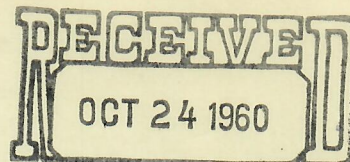




GRADY PERKINS

CHRONOLOGICAL COMPLETION REPORT

MOYER NO. 1



OIL & GAS  
CONSERVATION COMMISSION

C SW NW  
29-12N-56W  
WELD COUNTY, COLO.

ELEVATION: 4978' KB  
4970' GM  
CASING: 8 5/8"-237'-300 sax  
5 1/2"-.5.5#-6444'  
w/ 200 sax

1960

FOREWORD: Moyer No. 1 was originally drilled, logged, cored and a Drill Stem Test taken in December, 1959. The Drill Stem Test recovered only 165' of fluid of which 110' was oil and 55' was oil-cut mud in 2 hours. The bottom hole pressure was 1230#. The Core Analysis showed very low permeabilities and 9.8% porosity, 18.5% oil and 28.7% water. The well was, at that time, deemed to be a dry hole and it was plugged. Later, due mostly to the normal bottom-hole pressure, it was decided to return to the well, wash down the old hole, set casing, and attempt to make a producing well. Following, is a report of the work done and the results obtained:

March  
26-28

McDaniel Drilling Co. moved in Rotary Tools, rigged up and washed the old hole down to a Total Depth of 6444' KB. Conditioned hole and started to run 5 1/2" at 9:00 P.M. 3/28.

March  
29

Ran 214 joints 5 1/2" 15.5# Range 1-2-&3 casing, set at 6444' and cemented with 200 sax cement, 40% pozmix.

March  
31

Moved in Local Drilling Company Portable Rig, rigged up and swabbed hole dry; took 4 hour Dry Test and casing tested DRY. Drilled cement and Halliburton Plugs to 6429'.

April  
1

Iane Wells rigged up at 6:00 A.M. and took Gamma Ray-Collar Log; new Plug Back Total Depth showed 6429'. Perforated (98-E bullets) 6417'-6425' (8') 12 shots per foot. It had been anticipated that, due to the low permeabilities, the formation would have to be Vibra-Fracc'd to permit breaking the formation down; after perforating, hole was loaded with lease crude and Dowell Pump Truck broke formation down at 2800# to 1900# which eliminated the necessity of Vibra-Fracc'ing. This breakdown pressure was also indicative of fractures in the formation which, if they were not present, would have probably required at least 4000# pressure to break the formation due to the low permeabilities shown in core analysis.

April  
2

Swabbed load oil back and well swabbed 20 gallons free oil per hour; ran bailer and well clean. SAND FRACC'D.: with 20 gallons of Fre Flo (emulsion breaker in 50 barrels of lease crude plus 20 additional barrels lease crude plus 12,000# sand (11,000# 20/40 mesh and 1,000# 10/20 mesh) plus 400# Gyp Ban in 8,000 gallons Black Gold Frac Oil.) Breakdown Pressure 2900#-1900#; Treated @ 2400#-2500#; Final Pressure after pumps off 2300#-1600# to vacuum in 18 minutes. Input Rate 21.4 barrels per minute. Well owed 422 barrels lease crude and frac oil. Started to swab load oil back at 6:00 P.M.

April  
3

At 6:00 A.M., well had paid back 203 barrels of 422 owed. Ran sand pump, well clean to bottom; slight show of water when swabbed down to 5200'; at 8:30 A.M., well was swabbing from 6400', had repaid total of 240 barrels of 422 owed; rate then fell off to 3 barrels per hour, fluid, 90% oil, 10% water. Good gas volume. It was decided to shut down at 6:00 P.M. and start swabbing back load oil daylights, 12 hours per day, letting well fill up overnight to cut costs and to obtain information as to 12 hour fill-up. At this time, well owed 156 barrels load oil, and filled up overnight and swabbed as follows:

	<u>Overnight</u>	<u>Hours</u>	<u>Swabbed During Day</u>	<u>Oil</u>	<u>Water</u>	<u>B.S.</u>
April 4	20	13	37 - 11 hours	57	8.4	0
April 5	15	14	28 - 10 "	43	3.5	0
April 6	13	14	33 - 10 "	46	13.	0
April 7	10	14	-	10	2.	0

Load Oil all paid back



Grady Perkins  
Moyer No. 1  
Completion Report  
Sheet 2.

April  
7  
(cont'd)

It was estimated that all the load oil had been paid back at 7:00 A.M.; however, water had not completely settled out of oil already swabbed and, from 7:00 A.M. to 2:00 P.M. (7 hours) well swabbed at rate of 3 barrels per hour, 20% water. At 2:00 P.M., from the behavior of the well, it was now figured that the load oil was all paid back and a 21-hour hourly swab test was taken with the following results:

	Hour	Barrels Fluid	Hours	Oil	Water & B.S.
April 7	2 - 12 PM	25	10	15	10
April 8	12 - 11 AM	27	11	16	11
	Total	52	21	31	21
Hourly Average - 21 hours., 2.5 barrels, Fluid - 1.5 Boil - 1 BWater					

There was a good show of gas throughout test.

At 11:00 A.M. Friday, April 8, it was apparent that the well had been tested sufficiently to determine that the results did not warrant further testing; that the well was non-commercial and would never pay out the cost of producing it. Consequently, the Cable Tools were released at 1:00 P.M. and well was abandoned.

REMARKS:

The fact that the well paid back the greater part of the load oil used to sand-frac the well at a good rate proved that the bottom-hole pressure was normal, approximately 1200 pounds.

A good show of gas throughout the test after sand-frac, although there was practically no gas before, indicated that the frac job was successful. During the test, when the well was shut down overnight, the average fill-up for 12 hours was 300' of fluid with gas breaking through; this was disappointing and indicated that although the bottom hole pressure was normal, there was not sufficient fluid in the formation to permit the normal fill-up which should have been over 2000 feet at 1210 pounds BH Pressure.

The behavior of the sand-frac job as shown by the pressures encountered proved, as the Core Analysis indicated, that the formation was highly fractured. As a result, the sand-oil treatment followed the fractures and did not create additional permeability in the formation for that reason.

It is my opinion that the decision to set casing and attempt to make a producing well was a logical one, and it is unfortunate that the results proved the well to be non-commercial.

Ferd H. Sabourin  
Petroleum Production Consultant  
66 South Allison  
Denver 26, Colorado

April 10, 1960