

P-W

CACTUS DRILLING #1 NAVAJO
SWNE 23-36N-24E Apache County 345

WELL COMPLETION OR RECOMPLETION REPORT AND WELL LOG

DESIGNATE TYPE OF COMPLETION:

New Well Work-Over Deepen Plug Back Same Reservoir Different Reservoir Oil Gas Dry

DESCRIPTION OF WELL AND LEASE

Operator **Cactus Drilling Corporation** Address **Box 2146 Farmington, New Mexico**

Federal, State or Indian Lease Number or name of lessor if fee lease **14-20-0603-8616** Well Number **1** Field & Reservoir **Wildcat**

Location **1980' FNL & 1990' FBL** County **Apache**

Sec. TWP-Range or Block & Survey **Sec. 23-T36N-R24E**

Date spudded **3-15-66** Date total depth reached **4-3-66** Date completed, ready to produce **4-3-66** Elevation (DF, RKB, RT or Gr.) **5593 OR.** feet Elevation of casing hd. flange **5592** feet

Total depth **5720** P.B.T.D. **5720** Single, dual or triple completion? **Single** If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion **0-5720** Rotary tools used (interval) **0-5720** Cable tools used (interval)

Was this well directionally drilled? **No** Was directional survey made? **Yes (Rig only)** Was copy of directional survey filed? **Yes** Date filed **4-7-66**

Type of electrical or other logs run (check logs filed with this commission) **Induction Electrical, Sonic Gamma Ray with caliper** Date filed **4-7-66**

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
Surface	15"	10 3/4"	32.75#	398'	275	None

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 of first production _____ Producing method (indicate if flowing, gas lift or pumping—If pumping, show size & type of pump:)

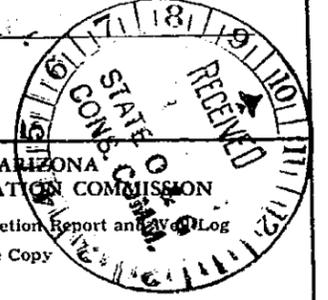
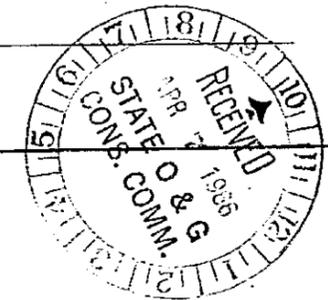
Date of test	Hrs. tested	Choke size	Oil prod. during test bbls.	Gas prod. during test MCF	Water prod. during test bbls.	Oil gravity ° API (Corr)

Tubing pressure	Casing pressure	Cal'd rate of Production per 24 hrs.	Oil bbls.	Gas MCF	Water bbls.	Gas-oil ratio

Disposition of gas (state whether vented, used for fuel or sold):

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Asst. Drig. Supt.** of the **Cactus Drig. Corp.** (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.

Date **April 6, 1966** Signature _____



Permit No. **345** STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Well Completion or Recompletion Report and Well Log Form No. 4 File One Copy

DETAIL OF FORMATIONS PENETRATED

Formation	Top	Bottom	Description*
Chino	1125		
De Chelly	2170		
Organ Rock	2815		
Cedar Mesa	3310		
Penn. Hermosa	3775		
1st. Orange Chert	4190		
Ismy	4435		
Ouray	5250		
Elbert	6304		
Mo/Cracken	8510		
Lynch	8854		
Cambrian	8608		

D.S.T. #1 from 5540 to 5595. Tool was open 5 minutes, shut in 1/2 hour, tool open 2 hours with a weak blow, shut in 3/4 hour. Recovered 75 feet of gas out drilling mud, and 20 feet of water out drilling mud.
 I.H.P.-2749#, I.F.P.-5 minutes 6.8#,
 I.S.I.P.-1892#, 2nd.F.P.-11.6#, F.P.P.-18.0#
 F.H.P.-2749#

No more test were taken.

No Cores were cut.

* 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.

PLUGGING RECORD					
Operator Cactus Drilling Corporation			Address Box 2146 Farmington, New Mexico		
Federal, State, or Indian Lease Number, or lessor's name if fee lease. 14-20-0603-8816		Well No. 1	Field & Reservoir Wildcat		
Location of Well 1980' FNL & 1980' FEL		Sec-Twp-Rge or Block & Survey Sec. 23-T36N-R24E		County Apache	
Application to drill this well was filed in name of Cactus Drlg. Corp.		Has this well ever produced oil or gas No	Character of well at completion (initial production): Oil (bbls/day) Gas (MCF/day) Dry? None None Yes		
Date plugged: 4-7-66	Total depth 5720	Amount well producing when plugged: Oil (bbls/day) Gas (MCF/day) Water (bbls/day) None None None			
Name of each formation containing oil or gas. Indicate which formation open to well-bore at time of plugging	Fluid content of each formation	Depth interval of each formation	Size, kind & depth of plugs used. Indicate zones squeeze cemented, giving amount cement		
			5720-5500 W/ 65 sacks		
			5050-4950 W/ 30 sacks		
			4050-3950 W/ 30 sacks		
			2000-1950 W/15 sacks		
		900- 800 W/ 30 sacks			
10 sacks in the top with a D.H. Marker					
CASING RECORD					
Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)	Give depth and method of parting casing (shot, ripped, etc.)	Packers and shoes
10 3/4"	328'	None	328'		None
Was well filled with mud-laden fluid, according to regulations? Yes			Indicate deepest formation containing fresh water. None		
NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE					
Name	Address		Direction from this well:		
Mobil Oil	Durango, Colorado		North		
Atlantic Oil Co.	Roswell, New Mexico		East		
In addition to other information required on this form, if this well was plugged back for use as a fresh water well, give all pertinent details of plugging operations to base of fresh water sand, perforated interval to fresh water sand, name and address of surface owner, and attach letter from surface owner authorizing completion of this well as a water well and agreeing to assume full liability for any subsequent plugging which might be required.					
Use reverse side for additional detail.					
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Asst. Drlg. Supt. of the Cactus Drilling Corp. 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.					
Date 4-8-66	Signature <i>C. O. Rogers</i>				
Permit No. 345	STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Plugging Record File One Case 				
Form No. 10					

APPLICATION TO ABANDON AND PLUG

FIELD Wildcat
OPERATOR Cactus Drilling Corporation ADDRESS Box 2146 Farmington, New Mexico
Federal, State, or Indian Lease Number or Lessor's Name if Fee Lease 14-20-0603-8816 WELL NO. #1 Navajo 88-16
SURVEY _____ SECTION 23-T36N-R24E COUNTY Apache
LOCATION 1980' FNL & 1980' FEL

TYPE OF WELL Dry Hole TOTAL DEPTH 5720
(Oil, Gas or Dry Hole)
ALLOWABLE (If Assigned) _____
LAST PRODUCTION TEST OIL _____ (Bbls.) WATER _____ (Bbls.)
GAS _____ (MCF) DATE OF TEST _____

PRODUCING HORIZON _____ PRODUCING FROM _____ TO _____

1. COMPLETE CASING RECORD We set 328 feet of 10 3/4" 32.75# casing in a 15" hole and cemented it with 275 sacks of cement.

2. FULL DETAILS OF PROPOSED PLAN OF WORK We propose to plug and abandon the above well as a dry hole. Plugs will be run at the following intervals. 5720 to 5500, 5050 to 4950, 4050 to 3950, 2000 to 1950, 900 to 800 we will put 10 sacks of cement in the top of the surface casing with a dry hole marker in the top.

If well is to be abandoned, does proposed work conform with requirements of Rule 202? Yes If not, outline proposed procedure above.

DATE COMMENCING OPERATIONS 4-7-66

NAME OF PERSON DOING WORK Dowell ADDRESS Farmington, New Mexico

CORRESPONDENCE SHOULD BE SENT TO C.O. Rogers

Name Asst. Drig. Supt.

Title _____

Address Box 2146 Farmington, New Mexico

Date 4-8-66

Date Approved 4-11-66
STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
By: John J. Zimmerman

Permit No. 345

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Application to Abandon and Plug
File Two Copies
Form No. 9
RECEIVED
APR 11 1966
STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION

SUNDRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Cactus Drilling Corporation
 2. OIL WELL GAS WELL OTHER (Specify) Dry Hole
 3. Well Name #1 Navajo 88-16
 Location 1980' FNL & 1980' FEL
 Sec. 23 Twp. 36N Rge. 24E County Apache Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease 14-80-0603-8816

5. Field or Pool Name Wildcat

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>		ABANDONMENT <input type="checkbox"/>
(OTHER) <input checked="" type="checkbox"/>	<u>Plug & Abandon</u> <input checked="" type="checkbox"/>	(OTHER) <input type="checkbox"/>	

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

We drilled the above well to a total depth of 5720 feet, and at this depth logs were run.
 We propose to plug and abandon the above well as a dry hole. Plugs will be set at the following intervals.

5720-5500 with 65 sacks
 5050-4950 with 30 sacks
 4050-3950 with 30 sacks
 2000-1950 with 15 sacks
 900--800 with 30 sacks.
 10 sacks in the top with a dry hole marker,



8. I hereby certify that the foregoing is true and correct.

Signed C. D. Rogers Title Asst. Dir. Supt. Date 4-6-66

Permit No. 345

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
 File Two Copies
 Form No. 25

P #345

SCHLUMBERGER INDUCTION ELECTRICAL LOG

COUNTY FIELD or LOCATION WELL COMPANY

COMPANY CACTUS DRILLING CORPORATION

WELL NAVAJO 88-16 # 1

FIELD WILDCAT

COUNTY APACHE STATE ARIZONA

LOCATION 1980' FNL & 1980' FEL

Other Services: SGR/C

Sec. 23 Twp. 36N Rge. 24E

Permanent Datum: GL, Elev. 5593

Log Measured From: KB, 11 Ft. Above Perm. Datum

Drilling Measured From: KB

Elev.: K.B. 5604
D.F. 5603
G.L. 5593

Date	4-6-66				
Run No.	ONE				
Depth—Driller	5720				
Depth—Logger	5720				
Btm. Log Interval	5719				
Top Log Interval	308				
Casing—Driller	10 3/4 @ 338				
Casing—Logger	308 #				
Bit Size	7 7/8				
Type Fluid in Hole	FRESH-GEL				
Dens.	9.5	38			
Visc.					
pH	11.5	6.9 ml			
Fluid Loss					
Source of Sample	FLOW LINE				
R _m @ Meas. Temp.	2.5 @ 65 °F				
R _{mt} @ Meas. Temp.	2.3 @ 65 °F				
R _{mc} @ Meas. Temp.	— @ — °F				
Source: R _{mt} R _{mc}	M —				
R _m @ BHT	1.5 @ 110 °F				
Time Since Circ.	3 HR				
Max. Rec. Temp.	110 °F				
Equip. Location	4509 FARM.				
Recorded By	FEATHER				
Witnessed By	MR. JULANDER				

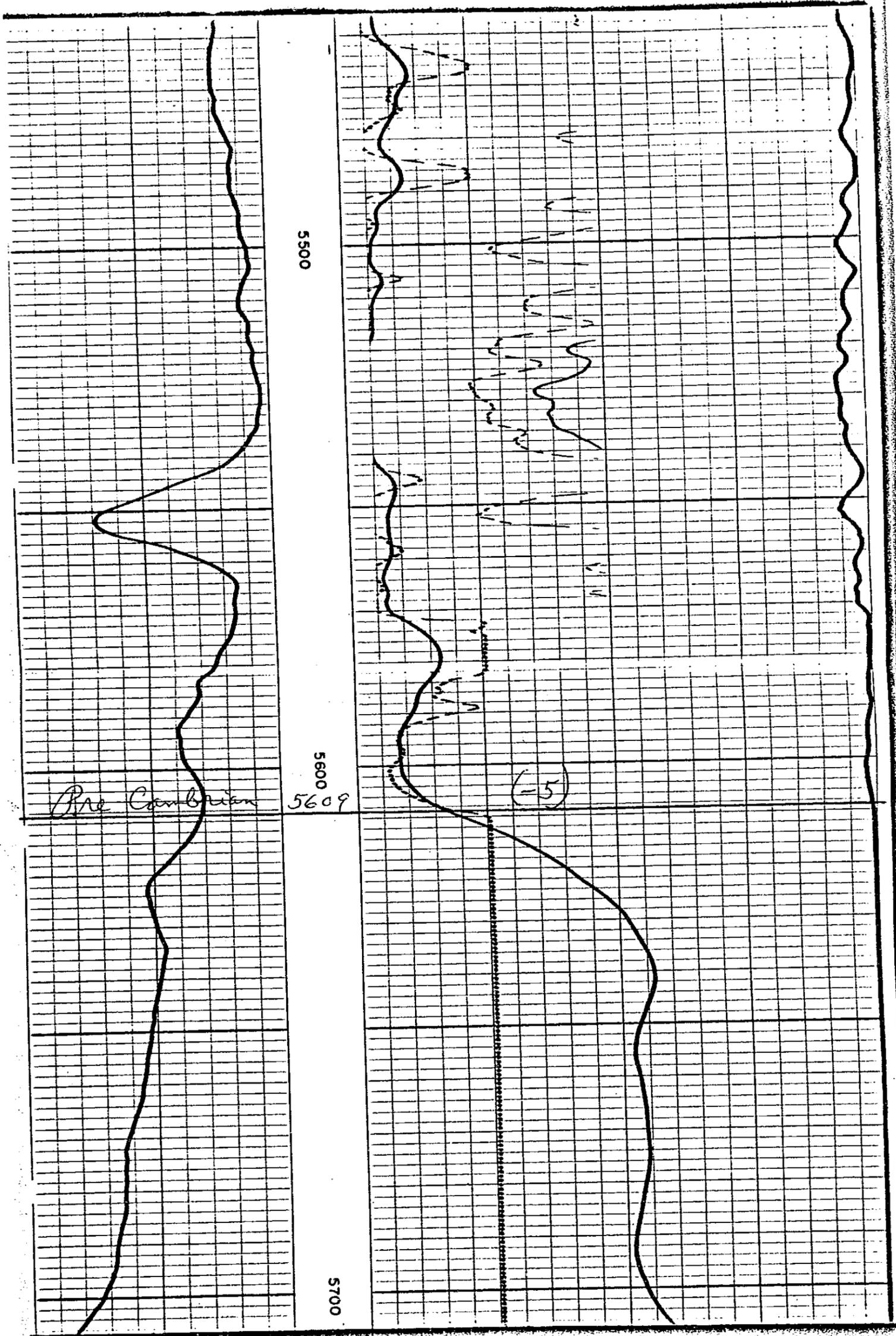
7075

TIGHT HOLE

FIELD PRINT

FOLD HERE

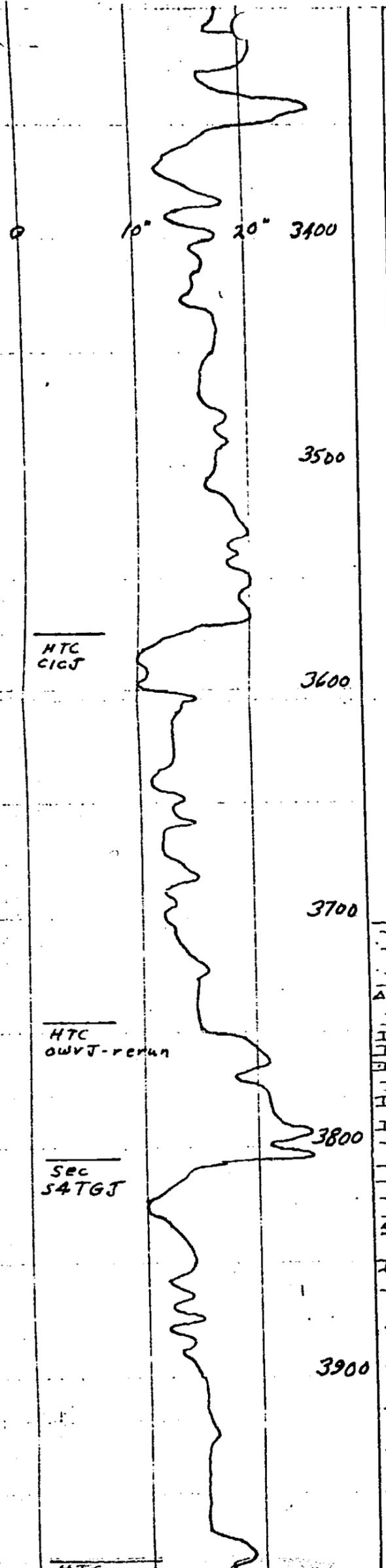
(Elev 5604 KB



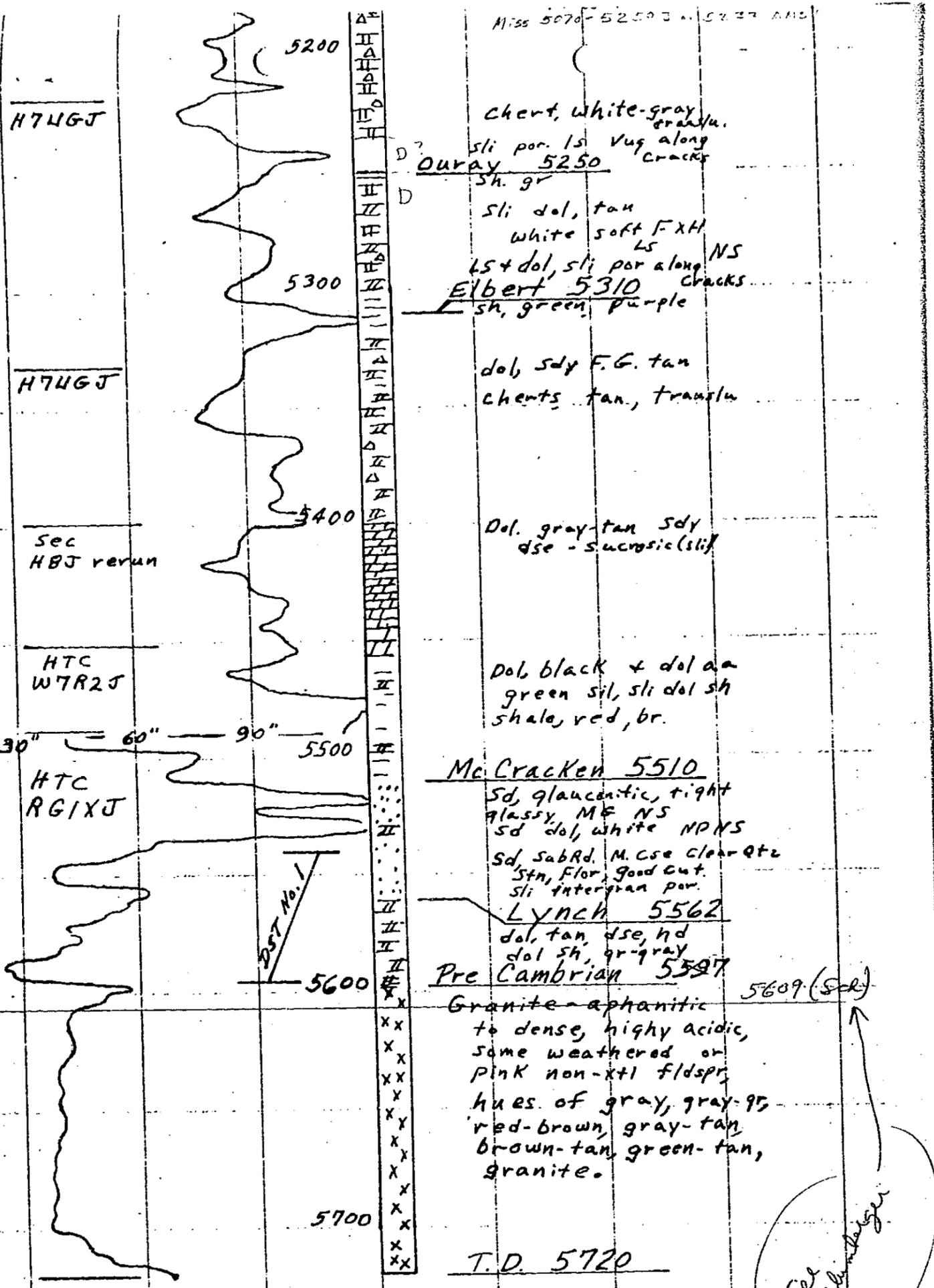
Permit # 245

CACTUS DRILLING CORP.
Navajo 88-16 No. 1
SW NE Sec. 23-36N-24E
Apache County, Arizona
Elev: 5593 Gr. 5604 KB.
Spud 3-15-66

Geologist
W. C. Juiander



slst. red-br
 slst. w/ gray dse chert.
 slst. w/ gray-purple sh.
 LS, gray dse
 soft sh. green soapy
 slst. red br. some
 gray chert
 LS, gray tan
 ? Penn-Hermosa
 slst. much red-br
 w/ minor slts LS.



DST No. 1 - 5540-5595, open 5" w/very weak blow. SI 30" open 60" w/very slight weak blow after 45". SI 45" IH 2749#, IF 6# to 8# (5"), ISI 1892# (30'), FF 11# to 56# (60'), FSI 1780# (45'), FH 2749#. Rec. 75' v sli GCM & 20' WCDM.

P4A. 4-7-66

See
 5609 (S-L)

From the Desk of

JOHN BANNISTER

345

4-6-66

Jack White of Cactus Wdg Co.
Called for verbal permission
to plug. Permission granted.
Logs, reports will be sent in
at once. Samples will be delivered
to Four Corners Sample Cut.

TD 5720"

Pre-Cambrian 5608'

Pre Cambrian came in
approx 500' high —

JB

From the Desk of

JOHN BANNISTER

345

4-6-66

Scurlock reports well
drilling at 5702' in Miss
as of 4-5-66.

DRY NOTICES AND REPORTS ON WELLS

1. Name of Operator Cactus Drilling Corporation
 2. OIL WELL GAS WELL OTHER (Specify) New Well
 3. Well Name #1 Navajo 88-16
 Location 1980' FNL & 1980' FEL
 Sec. 23 Twp. 36N Rge. 24E County Apache, Arizona.
 4. Federal, State or Indian Lease Number, or lessor's name if fee lease 14-20-0603-8816

5. Field or Pool Name Wildcat

6. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF <input type="checkbox"/>	PULL OR ALTER CASING <input type="checkbox"/>	WATER SHUT-OFF <input type="checkbox"/>	MONTHLY PROGRESS <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	DIRECTIONAL DRILL <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	REPAIRING WELL <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	PERFORATE CASING <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(OTHER) <u>Well History</u>	ABANDONMENT <input checked="" type="checkbox"/>

(NOTE: Report results of multiple completion on Well Completion or Recompletion Report and Log form.)

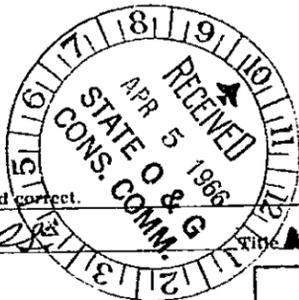
7. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work. If well is directionally drilled, give subsurface locations and measured and true vertical depths for all markers and zones pertinent to this work.)

The above well was spudded 3-15-66. We drilled 338' of 15" hole, and ran 11 joints of 10 3/4" casing a total of 360.59 feet, and set it at 328 feet. The casing was cemented with 275 sacks of type "C" cement. We circulated out approximately 50 sacks of cement. We waited on cement to set up and then nipped up B.O.P. and tested the casing with 600# for 1/2 hour. We then drilled a 7 7/8" hole down to 5595, and at this depth we ran D.S.T. #1. We tested from 5540 to 5595. Tool was open 5 minutes, shut in 1/2 hour, tool open 2 hours with a weak blow, tool shut in 3/4 hour. Recovered 75 feet of gas cut drilling mud, and 20 feet of water cut drilling mud. I.H.P.-2749#, I.F.P.-5 minutes 6.8#, I.S.I.P.-1892#, 2nd. F.P.-11.5#, F.F.P.-18.0#, F.H.P.-2749#. This test was taken on 4-4-66. We laid down test tool and went in the hole and started drilling, and 4-5-66 we were drilling at 5603 in Lime, Sand, and Chert.

FORMATION TOPS

Chinle---1125
 DeChelly-2170
 Organ Rock-2815
 Cedar Mesa--3310
 1st. Orange Chert--4190
 Penn. Hermosa--3775

Ismay--4435
 Mississippian-5010
 Mc/Cracken--5510
 Lynch--5564



8. I hereby certify that the foregoing is true and correct.

Signed C.D. Rogers Title Asst. Drlg. Supt. Date 4-5-66

Permit No 345

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Sundry Notices and Reports On Wells
 File Two Copies
 Form No. 25

quadruplicate
(Submit a duplicate to appropriate
Regional Oil and Gas or Mining Supervisor)

DESIGNATION OF OPERATOR

Indian Affairs

The undersigned is, on the records of the Bureau of ~~Land Management~~, holder of lease

Navajo Agency
~~Window Rock~~ OFFICE: **Window Rock, Arizona**
SERIAL NO.: **14-29-0603-8816**

and hereby designates

NAME: **Cactus Drilling Corporation**
ADDRESS: **P. O. Drawer 71
San Angelo, Texas**

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable): **Apache County, Arizona**

Township 36 North, Range 24 East
Section 23: NE 1/4

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.



HUMBLE OIL & REFINING COMPANY

By: *[Signature]*
(Signature of lessee)
Attorney-in-Fact

January 14, 1966
(Date)

P. O. Box 120, Denver, Colorado 80201
(Address)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

APPLICATION FOR PERMIT TO DRILL, DEEPEN, OR PLUG BACK

1a. TYPE OF WORK
DRILL DEEPEN PLUG BACK

b. TYPE OF WELL
OIL WELL GAS WELL OTHER SINGLE ZONE MULTIPLE ZONE

2. NAME OF OPERATOR
Cactus Drilling Corporation

3. ADDRESS OF OPERATOR
Box 2146 Farmington, New Mexico

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)*
At surface
1980' FNL & 1980' FEL
At proposed prod. zone

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
Approximately 14 miles north west of Many Farms, Ariz.

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, FT. (Also to nearest drlg. unit line, if any)
1980'

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
None

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
5593

5. LEASE DESIGNATION AND SERIAL NO. ⁵⁸¹⁴
Serial No. 14-20-0603-88

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME
Cactus Drlg. Corp.

9. WELL NO.
#1 Navajo 88-16

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 23-T36N-R24E

12. COUNTY OR PARISH 13. STATE
Apache Arizona

16. NO. OF ACRES IN LEASE
2560

17. NO. OF ACRES ASSIGNED TO THIS WELL
80

19. PROPOSED DEPTH
7000

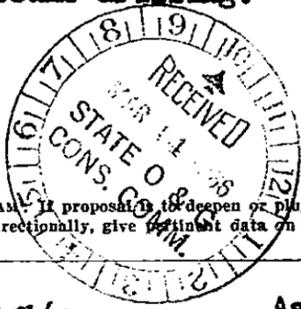
20. ROTARY OR CABLE TOOLS
Rotary

22. APPROX. DATE WORK WILL START*
March 15, 1966

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
13 3/4"	10 3/4"	32#	350'	225 sacks Class "C" W/ 3% CC

We propose to drill approximately 350 feet of 13 3/4" surface hole, and set 350 feet of 10 3/4" 32# surface casing. We will cement this surface casing with 225 sacks of cement, and then wait 24 hours for the cement to set up. We will then nipple up the B.O.P. and test the casing with 800# for 1/2 hr., and if the B.O.P. and casing are free of any leaks we will reduce the hole size to 7 7/8" and resume drilling.



IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM. If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24. SIGNED C.O. Rogers TITLE Asst. Drlg. Supt. DATE 3-15-66

(This space for Federal or State office use)

PERMIT NO. _____ APPROVAL DATE _____

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Instructions

General: This form is designed for submitting proposals to perform certain well operations, as indicated, on all types of lands and leases for appropriate action by either a Federal or a State agency, or both, pursuant to applicable Federal and/or State laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from, the local Federal and/or State office.

Item 1: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable State or Federal regulations concerning subsequent work proposals or reports on the well.

Item 4: If there are no applicable State requirements, locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local State or Federal office for specific instructions.

Item 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on this reverse slide, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal or State agency offices.

Items 15 and 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective production zone.

Item 22: Consult applicable Federal or State regulations, or appropriate officials, concerning approval of the proposal before operations are started.

APPLICATION FOR PERMIT TO DRILL, DEEPEN, PLUG BACK, OR RE-ENTER

APPLICATION TO DRILL DEEPEN PLUG BACK RE-ENTER OLD WELL

NAME OF COMPANY OR OPERATOR

DATE

Cactus Drilling Corporation

March 15, 1966

Address

City

State

P.O. Box 2146

Farmington

New Mexico

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number or name of lessor, if fee lease

Well number

Elevation (ground)

Serial No. 14-20-0603-8816

#1 Navajo 88-16

5593

Well location and acreage dedicated to the well (give footage from section lines)

Section—township—range or block & survey

1980' FNL & 1980' FEL

SW NE

Sec. 23-T36N-R24E

(W/2 NE 1/4 dedicated)

Field & reservoir (if wildcat, so state)

County

Wildcat

Apache County

Distance, in miles, and direction from nearest town or post office

Approximately 14 miles north west of Many Farms, Arizona

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:

1980'

feet

None

feet

Proposed depth:

7000

Rotary or cable tools

Rotary

Approx. date work will start

March 15, 1966

Number of acres in lease:

2560

Number of wells on lease, including this well, completed in or drilling to this reservoir:

None

If lease, purchased with one or more wells drilled, from whom purchased:

Name

Address

None

Status and amount of bond

\$5,000.00

Organization Report

On file
Or attached **On File**

Filing Fee of \$25.00

Attached **Yes**

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone)



*Fill in Proposed Casing Program on reverse side

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Asst. Drlg. Supt.** of the **Cactus Drlg. Corp.** 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.

C.O. Rogers
Signature

March 15, 1966
Date

Verbal approval
3-12-66 JB

Permit Number:

345

Approval Date:

3-17-66

Approved By:

John Bonmister

Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.
See Instruction on Reverse Side of Form

STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
Application to Drill, Deepen or Plug Back and Plat
File Two Copies

Form No. 3

1. Operator shall outline the dedicated acreage for both oil and gas 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

	<p style="text-align: center;">CERTIFICATION</p> <p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <p>Name: <u>C.D. Rogers</u></p> <p>Position: <u>Asst. Dir. Supt.</u></p> <p>Company: <u>Cactus Dir. Corp.</u></p> <p>Date: <u>March 15, 1966</u></p> <p>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.</p> <p>Date Surveyed: <u>March 7, 1966</u></p> <p>Registered Professional Engineer and/or Land Surveyor</p> <p><u>James P. Loese</u></p> <p>Certificate No. <u>1849</u></p>
--	---

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
10 3/4"	32#			350'	0-350'	225 sacks



PERMIT TO DRILL

This constitutes the permission and authority from the
OIL AND GAS CONSERVATION COMMISSION,
STATE OF ARIZONA,

To: CACTUS DRILLING CORPORATION
(OPERATOR)

to drill a well to be known as

CACTUS DRILLING #1 NAVAJO 8816
(WELL NAME)

located 1980' FNL and 1980' FEL

Section 23 Township 36N Range 24E, Apache County, Arizona.

The W/NE/4 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 25th day of MARCH, 19 66.

OIL AND GAS CONSERVATION COMMISSION
By John Bannister
EXECUTIVE SECRETARY

PERMIT N^o 345
RECEIPT NO. 9443

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

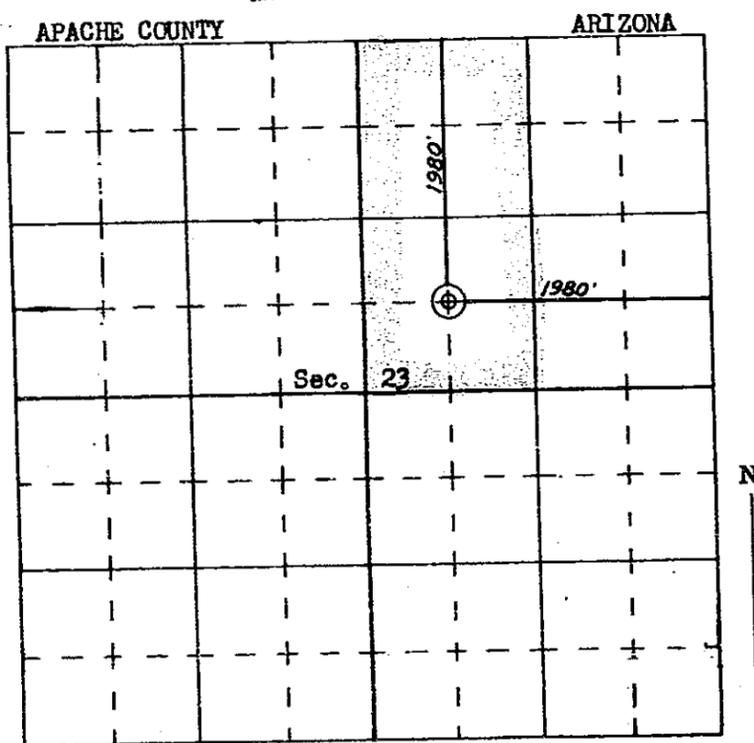
COMPANY CACTUS DRILLING COMPANY

LEASE _____ WELL NO. _____

SEC. 23 T. 36 NORTH R. 24 EAST, G & S.R.M.

LOCATION 1980 FEET FROM THE NORTH LINE AND
1980 FEET FROM THE EAST LINE

ELEVATION 5592.0



SCALE—4 INCHES EQUALS 1 MILE

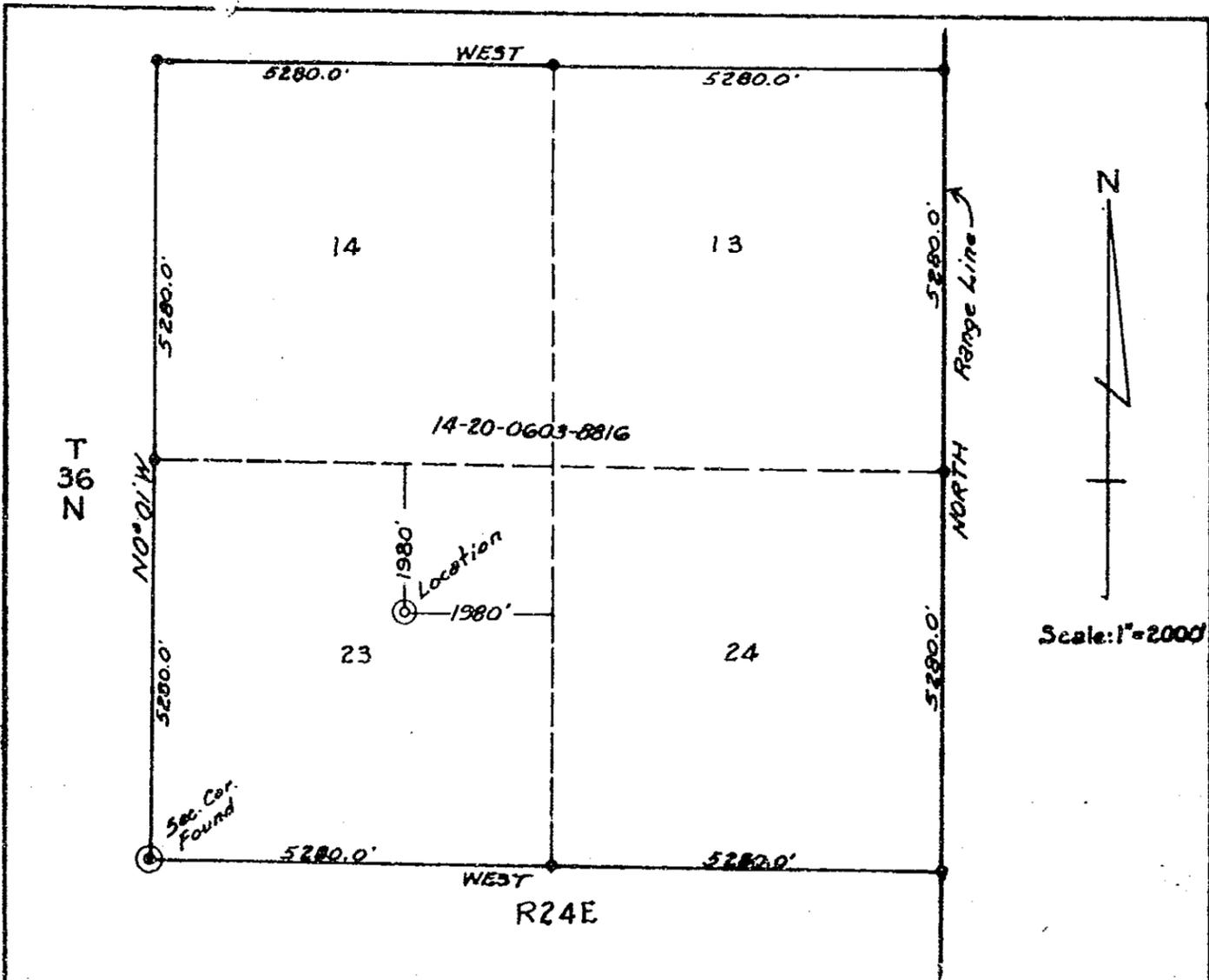
THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM
 FIELD NOTE OF ACTUAL SURVEYS MADE BY ME UNDER MY SUPER-
 VISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE
 BEST OF MY KNOWLEDGE AND BELIEF.



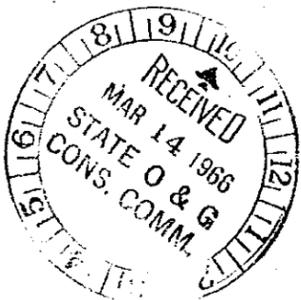
James P. Leese
 Registered Land Surveyor,
 James P. Leese
 Arizona Reg. No. 1849

SURVEYED March 7, 1966

SAN JUAN ENGINEERING COMPANY, FARMINGTON, N. M.

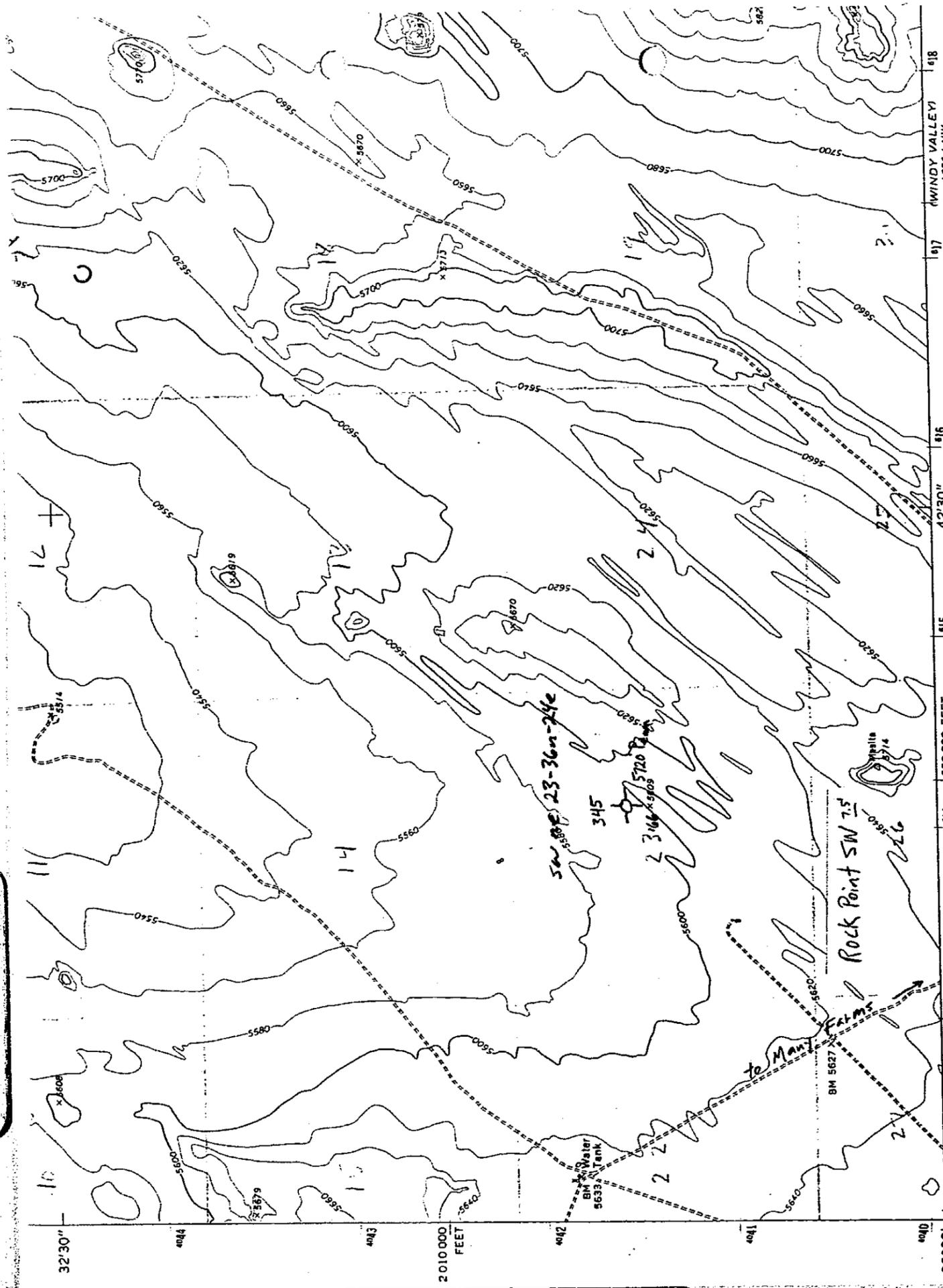


- Plat Shows all Corners Set $\frac{3}{4}$ " Capped & Marked Rod
- ⊙ Sec. Corner Found



345

Extract from plat of Boundary Survey
of CARSON MESA BLOCK for HUMBLE OIL
& REFINING COMPANY, Sec's 13, 14, 23, & 24,
T36N, R24E, G.&S.R.M., Apache County, Ariz.
by Clark - Reed & Assoc.
Durango, Colo.



36° 30' 109° 45'

2010,000 FEET

630,000 FEET

42' 30"

618 (WINDY VALLEY) 4056' NW

SCALE 1:24,000

Mapped, edited, and published by the Geological Survey



Jane Dee Hull
Governor

State of Arizona
Arizona Geological Survey

416 W. Congress, Suite 100
Tucson, Arizona 85701
(520) 770-3500



Larry D. Fellows
Director and State Geologist

October 20, 1997

Mr. Johnny Bennett
Navajo Nations Mineral Dept
P.O. Box 19180
Window Rock, AZ 86515

345

Dear Mr. Bennett:

The information you requested this morning is enclosed. This includes the completion report and plugging record for the Cactus #1 (permit 345), Simmons #1 (permit 435), Champlin #1 (permit 455), and the Riddle & Gottlieb (permit 494). This information shows formation tops, casing depths, test and perforation intervals, and cement plugs.

Sincerely,

Steven L. Rauzi

Steven L. Rauzi
Oil & Gas Program Administrator

Enclosures



ARCO Exploration & Production Technology
2300 West Plano Parkway
Plano TX 75075-8499

July 6, 1992

Larry D. Fellows
Director and State Geologist
Arizona Geological Survey
845 North Park Ave., #100
Tucson, Arizona 85719

file copy in each well file sep file PIN 345

Dear Mr. Fellows,

Following the agreement set forth in the Arizona Geological Survey sample policy I am forwarding (1) the results of Rock-Eval analysis Aneth Shale cuttings samples from eight wells in the Black Mesa basin and (2) vitrinite reflectance data collected for the Amerada Hopi #1 well. We waive the rights to the six month confidentiality period.

Thank you for your cooperation.

Sincerely,

Jeff Corrigan

cc: Steve Rauzi

Table 1. Rock-Eval data for Aneth Shale from sampled Black Mesa cuttings.

Sample ID	Depth Interval (ft)	TOC (weight %)	S1 (mg/g rock)	S2 (mg/g rock)	HI (mg HC/g TOC)	OI (mg CO ₂ /g TOC)
Amerada Hopi 1 (370)						
92R1477	7350-7370	0.08	0.07	0.10	125	362
92R1478	7370-7390	0.09	0.06	0.07	78	378
92R1479	7390-7410	0.07	0.04	0.01	14	514
92R1480	7410-7430	0.10	0.08	0.06	60	360
92R1481	7430-7450	0.11	0.10	0.04	36	327
92R1482	7450-7470	0.16	0.10	0.07	44	213
92R1483	7470-7490	0.13	0.06	0.02	15	246
92R1484	7490-7510	0.16	0.06	0.01	6	144
92R1485	7510-7540	0.11	0.06	0.02	18	318
92R1486	7540-7560	0.26	0.13	0.41	158	135
Cactus Navajo 8515 (325)						
92R1487	5540-5560	0.09	0.09	0.12	133	289
92R1488	5560-5580	0.04	0.11	0.03	72	563
92R1489	5580-5600	0.06	0.10	0.08	133	550
Cactus Navajo 8816 (345)						
92R1490	5540-5560	0.08	0.06	0.00	0	313
92R1491	5560-5580	0.08	0.05	0.01	13	362
92R1492	5580-5600	0.09	0.06	0.04	44	289
92R1493	5600-5620	0.07	0.05	0.02	29	429
Cactus Navajo -C2 (305)						
92R1494	4460-4480	0.08	0.06	0.04	50	425
92R1495	4480-4500	0.07	0.07	0.04	55	378
Tenneco 1 Navajo (283)						
92R1496	6870-6890	0.05	0.06	0.03	58	725
92R1497	6890-6910	0.07	0.09	0.09	123	434
92R1498	6910-6930	0.06	0.06	0.03	48	473
92R1499	6930-6950	0.08	0.06	0.04	51	464
92R1500	6950-6970	0.15	0.09	0.13	89	217
92R1501	6970-6990	0.19	0.09	0.16	85	218
92R1502	6990-7010	0.21	0.12	0.30	144	132
92R1503	7010-7030	0.32	0.17	0.64	202	88
92R1504	7030-7050	0.15	0.08	0.09	62	287
ARCO Hopi 9-1 (312)						
92R1505	6280-6300	0.11	0.14	0.18	173	323
92R1506	6300-6320	0.14	0.12	0.09	66	203
92R1507	6320-6340	0.08	0.07	0.01	12	306
92R1508	6340-6360	0.04	0.05	0.03	72	808
92R1509	6360-6380	0.13	0.08	0.01	8	220
92R1510	6380-6400	0.14	0.10	0.02	15	226
92R1511	6400-6420	0.13	0.07	0.07	56	277
92R1512	6420-6440	1.14	0.35	3.06	269	26
92R1513	6440-6460	0.31	0.15	0.59	192	115
92R1514	6460-6480	0.28	0.19	0.56	195	105
Moore, Moore & Miller (321)						
92R1515	6540-6560	0.16	0.08	0.14	90	215
92R1516	6560-6580	0.08	0.04	0.02	24	331
92R1517	6580-6600	0.08	0.06	0.04	48	380
92R1518	6600-6640	0.11	0.07	0.03	29	323
92R1519	6640-6660	0.17	0.07	0.03	18	178
92R1520	6660-6700	0.21	0.06	0.14	67	93
92R1521	6700-6710	0.21	0.09	0.42	202	98
92R1522	6710-6730	0.26	0.08	0.39	150	223
Tenneco 1-A Hopi (307)						
92R1523	5650-5670	0.05	0.14	0.08	154	705
92R1524	5670-5690	0.09	0.09	0.05	53	348
92R1525	5690-5710	0.09	0.08	0.05	53	316
92R1526	5710-5730	0.13	0.15	0.09	72	237
92R1527	5730-5750	0.13	0.07	0.06	48	204

ARCO OIL + GAS CO.
PLANO
TEXAS
U.S.A.

Fax No. 010 1 214 754 6807

VITRINITE REFLECTANCE DETERMINATIONS SERIES 92R 1462 - 1486
ATTN. CHARLIE LANDIS ✓

SAMPLE No.	R.O. AVE.	No. OF READINGS	CONF.	U.V.	COMMENTS
92R1462	0.39	20	C	Y-Y/O SPORES	—
92R1463	0.43	4	C	Y SPORES	PHYT. DEGRADED
92R1464	0.43	10	C	Y SPORES	PHYT. V. DEGRADED
92R1465	N.D.P.	—	—	—	RED SILTY SST. HAEMATITE
92R1466	N.D.P.	—	—	—	RED SANDY SILT.
92R1467	N.D.P.	—	—	—	RED SILT.
92R1468	N.D.P.	—	—	—	RED MARL
92R1469	N.D.P.	—	—	—	MIXD. LST. HAEMATITE
92R1470	N.D.P.	—	—	—	10% SST. 90% SH. HAEMATITE
92R1471	N.D.P.	N.D.P.	—	Y-Y/O CARB.	20% HAEMATITE CRYS.
92R1472	N.D.P.	—	—	—	RED SST.
92R1473	N.D.P.	—	—	—	RED SILTY SST.
92R1474	N.D.P.	—	—	Y/O CARB.	HAEMATITE
92R1475	N.D.P.	—	—	Y/O CARB.	70% HAEMATITE MARL
92R1476	N.D.P.	—	—	—	50% LST. HAEMATITE
92R1477	N.D.P.	—	—	Y/O CARB.	70% LST. + 30% RED SHALE
92R1478	N.D.P.	—	—	Y/O CARB.	70% LST.; 30% RED SHALE
92R1479	N.D.P.	—	—	L.O. CARB.	10% LST.; 90% RED SILTY SHALE
92R1480	N.D.P.	—	—	Y/O CARB.	30% MARLY LST. 70% RED SHALE

SAMPLE No.	R.O. NAME.	No. of READING	CONF.	U.V.	COMMENTS
92R 1481	N.D.P.	—	—	Y/O-L.O. CARB.	10% ST.; 50% LST.; 40% RED SHALE
92R 1482	N.D.P.	—	—	Y/O CARB.	MARLY LST. HAEM. SPERKS
92R 1483	N.D.P.	—	—	Y/O CARB.	90% MARLY LST. 10% RED SHALE
92R 1484	N.D.P.	—	—	Y/O CARB.	MARLY LST. HAEMATITE TERRES
92R 1485	N.D.P.	—	—	Y/O CARB.	LST. HAEMATITE TERRES
92R 1486	N.D.P.	—	—	Y/O CARB.	SHALY LST. HAEM. TR. GLAUCONITE

SORRY. I CAN'T REALLY DO ANYTHING WITH THIS LOT. THE FIRST FEW SAMPLES ARE O.K. BUT WHEN WE GET INTO THE RED BED THE PHYTOLITES DISAPPEAR. EVEN WHEN THE HAEMATITE DECREASES IN THE FINAL FEW SAMPLES, THE SUCCESSION IS ALMOST WHOLLY LIMESTONE WHICH IS BARREN.

ANOTHER APOLOGY FOR THE HANDWRITING BUT THE SECRETARY IS ON HOLIDAY TODAY. I WILL COMPUSERVE THE DATA, FOR WHAT IS WORTH, LATER THIS WEEK.

BEST WISHES

MICK JONES.

Telephone
325-6631

Post Office
Box 2146

Cactus Drilling Corporation
Farmington, New Mexico

January 17, 1968

Oil and Gas Conservation Commission
State of Arizona
Room 202
1624 West Adams St.
Phoenix, Arizona 85007

Attention: Mr. John Bannister

Gentlemen:

In regards to your letter on January 11, 1968 pertaining to the Samples from our #1 Navajo 88-16 well in Sec.23-T36N-R24E Apache County, Arizona, two sets of samples (1060 samples in all) were sent to Dr. H. Wesley Peirce on or about June 1, 1966. The samples in question were sent to the University of Arizona, Tucson, Arizona. We also on or about June 1, 1966 sent one set of samples to the Museum of Arizona at Flagstaff, Arizona.

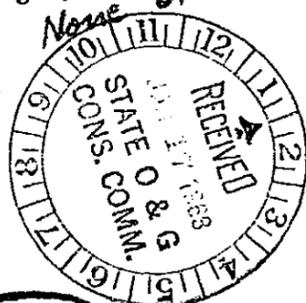
I believe we have complied with all of your Rules and Regulations to the best of our knowledge.

Thank you very much;

yours truly,

C. O. Rogers
C.O. Rogers
Asst. Drilg. Supt.
Cactus Drilling Corp.

*Smples are at Museum;
None at Tucson.*



345

345

OFFICE OF
Oil and Gas Conservation Commission
STATE OF ARIZONA
ROOM 202
1824 WEST ADAMS
Phoenix, Arizona 85007
PHONE: 271-5161

January 11, 1968

Cactus Drilling Corporation
P.O. Box 2146
Farmington, New Mexico 87401

Attention: Mr. C.O. Rogers

Gentlemen:

As you are aware, you, as operator, must keep this Commission currently informed as to the progress of any oil or gas well operation anywhere in the State of Arizona and file such data as required or called for by the Commission. For your guidance, a copy of "Forms--when to file" was attached to your permit to drill. For your convenience, a marked copy is enclosed again.

According to our records, the data indicated below has not been submitted. You are requested to submit this data at once in order to bring this operation into compliance with our Rules and Regulations.

<u>Well</u>	<u>Progress Report</u>	<u>Completion Report</u>	<u>Logs</u>	<u>Samples</u>	<u>Other</u>
Cactus Drilling #1 Navajo 8816				X	

Very truly yours,

John Bannister
Executive Secretary
mr
enc

345

BOND

LIABILITY UNDER THIS BOND MAY NOT BE TERMINATED WITHOUT WRITTEN PERMISSION OF THIS COMMISSION.

KNOW ALL MEN BY THESE PRESENTS

BOND SERIAL NO. _____

That Cactus Drilling Corporation

we: _____
of the County of: Tom Green in the State of: Texas

as principal, The Aetna Casualty and Surety Company

and Hartford, Connecticut

of _____ AUTHORIZED TO DO BUSINESS WITHIN the State of Arizona.

as surety, are held and firmly bound unto the State of Arizona in the penal sum as indicated, lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.

The conditions of this obligation is that whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State, to wit:

SW $\frac{1}{4}$ NE $\frac{1}{4}$ Section 23, T. 36 N., R. 24 E., Apache County, Arizona
(May be used as blanket bond or for single well)

NOW, THEREFORE, if the above bounden principal shall comply with all of the provisions of the laws of this State and the rules, regulations and orders of the Oil and Gas Conservation Commission, especially with reference to the requirements of A.R.S. 27-516, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil & Gas Conservation Commission all notices and records required by said Commission, in the event said well or wells do not produce oil or gas in commercial quantities, or cease to produce oil or gas in commercial quantities, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

Penal sum of FIVE THOUSAND AND NO/100

Witness our hands and seals, this 21st day of March, 1966

CACTUS DRILLING CORPORATION

BY: [Signature]
Principal

Witness our hands and seals, this 21st day of March, 1966

COUNTERSIGNED THE AETNA CASUALTY AND SURETY COMPANY

The Aetna Casualty and Surety Company

By: [Signature] BY: [Signature]
Attorney-in-Fact Surety

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

Approved Date: <u>3-25-66</u>	STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION
By: <u>[Signature]</u>	Bond File Two Copies

Perm. No. 345

DATE 5-2-66

CANCELLED

100-100000



(((((



RECEIVED MAR 23 1968 STATE OF OHIO COM. 5



The Aetna Casualty and Surety Company
Hartford, Connecticut 06115

Power of Attorney and Certificate of Authority of Attorney(s)-in-Fact

KNOW ALL MEN BY THESE PRESENTS, THAT *The Aetna Casualty and Surety Company*, a corporation duly organized under the laws of the State of Connecticut, and having its principal office in the City of Hartford, County of Hartford, State of Connecticut, hath made, constituted and appointed, and does by these presents make, constitute and appoint L. B. Horton, Gordon Kenley, L. B. Horton, Jr. *
or Marcus Welch *

of San Angelo, Texas, its true and lawful Attorney(s), with full power and authority hereby conferred to sign, execute and acknowledge, at any place within the United States, or, if the following line be filled in, within the area there designated, the following instrument (s):
any and all bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any and all consents incident thereto

and to bind *The Aetna Casualty and Surety Company*, thereby as fully and to the same extent as if the same were signed by the duly authorized officers of *The Aetna Casualty and Surety Company*, and all the acts of said Attorney(s), pursuant to the authority herein given, are hereby ratified and confirmed.

This appointment is made under and by authority of the following provisions of the By-laws of the Company which provisions are now in full force and effect and are the only applicable provisions of said By-laws.

ARTICLE IV—Section 8. The President, any Vice President, or any Secretary may from time to time appoint Resident Vice Presidents, Resident Assistant Secretaries, Attorneys-in-Fact, and Agents to act for and on behalf of the Company and may give any such appointee such authority as his certificate of authority may prescribe to sign with the Company's name and seal with the Company's seal bonds, recognizances, contracts of indemnity, and other writings obligatory in the nature of a bond, recognizance, or conditional undertaking, and any of said officers or the Board of Directors may at any time remove any such appointee and revoke the power and authority given him.

ARTICLE IV—Section 10. Any bond, recognizance, contract of indemnity, or writing obligatory in the nature of a bond, recognizance, or conditional undertaking shall be valid and binding upon the Company when (a) signed by the President or a Vice President or by a Resident Vice President, pursuant to the power prescribed in the certificate of authority of such Resident Vice President, and duly attested and sealed with the Company's seal by a Secretary or Assistant Secretary or by a Resident Assistant Secretary, pursuant to the power prescribed in the certificate of authority of such Resident Assistant Secretary; or (b) duly executed (under seal, if required) by one or more Attorneys-in-Fact pursuant to the power prescribed in his or their certificate or certificates of authority.

This Power of Attorney and Certificate of Authority is signed and sealed by facsimile under and by authority of the following Resolution adopted by the Board of Directors of *The Aetna Casualty and Surety Company* at a meeting duly called and held on the 15th day of February, 1965.

RESOLVED: That the signature of Guy E. Mann, Senior Vice President, or of A. H. Anderson, Vice President, or of D. N. Gage, Secretary, or of C. K. Shaw, Secretary, or of N. H. Pfanstiel, Secretary, and the seal of the Company may be affixed by facsimile to any power of attorney or to any certificate relating thereto appointing Resident Vice Presidents, Resident Assistant Secretaries or Attorneys-in-Fact for purposes only of executing and attesting bonds and undertakings and other writings obligatory in the nature thereof, and any such power of attorney or certificate bearing such facsimile signature or facsimile seal shall be valid and binding upon the Company and any such power so executed and certified by such facsimile signature and facsimile seal shall be valid and binding upon the Company in the future with respect to any bond or undertaking to which it is attached.

IN WITNESS WHEREOF, *The Aetna Casualty and Surety Company* has caused these presents to be signed by its Secretary, _____, and its corporate seal to be hereto affixed, this 14th day of April, A.D., 1965.

The Aetna Casualty and Surety Company

State of Connecticut }
County of Hartford } ss. Hartford



By D. N. Gage
Secretary

On this 14th day of April, A.D., 1965, before me personally came D. N. GAGE, Secretary of *The Aetna Casualty and Surety Company*, the corporation described in and which executed the above instrument, at its Home Office; that he knows the seal of said corporation; that the seal affixed to the said instrument is such corporate seal; and that he executed the said instrument on behalf of the corporation by authority of his office under the By-laws thereof.



George A. Perry, Jr.
Notary Public
My commission expires March 31, 1966.

CERTIFICATE

I, the undersigned, Secretary of *The Aetna Casualty and Surety Company*, a stock corporation of the State of Connecticut, DO HEREBY CERTIFY that the foregoing and attached Power of Attorney and Certificate of Authority remains in full force and has not been revoked; and furthermore, that Article IV—Sections 8 and 10, of the By-laws of the Company, and the Resolution of the Board of Directors, as set forth in the Certificate of Authority, are now in force.

Signed and Sealed at the Home Office of the Company, in the City of Hartford, State of Connecticut. Dated this 21st day of

March A.D., 19 66



D. N. Gage
Secretary

May 3, 1966

Cactus Drilling Corporation
P.O. Drawer 71
San Angelo, Texas

Attention: Mr. H.G. Brewer, Production Department

Re: Cactus Drilling #1 Navajo 8816 well
SW NE 23-~~36~~N-24E, Apache County, Arizona
Permit 345

The Aetna Casualty & Surety Co. Bond (number not shown)

Gentlemen:

This will acknowledge receipt of your letter of April 28, 1966 requesting that the captioned bond covering your operations on the captioned well be released.

This letter will constitute authority from this Commission to release the captioned bond as of May 2, 1966.

due
In reviewing our file we note that all our requirements have been met, ~~except that the samples from the captioned well have not been delivered to us.~~ The Commission's samples may be delivered either to the Commission in Phoenix or to Four Corners Sample Cut, Farmington, New Mexico.

Will you please advise us at the earliest possible moment as to the disposition of the Commission's samples.

Very truly yours,

John Bannister
Executive Secretary
nr

cc: Horton, Yaggy & Kenley
San Angelo, Texas

TELEPHONE
653.4568

POST OFFICE
DRAWER 71

Cactus Drilling Corporation

FIRST SAVINGS BUILDING
San Angelo, Texas

April 28, 1966

Mr. John Bannister, Executive Secretary
Oil and Gas Conservation Commission
1624 W st Adams
Phoenix, Arizona 85007

Re: Cactus Drilling #1 Navajo 8816
SW NE 23-36N-24E, Apache County
File 345

Dear Mr. Bannister:

Subject well has been completed as a dry hole, and properly plugged and abandoned. Commission regulations have been followed and necessary information has been furnished to your office.

We therefore make a formal request that our bond covering operations on this well be released.

Yours very truly,

H. G. Brewer
H. G. Brewer
Production Department

HGB:sr

cc: Horton, Yaggy & Kenley
San Angelo, Texas

345

April 11, 1966

Cactus Drilling Corporation
P.O. Box 2146
Farmington, New Mexico

Attention: Mr. C.O. Rogers

Re: Cactus Drilling #1 Navajo 8816
SW NE 23-36N-24E, Apache County
File 345

Gentlemen:

Enclosed is approved copy of Application to Abandon and Plug captioned well.

As soon as copies of the logs and samples are received, and if you so request it, your bond covering operations on this well may then be released.

Very truly yours,

John Bannister
Executive Secretary
nr
enc

From the Desk of

J. R. SCURLOCK

Sacked w/ Mr. Rogers 3-30-66
☎ 5175

A-6-66

logs - samples - appl. to
plug - plug report
requested via phone
JB

March 28, 1966

Cactus Drilling Corporation
P.O. Box 2146
Farmington, New Mexico

Attention: Mr. C.O. Rogers, Asst. Drilling Superintendent

Re: Cactus Drilling #1 Navajo 8816 well
SW NE 23-36N-24E, Apache County, Arizona
Permit 345

Gentlemen:

Enclosed are approved copy of bond, Application to Drill, receipt for the filing fee, and Permit to Drill captioned well.

For your convenience, we are also enclosing the forms necessary for the reporting as required by our Rules and regulations.a

Very truly yours,

John Bannister
Executive Secretary
mf
enc

March 21, 1966

Humble Oil & Refining Company
P.O. Box 120
Denver, Colorado 80201

Attention: Mr. L.A. Dodd, District Landman

Re: Federal Insurance Co. Bond 8027-26-29
covering O.N. Beer, Inc. operations NE/4 23-36N-24E,
Apache County, Arizona

Gentlemen:

We are enclosing copy of captioned bond.

Inasmuch as your plans have been changed and O.N. Beer, Inc.
is not your operator at this location, this letter then will
constitute authority from this Commission to terminate this
bond.

Very truly yours,

John Bannister
Executive Secretary
nr
enc

cc: Federal Insurance Co.
Loiseau Neiswanger & Co., Agent
1410 Security Life Building
Denver, Colorado 80202

375

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BOND

LIABILITY UNDER THIS BOND MAY NOT BE TERMINATED WITHOUT WRITTEN PERMISSION OF THIS COMMISSION.

KNOW ALL MEN BY THESE PRESENTS

BOND SERIAL NO. 8027-26-29

That we: HUMBLE OIL & REFINING COMPANY, P. O. Box 120

of the County of: Denver in the State of: Colorado

as principal, and FEDERAL INSURANCE COMPANY

of 90 John Street, New York, New York 10038 (A New Jersey Corporation)
AUTHORIZED TO DO BUSINESS WITHIN the State of Arizona.

as surety, are held and firmly bound unto the State of Arizona in the penal sum as indicated, lawful money of the United States, for which payment, well and truly to be made, we bind ourselves, and each of us, and each of our heirs, executors, administrators or successors, and assigns jointly and severally, firmly by these presents.
The conditions of this obligation is that whereas the above bounden principal proposes to drill a well or wells for oil, gas or stratigraphic purposes in and upon the following described land situated within the State, to wit:

The Northeast Quarter (NE $\frac{1}{4}$) of Section 23, Township 36 North,
(May be used as blanket bond or for single well)

Range 24 East, Apache County, Arizona

NOW, THEREFORE, if the above bounden principal shall comply with all of the provisions of the laws of this State and the rules, regulations and orders of the Oil and Gas Conservation Commission, especially with reference to the requirements of A.R.S. 27-516, providing for the proper drilling, casing and plugging of said well or wells, and filing with the Oil & Gas Conservation Commission all notices and records required by said Commission, in the event said well or wells do not produce oil or gas in commercial quantities, or cease to produce oil or gas in commercial quantities, then this obligation is void; otherwise, the same shall be and remain in full force and effect.

Penal sum of Five Thousand Dollars (\$5,000.00)

Witness our hands and seals, this 18th day of November, 1965

HUMBLE OIL & REFINING COMPANY
BY [Signature]
L. A. DODD, Attorney-in-Fact Principal

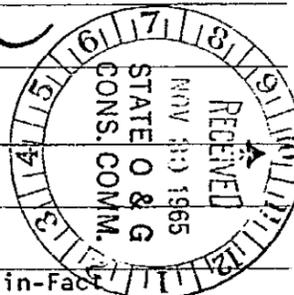
Witness our hands and seals, this 18th day of November, 1965

COUNTY SIGNED BY [Signature] FEDERAL INSURANCE COMPANY
BY: [Signature] Richard Williams Attorney-in-Fact
O'Malley Ins. Co., Inc., 2200 N. Central Ave. Phoenix, Ariz. ARIZONA RESIDENT AGENT

(If the principal is a corporation, the bond should be executed by its duly authorized officers, with the seal of the corporation affixed. When principal or surety executes this bond by agent, power of attorney or other evidence of authority must accompany the bond.)

Approved Date 11-30-65
STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION
By: [Signature] John Gannister
Form No. 2

Permit No. — 0 — DATE 3-21-66



CANCELLED

POWER OF ATTORNEY

KNOW ALL MEN BY THESE PRESENTS:

THAT HUMBLE OIL & REFINING COMPANY, a Delaware corporation, hereinafter referred to as "Humble", having an office at Tulsa, Oklahoma, acting by its undersigned Vice President, hereunto duly authorized, has nominated, constituted and appointed, and by these presents does nominate, constitute and appoint L. A. Dodd its true, sufficient and lawful Attorney in Fact for it and in its name, place and stead to negotiate for, and in the course of the business of said corporation to execute and deliver the following instruments pertaining to Humble's oil, gas and/or other mineral exploring and producing operations:

1. Oil, gas and/or mineral leases or permits where Humble is lessee or permittee; options to acquire oil, gas and/or other mineral leases or permits; easements; rights-of-way; surface and/or sub-surface leases or permits in favor of Humble; seismic and/or exploration permits; acceptances, ratifications, corrections, extensions, and amendments of such aforesaid leases, permits, options, easements, and rights-of-way; and release or surrender of such aforesaid options.
2. All instruments, including, wherever applicable, offers, applications, bonds, statements, designations of operator, and notices, in connection with the original acquisition or acquisition by assignment, and the maintenance by Humble of any of the following:
 - (a) Oil, gas, and/or other mineral leases or permits,
 - (b) Options to acquire oil, gas and/or other mineral leases or permits,
 - (c) Easements and rights-of-way,
 - (d) Surface and/or sub-surface leases or permits, or
 - (e) Seismic and/or exploration permits.
3. Communitization agreements entered into with owners of the various interests (including fee, royalty and leasehold interests) in oil, gas and other minerals by which to establish a unit or units for the production of oil, gas or other minerals in cases where the unit area does not exceed an acreage content of 704 acres.
4. All instruments executed in compliance with, or pursuant to, laws, rules, regulations, or orders applicable to transactions involving the matters enumerated in the preceding paragraphs 1, 2 and 3 hereof, including instruments relating to Federal, Indian, and State lands and lands owned by or under the jurisdiction of any municipal corporation or any other governmental body or unit of government.
5. Exploration service agreements and core drill contracts.
6. Farmout agreements, dry hole and/or bottom hole contribution agreements involving contributions of money or acreage, or both, whether Humble is the contributor or recipient under such agreements.
7. Acreage purchase agreements with or without commitment by Humble to drill or participate in the drilling of a contemplated test well.
8. Declarations of pooling pursuant to the provisions of oil and gas leases.
9. Agreements subordinating or waiving priority of either Humble's rights as oil, gas or other mineral lessee, or the rights of others in lands under lease to Humble.
10. Contracts and/or bills of sale conveying equipment and other personal property, including automobiles and trucks, of value not to exceed \$5,000.00.
11. Leases and other rental agreements for terms not to exceed one year in duration pertaining to office space to be occupied by personnel of the Exploration Department, provided the rental for such space does not exceed the sum of \$500.00 per month.

IN WITNESS WHEREOF, HUMBLE OIL & REFINING COMPANY has caused this instrument to be executed by its undersigned Vice President, attested by its undersigned Assistant Secretary, and has caused its corporate seal to be affixed hereto this 20th day of November, 1964.

HUMBLE OIL & REFINING COMPANY

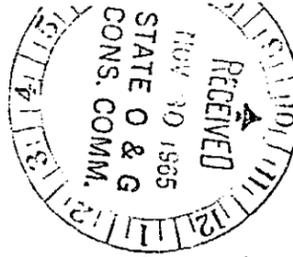
ATTEST:
(SEAL)

/s/ LeRoy Young
LeRoy Young
Assistant Secretary

By /s/ John L. Loftis, Jr.
John L. Loftis, Jr.
Vice President

STATE OF OKLAHOMA)
) SS.
COUNTY OF TULSA)

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On this 20th day of November, 1964, before me, a Notary Public in and for said County and State, personally appeared JOHN L. LOFTIS, JR., to me personally known to be the identical person who subscribed the name of the maker thereof to the foregoing instrument as Vice President of HUMBLE OIL & REFINING COMPANY, a corporation, and acknowledged to me that he executed the same as his free and voluntary act and deed and as the free and voluntary act and deed of such corporation for the uses and purposes therein set forth, and by authority of a resolution of the board of directors of said corporation.

WITNESS my hand and official seal the day and year last above written.

My commission expires:
(SEAL) Mary E. McBride, Notary Public
MY COMMISSION EXPIRES FEB. 7, 1966

/s/ Mary E. McBride
Notary Public

CERTIFICATION

The undersigned Assistant Secretary of HUMBLE OIL & REFINING COMPANY hereby certifies that the above and foregoing copy of Power of Attorney is a true and correct copy of the executed original copy thereof and that the powers granted thereunder to the Attorney in Fact therein named have not been revoked.

DATED this 1st day of December, 19 64.

LeRoy Young
LeRoy Young

Certified Copy of
POWER OF ATTORNEY

Known all Men by these Presents, That the FEDERAL INSURANCE COMPANY, 90 John Street, New York, New York, a New Jersey Corporation, has constituted and appointed, and does hereby constitute and appoint

C. Gale Neiswanger
L. A. Loiseau
Carl Cross
Robert J. Marker
Walter J. Kulp, Jr.
Richard Williams of
Denver, Colorado

each its true and lawful Attorney-in-Fact to execute under such designation in its name and to affix its corporate seal to and deliver for and on its behalf as surety thereon or otherwise, bonds of any of the following classes, to-wit:

1. Bonds and Undertakings (other than Fiduciary Bonds) filed in any suit, matter or proceeding in any Court, or filed with any Sheriff or Magistrate, for the doing or not doing of anything specified in such Bond or Undertaking, in which the penalty of the bond or undertaking does not exceed the sum of Fifty Thousand Dollars (\$50,000.00).
2. Surety Bonds to the United States of America or any agency thereof, including those required or permitted under the laws or regulations relating to Customs or Internal Revenue; License and Permit bonds or other indemnity bonds under the laws, ordinances or regulations of any State, City, Town, Village, Board or other body or organization, public or private; bonds to Transportation Companies, Lost Instrument bonds, Lease bonds, Workmen's Compensation bonds, Miscellaneous Surety bonds and bonds on behalf of Notaries Public, Sheriffs, Deputy Sheriffs and similar public officials.
3. Bonds on behalf of contractors in connection with bids, proposals or contracts to or with the United States of America, any State or political subdivision thereof or any person, firm or corporation.

In Witness Whereof, the said FEDERAL INSURANCE COMPANY has, pursuant to its By-Laws, caused these presents to be signed by its Vice President and Assistant Secretary and its corporate seal to be hereto affixed this 1st day of January 19 65.

FEDERAL INSURANCE COMPANY

By

Frederick C. Gardner

Frederick C. Gardner
Vice President

Davis Quinn

Davis Quinn
Assistant Secretary



STATE OF NEW YORK
County of New York

ss.:

On this 1st day of January 19 65, before me personally came Davis Quinn, to me known and by me known to be Assistant Secretary of the FEDERAL INSURANCE COMPANY, the corporation described in and which executed the foregoing Power of Attorney and the said Davis Quinn being by me duly sworn, did depose and say that he resides in the City of New York, in the State of New York; that he is Assistant Secretary of the FEDERAL INSURANCE COMPANY and knows the corporate seal thereof; that the seal affixed to the foregoing Power of Attorney is such corporate seal and was thereto affixed by authority of the By-Laws of said Company and that he signed said Power of Attorney as Assistant Secretary of said Company by like authority; that he is acquainted with Frederick C. Gardner and knows him to be Vice President of said Company, and that the signature of said Frederick C. Gardner subscribed to said Power of Attorney is in the genuine handwriting of said Frederick C. Gardner and was thereto subscribed by authority of said By-Laws and in deponent's presence.

Acknowledged and Sworn to before me
on the date above written.

Marion J. McGrath

Notary Public

MARION J. McGRATH
NOTARY PUBLIC, State of New York
No. 24-7837850
Qualified in Kings County
Certificate filed in New York County
Commission Expires March 30, 1966



CITY AND COUNTY OF NEW YORK: ss

I, the undersigned, Assistant Secretary of the FEDERAL INSURANCE COMPANY, do hereby certify that the following is a true excerpt from the By-Laws of the said Company as adopted by its Board of Directors on March 11, 1953 and amended January 2, 1964 and that this By-Law is in full force and effect.

"ARTICLE XIX.

Section 2. All bonds, undertakings, contracts, powers of attorney, and other instruments other than as above, for and on behalf of the Company which it is authorized by law or its charter to execute, may and shall be executed in the name and on behalf of the Company either by the Chairman or the Vice-Chairman or the President or a Vice-President, jointly with the Secretary or an Assistant Secretary, under their respective designations, except that any one or more officers or attorneys-in-fact designated in any resolution of the Board of Directors or the Executive Committee, or in any power of attorney executed as provided for in this section, may execute any such bond, undertaking or other obligation as provided in such resolution or power of attorney."

And I further certify that I have compared the foregoing copy of the POWER OF ATTORNEY with the original thereof and the same is a correct and true copy of the whole of said original Power of Attorney and that said Power of Attorney has not been revoked.

And I further certify that said FEDERAL INSURANCE COMPANY is duly licensed to transact fidelity and surety business in each of the States of the United States of America, Puerto Rico, and each of the Provinces of the Dominion of Canada with the exception of Prince Edward Island; and is also duly licensed to become sole surety on bonds, undertakings, etc., permitted or required by the laws of the United States.

Given under my hand and seal of said Company at New York, N. Y., this 18th day of

November

1965

B. Smith
Assistant Secretary

HUMBLE OIL & REFINING COMPANY

P. O. Box 120
Denver, Colorado - 80201

November 29, 1965

Oil and Gas Conservation Commission
State of Arizona
1624 West Adams
Phoenix, Arizona 85007

Re: Our RM-1237
Carson Mesa Block
Apache County, Arizona

Attention: Mr. John Bannister, Executive Secretary

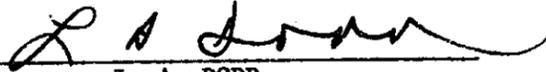
Dear Sir:

Pursuant to your letter of November 12, 1965 directed to the attention of our Mr. Brock, we are enclosing original and one copy of drilling bond in the amount of \$5,000.00 covering the well which O. N. Beer, Inc. will drill in the NE $\frac{1}{4}$ Sec. 23, T. 36 N., R. 24 E., Apache County, Arizona.

We have already furnished to Mr. Beer a Designation of Operator, four copies of which will be filed with the U.S.G.S. in Farmington and one copy with your office. In addition to the Designation of Operator, Mr. Beer will file an Application for Permit to Drill with the \$25.00 filing fee, a plat by a registered surveyor showing the well location and an Organization Report.

Very truly yours,

HUMBLE OIL & REFINING COMPANY

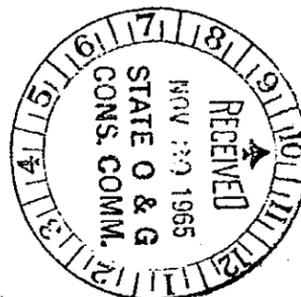
By: 

L. A. DODD

Denver District Landman

LAD:bh
Attachment

cc: Mr. O. N. Beer -w/attch. copy of Bond
Mr. L. L. Cline



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November 12, 1965

Humble Oil & Refining Company
P.O. Box 120
Denver, Colorado 80201

Attention: Mr. Phil O. Brock

Gentlemen:

This will acknowledge receipt of your letter of November 8, 1965 concerning the drilling of a well in NE/4, 23-36N-24E, Apache County, Arizona. Your letter contained a designation of operator to O.N. Beer, Inc.

Please be advised that this designation of O.N. Beer, Inc. as operator on this well is satisfactory to this Commission.

As you are aware, Humble Oil & Refining Company has a \$10,000 statewide blanket bond currently on file with this Commission. However, due to a change in our Rules and Regulations the Arizona statewide bond must now be in the amount of \$25,000.

Humble Oil & Refining Company has informed us that in view of this statewide bond of \$25,000, it desires to go on an individual well basis. Consequently before this well may be commenced it will be necessary that a \$5,000 bond be filed with this Commission to cover the operations of O.N. Beer Inc. This bond may be issued with Humble as principal.

The \$150,000 nation-wide Indian bond mentioned in your letter cannot satisfy the State of Arizona bonding requirements.

In addition to the necessary bond, an Application for Permit to Drill together with the \$25.00 filing fee, and plat by a registered surveyor showing the location, must be filed with this Commission. Further, it will be necessary that O.N. Beer Inc. file an Organization Report.

Should you have any questions, please advise.

Very truly yours,

John Bannister
Executive Secretary

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HUMBLE OIL & REFINING COMPANY

P. O. Box 120
Denver, Colorado - 80201

CENTRAL REGION

November 8, 1965

Oil and Gas Conservation Commission
State of Arizona
1624 West Adams
Phoenix, Arizona 85007

Attention: Mr. John Bannister, Executive Secretary

Dear Sir:

This morning I advised you we had reached an agreement with O. N. Beer, Inc. for the drilling of a test well on Navajo Tribal lands with the location being: NE $\frac{1}{4}$ Section 23, T. 36 N., R. 24 E., Apache County, Arizona. O. N. Beer, Inc. will be designated Humble's operator and agent for the drilling of this well.

Humble has a Nationwide Bond in the amount of \$150,000 for operations on Tribal Lands and if it is my understanding this will be the only bond required in this drilling operation, since O. N. Beer, Inc. will be designated operator and will be covered by Humble's nationwide bond. It is my understanding a copy of this bond is on file with the Navajo Agency in Window Rock.

Will you please advise if we are correct in assuming no additional bonding requirements will be made for the well to be drilled by O. N. Beer, Inc. under a Designation of Operator from Humble Oil & Refining Company.

Very truly yours,

HUMBLE OIL & REFINING COMPANY

By: 

Phil O. Brock

POB:bh
Attch.



Form 9-1123
(Rev. Dec. 1957)

(Submit in triplicate to appropriate
Regional Oil and Gas or Mining Supervisor)

DESIGNATION OF OPERATOR

The undersigned is, on the records of the Bureau of ~~Land Management~~ ^{Indian Affairs}, holder of lease

~~Navajo Agency~~
~~District Office~~ OFFICE: Window Rock, Arizona
SERIAL No.: 14-20-0603-8816

and hereby designates

NAME: O. N. Beer, Inc.
ADDRESS: 203 East Rosewood
San Antonio, Texas

as his operator and local agent, with full authority to act in his behalf in complying with the terms of the lease and regulations applicable thereto and on whom the supervisor or his representative may serve written or oral instructions in securing compliance with the Operating Regulations with respect to (describe acreage to which this designation is applicable): Apache County, Arizona

Township 36 North, Range 24 East
Section 23: NE $\frac{1}{4}$

It is understood that this designation of operator does not relieve the lessee of responsibility for compliance with the terms of the lease and the Operating Regulations. It is also understood that this designation of operator does not constitute an assignment of any interest in the lease.

In case of default on the part of the designated operator, the lessee will make full and prompt compliance with all regulations, lease terms, or orders of the Secretary of the Interior or his representative.

The lessee agrees promptly to notify the supervisor of any change in the designated operator.

HUMBLE OIL & REFINING COMPANY

By: *L. A. Sloan*

(Signature of lessee)
Attorney in Fact

November 8, 1965
(Date)

P. O. Box 120, Denver, Colorado
(Address)

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A

October 13, 1965

Mr. O.N. Bear
203 N. Rosewood
San Antonio, Texas

Dear Mr. Bear:

In response to your telephone call to Mr. Lynn Lockhart, Chairman of this Commission, we are enclosing the necessary forms to be used in connection with your intended drilling in Arizona.

As the result of public hearing on September 22, 1965, some changes have been made to our Rules and Regulations. However, copies are not yet available from the printer. We are enclosing a copy of the previous Rules and Regulations, for your information, in which we have made some ink notations of the changes. Just as soon as copies of the new Regulations are available, we will immediately send you one.

We very much appreciate your interest in Arizona. If you have any questions, or if this office at any time may be of service to you, please contact us.

Yours very truly,

John Bannister

John Bannister
Executive Secretary
JB
enc

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