

Geological Report

Keith-Henry Unit #18-1

425' FNL & 500' FEL

Sec. 18 T9s R24w

Graham County, Kansas



H & C Oil Operating, Inc.

General Data

Well Data: H & C Oil Operating, Inc.
Keith-Henry Unit #18-1
425' FNL & 500' FEL
Sec. 18 T9s R24w
Graham County, Kansas
API # 15-065-24103-0000

Drilling Contractor: American Eagle Drilling Co. Rig #2

Geologist: Jason T Alm

Spud Date: June 26, 2015

Completion Date: July 6, 2015

Elevation: 2486' Ground Level
2493' Kelly Bushing

Directions: Wakeeney KS, North 16 mi. on Hwy 283 to H Rd,
West 8 mi. to 180 Ave, North 3 mi. to K Rd, West 1
1¼ mi. South into location.

Casing: 220' 8 5/8" surface casing

Samples: 10' wet and dry, 3750 to RTD

Drilling Time: 3450' to RTD

Electric Logs: Pioneer Energy Services "Daylan Kerr"
CNL/CDL, DIL, MEL

Drillstem Tests: Two, Trilobite Testing, Inc. "Jim Svaty"

Problems: Rig's Torque Converter went out, while the rig was
shut down with repairs the drill string got stuck in
the hole. Rig, spotted oil and jarred the drill string
free.

Remarks: None

Formation Tops

	H & C Oil Operating, Inc. Keith-Henry Unit #18-1 Sec. 18 T9s R24w 425' FNL & 500' FEL
Formation	
Anhydrite	2161', +332
Base	2196', +297
Topeka	3579', -1086
Heebner	3798', -1305
Toronto	3823', -1330
Lansing	3838', -1345
BKC	4064', -1571
LTD	4120', -1627
RTD	4120', -1627

Sample Zone Descriptions

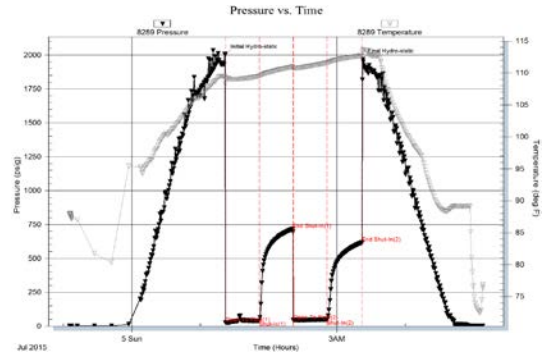
- LKC “D” Zone (3882’, -1389): Covered in DST #1**
 Ls – Fine to sub-crystalline, oolitic with scattered poor oolitic porosity, spotted light brown oil stain, slight show of free oil, no odor.
- LKC “J” Zone (4016’, -1523): Covered in DST #2**
 Ls – Fine to sub-crystalline, oolitic with scattered poor pinpoint oomoldic and slightly oolitic porosity, light spotted oil stain in porosity, slight show of free oil when broken, no odor.
- LKC “K” Zone (4034’, -1541): Covered in DST #2**
 Ls – Fine to sub-crystalline, oolitic with scattered pinpoint oolitic porosity, light to fair oil stain in porosity, slight show of free oil when broken, very light odor.

Drill Stem Tests
Trilobite Testing, Inc.
"Jim Svaty"

DST #1 LKC "C-D" zones

Interval (3858' – 3905') Anchor Length 47'

IHP	- 2002 #	
IFP	- 30" – Built to 2 ½ in.	25-40 #
ISI	- 30" – Dead	716 #
FFP	- 30" – W.S.B.	44-49 #
FSI	- 30" – Dead	616 #
FHP	- 1969 #	
BHT	- 113°F	

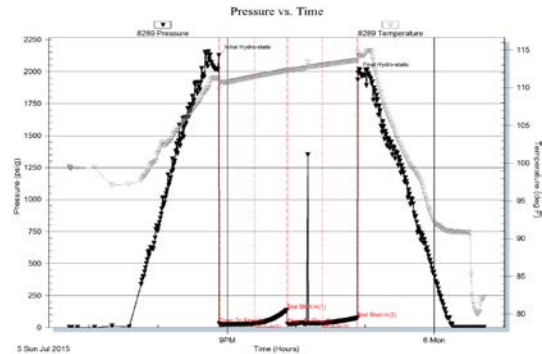


Recovery: 64' WCM w/ oil spots 50% Water

DST #2 LKC "J-K" zones

Interval (4004' – 4050') Anchor Length 46'

IHP	- 2127 #	
IFP	- 30" – W.S.B.	31-34 #
ISI	- 30" – Dead	138 #
FFP	- 30" – Dead, Flush, Dead	27-33 #
FSI	- 30" – Dead	76 #
FHP	- 1991 #	
BHT	- 114°F	



Recovery: 4' Mud

Structural Comparison

Formation	H & C Oil Operating, Inc. Keith-Henry Unit #18-1 Sec. 18 T9s R24w 425' FNL & 500' FEL	H & C Oil Operating, Inc. Rosalie #17-2 Sec. 17 T9s R24w 1200' FNL & 330' FWL		Black Petroleum Co. Keith-Henry #1 Sec. 18 T9s R24w 3960' FSL & 1320' FEL	
Anhydrite	2161', +332	2140', +331	(+1)	2185', +333	(-1)
Base	2196', +297	2174', +297	FL	2220', +298	(-1)
Topeka	3579', -1086	3552', -1081	(-5)	3600', -1082	(-4)
Heebner	3798', -1305	3765', -1294	(-9)	3815', -1297	(-8)
Toronto	3823', -1330	3797', -1326	(-6)	3840', -1322	(-8)
Lansing	3838', -1345	3809', -1338	(-7)	3858', -1340	(-5)
BKC	4064', -1571	4031', -1560	(-11)	4080', -1562	(-9)

Summary

The location for the Keith-Henry Unit #18-1 was found via 3-D seismic survey. The new well ran structurally lower than expected via the survey. Two Drill Stem Tests were conducted, both of which were negative. After all gathered data had been examined the decision was made to plug and abandon the Keith-Henry Unit #18-1 well.

Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.