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ORIGINAL

GEOLOGICAL REPORT

for



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KANSAS CORPORATION COMMISSION
MAR 21 2035
CONSERVATION DIVISION
WICHITA, KS

PIONEER RESOURCES

15-065-23024

No. 1 Melanie
570' FNL & 1050' FEL
Section 15-8S-23W
Graham County, Kansas

W2 NE NE 570 FNL 1050 FEL



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15-8-23W

OPERATOR: Pioneer Resources

WELL: No. 1 Melanie
API # 15-065-23,024-00-00

ORIGINAL

LOCATION: 570' FNL & 1050' FEL
Section 15-8S-23W
Graham County, Kansas

FIELD: Hilger (Ext.)

CONTRACTOR: Shields Drilling, Inc.

DRILLING COMMENCED: 1-20-2005

DRILLING COMPLETED: 1-28-2005

DRILLING TIME: One (1) foot drilling time was recorded
from 3150' to 3730' RTD.

SAMPLES: Samples were saved and examined from 3200'
to 3730' RTD.

ELEVATIONS: 2208' Ground Level 2213' Kelly Bushing

MEASUREMENTS: All depths are measured from 2213' K.B.

CASING RECORD: 8 5/8" Surface Casing set @ 209' with sxs. 60/40 poz
5 1/2" Production Casing set @ ' with sxs. ASC

FORMATION TESTING: Three (3) tests were run by Trilobite Testing, Inc.
Dan Bangle, Tester

MUD: Mud-Co., Inc. (Chemical Mud)

OPEN HOLE LOGS: Log Tech (CNL/CDL, DIL, MEL, SONIC)
Eric McQuade, Engineer

PRODUCTION: Oil

FORMATION TOPS:

FORMATION	SAMPLE	LOG	DATUM
ANHYDRITE	1862'	1864'	+ 349'
BASE ANHYDRITE	1894'	1895'	+ 318'
TOPEKA	3230'	3232'	-1019'
HEEBNER	3441'	3443'	-1230'
TORONTO	3466'	3468'	-1255'
LANSING	3482'	3487'	-1274'
BASE KANSAS CITY	3698'	3700'	-1487'
ROTARY TOTAL DEPTH	3730'	*****	-1517'
ROTARY TOTAL DEPTH	*****	3734'	-1521'

SAMPLE DESCRIPTIONS AND TEST DATA:

TOPEKA:

3396-3400 Limestone, buff and tan, finely crystalline, finely oolitic, with good visible interparticle porosity, slightly chalky, no shows of oil were noted.

TORONTO:

3468-3478 Limestone, tan and buff, finely crystalline, fossiliferous and finely oolitic, with fair to good visible porosity, chalky in part, some minor white opaque chert, no shows of oil were noted.

LANSING:

3488-3493 Limestone, white and gray, fossiliferous and slightly oolitic, with fair visible interfossiliferous porosity, no shows of oil were noted.

3518-3524 Limestone, gray, tan and white, fossiliferous in part, with fair to good visible interparticle and pinpoint porosity, very slight show of free oil on break, slight scattered staining and saturation, questionable odor. (Covered by D.S.T. No. 1)

FORMATION TEST NO. 1

Lansing-Kansas City (35')
Tested from 3504' - 3526'

		I.H.P.	1714#
Strong blow B.O.B. in 7 min.	30 min.	I.F.P.	39# -253#
Weak surface blow-back	45 min.	<u>I.S.I.P.</u>	<u>740#</u>
Strong blow B.O.B. in 12 min.	30 min.	F.F.P.	258# -340#
Weak surface blow-back	45 min.	<u>F.S.I.P.</u>	<u>733#</u>
		F.H.P.	<u>1667#</u>

RECOVERY: 110' Gas in Pipe
10' Clean Oil
600' Water
610' Total Liquid Recovery

TEMPERATURE: 108*

CHLORIDES: 48,000 p.p.m. (Recovery), 800 p.p.m. (System)

- 3535-3540 Limestone, white and gray, finely crystalline, mostly dense, with poor intercrystalline porosity, oolitic in part, no shows of oil were noted.
- 3552-3558 Limestone, white, tan and gray, finely crystalline, fossiliferous and slightly oolitic, with fair visible interfossiliferous and slightly pinpoint vugular porosity, fair spotted staining and saturation, slight show of free oil on break, no odor. (Covered by D.S.T. No. 2)

FORMATION TEST NO. 2

Lansing-Kansas City (70')
Tested from 3536'-3558'

		I.H.P.	1738#
<i>Weak steady surface blow</i>	30 min.	I.F.P.	54# -55#
<i>No blow-back</i>	30 min.	<u>I.S.I.P.</u>	<u>696#</u>
<i>Weak steady surface blow</i>	30 min.	F.F.P.	58# -66#
<i>No blow-back</i>	30 min.	<u>F.S.I.P.</u>	<u>629#</u>
		F.H.P.	1716#

RECOVERY: 60' Gas in Pipe
5' Clean Oil
120' Mud Cut Oil
125' Total Liquid Recovery

TEMPERATURE: 94*

CHLORIDES: N/A p.p.m. (Recovery), 1,000 p.p.m. (System)

- 3618-3628 Limestone, gray and white, finely crystalline, mostly dense, slightly oolitic, with poor visible interparticle porosity, chalky in part, with rare scattered staining, no show of free oil, no odor.
- 3639-3644 Limestone, white and tan, very finely crystalline, dense, slightly fossiliferous, with poor visible porosity, scattered staining and saturation, very slight show of free oil on break, no odor. (Covered by D.S.T. No. 3)
- 3654-3657 Limestone, tan, oolitic and fossiliferous, with poor to fair visible interparticle porosity, vugular in part, fair staining and saturation, slight show of free oil on break, fair odor. (Covered by D.S.T. No. 3)

FORMATION TEST NO. 3

Lansing-Kansas City (160' & 180')
Tested from 3624'-3657'

		I.H.P.	1794#
<i>Weak building to 8 inches</i>	60 min.	I.F.P.	40# -116#
<i>Weak blow-back</i>	45 min.	<u>I.S.I.P.</u>	<u>931#</u>
<i>Weak building to 8 inches</i>	60 min.	F.F.P.	123# -167#
<i>Weak blow-back</i>	90 min.	<u>F.S.I.P.</u>	<u>1092#</u>
		F.H.P.	<u>1808#</u>

RECOVERY: 320' Gas in Pipe
310' Clean Gassy Oil
120' Mud Cut Oil
430' Total Liquid Recovery

TEMPERATURE: 107*

CHLORIDES: N/A p.p.m. (Recovery), 1,100 p.p.m. (System)

3676-3683 Limestone, white and cream, finely crystalline, dense, slightly chalky, with rare intercrystalline porosity, slightly vugular, trace of dead staining, no show of free oil, no odor.

STRUCTURAL COMPARISON:

	Pioneer Resources No. 1 Melanie 570' FNL, 1050' FEL Sec. 15-8S-23W Oil	Pioneer Resources No. 1 Jones "A" 465' FNL & 1650' FWL Sec. 15-8S-23W Oil	Pioneer Resources No. 1 Jones NE-SE-NE Sec. 16-8S-23W Oil
ANHYDRITE	+ 349'	+ 350'	+ 352'
TOPEKA	-1019'	-1019'	-1012'
HEEBNER	-1230'	-1224'	-1220'
TORONTO	-1255'	-1250'	-1246'
LANSING	-1274'	-1267'	-1263'
BASE KANSAS CITY	-1487'	-1478'	-1472'

SUMMARY:

The No. 1 Melanie was under geological supervision from 3200' to 3730' RTD. With the positive results of drill stem test No. 3, it was decided to run 5 1/2" production casing and complete this well through perforations.

Recommended Perforations

3654'-3657'

3641'-3644'

3557'-3560'

Respectfully submitted,

Todd E. Morgenstern