

19-10-23

J. R. GREEN  
PETROLEUM GEOLOGIST  
P. O. BOX 503 - HAYS, KANSAS 67601  
913-625-9023



November 29, 1971

GEOLOGIC REPORT

Don Pratt Bill Klink No. 1  
1320 feet east of west line and  
440 feet north of the south line  
of the SW/4 19-10-23W  
Graham County, Kansas  
Commenced: 11/22/71  
Completed: 11/29/71

Pipe Record:  
8 5/8 @ 202' w/135 sacks  
4 1/2 @ 4031' w/200 sacks  
Anhydrite: 2038-75  
Drilled by: Dreiling Rig 1

ELEVATION 2428 K.B.

2423 Ground

2425 D.F.

FORMATION DATA

(Corrected to Welex Log)

<u>FORMATION</u>	<u>MINUS DATA</u>	<u>DEPTH</u>
Topeka . . . . .	-1096 . . . . .	3524
Heebner . . . . .	-1312 . . . . .	3740
Toronto . . . . .	-1333 . . . . .	3761
Lansing . . . . .	-1345 . . . . .	3773
Kansas City Base . . . . .	-1580 . . . . .	4008
Total Depth . . . . .	-1628 . . . . .	4056

Cores: None  
Drill Stem Tests: Four (No corrections necessary)  
Electric Logs: Welex Radiation-Guard-Frac Log

FORMATION DESCRIPTION

(Depths corrected to Welex Log)

NOTICE: Several up the hole zones have excellent porosity which should be examined in future wells. 3005-22 (17 feet) had 25 to 35% porosity and 28 to 34% water, with good wall cake. 3056-78 (22 feet) calculates 22 to 40% porosity and 13 to 38% water. These may carry gas. I examined the samples from 3100 to T.D. and did not find any shows of consequence in these upper benches but without prepared muds they may have been lost. Welex has these calculations: 3132-36 22% porosity 38% water, 3210-15 17% porosity 27% water, and 3266-70 16% porosity 38% water.

Topeka 3524-3740:

3646-58 Oolitic, oolitic barren (may be gas) limestone that calculates 16 to 32% porosity and 20 to 42% water. 3687-89 tiny oolitic and vugular soft mealy barren limestone that calculates 17% porosity and 30% water. 3706-14 sucrosic mealy limestone, 28 to 35% porosity and 45 to 48% water.



Don Pratt Bill Klink No. 1  
 1320 feet east of west line and  
 440 feet north of the south line  
 of the SW/4 19-10-23W  
 Graham County, Kansas

Toronto 3761-70:

Minor vugular and intercrystal porosity limestone with dark spotted staining that calculates 12 to 15% porosity and 33 to 42% water from 3761-64 and wet below this. A trip at 3765 may have scattered the oil shows. I do not believe it would pay to perforate these 3 feet.

Lansing-Kansas City 3773-4008:

A Bench 3773-3800 Ample tight oolitic, fossiliferous vugular spotted stained to leached limestone some broken with free oil. The top four feet calculates 7 to 14% porosity and over 50% water but since it is slightly fractured it may be better than this. I would not test this until future wells show positive results in this bench.

B, C, D Bench, 3806-41 There is at the most a 6 inch shale divider in this bench at 3812. This calculates 7 to 11% porosity and 36 to 62% water from 3806-12 and is fractured. 3813-20 calculates 9 to 16% porosity and 28 to 42% water. I split this zone in half on D.S.T. No. 1 and 2. Samples indicate excellent fossiliferous and oolitic porosity with free oil and good odor. I cut three feet of this and circulate for D.S.T. No. 1 and then found two additional feet of the same when we started drilling deeper for D.S.T. #2. Test 3814-17.

Drill Stem Test No. 1 3766-3816:

Open one hour, recovered 120 oil cut mud, 180 feet of slightly oil cut water and 120 feet of muddy water with 600 feet of gas on top, flow pressures 96 to 303 pounds, 30 minute initial bottom hole pressure 1062 pounds, 30 minute final bottom hole pressure 985 pounds.

Drill Stem Test No. 2 3815-44:

Open one hour recovered 30 feet of oil cut mud and 285 feet of water with 240 feet of gas on top, 30 minute initial bottom hole pressure 975 pounds, 30 minute final bottom hole pressure 954 pounds, and flow pressures 40 to 185 pounds.

NOTICE: The water on D.S.T. No. 1 could be from the Toronto to the top 6 feet of B, C, D. On D.S.T. No. 2 it may be from the base of B, C, D or possibly the top packer only held allowing water, if there was any, from 3810-12 to come in.



Don Pratt Bill Klink No. 1  
 1320 feet east of west line and  
 440 feet north of the south line  
 of the SW/4 19-10-23W  
 Graham County, Kansas

E, F, G Bench 3855-99 Minor fossiliferous, oolitic limestone with traces of free oil and spotted staining that calculates 15 to 19% porosity and 42 to 52% water from 3855-65 and 10% porosity and 22% water from 3865-69. The only shale stringer in this bench is 12 inches thick from 3869-70. I do not believe this can be produced commercially.

H Bench 3912-28 Traces of free oil and spotted staining in fine crystalline limestone thru out this bench that does not calculate.

I Bench 3933 -42 Adequate fine crystalline oolitic, fossiliferous and vugular porosity limestone with free oil and spotted staining. This calculates 14½ to 11% porosity and 21 to 40% water from 3933-39. The bottom two feet calculates wet but did not give up any water on D.S.T. No. 3. Test.

Drill Stem Test No. 2 3902-50:

Open 90 minutes, recovered 125 feet of heavy oil cut mud with 240 feet of gas on top, 30 minute initial bottom hole pressure 800 pounds, 30 minute final bottom hole pressure 780 pounds, flow pressures 48 pounds.

J Bench 3950-64 Very minor broken vugular porosity limestone with free oil. This calculates 11 to 16% porosity and 38 to 42% water from 3950-54. Test.

K Bench 3970-86 Trace to very minor lignite and asphalt stained fine crystalline limestone that calculates 10 to 14% porosity and 42 to 50% water from 3770-78. This does not look good in the samples or on Welox log but probably should be tested.

Drill Stem Test No. 4 3946-89:

Open 90 minutes, recovered 35 feet of oil cut mud, 60 feet of heavy oil cut mud, and 180 feet of mud cut oil with 120 feet of gas on top, 30 minute initial bottom hole pressure 1216 pounds, 30 minute final bottom hole pressure 1183 pounds, flow pressure, 72 to 194 pounds.


Don Pratt Bill Klink No. 1  
1320 feet east of west line and  
440 feet north of the south line  
of the SW/4 19-10-23W  
Graham County, Kansas

L Bench 3993-4008 Traces to very minor spotted stained  
limestone that calculates 10 to 17% porosity and 38 to 54%  
water from 3993-4000.

RECOMMENDATIONS

My recommendations may be found with the descriptions. This  
well correlates better with producing wells in 12-10-24W than it  
does with producing wells in 17 and 20 of 10-23W.

Respectfully submitted,

  
J. R. Green

JRG/gc

