



Scale 1:240 Imperial

Well Name: Nancy #3-17  
 Surface Location: 2146' FNL \_1701' FWL Sec 17-17S-13W  
 Bottom Location:  
 API: 15-009-25969-00-00  
 License Number:  
 Spud Date: 5/2/2014 Time: 7:45 PM  
 Region: Barton County  
 Drilling Completed: 5/9/2014 Time: 6:50 PM  
 Surface Coordinates: Y = 694524 & X = 1917760  
 Bottom Hole Coordinates:  
 Ground Elevation: 1965.00ft  
 K.B. Elevation: 1978.00ft  
 Logged Interval: 2800.00ft To: 3525.00ft  
 Total Depth: 3525.00ft  
 Formation: Lansing-Kansas City  
 Drilling Fluid Type: Chemical/Fresh Water Gel

**OPERATOR**

Company: Shelby Resources, LLC  
 Address: 445 Union Blvd, Suite 208  
 Lakewood, CO 80228  
 Contact Geologist: Janine Sturdavant  
 Contact Phone Nbr: 303-907-2209 / 720-274-4682  
 Well Name: Nancy #3-17  
 Location: 2146' FNL \_1701' FWL Sec 17-17S-13W API: 15-009-25969-00-00  
 Pool: Field: Trapp  
 State: Kansas Country: USA

**LOGGED BY**



Company: Shelby Resources, LLC  
 Address: 445 UNION BLVD. Suite 208  
 LAKEWOOD, CO. 80228  
 Phone Nbr: 203-671-6034  
 Logged By: Geologist Name: Jeremy Schwartz

**NOTES**

The Shelby Resources Nancy #3-17 was drilled to a total depth of 3525', bottoming in the Arbuckle. A TookeDaq gas detector was employed in the drilling of said well.

5 DST's were conducted throughout the Lansing Kansas-City and Arbuckle Zones. The DST reports can be found at the bottom of this log.

Due to the DST results, sample shows, gas kicks, and log analysis it was determined by all parties involved to further test the well through production pipe. The dry samples were saved and will be available for further review at the Kansas Geological Society Well Sample Library, located in Wichita, KS.

Respectfully Submitted,  
Jeremy Schwartz  
Geologist

**SURFACE CO-ORDINATES**

Well Type: Vertical

Longitude: N/S Co-ord: Y = 694524  
 E/W Co-ord: X = 1917760

Latitude:

**CONTRACTOR**

Contractor: Sterling Drilling Co  
 Rig #: 5  
 Rig Type: mud rotary  
 Spud Date: 5/2/2014  
 TD Date: 5/9/2014  
 Rig Release:  
 Time: 7:45 PM  
 Time: 6:50 PM  
 Time:

**ELEVATIONS**

K.B. Elevation: 1978.00ft  
 K.B. to Ground: 13.00ft  
 Ground Elevation: 1965.00ft

DATE	DEPTH	ACTIVITY
Tuesday, May 06, 2014	3050'	Geologist Jeremy Schwartz on location @ 0700hrs, DRLG ahead through King Hill, Queen Hill, Heebner, Toronto, Douglas, Brown Lime, LKC, CFS @ 3250', DRLG ahead CFS @ 3260, Short Trip, Strap Out, Drop Survey, Conduct DST #1
Wednesday, May 07, 2014	3260' 3283'	Successful Test, DRLG ahead, CFS @ 3278', DRLG ahead, CFS @ 3283' Conduct DST #2 In LKC "D-F", Successful Test, DRLG ahead
Thursday, May 08, 2014	3345' 3455'	DRLG ahead through LKC, CFS @ 3455', Conduct DST #3 in the Arbuckle Successful test, DRLG ahead, CFS @ 3462', Conduct DST #4 in the Arbuckle,
Friday, May 09, 2014	3462' 3468'	Successful Test, DRLG ahead, CFS @ 3468', Conduct DST #5 in the Arbuckle, Successful Test, DRLG ahead, TD @ 3525' reached at 1850hrs, Conduct Logging Ops
Saturday, May 10, 2014	3525'	Logging Operations Complete @ 0245hrs Geologist Jeremy Schwartz off location @ 0330hrs

CLIENT:	SHELBY RESOURCES, LLC
WELL NAME:	NANCY #3-17
LEGAL:	2146' FNL & 1701' FWL 17-17S-13W
COUNTY:	BARTON
API:	15-009-25969-0000
DRLG CONTRACTOR:	STERLING DRILLING CO.
RIG #:	5
DOGHOUSE #:	620-388-5433
TOOLPUSHER:	ALAN LOFTIS
CELL #:	620-388-2736

FORMATION	NANCY #3-17				NANCY #2-17				NANCY #1-17				HOFFMAN #1-18			
	NE SW SE NW				C SW SW NW 17-17S-13W				C N/2 SW NW 17-17S-13W				C S/2 NE 18-17S-13W			
	KB	1978			KB	1997			KB	1992			KB	1945		
	LOG TOPS	SAMPLE TOPS			COMP. CARD	LOG	SMPL.		COMP. CARD	LOG	SMPL.		COMP. CARD	LOG	SMPL.	
DEPTH	DATUM	DEPTH	DATUM	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	DEPTH	DATUM	CORR.	CORR.	
ANHYDRITE TOP	916	1062	916	1062	939	1058	+ 4	+ 4	928	1064	- 2	- 2	890	1055	+ 7	+ 7
BASE	944	1034	945	1033	965	1032	+ 2	+ 1	956	1036	- 2	- 3	917	1028	+ 6	+ 5
KING HILL	2978	-1000	2978	-1000	2994	-997	- 3	- 3	2986	-994	- 6	- 6	2942	-997	- 3	- 3
QUEEN HILL	3042	-1064	3043	-1065	3059	-1062	- 2	- 3	3050	-1058	- 6	- 7	3005	-1060	- 4	- 5
HEEBNER SHALE	3129	-1151	3130	-1152	3146	-1149	- 2	- 3	3138	-1146	- 5	- 6	3092	-1147	- 4	- 5
TORONTO	3144	-1166	3148	-1170	3163	-1166	+ 0	- 4	3156	-1164	- 2	- 6	3109	-1164	- 2	- 6
DOUGLAS SHALE	3157	-1179	3155	-1177	3173	-1176	- 3	- 1	3166	-1174	- 5	- 3	3119	-1174	- 5	- 3
BROWN LIME	3212	-1234	3210	-1232	3229	-1232	- 2	+ 0	3218	-1226	- 8	- 6	3173	-1228	- 6	- 4
LKC	3219	-1241	3218	-1240	3238	-1241	+ 0	+ 1	3228	-1236	- 5	- 4	3182	-1237	- 4	- 3
LKC G	3292	-1314	3292	-1314	3309	-1312	- 2	- 2	3300	-1308	- 6	- 6	3250	-1305	- 9	- 9
MUNCIE CREEK	3344	-1366	3344	-1366	3365	-1368	+ 2	+ 2	3354	-1362	- 4	- 4	3309	-1364	- 2	- 2
LKCH	3349	-1371	3349	-1371	3372	-1375	+ 4	+ 4	3361	-1369	- 2	- 2	3316	-1371	+ 0	+ 0
STARK SHALE	3402	-1424	3403	-1425	3425	-1428	+ 4	+ 3	3413	-1421	- 3	- 4	3369	-1424	+ 0	- 1
BKC	3428	-1450	3426	-1448	3452	-1455	+ 5	+ 7	3438	-1446	- 4	- 2	3397	-1452	+ 2	+ 4
RE-WORKED ARB	3436	-1458	3436	-1458												
ARBUCKLE	3455	-1477	3455	-1477	3473	-1476	- 1	- 1	3476	-1484	+ 7	+ 7	3412	-1467	- 10	- 10
RTD			3525	-1547					3539	-1547		+ 0	3525	-1580		+ 33
LTD	3528	-1550			3476	-1479	- 71		3537	-1545	- 5		3526	-1581	+ 31	

PROGNOSIS		
ANHYDRITE TOP	920	1058
HEEBNER SHALE	3125	-1147

TESTED
DST #1 (3236-3300) LKC "A-D"
15-60-60-120
Good Blow BOB 3:45SEC
BB built to 6IN

TESTED
DST #1 (3228-3287) LKCA-D
15-60-60-120
1ST OPEN STRONG - BOB 3MIN
BB BOB 7MIN

TESTED
DST #1 (3176-3237) LKC A-D
IF BOB 2M
FF - BOB <1M
BOB BLO BK5

LKC	3218	-1240
BKC	3425	-1447
ARBUCKLE	3464	-1486
RTD	3550	-1572

Good Blow BOB 5MIN, G 15 45MIN

BB BOB 6MIN  
**864' CGO (70%O, 30%G)**  
 SIP: 566-567

**DST #2 (3297-3321) LKC "F-G"**  
 15-60-60-120  
 Good Blow BOB 9MIN  
 No BB  
 Good Blow BOB 10:30SEC  
 No BB  
**630' GIP, 437' CGO, 63' OMCW**  
 SIP: 513-511

**DST #3 (3355-3455) LKC "H-K"**  
 15-45-60-90  
 Fair Blow built to 2.5IN  
 No BB  
 Fair Blow Built to 5IN  
 No BB  
**97' Mud**  
 SIP: 735-711

**DST #4 (3449-3485) Ar buckle**  
 15-45-20  
 Weak Surface Blow  
 No BB  
 No Blow, Flushed Tool, Pull Test  
**5' MUD**  
 SIP: 982-53

2ND OPEN STRONG BOB 3.5MIN/G 15 45MIN

BB BOB 4MIN  
**504' MCOG (G 50%, O 40%, M 10%)**  
**300' MCGO (O 75%, G 20%, M 5%)**  
 SIP: 639 - 664

**DST #2 (3287 - 3312) LKC F-G**  
 15-60-60-120  
 1ST OPEN STRONG - BOB 9MIN  
 BB BUILT TO 1IN  
 2ND OPEN STRONG - BOB 2MIN  
 BB BUILT TO 3IN  
**156' CGO (O 75%, G 30%)**  
**126' GMD (O 40%, M 40%, G 20%)**  
 SIP: 640 - 636

**DST #3 (3335 - 3452) LKC H-K**  
 15-60-10  
 1ST OPEN WEAK - BUILT TO 1/2IN  
 NO BB  
 2ND OPEN DEAD  
**15'M**  
 SIP: 936 - N/A

1980' DIL, 120' OGLM



982# / 1038#  
**DST #2 (3238-3261) LKC F-G**  
 IF BOB 1M, BL BK BOB  
 FF - BOB 1M, BL BK BOB  
**970' CGO, 60' OCM**  
 780# / 718#

**DST #3 (3300-3390)**  
 IF FAIR TO BOB 3M, BOB BL BK  
 FF - BOB 1M, GTSD 55M  
 FSI BOB BL BK  
**1380' CO, 120' OCM**  
 1113# / 1122#

**DST #4 (3388-3422) ARBUCKLE**  
 IF WK TO 7", WK BLO BK  
 FF - WK TO 10" - NO BLO BK  
**230' CO, 90' OCM**  
 1101# / 1086#

**DST #5(3423-3444) ARBUCKLE**  
 IF GOOD TO BOB 2M, WK BLO BK  
 FF - GOOD TO BOB 3M, NO BLO BK  
**15' CO, 1500' WTR W/ TR OIL**  
**60' WCM**  
**1146# / 1142#**










### ROCK TYPES

 Congl	 Lmst fw<7	 Carbon Sh
 Dolprim	 shale, gry	 shale, red

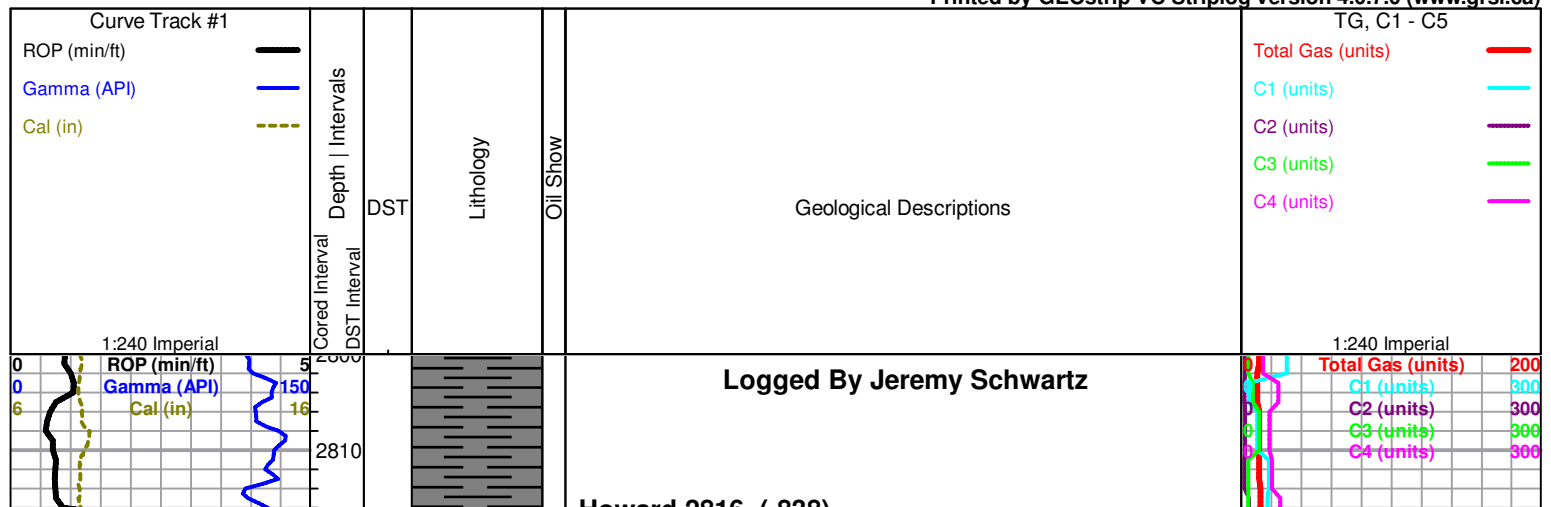
### ACCESSORIES

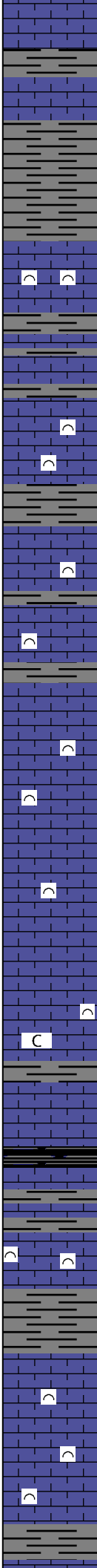
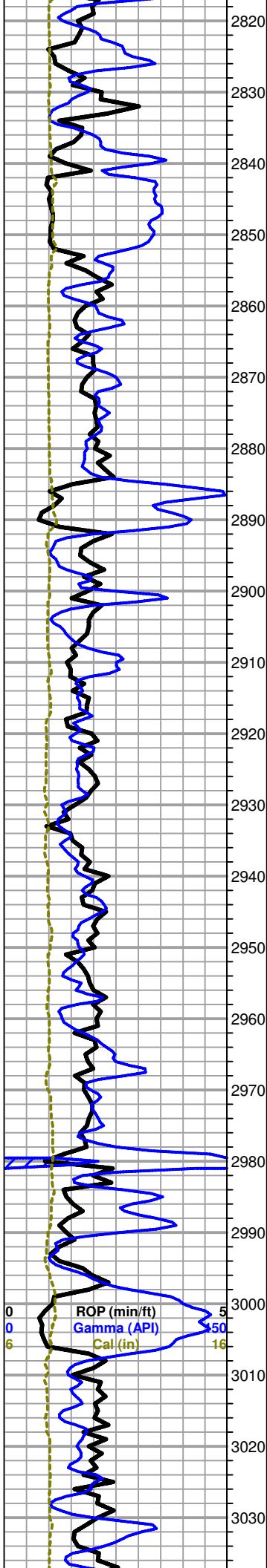
<b>FOSSIL</b> ∩ Bioclastic or Fragmental	<b>STRINGER</b> ~ Chert ■ Limestone	<b>TEXTURE</b> C Chalky
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### OTHER SYMBOLS

<b>MISC</b>  Daily Report  Digital Photo  Document  Folder  Link  Vertical Log File  Horizontal Log File  Core Log File  Drill Cuttings Rpt	<b>Oil Show</b> ● Good Show ● Fair Show 50-75 ● Poor Show 25-50 ○ Spotted or Trace 1-25 ○ Questionable Stn D Dead Oil Stn ■ Fluorescence * Gas	<b>DST</b> ■ DST Int ■ DST alt
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LS, cream to tan with some gray, micro-xln, lithographic and dense with poor visible porosity, also with abundant gray shale, no shows or odor

Shale, gray, mostly soft and waxy

LS, cream to tan with some gray, fossiliferous, some gray mottled, dense with poor visible porosity, no shows or odor

LS as above

**Topeka 2891 (-913)**

LS, cream to tan with some light gray and brown, micro-crypto xln, mostly fossiliferous, some lithographic, dense with poor visible porosity, no shows or odor

LS as above, no shows or odor

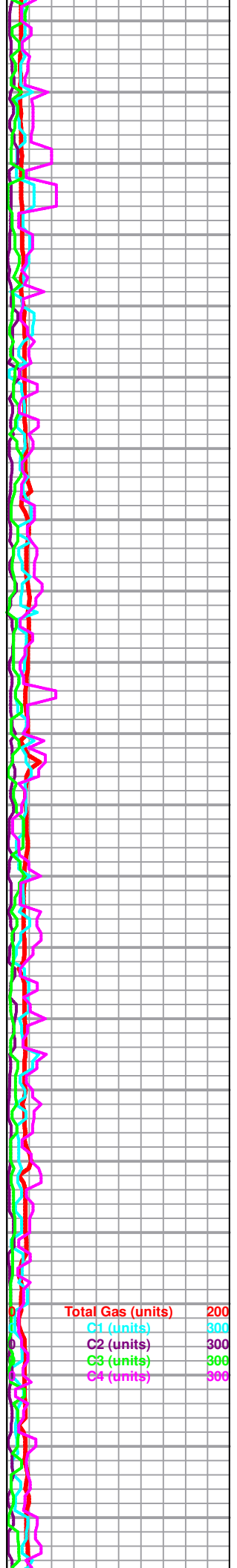
LS, cream with some scattered off-white and light gray, mostly lithographic, some scattered fossiliferous, mostly dense with poor visible porosity, some scattered soft and chalky in part, no shows or odor

**King Hill 2978 (-1000)**

Shale, black carbonaceous

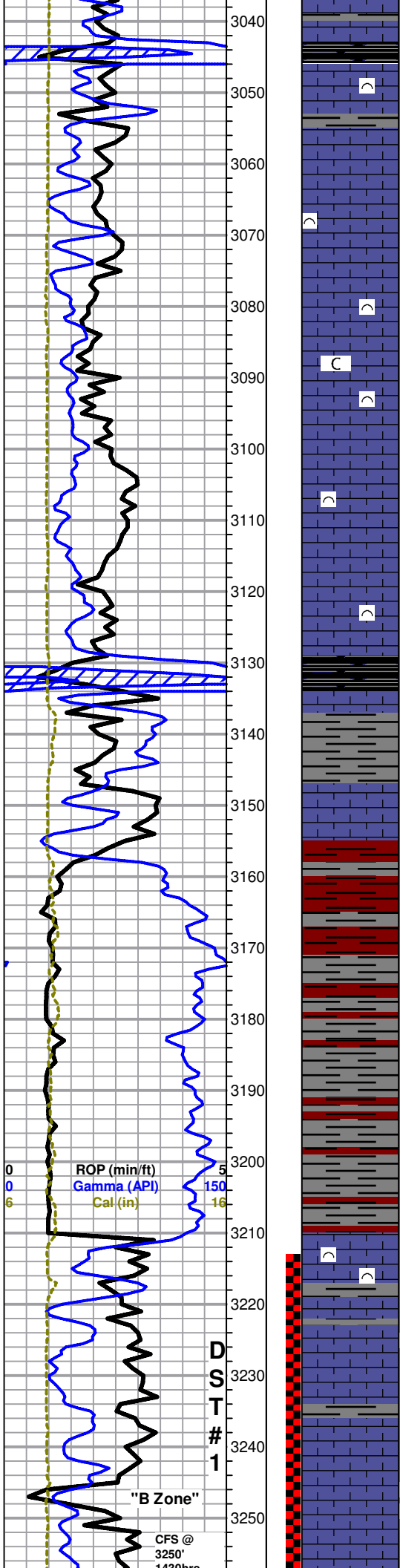
LS, cream to gray, micro-crypto xln, some fossiliferous, some lithographic, dense with poor visible porosity, no shows or odor

LS, cream to gray, micro-xln, fossiliferous, dense with poor visible porosity, no shows or odor



Total Gas (units)	200
C1 (units)	300
C2 (units)	300
C3 (units)	300
C4 (units)	300

ROP (min/ft) 5  
 Gamma (API) 50  
 Cal (in) 16



**Queen Hill 3043 (-1065)**

Shale, black carbonaceous

LS, cream with some scattered light gray, micro-xln, fossiliferous, dense with poor visible porosity, no shows or odor

LS, cream with some scattered off-white and light gray, micro-crypto xln, mostly lithographic, some scattered fossiliferous, mostly dense with poor visible porosity, some soft and chalky in part, no shows or odor

LS, cream to gray, micro-xln, fossiliferous, hard and dense with poor visible porosity, no shows or odor

LS, cream with some scattered light gray and very scattered off-white, mostly fossiliferous, hard and dense with poor visible porosity, some very scattered soft and chalky in part, no shows or odor

**Heebner 3130 (-1152)**

Shale, black carbonaceous

**Toronto 3148 (-1170)**

LS, white to cream, mostly crypto-xln, lithographic with poor visible porosity, slightly chalky, no shows or odor

**Douglas Shale 3155 (-1177)**

Red and Gray shale, mostly soft and waxy, some scattered blocky and dense

Shale, mostly gray with some red

**Brown Lime 3210 (-1232)**

LS, brown with some gray and cream, micro-xln, fossiliferous, hard and dense with poor visible porosity, no shows or odor

**LKC 3218 (-1240)**

LS, cream to light gray, micro-xln, mostly lithographic and dense with poor visible porosity, some very scattered chips (~5-10% of tray) with few small edge vugs to slightly vuggy edges with brown stain mostly in porosity only, few very small chips (<5%) with slightly vuggy porosity and mostly saturated brown to black stain, slow streaming cut with milky white fluorescence, fair show free oil in tray (mostly opaque droplets with few brown), fair odor

LS, gray to cream, micro-xln, some fossiliferous, some lithographic, dense with poor visible porosity, no shows or odor

Nancy 3-17 DST #1.jpg

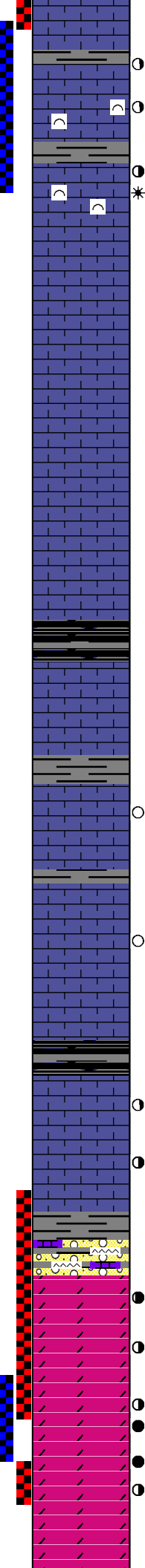
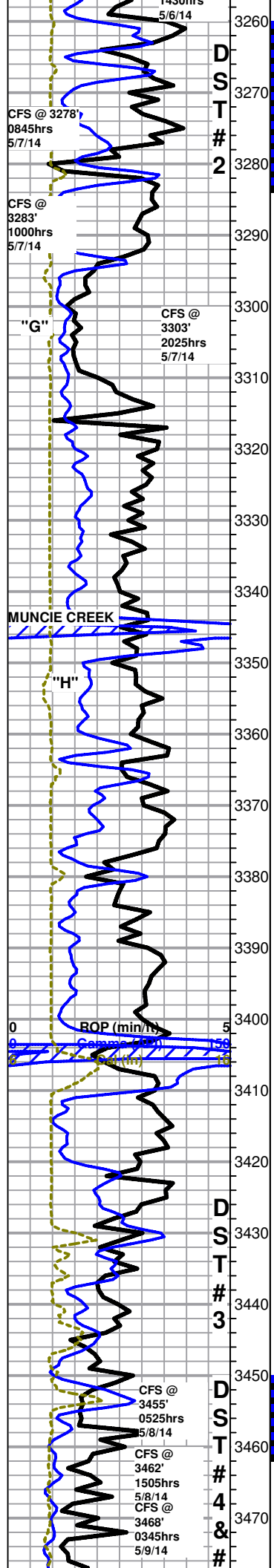
3250' 30" LS, cream to gray, micro-xln, oolitic to oomoldic, with fair visible oomold porosity and mostly saturated to saturated brown to black stain, few chips also have slightly vuggy edges, slow streaming cut with milky white fluorescence, SSFO and gas bubbles, good odor

Mud-Co Mud chk  
3068'  
5/6/14  
Vis: 52 Wt: 8.9  
PV:20 YP:17  
WL: 8.0  
Cake:1/32  
pH: 10.5  
Ca: 0ppm  
CHL: 2,800ppm  
Sol: 4.2 LCM: Tr  
DMC: \$1,321.95  
CMC: \$8,303.20

Total Gas (units) 200  
C1 (units) 300  
C2 (units) 300  
C3 (units) 300  
C4 (units) 300

Dev. Survey @ 3260'  
3/4 Degree

Mud-Co Mud chk  
3283'  
5/7/14  
Vis: 62 Wt: 9.05



LS, cream to gray, micro-xln, fossiliferous, dense with poor visible porosity, few very scattered chips (~5% of tray) with several very small vugs to slightly vuggy edges and poor black to very light golden brown stain in vugs only, NSFO, poor odor

**Nancy 3-17 DST #2.jpg**

3278' 30 & 60" LS, cream to gray, micro-xln, fossiliferous, dense with poor visible porosity, few chips (<5% of tray) with several very small vugs and poor very light golden brown stain mostly in vugs only, weak cut with dull fluorescence, poor odor

3283' 30" LS, cream to gray, micro-xln, fossiliferous, mostly dense with poor visible porosity, few chips (~5% of tray) with small scattered vugs to slightly vuggy edges and scattered very light golden brown stain in and around vugs, stain increases in color to brown when left under lamp for several minutes, slow streaming cut with milky white fluorescence, NSFO, slight show gas bubbles in tray, poor odor

60" Mostly same as above, slight increase in shows (~5-10%), upon break few chips have slight show free oil, poor odor in tray

3303' 30 LS, cream with some scattered light gray, micro-xln, mix of dense with poor visible porosity and soft and chalky in part, some scattered sub-oolitic to sub-oomoldic with poor visible porosity, very chalky with heavy chalky wash, no shows or odor

60" Mostly same as above, with slight influx in sub-oomoldic to oomoldic, mostly dense with poor visible porosity, few chips with fair visible oomold porosity, barren, very chalky, no shows or odor

3310' LS as above, very chalky, no shows or odor

3320' LS, cream to gray, micro-xln, some lithographic, some scattered sub-oolitic to sub-oomoldic, dense with poor visible porosity, chalky, no shows or odor

3330' LS, gray to cream with some scattered brown, micro-xln, some lithographic, some slightly fossiliferous, dense with poor visible porosity, slightly chalky, no shows or odor

3340' LS, gray with some scattered cream and brown, micro-xln, mostly lithographic, some slightly fossiliferous, dense with poor visible porosity, no shows or odor

3350' LS, gray to cream, micro-xln, fossiliferous and dense with poor visible porosity, no shows or odor

LS, cream to gray, micro-xln, mostly lithographic and dense with poor visible porosity, some scattered soft and chalky, no shows or odor

LS, cream, micro-xln, lithographic and dense with poor visible porosity, few chips (<5% of tray) with one to two small edge vugs and dead black to poor brown stain in vugs only, very weak to no cut, no odor

LS, cream with some scattered gray, micro-xln, mostly lithographic and dense with poor visible porosity, some soft and chalky in part, no shows or odor

LS, cream, micro-xln, mostly lithographic and dense with some soft and chalky, few chips (<5% of tray) oomoldic with poor visible porosity and dead black to brown stain in oomolds and partly in matrix around oomolds, very weak to no cut, poor fleeting odor in cup

**Stark Shale 3403 (-1425)**

LS, cream, micro-xln, mostly lithographic and dense with poor visible porosity, some soft and chalky, few very scattered chips (~5-10% of tray) with one to two small vugs with poor black to brown stain in vugs only and partly in matrix around vugs in few chips, upon break one chip has very slight show free oil, very slow weak cut, poor odor

LS, cream, micro-xln, mostly lithographic and dense, some scattered slightly fossiliferous and also some scattered soft and chalky, few scattered chips (~10% of tray) with poor to fair vf pinpoint porosity and one to two small vugs with poor stain as above, found several small chips (<5% of tray) mostly saturated to saturated brown stain, instant cut with bright white fluorescence, poor odor in cup

**BKC 3426 (-1448)**

LS, cream, mostly lithographic and dense with poor visible porosity, also with some gray shale and very scattered orange to tan and opaque chert, no shows or odor

**Re-worked Arbuckle 3436 (-1458)**

**Nancy 3-17 DST #3.jpg**

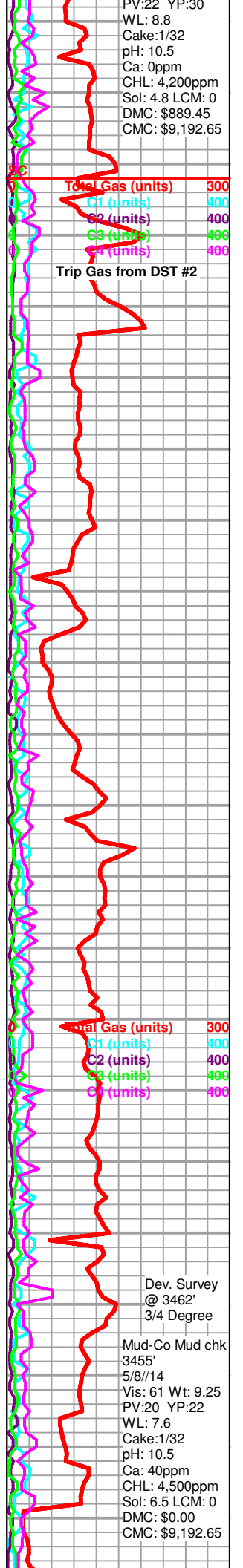
Dolomite, cream to tan, micro-xln, mostly hard and dense with poor visible porosity, some scattered (~20%) with vf pinpoint porosity to sub-sucrosic with scattered to mostly saturated brown to black stain, few chips saturated, few chips also with one to two very small vugs and slowly bleeding oil droplets when left under lamp for several minutes, instant streaming cut with bright white fluorescence, fair show free oil in tray, fair odor

**Clean Arbuckle Dolomite 3455 (-1477)**

3455' 30" Dolomite, mostly same as above with slightly less shows, also with some scattered chert, slightly chalky, fair show free oil in tray, fair odor

60" Dolomite, cream to tan, mostly dense with poor visible porosity, barren, few scattered chips (~10%) with vf pinpoint porosity and scattered to mostly saturated brown to black stain, few chips (<5% sub-sucrosic with poor to fair rhombic development and scattered black stain, slow streaming cut with milky white fluorescence, SSFO, fair odor

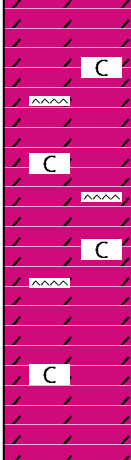
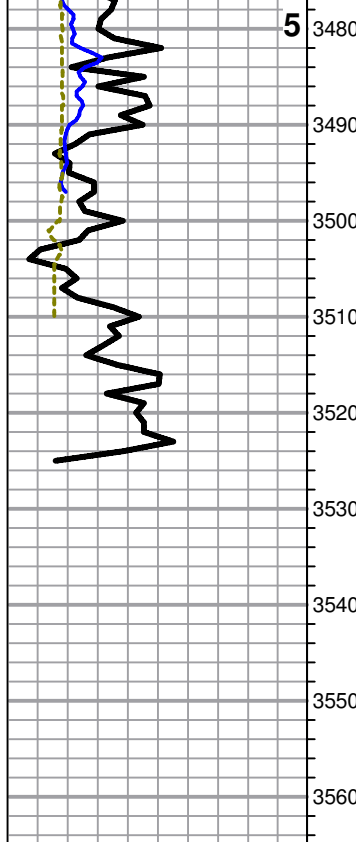
3462' 30" Dolomite, cream to light brown, micro-xln, some dense with poor visible porosity, some (~20%) sub-sucrosic with scattered brown to black stain, few scattered



PV:22 YP:30  
 WL: 8.8  
 Cake:1/32  
 pH: 10.5  
 Ca: 0ppm  
 CHL: 4,200ppm  
 Sol: 4.8 LCM: 0  
 DMC: \$889.45  
 CMC: \$9,192.65


Dev. Survey @ 3462' 3/4 Degree

Mud-Co Mud chk 3455' 5/8/14  
 Vis: 61 Wt: 9.25  
 PV:20 YP:22  
 WL: 7.6  
 Cake:1/32  
 pH: 10.5  
 Ca: 40ppm  
 CHL: 4,500ppm  
 Sol: 6.5 LCM: 0  
 DMC: \$0.00  
 CMC: \$9,192.65




porosity, some (~30%) sub-sucrosic with scattered brown to black stain, few scattered chips (~5-10%) with fair to good rhombic development and slightly vuggy to fair vuggy chips (~5-10%) with fair to good rhombic development and slightly vuggy to fair vuggy chips with mostly saturated to saturated brown stain, one chip oomoldic with good oomold/vuggy porosity, instant cut with bright white fluorescence, upon break few chips show fair to good inter-xln porosity and slight to fair show free oil, SSFO in tray, fair odor

60" Mostly same as above, some hard and dense, some with fair rhombic development and scattered black stain, when left under lamp for several minutes chips slowly bleed oil to surface, upon break fair visible inter-xln porosity and fair show free oil with slight show gas bubbles coming from porosity, SSFO in tray, fair odor

 Nancy 3-17 DST #4.jpg

3468' 30" Dolomite, cream to off-white, mostly dense and barren with poor visible porosity, some scattered (~25%) with few small vugs and poor brown stain in vugs only, some looks dead, also with some very scattered (~10%) off-white, med-xln, with poor to fair sub-rhombic to rhombic development and scattered black stain, some dense, some friable, upon break chips release slight to fair show free oil and show some scattered inter-xln staining, SSFO in tray, fair odor

60" Dolomite, cream, micro-xln, mostly dense and barren with poor visible porosity, some very scattered (~5%) off-white, med-xln, sub-rhombic to rhombic, some dense, some friable, upon break chips release fair show free oil, NSFO in tray, poor odor

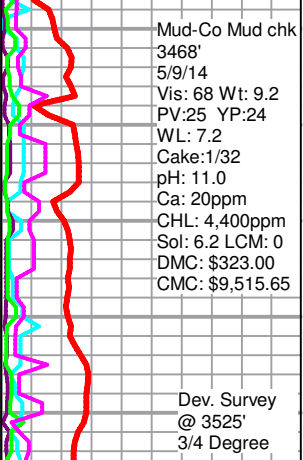
 Nancy 3-17 DST #5.jpg

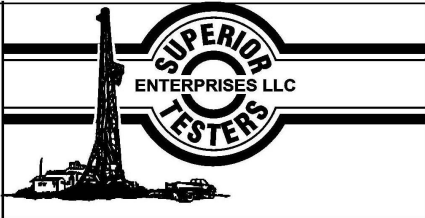
~3480-3510 Dolomite, cream to tan with some scattered off-white, micro-xln, mostly hard and dense with poor visible porosity, some scattered sub-sucrosic with poor sub-rhombic development, some with several small scattered vugs and poor residual dead brown to black stain in and around vugs, some very scattered white chert, slightly chalky, poor odor

3510-3525 Dolomite, cream to tan, micro-xln, mostly dense with poor visible porosity, barren, some very scattered sub-sucrosic with poor sub-rhombic development, slightly chalky, no shows or odor

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**Rotary TD 3525' @ 1850hrs 5/9/14**  
**Nabors Well Services Logging TD @ 3528'**  
**Complete Logging Operations @ 0245hrs 5/10/14**  
**Geologist Jeremy Schwartz off location @ 0330hrs 5/10/14**





# DRILL STEM TEST REPORT

Shelby Resources LLC

17/17S/13W/Barton

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

**Nancy 3-17**

Job Ticket: 18253

**DST#: 1**

Test Start: 2014.05.06 @ 21:37:00

## GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:37:30

Time Test Ended: 04:43:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Great Bend/

**Interval: 3213.00 ft (KB) To 3260.00 ft (KB) (TVD)**

Reference Elevations: 1978.00 ft (KB)

Total Depth: 3260.00 ft (KB) (TVD)

1965.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 13.00 ft

## Serial #: 6748

Press@RunDepth: 98.02 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.05.06 End Date: 2014.05.07

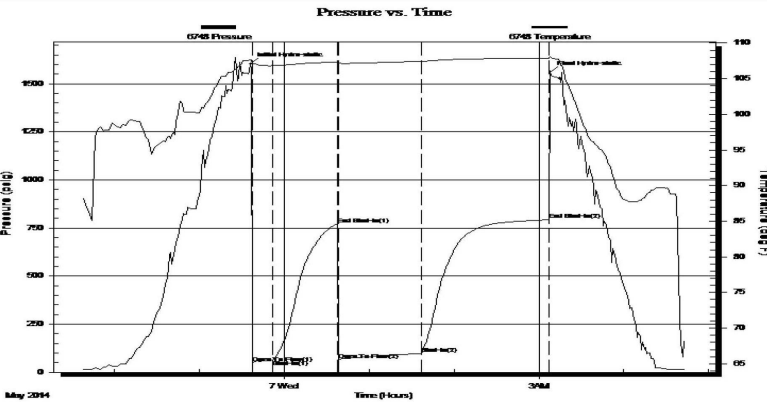
Last Calib.: 2014.05.07

Start Time: 21:37:00 End Time: 04:43:30

Time On Btm: 2014.05.06 @ 23:36:00

Time Off Btm: 2014.05.07 @ 03:08:00

**TEST COMMENT:** 1ST Open 15 Minutes/Good blow /Blow built to bottom of bucket in 13 minutes  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 60 Minutes/Strong blow /Blow built to bottom of bucket in 30 seconds then slowed considerably  
 2ND Shut In 90 Minutes/Blow back built to 1/4 then died in 15 minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1601.66	107.69	Initial Hydro-static
2	49.82	107.23	Open To Flow (1)
16	62.84	106.83	Shut-In(1)
62	770.68	107.35	End Shut-In(1)
63	63.11	107.18	Open To Flow (2)
121	98.02	107.44	Shut-In(2)
211	791.85	107.91	End Shut-In(2)
212	1559.65	108.10	Final Hydro-static

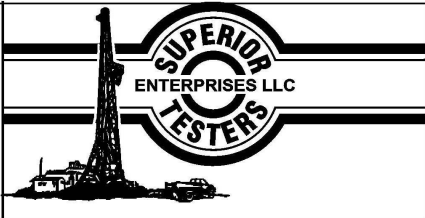
## Recovery

Length (ft)	Description	Volume (bbl)
120.00	Oily Mud/Oil 20% Mud 80%	0.59
0.00	180 feet of gas in pipe	0.00

## Gas Rates

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





# DRILL STEM TEST REPORT

Shelby Resources LLC

17/17S/13W/Barton

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

**Nancy 3-17**

Job Ticket: 18254

**DST#: 2**

Test Start: 2014.05.07 @ 13:10:00

**GENERAL INFORMATION:**

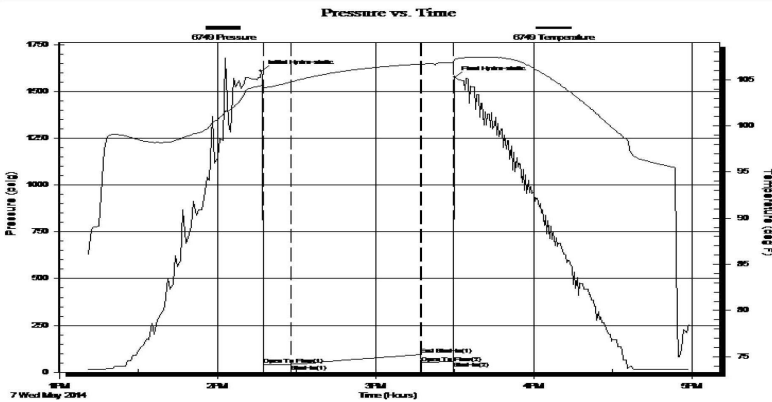
Formation: <b>Lansing/Kansas City</b>	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: ft (KB)	Tester: Ken Swinney
Time Tool Opened: 14:17:30	Unit No: 3325 Great Bend/32
Time Test Ended: 16:59:00	Reference Elevations: 1978.00 ft (KB)
<b>Interval: 3260.00 ft (KB) To 3283.00 ft (KB) (TVD)</b>	1965.00 ft (CF)
Total Depth: 3283.00 ft (KB) (TVD)	KB to GR/CF: 13.00 ft
Hole Diameter: 7.80 inches	Hole Condition: Fair

**Serial #: 6749**

**Inside**

Press@RunDepth: 42.77 psig @ 3279.00 ft (KB)	Capacity: 5000.00 psig
Start Date: 2014.05.07	Last Calib.: 2014.05.07
Start Time: 13:10:00	End Date: 16:59:00
	Time On Btm: 2014.05.07 @ 14:16:30
	Time Off Btm: 2014.05.07 @ 15:30:00

**TEST COMMENT:** 1ST Open 15 Minutes/Weak surface blow throughout/Blow did not build  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 10 Minutes/Dead no blow /Flush tool no help/Pull test



**PRESSURE SUMMARY**

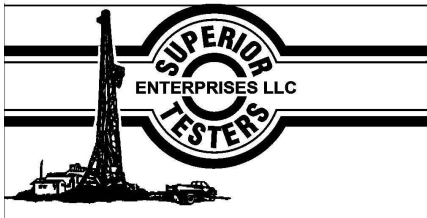
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1608.27	104.39	Initial Hydro-static
1	41.03	104.12	Open To Flow (1)
12	42.77	104.77	Shut-In(1)
61	94.43	106.69	End Shut-In(1)
61	50.71	106.69	Open To Flow (2)
73	56.21	106.86	Shut-In(2)
74	1575.92	107.21	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
30.00	Mud 100%	0.00

**Gas Rates**

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



**DRILL STEM TEST REPORT**

Shelby Resources LLC  
 2717 Canal Boulevard  
 Suite C  
 Hays, Kansas 67601  
 ATTN: Jeremy Schw artz

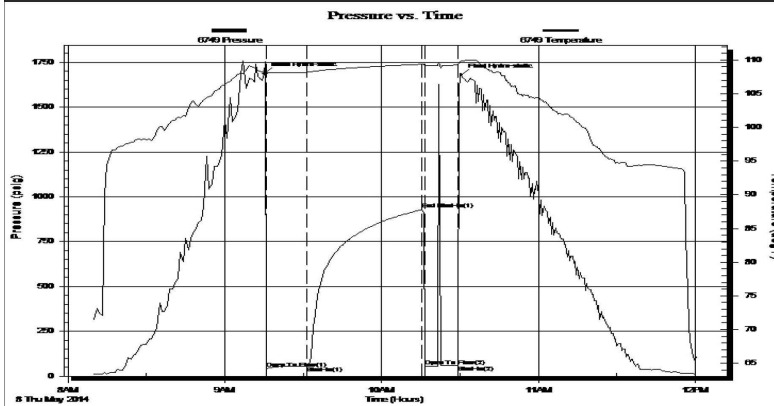
**17/17S/13W/Barton**  
**Nancy 3-17**  
 Job Ticket: 18255      **DST#: 3**  
 Test Start: 2014.05.08 @ 08:09:00

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 09:16:00  
 Time Test Ended: 12:00:30  
 Interval: **3424.00 ft (KB) To 3455.00 ft (KB) (TVD)**  
 Total Depth: 3455.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Sw inney  
 Unit No: 3325 Great Bend/32  
 Reference Elevations: 1978.00 ft (KB)  
 1965.00 ft (CF)  
 KB to GR/CF: 13.00 ft

**Serial #: 6749      Inside**  
 Press@RunDepth: 56.70 psig @ 3451.00 ft (KB)      Capacity: 5000.00 psig  
 Start Date: 2014.05.08      End Date: 2014.05.08      Last Calib.: 2014.05.08  
 Start Time: 08:09:00      End Time: 12:00:30      Time On Btm: 2014.05.08 @ 09:15:00  
 Time Off Btm: 2014.05.08 @ 10:30:30

**TEST COMMENT:** 1ST Open      15 Minutes/Weak blow /Blow built to 3/4 inch  
 1ST Shut In      45 Minutes/No blow back  
 2ND Open      10 Minutes/Dead no blow /Flush tool no help/Pull test



**PRESSURE SUMMARY**

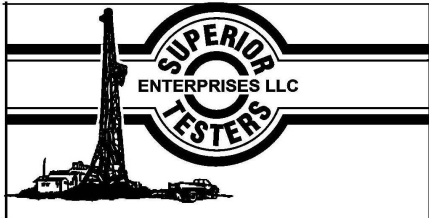
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1687.79	108.44	Initial Hydro-static
1	43.33	107.81	Open To Flow (1)
17	56.70	108.19	Shut-In(1)
61	929.45	109.37	End Shut-In(1)
62	56.85	109.18	Open To Flow (2)
74	59.42	109.26	Shut-In(2)
76	1679.14	109.84	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
15.00	Oily Mud/Oil 30% Mud 70%	0.07
15.00	Mud cut Oil/Mud 5% Oil 95%	0.07

**Gas Rates**

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



# DRILL STEM TEST REPORT

Shelby Resources LLC

17/17S/13W/Barton

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

**Nancy 3-17**

Job Ticket: 18256

**DST#: 4**

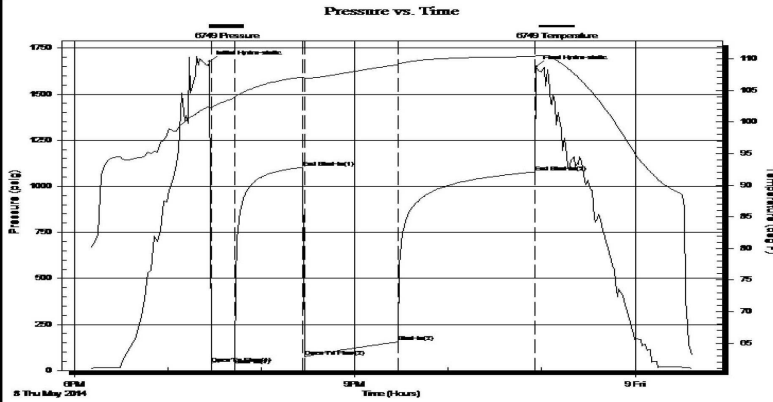
Test Start: 2014.05.08 @ 18:10:00

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:27:30  
 Time Test Ended: 00:37:00  
 Interval: **3450.00 ft (KB) To 3462.00 ft (KB) (TVD)**  
 Total Depth: 3462.00 ft (KB) (TVD)  
 Hole Diameter: 7.80 inches Hole Condition: Poor  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ken Swinney  
 Unit No: 3325 Great Bend/32  
 Reference Elevations: 1978.00 ft (KB)  
 1965.00 ft (CF)  
 KB to GR/CF: 13.00 ft

**Serial #: 6749 Inside**  
 Press@RunDepth: 155.71 psig @ 3458.00 ft (KB)  
 Start Date: 2014.05.08 End Date: 2014.05.09  
 Start Time: 18:10:00 End Time: 00:37:00  
 Capacity: 5000.00 psig  
 Last Calib.: 2014.05.09  
 Time On Btm: 2014.05.08 @ 19:26:30  
 Time Off Btm: 2014.05.08 @ 22:56:30

**TEST COMMENT:** 1ST Open 15 Minutes/Fair blow /Blow built to 6 inches  
 1ST Shut In 45 Minutes/No blow back  
 2ND Open 60 Minutes/Good blow /Blow built to 11 inches  
 2ND Shut In 90 Minutes/No blow back



**PRESSURE SUMMARY**

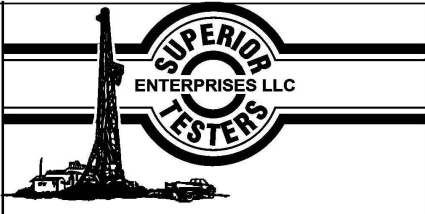
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1676.95	102.42	Initial Hydro-static
1	39.13	102.16	Open To Flow (1)
16	67.35	103.83	Shut-In(1)
61	1102.99	107.11	End Shut-In(1)
61	74.29	106.91	Open To Flow (2)
121	155.71	109.06	Shut-In(2)
210	1077.81	110.33	End Shut-In(2)
210	1648.86	110.47	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
60.00	Oily Mud/Oil 30% Mud 70%	0.30
60.00	Muddy Oil/Mud 40% Oil 60%	0.30
195.00	Clean Oil 100%	0.96
0.00	Corrected Grav. Oil 32	0.00

**Gas Rates**

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



# DRILL STEM TEST REPORT

Shelby Resources LLC

17/17S/13W/Barton

2717 Canal Boulevard  
Suite C  
Hays, Kansas 67601  
ATTN: Jeremy Schwartz

**Nancy 3-17**

Job Ticket: 18257

DST#: 5

Test Start: 2014.05.09 @ 06:24:00

**GENERAL INFORMATION:**

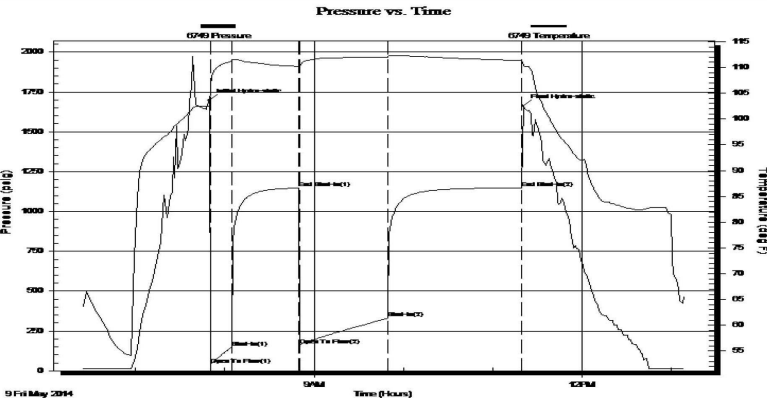
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 07:50:30 Tester: Ken Swinney  
 Time Test Ended: 13:08:30 Unit No: 3325 Great Bend/32  
 Interval: **3462.00 ft (KB) To 3468.00 ft (KB) (TVD)** Reference Elevations: 1978.00 ft (KB)  
 Total Depth: 3468.00 ft (KB) (TVD) 1965.00 ft (CF)  
 Hole Diameter: 7.80 inches Hole Condition: Fair KB to GR/CF: 13.00 ft

**Serial #: 6749**

**Inside**

Press@RunDepth: 328.99 psig @ 3464.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2014.05.09 End Date: 2014.05.09 Last Calib.: 2014.05.09  
 Start Time: 06:24:00 End Time: 13:08:30 Time On Btm: 2014.05.09 @ 07:49:30  
 Time Off Btm: 2014.05.09 @ 11:20:30

**TEST COMMENT:** 1ST Open 15 Minutes/Good blow /Blow built to bottom of bucket in 10 minutes  
 1ST Shut In 45 Minutes/Very weak surface blow back  
 2ND Open 60 Minutes/Good blow /Blow built to bottom of bucket in 12 minutes  
 2ND Shut In 90 Minutes/No blow back



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1698.18	102.49	Initial Hydro-static
1	39.85	106.35	Open To Flow (1)
15	146.77	111.18	Shut-In(1)
60	1147.19	110.20	End Shut-In(1)
61	159.41	110.11	Open To Flow (2)
120	328.99	112.01	Shut-In(2)
210	1148.35	111.34	End Shut-In(2)
211	1663.88	110.50	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
620.00	Slightly Mud cut Water with show of Oil	5.71
0.00	Mud 2% Water 98%	0.00
93.00	Clean Oil 100%	1.30
0.00	Corrected Grav. Oil 31	0.00
0.00	Recov. Resist. .21 ohms @75 deg	0.00
0.00	Recov. Chlorides 19,000 ppm	0.00

**Gas Rates**

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