

BEREXCO LLC

BERNITA 1-27

NE NE SEC 27 T1S R36W

RAWLINS COUNTY, KANSAS

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SUMMARY

The Berexco, LLC Bernita 1-27 in Rawlins County, Kansas spud October 8, 2013 and reached a total depth of 4600' on October 17, 2013. The test drilled into the Pennsylvanian Pawnee Member at total depth. Wellsite geological supervision commenced at 3000'. The primary objective was the Pennsylvanian Missourian Lansing-Kansas City carbonate benches, which are productive in nearby wells. Secondary zones of interest were the Virgilian Oread Limestone and Pennsylvanian Pawnee Carbonate. The Bernita 1-27 test was drilled using seismic and nearby well control.

Lansing-Kansas City

The evaluation of the primary zones of interest was by drill stem testing after sample analysis and correlation. Five drill stem tests were run based on sample shows. DST 1 in the Lansing "A" was run after moldic porosity with spotty black oil was observed in cuttings. The DST recovered 10 ft of mud with an oil scum. Electric logs confirmed the lack of porosity. The Lansing "B" exhibited limestone grainstone with fair to good porosity, live brown oil stain, and very good cuts. DST 2 recovered 680 ft of oil and oil cut mud with good flow pressures. Electric logs revealed a porous 2-ft interval. DST 3 in the Lansing "C" Zone was based on good sample shows and porosity similar to the Lansing "B" zone. DST 3 recovered 387 ft of oil and 5 ft of mud. Electric logs revealed a thin interval with marginal porosity. DST 4 in the Lansing "D" zone was based on nearby wells and a very poor oil show with very limited pinpoint vuggy porosity. Recovery of 3 ft of oil-specked mud indicating only limited porosity was confirmed by electric logs. The Lansing "E" samples revealed a limestone wackestone containing scattered oil specks and rare pin-point vuggy porosity. DST 5 over the "E" zone recovered only 5 ft of gas and oil cut mud with very poor flow pressures. Electric logs confirmed the "E" zone was nonporous. The Lansing "F" limestone was a nonporous limestone with no sample shows. The secondary Pawnee Limestone exhibited a nonporous limestone with no sample shows.

Subsequent to electric logs the Bernita 1-27 was cased with 5.5" production casing for completion as an oil producer. Drill cuttings were shipped to the State of Kansas.

Peter J. Vollmer
Consulting Wellsite Geologist, WPG #3369
October 2013

Berexco LLC
Bernita 1-27

WELL DATA

OPERATOR: Berexco, LLC
2020 North Bramblewood Drive
Wichita, Kansas 67206

WELL NAME: Bernita 1-27

SURFACE LOCATION: 440' FNL & 340' FEL
NE NE Section 27, T1S, R36E
Rawlins County, Kansas

LATITUDE & LONGITUDE: 39.9433539 N, -101.3369201 W

BOTTOM HOLE LOCATION: Vertical Hole

ELEVATIONS: 3216' GL 3229' KB

API NUMBER: 15-153-20951

BASIN: Mid-Continental Arch

FIELD: Wildcat

HOLE SIZE: 12 ¼" to 310'; 7 7/8" to 4600'

CASING: 8 5/8" J-55 24# STC set to 310' KB

SPUD DATE: October 8, 2013

TOTAL DEPTH DATE: October 17, 2013

TOTAL DEPTH: 4600' Rig TD 4599' Log TD

LAST FORMATION: Pennsylvanian Pawnee

WELL STATUS: Ran 5 ½" production casing

OPERATOR REPRESENTATIVE: Dana Wreath - Vice President

WELLSITE GEOLOGIST: Peter J. Vollmer

FORMATION TOPS

Formation	Sample Top	Log Top	Log TVD	Log Datum
KB				3229
Pierre Sh	Cased	Cased	N/A	N/A
Niobrara Fm	N/A	1131	1131	+2098
Fort Hays Ls Mbr	N/A	1616	1616	+1613
Carlile Sh	N/A	1710	1710	+1519
Anydrite	3137	3122	3122	+107
Base Anydrite	3175	3159	3159	+70
Foraker	3740	3723	3723	-494
Topeka	3942	3941	3941	-712
Oread	4044	4062	4062	-833
Lansing-Kansas City				
"A"	4158	4158	4158	-929
"B"	4214	4214	4214	-985
"C"	4274	4274	4274	-1045
"D"	4320	4319	4319	-1090
"E"	4367	4364	4364	-1135
"F"	4401	4398	4398	-1169
Pawnee	4550	4546	4546	-1317
TD Driller	4600			
TD Logger		4599	4599	-1370

LITHOLOGY AND SHOWS

The following descriptions are interpretive. Rig crew members collected unlagged samples from 3500' to 4600'. Depths are rig depths except where noted as wireline.

3500' - 3630'	SHALE: red, firm, very silty, sandy in part.
3630' - 3692'	LIMESTONE: pale gray, firm, chalky, poor porosity, no shows.
3692' - 3740'	SHALE: red, firm, silty as above.
FORAKER	SAMPLE TOP: 3740' LOG TOP: 3723' SUBSEA: -494'
3740' - 3786'	LIMESTONE: white, soft, very sandy, very chalky, poor porosity, spotty black dead stain with thin SHALE as above.
3786' - 3846'	LIMESTONE: pale gray, buff, firm, chalky, poor porosity, no shows.
3846' - 3912'	SHALE: red, soft, silty with thin LIMESTONE as above.
3912' - 3942'	LIMESTONE white, pale gray, firm, chalky in part poor porosity, no shows.
TOPEKA	SAMPLE TOP: 3942' LOG TOP: 3941' SUBSEA: -712'
3942' - 3960'	LIMESTONE: pale yellow, buff, hard, dense, slightly oolitic, blocky, poor porosity, no shows.
3960' - 4016'	LIMESTONE: white, firm, chalky, poor porosity, no shows with interbedded SHALE as above
4016' - 4044'	SHALE: maroon, red, green, soft, blocky.
OREAD	SAMPLE TOP: 4044' LOG TOP: 4062' SUBSEA: -833'
4044' - 4076'	LIMESTONE: white, firm, very chalky, poor visible porosity, no shows.

LITHOLOGY AND SHOWS

4076' - 4086' LIMESTONE: white, buff, hard, dense, chalky in part, no shows, trace orange Chert.
4086' - 4110' LIMESTONE: pale gray, buff, hard, dense.
4110' - 4116' SHALE: grayish black, black, fissile, carbonaceous, gas odor.
4116' - 4158' SHALE: red, green, gray, firm, fissile with thin LIMESTONE: brown, very hard, very dense.

LANSING- KANSAS CITY "A"

SAMPLE TOP: 4158' LOG TOP: 4158' SUBSEA: -929'

4158' - 4162' LIMESTONE: buff, firm, slightly fossiliferous, poor moldic porosity, spotty live thick black stain, good cut, no free oil.
4162' - 4178' LIMESTONE: buff, very hard, very dense, blocky, no shows.
4178' - 4190' SANDSTONE white, pale red, friable, very fine grained, clay filled, poor to fair intergranular porosity, no shows
4190' - 4214' SHALE: red, firm, sub blocky.

LANSING- KANSAS CITY "B"

SAMPLE TOP: 4214' LOG TOP: 4214' SUBSEA: -985'

4214' - 4220' GRAINSTONE: white, firm, oolitic, fair to good intergranular porosity, spotty live brown stain, very good cut, fair show, free oil, fair odor.
4220' - 4274' LIMESTONE: white, pale gray, slightly hard, chalky, no shows.

LANSING- KANSAS CITY "C"

SAMPLE TOP: 4274' LOG TOP: 4274' SUBSEA: -1045'

4274' - 4286' GRAINSTONE: white, firm, oolitic, slightly chalky, fair intergranular and vuggy porosity, spotty live brown stain, good cut, good show, free oil.
4286' - 4300' SHALE red, maroon, occasional light gray, firm, blocky, noncalcareous

LITHOLOGY AND SHOWS

LANSING- KANSAS CITY "D"

SAMPLE TOP: 4320' LOG TOP: 4319' SUBSEA: -1090'

- 4300' - 4328' LIMESTONE: white to cream, firm, very chalky, no visible porosity, trace black oil specks, slow streaming cut, pulverized sample.
- 4328' - 4332' PACKSTONE to WACKESTONE: white to cream, firm, very chalky, fossil fragments, tight to trace poor to poor vuggy porosity, trace brown to black oil stain, good milky cut.
- 4332' - 4346' SHALE: dark gray, firm, blocky.
- 4346' - 4366' SHALE: dark reddish brown, firm, blocky, noncalcareous, silty.

LANSING- KANSAS CITY "E"

SAMPLE TOP: 4367' LOG TOP: 4364' SUBSEA: -1135'

- 4366' - 4378' MUDSTONE to WACKESTONE: white to cream, firm, very chalky, fossil fragment, occasional interclasts, tight to trace poor to poor vuggy porosity, scattered to patchy dark brown to black oil specks and stain, fair milky cut.
- 4378' - 4390' SHALE: gray to greenish gray, firm, platy, waxy, noncalcareous.
- 4390' - 4402' SHALE: dark reddish brown, firm, blocky, noncalcareous, silty.

LANSING- KANSAS CITY "F"

SAMPLE TOP: 4401' LOG TOP: 4398' SUBSEA: -1169'

- 4402' - 4414' LIMESTONE: cream to white to buff, firm to hard, mudstone to wackestone, scattered fossil fragment, clean, dense, tight, no shows.
- 4414' - 4440' SHALE: dark gray, firm, platy, noncalcareous, with interbedded LIMESTONE: cream to white, firm to hard, mudstone, clean, dense, tight, no shows.
- 4440' - 4472' SHALE: dark gray, firm, platy, non to very slightly calcareous, fossil fragments with interbedded LIMESTONE: cream to white, firm to hard, mudstone, chalky, clean, dense, tight, no shows.
- 4472' - 4504' SHALE: gray to reddish brown to maroon to brown, firm, blocky, silty in part, non to moderately calcareous, thin Limestone stringers.

LITHOLOGY AND SHOWS

4504' - 4520'	LIMESTONE: grayish brown to light gray, firm, mudstone, argillaceous, tight, no shows.
4520' - 4550'	SHALE: dark gray, firm, platy, non to very slightly calcareous, thin Limestone partings.
PAWNEE	SAMPLE TOP: 4550' LOG TOP: 4546' SUBSEA: -1317'
4550' - 4576'	LIMESTONE: white to very light gray, hard, mudstone, rare fossil fragment, clean, tight, no shows.
4576' - 4590'	SHALE: dark gray, firm, platy, non to very slightly calcareous.
4590' - 4600' TD	LIMESTONE: light gray to very light gray, hard, mudstone, slightly argillaceous in part, tight, no shows.

SERVICES

CONTRACTOR: Toolpusher:	Beredco Drilling Inc., Rig 2 Milo Salinas	
DRILLING FLUIDS: Mud Type: Engineer:	Morgan Mud, Inc. Freshwater Chemical Troy Van Pelt	McCook, ND
MUD LOGGING:	None	
WELLSITE GEOLOGY:	T. M. McCoy & Co., Inc. Peter J. Vollmer	Wilson, WY 307-733-4332
DRILL STEM TESTING: Tester:	Trilobite Testing, Inc. Bob Hamel	Hays, KS
DIRECTIONAL DRILLING:	None	
WIRELINE LOGS:	Pioneer Wireline Services RAG 3100' - TD Micro Surface casing to TD Engineer: Chris Desaire	Hays, KS