

# BECKER OIL CORPORATION

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Geological Report  
Becker Oil Corporation  
#1 Barricklow  
C NW NE SW  
Section 4-21S-21W  
Hodgeman County, Kansas

May 31, 2000

Spud: May 17, 2000  
Drlg Com; May 21, 2000  
Csg Set May 22, 2000

Csg: 8 5/8" set at 249 ft., KB, cmt. w/ 160 sx  
4 1/2" set at 2449 ft. KB, cmt. w/ 550 sx

Gr. Elev. 2199  
KB Elev. 2204

## Formation Tops

Cheyenne SS	275	(+1929)
Blaine Anhydrite	698	(+1506)
Cedar Hills SS	790-1048	(+1414)
Stone Corral Anhydrite	1353	(+851)
Base Anhydrite	1388	(+816)
Wellington Group	1758	(+446)
Chase Group	2255	(-51)
Krider	2280	(-76)
Winfield	2338	(-134)
Towanda	2411	(-207)
TD (drlr)	2450	(-246)
TD (log)	2449	(-245)

DST #1 2256-2320 Herrington, Upper and Lower Krider  
times 15/30/60/75

IF: weak, 1/2" blow thruout - (tool was plugged)

FF: strong blow, bottom of bucket in 30 seconds

GTS - 13 minutes, 66 MCFPD - 15 minutes, 178 MCFPD - 25 minutes, 169 MCFPD - 30 min,

183 MCFPD - 35 min, 188 MCFPD - 40 min, 207 MCFPD - 50 min, 221 MCFPD - 58 min.

Recovery: 190 feet of GCM

IHP 1210

IFP invalid, 157 - initial

ISIP 612

FFP 133-246

FSIP 621

FHP 1174

BTU value 618 (Sat), 629 (Dry)

DST #2 2339-2374 Winfield

Times 20/40/40/60

IF: 1" blow, built to bottom in 3 minutes, GTS in 15 minutes – 27 MCFPD

FF: GTS, 35 MCFPD – 10 minutes, 21 MCF – 30 minutes, 27 MCF – 40 minutes

Recovery: 130 feet G & WCM (30% gas, 30 % water)

360 feet MCW (10% mud)

cl. 92,000 ppm tester 100,000 ? – total no mudman check

system: 76,000 ppm

IHP 1291

IFP 218-243 (partial plugging)

ISIP 669

FFP 93-196

FSIP 663

FHP 1238

BTU value 618 (Sat), 629 (Dry)

DST #3 2413-2450 Towanda

Times 15/30/45/60

IF: weak 1/4" blow built to 1 1/2"

FF: surface blow, built to 4"

Recovery: 120 feet of GIP

20 feet GCM

IHP 1231

IFP 6-2

ISIP 93

FFP 18-18

FSIP 266

FHP 1286

The #1 Barricklow came in a few feet lower than expected running five feet low on the Krider member of the Chase Group to the highest well on the structure in the SE NW of section 4.

The first show in the #1 Barricklow came from an 18 foot drilling break (2282-2300) in the upper Krider. A gas increase (4 units-hotwire, 38 units – Chromatograph) corresponded to this zone. Samples showed very fine crystalline, slightly sandy, dolomite with slight visible intercrystalline and some pinpoint vuggy porosity.

An eight foot drilling break was encountered in the lower Krider (2308-2316). A gas increase ( 2 units-hotwire, 24 units – Chromatograph) seemed to correlate with the drilling break. Samples showed dense to fine to medium crystalline dolomite with poor to fair intercrystalline porosity and abundant vuggy porosity.

DST #1 was run to test the upper and lower Krider. Only a weak 1/4" blow was seen during the first opening of the tool, however when the tool was opened the second time it became unplugged, with an immediate strong and surging blow. Gas reached the surface in 13 minutes at a rate of 66 MCFPD. I believe that the gas rate during the rest of the test possibly shows gas coming from two zones. The rate seemed to try to plateau at 170 to 180 MCFPD from 25 to 35 minutes, then began building at a faster rate reaching close to 240 MCFPD before the tool was shut-in. DST charts indicate very good reservoir quality.

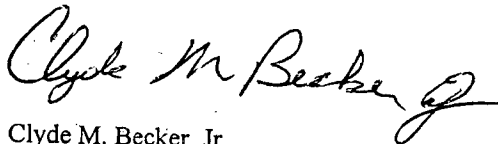
The Neutron - Density log shows fifteen feet of 18 to 25% density porosity in the upper Krider with twelve feet of pronounced crossover-gas effect. After seeing this large amount of crossover I re-examined the samples and decided that the zone may be slightly sandy which may account for some of the crossover, which is really too much crossover for a dolomite on a limestone matrix log. The lower Krider shows about twelve feet of porosity in a radioactive dolomite with five feet (2311-2316) trying to show gas effect.

An fourteen foot strong drilling break (2338-2352) was encountered in the upper Winfield. A gas increase (19 units-hotwire, 70 units-Chromatograph) corresponded to this zone. Samples showed fine crystalline dolomite with poor to fair intercrystalline porosity and occasional pinpoint vuggy porosity. DST #2 was run to test this zone. The test recovered gas to surface in 15 minutes at a rate of 27 MCFPD. The rate increased to 35 MCFPD, 10 minutes into the second flow, declined to 20 MCFPD at 20 minutes then increased to 27 MCFPD by the end of the test. Pipe recovery was 130 feet of gas and water cut mud and 360 feet of mud cut water. Chlorides of the water were 92,000 ppm by the testers measurement. By the mud engineers measurement the chlorides would have been 100,000 + ppm, whereas the mud system had 76,000 ppm indicating that the water recovered was largely formation water. The DST charts indicate good reservoir quality.

Logs show fourteen feet of the best porosity (24-29% density porosity) on top of another 30 feet of lesser porosity. The top two feet shows crossover-gas effect and it appears that there is an eight foot gas column (2339-2347) on top of water.

Two drilling breaks were seen in the Towanda. Samples showed dolomite with questionable porosity. Unfortunately the gas detector was not working at this point. DST #3 was run to test the Towanda. It recovered 120 feet of gas in pipe and 20 feet of gas cut mud with poor looking pressures on the DST chart. Logs show a two foot and a three foot porosity streak with a little crossover-gas effect for one foot on the log (repeat section only). This porosity is lower than on some of the offset wells so this zone should produce somewhere on the structure.

I recommend that the top four feet of the Winfield (2338-2342) be perforated and tested to see if it can economically produce and then to perforate the upper and lower Krider (2284-2298 and 2306-2316). Depending on what we find in offsets we may want to test to Towanda at a future date.



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