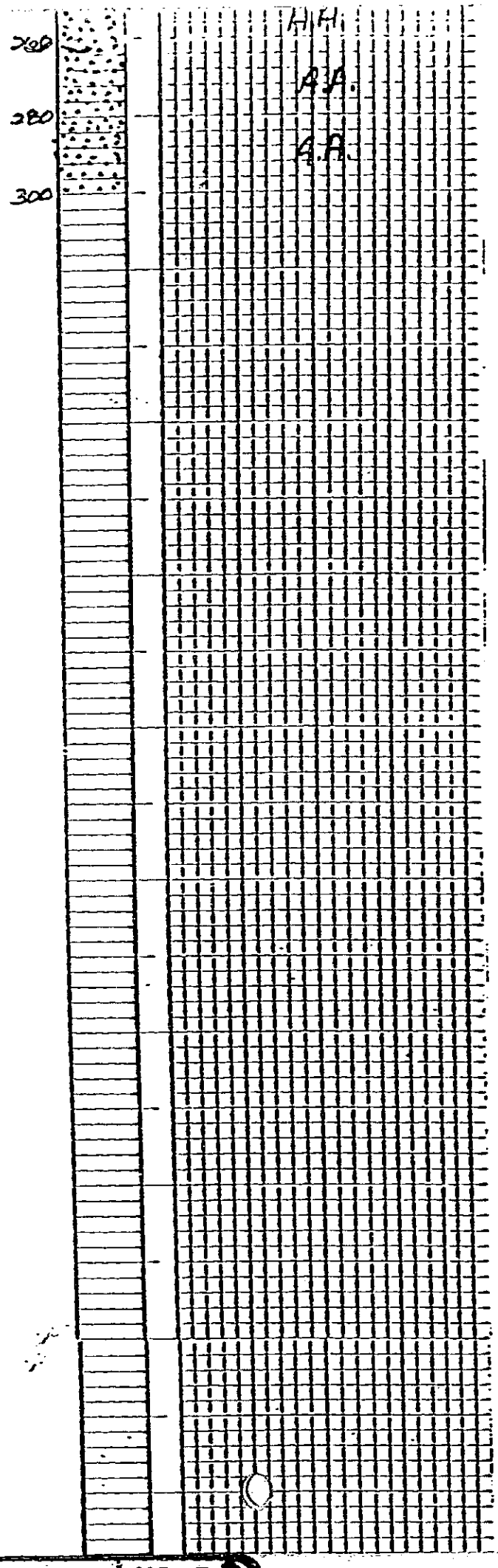
PERMIT NO. 758

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA — Phillips Petroleum
COUNTY MARICOPA — FIELD HYDER — WELL NO. H-26
BLOCK — SURVEY Temp. Grad. Well
SEC. 10
T 6 S — R 10 W
TOTAL DEPTH 303'
CONTRACTOR BURT DRILLING INC.
COMMENCED
COMPLETED
REMARKS Logged by G. CHADBURN 1-29-82
ELEVATION
PRODUCTION
CASING RECORD
SHOT — QUARTS — BETWEEN
TIME RATE SCALE: 1/10" = MINUTES
TIME RATE-1/10" SQUARES
Reeves 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.





APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCE WELL

RECEIVED
AUG 18 1981
O & G CONS. COMM.

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-26	572'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-103)
1240' E 1680' S fr NW cor. Sec. 10	T6S, R10W, Sec. 10, NE,SW,NW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Maricopa County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbaw
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 758
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

2. THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES AS [illegible] PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

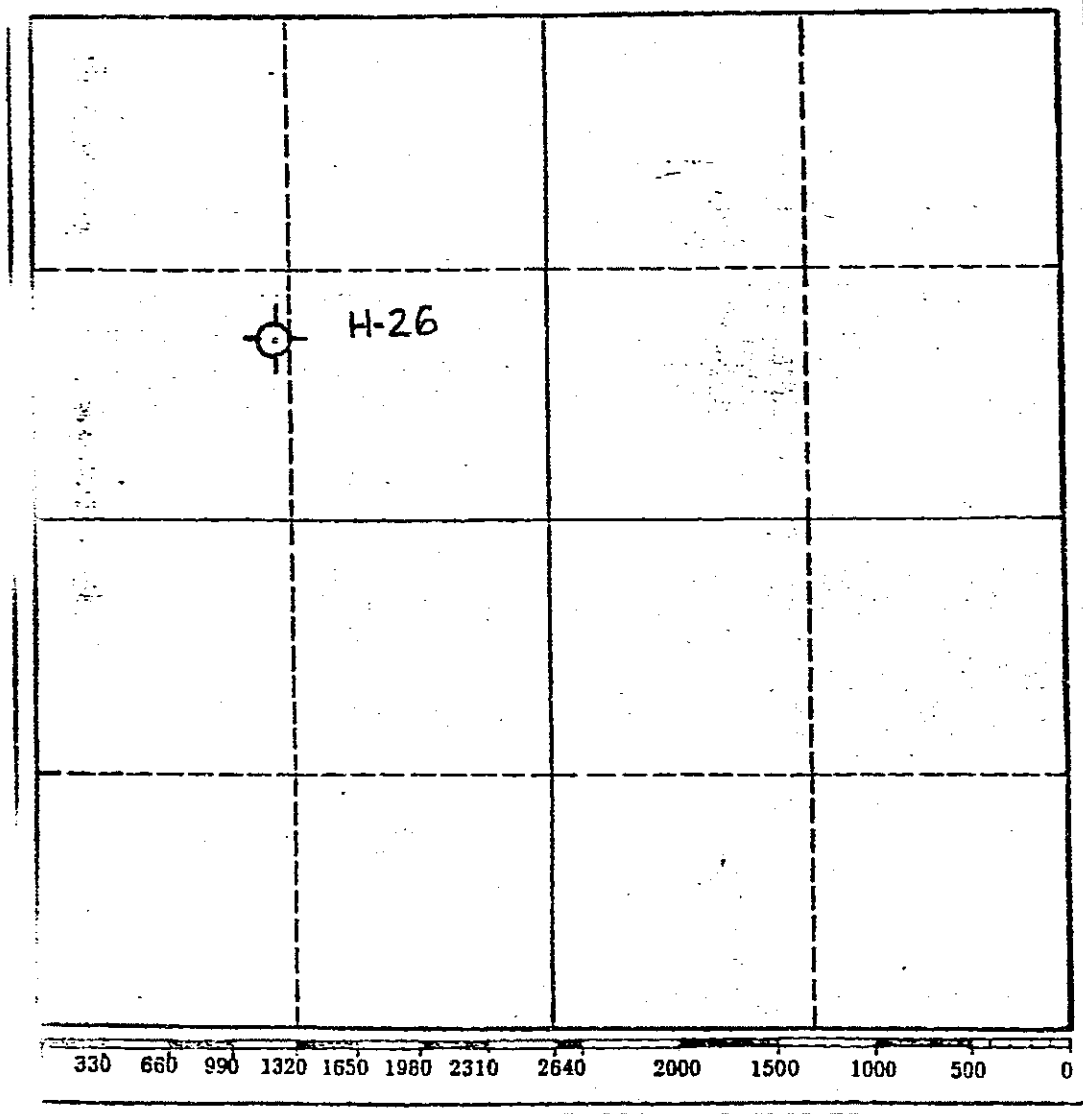
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES _____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T6S, R10W, Sec. 10



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: L. Thurs Gadbaw

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

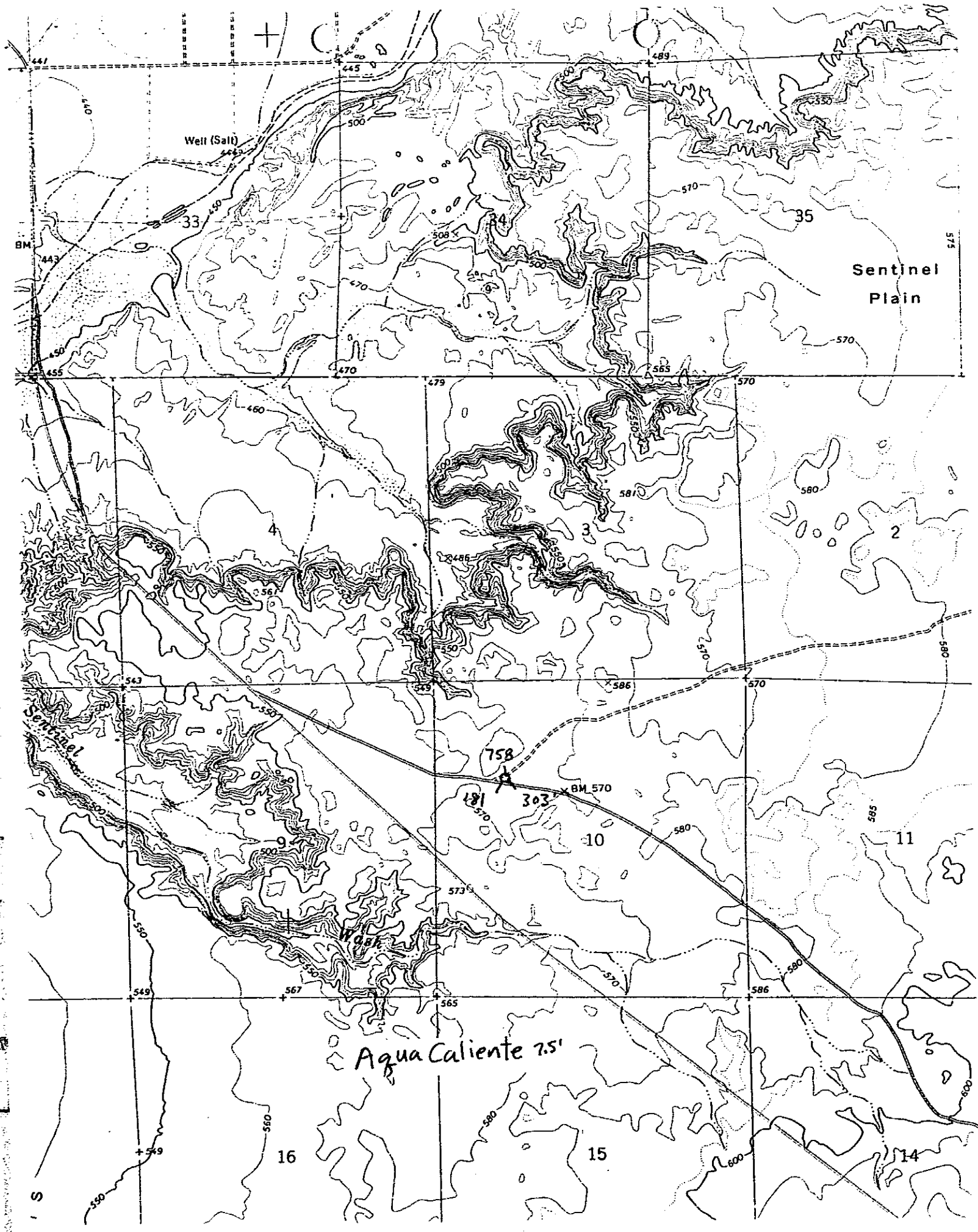
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


Well (Salt)
BM
33
34
35
Sentinel
Plain
4
3
2
9
10
11
16
15
14
Sentinel
Wash
758
303
181
BM 570
Aqua Caliente 7.5'

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-26 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1680' FROM NORTH LINE, 1240' FROM WEST LINE (NE/SW/ NW)

Section 10 Township 6 SOUTH Range 10 WEST, MARICOPA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 10e, SECTION A 1 AND 3 (SPACING), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 758

RECEIPT NO. 2115

API NO. 02-012-20017

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-27
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 2160' E 1775' N fr SW cor. Sec. 9	COUNTY: Maricopa
SEC. TWP-RANGE OR BLOCK & SURVEY: T6S R9W Sec. 9 SE NE SW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
10-15-81	10-15-81		658'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
305'		0-85'	85' - T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 759

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-4

(COMPLETE REVERSE SIDE)

ARIZONA COMPANY Phillips Petroleum

FARM HYDER WELL NO. H-27

COUNTY MARICOPA

BLOCK

SURVEY Temp. Grad. Well

SEC. 9

T. 6S R. 9W

TOTAL DEPTH 305'

CONTRACTOR Buet Drilling Inc.

COMMENCED

COMPLETED

REMARKS Logged by G. Chadbuen 12-10-81

ELEVATION

PRODUCTION

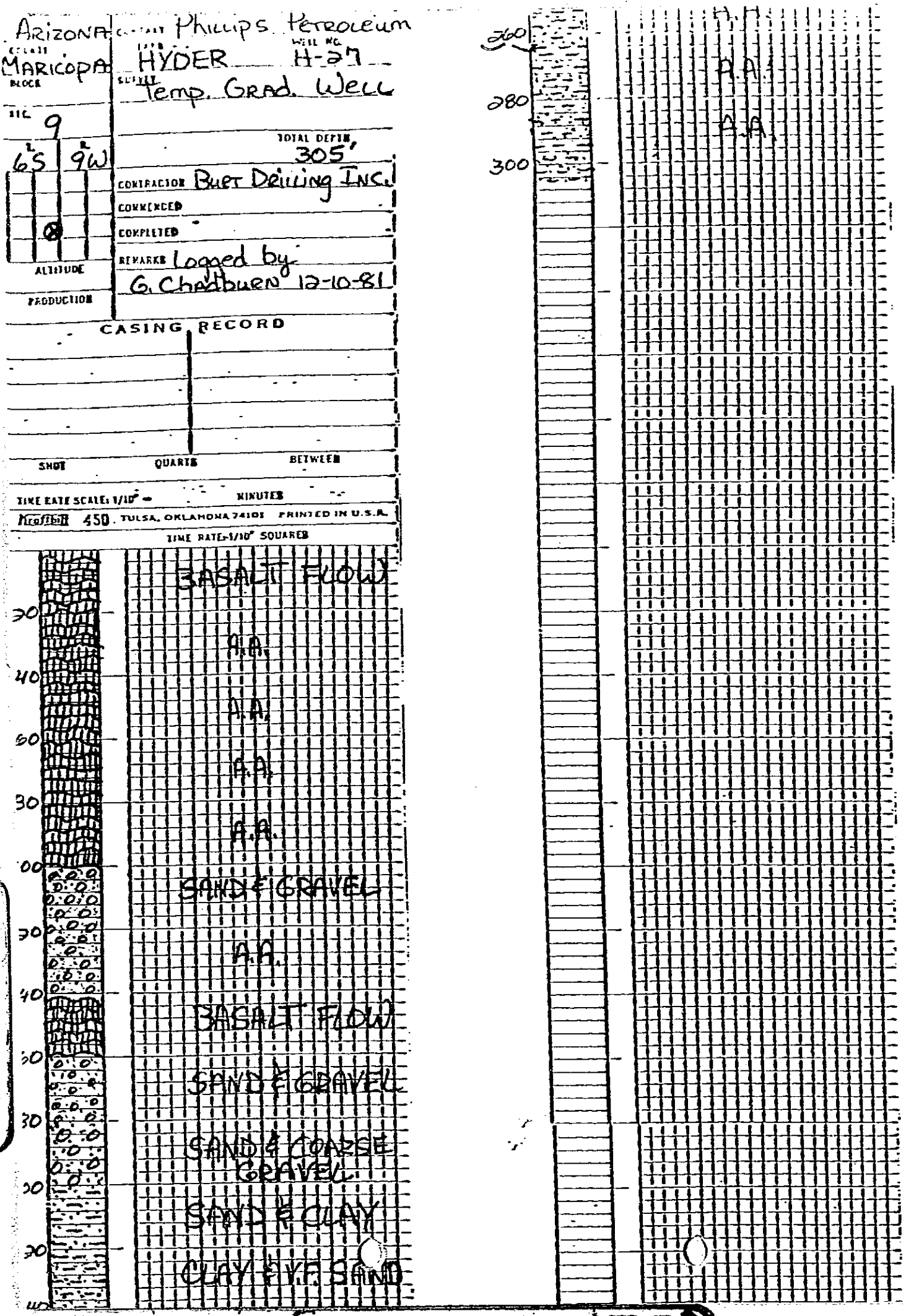
CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Reed 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES



APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-27	658'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE C-10)
2160' E 1775' N fr SW cor. Sec. 9	T6S, R9W, Sec. 9, SE, NE, SW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Maricopa County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Mary Cradburn
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 759
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[redacted]

[redacted]

...ALL OUTLINE THE DEDICATED ACREAGE FOR GEOTHERMAL RESOURCES AREAS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHOWN ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

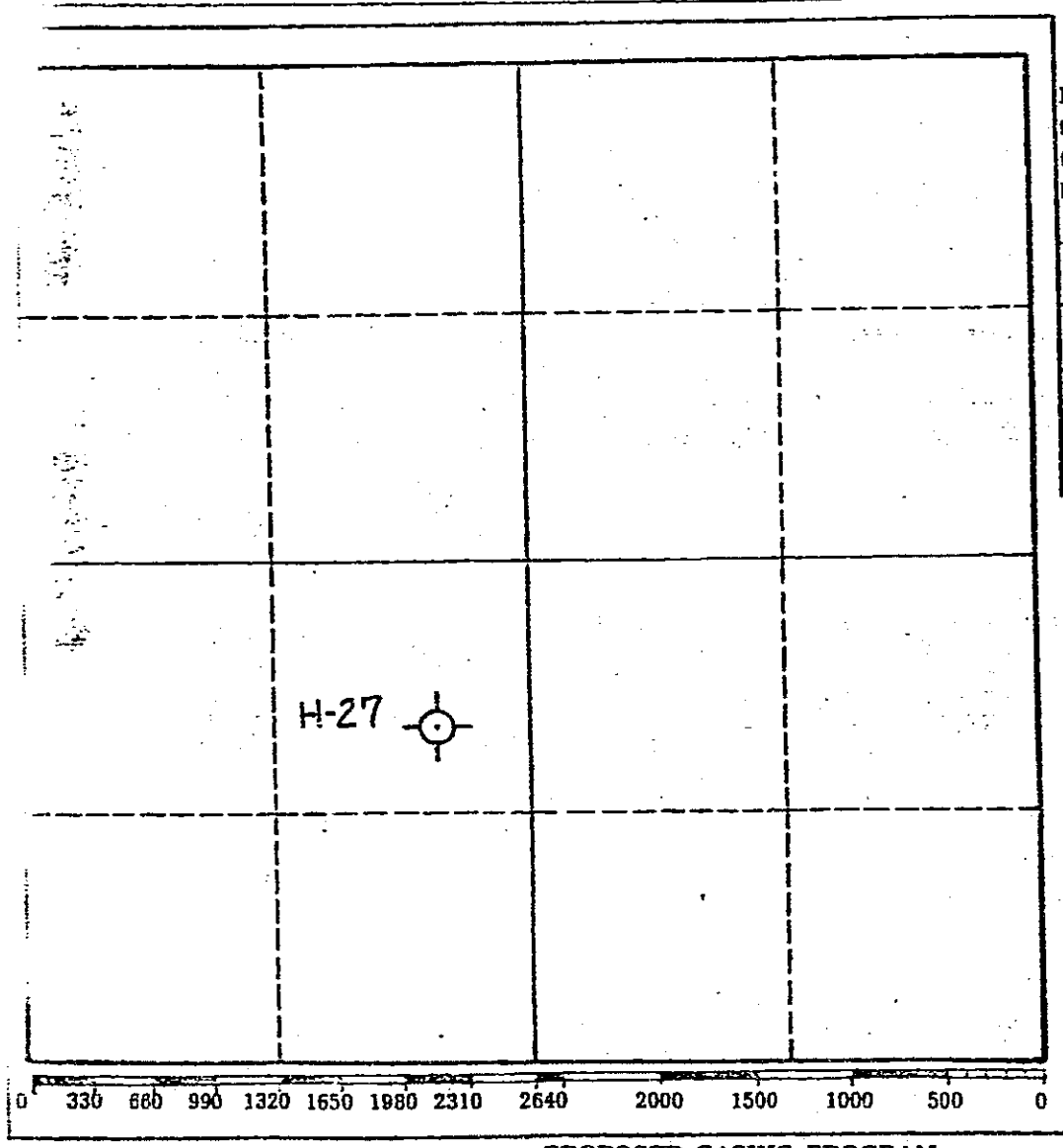
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T6S, R9W, Sec. 9



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: [signature]

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

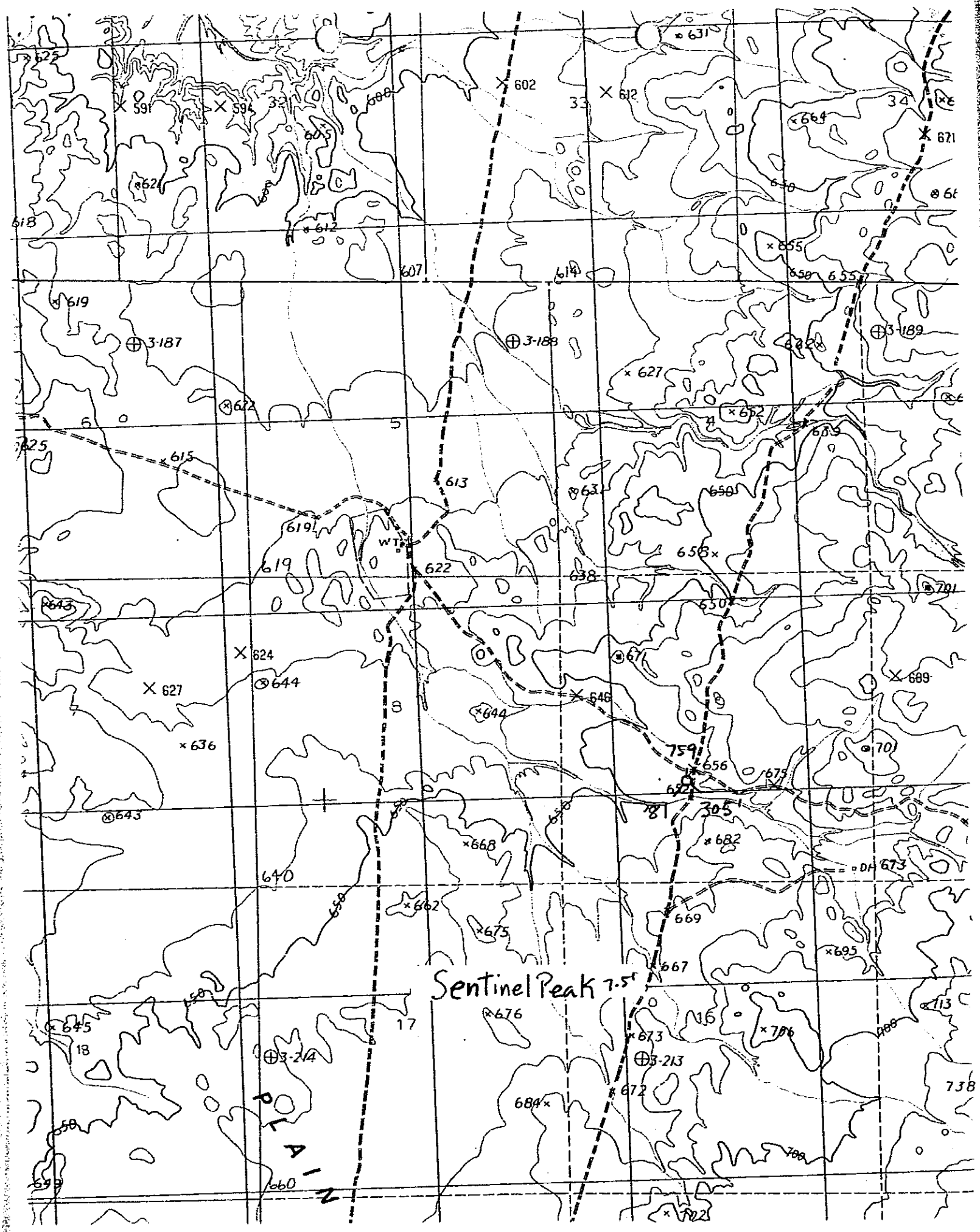
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


Sentinel Peak 7.5'
PLAN

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-27 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1775' FROM SOUTH LINE, 2160' FROM WEST LINE (SE/NE/SW)

Section 9 Township 6 SOUTH Range 9 WEST, MARIXOPA County, Arizona.

The N/A of said

Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 10b, SECTION A [illegible] (5) C. (6), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT Nº 759

RECEIPT NO. 2115
API NO. 02-013-20018

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill
FORM NO. 27

RECEIVED

FEB 4 1982

O & G CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-28 FIELD & RESERVOIR: Temperature gradient well
LOCATION: 430' W 2500' S fr NE cor. Sec. 8	COUNTY: Maricopa
SEC. TWP-RANGE OR BLOCK & SURVEY: T6S R8W Sec. 8 SE SE NE	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
9-24-81	9-25-81		697'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
136'		to T.D.	

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES								
			TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR.	TEMP. °F	PRES. PSIG.	ENTRALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 760

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY

FORM NO. G-1

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY MARICOPA
BLOCK
RIG 8
6 E S 8 W
ALTITUDE
PRODUCTION

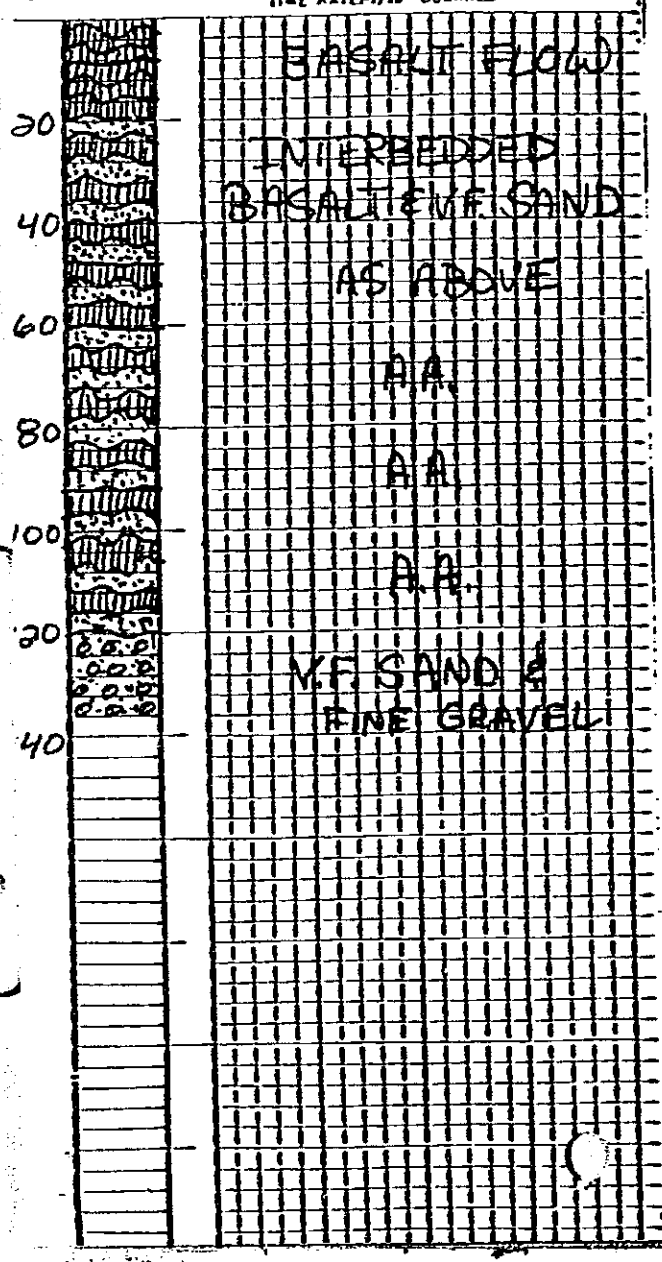
COMPANY Phillips Petroleum
FARM HYDER WELL NO. H-28
SURVEY Temp. Grad. Well
TOTAL DEPTH 136'
CONTRACTOR Burt Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadwen 12-17-81

CASING RECORD

SIZE | FROM | TO

TIME RATE SCALE: 1/10" = 1 MINUTES
TIME RATE-1/10" SQUARES

Reeves 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.



APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER (OLD WELL) ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East CITY Salt Lake City STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-28	697'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING, COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL, COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE C-105
430' W 2500' S fr NE cor. Sec. 8	T6S, R8W, Sec. 8, SE,SE,NE	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)	COUNTY
Temperature Gradient Well	Maricopa County

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbury
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 760
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. C-3

(COMPLETE REVERSE SIDE)

...ATION SHALL OUTLINE THE DEDICATED ACREAGE OF GEOTHERMAL RESOURCES RIGHTS ON THE PLAT.

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

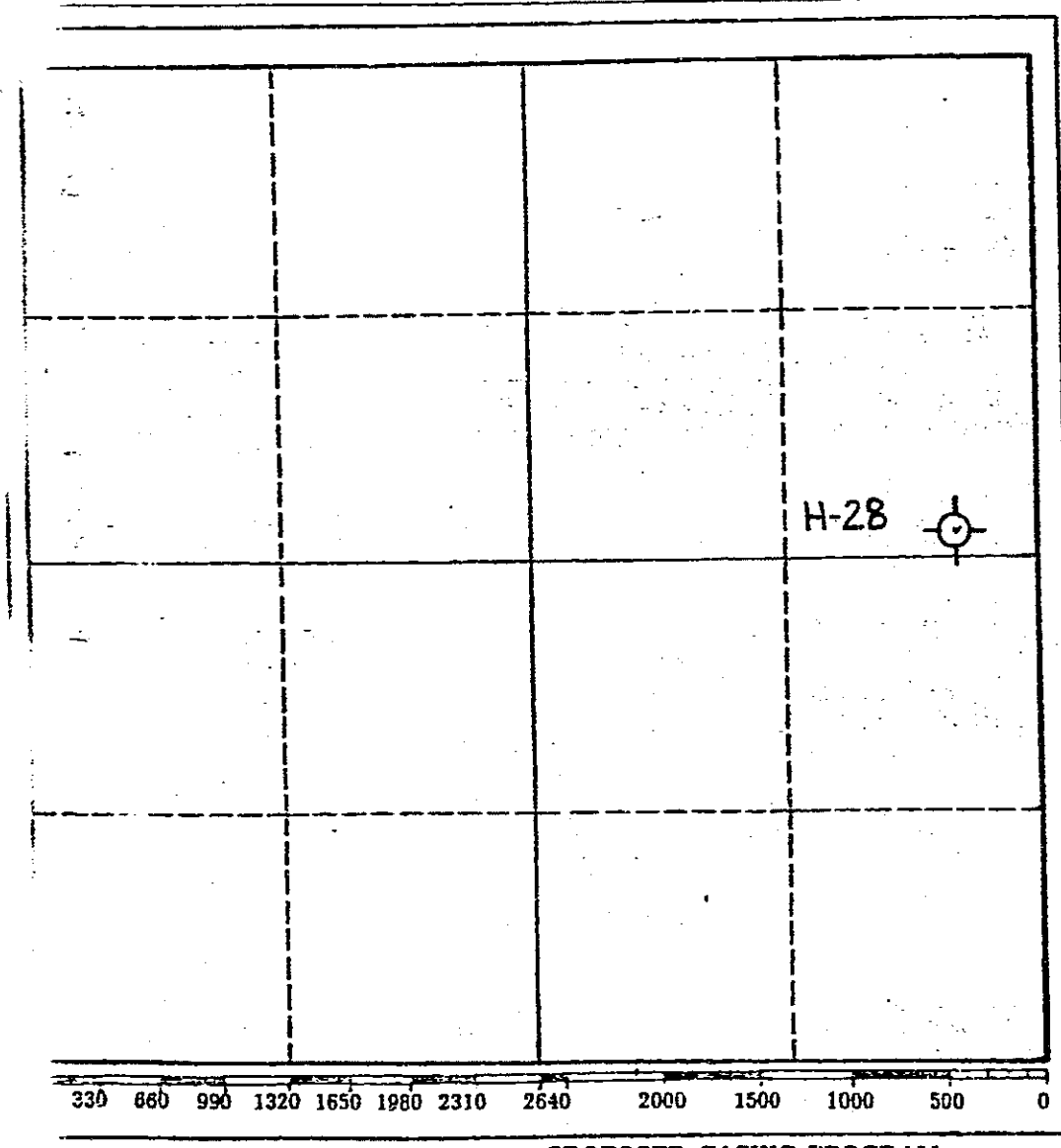
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

5. IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO_____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

6. IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T6S, R8W, Sec. 8



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name: Thurl Gadbury

Position: Geologist

Company: Phillips Petroleum Co.

Date: July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

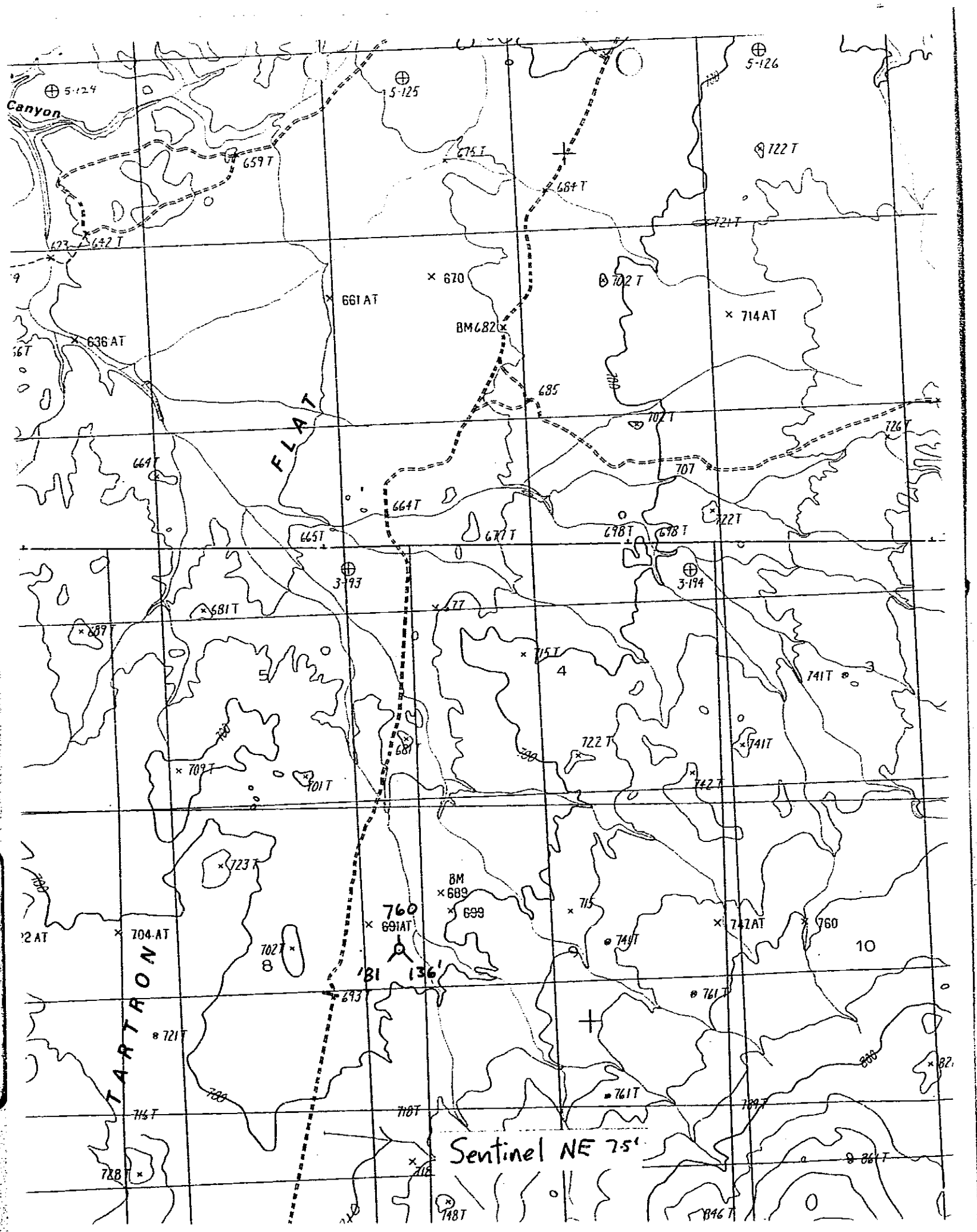
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water. Measure temperature therein. Plug and abandon within one year.						


Canyon
5-124
5-125
5-126
659 T
675 T
684 T
722 T
721 T
642 T
670
661 AT
702 T
714 AT
BM 682
636 AT
685
FLAT
726 T
707
664 T
665 T
677 T
698 T
678 T
722 T
3-193
3-194
681 T
715 T
741 T
709 T
701 T
722 T
741 T
742 T
723 T
BM 689
699
760
691 AT
704 AT
747 AT
760
702 T
693 T
721 T
761 T
716 T
718 T
789 T
748 T
846 T
TARTAN
Sentinel NE 7.5'
8
10
181
136'

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPA PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-28 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 2500' FROM NORTH LINE, 430' FROM EAST LINE (SE/SE/NE)

Section 8 Township 6 SOUTH Range 8 WEST, MARICOPA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A AND G (S.C.C.G), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT Nº 760

RECEIPT NO. 2115

API NO. 02-013-20019

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

RECEIVED
FEB 4 1982
OIL CONS. COMM.

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-29
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 990' E 2415' S fr NW cor. Sec. 6	COUNTY: Yuma
SEC. TWP-RANGE OR BLOCK & SURVEY: T7S R11W Sec. 6- SE SW NW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR GR) FEET	ELEVATION OF CASING HD. FLANGE FEET
10-17-81	10-18-81		468'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
305'		0-28'	28' - T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD TEMP. °F	STATIC TEST SHUT IN WELL HEAD PRES. PSIG.	ANALYSES OF FLUIDS & GASES — TOTAL MASS FLOW DATA LBS/HR.	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	SEPARATOR DATA WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 761

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. C-3

(COMPLETE REVERSE SIDE)

ARIZONA
COUNTY YUMA
BLOCK
SEC. 6
T. 7S R. 11W
ALTITUDE
PRODUCTION

COMPANY Phillips Petroleum
FIELD HYDER
WELL NO. H-29
SURVEY Temp. Grad. Well
TOTAL DEPTH 305'
CONTRACTOR Burt Drilling Inc.
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 12-17-81

CASING RECORD

SHOT QUARTS BETWEEN

TIME RATE SCALE: 1/10" = MINUTES

Form 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.

TIME RATE-1/10" SQUARES

SAND

20 COARSE SAND
40 AS ABOVE
60 A.A.
80 A.A.
100 CLAY F.V.F. SAND
120 A.A.
140 A.A.
160 A.A.
180 A.A.
200 A.A.
220 A.A.

260
280 CLAY A.A.
300

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCES WELL

APPLICATION TO DRILL ☐ RE-ENTER OLD WELL ☐

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR: Phillips Petroleum Company		
ADDRESS: 431 South 300 East	CITY: Salt Lake City	STATE: Utah
DRILLING CONTRACTOR: Dixie Drilling Company (if available)		
ADDRESS: Fernley, Nevada		

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR: Bureau of Land Management	WELL NUMBER: H-29	ELEVATION (GROUND): 468'
NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE: FEET	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE: FEET	
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:	
IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED:	NAME	ADDRESS
WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES): 990' E 2415' S fr NW cor. Sec. 6	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY: T7S, R11W, Sec. 6, SE,SW,NW	DEDICATION (COMPLY WITH RULE G-105)
FIELD AND RESERVOIR (IF WILDCAT, SO STATE): Temperature Gradient Well	COUNTY: Yuma County	
DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE		

PROPOSED DEPTH: 300'	ROTARY OR CABLE TOOLS: Rotary	APPROX. DATE WORK WILL START: September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Gary Gadbury
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 761
APPROVAL DATE: 8-14-81
APPROVED BY: [signature]

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[illegible] OPERATOR SHALL [illegible] ACREAGE FOR GEOTHERMAL [illegible] WELLS ON THE PLAT.

[illegible] REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION [illegible]
[illegible]OW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

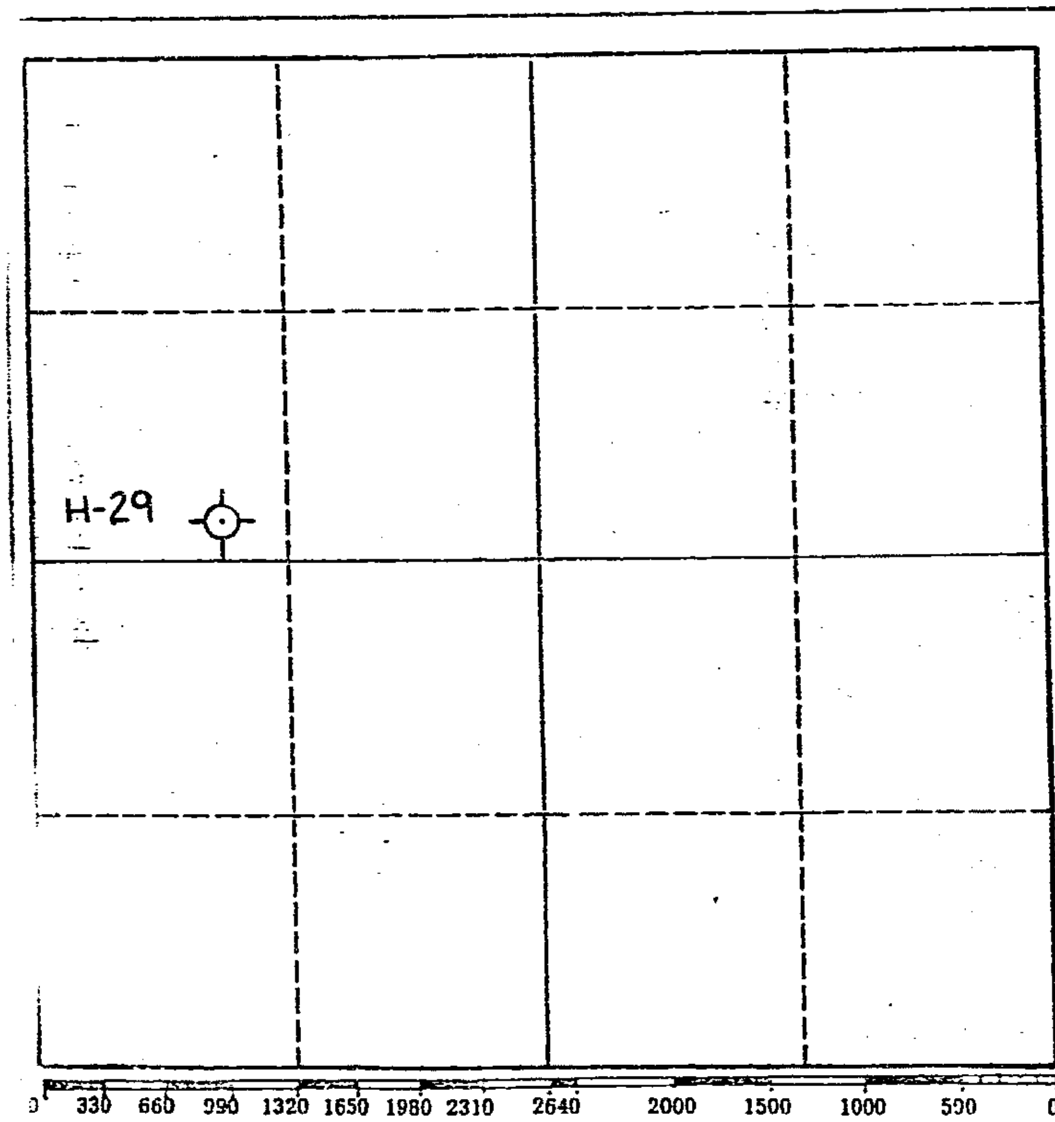
[illegible]LL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES _____ NO _____

IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES ________ NO ________. IF ANSWER IS "YES" TYPE OF CONSOLIDATION ____________

IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T7S, R11W, Sec. 6



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name [signature]

Position Geologist

Company Phillips Petroleum Co.

Date July 22, 1981

I hereby certify that the well [illegible] tion shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my know[illegible] and belief.

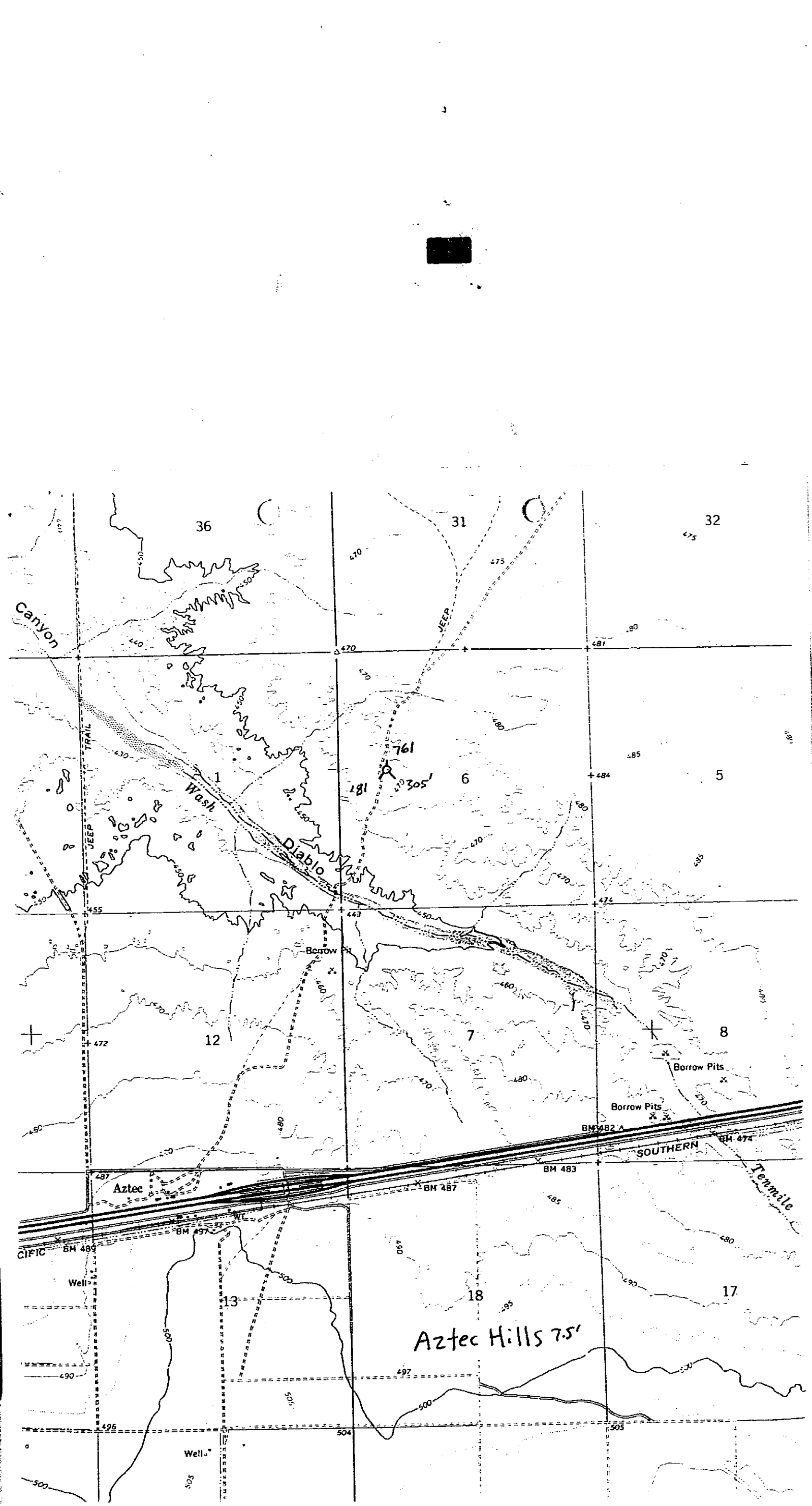
Date Surveyed

Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water.						
Measure temperature therein.						
[illegible] and abandon with[illegible] one year.						


36
31
32
Canyon
JEEP TRAIL
JEEP
761
181
305'
1
Wash
6
5
Diablo
455
443
474
Borrow Pit
12
7
8
Borrow Pits
BM 482
BM 474
SOUTHERN
BM 483
Aztec
BM 487
WL
BM 497
CIFIC
BM 489
Well
Tennile
13
18
17
Aztec Hills 7.5'
496
504
505
Well

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-29 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 2415' FROM NORTH LINE, 990' FROM WEST LINE (SE/SW/NW)

Section 6 Township 7 SOUTH Range 11 WEST, YUMA County, Arizona.

The N/A of said
Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 1981.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 103, SECTION A THRU G (S.C.C.&G.) WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT Nº 761

RECEIPT NO. 2115
API NO. 02-027-20028

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

GEOTHERMAL RESOURCE WELL

DESIGNATE TYPE OF COMPLETION:

NEW WELL [X] WORK OVER [ ] DEEPEN [ ] PLUG BACK [ ] SAME RESERVOIR [ ] DIFFERENT RESERVOIR [ ] DRY STEAM [ ] HOT WATER [ ] DRY [ ]

DESCRIPTION OF WELL AND LEASE

OPERATOR: Phillips Petroleum Company	ADDRESS: 655 E 4500 S, Murray, Utah 84107
FEDERAL, STATE OR INDIAN LEASE NUMBER OR NAME OF LESSOR IF FEE LEASE: Bureau of Land Management	WELL NUMBER: H-30
	FIELD & RESERVOIR: Temperature gradient well
LOCATION: 200' E 1080' S fr NW cor. Sec. 7	COUNTY: Maricopa
SEC. TWP-RANGE OR BLOCK & SURVEY: T7S R10W Sec. 7 SW NW NW	

DATE SPUDDED	DATE TOTAL DEPTH REACHED	DATE COMPLETED, READY TO PRODUCE	ELEVATION (DF, RKB, RT, OR (GR)) FEET	ELEVATION OF CASING HD. FLANGE FEET
10-14-81	10-14-81		543'	

TOTAL DEPTH	P.B.T.D.	AIRDRILLED (INTERVAL)	FLUIDDRILLED (INTERVAL)
303'			To T.D.

PRODUCING INTERVAL (S) FOR THIS COMPLETION	ROTARY TOOLS USED (INTERVAL)	CABLE TOOLS USED (INTERVAL)
	To T.D.	

WAS THIS WELL DIRECTIONALLY DRILLED?	WAS DIRECTIONAL SURVEY MADE?	WAS COPY OF DIRECTIONAL SURVEY FILED?	DATE FILED
No	No		

TYPE OF ELECTRICAL, TEMPERATURE, CEMENT BOND OR OTHER LOGS RUN (CHECK LOGS FILED WITH THE COMMISSION): None — DATE FILED:

CASING RECORD

CASING (REPORT ALL STRINGS SET IN WELL-CONDUCTOR, SURFACE, INTERMEDIATE, PRODUCING, ETC.)

PURPOSE	SIZE HOLE DRILLED	SIZE CASING SET	WEIGHT (LB./FT.)	DEPTH SET	SACKS CEMENT	AMT. PULLED

TUBING RECORD

SIZE IN.	DEPTH SET FT.	PACKER SET AT FT.

LINER RECORD

SIZE IN.	TOP FT.	BOTTOM FT.	SACKS CEMENT	SCREEN (FT.)

PERFORATION RECORD

NUMBER PER FT.	SIZE & TYPE	DEPTH INTERVAL

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

AMT. & KIND OF MATERIAL USED	DEPTH INTERVAL

INITIAL PRODUCTION

DATE	STATIC TEST SHUT IN WELL HEAD		ANALYSES OF FLUIDS & GASES TOTAL MASS FLOW DATA					SEPARATOR DATA			
	TEMP. °F	PRES. PSIG.	LBS./HR.	TEMP. °F	PRES. PSIG.	ENTHALPY	ORIFICE	WATER CUFT/HR	STEAM LBS/HR	PRES. PSIG.	TEMP. °F

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum (COMPANY), AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT; AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

2-1-82
DATE

Gary Gladburn
SIGNATURE

PERMIT NO. 762

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG
FILE ONE COPY
FORM NO. G-2

(COMPLETE REVERSE SIDE)

ARIZONA — Phillips Petroleum
COUNTY MARICOPA FIELD HYDER WELL NO. H-30
BLOCK Temp. Grad. Well
SEC. 7
T. 7S R. 10W
TOTAL DEPTH 303'
CONTRACTOR BURT DRILLING INC
COMMENCED
COMPLETED
REMARKS Logged by G. Chadburn 2-1-82
ALTITUDE
PRODUCTION
CASING RECORD
SHOT QUARTS BETWEEN
TIME RATE SCALE: 1/10" = MINUTES
Rockwell 450 TULSA, OKLAHOMA 74101 PRINTED IN U.S.A.
TIME RATE-1/10" SQUARES

20	SAND & BASALT Fragments
40	BASALT
60	SAND & BASALT FRAGMENTS
80	SAND & GRAVEL
100	AS ABOVE
120	SAND & FINE GRAVEL
140	SAND & GRAVEL
160	A.A.
180	A.A.
200	SAND
220	SAND & GRAVEL
	SAND
260	SAND & FINE GRAVEL
280	SAND
300	A.A.

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
GEOTHERMAL RESOURCE WELL

RECEIVED
AUG 13 1981
O & G CONS. COMM.

NAME OF COMPANY OR OPERATOR
Phillips Petroleum Company

ADDRESS 431 South 300 East | CITY Salt Lake City | STATE Utah

DRILLING CONTRACTOR
Dixie Drilling Company (if available)

ADDRESS Fernley, Nevada

DESCRIPTION OF WELL AND LEASE

FEDERAL, STATE OR INDIAN LEASE NUMBER, OR IF FEE LEASE, NAME OF LESSOR	WELL NUMBER	ELEVATION (GROUND)
Bureau of Land Management	H-30	543'

NEAREST DISTANCE FROM PROPOSED LOCATION TO PROPERTY OR LEASE LINE:	DISTANCE FROM PROPOSED LOCATION TO NEAREST DRILLING COMPLETED OR APPLIED-FOR WELL ON THE SAME LEASE:
FEET	FEET
NUMBER OF ACRES IN LEASE:	NUMBER OF WELLS ON LEASE, INCLUDING THIS WELL. COMPLETED IN OR DRILLING TO THIS RESERVOIR:

IF LEASE, PURCHASED WITH ONE OR MORE WELLS DRILLED, FROM WHOM PURCHASED: NAME ADDRESS

WELL LOCATION (GIVE FOOTAGE FROM SECTION LINES)	SECTION-TOWNSHIP-RANGE OR BLOCK AND SURVEY	DEDICATION (COMPLY WITH RULE G-105
200' E 1080' S fr NW cor. Sec. 7	T7S, R10W, Sec. 7, SW,NW,NW	

FIELD AND RESERVOIR (IF WILDCAT, SO STATE)
Temperature Gradient Well

COUNTY ~~Maricopa~~ ~~Yuma~~ County Yuma

DISTANCE, IN MILES, AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

PROPOSED DEPTH:	ROTARY OR CABLE TOOLS	APPROX. DATE WORK WILL START
300'	Rotary	September 1, 1981
BOND STATUS AMOUNT	ORGANIZATION REPORT ON FILE OR ATTACHED	FILING FEE OF $25.00 ATTACHED

REMARKS:

CERTIFICATE: I, THE UNDERSIGNED, UNDER THE PENALTY OF PERJURY, STATE THAT I AM THE Geologist OF THE Phillips Petroleum Company (COMPANY). AND THAT I AM AUTHORIZED BY SAID COMPANY TO MAKE THIS REPORT: AND THAT THIS REPORT WAS PREPARED UNDER MY SUPERVISION AND DIRECTION AND THAT THE FACTS STATED THEREIN ARE TRUE, CORRECT AND COMPLETE TO THE BEST OF MY KNOWLEDGE.

Mary Ladburn
SIGNATURE

July 22, 1981
DATE

PERMIT NUMBER: 762
APPROVAL DATE: 8-14-81
APPROVED BY:

NOTICE:
BEFORE SENDING IN THIS FORM BESURE THAT YOU HAVE GIVEN ALL INFORMATION REQUESTED. MUCH UNNECESSARY CORRESPONDENCE WILL THUS BE AVOIDED.

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
APPLICATION TO DRILL OR RE-ENTER
FILE TWO COPIES
FORM NO. G-3

(COMPLETE REVERSE SIDE)

[illegible] THE WELL [illegible]

2. A REGISTERED PROFESSIONAL ENGINEER OR LAND SURVEYOR REGISTERED IN THE STATE OF ARIZONA OR APPROVED BY THE COMMISSION SHALL SHOW ON THE PLAT THE LOCATION OF THE WELL AND CERTIFY THIS INFORMATION IN THE SPACE PROVIDED.

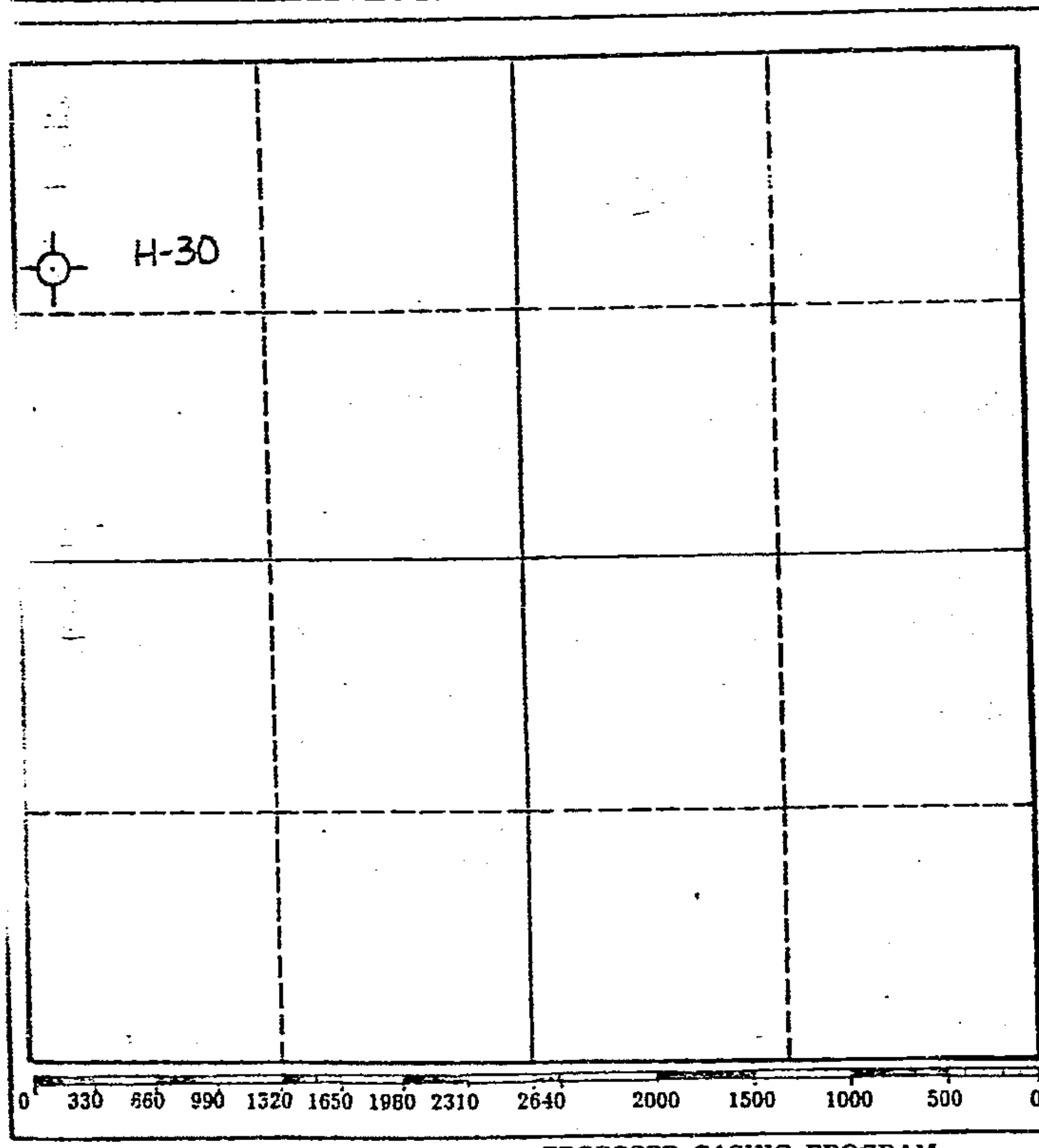
3. ALL DISTANCES SHOWN ON THE PLAT MUST BE FROM THE OUTER BOUNDARIES OF THE SECTION.

4. IS THE OPERATOR THE ONLY OWNER IN THE DEDICATED ACREAGE OUTLINED ON THE PLAT BELOW? YES_____ NO _____

IF THE ANSWER TO QUESTION FOUR IS "NO" HAVE THE INTERESTS OF ALL THE OWNERS BEEN CONSOLIDATED BY COMMUNITIZATION AGREEMENT OR OTHERWISE? YES_____ NO _____. IF ANSWER IS "YES" TYPE OF CONSOLIDATION _____

IF THE ANSWER TO QUESTION FOUR IS "NO", LIST ALL THE OWNERS AND THEIR RESPECTIVE INTERESTS BELOW:

Owner	Land Description
Bureau of Land Management	T7S, R10W, Sec. 7



CERTIFICATION

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

Name [signature]

Position Geologist

Company Phillips Petroleum Co.

Date July 22, 1981

I hereby certify that the well location shown on the plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Date Surveyed

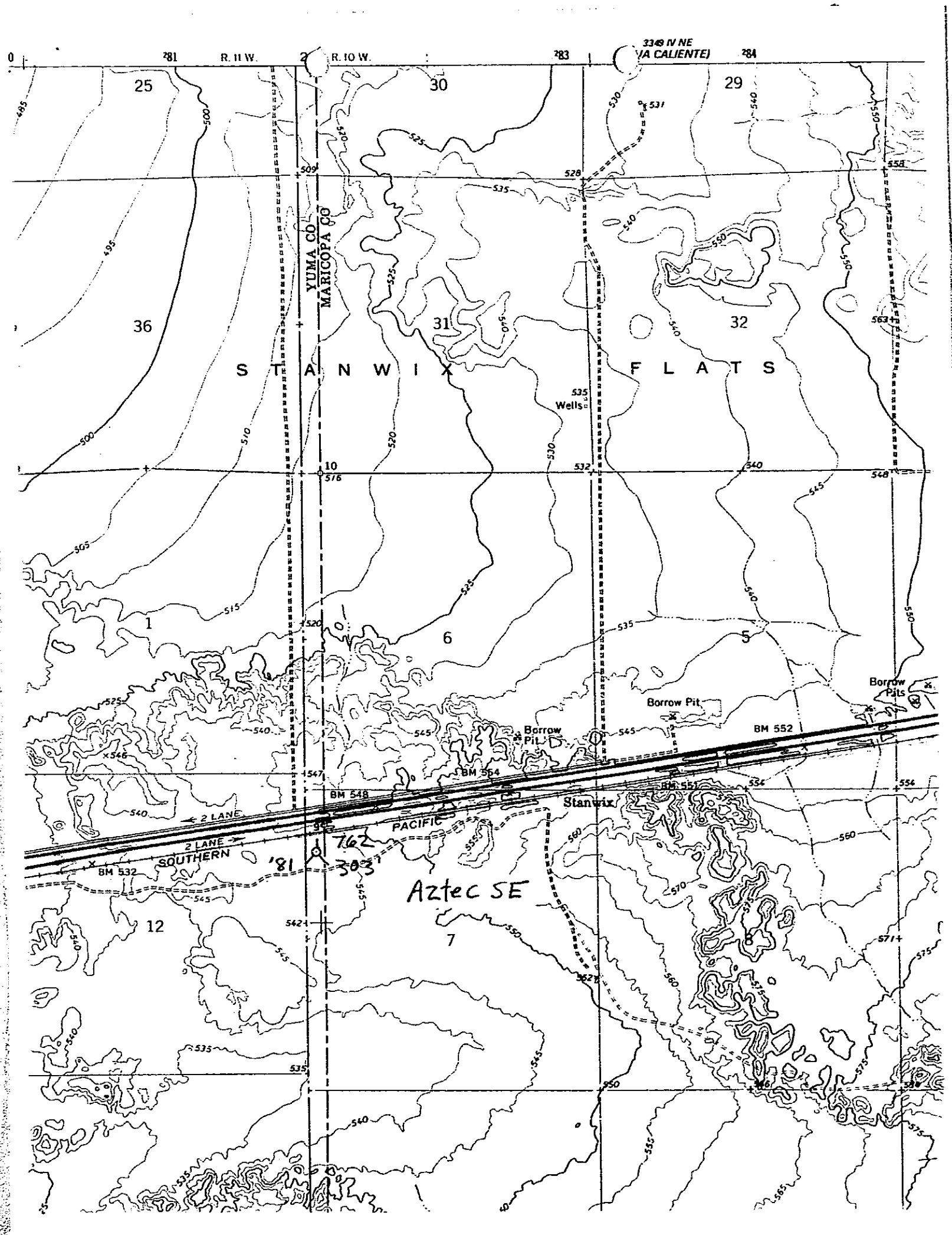
Registered Professional Engineer and/or Land Surveyor

Certificate No.

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement

6" hole to T.D. Install 1" PVC pipe to T.D. Plugged at bottom and filled with water.
Measure temperature therein.
Plug and abandon within one year.


R. 11 W.
R. 10 W.
3348 IV NE
(LA CALIENTE)
25
30
29
36
31
32
S T A N W I X F L A T S
YUMA CO
MARICOPA CO
535
Wells
10
516
1
6
5
12
7
Borrow Pits
Borrow Pit
Borrow Pit
BM 552
BM 554
BM 551
BM 548
BM 532
Stanwix
2 LANE
2 LANE
SOUTHERN PACIFIC
762
303
'81
Aztec SE

PERMIT TO DRILL

This constitutes the permission and authority from the

OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: PHILLIPS PETROLEUM COMPANY
(OPERATOR)

to drill a well to be known as

H-30 FEDERAL (GEOTHERMAL)
(WELL NAME)

located 1080' FROM NORTH LINE, 200' FROM WEST LINE (SW/NW/NW)

Section 7 Township 7 SOUTH Range 10 WEST, ~~MARICOPA~~ Yuma County, Arizona.

The N/A of said Section, Township and Range is dedicated to this well.

Said well is to be drilled substantially as outlined in the attached Application and must be drilled in full compliance with all applicable laws, statutes, rules and regulations of the State of Arizona.

Issued this 14th day of August, 19 81.

OIL AND GAS CONSERVATION COMMISSION

By _____
EXECUTIVE SECRETARY

PRIOR TO BEING ALLOWED TO PRODUCE THIS WELL YOU MUST BE IN FULL COMPLIANCE WITH RULE 105, SECTION A THRU G (S.C.G), WITH RESPECT TO THE PRODUCT TO BE PRODUCED.

PERMIT No. 762

RECEIPT NO. 2115

API NO. 02-013-20020

State of Arizona
Oil & Gas Conservation Commission
Permit to Drill

FORM NO. 27

DEAL/LEASE NO. Job E-1392

1260

	RFE NO.	AUTH. NO.	AMOUNT
BONUS			$
BROKERAGE OR COMMISSION			
RENTAL		DIV. NO.	
FILING FEE			
DOC. STAMPS			
EXCH. FEE			
Misc.	81802		$750.00
TOTAL			$750.00

PAYABLE TO State of Arizona
Oil and Gas Conservation Comm.

ADDRESS 1645 West Jefferson, Suite 420
Phoenix, Arizona 85007

SOC. SEC. NO. OR I.D. NO. (REQ. BY LAW)

FORM 9004-08 8-78

RECEIVED
FEB 4 1982
O & G CONS. COMM.

AKD

RY.

PHILLIPS PETROLEUM COMPANY
SALT LAKE CITY, UTAH 84107
655 EAST 4500 SOUTH PHONE: 801 263-3129

MINERALS GROUP
Geothermal and
Strategic Minerals Division

February 2, 1982

Re: Completion
Hyder Prospect, E-1392

Mr. A. K. Doss
Oil & Gas Conservation Commission
State of Arizona
1645 W. Jefferson, Suite 420
Phoenix, AZ 85007

Dear Sir:

Please find enclosed one copy each of well completion reports and well logs for temperature gradient holes drilled in and around the Hyder Valley area of eastern Yuma and western Maricopa Counties, Arizona.

The project was completed January 5, 1982. All of the holes have been properly plugged and abandoned. Note that holes H-3, H-4, H-11 and H-25 were not drilled.

Please hold all information concerning this prospect confidential as long as your State laws permit. Future prospect drilling should also be treated as such. Thank you.

Sincerely,

Gary Chadburn

Gary F. Chadburn
Geologist

GFC:co

Enclosures

The Phillips Petroleum Company Geothermal Operations Headquarters has recently moved to another location. Therefore, we would like to make you aware of our new address and telephone number.

Former Address:	431 South 300 East Salt Lake City, UT 84111
	P.O. Box 239 Salt Lake City, UT 84110
Former Telephone:	801-364-2083
New Address:	655 East 4500 South Salt Lake City, UT 84107
New Telephone:	801-263-3129

Sincerely,

David L. Reese

David L. Reese
Manager, Geothermal Operations

jm

PHILLIPS PETROLEUM COMPANY
555 EAST 4500 SOUTH
SALT [redacted] CITY, UTAH 84107
(801) [redacted] 3129

SALT LAKE CI[redacted]
PM
8 DE[redacted]
19[redacted]

Arizona Oil & Gas
Conservation Division
1645 West Jefferson Suite 420
Phoenix, AZ 85007

RECEIVED
OCT 1 1981
O & G CONS. COMM.

PHILLIPS PETROLEUM COMPANY
Geothermal Operations
655 East 4500 South
Murray, Utah 84107

September 29, 1981

Re: Change of location, Hyder Prospect, Arizona

A.K. Doss
State of Arizona
Oil and Gas Conservation Commission
1645 West Jefferson, Suite 420
Phoenix, Arizona 85007

Dear Sir:

Please find enclosed an Application for Permit to Drill form, in duplicate, with a new location for gradient well H-23 in our Hyder Prospect area.

This drill site has been relocated approximately 4/10 of a mile along the road to the northeast of the previous site (permit number 755). The site was changed due to summer rains that made a large wash impassable for a drilling rig. Therefore, a new permit is necessary for the relocation of the site.

I will be in touch with you in the near future to report our progress in the drilling of the Hyder area. I am very pleased that the day you spent with me in the field proved to be a beneficial experience for both of us. I'll be talking with you soon.

Sincerely,

Gary F. Chadburn
Geologist

GFC:sdm
Enclosures

D.S. AKD

PHILLIPS PETROLEUM COMPANY
Geothermal Operations
655 East 4500 South
Murray, Utah 84107

September 15, 1981

Re: Change of Location, Hyder Prospect,
Arizona

A.K. Doss
State of Arizona
Oil and Gas Conservation Commission
1645 West Jefferson, Suite 420
Phoenix, Arizona 85007

RECEIVED
SEP 16 1981
O & G CONS. COMM.

Dear Sir:

Please find enclosed three applications for permit to drill forms, in duplicate, with new locations for three temperature gradient wells in our Hyder Prospect area.

These drill sites, H-1, H-5, and H-6, have been relocated to the opposite side of the existing roads, thus placing them outside of the Wilderness Study Areas in which they were originally permitted. The previous permits, numbered 733, 737, and 738 should be cancelled. New permits are requested for the sites. If you discover any further problems with the relocation of these sites, please let me know.

Also note that we will be using Burt's Drilling Inc., Mapleton, Utah, as the drilling contractor on this prospect instead of Dixie Drilling Co., Fernley, Nevada, as originally planned. Thanks again.

Sincerely,

Gary F. Chadburn
Geologist

GFC:sdm
Enclosures

PHILLIPS PETROLEUM COMPANY
655 East 4500 South
Salt Lake City, Utah 84107
801/263-3129

RECEIVED
SEP 1[illegible]
O & G CONS. COMM.

September 8, 1981

Re: Request for change of location forms

A.K. Doss
Executive Director
Arizona Oil and Gas
Conservation Commission
1645 West Jefferson, Suite 420
Phoenix, AZ 85007

Dear Sir:

I was notified that the locations of three of the thirty permitted temperature holes in the Hyder Valley area are within Wilderness Study Areas and need to be relocated. The holes are H-1, H-5, and H-6. They correspond with your permits numbered 733, 737, and 738 on this prospect.

In each instance, placing them on the opposite side of the existing roads where they are now located will put them outside the WSA and satisfy the requirements of the BLM. To do so and be in full compliance with Rule G-103, I need G-3 forms so I can properly file change of location on these sites.

Our most recent plans are to obtain a driller about September 20 and begin drilling shortly thereafter. The mentioned holes are some of the first ones I plan to have drilled; therefore, your prompt attention in transmitting the forms to me will be appreciated. They will be immediately returned with all necessary information specifying the new locations, and we can proceed as scheduled.

If location changes on these holes create any problems, please let me know. I will be in contact with you when a rig is secured and a starting date is definite. Thank you.

Sincerely,

Gary Chadburn

Gary F. Chadburn
Geologist

GFC:sdm

733 9 G-3 forms mailed 9-10-81

August 17, 1981

Mr. Gary F. Chadburn
Geothermal Group
Phillips Petroleum Co.
P.O. Box 239
Salt Lake City, Utah 84110

Re: Thirty shallow temperature gradient holes
Hyder Valley area

Dear Mr. Chadburn:

Enclosed are approved application for permit to drill, permit to drill, and receipt for the above referenced wells.

Ff we may be of further service, please advise.

Sincerely,

A. K. Doss
Executive Director

/os
Enc.

RECEIVED
AUG 13 1981
O & G CONS. COMM.

PHILLIPS PETROLEUM COMPANY
SALT LAKE CITY, UTAH 84110
BOX 239 TELEPHONE: 801 364-2083

MINERALS GROUP
Geothermal and
Strategic Minerals Group

August 12, 1981

Re: Applications for permits to drill
Hyder Prospect, E-1392

A.J. Doss
Oil and Gas Conservation Commission
State of Arizona
1645 W. Jefferson, Suite 420
Phoenix, Arizona 85007

Dear Sir:

Please find enclosed two copies each of Applications to Drill for thirty (30) shallow (300') temperature gradient holes in and around the Hyder Valley area of Eastern Yuma and Western Maricopa Counties, Arizona.

A check in the amount of $750.00 is also enclosed for the required filing fee of $25.00 per hole. Drilling is tentatively scheduled to commence in September of 1981.

If there are any questions concerning the applications, please let me know.

Sincerely,

Gary F. Chadburn
Geologist

GFC:sdm
Enclosures