

**BEREXCO, LLC.
LILLIE #2-26
NWNW SECTION 26 1S-36W
RAWLINS COUNTY, KANSAS**

**GEOLOGIST:
WILLIAM B. BYNOG**

RESUME

OPERATOR: BEREXCO, LLC.

WELL NAME & NUMBER: LILLIE #2-26

LOCATION: NWNW 26 1S-36W

COUNTY: RAWLINS

STATE: KANSAS

SPUD DATE: 2-23-2014 COMPLETION: 3-6-2014

ELEVATIONS: GL: 3274' KB: 3285'

CONTRACTOR: BEREDCO RIG 10

LOGS: LOG TECH TYPES: RAG, MICROLOG

WELLSITE ENGINEER: NONE

MUD COMPANY: MORGAN MUD

MUD TYPE & ENGINEER: FRESH CHEMICAL

GEOLOGIST: WILLIAM B.BYNOG

HOLE SIZE: 7 7/8

DRILL STEM TEST COMPANY: TRILOBITE

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HOLE SIZE: 7 7/8

MUD LOGGING BY:

DRILL STEM TEST COMPANY: TRILOBITE

DRILL STEM TEST: DST#1 4068-4115', DST#2 4220-4300', DST#3 4282-4350', DST#4 4338-4435'

WELL STATUS: RAN 5 ½ PRODUCTION CASING

DISCUSSION

Lillie #2-26 1S-36W is a wildcat drilled to a total depth of 4560 feet testing the Lansing Kansas City formation in Rawlins County, Kansas.

Structurally, Lillie #2-26 came in one foot high to Lillie #1-26 on the Lansing top and five feet high on the Kansas City E zone.

The first quality sample show was in the Foraker at 3774-82 feet. This zone was not tested but had very good sample shows with fair porosity. Logs also recorded 15% porosity and 82 ohms resistivity, suggesting a productive zone. There were also good shows with fair porosity development up hole in the Oread at 4102 feet. This zone was tested recovering 65 feet of free oil and 240 feet of oil cut mud. Pressures indicated depletion from surrounding production. Drilling continued to the Lansing A and B zones encountering good sample shows with fair porosity development in the B zone. Drill stem test #2 on the A and B zones recovered 30 feet of clean oil, 302 feet of oil cut mud, 232 feet of oil & water cut mud and 261 feet of water. The C zone had very good shows and was tested on drill stem test #3 recovering 20 feet of oil cut mud. The E zone had good sample shows but poor porosity development and was tested on drill stem test #4 recovering only 10 feet of mud with oil spots.

A decision was made to set 5 ½ casing because of the favorable drill stem tests and log calculations in the Lansing Kansas City and Waubaunsee formations.

LILLIE #2-26 SAMPLE DESCRIPTIONS
BEREDCO DRILLING RIG 10, DRILLING 7 7/8

LILLIE to 26 SAMPLE DESCRIPTIONS

3500-3600 SHALE red,very soft,very argillaceous

3600-65 SHALE red,firm,very silty, some sandy in part

NEVA

3665-80 LIMESTONE white,firm,very chalky,sandy in part.poor porosity,no shows

3680-3730 SHALE red,soft,very argillaceous

3730-55 LIMESTONE buff,hard,very sandy in part, dense,some Chert orange

3755-78 SHALE as above

FORAKER

3778-86 LIMESTONE white,soft,oolitic,chalky,sandy in part,poor to fair intg porosity,spotty live brown stain,good milky cut,good show free oil

LILLIE #2-26 SAMPLE DESCRIPTIONS

3786-96 LIMESTONE pale gray,hard,sandy in part, dense,poor porosity,trace black dead stain

3796-3810 LIMESTONE gray,hard,dense,slightly sandy,poor porosity,no shows

3810-30 LIMESTONE buff,pale gray,firm,very sandy,very fine grained,poor porosity,no shows

3830-60 SHALE red,very soft,very argillaceous

3860-70 LIMESTONE buff,very hard,dense, sandy in part,poor porosity,no shows

3870-3900 SHALE red,soft,argillaceous,as above

3900-10 SHALE gray green,green,firm,fissile, waxy in part

3910-20 LIMESTONE buff,hard,dense,sandy in part,poor porosity,very spotty black dead stain

3920-40 SHALE red,soft,silty

3940-60 LIMESTONE white,buff,firm,very chalky in part,poor porosity,no shows

3960-96 SHALE red,soft,very argillaceous

TOPEKA

3996-30 LIMESTONE white,buff,hard, blocky,slightly fossils,slightly chalky,poor porosity,no

LILLIE #2-26 SAMPLE DESCRIPTIONS

shows

4030-46 SANDSTONE white,red, friable, very fine grained, poor porosity, no shows

4056-84 SHALE red, firm, fissile, silty with thin LIMESTONE buff, hh, dense, no shows

4084-96 LIMESTONE white, buff, hard, blocky, chalky, poor porosity, trace black dead stain

4096-4102 SHALE red, firm, silty as above

OREAD

4102-12 GRAINSTONE white, firm, very oolitic, chalky in part, fair intg porosity, spotty live brown stain, very good milky cut, good show free oil

4112-30 LIMESTONE buff, very hard, dense, chalky in part

4130-58 LIMESTONE pale gray, very hard, dense, blocky, no shows

4158-82 SHALE black, gray black, some green, slightly hard, very carbonaceous in part

4182-4208 SHALE red, soft, argillaceous

A

4208-20 LIMESTONE buff, hard, dense, smooth texture, possible fractures, poor porosity, rare black dead stain

LILLIE #2-26 SAMPLE DESCRIPTIONS

4220-30 LIMESTONE buff,pale gray,very hard,dense,no shows

4230-40 SANDSTONE white,pale gray,slightly hard,very fine grained,clay filled,poor porosity,no shows

4240-68 SHALE red,soft to firm,argillaceous

B

4268-76 LIMESTONE white,buff,very hard,dense,trace poor porosity,rare brown stain,poor cut

4276-80 GRAINSTONE white, firm,very oolitic,fair intg to vuggy porosity, spotty to even live brown stain,good cut,fair show free oil

4270-92 LIMESTONE buff,pale gray,very hard,dense,no shows

4292-4328 SHALE red,firm,argillaceous,fissile

C

4328-34 LIMESTONE white,buff,slightly hard, oolitic,chalky in part,poor to fair crystalline and vuggy porosity,spotty live brown stain,good cut,poor show free oil

4334-42 LIMESTONE buff,pale gray,hard, blocky,dense,no shows

4342-68 SHALE red,green,gray green,firm, waxy in part

LILLIE #2-26 SAMPLE DESCRIPTIONS

D

4368-90 LIMESTONE white,pale gray,firm, very chalky,poor porosity,no shows

4390-4410 SHALE red,firm,argillaceous

E

4410-22 LIMESTONE white,slightly hard,sub chalky,poor micxn porosity,spotty live brown stain,good cut,poor show free oil

4422-30 LIMESTONE buff,pale gray,very hard,dense,crpxln,no shows

4430-50 SHALE red,firm,very silty in part

F

4450-70 LIMESTONE buff,pale gray,very hard,dense,blocky,no shows,with very thin SHALE as above

4470-80 SHALE as above

4480-4520 LIMESTONE as above with thin interbed SHALE as above

4520-60 SHALE red,green,firm,silty with thin LIMESTONE as above no shows

RTD 4560'

LILLIE #2-26 SAMPLE DESCRIPTIONS
LTD 4563'