

U. S. LAND OFFICE New Mexico

SERIAL NUMBER MM-046574

LEASE OR PERMIT TO PROSPECT

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

LOG OF OIL OR GAS WELL

LOCATE WELL CORRECTLY

Company Pan American Petroleum Corporation Address P. O. Box 480, Farmington, New Mexico

Lessor or Tract Pan American Federal Gas Unit Field Basin Dakota State New Mexico

Well No. 1 Sec. 31 T. 30N R. 11W Meridian N.M.P.M. County San Juan

Location 790 ft. N. of S. Line and 1730 ft. E. of E. Line of Section 31 Elevation 5868
(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 F. H. ROBERTSON ORIGINAL SIGNED BY

Date August 29, 1962 Title Petroleum Engineer

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

Commenced drilling March 8, 1962 Finished drilling August 6, 1962

OIL OR GAS SANDS OR ZONES

(Denote gas by G)

No. 1, from 6508 to 6516 (G) No. 4, from _____ to _____

No. 2, from 6575 to 6590 (G) No. 5, from _____ to _____

No. 3, from _____ to _____ No. 6, from _____ to _____

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		Purpose
							From—	To—	
<u>8-5/8</u>	<u>22.7</u>	<u>4</u>	<u>Halliburton</u>	<u>200</u>	<u>Plug</u>				
<u>4-1/2</u>	<u>10.5</u>	<u>4</u>	<u>Halliburton</u>	<u>1325</u>	<u>2 Stage</u>				

MUDDING AND CEMENTING RECORD

Size casing	Where set	Number sacks of cement	Method used	Mud gravity	Amount of mud used
<u>8-5/8</u>	<u>297</u>	<u>200</u>	<u>Halliburton 1 Plug</u>		
<u>4-1/2</u>	<u>6761</u>	<u>1325</u>	<u>2 Stage</u>		

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 6765 feet, and from _____ feet to _____ feet

Cable tools were used from _____ feet to _____ feet, and from _____ feet to _____ feet

DATES

Completed as Shut In Basin Dakota Field Shut In
August 28, 1962 Well Put to producing August 28, 1962

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

If gas well, MCF. per 24 hours 1762 Gallons gasoline per 1,000 cu. ft. of gas _____

Rock pressure, lbs. per sq. in. 1925

EMPLOYEES

K. R. Ryan, Driller R. H. Wisner, Driller

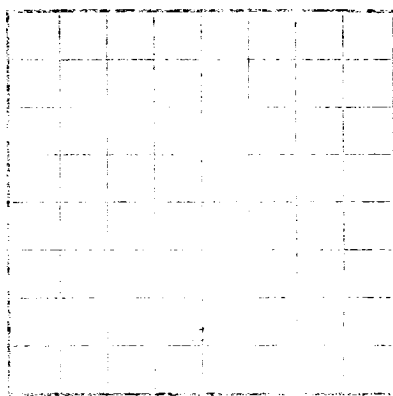
M. W. McDonald, Driller Donald Coleman, Driller

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
<u>0</u>	<u>297</u>	<u>297</u>	<u>Surface Casing point - Surface sand and shale</u>
<u>297</u>	<u>792</u>	<u>495</u>	<u>Ojo Alamo sand and shale</u>
<u>792</u>	<u>1742</u>	<u>950</u>	<u>Kirtland sand and shale</u>
<u>1742</u>	<u>2070</u>	<u>328</u>	<u>Fruitland sand and shale</u>
<u>2070</u>	<u>2190</u>	<u>120</u>	<u>Pictured Cliffs sand and shale</u>
<u>2190</u>	<u>3638</u>	<u>1448</u>	<u>Lewis shale</u>
<u>3638</u>	<u>4495</u>	<u>857</u>	<u>Mesaverde sand and shale</u>
<u>4495</u>	<u>5650</u>	<u>1155</u>	<u>Mancos shale</u>
<u>5650</u>	<u>6388</u>	<u>738</u>	<u>Gallup sand and shale</u>
<u>6388</u>	<u>6450</u>	<u>62</u>	<u>Greenhorn shale</u>
<u>6450</u>	<u>6497</u>	<u>47</u>	<u>Grajaeros Shale</u>
<u>6497</u>	<u>6590</u>	<u>93</u>	<u>Dakota pay sand</u>
<u>6590</u>	<u>6765</u>	<u>175</u>	<u>Dakota sand and shale</u>

LOG OF OIL OR GAS WELL

DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY
UNITED STATES



Company _____
Lessor or Owner _____
Well No. _____
Location _____
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 _____
Date _____
Title _____

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

Commenced drilling _____
Finished drilling _____

OIL OR GAS SANDS OR ZONES

(Depth in feet)

No. 1 from _____ to _____
No. 2 from _____ to _____
No. 3 from _____ to _____

IMPORTANT WATER SANDS

No. 1 from _____ to _____
No. 2 from _____ to _____

CASING RECORD

Size of casing	Weight per foot	Thickness of wall	Mark	Amount	Kind of steel	Run and pulled from	Reinforced	Purpose
							From— To—	

Notes 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 "backpacked" 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 pulling.

HISTORY OF OIL OR GAS WELL

MUDDING AND CEMENTING RECORD

Kind of mud	Kind of cement	Amount of mud used

PLUGS AND ADAPTERS

Plugs—Material _____
Adapters—Material _____
Length _____
Depth set _____

SHOOTING RECORD

Size	Weight	Explosive used	Depth shot	Depth cleared out

TOOLS USED

Rotary tools were used from _____ feet to _____ feet and from _____ feet to _____ feet.
Cable tools were used from _____ feet to _____ feet and from _____ feet to _____ feet.

DATES

The production for the first 24 hours was _____
It gas well, _____ cu. ft. per 24 hours
Rock pressure, lbs. per sq. in. _____
Emulsion, _____% water; and _____% sediment.
Barrels of fluid of which _____% was oil; _____%
Put to producing _____
Gallons gasoline per 1,000 cu. ft. of gas _____
Gravity, _____
For to producing _____

EMPLOYEES

Driller _____
Driller _____
Waterman _____
Driller _____

FORMATION RECORD

FROM—	TO—	TOTAL FEET	FORMATION
0	10	10	Gravel and sand
10	20	20	Gravel and sand
20	30	30	Gravel and sand
30	40	40	Gravel and sand
40	50	50	Gravel and sand
50	60	60	Gravel and sand
60	70	70	Gravel and sand
70	80	80	Gravel and sand
80	90	90	Gravel and sand
90	100	100	Gravel and sand
100	110	110	Gravel and sand
110	120	120	Gravel and sand
120	130	130	Gravel and sand
130	140	140	Gravel and sand
140	150	150	Gravel and sand
150	160	160	Gravel and sand
160	170	170	Gravel and sand
170	180	180	Gravel and sand
180	190	190	Gravel and sand
190	200	200	Gravel and sand
200	210	210	Gravel and sand
210	220	220	Gravel and sand
220	230	230	Gravel and sand
230	240	240	Gravel and sand
240	250	250	Gravel and sand
250	260	260	Gravel and sand
260	270	270	Gravel and sand
270	280	280	Gravel and sand
280	290	290	Gravel and sand
290	300	300	Gravel and sand
300	310	310	Gravel and sand
310	320	320	Gravel and sand
320	330	330	Gravel and sand
330	340	340	Gravel and sand
340	350	350	Gravel and sand
350	360	360	Gravel and sand
360	370	370	Gravel and sand
370	380	380	Gravel and sand
380	390	390	Gravel and sand
390	400	400	Gravel and sand
400	410	410	Gravel and sand
410	420	420	Gravel and sand
420	430	430	Gravel and sand
430	440	440	Gravel and sand
440	450	450	Gravel and sand
450	460	460	Gravel and sand
460	470	470	Gravel and sand
470	480	480	Gravel and sand
480	490	490	Gravel and sand
490	500	500	Gravel and sand
500	510	510	Gravel and sand
510	520	520	Gravel and sand
520	530	530	Gravel and sand
530	540	540	Gravel and sand
540	550	550	Gravel and sand
550	560	560	Gravel and sand
560	570	570	Gravel and sand
570	580	580	Gravel and sand
580	590	590	Gravel and sand
590	600	600	Gravel and sand
600	610	610	Gravel and sand
610	620	620	Gravel and sand
620	630	630	Gravel and sand
630	640	640	Gravel and sand
640	650	650	Gravel and sand
650	660	660	Gravel and sand
660	670	670	Gravel and sand
670	680	680	Gravel and sand
680	690	690	Gravel and sand
690	700	700	Gravel and sand
700	710	710	Gravel and sand
710	720	720	Gravel and sand
720	730	730	Gravel and sand
730	740	740	Gravel and sand
740	750	750	Gravel and sand
750	760	760	Gravel and sand
760	770	770	Gravel and sand
770	780	780	Gravel and sand
780	790	790	Gravel and sand
790	800	800	Gravel and sand
800	810	810	Gravel and sand
810	820	820	Gravel and sand
820	830	830	Gravel and sand
830	840	840	Gravel and sand
840	850	850	Gravel and sand
850	860	860	Gravel and sand
860	870	870	Gravel and sand
870	880	880	Gravel and sand
880	890	890	Gravel and sand
890	900	900	Gravel and sand
900	910	910	Gravel and sand
910	920	920	Gravel and sand
920	930	930	Gravel and sand
930	940	940	Gravel and sand
940	950	950	Gravel and sand
950	960	960	Gravel and sand
960	970	970	Gravel and sand
970	980	980	Gravel and sand
980	990	990	Gravel and sand
990	1000	1000	Gravel and sand