

Release Date 12-7-68

CONFIDENTIAL

P-W

HUMBLE #1 NAVAJO-151
SE NE 35-35N-30E Apache County

454

sl

COUNTY Apache AREA 6 mi S. Dineh bi Keyah LEASE NO. 14-20-0603-8882

WELL NAME Humble #1 Navajo-151

LOCATION SE NE SEC 35 TWP 35N RANGE 30E FOOTAGE 1980' FNL 330' FEL
ELEV 8780 GR 8793 KB SPUD DATE 3-10-68 STATUS P&A TOTAL DEPTH 3963'
COMP. DATE 5-30-68 P&A 10-15-69

CONTRACTOR

CASING SIZE	DEPTH	CEMENT	LINER SIZE & DEPTH	DRILLED BY ROTARY	<u>x</u>
<u>9 5/8</u>	<u>1110'</u>	<u>600 sks</u>	<u>NA</u>	DRILLED BY CABLE TOOL	
<u>7</u>	<u>3960'</u>	<u>160+ 1500# gilsonite</u>		PRODUCTIVE RESERVOIR	<u>Wildcat</u>
				INITIAL PRODUCTION	<u>P&A</u>

FORMATION TOPS	DEPTHS	SOURCE		REMARKS
		L.L.	E.L.	
<u>Cutler</u>	<u>1806'</u>	<u>X</u>	<u>x</u>	
<u>Hermosa</u>	<u>2828'</u>			
<u>Ismay</u>	<u>2996'</u>			
<u>Desert Creek</u>	<u>3078'</u>			
<u>Akah</u>	<u>3138'</u>			
<u>Black Shale</u>	<u>3226'</u>			
<u>Barker Creek</u>	<u>3258'</u>			
<u>Mississippian</u>	<u>3398'</u>			
<u>Devonian</u>	<u>3544'</u>			
<u>McCracken</u>	<u>3695'</u>			
<u>Arath</u>	<u>3785'</u>			
<u>Pre-Cambrian</u>	<u>3876'</u>			

ELECTRIC LOGS	PERFORATED INTERVALS	PROD. INTERVALS	SAMPLE LOG
<u>IES & Gamma Ray Sonic</u>	<u>3836-3760 see file</u>	<u>3836-60'</u>	<u>Am Strat</u>
	<u>too numerous to list</u>	<u>3788-3808'</u>	<u>SAMPLE DESCRP.</u>
		<u>3697-3760'</u>	<u>SAMPLE NO. 1447*</u>
			<u>CORE ANALYSIS x</u>
			<u>DSTs x</u>
			<u>Tucson 2525</u>
REMARKS			<u>APP. TO PLUG x</u>
			<u>PLUGGING REP. x</u>
			<u>COMP. REPORT x</u>

WATER WELL ACCEPTED BY

BOND CO. The American Insurance Company BOND NO. 5-10-11-58
 BOND AMT. \$ 25,000 CANCELLED 3-16-98 DATE 3-22-67
 FILING RECEIPT 9538 LOC. PLAT x WELL BOOK x PLAT BOOK x
 API NO. 02-001-20076 DATE ISSUED 2-23-68 DEDICATION SE/4

PERMIT NUMBER 454

(over)

CONFIDENTIAL

Release Date 12-7-68

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

Federal, State or Indian Lease Number or name of lessor if fee lease: 14-20-0603-8882 - Navajo Tract 151 Well Number: 1 Field & Reservoir: Wildcat

Location: SE NE (1980' FNL & 330' FEL) of Sec. 25 County: Apache

Sec. TWP-Range or Block & Survey: Section 25-35N-30E - G&SRM.

Date spudded: 3-10-68 Date total depth reached: 4-4-68 Date completed, ready to produce: Temp. SI 5-30-68 Elevation (D.F., RKB, RT or Gr.) feet: 8786' KB Elevation of casing hd. flange feet: 8773'

Total depth: 3963' P.B.T.D.: 3930' Single, dual or triple completion?: - If this is a dual or triple completion, furnish separate report for each completion.

Producing interval (s) for this completion: 3697-3760' McCracken Rotary tools used (Interval): 0-3963' Cable tools used (Interval): None

Was this well directionally drilled?: No Was directional survey made?: No Was copy of directional survey filed?: - Date filed: -

Type of electrical or other logs run (check logs filed with the commission): IES & Gamma Ray Sonic Date filed: June, 1968

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	12-1/4"	9-5/8"	32#	1110'	600	None
Production	8-3/4"	7"	20#	3960'	160 / 1500#	None
					Gilsonite	

TUBING RECORD

LINER RECORD

Size	Depth set	Packer set at	Size	Top	Bottom	Sacks cement	Screen (ft.)
in.	ft.	ft.	in.	ft.	ft.	ft.	
None			None				

PERFORATION RECORD

ACID, SHOT, FRACTURE, CEMENT SQUEEZE RECORD

Number per ft.	Size & type	Depth Interval	Amt. & kind of material used	Depth Interval
SEE ATTACHED SUMMARY FOR DETAILS. TOO NUMEROUS TO LIST HERE.				

INITIAL PRODUCTION

Date of first production: SEE ATTACHED SUMMARY OF TESTING. 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	Gas prod. during test	Water prod. during test	Oil gravity
			bbls.	MCF	bbls.	" API (Corr)
SEE ATTACHED SUMMARY OF TESTING.						

Tubing pressure	Casing pressure	Cal'ed rate of Production per 24 hrs.	Oil	Gas	Water	Gas-oil ratio
			bbls.	MCF	bbls.	
SEE ATTACHED SUMMARY OF TESTING.						

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

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Dist. Supt. of the Humble Oil & Refining 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.

Date: 2-28-69

Signature: J. Roy Dorrrough



Permit No. 454

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*
Cutler	1806	2828	
Hermosa	2828	2996	
Ismay	2996	3078	
Desert Creek	3078	3138	
Akah	3138	3226	
Black Shale	3226	3258	
Barker Creek	3258	3398	
Mississippian	3398	3544	
Devonian	3544	3695	
McCracken	3695	3785	
Aneth	3785	3876	
Pre-Cambrian	3876	3963 TD	

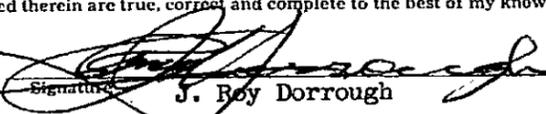
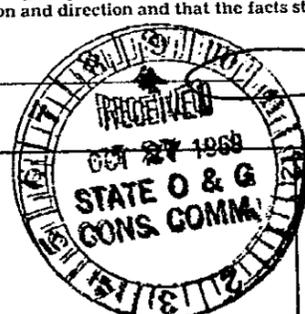
* Show all important zones of porosity, detail of all cores, and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries.

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 Humble Oil & Refining Company		Address P. O. Box 120, Denver, Colorado 80201	
Federal, State, or Indian Lease Number, or lessor's name if fee lease. 14-20-0603-8882 - Navajo Tract 151		Well No. 1	Field & Reservoir Dineh bi Keyah
Location of Well SE NE (1980' FNL & 330' FEL) of Section 35-35N-30E - G&SRM		Sec-Twp-Rge or Block & Survey	County Apache
Application to drill this well was filed in name of Humble Oil & Refining Co. - Navajo Tract 151	Has this well ever produced oil or gas On test only	Character of well at completion (initial production): Oil (bbls/day) Gas (MCF/day) Dry? Temp. Abd. - Non Commercial	
Date plugged: 10-15-69	Total depth 3963'	Amount well producing when plugged: Oil (bbls/day) Gas (MCF/day) Water (bbls/day) None None None	
Name of each formation con- taining 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
McCracken	Gas	3695-3785'	See attached copy of U.S.G.S. Report for complete plugging summary.
Aneth	Gas	3785-3876'	
CASING RECORD			
Size pipe	Put in well (ft.)	Pulled out (ft.)	Left in well (ft.)
7"	3960'	None	3960'
9-5/8"	1110'	None	1110'
Was well filled with mud-laden fluid, according to regulations? Yes		Indicate deepest formation containing fresh water. Chuska	
NAMES AND ADDRESSES OF ADJACENT LEASE OPERATORS OR OWNERS OF THE SURFACE			
Name	Address		Direction from this well:
No operators adjacent to this lease.			
Navajo Tribe of Indians owns all surface.			
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 Dist. Supt. of the Humble Oil & Refining 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.			
Date 10-24-69	Signature  J. Roy Dorrrough		
Permit No. 454	<div style="text-align: center;">  <p>STATE OF ARIZONA OIL & GAS CONSERVATION COMMISSION Plugging Record File One Copy</p> </div>		
	Form No. 10		

Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN THIS CATEGORY
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir.
Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL <input type="checkbox"/> GAS WELL <input type="checkbox"/> OTHER Non Commercial - Temp. Abandoned		5. LEASE DESIGNATION AND SERIAL NO. 14-20-0603-8882
2. NAME OF OPERATOR Humble Oil & Refining Company		6. IF INDIAN, ALLOTTEE OR TRIBE NAME Navajo
3. ADDRESS OF OPERATOR P. O. Box 120, Denver, Colorado 80201		7. UNIT AGREEMENT NAME -
4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.) At surface SE NE (1980' FNL & 330' FEL) of Section 35.		8. FARM OR LEASE NAME Navajo Tract 151
14. PERMIT NO. Arizona #1454	15. ELEVATIONS (Show whether DF, RT, GR, etc.) 8786' KB & 8773' GR	9. WELL NO. 1
		10. FIELD AND POOL, OR WILDCAT Dineh bi Keyah
		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA Sec. 35-35N-30E - G&SRM
		12. COUNTY OR PARISH Apache
		13. STATE Arizona

16. 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"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input checked="" type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) _____	

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

17. 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.)*

See attached summary of plugging.

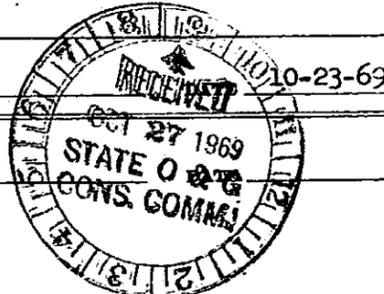
4^v Location is cleaned and ready for inspection.

cc: Minerals Supervisor - Navajo Tribe
Water Development - Navajo Tribe

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

SIGNED J. Roy Dorough TITLE Dist. Supt.
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____
CONDITIONS OF APPROVAL, IF ANY:



*See Instructions on Reverse Side

10-23-69

NAVAJO TRACT 151 #1
Plugging Summary

Moved in rig. Drilled out cement 3190-3317'. Drilled out bridge plugs at 3560' and 3642'. Drilled out Model D production packer at 3782'. Pushed to 3821'.

(Note: Modification of originally approved plugging program. First squeeze job to isolate Aneth and McCracken formations was modified. A search of Humble's records indicated Model D production packer at 3825' did not have DR plug in it as shown on application to plug sketch, but was open for cement to go through it. Model D packer at 3782' was milled around and pushed to 3821' on top of second Model D packer with cement free to go around and under the first packer at 3821' and through second packer at 3825'. Modification would allow original objective of placing cement if perforations took fluid. U. S. G. S. office in Farmington and Oil & Gas Conservation Commission office in Phoenix approved modification.)

Laid down drill collars. Went in hole with 7" Baker cement retainer on tubing. Ran to top of production packer at 3821' but did not set. Spotted cement on top of production packer 3821' to 3765'. Set retainer at 3765'. Pressure tested below retainer to 1500 psi, held OK.

(Aneth and McCracken formations apparently separated by cement by (a) original squeeze job at 3770' with 75 sx at a maximum pressure of 800 psi, and (b) cement spotted inside casing between 3821' and 3765' and pressure tested to 1500 psi.)

Pulled tubing and set permanent type cement retainer at 3345'. Squeezed 100 sx cement below retainer (32 sx into formation). Pressured to 2800 psi. Pulled tubing out of hole. Reran tubing with permanent type cement retainer set at 3200'. Pressure tested perforations to 1500 psi, held OK. Pulled tubing out of retainer. Placed 300' cement plug on top of retainer to 2900'. Pressure tested to 1500 psi, held OK. Pulled tubing. Ran Schlumberger perforating gun to 1400'. Perforated 4 holes. Ran tubing with permanent type cement retainer set at 1300'. Squeezed 100 sx cement below retainer through perforations. Pulled out of retainer. Displaced 25 sx cement on top of retainer. Pulled tubing. Placed 25' cement plug in top of 7" casing. Pumped 100 sx cement in annulus between 7" and 9-5/8" casing. Pressure 700 psi at completion. Annulus stood full of cement. Checked later - Annulus standing full of cement.

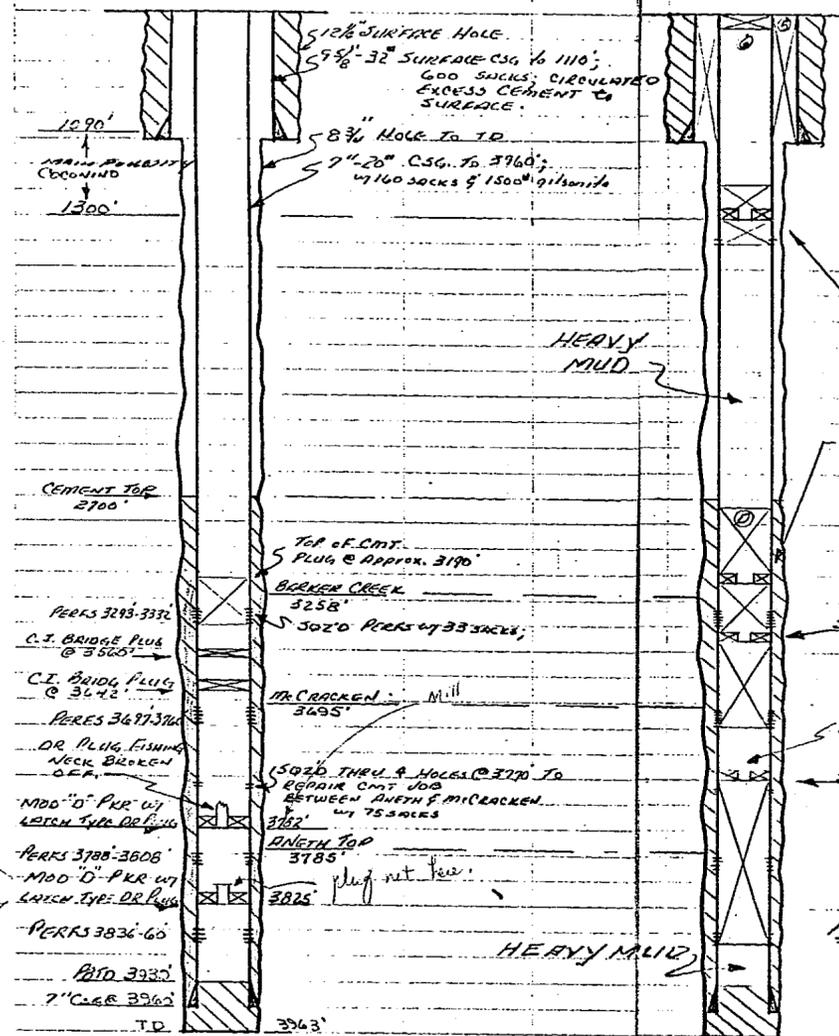
Welded a steel plate across top of 7" and casing annulus. Capped casing head side outlets with welded steel plates. Regulation dry hole marker welded onto steel plate. Job complete 10-15-69.



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WELL BORE SKETCH
(NO SCALE)



STEP No. 7: CAP TOP OF 7" CSG, 2" 9 3/8" CSG ANNULUS AND SIDE OUTLETS IN CAPPING HEAD WITH WELDED PLATES.

STEP No. 6: PLACE 25' CMT. PLUG IN TOP OF 7" CSG.

STEP No. 5: PUMP 20 TO 100 SACKS IN 9 3/8" - 7" CSG ANNULUS.

SQUEEZE No. 4:
a) PERFORM HOLES @ 1400'
b) SET RETAINER AT 1300'
c) 50Z WITH 700 SACKS
d) DISPLACE ADDITIONAL 25 SACKS ON TOP OF RETAINER

SQUEEZE No. 3:
a) SET RETAINER AT 3200'
b) PRESSURE TEST TO 1500'
c) IF PERKS FREE FLUID, 50Z WITH 100 SACKS
d) PLACE 500' CEMENT PLUG ON TOP OF RETAINER UP TO 2700'
e) PLUG AT 2700' WILL BE PRESSURE TESTED.

SQUEEZE No. 2:
a) SET RETAINER @ 3345'
b) 50Z 100 SACKS BELOW RETAINER, IN CRACKEN PERFORATIONS

SQUEEZE No. 1:
a) SET RETAINER @ 3765'
b) 50Z 100 SACKS BELOW RETAINER, ANETH PERFORATIONS

NOTE: PRIOR TO ABOVE OPERATIONS, OPERATOR WILL ATTEMPT TO DRILL OUT CEMENT PLUGS, BRIDGE PLUGS, AND PACKERS AND CLEAN OUT TO P.T.D.

CURRENT DOWN-HOLE CONDITION

DOWN-HOLE CONDITION AFTER ABANDONMENT

Humble called 10-14-69 -
Drilled out plugs to 3825' -
squeezed cement at 3770' &
apparently closed perforations at 3785'
- at 3785' put 1200 lbs of pressure
a cement wouldn't more. will
cement 3825' to 3782' set
packer a cement on top -
change OKed JB.

HUMBLE OIL & REFINING COMPANY
PROPOSED PLUGGING PROCEDURE
NAVAJO TRACT 151 No. 1
5E NE SEC 35 35N-30E
APACHE CO, ARIZONA



151
22-222-30E Apache County

If well is to
proposed pro
DATE COMM
NAME OF PER
CORRESPOND

APPLICATION TO ABANDON AND PLUG

FIELD Dineh bi Keyah

OPERATOR Humble Oil & Refining Company ADDRESS P. O. Box 120, Denver, Colorado 80201
Federal, State, or Indian Lease Number
or Lessor's Name if Fee Lease 14-20-0603-8882 - Navajo Tract 151 WELL NO. 1

SURVEY 35N-30E - G&SRM SECTION 35 COUNTY Apache

LOCATION SE NE (1980' FNL & 330' FEL) of Sec. ~~33~~ 35.

TYPE OF WELL Non Commercial - Temp. Abandoned TOTAL DEPTH 3963' - PBD 3930'
(Oil, Gas or Dry Hole)

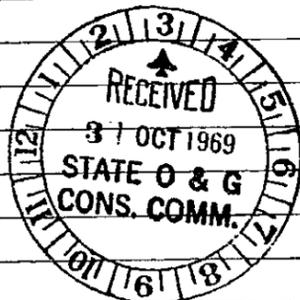
ALLOWABLE (If Assigned)

LAST PRODUCTION TEST OIL See attached summary of testing. (Bbls.) WATER _____ (Bbls.)

GAS _____ (MCF) DATE OF TEST
3788' TO 3860'
PRODUCING HORIZON Aneth & McCracken PRODUCING FROM 3697' TO 3760'

1. COMPLETE CASING RECORD

Surface - 9-5/8" 32# set at 1110'.
Production - 7" 20# set at 3960'.



2. FULL DETAILS OF PROPOSED PLAN OF WORK

See attached well bore sketch.
A regulation Dry Hole Marker will be installed.

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

DATE COMMENCING OPERATIONS Immediately after approval.

NAME OF PERSON DOING WORK Mr. H. L. Farris ADDRESS P. O. Box "I", Farmington, N. M. 87401

CORRESPONDENCE SHOULD BE SENT TO J. Roy Dorrough
Name Dist. Supt.

Title _____
Address P. O. Box 120, Denver, Colorado 80201
Date 9-30-69

Date Approved 10-6-69
STATE OF ARIZONA
OIL & GAS CONSERVATION COMMISSION
By: John Bannister

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

Permit No. 454

NAVAJO TRACT 151 #1

SUMMARY

- DST #1 - 1110-1132', initial open 5 minutes, shut in 1 hour, open 30 minutes, final shut in 1 hour. Opened with weak blow increasing to fair during initial 5 minute open. Reopened with weak blow, died in 20 minutes. HP 460-460, ISIP 13, IFP 66, FFP 66, FSIP 66. Recovered 60' slightly water cut mud. Mud recovered had 300-500 ppm Chloride increase.
- DST #2 - 3293-3325', initial open 5 minutes, shut in 1 hour, open 2 hours, shut in 2 hours. Opened with a very weak blow. Reopened with a fair blow increasing to good. No gas to surface. HP 1523-1523, ISIP 878, IFP 9-45, FFP 19-77, FSIP 879. Recovered 190' oil and 10' of mud.
- DST #3 - 3675-3777', initial open 3 minutes, shut in 1 hour, open 3 hours, shut in 2 hours. Opened with strong blow. Reopened with strong blow. Spray of mud in 2 minutes. Maximum gauge 2,000 MCFPD. HP 1745-1718, ISIP 915, IFP 324, FFP 297, FSIP 888. Recovered 200 feet gas cut mud.
- Core #1 - 3330-3390', recovered 60'. 75% shale, brown, very fine grained sandy. 25% limestone, gray, very fine crystalline. (Detailed description not available due to nature of core).
- Core #2 - 3693-3752', recovered 59'. 2' shale, gray green to red brown, sandy; 16' sandstone, white to light gray, fine to medium grained quartzitic; 4' shale, red brown; 7' sandstone, white to light gray, fine to medium grained quartzitic; 5' shale, brick red to light green; 16' sandstone, white to light gray, fine to medium grained quartzitic; 3' shale, red brown - light green and 7' sandstone, light gray, fine to medium grained quartzitic.
- Core #3 - 3752-3777', recovered 25'. 8' sand, white - white gray, fine to medium grained quartzitic; 10' shale, brick red, slightly sandy; 3' sand, fine grained pink, argillaceous, light; 4' shale, brick red, slightly sandy.

NOTE: Above cored depths adjusted to logs.

COMPLETION AND TESTING SUMMARY:

Perforated 3836-60' with 2 SPF (Aneth). Bottom hole pressure 931#. Tested at rate of 1800 MCFPD, 468 Bbls. water, 400# tubing pressure on 36/64" choke. Set packer at 3825'.

Perforated 3788-3808' with 2 SPF (Aneth). Bottom hole pressure 912#. Tested through casing at rate of 1800 MCFPD, 384 Bbls. water, 470# casing pressure, on 32/64" choke. Pressure bomb in lower zone below packer showed a decrease in pressure when flow commenced from upper zone, indicating communication. Set packer at 3782' with 8' of sand on top of packer. Perforated 4 holes at 3770' and squeezed with 75 sacks cement to block squeeze between Aneth and McCracken. Tested, held OK.

Perforated 3697-3700', 3702-07', 3710-12', 3717-20', 3730-40', 3748-54' and 3756-60' with 2 SPF (McCracken). Bottom hole pressure 903#. Tested 48 hours through 17/64" choke, 400# tubing pressure at rate of 750 MCFPD, no water. Shut in Bottom Hole Pressure in 117 hours 889 psig. Set bridge plug at 3652'.

Perforated 3312-18' with 2 SPF (Barker Creek). Tested dry gas, bridge plug at 3632' apparently leaking. Set additional bridge plug at 3560', swabbed dry. Acidized with 200 gals. mud acid, swabbed dry, no recovery.

Perforated 3293-3302', 3306-18' and 3325-32' with 2 SPF (Barker Creek). Swabbed dry. Acidized with 500 gals. mud acid. Swabbed down and had show of oil. Fractured with 7730 gals. oil and 4700# sand. Swabbed back 45 bbls. load oil, 115 bbls. not recovered. Squeezed perforations 3293-3302', 3306-18' and 3325-32' with 50 sacks cement.

Left cement plug in casing with top at 3190' and shut well in pending possible gas market.

454

October 10, 1969

Memo to File #454 *Chow*
T35N, R30E, G & SRM
Sec.35: SE/4 NE/4
Apache County
~~XXXXXXXX~~

Memo from J. Scurlock, Geologist

Telephone this date from Mr. J. Roy Dorrough. He advised us that in checking their plans for plugging this well they find that the latch-type DR plug had been removed from the bridge plug which had been set at 3825', separating the two sets of Aneth perforations. Mr. Dorrough asked permission to proceed with his plugging program on the following basis. He proposed that the bridge plug at 3782' (see diagram) be milled out and pushed down to rest on top of the bridge plug at 3825'. This will open the hole so that cement can be squeezed into the Aneth perforations 3788-3808'.

Mr. Dorrough explained that the bridge plug at 3825' was constructed in such a way that even though the top bridge plug were milled out and lying on top of it, cement could still flow around the edges of the overlying bridge plug down ~~into~~ *through* the hole in the bottom bridge plug and thus into the perforations 3836-3860'. In effect then, he is saying that they would have no difficulty in sealing off the top Aneth perforations and almost certainly be successful in squeezing the bottom perforations as well.

Verbal permission was granted for Humble to proceed on this basis.

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UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Form approved.
Budget Bureau No. 42-R356.5.
LAND OFFICE 14-20-0603-8882
LEASE NUMBER _____
UNIT _____

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Arizona County Apache Field Dineh bi Keyah

The following is a correct report of operations and production (including drilling and producing wells) for the month of September, 1969.

Agent's address P. O. Box 120 Company Humble Oil & Refining Company
Denver, Colorado 80201 Signed _____

Phone 534-1251 Agent's title District Superintendent

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DATE PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
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NAVAJO TRACT 151 - ARIZONA PERMIT NO. 454

Sec. 35
SE NE

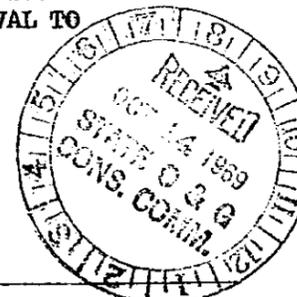
35N 30E 1 0

Operations suspended 5-30-68. See Sundry Notice dated 6-5-68. No work has been done since this date.

SUNDRY NOTICE APPLICATION TO PLUG AND ABANDON SUBMITTED 9-30-69.

NOTE: CONTINUE IN TEMPORARY ABANDONED STATUS PER LETTER DATED 6-4-68 AND YOUR APPROVAL OF 6-7-68. ALSO YOUR LETTER DATED 6-12-69 GRANTING APPROVAL TO CONTINUE IN THIS STATUS UNTIL 6-16-70.

cc: 2 - Arizona Oil & Gas Conservation Commission
1 - Minerals Supervisor - Navajo Tribe



NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold;

No runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Form approved
Budget Bureau No. 42-R356.5.

LAND OFFICE _____
LEASE NUMBER 14-20-0603-8882
UNIT _____

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Arizona County Apache Field Dineh bi Keyah
The following is a correct report of operations and production (including drilling and producing wells) for the month of June, 19 69, three August 1969
Agent's address P. O. Box 120 Company Humble Oil & Refining Company
Denver, Colorado 80201 Signed _____
Phone 534-1251 Agent's title Dist. Supt.

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
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NAVAJO TRACT 151 - ARIZONA PERMIT NO. 454

Sec. 35
SE NE

35N 30E

1

0

Operations suspended 5-30-68. See Sundry Notice dated 6-5-68. No work has been done since this date.

NOTE: Continue in Temporary Abandoned status per letter dated 6-4-68 and your approval of 6-7-68. Also your letter dated 6-12-69 granting approval to continue in this status until 6-16-1970.



cc: 2 - Arizona Oil & Gas Conservation Commission
1 - Minerals Supervisor - Navajo Tribe

NOTE.—There were No runs or sales of oil; No M cu. ft. of gas sold;

No runs or sales of gasoline during the month. (Write "no" where applicable.)
NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Form approved.
Budget Bureau No. 42-R356.5.

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LAND OFFICE _____
LEASE NUMBER 14-20-0603-8882
UNIT _____

LESSEE'S MONTHLY REPORT OF OPERATIONS

State Arizona County Apache Field Wildcat
The following is a correct report of operations and production (including drilling and producing wells) for the month of July, 1968, three days May 1969
Agent's address P. O. Box 120 Company Humble Oil & Refining Company
Denver, Colorado 80201 Signed [Signature]
Phone 534-1251 Agent's title Dist. Supt.

SEC. AND 1/4 OF 1/4	TWP.	RANGE	WELL NO.	DAYS PRODUCED	BARRELS OF OIL	GRAVITY	CU. FT. OF GAS (In thousands)	GALLONS OF GASOLINE RECOVERED	BARRELS OF WATER (If none, so state)	REMARKS (If drilling, depth; if shut down, cause; date and result of test for gasoline content of gas)
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NAVAJO TRACT 151 - ARIZONA HERMIT NO. 454

Sec. 35
SE NE

35N 30E 1 0

Operations suspended as of 5-30-68. See Sundry Notice dated 6-5-68. No work has been done since this date.

NOTE: CONTINUE IN TEMPORARY ABANDONED STATUS PER LETTER DATED 6-4-68 AND YOUR APPROVAL OF 6-7-68.

CONFIDENTIAL



cc: 2 - Arizona Oil & Gas Conservation Commission
1 - Minerals Supervisor - Navajo Tribe

NOTE.—There were no runs or sales of oil; no M cu. ft. of gas sold;

no runs or sales of gasoline during the month. (Write "no" where applicable.)

NOTE.—Report on this form is required for each calendar month, regardless of the status of operations, and must be filed in duplicate with the supervisor by the 6th of the succeeding month, unless otherwise directed by the supervisor.

Monthly Summary of Operations - Cont'd
Navajo Tract 151 #1

- 5-28-58 1000' fluid above perfs.
8:00-10:00 a.m. 5 bbls.
10:00 a.m.-6:00 p.m. 2.5 bbls.
Well shut-in
- 5-29-68 800' fluid above perfs.
8:00-12:00 a.m. 2.5 bbls.
12:00-6:00 p.m. 1.25 bbls.
Rate too small to measure at end of swab test. Total load oil recovered 45-1/4 bbls. - 114-3/4 barrels load oil not recovered.
- 5-30-68 Squeezed perforations 3293-3302', 3306-18', 3325-32' with 50 sacks Class A cement. Max. pressure 3200 psi. Top of cement plug in 7" casing 3190'. Above operation performed after verbal approval from Messrs. Bannister, Ward, and Teegle.
- 6-5-68 Requested permission from Arizona Oil & Gas Conservation Commission to place well on temporarily abandoned status.

Current condition of well as follows:

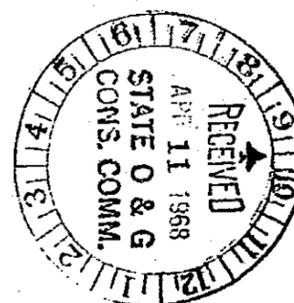
ID	3960'
Perf. (Anoth)	3836-3860'
Packer w/plug	3825'
Perf. (Anoth)	3788-3808'
Packer w/plug	3782'
Perf. (McCracken)	3697-3700'; 3702-3707'; 3710-3712'; 3717-3720'; 3730-3740'; 3748-3754'; 3756-3760'
Bridge plug	3642'
Bridge plug	3560'
Perf. squeezed (Barker Crk.)	3293-3302'; 3306-3318'; 3325-3332'
Cement Plug	3190-3332'

cc Arizona O. & G. Conservation Commission
P. K. Hurlbut, Minerals Supervisor, Navajo Tribe

Monthly Report of Operations (Cont'd) Humble's Navajo Tract 151
Sec. 35-35N-30E, Apache County, Arizona

FORMATION TOPS

Cutler	1806	(+6984)
Hermosa	2830	(+5960)
Ismy	2996	(+5794)
Desert Creek	3078	(+5712)
Akah	3140	(+5650)
Black Shale	3228	(+5562)
Barker Creek	3258	(+5532)
Mississippian	3398	(+5392)
Devonian	3547	(+5243)
McCracken	3695	(+5095)
Aneth	3785	(+5005)
Cambrian	3886 <i>No</i>	(+4904)
Pre-Cambrian	3938 <i>No</i>	(+4852)
Total Depth	3963	(+4827)



Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IF
(Other ins-
verse side)

DUPLICATE
copies on re-

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.
14-29-0603-8882

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo

7. UNIT AGREEMENT NAME
-

8. FARM OR LEASE NAME
Navajo Tract 151

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR B.L. AND SURVEY OR AREA
Sec. 35-35N-30E-06SRN

12. COUNTY OR PARISH 13. STATE
Apache Arizona

SUNDRY NOTICES AND REPORTS ON WELLS
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
Humble Oil & Refining Company

3. ADDRESS OF OPERATOR
2000 Classen Center, North Bldg., Oklahoma City, Oklahoma 73106

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
1980' S of RL, 330' W of RL of Sec. 35

14. PERMIT NO. **454**

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
8780' Gr.

16. 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"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

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

17. 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.)*

CONFIDENTIAL

Monthly Summary of Operations

- 5-21-68 Ran bridge plug. Set @ 3560'. (Previous bridge plug @ 3643' leaking.) Swabbed Barker Creek perforation 3312-18'. Swabbed dry.
- 5-22-68 Acidized Barker Creek 3312-18' with 200 gallons mud acid. Swabbed dry, no recovery.
- 5-23-68 Rep perforate Barker Creek 3293-3302', 3306-18', 3325-32'. Ran tubing and swabbed dry.
- 5-24-68 Re-acidized Barker Creek with 500 gallons mud acid. Swabbed down and had show of oil on swab. Recovered out 3 gallons crude. No additional fluid rec.
- 5-25-68 Fractured Barker Creek with 7730 gallons oil and 4700 lbs. 20-40 mesh sand.
- 5-27-68 Swabbing - 9:00-10:00 a.m. - 19 bbls. 12:00-3:00 p.m. - 2.5 bbls.
10:00-12:00 a.m. - 5 bbls. 3:00-6:00 p.m. - 2.5 bbls.
Well Shut-in

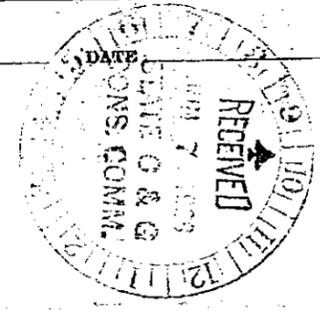
(Cont'd)

18. I hereby certify that the foregoing is true and correct
SIGNED **COPY ORIGINAL** SIGNED: **C. I. PROKOP** TITLE **Expl. Dirg. Operations Mgr.** DATE **June 5, 1968**
C. I. Prokop
(This space for Federal or State office use)

APPROVED BY _____ TITLE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

454



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- 2 -

Cont'd
Humble Oil & Refining Company #1 Navajo Tract 151, Sec. 35-35N-30E, Apache Co., Arizona

5-13-68 Shut in for BHP build-up.

48 hours BHP	869 psi
117 hours BHP	889 psi

5-19-68 Perforated Barker Creek 3312-3318 feet, 2 shots per foot.

5-20-68 Making dry gas - evidently bridge plug over McCracken leaking.

cc Mr. H. R. Teasie, Minerals Supervisor Navajo Tribe
Arizona O. & G. Conservation Commission (2) ✓

454

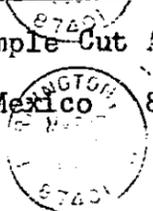
Hello Jim:

Cores from the Humble, #1 Navajo 151 were delivered to the cut on 3-12-69, by Core Lab. Have just talked with Humble in Denver trying to track ~~down~~ the ditch samples. Will know in a few days about them. How are things in Arizona?

Rec'd
3-17-69

Jo Ratcliff
Jo Ratcliff
Mgr.
Four Corners Sample Cut
P.O. Box # 899
Farmington, New Mexico

Four Corners Sample-Cut Association
P.O. Box # 8
Farmington, New Mexico 87401



Oil & Gas Conservation Commission
State of Arizona
Attn: Jim Scurlock
Room 202
1624 West Adams
Phoenix, Arizona 85007



HA - 1 (2/2/68)

REPORT OF ANALYSIS

F. S. - 11512 M.S. #39654 , H 4.56 OBS. PRES. 67.3 CAL. PRES. 63.3
 STATE- ARIZONA COUNTY- APACHE
 FIELD- WILGCAT WELL NAME- NAVAJO TRACT 151 NO. 1
 LOCATION- SEC. 35, T35N, R30E OWNER- HUMBLE OIL-REFINING CO.
 DATE COMPLETED- 05/11/68 DATE SAMPLED- 05/11/68
 SAMPLED BY-
 NAME OF PRODUCING FORMATION- MCCRACKEN
 DEPTH IN FEET- 3695 THICKNESS IN FEET- 65
 SHUT IN WELLHEAD PRES., PSIG- 850 OPEN FLOW, MCF/D- 1500

CHECK OF DATA-
 THE WELL DATA ARE ACCURATE, () WITHOUT CORRECTION, () AS CORRECTED ABOVE.

REMARKS-

ANALYSIS-

METHANE	.3 %	NORMAL PENTANE	0.0 %	OXYGEN	0.0 %
ETHANE	0.0 %	ISOPENTANE	0.0 %	ARGON	.9 %
PROPANE	TRACE %	CYCLOPENTANE	0.0 %	HYDROGEN	0.0 %
NORMAL BUTANE	0.0 %	HEXANES PLUS	0.0 %	H2S	0.0 %
ISOBUTANE	0.0 %	NITROGEN	90.9 %	CO2	3.1 %
SPECIFIC GRAV	.947			HELIUM	4.81 %
				TOTAL	100.0 %

CALCULATED GROSS BTU/CU. FT., DRY AT 60 DEG. F AND 30 IN. MERCURY- 3.

PERMISSION FOR RELEASE:

Permission is hereby granted for the Bureau of Mines to release the above data, together with similar data released by other operators as public information and as parts of a series of papers on analyses of gases from various fields, states, or regions. Permission is hereby granted effective 12-7-68. If earlier release is desired, the undersigned should be contacted.



COMPANY HUMBLE OIL & REFINING CO.

BY Charles L. Prokop
 TITLE Drilling Operations Manager
Oklahoma City, Oklahoma

14 454

NAVAJO TRACT 151 #1

SUMMARY



DST #1 - 1110-1132', initial open 5 minutes, shut in 1 hour, open 30 minutes, final shut in 1 hour. Opened with weak blow increasing to fair during initial 5 minute open. Reopened with weak blow, died in 20 minutes. HP 460-460, ISIP 13, IFP 66, FFP 66, FSIP 66. Recovered 60' slightly water cut mud. Mud recovered had 300-500 ppm Chloride increase.

DST #2 - 3293-3325', initial open 5 minutes, shut in 1 hour, open 2 hours, shut in 2 hours. Opened with a very weak blow. Reopened with a fair blow increasing to good. No gas to surface. HP 1523-1523, ISIP 878, IFP 9-45, FFP 19-77, FSIP 879. Recovered 190' oil and 10' of mud.

DST #3 - 3675-3777', initial open 3 minutes, shut in 1 hour, open 3 hours, shut in 2 hours. Opened with strong blow. Reopened with strong blow. Spray of mud in 2 minutes. Maximum gauge 2,000 MCFPD. HP 1745-1718, ISIP 915, IFP 324, FFP 297, FSIP 888. Recovered 200 feet gas cut mud.

Core #1 - 3330-3390', recovered 60'. 75% shale, brown, very fine grained sandy. 25% limestone, gray, very fine crystalline. (Detailed description not available due to nature of core).

Core #2 - 3693-3752', recovered 59'. 2' shale, gray green to red brown, sandy; 16' sandstone, white to light gray, fine to medium grained quartzitic; 4' shale, red brown; 7' sandstone, white to light gray, fine to medium grained quartzitic; 5' shale, brick red to light green; 16' sandstone, white to light gray, fine to medium grained quartzitic; 3' shale, red brown - light green and 7' sandstone, light gray, fine to medium grained quartzitic.

Core #3 - 3752-3777', recovered 25'. 8' sand, white - white gray, fine to medium grained quartzitic; 10' shale, brick red, slightly sandy; 3' sand, fine grained pink, argillaceous, light; 4' shale, brick red, slightly sandy.

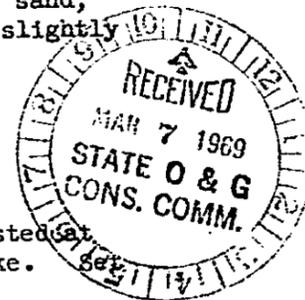
NOTE: Above cored depths adjusted to logs.

COMPLETION AND TESTING SUMMARY:

Perforated 3836-60' with 2 SPF (Aneth). Bottom hole pressure 931#. Tested at rate of 1800 MCFPD, 468 Bbls. water, 400# tubing pressure on 36/64" choke. Packer at 3825'.

Perforated 3788-3808' with 2 SPF (Aneth). Bottom hole pressure 912#. Tested through casing at rate of 1800 MCFPD, 384 Bbls. water, 470# casing pressure, on 32/64" choke. Pressure bomb in lower zone below packer showed a decrease in pressure when flow commenced from upper zone, indicating communication. Set packer at 3782' with 8' of sand on top of packer. Perforated 4 holes at 3770' and squeezed with 75 sacks cement to block squeeze between Aneth and McCracken. Tested, held OK.

Perforated 3697-3700', 3702-07', 3710-12', 3717-20', 3730-40', 3748-54' and 3756-60' with 2 SPF (McCracken). Bottom hole pressure 903#. Tested 48 hours through 17/64" choke, 400# tubing pressure at rate of 750 MCFPD, no water. Shut in Bottom Hole Pressure in 117 hours 889 psig. Set bridge plug at 3652'.



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NAVAJO TRACT 151 #1 SUMMARY - Continued

Page No. 2

Perforated 3312-18' with 2 SPF (Barker Creek). Tested dry gas, bridge plug at 3632', apparently leaking. Set additional bridge plug at 3560', swabbed dry. Acidized with 200 gals. mud acid, swabbed dry, no recovery.

Perforated 3293-3302', 3306-18' and 3325-32' with 2 SPF (Barker Creek). Swabbed dry. Acidized with 500 gals. mud acid. Swabbed down and had show of oil. Fractured with 7730 gals. oil and 4700# sand. Swabbed back 45 bbls. load oil, 115 bbls. not recovered. Squeezed perforations 3293-3302', 3306-18' and 3325-32' with 50 sacks cement.

Left cement plug in casing with top at 3190' and shut well in pending possible gas market.

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other Instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT" for such proposals.)

5. LEASE DESIGNATION AND SERIAL NO. **14-20-0603-8882**

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo

7. UNIT AGREEMENT NAME
-

8. FARM OR LEASE NAME
Navajo Tract 151

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 35-35N-30E - G&SRM

12. COUNTY OR PARISH
Apache

13. STATE
Arizona

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
Humble Oil & Refining Company

3. ADDRESS OF OPERATOR
2000 Classen Center, North Bldg., Oklahoma City, Oklahoma 73106

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface
1980' S of NL, 330' W of EL of Sec. 35

14. PERMIT NO.
454

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
8780' Gr.

16. 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"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>

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

17. 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.)*

G CONFIDENTIAL

Interim report on operations. This report supplements monthly summary sent on 5-8-68.

5-7-68 Perforated McCracken 3697-3700, 3702-07, 3710-12, 3717-20, 3730-40, 3748-54, 3756-60 with 2 shots per foot. BHP leveled at 903 psi after cleaning well 1 hour.

5-8-68 Initial Test:

Flow Time	TP	Choke	Temp.	Gas Rate	Water Rate
4 hrs.	100	3/4"	55	1,007 MCF/D	0
19 hrs.	510	15/64"	-	775 MCF/D	0

5-9-68 Shut in to let pressure stabilize.

5-10-68 Making rate test with BHP bomb in hole.

Flow Time	TP	Choke	Temp.	Gas Rate	Water Rate	BHP
6 hrs.	95	X	X	1,070 MCF/D	0	151

5-10-68 Shut in 4:30 p.m. BHP built to 893 psi in 15-1/2 hours.

5-11-68 Making rate test with BHP bomb in hole.

Flow Time	TP	Choke	Temp.	Gas Rate	Water Rate	BHP
48 hrs.	400	17/64"	X	750 MCF/D	0	468

(Cont'd)

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

SIGNED **COPY ORIGINAL** C. L. PROKOP TITLE Expl. Drig. Operations Mgr. DATE May 20, 1968

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____
CONDITIONS OF APPROVAL, IF ANY:



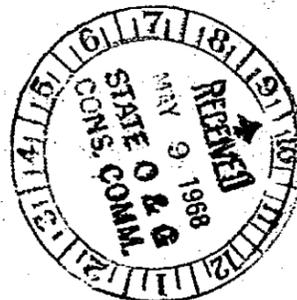
*See Instructions on Reverse Side

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Monthly Summary of Operations - Navajo Tract 151 #1

Continued

- 4-27 Pressure bomb on lower zone (3836-60) showed decrease in pressure when flow commenced in upper zone, 3788-3808'.
- 4-28 Set Model "D" packer with plug @ 3782' and covered with 8' of sand.
- 4-29 Perforated 3770' with 4 holes to block squeeze between Aneth & McCracken.
- 5-3 Cement retainer set @ 3740'. Squeezed perforations @ 3770' with 75 sx Class "A" cement. Squeeze pressure built 800 psig.
- 5-4 Drilled out retainer & cement.
- 5-6 Swab tested perforations at 3770'. Tested o.k. No fluid entry.
- 5-7 Perforated McCracken 3697-3700', 3702-07', 3710-12', 3717-20', 3730-40', 3748-54', 3756-60' with 2 shots per foot. Preparing to swab and test.



HA - 1 (2/2/68)

REPORT OF ANALYSIS

F.S. - 11513 M.S. W-39655 , H 4.28 OBS. PRES. 66.5 CAL. PRES. 62.4

STATE- ARIZONA COUNTY- APACHE

FIELD- WILDCAT WELL NAME- PAVAJD TRACT 151 NO. 1.

LOCATION- SEC. 35, T35N, R30E OWNER- HUMBLE OIL REFINING CO.

DATE COMPLETED- 05/11/68 DATE SAMPLED- 04/26/68

SAMPLED BY-

NAME OF PRODUCING FORMATION- COLONITE (Aneth)

DEPTH IN FEET- 3788 THICKNESS IN FEET- 20

SHUT IN WELLHEAD PRES., PSIG- 790 OPEN FLOW, MCF/D- 2500

CHECK OF DATA-
 THE WELL DATA ARE ACCURATE, () WITHOUT CORRECTION, (x) AS CORRECTED ABOVE.

REMARKS-

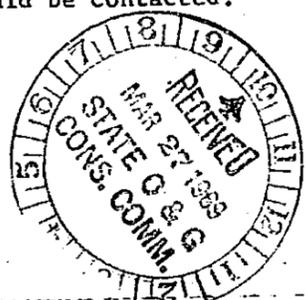
ANALYSIS-

METHANE	.2 %	NORMAL PENTANE	0.0 %	OXYGEN	.3 %
ETHANE	0.0 %	ISOPENTANE	0.0 %	ARGON	.9 %
PROPANE	TRACE %	CYCLOPENTANE	0.0 %	HYDROGEN	0.0 %
NORMAL BUTANE	0.0 %	HEXANES PLUS	0.0 %	H2S	0.0 %
ISOBUTANE	0.0 %	NITROGEN	92.6 %	CO2	1.3 %
SPECIFIC GRAV	.939			HELIUM	4.59 %
				TOTAL	99.9 %

CALCULATED GROSS BTU/CU. FT., DRY AT 60 DEG. F AND 30 IN. MERCURY- 2.

PERMISSION FOR RELEASE:
 Permission is hereby granted for the Bureau of Mines to release the above data, together with similar data released by other operators as public information and as parts of a series of papers on analyses of gases from various fields, states, or regions. Permission is hereby granted effective 12-7-68. If earlier release is desired, the undersigned should be contacted.

COMPANY HUMBLE OIL & REFINING CO.
 BY _____
 Charles L. Prokop
 Drilling Operations Manager
 TITLE _____
 Oklahoma City, Oklahoma



15 454

HA - 1 (2/2/68)

REPORT OF ANALYSIS

F. S. - 11514 M.S. W-39619 ,H 2.53 OBS. PRES. 66.5 CAL. PRES. 64.6
 STATE- ARIZONA COUNTY- APACHE
 FIELD- WILDCAT WELL NAME- NAVAJO TRACT 151 NO. 1
 LOCATION- SEC. 35, T35N, R30E OWNER- HUMBLE OIL+REFINING CO.
 DATE COMPLETED- 05/11/68 DATE SAMPLED- 04/22/68
 SAMPLED BY- A. M. GIST
 NAME OF PRODUCING FORMATION- Aneth
 DEPTH IN FEET- 3836 THICKNESS IN FEET- 24
 SHUT IN WELLHEAD PRES., PSIG- 790 OPEN FLOW, MCF/D-

CHECK OF DATA- THE WELL DATA ARE ACCURATE, () WITHOUT CORRECTION, (X) AS CORRECTED ABOVE.

REMARKS-

ANALYSIS-

METHANE	.2 %	NORMAL PENTANE	0.0 %	OXYGEN	0.0 %
ETHANE	0.0 %	ISOPENTANE	0.0 %	ARGON	.9 %
PROPANE	TRACE %	CYCLOPENTANE	0.0 %	HYDROGEN	0.0 %
NORMAL BUTANE	0.0 %	HEXANES PLUS	0.0 %	H2S	0.0 %
ISOBUTANE	0.0 %	NITROGEN	94.2 %	CO2	1.6 %
SPECIFIC GRAV	.958	***		HELIUM	3.11 %
				TOTAL	100.0 %

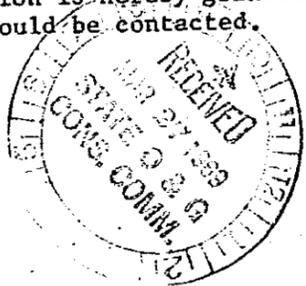
CALCULATED GROSS BTU/CU. FT., DRY AT 60 DEG. F AND 30 IN. MERCURY- 2.

PERMISSION FOR RELEASE:

Permission is hereby granted for the Bureau of Mines to release the above data, together with similar data released by other operators as public information and as parts of a series of papers on analyses of gases from various fields, states, or regions. Permission is hereby granted effective 12-7-68. If earlier release is desired, the undersigned should be contacted.

COMPANY HUMBLE OIL & REFINING CO.

BY Charles L. Prokop
TITLE Drilling Operations Manager
Oklahoma City, Oklahoma



1
454
16

Form 9-331
(May 1963)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPLICATE*
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

14-20-0603-8882

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Navajo Tract 151

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLE. AND SURVEY OR AREA

Sec. 35-35N-30E-G6S2M

12. COUNTY OR PARISH 13. STATE

Apache Arizona

SUNDRY NOTICES AND REPORTS ON WELLS
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

Humble Oil & Refining Company

3. ADDRESS OF OPERATOR

2000 Classen Center, North Bldg., Oklahoma City, Oklahoma 73106

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface

1880' S of NL, 330' W of EL of Sec. 35

14. PERMIT NO.

454

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

8780' Gr.

16. 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"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	

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

17. 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.)*

CONFIDENTIAL

Monthly Summary of Operations

4-16 Move in completion rig - drilled out stage collar in 7" casing 3608'
 4-17 Perforated 3836-60' (ANETH)
 4-19 Running BHP 3836-60'
 4-20 39 hr. pressure buildup 3836-60' - 931 psig
 4-21 Testing 3836-60'
 4-22 3836-60' Test Data

T.P.	Choke	Temp.	Gas Rate	Water Rate
400	36/64	60°F	1,800 MCF/Day	468 BFD

He 3.1170

4-24 Set Baker Model "D" Packer with plug @ 3825'. PERFORATED 3788-3808' (Aneth)
 BHP 3788-3808 After 14.5 hr. SI - 912 psig
 4-25 Testing - 3788-3808' with pressure bomb in blanked off lower zone 3836-60'
 4-26 3788-3808 Test Data

C.P.	Choke	Temp.	Gas Rate	Water Rate
470	32/64	58°F	1,800 MCF/Day	384 BFD

Continued on Page 2 He 4.5970

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

SIGNED C. L. Prokop

TITLE Expl. Drlg. Operations Mgr. DATE May 8, 1968

(This space for Federal or State office use)

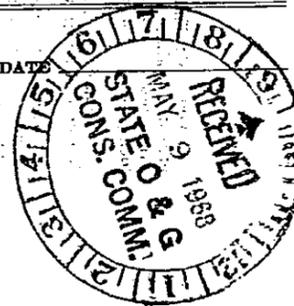
APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____

DATE _____

*See Instructions on Reverse Side

454



Atra

NAVAJO TRACT 151 #1

SUMMARY



DST #1 - 1110-1132', initial open 5 minutes, shut in 1 hour, open 30 minutes, final shut in 1 hour. Opened with weak blow increasing to fair during initial 5 minute open. Reopened with weak blow, died in 20 minutes. HP 460-460, ISIP 13, IFP 66, FFP 66, FSIP 66. Recovered 60' slightly water cut mud. Mud recovered had 300-500 ppm Chloride increase.

DST #2 - 3293-3325', initial open 5 minutes, shut in 1 hour, open 2 hours, shut in 2 hours. Opened with a very weak blow. Reopened with a fair blow increasing to good. No gas to surface. HP 1523-1523, ISIP 878, IFP 9-45, FFP 19-77, FSIP 879. Recovered 190' oil and 10' of mud.

DST #3 - 3675-3777', initial open 3 minutes, shut in 1 hour, open 3 hours, shut in 2 hours. Opened with strong blow. Reopened with strong blow. Spray of mud in 2 minutes. Maximum gauge 2,000 MCFPD. HP 1745-1718, ISIP 915, IFP 324, FFP 297, FSIP 888. Recovered 200 feet gas cut mud.

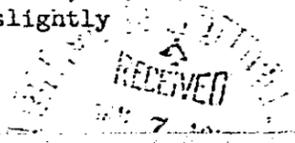
Core #1 - 3330-3390', recovered 60'. 75% shale, brown, very fine grained sandy. 25% limestone, gray, very fine crystalline. (Detailed description not available due to nature of core).

Core #2 - 3693-3752', recovered 59'. 2' shale, gray green to red brown, sandy; 16' sandstone, white to light gray, fine to medium grained quartzitic; 4' shale, red brown; 7' sandstone, white to light gray, fine to medium grained quartzitic; 5' shale, brick red to light green; 16' sandstone, white to light gray, fine to medium grained quartzitic; 3' shale, red brown - light green and 7' sandstone, light gray, fine to medium grained quartzitic.

hsh

Core #3 - 3752-3777', recovered 25'. 5' sand, white - white gray, fine to medium grained quartzitic; 10' shale, brick red, slightly sandy; 3' sand, fine grained pink, argillaceous, light; 4' shale, brick red, slightly sandy.

NOTE: Above cored depths adjusted to logs.



Form 9-331
(May 1963)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TELETYPE
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

5. LEASE DESIGNATION AND SERIAL NO.

14-20-0603-8882

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

-

8. FARM OR LEASE NAME

Navajo Tract 151

9. WELL NO.

1

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 35-35N-30E - G&SM

12. COUNTY OR PARISH 13. STATE

Apache

Arizona

SUNDRY NOTICES AND REPORTS ON WELLS
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

Humble Oil & Refining Company

3. ADDRESS OF OPERATOR

2000 Classen Center, North Bldg., Oklahoma City, Oklahoma 73106

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface

1980' S of NL, 330' W of EL of Sec. 35

14. PERMIT NO.

454

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

8780' Gr.

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

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

17. 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.)

CONFIDENTIAL

Monthly Report of Operations (Supplemental data to report of April 5, 1968)

3-14-68 DST #1 1110-1132'

	Time	Pressure
Hydrostatic	-	462
Open	5 mins.	-
Closed	1 hour	66
Open	1/2 hour	13/66
Closed	1 hour	66
Hydrostatic	-	462

Tool open 5 mins. with weak increasing to fair blow. SI one hour. Reopened with weak blow, died in 20 minutes. Tool shut in. Recovered 60' of slightly water cut mud.

Continued

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

SIGNED COPY ORIGINAL
C. L. PROKOP
C. L. Prokop

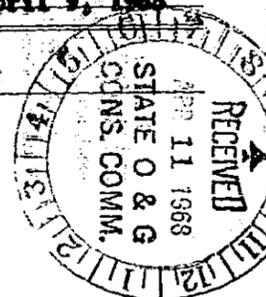
TITLE Expl. Drig. Operations Mgr. DATE April 9, 1968

(This space for Federal or State office use)

APPROVED BY _____
CONDITIONS OF APPROVAL, IF ANY:

TITLE _____ DATE _____

*See Instructions on Reverse Side



454

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPlicate
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1424.

SUNDRY NOTICES AND REPORTS ON WELLS
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT—" for such proposals.)

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR
Humble Oil & Refining Company

3. ADDRESS OF OPERATOR
2000 Classen Center, North Bldg., Oklahoma City, Oklahoma 73106

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.* See also space 17 below.)
At surface
1980' S of NL, 330' W of EL of Sec. 35

5. LEASE DESIGNATION AND SERIAL NO.
14-20-0603-8882

6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Navajo

7. UNIT AGREEMENT NAME
-

8. FARM OR LEASE NAME
Navajo Tract 151

9. WELL NO.
1

10. FIELD AND POOL, OR WILDCAT
Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
Sec. 35-35N-30E - G&SRM

12. COUNTY OR PARISH
Apache

13. STATE
Arizona

14. PERMIT NO.
454

15. ELEVATIONS (Show whether DF, RT, GR, etc.)
8780' Gr.

16. 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"/>	REPAIRING WELL <input type="checkbox"/>
FRACTURE TREAT <input type="checkbox"/>	MULTIPLE COMPLETE <input type="checkbox"/>	FRACTURE TREATMENT <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
SHOOT OR ACIDIZE <input type="checkbox"/>	ABANDON* <input type="checkbox"/>	SHOOTING OR ACIDIZING <input type="checkbox"/>	ABANDONMENT* <input type="checkbox"/>
REPAIR WELL <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	(Other) <input type="checkbox"/>	(Other) <input type="checkbox"/>

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

17. 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.)*

CONFIDENTIAL

Monthly Summary of Operations

3-10-68 Spud
 3-13-68 Set 1110' of 9-5/8 surface pipe, cement circulated to surface
 3-14-68 DST #1 1110-1132'
 3-24-68 DST #2 3293-3325'
 3-25-68 Core #1 3326-86' Recovered 60'
 3-30-68 Core #2 3689-3748' Recovered 59'
 3-31-68 Core #3 3748-73' Recovered 25'
 DST #3 3671-3773'
 4-4-68 TD at 3960' Ran Logs
 4-5-68 Set 7" casing at 3960'. Cemented through stage tool at 3608'.
 Had full circulation while placing both stages.
 Will release and move rig.



Copies of logs and tests will follow when logs are printed.

Testing and completion operations will start as soon as roads and weather permits moving of completion rig.

cc Mr. H. R. Tsosie, Minerals Supervisor Navajo Tribe
 Arizona O. & G. Conservation Commission

18. I hereby certify that the foregoing is true and correct
 SIGNED **COPY ORIGINAL C. L. PROKOP** TITLE **Expl. Drig. Operations Mgr.** DATE **April 5, 1968**
 C. L. Prokop

APPROVED BY _____ TITLE _____ DATE _____
 CONDITIONS OF APPROVAL, IF ANY:

35 454

April 1, 1968

Telcon from Gist, Humble

Re: Humble #1-151 Navajo
Permit 454

Cored McCracken 3689-3773

Ran DST 3671-3773

Now drilling at 3836, encountering lost circulation.
Expect to TD at 4000' approximately evening of 4-2-68. Will log
and run pipe.

JB

454

do

Monthly Report of Operations (Cont'd) Humble's Navajo Tract 151
 Sec. 35-35N-30E, Apache County, Arizona

3-24-68 DST #2 3293-3325'

	<u>Time</u>	<u>Pressure psig</u> <u>Initial/Final</u>
Hydrostatic		1584
Open	5 mins.	-
Closed	1 hour	862
Open	2 hours	27/81
Closed	2 hours	915.5
Hydrostatic		1584

Tool open 5 mins, weak blow. SI 1 hour. Reopened with fair blow increasing to good. No GTS. Recovered 190' 40° API oil and 10' of mud.

3-25-68 Core No. 1 3326-86'

Recovered 60 feet
 75% shale, brn, very fine grained sandy
 25% limestone - gray, very fine crystalline
 (Detailed core description not available due to nature of core)

3-30-68 Core No. 2 3689-3743'

Recovered 59 feet
 2' shale, gray green to red brn, sdy
 16' sandstone, white to lgt. gray, fine to med. grained quartzitic
 4' shale, red brn
 7' sandstone, white to lgt gray, fine to med. grained quartzitic
 5' shale, brick red to lgt. green
 16' sandstone, white to lgt. gray, fine to med. grained quartzitic
 3' shale, red brown - lgt. green
 7' sandstone light gray, fine-med. grained quartzitic, spotty

3-31-68 DST No. 3 - 3671-3773'

	<u>Time</u>	<u>Pressure</u>
Hydrostatic	-	1745
Open	3 mins.	-
Closed	1 hour	915
Open	3 hours	324/297
Closed	2 hours	888
Hydrostatic	-	1718

Tool opened 3 mins. with strong blow. SI 1 hour. Reopened with immediate strong blow. Mud spray to surface in 20 minutes. Gauged 2 MCF/D (including mud spray). Recovered 200 feet gas cut mud, no oil. Gas 4% H₂

3-31-68 Core No. 3 3748-3773'

Recovered 25 feet
 8' sand, white - white gray, fine to med. grained quartzitic
 10' shale, brick red, sli. sandy
 3' sand, fine grained pink, argillaceous, light
 4' shale, brick red, sli. sandy



454

WELL SITE CHECK

By J R Scurlock
Date 3-28-68

Contractor MESA

Person(s) Contacted BILL GREEN - Geologist (DENVER)

Spud date 3-10-68

Type Rig _____ Rotary
Cable _____

Present Operations drilling at 3650

Samples _____
Pipe Set 13 3/8 @ 65; Set 9 5/8 @ 1110'

Drilling with Air _____
Mud

Water Zones _____

Size Hole 8 3/4

Lost Circ. Zones _____

Size Drill Pipe 4"

Formation Tops Top DEVONIAN 3546

Type Bit _____

Cores, Logs, DST _____

No. Bit 17 Drilling Rate 8 min/ft.

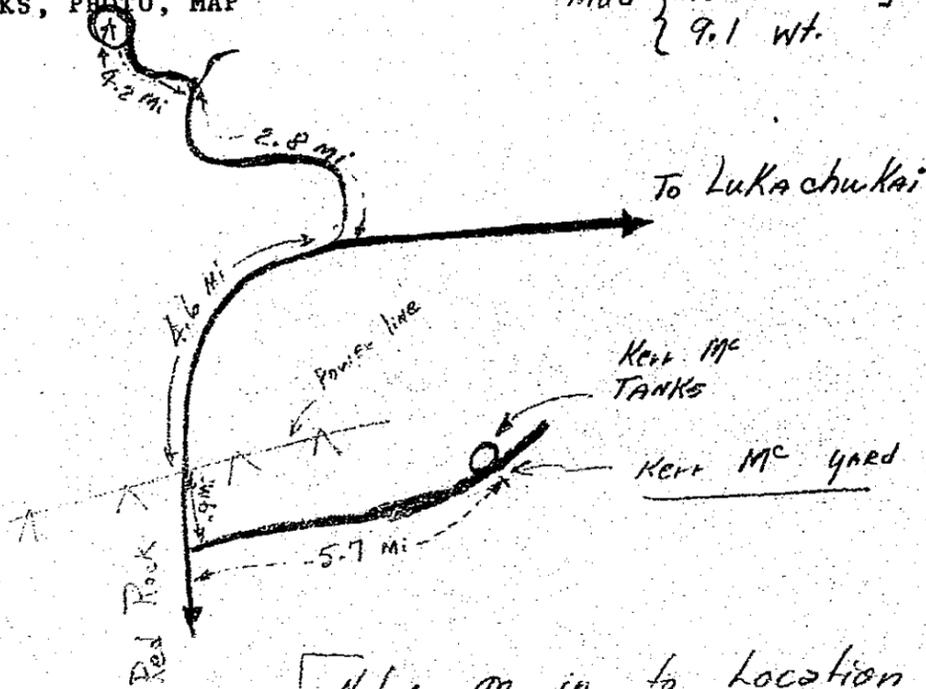
Formation DEVONIAN

Crews DRIVE FROM FARMINGTON

Lithology _____

REMARKS, PHOTO, MAP

Mud { 40 Viscosity
9.1 wt.



Note: go in to location early (before 10:00 a.m.) before Road is still frozen.

WELL NAME Humble Navajo 151-1

Permit No. 454
Confidential: Yes No

From the Desk of

J. R. SCURLOCK

³⁻²⁴⁻⁶⁸
Telephone from
Al Giss:
405-721-4201

DST 3293-3325 PENN

prep to core (going in w/ 60' core barrel)

#

Telephone AL GISS

TD 3687: prep to core.

JA 8 24/11
4/17

3-15-68

TelCall from Mr. Gist, Oklahoma City

Re: Humble #1 Navajo 151
Permit 454

Drilling depth as of 10:00 a.m. this date @ 1329'

3-14-68 DST (in Coconino) 1110 - 1132'
Small blow died immediately
Final flow 13 psi
Final shut in 66 psi

CONFIDENTIAL

Release Date _____

28

454

Form 9-331
(May 1963)

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

SUBMIT IN TRIPlicate
(Other instructions on reverse side)

Form approved.
Budget Bureau No. 42-R1421

5. LEASE DESIGNATION AND SERIAL NO.

14-20-0603-8882

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

Navajo

7. UNIT AGREEMENT NAME

8. FARM OR LEASE NAME

Navajo Tract 151

9. WELL NO.

10. FIELD AND POOL, OR WILDCAT

Wildcat

11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA

Sec. 35-35N-30E - G&SRM

12. COUNTY OR PARISH 13. STATE

Apache Arizona

SUNDRY NOTICES AND REPORTS ON WELLS

(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT" for such proposals.)

1. OIL WELL GAS WELL OTHER

2. NAME OF OPERATOR

Humble Oil & Refining Company

3. ADDRESS OF OPERATOR

2000 Classen Center, North Bldg., Oklahoma City, Oklahoma 73106

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements. See also space 17 below.)
At surface

1980' S of NL, 330' W of EL of Sec. 35

14. PERMIT NO.

454

15. ELEVATIONS (Show whether DF, RT, GR, etc.)

8780' GR. *

16. Check Appropriate Box To Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

TEST WATER SHUT-OFF

FRACTURE TREAT

SHOOT OR ACIDIZE

REPAIR WELL

(Other)

PULL OR ALTER CASING

MULTIPLE COMPLETE

ABANDON*

CHANGE PLANS

SUBSEQUENT REPORT OF:

WATER SHUT-OFF

FRACTURE TREATMENT

SHOOTING OR ACIDIZING

(Other)

REPAIRING WELL

ALTERING CASING

ABANDONMENT*

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

17. 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.)

3-10-68 Spud

3-13-68 Set 1110' of 9-5/8" surface pipe.
Cement circulated to surface.

* Elevation estimated on earlier reports.

CONFIDENTIAL

cc Mr. H. R. Tsosie, Minerals Supervisor Navajo Tribe
Arizona O. & G. Conservation Commission



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

SIGNED COPY ORIGINAL
C. L. PROKOP

TITLE Expl. Drlg. Operations Mgr. DATE March 13, 1968

(This space for Federal or State office use)

APPROVED BY _____ TITLE _____ DATE _____
CONDITIONS OF APPROVAL, IF ANY:

*See Instructions on Reverse Side

29 454

Telephone - Humble
(at h.) 3-8-68

Moving in Mesa Delg.
probably spud tomorrow
(3-9-68)

Gave Veebsl^{ok} to spud.
JRS

#454

APPLICATION FOR PERMIT TO DRILL OR RE-ENTER
 Please substitute for application submitted 2-22-68 - Note new location
 APPLICATION TO DRILL RE-ENTER OLD WELL

Humble Oil & Refining Company
 NAME OF COMPANY OR OPERATOR
 2000 Classen Center, North Bldg., Oklahoma City, Oklahoma 73106
 Address City State

Mesa Drillers
 Drilling Contractor
 P. O. Box 108, Lubbock, Texas 79408
 Address

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor Navajo Tract 151 - 14-20-0603-8882	Well number 1	Elevation (ground) See below*
Nearest distance from proposed location to property or lease line: 3300 feet	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: First well feet	
Number of acres in lease: 2560	Number of wells on lease, including this well, completed in or drilling to this reservoir: 1	
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 105)
1980' S of NL, 330' W of EL, Sec.35 **Sec. 35-35N-30E - G&SRM** **160 - NE 1/4**

Field and reservoir (if wildcat, so state) County
Wildcat **Apache**

Distance, in miles, and direction from nearest town or post office
Approximately 47 miles SW of Shiprock, New Mexico

Proposed depth: 4500'	Rotary or cable tools Rotary	Approx. date work will start 3-6-68
Bond Status Blanket Bond on File Amount \$25,000	Organization Report On file <input checked="" type="checkbox"/> Or attached	Filing Fee of \$25.00 Attached Submitted previously

Remarks: **Mud Program: 0-1200' - Native with proper properties to maintain hole. 1200-TD - Low solids water base.**
Testing: DST on shows, DST in Devonian-McCracken. Possible cores on shows.
Logs: IES & Gamma Ray/Sonic with Caliper.
Stimulation: As necessary.
Blow Out Preventers: Series 600 double acting on 9-5/8" surface casing

CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the **Expl. Drilling Operations Mgr.** of the **Humble Oil & Refining 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.

change of location
 Signature **C. L. Prokop**

Date **February 29, 1968**

* **GR approx. 8790', will provide exact elevation next report.**

Permit Number: **A54**
 Approval Date: **John Banister**
 Approved By: **3-11-68**

STATE OF ARIZONA
 OIL & GAS CONSERVATION COMMISSION
 Application to Drill or Re-enter
 File Two Copies

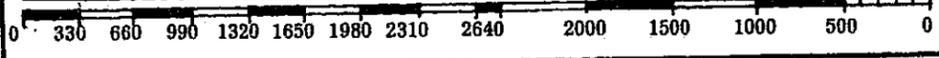
RECEIVED
 MAR 4 1968
 STATE O & G
 COMM.

Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.

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:

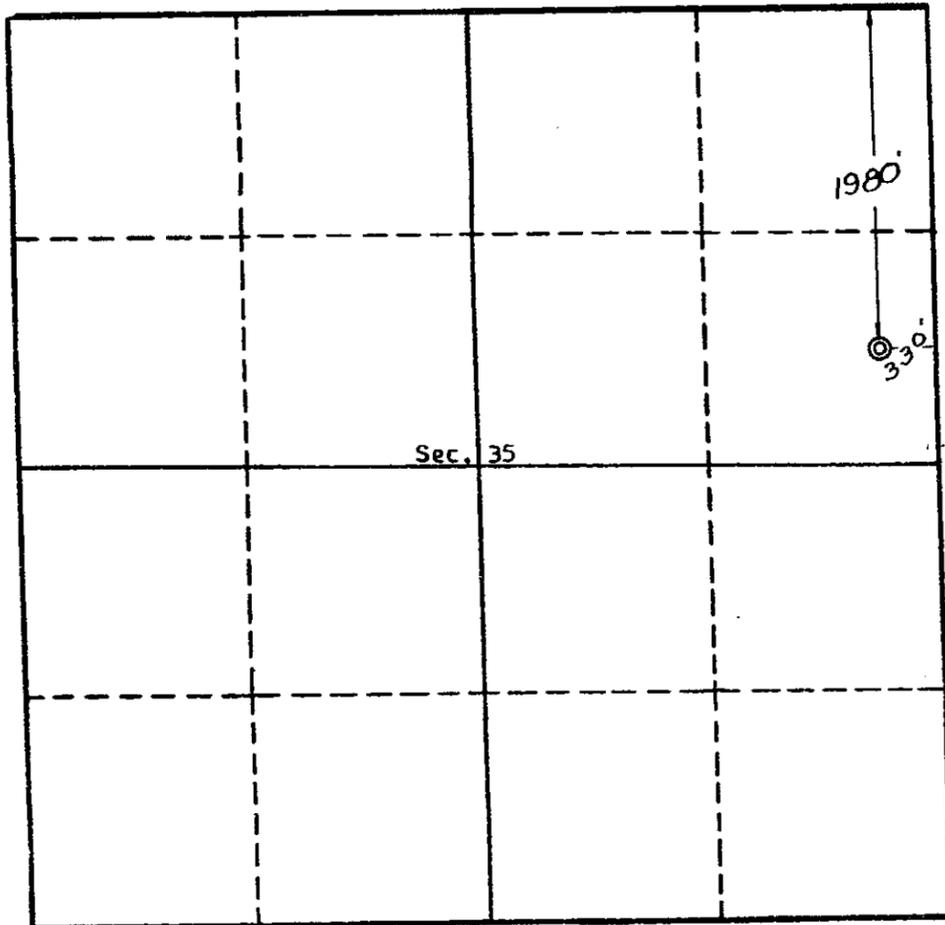
Owner	Land Description
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> Plat will be forwarded as soon as received from Mr. Echohawk </div>	<p style="text-align: center;">CERTIFICATION</p> <p>I hereby certify that the information above is true and complete to the best of my knowledge and belief.</p> <p>Name <u>C. L. Prokop</u></p> <p>Position <u>Expl. Drlg. Operations Mgr.</u></p> <p>Company <u>Humble Oil & Refining Co.</u></p> <p>Date <u>February 29, 1968</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 _____</p> <p>Registered Professional Engineer and/or Land Surveyor See attached plat <u>Ernest V. Echohawk</u></p> <p>Certificate No. <u>2311</u></p>



PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
9-5/8"	32.30#	H-40	0	1200'	1200'	Circ. to surface.
7"	20#	J-55	0	As needed		Sufficient to cover all pays

Company HUMBLE OIL & REFINING CO.
Well Name & No. _____
Location 1980 feet from the North line and 330 feet from the East line.
Sec. 35, T. 35 N., R. 30 E., G. & S. R. M., County Apache, Arizona
Ground Elevation _____



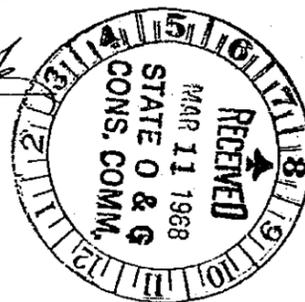
Scale, 1 inch = 1,000 feet

Surveyed February 27, 1968.

This I certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.



Ernest V. Echohawk
Ernest V. Echohawk
Registered Land Surveyor
Arizona Registration No. 2311



APPLICATION FOR PERMIT TO DRILL OR RE-ENTER

APPLICATION TO DRILL

RE-ENTER OLD WELL

Humble Oil & Refining Company

NAME OF COMPANY OR OPERATOR

2000 Classen Center, North Bldg., Oklahoma City, Oklahoma 73106

Address

City

State

Mesa Drillers

Drilling Contractor

P. O. Box 108, Lubbock, Texas 79408

Address

DESCRIPTION OF WELL AND LEASE

Federal, State or Indian Lease Number, or if fee lease, name of lessor Navajo Tract 151 - 14-20-0603-8882	Well number 1	Elevation (ground) Approx. 8,620' *
Nearest distance from proposed location to property or lease line: 4410 feet	Distance from proposed location to nearest drilling, completed or applied—for well on the same lease: First well feet	
Number of acres in lease: 2560	Number of wells on lease, including this well, completed in or drilling to this reservoir: 1	
If lease, purchased with one or more wells drilled, from whom purchased: Name Address		

Well location (give footage from section lines) 870' N of SL, 660' W of EL, Sec. 26	Section—township—range or block and survey Sec. 26-35N-30E - G&SRM	Dedication (Comply with Rule 105) 160 - SE 1/4
---	--	--

Field and reservoir (if wildcat, so state) Wildcat	County Apache
--	-------------------------

Distance, in miles, and direction from nearest town or post office
Approximately 47 miles SW of Shiprock, New Mexico

Proposed depth: 4500'	Rotary or cable tools Rotary	Approx. date work will start 3-1-68
---------------------------------	--	---

Bond Status Blanket Bond on File Amount \$25,000	Organization Report On file <input checked="" type="checkbox"/> Or attached	Filing Fee of \$25.00 Attached CHECK NO. 6470 2/20/68
---	--	---

Remarks: Mud Program: 0-1200' - Native with proper properties to maintain hole. 1200-TD Low solids water base.
Testing: DST on shows, DST in Devonian-McCracken. Possible cores on shows.
Logs: IES & Gamma Ray/Sonic with Caliper.
Stimulation: As necessary.
Blow Out Preventers: Series 600 double acting on 9-5/8" surface casing.

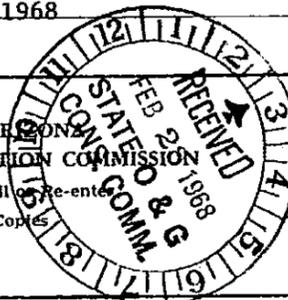
CERTIFICATE: I, the undersigned, under the penalty of perjury, state that I am the Expl. Drilling Operations Mgr. of the Humble Oil & Refining Company (company), and that I am authorized by said company to make this report; and that this report was prepared under my supervision and direction and that the facts stated therein are true, correct and complete to the best of my knowledge.

Signature *C. L. Prokop*
C. L. Prokop

* Will provide exact elevation on next report. February 19, 1968
Date

Permit Number: **454**
Approval Date: **2-28-68**
Approved By: *John W. Summester*
Notice: Before sending in this form be sure that you have given all information requested. Much unnecessary correspondence will thus be avoided.

Form No. 3



3) API 02-001-20076

(Complete Reverse Side)

- Operator shall outline the dedicated acreage for both oil and gas 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.
- 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
<div style="border: 1px solid black; padding: 5px; width: fit-content; margin: auto;"> 26 SEE ATTACHED SURVEYORS PLAT </div>	<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. L. Prokop</u> Expl. Drig. Operations Mgr. Position</p> <p>Company <u>Humble Oil & Refining Company</u></p> <p>Date <u>February 19, 1968</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 _____</p> <p>Registered Professional Engineer and/or Land Surveyor <u>See attached plat</u> <u>Ernest V. Echohawk</u></p> <p>Certificate No. <u>2311</u></p>

PROPOSED CASING PROGRAM

Size of Casing	Weight	Grade & Type	Top	Bottom	Cementing Depths	Sacks Cement
9-5/8"	32.30#	H-40	0	1200'	1200'	Cir. to surface. Sufficient to cover all pays
7"	20#	J-55	0	As needed		

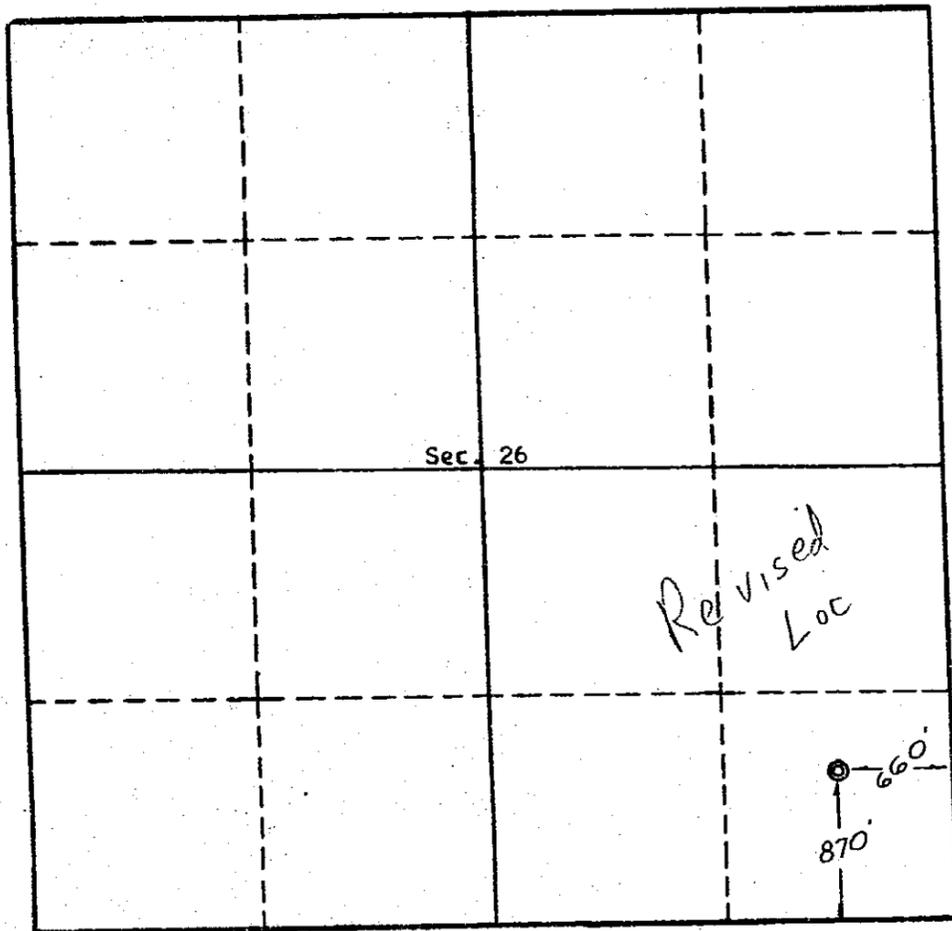
Company HUMBLE OIL & REFINING CO.

Well Name & No. _____

Location 870 feet from the South line and 660 feet from the East line.

Sec. 26, T. 35 N., R. 30 E., G. & S. R. M., County Apache, Arizona

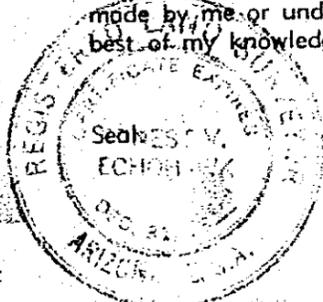
Ground Elevation _____



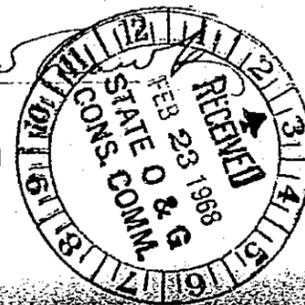
Scale, 1 inch = 1,000 feet

Surveyed February 16, 1968

This is to certify that the above plat was prepared from field notes of actual surveys made by me or under my supervision and that the same are true and correct to the best of my knowledge and belief.



Ernest V. Echohawk
Ernest V. Echohawk
Registered Land Surveyor
Arizona Registration No. 2311



454

37



PERMIT TO DRILL

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

To: HUMBLE OIL & REFINING COMPANY
(OPERATOR)

to drill a well to be known as

HUMBLE #1 NAVAJO 151

located 1980' FNL 330' FEL
~~870' FNL~~ and ~~660' FEL~~ (SE/4 NE/4) *YB 3-11-68*

Section 35 Township 35N Range 30E, Apache County, Arizona.

The SE/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 23rd day of February, 1968.

OIL AND GAS CONSERVATION COMMISSION
By John Kammister
EXECUTIVE SECRETARY

PERMIT No. 454
RECEIPT NO. 9538
API No. 02-001-20076

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

"Forms-when to file" enclosed

37

October 10, 1969

Mr. J. Roy Dorrough
Humble Oil & Refining Company
P. O. Box 120
Denver, Colorado 80201

Re: Humble #1 Navajo 151
T35N, R30E, G & SRM
Sec. 35: SE/4 NE/4
Apache County
Permit #454

Dear Mr. Dorrough:

Pursuant to our conversation this morning regarding the plugging of the subject well, I chatted with John and he agreed to your proposal in altering the original plugging program. Would you be so kind as to have your sundry notice of the plugging operation reflect these changes.

Bring your golf clubs.

Yours truly,

James Scurlock
Geologist

JS:jf

X-Checked

X-Chron.
X-Lambert

June 12, 1969

Mr. J. Roy Dorrough
Humble Oil & Refining Company
P. O. Box 120
Denver, Colorado 80201

Re: Humble #2 Navajo 138
T35N, R30E, G & SRM
Sec. 6: SE/4 SE/4
Permit #400 X
Apache County

Humble #1 Navajo 87
T36N, R29E, G & SRM
Sec. 23: SE/4 NE/4
Apache County
Permit #401 X

Humble #1 Navajo 146
T36N, R30E, G & SRM
Sec. 15: SE/4 SW/4
Apache County
Permit #452 X

Humble #1 Navajo 151
T35N, R30E, G & SRM
Sec. 35: SE/4 NE/4
Apache County
Permit #454

Dear Mr. Dorrough:

Authorization from this Commission is hereby granted to continue the captioned wells in a temporary abandoned status. This temporary abandoned status will expire June 16, 1970. We will require our Form #25 (or U.S.G.S. Sundry Notice Report) to be submitted monthly as you have done in the past.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

454



HUMBLE OIL & REFINING COMPANY

DENVER, COLORADO 80201

PRODUCTION DEPARTMENT
DENVER DISTRICT
J. R. BORROUGH
SUPERINTENDENT

June 5, 1969

POST OFFICE BOX 120
TELEPHONE 534-1251

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

Attn: Mr. James A. Lambert

Gentlemen:

Re: Humble #2 Navajo 138
T35N, R30E, G & SRM
Sec. 6: SE/4 SE/4
Apache County
Permit 400

Humble #1 Navajo 87
T36N, R29E, G & SRM
Sec. 23: SE/4 NE/4
Apache County
Permit 401

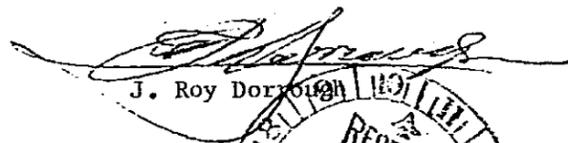
44
Humble #1 Navajo 146
T36N, R30E, G & SRM
Sec. 15: SE/4 SW/4
Apache County
Permit 452

Humble #1 Navajo 151
T35N, R30E, G & SRM
Sec. 35: SE/4 NE/4
Apache County
Permit 454

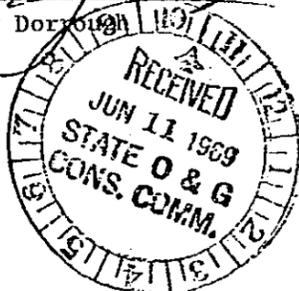
In answer to your letter of June 2, 1969, relating to the above, this is to advise that the working interest owners in the immediate vicinity of the above listed wells are currently actively attempting to form a unit which might eventually lead to the economic exploitation and production of helium bearing gas wells in the area.

Each of the above listed wells could become involved as a producer of helium bearing gas. We therefore request extension of the temporary abandoned status of these wells.

Very truly yours,


J. Roy Dorr

JRD:mg



X. Chano
X-Lambert

June 2, 1969

Mr. J. Roy Dorrrough
Humble Oil & Refining Company
P. O. Box 120
Denver, Colorado 80201

Re: Humble #2 Navajo 138
T35N, R30E, G & SRM
Sec. 6: SE/4 SE/4
Apache County
Permit 400 X

Humble #1 Navajo 146
T35N, R30E, G & SRM
Sec. 18: SE/4 SW/4
Apache County
Permit 452 X

Humble #1 Navajo 87
T36N, R29E, G & SRM
Sec. 23: SE/4 NE/4
Apache County
Permit 401 X

Humble #1 Navajo 161
T36N, R30E, G & SRM
Sec. 35: SE/4 NE/4
Apache County
Permit 454 X

Dear Mr. Dorrrough:

For the past year these wells have been carried in the temporary abandoned status. Please advise us what plans you have for each of the wells in the ensuing year and make new request for extending temporary abandon status should you wish that these wells remain in that status.

Yours truly,

James A. Lambert
Administrative Assistant

JAL:jf

454



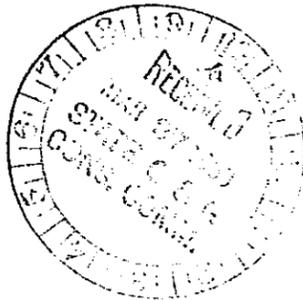
HUMBLE OIL & REFINING COMPANY

DENVER, COLORADO 80201

DENVER DISTRICT

March 24, 1969

POST OFFICE BOX 120



Mr. John Bannister
Arizona Oil & Gas Conservation Commission
1624 West Adams - Suite 202
Phoenix, Arizona 85007

Dear Mr. Bannister:

Attached please find Bureau of Mines "Report of Analysis" of gas samples on all wells drilled by Humble Oil & Refining Company in the Dineh bi Keyah Area, Apache County, Arizona.

Well Name & No.	No. of Reports
Navajo Tract 87 #1-401	1
Navajo Tract 88 #1-421	3
Navajo Tract 88 #2-431	4
Navajo Tract 88 #3-443	1
Navajo Tract 140 #1-393	3
Navajo Tract 151 #1-454	3

4

These reports should complete all records on the well in this area. Analysis were not made on wells not listed above.

Very truly yours,

J. Roy Borrough
J. Roy Borrough
Dist. Supt.

Attach.

454

HUMBLE OIL & REFINING COMPANY

OKLAHOMA CITY, OKLAHOMA 73106

EXPLORATION DEPARTMENT
CENTRAL DIVISION

July 12, 1968

2000 CLASSEN CENTER-NORTH
JACKSON B-2411

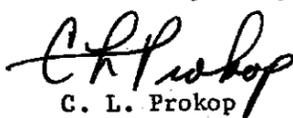
Mr. John Bannister, Executive Secretary
Arizona Oil and Gas Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007

Dear Sir:

The responsibility for Humble's Navajo Tract 151 No. 1 has been transferred from our Exploration Department to Humble's Production Department in Denver, Colorado. Future contacts on the well should be made to Mr. J. Roy Dorrrough, P. O. Box 120, Denver, Colorado 80201 - Phone AC 303 534-1251.

Mr. Dorrrough's information should be complete; however, should you want to contact us, we would be happy to help with anything we can.

Yours very truly,


C. L. Prokop

CLP:lh

cc Mr. J. Roy Dorrrough



HUMBLE OIL & REFINING COMPANY

OKLAHOMA CITY, OKLAHOMA 73106

EXPLORATION DEPARTMENT
CENTRAL DIVISION

July 5, 1968

2000 CLASSEN CENTER-NORTH
JACKSON 8-2411

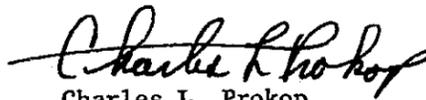
Mr. John Bannister
1624 West Adams
Phoenix, Arizona

Dear Mr. Bannister:

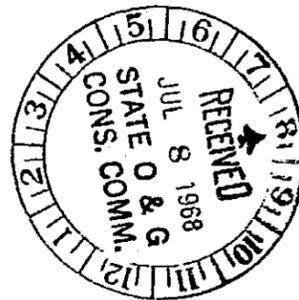
Attached are two copies of three separate reports of analysis on gas samples from Humble Navajo Tract 151 No. 1. The samples came from production tests made through perforations between 3836-3860 feet, 3788-3808 feet, and 3697-3760 feet.

The data should be held confidential until December 7, 1968.

Very truly yours,


Charles L. Prokop

CLP:ml
Attachments



454

HUMBLE OIL & REFINING COMPANY

OKLAHOMA CITY, OKLAHOMA 73106

EXPLORATION DEPARTMENT
CENTRAL DIVISION

June 4, 1968

2000 CLASSEN CENTER-NORTH
JACKSON 8-2411

Mr. John Bannister
Arizona O. & G. Conservation Commission
1624 West Adams - Room 202
Phoenix, Arizona 85007



Dear Sir:

In Accordance with Rule 202-B of the Arizona Oil & Gas Conservation Commission Rules and Regulations, we request permission for temporary abandonment of the following well.

Navajo Tract 151, Well No. 1
Permit No. 454
1980' SNL x 330' WEL, Sec. 35-35N-30E
Apache County, Arizona

Operations of this well have been suspended and the well is temporarily abandoned pending development of a helium market for the field, which may take some time, and additional development in other wells in the helium-bearing formations in the area.

Pending development of a helium market and additional drilling, we request approval to keep this well in the temporary abandoned status for an indefinite period.

Yours very truly,

C. L. Prokop

CLP:lh

APPROVED

By *John Bannister*

Date 6-7-68

OIL & GAS CONSERVATION COMMISSION
STATE OF ARIZONA
1624 WEST ADAMS - SUITE 202
TELEPHONE: 271-5161
PHOENIX, ARIZONA, 85007

HUMBLE OIL & REFINING COMPANY

OKLAHOMA CITY, OKLAHOMA 73106

EXPLORATION DEPARTMENT
CENTRAL DIVISION

March 8, 1968

2000 CLASSEN CENTER-NORTH
JACKSON 8-2411

Mr. John Bannister, Executive Secretary
Arizona Oil and Gas Conservation Commission
1624 West Adams, Room 202
Phoenix, Arizona

Dear Sir:

Attached you will find corrected survey for our Navajo Tract 151 #1, 1980' fNL x 330' fEL, Section 35-35N-30E, Apache County, Arizona. This would have been forwarded with our corrected Application for Permit to Drill on March 1, 1968, but had not been received in this office at that time.

We regret the delay on this and appreciate your cooperation.

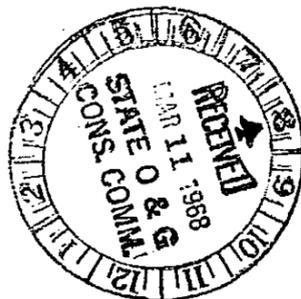
Yours very truly,

C. L. Prokop

C. L. Prokop

GLP:lh

Attachment 2



HUMBLE OIL & REFINING COMPANY

OKLAHOMA CITY, OKLAHOMA 73106

EXPLORATION DEPARTMENT
CENTRAL DIVISION

March 1, 1968

2000 CLASSEN CENTER-NORTH
JACKSON 8-2411

Mr. John Bannister, Executive Secretary
Arizona Oil and Gas Conservation Commission
1624 West Adams, Room 202
Phoenix, Arizona

Dear Sir:

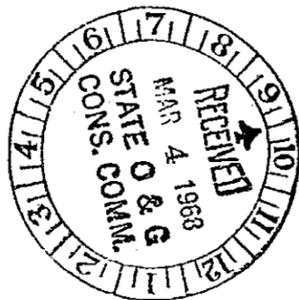
Attached you will find Application for Permit to Drill
Humble's Navajo Tract 151 No. 1.

This application is being submitted to correct a change in
location on the well. It should be substituted for the
application sent you under our cover letter of February 22,
1968. This change is in accordance with our telephone con-
versation of February 28, 1968.

Yours very truly,

C. L. Prokop
C. L. Prokop

GLP:lh
Attachment



454