



Drilling Report
BNE 19-22 API# 15-053-21325
2196'FNL 1479'FEL
NE/4 Section 19 17s-9w
Ellsworth County, Kansas

Ground Elevation: 1778'

Kelly Bushing: 1788'

Contractor: Southwind Drilling Rig #1, License# 33350

Directions: From HWY 156/4 Junction, East 8 miles to east side of Oneok Gas Plant or 8th road ,
North 3 miles, west into.

5-19-2015 to 5-21-2015

Contact landowner for entrance and instructions, perform KCC pit inspection, build location, MIRU,
hauling water, run water line to road for water. Muddy conditions.

5-22-2015

Spud 12 ¼" surface hole @ 8:00am, 3:00pm running casing, depth is 312ft. (Waiting on Cement Report),
drill out from under surface @ 4:00am, Bit is new 7 7/8" Varel HE-21 IADC 517.

5-23-2015

11:43am, Depth is 1243' and drilling, current ROP is 102 feet/hour, expect mud-up depth in 10 hours or
10:00 pm depending on formation density. Weather Conditions: Rain.

5-24-2015

1:20pm- Depth is 2150, currently rigging up tools to go in the hole for DST #1, DST #1 Interval 2124-
2150 Grand Haven SS (GAS), Estimated test times 15-30-30-90. Trilobite Report to Follow. Tool should
be on bottom @ 3:00 p.m.

DST#1

Formation: Grand Haven Sand

Rock Description: SS, VF, SA-SR, Clear, Laying in Bottom of tray, gray LS, Fossil Crinoid, Clay IP.

Show: Total Gas Units 104 (170 units on short trip)

GENERAL INFORMATION:																																											
Formation:	Grand Hven																																										
Deviated:	No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)																																								
Time Tool Opened:	15:25:43		Tester: Gary Pevoteaux																																								
Time Test Ended:	19:04:13		Unit No: 80																																								
Interval:	2124.00 ft (KB) To 2150.00 ft (KB) (TVD)		Reference Elevations: 1788.00 ft (KB)																																								
Total Depth:	2150.00 ft (KB) (TVD)		1778.00 ft (CF)																																								
Hole Diameter:	7.88 inches Hole Condition: Fair		KB to GR/CF: 10.00 ft																																								
Serial #: 8352 Outside																																											
Press@RunDepth:	52.30 psig @ 2125.00 ft (KB)	Capacity:	8000.00 psig																																								
Start Date:	2015.05.24	End Date:	2015.05.24																																								
Start Time:	14:06:03	End Time:	19:04:12																																								
		Time On Btm:	2015.05.24 @ 15:21:28																																								
		Time Off Btm:	2015.05.24 @ 17:35:28																																								
TEST COMMENT: IF: Strong blow . B.O.B. in 2 1/2 mins. IS: No blow . FF: Strong blow . B.O.B. in 6 mins. FS: No blow .																																											
<p style="font-size: small;">Pressure vs. Time</p>	<table border="1" style="width:100%; border-collapse: collapse;"> <thead> <tr> <th colspan="4" style="text-align: center;">PRESSURE SUMMARY</th> </tr> <tr> <th>Time (Min.)</th> <th>Pressure (psig)</th> <th>Temp (deg F)</th> <th>Annotation</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>1004.71</td> <td>86.56</td> <td>Initial Hydro-static</td> </tr> <tr> <td>5</td> <td>17.33</td> <td>86.82</td> <td>Open To Flow (1)</td> </tr> <tr> <td>17</td> <td>27.17</td> <td>88.13</td> <td>Shut-In(1)</td> </tr> <tr> <td>53</td> <td>311.05</td> <td>88.19</td> <td>End Shut-In(1)</td> </tr> <tr> <td>54</td> <td>42.03</td> <td>88.12</td> <td>Open To Flow (2)</td> </tr> <tr> <td>82</td> <td>52.30</td> <td>90.35</td> <td>Shut-In(2)</td> </tr> <tr> <td>133</td> <td>303.09</td> <td>89.89</td> <td>End Shut-In(2)</td> </tr> <tr> <td>134</td> <td>983.32</td> <td>89.37</td> <td>Final Hydro-static</td> </tr> </tbody> </table>			PRESSURE SUMMARY				Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation	0	1004.71	86.56	Initial Hydro-static	5	17.33	86.82	Open To Flow (1)	17	27.17	88.13	Shut-In(1)	53	311.05	88.19	End Shut-In(1)	54	42.03	88.12	Open To Flow (2)	82	52.30	90.35	Shut-In(2)	133	303.09	89.89	End Shut-In(2)	134	983.32	89.37	Final Hydro-static
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5-25-2015

6:00 a.m., depth is 2510', circulating for samples, preparing for DST #2 Severy Sand 2487-2513' (GAS), on the bank 9:30am, tool on bottom and open 10:46 a.m.

DST #2:

Formation: Severy Sand

Show: **2480 2497 LIME W/SHALE STRINGER LM: GRY DK BRN SCAT GRY GREEN SH BRIT BLKY TR RED/BLK SH NO ODOR BG 115uG,211uG,**

2497 2506 Sandy Silt SS: CLSTRS LARGE SCAT SLI CMT'D MED-FN GRAN OFFWHT SLI SILTY 80% CRM OW LM CALC W/ SCAT SHALES GAS A.A.

2506 2513 Limestone SS: CLSTRS LARGE SCAT SLI CMT'D MED-FN GRAN OFFWHT SLI SILTY 80% CRM OW LM CALC W/ SCAT SHALES GAS A.A.

GAS Base120 D211 Actual124

GENERAL INFORMATION:																																												
Formation:	Severy Shale																																											
Deviated:	No Whipstock	ft (KB)																																										
Time Tool Opened:	10:46:46		Test Type: Conventional Bottom Hole (Reset)																																									
Time Test Ended:	15:30:01		Tester: Gary Pevoteaux																																									
			Unit No: 80																																									
Interval:	2487.00 ft (KB) To 2513.00 ft (KB) (TVD)		Reference Elevations: 1788.00 ft (KB)																																									
Total Depth:	2513.00 ft (KB) (TVD)		1778.00 ft (CF)																																									
Hole Diameter:	7.88 inches	Hole Condition:	KB to GR/CF: 10.00 ft																																									
Serial #: 8352	Outside																																											
Press @RunDepth:	144.27 psig @	2488.00 ft (KB)	Capacity: 8000.00 psig																																									
Start Date:	2015.05.25	End Date: 2015.05.25	Last Calib.: 2015.05.25																																									
Start Time:	09:27:06	End Time: 15:30:00	Time On Btm: 2015.05.25 @ 10:44:16																																									
			Time Off Btm: 2015.05.25 @ 13:14:16																																									
TEST COMMENT: IF:Strong blow . GTS in 2 mins. (see gas flow report) IS:No blow . FF:Strong blow . (see gas flow report) FS:Weak blow . 1 - 3"																																												
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GAS FLOW REPORT DST#2

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	10	0.75	43.00	896.58
1	10	0.75	43.00	896.58
1	15	0.75	45.00	927.82
2	10	0.75	46.00	943.44
2	20	0.75	44.00	912.20

5:43 p.m. depth is 2537 and drilling ahead.

5-26-2015

9:24 p.m., depth is 3103', running in the hole with DST #3 3080-3103 Kansas City "J" (OIL), tool expected to be on bottom and open 11:00 p.m.

DST#3

Formation: LKC "J"

Show: Limestone, off white, Good Porosity, Vuggy I.P., Some cemented oomoldic porosity, soft to dense, show free oil beads, good odor.

SEE DST #3 NEXT PAGE



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

StrataKan Expl. LLC

19-17s-9w Ellsworth, KS

204 W. Mill
Plainville KS .67663

BNE#19-22

Job Ticket: 63032

DST#: 3

ATTN: Chris Bean

Test Start: 2015.05.26 @ 21:52:00

GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Test Type: Conventional Bottom Hole (Initial)

Time Tool Opened: 23:06:30

Tester: Ken Swinney

Time Test Ended: 01:43:30

Unit No: 58 Great Bend/64

Interval: **3080.00 ft (KB) To 3103.00 ft (KB) (TVD)**

Reference Elevations: 1788.00 ft (KB)

Total Depth: 3103.00 ft (KB) (TVD)

1778.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 6838

Inside

Press@RunDepth: 19.34 psig @ 3099.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.05.26

End Date:

2015.05.27

Last Calib.:

2015.05.27

Start Time: 21:53:00

End Time:

01:43:30

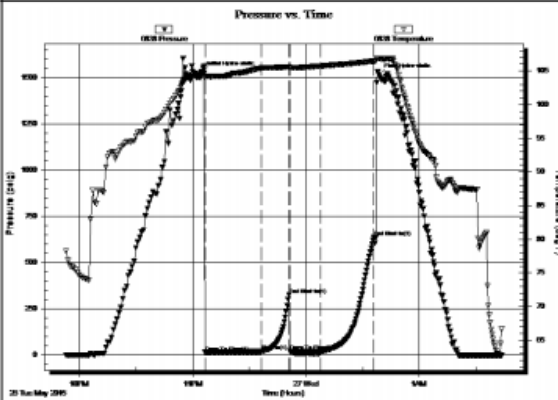
Time On Btm:

2015.05.26 @ 23:05:00

Time Off Btm:

2015.05.27 @ 00:38:30

TEST COMMENT: 1ST Open 30 Minutes/Weak blow/Blow built to 1/4 inch then started to die after 23 minutes
 1ST Shut In 15 Minutes/No blow back
 2ND Open 15 Minutes/Weak surface blow/Blow died after 10 minutes
 2ND Shut In 30 Minutes/No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1531.63	104.62	Initial Hydro-static
2	14.91	104.03	Open To Flow (1)
32	20.62	105.42	Shut-In(1)
46	326.70	105.60	End Shut-In(1)
47	20.73	105.49	Open To Flow (2)
63	19.34	105.71	Shut-In(2)
91	638.97	106.46	End Shut-In(2)
94	1516.73	106.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud with show of oil/Mud 100%	0.14

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)


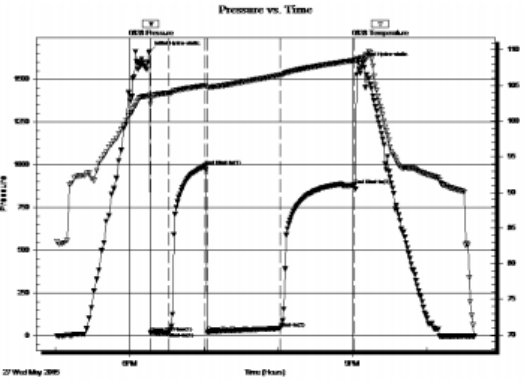
5-27-2015

11:00pm, depth is 3227 laying down tool from DST#4 Arbuckle 3220-27 (OIL)

DST#4 3220-27

Formation: Arbuckle

Show: Dolomite, Gas Kick 832 units, Base Gas 200 units, translucent dolomite, tn dolomite, friable, very lite brn oil, Show Free Oil, Strong Odor

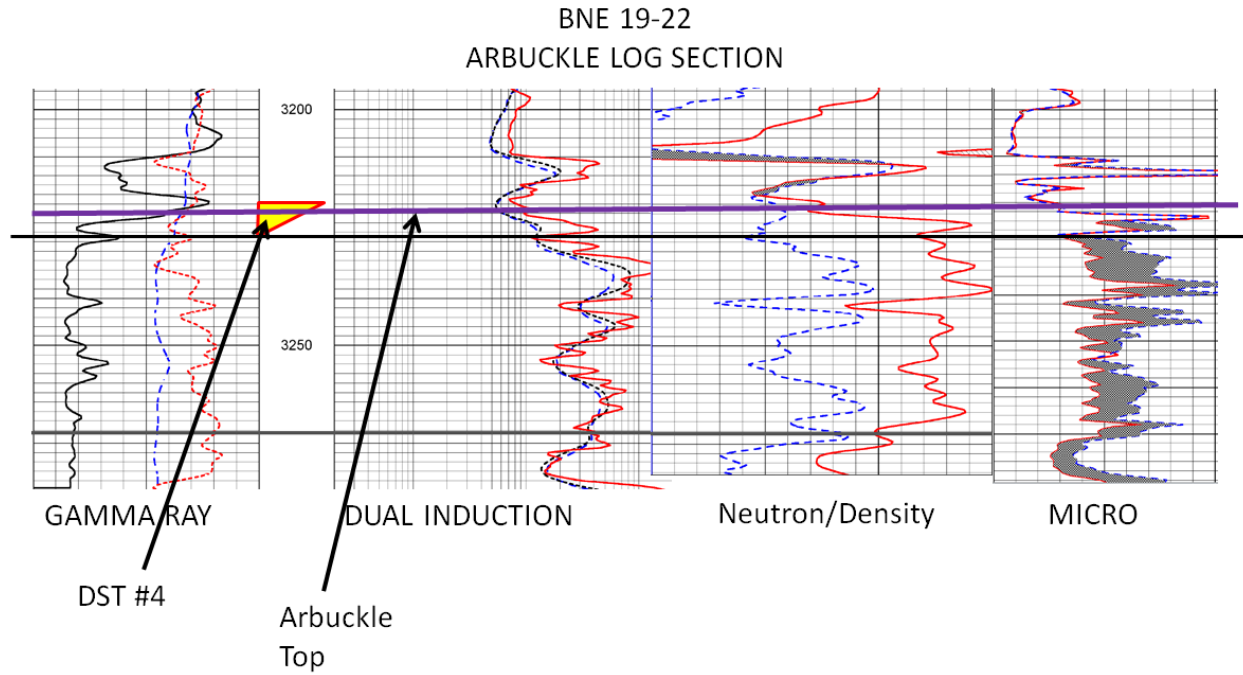
	TESTING, INC Stratakan Expl. LLC 204 W. Mill Plainville KS .67663 ATTN: Chris Bean	19-17S-9W Ellsworth, KS BNE#19-22 Job Ticket: 63033 DST#: 4 Test Start: 2015.05.27 @ 17:00:00																																				
GENERAL INFORMATION: Formation: Arbuckle Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial) Time Tool Opened: 18:16:30 Tester: Ken Swinney Time Test Ended: 22:38:30 Unit No: 58 Great Bend/64 Interval: 3220.00 ft (KB) To 3227.00 ft (KB) (TVD) Reference Elevations: 1788.00 ft (KB) Total Depth: 3227.00 ft (KB) (TVD) 1778.00 ft (CF) Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 10.00 ft																																						
Serial #: 6838 Outside Press@RunDepth: 43.69 psig @ 3224.00 ft (KB) Capacity: 8000.00 psig Start Date: 2015.05.27 End Date: 2015.05.27 Last Calib.: 2015.05.27 Start Time: 17:01:00 End Time: 22:38:30 Time On Btm: 2015.05.27 @ 18:16:00 Time Off Btm: 2015.05.27 @ 21:04:30																																						
TEST COMMENT: 1ST Open 15 Minutes/Good blow/blow built to 11 inches 1ST Shut In 30 Minutes/Light surface blow back throughout 2ND Open 60 Minutes/Good blow/Blow built to bottom of bucket in 14 minutes 2ND Shut In 60 Minutes/Very light surface blow back throughout																																						
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5-28-15

2:34 pm, RTD @ 3307', logs out of hole.

RTD: 3307 LTD: 3307

Running Pipe for Arbuckle Completion (OIL).....expect plug down @ 10:30 p.m.



Structural Position Chart					
BNE 19-22 In Progress		Objective: Severy, Lansing/KC, Arbuckle		TO BE COMPLETED	
FINAL	LOG				
Formation	Bickle Energies, Rekker 19-1 R1	American Warrior, Mehl 1-A R2	BNE 19-22 Drilling Well	Position R1	Position R2
Severy Sha;e	2487 -708	2484 -702	2489 -700	7+	1+
Topeka	2501 -722	2501 -719	2506 -717	5+	2+
Heebner	2761 -982	2760 -978	2765 -977	5+	1+
Lansing	2894 -1115	2894 -1111	2896 -1108	7+	3+
Base/KC	3178 -1399	3178 -1396	3182 -1394	5+	2+
Arbuckle	3216 -1437	3222 -1440	3221 -1433	4+	7+

