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Geological Report

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RUSSELL OIL, INC.

No. 2 Quint "A"
1680' FSL & 1770' FEL
Section 19-8S-22W
Graham County, Kansas

Todd E. Morgenstern
Petroleum Geologist
Sunflower Bank Building
P.O. Box 251
Ellinwood, Kansas 67526

OPERATOR: Russell Oil, Inc.

WELL: No. 2 Quint "A"
API # 15-065-22950-00-00

LOCATION: 1680' from the South Line
1770' from the East Line
Section 19-8S-22W
Graham County, Kansas

FIELD: Hill City East

CONTRACTOR: Shields Drilling Inc.

DRILLING COMMENCED: 2-18-2004

DRILLING COMPLETED: 2-26-2004

DRILLING TIME: One (1) foot drilling time was recorded
from 3100' to 3720' RTD.

SAMPLES: Samples were saved and examined from
3100' to 3720' RTD.

ELEVATIONS: 2168' Ground Level 2173' Kelly Bushing

MEASUREMENTS: All depths are measured from 2173' K.B.

CASING RECORD: 8 5/8" Surface Casing set @ 210' with 160 sxs. 60/40 poz
5 1/2" Production Casing @ 3715' with sxs. ASC

FORMATION TESTING: Four (4) Tests were run by Trilobite Testing Inc.
John Schmidt, Tester

MUD: Mud-Co. (Chemical Mud)

OPEN HOLE LOGS: Log-Tech Inc. (CNL, CDL, DIL, MEL, Sonic)
Butch Drylie (Engineer)

PRODUCTION: Oil (Lansing-Kansas City)

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FORMATION TOPS:

FORMATION	SAMPLE	LOG	DATUM
ANHYDRITE	1791'	1791'	+ 382'
BASE ANHYDRITE	1824'	1824'	+ 349'
TOPEKA	3171'	3172'	- 999'
HEEBNER SHALE	3389'	3391'	-1218'
TORONTO	3409'	3413'	-1240'
LANSING	3424'	3426'	-1253'
BASE KANSAS CITY	3647'	3644'	-1471'
ROTARY TOTAL DEPTH	3720'	xxxx	-1547'
LOG TOTAL DEPTH	xxx'	3723'	-1550'

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SAMPLE DESCRIPTIONS AND TEST DATA:

TOPEKA:

3206-3215 Limestone, white and tan, finely crystalline, slightly fossiliferous, chalky, no shows of oil were noted.

3340-3346 Limestone, buff, finely crystalline, oolitic and fossiliferous, with very good visible porosity, no shows of oil were noted.

3358-3365 Limestone, as above.

TORONTO:

3414-3422 Limestone, tan and cream, very finely crystalline, mostly dense, slightly cherty, with poor visible porosity, no shows of oil were noted.

LANSING:

3428-3440 Limestone, cream and tan, dense to finely crystalline, oolitic, with fair visible interoolitic and pinpoint porosity, light spotted staining, slight show of oil on break, no odor. (Covered by D.S.T.'s No. 1 & 2)

3460-3467 Limestone, white and gray, dense to finely crystalline, slightly oolitic, cherty in part, with trace of oolitic porosity, very slight show of oil, some dark oil staining, no show of free oil, light odor. (Covered by D.S.T.'s No. 1 & 2)

FORMATION TEST NO. 1

Lansing-K.C. "35"

Tested from 3416'-3468'

TOOL SLID 10' TO BOTTOM - PLUGGING - MIS-RUN

FORMATION TEST NO. 2

Lansing-K.C. (35')
 Tested from 3418'-3468'

		I.H.P.	1671#
<i>Weak building to 5" blow</i>	45 min.	I.F.P.	39# -107#
<i>No blow-back</i>	45 min.	<u>I.S.I.P.</u>	<u>1076#</u>
<i>Weak building to 3" blow</i>	45 min.	F.F.P.	111# -160#
<i>No blow-back</i>	45 min.	<u>F.S.I.P.</u>	<u>1066#</u>
		F.H.P.	1637#

RECOVERY: 180' Slightly Oil Cut Watery Mud
 135' Muddy Salt Water
 315' Total Liquid Recovery

TEMPERATURE: 100*

CHLORIDES: 60,000 ppm (Recovery) 1,000 ppm (System)

3476-3482 Chert, tan, bone and white, mostly fresh, with poor visible porosity, no edge staining, no show of free oil, no odor.

3496-3500 Limestone, white and gray, finely crystalline, oolitic and slightly fossiliferous, with fair to good visible interoolitic porosity, fair staining and saturation, very slight show of oil on break, light odor. (Covered by D.S.T. No. 3)

3502-3506 Limestone, white and gray, finely crystalline, oolitic, with good visible interoolitic and slightly pinpoint vugular porosity, fair show of free oil, gassy, dark staining and saturation, light odor. (Covered by D.S.T. No. 3)

FORMATION TEST NO. 3

Lansing-K.C. (70' - 90')
 Tested from 3482'-3507'

		I.H.P.	1689#
<i>B.O.B. in 30 sec.</i>	45 min.	I.F.P.	14# -124#
<i>Weak surface blow back</i>	60 min.	<u>I.S.I.P.</u>	<u>907#</u>
<i>B.O.B. in 37 sec.</i>	45 min.	F.F.P.	130# -175#
<i>Good blow back ½"</i>	60 min.	<u>F.S.I.P.</u>	<u>897#</u>
		F.H.P.	1644#

RECOVERY: 150' Gas in Pipe
 260' Gassy Mud Cut Oil
 150' Oil Cut Muddy Water
 410' Total Liquid Recovery

TEMPERATURE: 106*

CHLORIDES: 90,000 ppm (Recovery) 1,200 ppm (System)

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- 3560-3565 Limestone, white and cream, very finely crystalline, fossiliferous, with poor visible interparticle porosity, slightly chalky, fair spotted staining, very slight show of gassy, free oil on break, no odor. (Perforate and test this zone before abandoning.)
- 3582-3587 Limestone, tan, buff and brown, oolitic and fossiliferous, with good interoolitic and interfossiliferous porosity, vugular and pinpoint, good staining and saturation, fair show of free gassy oil, light odor. (Covered by D.S.T. No. 4)

<u>FORMATION TEST NO. 4</u>			
Lansing-K.C. (160')			
Tested from 3567'-3589'			
		I.H.P.	1772#
B.O.B. in 1 min.	45 min.	I.F.P.	119# -488#
B.O.B. in 8 min.	60 min.	<u>I.S.I.P.</u>	<u>1038#</u>
B.O.B. in 1 min.	45 min.	F.F.P.	506# 699#
B.O.B. in 11 min.	90 min.	<u>F.S.I.P.</u>	<u>1022#</u>
		F.H.P.	1675#
RECOVERY:	1400' Gas in Pipe <u>2000' Gassy Oil</u> 2000' Total Liquid Recovery		
TEMPERATURE:	112*		
CHLORIDES:	N/A ppm (Recovery) 1,200 ppm (System)		

- 3599-3606 Limestone, white and cream, dense, very finely crystalline, chalky, with poor visible porosity, rare spotted staining, very slight show of oil on break, oil appears dead, no odor.
- 3620-3628 Limestone, gray and white, finely crystalline, slightly fossiliferous, chalky, with fair visible porosity, some dark staining, very slight show of oil on break, no odor.
- 3634-3638 Limestone, gray and white, dense, finely crystalline, chalky, slightly oolitic, with white chert, poor visible porosity, no shows of oil were noted.

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DRILLING RECORD:

Date Daily Drilling Record

2-18-04 Moved in and rigged up. Spud well. Set 8 5/8" surface casing @ 210' w/ 160 sxs.
2-19-04 WOC
2-20-04 Drilling at 1221' @ 7:00 a.m.
2-21-04 Drilling at 2370' @ 7:00 a.m.
2-22-04 Drilling at 3020' @ 7:00 a.m.
2-23-04 Depth at 3467'. Ran DST No.'s 1 & 2.
2-24-04 Circ. @ 3478'. Ran DST No. 3.
2-25-04 Circ @ 3589'. Ran DST No. 4
2-26-04 RTD @ 3723'. Ran Open Hole Logs and set 5 1/2" production casing.

STRUCTURAL COMPARISION:

	Russell Oil No. 2 Quint "A" 1680' FSL & 1770' FEL Sec. 19-8S-22W OIL	M.C. Hoover Quint No. 1 SW NW SE Sec. 19-8S-22W Oil	Russell Oil Quint A No. 1 SE SW SE Sec. 19-8S-22W
ANHYDRITE	+ 382'	+ 385'	+ 390'
BASE ANHYDRITE	+ 349'	+ 353'	+ 354'
TOPEKA	- 999'	- 997'	- 995'
HEEBNER SHALE	-1218'	-1215'	-1212'
TORONTO	-1240'	-1237'	-1234'
LANSING	-1253'	-1251'	-1247'
BASE KANSAS CITY	-1471'	-1470'	-1466'

SUMMARY:

The No. 2 Quint "A" was under geological supervision from 3150' to 3720' RTD. With the positive results of DST No.'s 2 and 3, and after reviewing the open hole logs it was decided to run 5 1/2" production.

Recommended Perforations

Lansing- K.C. 3582'-3586'

Respectfully submitted,


Todd E. Morgenstern

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