MAR 1956

Form 9-331 b
(April 1952)

Budget Bureau No. 42-R-359.3.
Approval expires 12-31-55.

(SUBMIT IN TRIPLICATE)

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Indian Agency Navajo

Allotted

Allottee Olin-hon-peh Thomas

Lease No. 14-20-603-53

SUNDRY NOTICES AND REPORTS ON WELLS

NOTICE OF INTENTION TO DRILL		SUBSEQUENT REPORT OF WATER SHUT-OFF	
NOTICE OF INTENTION TO CHANGE PLANS		SUBSEQUENT REPORT OF SHOOTING OR ACIDIZING	
NOTICE OF INTENTION TO TEST WATER SHUT-OFF		SUBSEQUENT REPORT OF ALTERING CASING	
NOTICE OF INTENTION TO REDRILL OR REPAIR WELL		SUBSEQUENT REPORT OF REDRILLING OR REPAIR	
NOTICE OF INTENTION TO SHOOT OR ACIDIZE		SUBSEQUENT REPORT OF ABANDONMENT	
NOTICE OF INTENTION TO PULL OR ALTER CASING		SUPPLEMENTARY WELL HISTORY	X
NOTICE OF INTENTION TO ABANDON WELL			

(INDICATE ABOVE BY CHECK MARK NATURE OF REPORT, NOTICE, OR OTHER DATA)

February 21st, 1956

Well No. 2 is located 990 ft. from {N/S} line and 990 ft. from {E/W} line of sec. 22

NE SW SW (¼ Sec. and Sec. No.) 22-North, 6 West (Twp.) (Range) N.M. P.M. (Meridian)

Wildcat (Field) Sandoval (County or Subdivision) New Mexico (State or Territory)

The elevation of the derrick floor above sea level is 7073 ft.

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DIST. 3

DETAILS OF WORK

(State names of and expected depths to objective sands; show sizes, weights, and lengths of proposed casings; indicate mudding jobs, cementing points, and all other important proposed work)

Set 400' of 10 3/4" 32.75# casing & cemented with 175 sack. Left in hole.

Set a 100' cement plug from 6325 to 6425 with 80 sacks.

Set 6310' of 5½" 15.50# J-55 csng. at 6300' & cemented w/250 sx.

over

I understand that this plan of work must receive approval in writing by the Geological Survey before operations may be commenced.

Company PLYMOUTH OIL COMPANY

Address 340 Silver State Bank Building
Denver, Colorado

By Curtis Hancock
Curtis Hancock

Title Regional Supervisor

U. S. GOVERNMENT PRINTING OFFICE 16—8437b-7

DST #1-1586-1624 - Open 1½ hrs. Shut in 30 min. Rec. 450' drilling mud. IFP 290#, FFP 290#, SIP 495#

DST #2 - Mis-run

DST #3-3628-3678 - Open 1¼ hrs. shut in 30 min. Rec. 100' drilling mud, 1100' slightly brackish & gas cut, water--IFP 300, FFP 580, SIP 1120

DST #4 - Mis-run

DST #5-3916-3966 - Open 2 hrs. Shut in 30 min. Rec. 15' free oil, 105' Oil & Gas cut drilling mud. IFP - 0, FFP 100, SIP 1040

DST #6-3966-4016 - Open 2 hrs. Shut in 30 min. Rec. 125' slightly gas cut drilling mud, 150' mud cut slightly salty & gas cut water.

DST #7-4062-4098 - Open 1 hr. shut in 30 min. Rec. 5' very slightly gas cut mud. IFP - 0, FFP - 0, SIP - 560

DST #8-5130-5175 - Open 1 hr. Shut in 30 min. Rec. 5' slightly oil cut mud. IFP - 0, FFP - 0, SIP - 0

DST #9 - Mis-run

DST #10-6056-6225- Open 1 hr. Shut in 1 hr. Rec. 1050' gas & water cut mud, 750' gas & mud cut water. IFP 450 FFP 900. SIP 2500.

DST #11-6128-6160- Open 3 hrs. 20 min. shut in 30 min. Gas to surface in 22 minutes. Rec. 180' water & gas cut mud, 1020' mud & gas cut water. IFP 125, FFP 400, SIP 2250.

DST #12-7118-7166- Open 45 min. Shut in 30 min. Rec. 500' muddy water 5500' black sulphur water. IFP 2550, FFP 2875, SIP 2900

Core #1-1461-1501- Rec. 17' dark grey shale with streaks of coal.

Core #2-1590-1624- Rec. 4' sandstone

Core #3-7120-7166- Rec. 2' brown anhydritic limestone. 44' grey sandstone.

SEE EXHIBIT "A" ATTACHED FOR PERFORATIONS AND FRACTURING DATA.

EXHIBIT "A"

COPY COPY COPY

TOMAS NO. 1 # SANDOVAL COUNTY, NEW MEXICO

PLYMOUTH OIL COMPANY

Ran 6310' 15.50# - 5½" casing, cemented with 250 sacks, with no returns. Put Baker staging tool on top of 100th joint from bottom, 150 sacks at 4080'. Ran temperature survey, found cement good on both jobs. Picked up tubing, measured in hole, found top of plug and float collar at 6280' by tubing measurements. Tubing being used 200 joints, 6275', 5 joints on back side of pipe rack not being used in string.

Perforations - bottom 6208 - 6222', 6 shots per foot jets. Upper perforations, 6128' - 6144', 6 shots per foot jets. Perforated by McCollough. These perforations were shot from Gamma-ray log. Ran Halliburton packer set at 6180' open packer, had good blow 30 min. and died. Prepared to acidize and sand frac. Ran 250 gallons of mud acid, pressured up and found communication between two perforations. Released packer from 6180'. Reset at 6095', broke down formation 3200# and fraced with 7500# sand, 7500 gallons water at 3200# pressure, 5-1/2 barrels per minute. Let set 12 hours and started swabbing. Ran swab about 10 times - swab sanded up in tubing. Released packer, came out of hole, went back in hole with bit, found top of sand 154' of bottom or 6124'. Cleaned out sand, ran packer back in hole, set packer 6095', started swabbing well 3000' down, tubing sanded up. Released packer, came out of hole, found 4 singles of tubing sanded completely up. Went back in with bit, found 25' of sand on bottom. Went back in hole with packer, set 6095', swabbed 22 hours, estimated 10 barrels per hour of salt water, with gas shows when pulling swab.

Released packer, came out of hole, set Baker bridging plug 6180', went back in hole with squeeze tool, set tool above top perforations and squeezed with 185 sacks, pressure 6000#, let cement set 24 hours, drilled out to top of plug, made dry test, had good blow 20 minutes and died. Left test tool open 1-1/2 hours closed tool, came out of hole, recovered 1600' salt water. Resqueezed perforations 6128'-6144' with 75 sacks, 6000# pressure, let set 24 hours and drilled out both retainers to total depth 6275'. Pulled out, ran Baker reamer in 5-1/2" casing to bottom. Pulled out, put on Halliburton packer, set 6180'. Open test tool had strong blow of air for 1 hour.

Rigged up and started swabbing. Swabbed 5 hours swabbed salt water, no oil or gas shows. Pulled out of hole with test tool, went back in hole with squeeze tool. Set tool 6190, squeezed perforations from 6208'-6222' with 190 sacks 4500# pressure. W.O.C. top cement plug 6185.

Drilled cement from 6185' to 6275'. Made dry test on perforations 6208'-6222' for 30 minutes with no blow. Perforated with McCullough jets, 4 shots per ft. from 6208' -6219', and from 6128'-6144'. Tested perforations 6208' -6219' with Halliburton H.M. packer. Tool opened 1/2 hour, no blow. Pulled out of hole and perforated with Lane Wells "M" gun with 50 holes from 6208'-6219'. Tested perforations with Halliburton H.M. packer. Tool open 1/2 hour with good blow.

Swabbed salt water with a trace of gas for 2 hours. Came out of hole with H. M. packer. Set D. M. bridge plug at 6195' and squeezed perforations 6208'-6219' with 46 sacks Halliburton slow-set cement with 4500# pressure. Set Halliburton H. M. packer at 6109' and tested perforations 6128'-6144'. Pulled two swabs and lost swab in hole. Reversed circulation and recovered salt water. Pulled H. M. Packer out of hole and went in hole with H. R. C. squeeze tool. Pumped out 40 sacks cement into formation with 3200' pressure, and squeeze tool started leaking, reversed out 60 sacks and came out of hole with tool. Drilled out to 6195' after 24 hours.

Perforated from 6128' - 6144' with 64 jet shots. Set Halliburton H. M. packer at 6109' and waited on swab unit for 15 hours. Swabbed well for 18 hours. Recovered salt water with trace of gas. Swabbed fluid from 4000'. Set Halliburton D. M. Bridge plug at 6109' and squeezed out 25 sacks cement w/4500# pressure into perforations 6128' -6144'. Perforated with 2 shots at 5686' and set H. R. C. squeeze tool at 5673' and squeezed out 75 sacks cement w/2000#. Set H.R.C. squeeze at 5567' and squeezed out 100 sacks cement into perforations 5660-5661' w/3800# pressure. Drilled out to 5711'. Set Halliburton hookwall packer at 5620' for dry test. Left tool open for 55 minutes, recovered 300' water. Shut in pressure, 785#, I.F. 45#, F.F. 130#. Set Halliburton D.M. squeeze packer at 5619' and squeezed out 145' [redacted] 5660' -5661' and 5686' -5687' w/5200#. Drilled out D.M. packer and cement to 5680'. Made dry test with Halliburton packer at 5637'.

Perforated from 5671' -5677' with 24 jet shots. Set Halliburton hookwall packer at 5655' to test perforations 5671' -5677'. Recovered 97' heavily oil cut water on 18 hour test. Set H.M. packer 5650' to sand frac perforations 5671'-5677', however, formation would not break down with 6000# pressure. Pulled out of hole and set Halliburton D.M. bridge plug at 5549. Squeezed with 25 sx. w/6,000#. Perforations 3922-3923' with 2 shots. Set Halliburton H.R.C. squeeze tool at 3873' and squeezed out 170 sacks cement into perforations 3922' -3923' w/3200# pressure. Drilled out to 3920' and perforated from 3912' -3918' with 24 jet shots. Set Halliburton test tool at 3883' and left tool open 7 hours. Recovered 216' sulphur water. I.F.P. 45#, FFP 90#, S.I.P.

Set Halliburton H.M. packer at 3883'. Broke formation w/3800# pressure. Pumped in at 3400#. Started Desil sand frac w/1/4# sand per gallon. When sand hit formation the sand blocked the perforations. Put 7200# on tubing, however, the formation would not take the frac. Pulled out of hole and washed to bottom. Set Halliburton H.M. packer at 3899' and swabbed at the rate of 1/2 barrel of water with 20% oil per hour for 51 hours. Set Halliburton D.M. bridge plug at 3857' and cemented w/50 sacks cement w/4600# pressure. Set cement plug from surface to 92', w/50 sx and filled space between 5½" casing and 10-3/4" w/cement.