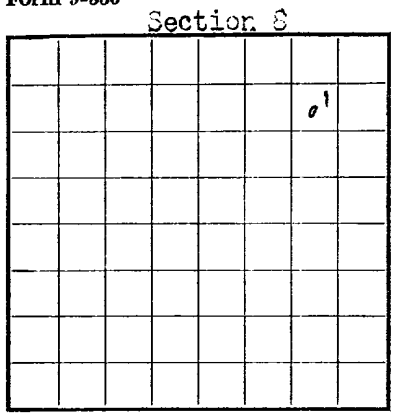
Budget Bureau No. 42-R355.4.
Approval expires 12-31-60.

Form 9-330

Section 8



LOCATE WELL CORRECTLY

U. S. LAND OFFICE Santa Fe
SERIAL NUMBER NM-046
LEASE OR PERMIT TO PROSPECT Boring-Cheney Federal Unit

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

Company Magnolia Petroleum Company Address P.O. Box 633 Midland, Texas
Lessor or Tract Boring-Cheney-Federal Unit Field Undesignated State New Mexico
Well No. #1 Sec. 8 T. 26N R. 2-W Meridian N.M.P.M. County Rio Arriba
Location 990 ft. {N./S.} of N. Line and 990 ft. {E./W.} of E. Line of Section 8 Elevation 7153 (Derrick floor relative to sea level)

The information given herewith is a complete and correct record of the well and all work done thereon so far as can be determined from all available records.

Signed Harvie H. Mayfield
Date October 23, 1957 Title HARVIE H. MAYFIELD Asst. Division Superintendent

The summary on this page is for the condition of the well at above date.

Commenced drilling May 18, 19 57 Finished drilling June 3, 19 57

OIL OR GAS SANDS OR ZONES

(*Denote gas by G*)

No. 1, from 5436 to 5949 No. 4, from ____ to ____
No. 2, from 3634 to 3703 No. 5, from ____ to ____
No. 3, from ____ to ____ No. 6, from ____ to ____

RECEIVED OCT 28 1957 OIL CON. COM. DIST. 3

IMPORTANT WATER SANDS

No. 1, from ******* to ******* No. 3, from ____ to ____
No. 2, from ******* to ******* No. 4, from ____ to ____

CASING RECORD

Size casing	Weight per foot	Threads per inch	Make	Amount	Kind of shoe	Cut and pulled from	Perforated From—	Perforated To—	Purpose
10-3/4	32.75	8 RT	Brit.	358					Surface
7-5/8	24	8 RT	Yngstn	3734			3634	3703	Intermediate
7-5/8	26.40	8 RT	Spang	127					Intermediate
5½	15.50	8 RT	Spang	2071			5436	5949	Oil String
5½	15.50	8 RT	Lap.	167					

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
10-3/4	358	250	Pump & Plug		
7-5/8	3931	125	Pump & Plug	36	16020 Lbs
5½	6023	300	Pump & Plug		

PLUGS AND ADAPTERS

Heaving plug—Material ***** Length ******* Depth set *******
Adapters—Material ******* Size ********* *******

SHOOTING RECORD

Size	Shell used	Explosive used	Quantity	Date	Depth shot	Depth cleaned out
***	***	***	***	**	****	*******
***	***	***	***	**	****	*******

TOOLS USED

Rotary tools were used from 0 feet to 6023 feet, and from 0 feet to 0 feet
Cable tools were used from 0 feet to 0 feet, and from 0 feet to 0 feet

DATES

October 23, 19 57 Put to producing Temp. Abnd. Oct. 8, 19 57

The production for the first 24 hours was *** barrels of fluid of which ** % was oil; ** % emulsion; ** % water; and ** % sediment. Gravity, °Bé. *****

If gas well, cu. ft. per 24 hours ****** Gallons gasoline per 1,000 cu. ft. of gas ****

Rock pressure, lbs. per sq. in. *****

EMPLOYEES

Paul F. Rutledge, Driller ____, Driller
J.P. "Bum" Gibbons, Driller ____, Driller

FORMATION RECORD TOPS

FROM—	TO—	TOTAL FEET	FORMATION
3290	3417	127	Ojo Alamo
3417	3633	216	Kirtland-Fruitland
3633	3706	73	Pictured Cliffs
3706	5436	1730	Lewis
5436	5494	58	Cliff House
5494	5811	317	Menefee
5811	5951	140	Point Lookout
5951	6023	72	Mancus

SUMMARY

5-18-57 Spudded.
5-20-57 WOC 10-3/4" Casing on bottom with 250 sx cement.
5-28-57 WOC 7-5/8" Casing on bottom with 125 sx cement.
6- 3-57 WOC 2238' of 5½" Liner on bottom with 100 sx. Top Liner @ 3785'. Temp survey showed top of cement not high enough. Perf 5½" at 5465' with 2 holes. and recement.
6- 4-57 WOC 5½" Liner on bottom. Set ret. @ 5425'. Cemented thru perf. @ 5465' with 50 sx. TP-2600-3000#. Set HRC tool @ 3747'. Cemented over top of Liner @ 3785' with 75 sx. TP-700-2500#.
6- 5-57 Tested top of liner with 1500#. Tested OK. Conditioned hole to 5980'.
6- 6-57 Ran elec. Logs. Perf. 5½" Liner in Mesa Verde 5436-41', 5465-5495', 5540-5555', 5634-5649', 5767-5791', 5816-5828', 5839-5863', 5900-5919' and 5934-5996' with 6 shots per ft. Sandwaterfrac with 81,000 Gals. & 78,000 # sand. CP-1950-1500-3150#, using 374 rubber balls. Sanded up. Flowing load water.
6-10-57 Ran 2" tbg. Conditioned to 5980'. Pulled 2" tbg. Prep. to Perf Pic. Cliffs.

[OVER]

16—43004-4

FOLD | MARK

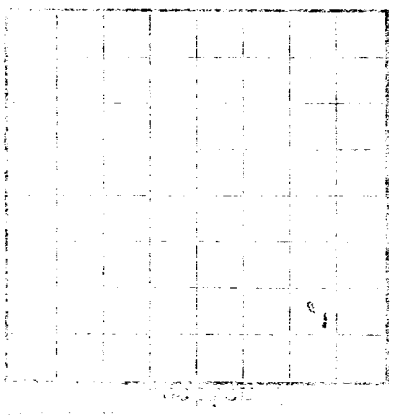
FORMATION RECORD—Continued

FROM—	TO—	TOTAL FEET	FORMATION

16—43094-2 U. S. GOVERNMENT PRINTING OFFICE

HISTORY OF OIL OR GAS WELL

It is of the greatest importance to have a complete history of the well. Please state in detail the dates of redrilling, together with the reasons for the work and its results. If there were any changes made in the casing, state fully, and if any casing was "sidetracked" or left in the well, give its size and location. If the well has been dynamited, give date, size, position, and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position, and results of pumping or bailing.



LOG OF OIL OR GAS WELL

GEOLOGICAL SURVEY

DEPARTMENT OF THE INTERIOR

UNITED STATES

6-10-57 Perf. Pictured Cliffs 3634-3637', 3648-3654' & 3671-3703'. Set Bridge Plug @ 3786'. Sandwaterfrac with 40,000 Gals. CR-1000# using 275 rubber balls. Pulled balls. Pulled Bridge Plug. Set Baker Model "D" Pkr. @ 5376'. Ran Mesa Verde & Pictured Cliffs tbg strings. Rig released 12 noon. 6-9-57. Will move out Rotary & move in swabbing Unit.

6-11-57 Moved out Rotary. Moved in Sqab Unit. Prep. to Swab.

6-12-57 From 9 sets Mesa Verde Perf. SW. 360 BLW 18 hrs. Slight show of gas. Lack 1395 BLW. 3 sets Pictured Cliffs Perf. S/I 24 hrs.

6-14-57 From Mesa Verde Perf. sw. 120 BLW 12 hrs. Left sw. @ 4000' line in hole. Prep. to pull tbg to recover swb. Pictured Cliffs perf S/O.

6-17-57 Pulled Mesa Verde Tbg. Recovered swb. Reran Mesa Verde Tbg. From 9 sets Mesa Verde Perf. swb 425 BLW 30 hrs. 3 sets Pictured Cliffs Perf. Shut in 48 hrs

6-19-57 From all Mesa Verde Perf. swb & flow 220 BLW 24 hrs. From 3 sets Pictured Cliffs Perf. swb 110 BLW 14 hrs.

6-20-57 From Mesa Verde perf. swb 30 BLW 24 hrs. Flowing by heads. From 3 sets Pictured Cliffs Perf. swab & flow 480 BLW in 24 hrs. good show of gas.

6-21-57 From Mesa Verde Perf. swab 300 bbls of formation water in 24 hrs. From 3 sets Pictured Cliffs perf. S/I 24 hrs. Lack 920 BLW.

6-24-57 Mesa Verde shut in. From 3 sets pictured cliffs swab 450 BLW 48 hrs. slight show of gas. 2400' FIH. Lack 650 BLW.

6-27-57 Mesa Verde shut in. From 3 sets Pictured Cliffs Perf. swab 150 BLW 15 hrs. 2100' FIH. Gas increasing. Down 9 hrs. Electric trouble.

7- 1-57 Mesa Verde shut in. from 3 sets Pictured Cliffs swab & flow 200 bbls formation water & 10 BNO 48 hrs. 1200' FIH. Flowing by heads.

7- 2-57 From 3 sets Pictured Cliffs swb and flow 100 BSW, 4 BNO in 24 hrs. 800 FIH'.

7- 3-57 From 3 sets Pictured Cliffs swab & flow 100 BSW, 4 BNO 24 hrs. Flowing by heads. 45 minutes to 1 hr.

7- 5-57 Shut In Prep. to pull pictured cliff's tbg. Install GL. valves.

7- 8-57 Pulled Pictured Cliffs tbg. Reran tbg & Gas Lift Valves. Installed tree. Wait on Gas Meter Setting.

7-10-57 From Pictured Cliffs flow by Gal Lift Valves 10 BNO 50 BSW 6 hrs.

7-11-57 From 3 sets Pictured Cliffs Gas Lifted 5 BNO 70 BSW 20 hrs.

7-12-57 From 3 sets Pictured Cliffs flowed by BL 5 BNO 50 BSW in 24 hrs.

7-15-57 From 3 sets Pictured Cliffs perf. Gas Lift 10 BNO 120 BSW 48 hrs. Gas Vol. 53 MCF per day.

7-16-57 Mesa Verde shut in. From 3 sets Pictured Cliffs Perfs. Gas lifted 2 BNO 50 BSW 2 hrs. Gas Vol. 55 MCF per day.

7-19-57 From 3 sets Pictured Cliffs Perf. gas lifted 15 BSW 16 hrs. Shut in for gas volume test. After 8 hrs. Gas insufficient to measure.

7-22-57 From 3 sets Pictured Cliffs Perf. flow 24 hrs. 2" choke. Gas insufficient to measure. Gas Lifted 10 BNO 50 BSW 36 hrs. Mesa Verde Shut in.

8- 1-57 From 3 sets Pictured Cliffs flow by GL 2 BNO 5 BSW 24 hrs. Installing Intermit.

8- 6-57 Shut in to repair intermitter on Pictured Cliffs.

8-13-57 Prep. to move in workover rig.

8-15-57 Shut in moving in workover rig.

8-19-57 Pulled pictured cliffs & Mesa Verde tbg. strings Prep. to drill out Pkr.

8-20-57 Wait on tubing to D/O Pkr. Muddy roads.

8-21-57 Running tbg & bit to drill out Pkr.

8-22-57 Drilling & Pushing Pkr @ 5856' from 5376'.

8-23-57 Down past 7 hrs. repairing rig. Drilled out pkr to 5880'.

8-26-57 Washed out sand 5835-5980'. Ran tbg & Pkr. Attempt to log thru tbg. stopped at 5876' with sand. Pulled tbg & Pkr. Blowing hole at 2700'.

8-27-57 Jetted load water @ 3900' with gas.

8-28-57 Blowing hole @ 3950'. Blowing 10 to 15 BLW per hr.

8-29-57 Blowing hole with gas at 5530', 6 to 8 BLW per hr. formation gas breaking through with sand.

9- 3-57 Blew hole with gas @ 5980' 32 hrs. Recovered salt water & sand. Ran 2½" tbg. & Pkr. Ran tracer in 9 sets Mesa Verde Perf. Indicated channel job 5400' to 5995' & that two bym. sets of perfs. had not been fraced.

9- 4-57 Pulled tubing and HW Pkr. Set Temporary Bridge Plug in 5½" Liner at 5735'. Running retainer to sq off perf. 5436-41', 5465-90', 5540-55' & 5634-5649',

9- 5-57 Set Retainer at 5420'. Sq. Mesa Verde Perfs 5436-41', 5465'-90', 5540-55' 5634-49' with 200 sx. TP-3500#.

9- 6-57 WOC on squeeze of perf. Prep to drill out cement. Plug.

9-10-57 Drilled out cement in 5½" Liner to 5675'. Prepare to test squeezed perf.

9-11-57 WOC on re-squeeze of top 4 sets Mesa Verde Perf. with 200 sx. Max. P-3700#.

9-13-57 Drilled out cement in 5½" Liner to 5675'. Pulled tbg. In hole with HRC tool to test Perf. 5634-49'.

9-16-57 Ran 2½" tbg & HRC tool to 5300'. Test 4 sets Mesa Verde perf. between 5436-5649' with 1300#. Blew to zero. Re-squeezed with 100 sx tbg P-1800#. Re-squeezed with 50 sx cement 200-0#, in 3 minutes. Re-squeezed with 50 sx. TP-3500#. Put in @ 2700#. Drilled out plug in 5½" Liner to 5675'

9-17-57 Tested 4 sets Mesa Verde Perf. Pu in at 220#. WOC on re-squeeze of perf. with 50 sx. TP-3700#.

9-19-57 Drilled squeeze plug @ 5675'. 9-20-57

9-20-57 Tested 4 sets squeezed Mesa Verde Perf. between 5436-5649' with 2500#. Tested OK. Prep. to drill out bridge plug.

9-23-57 Drilled out Bridge Plug @ 5735'. Ran Tbg. & HW Pkr. Acidized 5 sets Mesa Verde Perf. with 3000 Gals. in 5 stages. TP-700-1400#. Attempted to Sand-Frac with 85,000 Gals. 300 Gals in formation. Max Press. 6500#. Attempt. to pull tbg and Pkr. Pkr stuck at 5640'.

9-24-57 Worked & pulled stuck pkr. 20 hrs. Pulling tbg & Pkr.

9-25-57 Pulled tbg & Pkr. Blowing hole at 5450' with gas. Blowing out sand & water.

9-26-57 Cleared out sand to 5990' with gas. Re-perforated 5½" Liner 5767'-5771', 5816-5823', 5839-5841', 5900-5919', & 5943-5949'. Prep. to sandFrac.

9-27-57 Sandwaterfrac 5 sets Mesa Verde perf. with 85,000 Gals & 5000 Gals. Acid ahead of frac, TP-4000-1500#. Prep. to Pull tbg & pkr. & C/O.

9-30-57 From 5 sets Mesa Verde Perf. after 85,000 Gals Sandwaterfrac flowed back 200 BLW 6 hrs. Pulled tbg & Pkr. Jetted 1140 BLW 3 hrs. @ 4650'. Dropped 4700' of 2" tbg. Fished & recovered tbg 11 hrs. Prep. to rerun 2" tbg to jet hole.

10-1-57 Reran 2" tbg. From 5 sets Mesa Verde perf. Jetted 250 BLW 20 hrs.

10-2-57 Jetting load water from 5975'. Jetted 175 BLW 24 hrs. Gas Vol. 35 MCF per day.

10-3-57 Pulled 2" tbg. Set Baker Prod. Pkr at 5750' in 5½" Liner. Running Mesa Verde Tbg.

10-4-57 Ran Mesa Verde & Pictured Cliffs Tbg. From 5 sets Mesa Verde Perf swab 12 hrs recovered 75 BLW. Gas insufficient to measure.

10-7-57 From 5 sets Mesa Verde Perf swab 130 BLW 48 hrs. Gas Vol. 23 MCF per day.

10-8-57 From 5 sets Mesa Verde Perf. swab 90 BLW 24 hrs. Gas volume 32 mcf per day.

10-9-57 6023' Total Depth. Dry & Temporarily Abandoned. Rig released 2 P.M. 10-8-57.