

**BEREXCO, LLC.  
WILKENS D #1-9  
NWSE SECTION 9 2S-37W  
CHEYENNE COUNTY, KANSAS**

**GEOLOGIST  
WILLIAM B. BYNOG**

## RESUME

OPERATOR: BEREXCO, LLC.

WELL NAME & NUMBER: WILKENS D #1-9

LOCATION: NWSE SECTION 9 2S-37W

COUNTY: CHEYENNE

STATE: KANSAS

SPUD DATE: 7-24-2015 COMPLETION DATE: 8-7-2015

ELEVATIONS: GL: 3366 KB: 3377

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

MUD LOGGING BY: NONE

DRILL STEM TEST COMPANY: TRILOBITE

DRILL STEM TEST: DST#1 4040-4120, DST#2 4122-4200,  
DST#3 4185-4255, DST#4 44260-4355,  
DST#5 4330-4420, DST#6 4385-4510,  
DST#7 4485-4540, DST#8 4630-4730,  
DST#9 4790-4880, DST#10 4530-4605

WELL STATUS: PLUG & ABANDON

## DISCUSSION

Wilkins D #1-9 2S-37W was drilled a total depth of 4930 feet testing the Lansing Kansas City, Pawnee and Cherokee formations in Cheyenne County, Kansas. This well was a wildcat drilled with the help of seismic data and well control.

Structurally, Wilkins D #1-9 came in five low to the prognosis and low to other productive wells in the area.

The first good live oil show was encountered in the Topeka at 4090 feet. This zone was tested on drill stem test #1 recovering 190 feet of total fluid, (10 feet of oil cut mud & 180 feet of water). There were other good live oil shows in the lower Topeka in two lower zones. These zones were tested on drill stem test #2 recovering 310 feet of total fluid, (70 feet of oil cut mud and 240 feet of slightly oil cut water). Drilling continued to the Oread zone encountering a good live show of free oil in a fossiliferous Limestone. This zone was tested on drill stem test #3 recovering only 5 feet of oil spotted mud. The Lansing A zone had a good live oil show and was tested on drill stem test #4 recovering one foot of free oil and 5 feet of oil spotted mud with low pressures. The B zone turns out to be the best zone in the well. It was associated with a good drilling break, fair to good porosity development and good live oil shows in a fossiliferous Grainstone. This zone was tested on drill stem test #5 recovering 5 feet of free oil and 70 feet of oil cut mud (20% oil). Drilling continued to the C and D zones encountering good live oil shows in both zones. Drill stem test #6 recovered 818 feet of total fluid, (146 feet of oil cut mud and 672 feet of oil spotted muddy water). The E zone had a fair oil show in a tight limestone and was tested on drill stem test #7 recovering 60 feet of oil spotted mud. Drilling continued to the Pawnee encountering a good drilling break in a Grainstone and good live oil shows. This zone was tested on drill stem test #8 recovering 5 feet of oil cut mud. There was also a fair live oil show encountered in a Cherokee limestone at 4800-4810 feet, prompting drill stem test #9. Drill stem test #9 recovered one foot of free oil and 10 feet of oil spotted mud with low tight pressures. The F zone had no shows during drilling but looked promising on logs. A straddle test #10 was done on the F zone recovering 180 feet of oil spotted mud.

Logs agreed with sample evaluation recording poor to some fair porosity development. The Lansing B zone is the best zone in the well but only recovered 5 feet of free oil and 70 feet of oil cut mud.

A decision was made to plug and abandon due to the poor recoveries on drill stem tests and tight porosities on logs.

Wilkins D #1-9 Sample Descriptions

3850-70 SHALE red,firm,very silty

FORAKER

3870-93 LIMESTONE gray,hard,dense,very fossils,dirty,very shaly,poor porosity,no shows

3893-3910 LIMESTONE buff,hard,blocky,dense,crptoxln,trace Chert orange, poor porosity,no shows with thin SHALE as above

3910-20 SANDSTONE pale gray,firm,very fine grained,wsrtd,clay filled,poor porosity,no shows

3920-36 LIMESTONE buff,pale gray brown,very hs,dense,blocky,crptoxln,no shows abundant Chert orange

3936-95 SHALE red,soft,very argillaceous,silty in part with thin dense LIMESTONE as above

3995-4000 LIMESTONE buff,very hard,dense,crptoxln,poor porosity,trace black dead stain,no free oil

4000- 22 SHALE red,soft,argillaceous,silty in part with trace very thin LIMESTONE white,hard,slightly fossils,poor porosity,very spotty dead black stain,no free oil

4022-60 LIMESTONE white,slightly hard,very chalky,oolic,poor intergranular porosity,spotty black dead stain,poor cut,no free oil with bedded SHALE as above

4060-90 SHALE as above with interbedded thin LIMESTONE buff,very hard,dense,very fnly microcrystalline,no shows

TOPEKA

## Wilkins D #1-9 Sample Descriptions

4090-94 GRAINSTONE white,firm,very oolic,very abundant pyrite,fair intergranular porosity,spotty live brown stain,very good cut,good show free oil

4094-4102 LIMESTONE buff,very hard,dense,crptoxln,no shows

4102-04 GRAINSTONE as above becoming slightly hard,poor to fair intergranular porosity,spotty live brown stain,good cut,fair show free oil

4104-36 LIMESTONE buff,very hard,dense,as above no shows with thin SHALE as above

4136-40 GRAINSTONE white,firm,chalky,very oolic,fair intergranular porosity,spotty live brown stain,good cut,fair show free oil

4140-46 LIMESTONE buff,very hard,dense,blocky,very fnly microcrystalline,no shows

4146-65 SHALE red,firm,very silty,sandy in part,poor porosity,dirty,no shows with very thin stringers LIMESTONE white,firm,oolic,sandy in part,poor vis porosity,spotty live brown stain,good cut,fair show free oil

4165-80 LIMESTONE buff,very hard,dense,blocky,crptoxln,

4180-92 LIMESTONE white,hard,blocky,slightly oolic,poor vis porosity,poor pinpoint vuggy porosity,very spotty live brown stain,fair cut,fair show free oil

4192-4200 SHALE red,soft,very argillaceous,gummy

## Wilkens D #1-9 Sample Descriptions

4200-28 SHALE green,red,firm,fissile,abundant pyrite nods

OREAD

4228-32 GRAINSTONE white,firm,very oolic,sandy in part,poor to fair intergranular porosity,spotty live oil stain,gd cut, fair show free oil

4232-38 SHALE becoming sandy in part,very abundant pyrite

4238-45 GRAINSTONE white,soft,very oolic,chalky,poor to fair intergranular porosity,spotty to even live brown stain,very good cut,good show free oil

4245-50 LIMESTONE white,firm,very chalky,poor vis porosity,trace black dead stain,no free oil

4250-72 LIMESTONE buff,hard,dense,blocky,crptoxln,no shows

4272-80 SHALE gray,gray black,slightly carbonaceous,firm,fissile

4280-90 LIMESTONE pale gray brown,buff,very hard,dense,blocky,crptoxln,abundant pyrite nodules

4290-4316 SHALE red,green,firm,silty abundant pyrite

LANSING A

4316-22 SANDSTONE white,firm,very fine grained,wsrtd,poor to fair intergranular porosity,chalky in part,spotty to even live black stain,very good cut,good show free oil

## Wilkins D #1-9 Sample Descriptions

4322-40 LIMESTONE pale gray brown,very hard,dense,crptoxln,rare black dead stain in fracture

4340-45 SHALE as above abundant pyrite

4345-48 SANDSTONE pale green,firm,very fine grained,wsrtd,chalky,poor vis porosity,spotty black dead stain,poor cut,no free oil

4348-73 SHALE as above

### B ZONE

4373-90 GRAINSTONE white,firm,very fossils,oolic,fossils fragments, chalky in part,fair intergranular porosity,spotty live brown stain,very good cut,good show free oil

4370-80 LIMESTONE buff,hard,dense,blocky,very fnly microcrystalline,no shows

4380-90 LIMESTONE white,slightly hard,very chalky,fossils,poor to fair intergranular and pinpoint vuggy porosity,spotty live brown stain,good cut,fair show free oil

4390-4404 LIMESTONE buff,very hard,dense,sandy in part,poor porosity,no shows

4404-36 SHALE red,firm,silty

### C ZONE

4436-42 LIMESTONE white,slightly hard,slightly fossils,chalky,poor pinpoint vuggy

Wilkins D #1-9 Sample Descriptions

porosity,spotty black thick stain,good cut,poor show free oil

4442-48 LIMESTONE buff,hard,blocky,chalky in part,poor porosity,no shows

4448-60 SHALE green,firm,silty

4460-75 SHALE gray,slightly hard,becoming sandy with thin LIMESTONE gray,hard,very dirty

D ZONE

4478-80 LIMESTONE white,slightly hard,chalky,poor pinpoint vuggy porosity,very spotty live brown stain,good cut,trace free oil

4482-4502 LIMESTONE buff,very hard,very dense,crptoxln,chalky in part,poor porosity,no shows with thin SHALE as above

4502-4522 SHALE green,red,firm,silty,sandy in part

E ZONE

4522-28 LIMESTONE white,firm,fossils,chalky in part,poor to fair microcrystalline porosity,spotty to even live brown stain,very good cut,fair show free oil

4528-32 LIMESTONE buff,hard,dense,very fnly microcrystalline,no shows

4532-40 SHALE red,green,firm,fissile,waxy in part



Wilkins D #1-9 Sample Descriptions

4540-57 SHALE red,firm,very silty,sandy in part

F ZONE

4557-72 LIMESTONE buff,very hard,dense,crptoxln,chalky in part,poor porosity,no shows

4572-80 SHALE red,firm,silty

4580-94 LIMESTONE buff,hard,dense,sandy in part,poor porosity,no shows

4594-20 SHALE red,firm,silty,sandy in part

4620-40 LIMESTONE buff,hard,dense,crptoxln,chalky in part,abundant sandy in part,poor porosity,no shows abundant Chert orange

4640-82 SHALE red,gray green,firm,very silty,abundant sandy very fine grained

4682-06 LIMESTONE white,firm,fossils,oolic,poor to fair microcrystalline to pinpoint vuggy porosity,very spotty light brown stain,good cut,poor show free oil

4606-4700 LIMESTONE white to buff,slightly hard,very fnly microcrystalline,very sandy in part poor porosity,no shows

4700-09 SHALE green,soft,very argillaceous,waxy in part

4706-16 GRAINSTONE white,firm,very oolic,poor to fair intergranular porosity,spotty to even live brown stain,very good cut,fair show free oil

## Wilkins D #1-9 Sample Descriptions

### PAWNEE

4716-26 LIMESTONE white,slightly hard,slightly oolic,poor pinpoint vuggy porosity,spotty live brown stain,fair cut,p show free oil

4726-40 LIMESTONE buff,very hard,dense,crptoxln,no shows

4740-50 Shale red,green,firm,argillaceous

4750-68 Shale dark gray,black,firm,fissile,very carbonaceous with thin LIMESTONE sandstone dense,no shows

4768-80 SHALE black,firm,fissile,very carbonaceous

4780-4806 LIMESTONE buff,hard,blocky,dense,slightly fossils,chalky in part,poor porosity,no shows

4806-10 LIMESTONE white,firm,fossils,chalky in part,poor to fair pinpoint vuggy porosity,spotty live brown stain,good cut,good show free oil

4810-22 LIMESTONE buff,hard,dense,chalky in part poor porosity,no shows

4822-26 Shale red,green,black,firm,fissile,carbonaceous in part

4826-42 LIMESTONE as above buff,chalky,dense,no shows

## Wilkins D #1-9 Sample Descriptions

4842-52 SHALE as above with thin SANDSTONE red,hard,fine to mg,trace pink grains,sileous cement poor porosity,no shows

4852-56 LIMESTONE buff,hard,dense,crptoxln,no shows

4856-82 SANDSTONE white,slightly hard,mg,angular,psrtd,sileous cement,poor porosity,no shows with thin SHALE as above

4882-4914 SHALE red,maroon,green,firm,fissile,very silty with thin bedded SANDSTONE translucent,hard,fine to coarse good,sileous cement,poor vis porosity,abundant very large uncon quartz grains,no shows

4914-30 SANDSTONE/CONG translucent,pale red,hard,m to very cg,abundant very large grains,poor porosity,no shows with thin SHALE as above

RTD 4930'

LTD 4931'