

JAMES C. MUSGROVE

Petroleum Geologist, LLC
212 Main Street
P.O. Box 215
Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Mai Oil Operations
Hammeke B #6
NE-SW-SW-SE (545' FSL & 2040' FEL)
Section 21-21s-12w
Stafford County, Kansas

Page 1

5 1/2" Production Casing Set

Contractor: Southwind Drilling Co. (rig #3)

Commenced: February 25, 2015

Completed: March 3, 2015

Elevation: 1858' K.B., 1856' D.F., 1850' G.L.

Casing program: Surface; 8 5/8" @ 647'
Production, 5 1/2" @ 3695'

Sample: Samples saved and examined 2900' to the Rotary Total Depth.

Drilling time: One (1) foot drilling time recorded and kept 2900' to the Rotary Total Depth.

Measurements: All depths measured from the Kelly Bushing.

Drill Stem Tests: There were three (3) Drill Stem Tests ran by Trilobite Testing Co.

Electric Log: By Nabors, Dual Induction, Compensated Density/Neutron Log and Micro and Sonic Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	658	+1200
Base Anhydrite	680	+1178
Heebner	3120	-1262
Toronto	3140	-1282
Douglas	3154	-1296
Brown Lime	3254	-1396
Lansing	3267	-1409
Base Kansas City	3491	-1633
Viola	3499	-1641
Simpson Shale	3537	-1679
Arbuckle	3594	-1736
Rotary Total Depth	3700	-1842
Log Total Depth	3698	-1840

All tops and zones corrected to Electric Log Measurement

SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

TOPEKA SECTION

2900-3122' There were several zones of well-developed porosity encountered in the drilling of the Topeka Section but no show of oil and/or gas was noted (see attached Sample Log/Geologist Report)

TORONTO SECTION

3140-3150' Limestone, cream, tan, finely crystalline, poor visible porosity, no shows.

LANSING SECTION

3267-3276' Limestone; tan, buff, fine and medium crystalline, poor scattered pinpoint porosity, chalky in part, no shows, no odor.

3284-3298' Limestone, tan, buff, finely crystalline, few fossiliferous, poor scattered porosity, few chalky, no shows and questionable odor.

3305-3311' Limestone, tan, buff, finely crystalline, fossiliferous fair porosity, chalky, dark brown stain, show of free oil, and fair odor in fresh samples

3225-3230' Limestone, tan, finely crystalline, fossiliferous, scattered vuggy porosity, chalky in part, light black/brown stain, show of free oil and faint odor.

3333-3358' Limestone, as above.

3365-3377' Limestone, cream, tan, oolitic, chalky, poorly developed porosity, black stain, trace of free oil an no odor in fresh samples.

3395-3405' Limestone, cream, tan, finely crystalline, chalky, no shows.

3411-3421' Limestone, tan, cream, oolitic, oomoldic, poor to fair oomoldic porosity, chalky, no shows, plus varied colored cherts.

3431-3438' Limestone, cream, tan, finely crystalline, scattered vuggy porosity, black stain, show of free oil and faint odor in fresh samples.

3451-3470' Limestone, tan, sub-oomoldic, poor to fair porosity, golden brown, stain, trace of free and faint odor in fresh samples.

3473-3487' Limestone, tan, cream, finely crystalline, poor visible porosity, no shows.

Drill Stem Test #1

3391-3490

Times: 30-30-30-30

Blow: Weak

Recovery: 10' oil speckled mud

Pressures: ISIP 254 psi
FSIP 128 psi
IFP 18-23 psi
FFP 20-23 psi
HSH 1660-1657 psi

VIOLA SECTION

3490-3538' Varied colored opaque cherts, trace brown stain, no free oil and no odor in fresh samples.

ARBUCKLE SECTION

3596-3604' Dolomite, tan, buff, finely crystalline, chalky luster, poor to fair porosity, trace stain, show of free oil and strong odor in fresh samples.

3604-3625' Dolomite, tan, finely crystalline, sucrosic in part, scattered porosity, brown/black stain, show of free oil and strong odor in fresh samples.

Drill Stem Test #2 **3534-3625**

Times: 30-30-45-45

Blow: Strong

**Recovery: 1485' gas in pipe
120' gassy muddy oil
(15% gas; 73% oil, 12% mud)
390' heavily oil and gas cut mud
(15% gas; 52% oil; 33% mud)
120' gassy oil cut mud
(33% gas; 32% oil; 35% mud)**

**Pressures: ISIP 862 psi
FSIP 872 psi
IFP 77-155 psi
FFP 171-255 psi
HSH 1754-1739 psi**

3625-3645' Dolomite, tan, gray, finely crystalline, poorly developed vuggy type porosity, light brown stain, trace free oil and strong odor in fresh samples.

Drill Stem Test #3 **3624-3645**

Times: 30-30-45-45

Blow: Strong

**Recovery: 1970' gas in pipe
90' clean gassy oil
40' gassy mud cut oil
(7% gas; 63% oil; 30% mud)**

**Pressures: ISIP 857 psi
FSIP 962 psi
IFP 31-41 psi
FFP 52-71 psi
HSH 1815-1784 psi**

3645-3660' Dolomite, tan, buff, gray finely crystalline, poor scattered inter-crystalline porosity, light brown stain, show of free oil and fair odor.

Mai Oil Operations
Hammeke B #6
NE-SW-SW-SE (545' FSL & 2040' FEL)
Section 21-21s-12w
Stafford County, Kansas

Page 4

3660-3680'	Dolomite, tan, buff, finely crystalline, poorly developed porosity, light brown stain, show of free oil and fair odor in fresh samples.
3680-3700'	Dolomite, tan, finely crystalline, poorly developed porosity, no shows and faint odor in fresh samples.

Rotary Total Depth	3700
Log Total Depth	3698

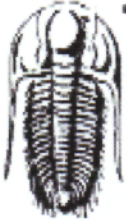
Recommendations:

The 5 1/2" production casing was set and cemented on Mai Oil Operation Inc., Hammeke B #6.

Respectfully yours,



Wyatt Urban
Petroleum Geologist



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mai Oil Oper., Inc.
8411 Preston Rd. Ste. 800
Dallas, TX 75225-5520
ATTN: Wyatt Urban

21-21s-12w Stafford,KS
Hammeke 'B' #6
Job Ticket: 59964 **DST#: 1**
Test Start: 2015.03.01 @ 03:19:53

GENERAL INFORMATION:

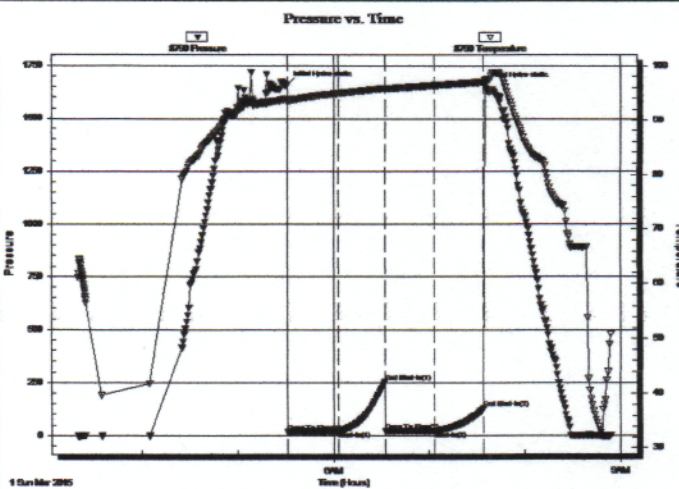
Formation: **LKC H-K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 05:31:23
Time Test Ended: 08:53:53
Interval: **3391.00 ft (KB) To 3490.00 ft (KB) (TVD)**
Total Depth: 3490.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Ryan Reynolds
Unit No: 68
Reference Elevations: 1857.00 ft (KB)
1850.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8790

Inside

Press@RunDepth: 22.63 psig @ 3392.00 ft (KB)
Start Date: 2015.03.01 End Date: 2015.03.01
Start Time: 03:19:58 End Time: 08:53:52
Capacity: 8000.00 psig
Last Calib.: 2015.03.01
Time On Btm: 2015.03.01 @ 05:31:08
Time Off Btm: 2015.03.01 @ 07:34:53

TEST COMMENT: IF: Weak blow . 1/2" - 1"
IS: No blow
FF: Weak surf. blow .
FS: No blow .



PRESSURE SUMMARY

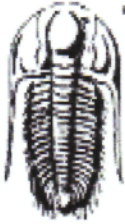
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1659.66	93.93	Initial Hydro-static
1	18.20	93.30	Open To Flow (1)
33	22.55	94.91	Shut-In(1)
62	254.10	95.79	End Shut-In(1)
62	20.49	95.66	Open To Flow (2)
93	22.63	96.36	Shut-In(2)
123	128.03	97.00	End Shut-In(2)
124	1657.33	97.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	VSLI OspkdM trc%o, 99+%m	0.14

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Oper., Inc.
 8411 Preston Rd. Ste. 800
 Dallas, TX 75225-5520
 ATTN: Wyatt Urban

21-21s-12w Stafford,KS
Hammeke 'B' #6
 Job Ticket: 59965 **DST#: 2**
 Test Start: 2015.03.01 @ 20:12:56

GENERAL INFORMATION:

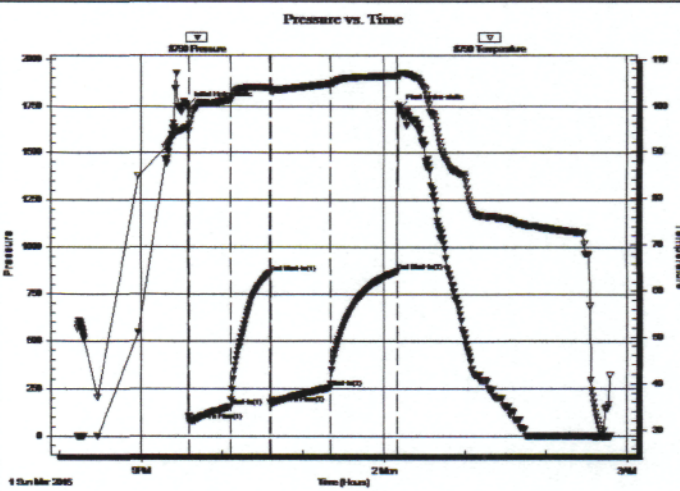
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:35:56
 Time Test Ended: 02:47:56
 Interval: **3534.00 ft (KB) To 3625.00 ft (KB) (TVD)**
 Total Depth: 3625.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Reynolds
 Unit No: 68
 Reference Elevations: 1857.00 ft (KB)
 1850.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8790

Inside

Press@RunDepth: 254.89 psig @ 3535.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.03.01 End Date: 2015.03.02 Last Calib.: 2015.03.02
 Start Time: 20:13:01 End Time: 02:47:55 Time On Btmr: 2015.03.01 @ 21:35:11
 Time Off Btmr: 2015.03.02 @ 00:11:41

TEST COMMENT: F: Strong blow . BOB @ 2min.
 IS: Strong blow . BOB @ 23min.
 FF: Strong blow . BOB immed.
 FS: Strong blow . BOB @ 10min.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1754.00	95.33	Initial Hydro-static
1	77.49	95.46	Open To Flow (1)
32	155.37	101.35	Shut-in(1)
61	862.38	104.10	End Shut-in(1)
61	170.81	103.69	Open To Flow (2)
105	254.89	104.77	Shut-in(2)
155	871.78	106.43	End Shut-in(2)
157	1739.40	106.50	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	GOCM 33%g, 32%o, 35%m	1.68
390.00	GMCO 15%g, 52%o, 33%m	5.47
120.00	GMCO 15%g, 12%m, 73%o	1.68
0.00	1485' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Oper., Inc.
 8411 Preston Rd. Ste. 800
 Dallas, TX 75225-5520
 ATTN: Wyatt Urban

21-21s-12w Stafford,KS
Hammeke 'B' #6
 Job Ticket: 59966 **DST#: 3**
 Test Start: 2015.03.02 @ 09:04:28

GENERAL INFORMATION:

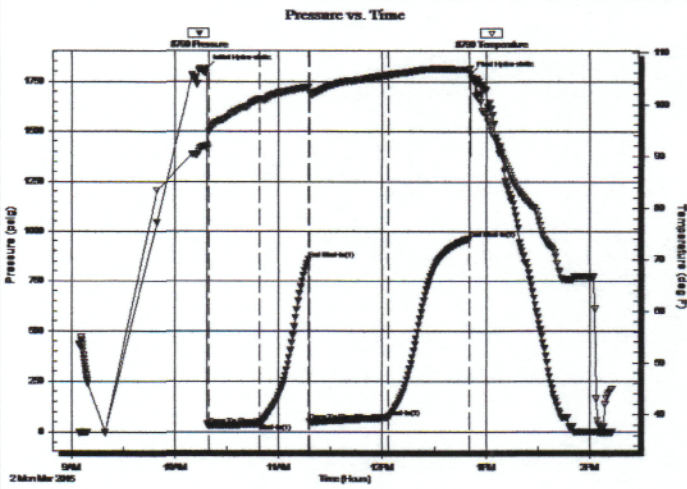
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:19:43
 Time Test Ended: 14:13:13
 Interval: **3624.00 ft (KB) To 3645.00 ft (KB) (TVD)**
 Total Depth: 3645.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ryan Reynolds
 Unit No: 68
 Reference Elevations: 1857.00 ft (KB)
 1850.00 ft (CF)
 KB to GR/CF: 7.00 ft

Serial #: 8790

Inside

Press@RunDepth: 70.81 psig @ 3625.00 ft (KB)
 Start Date: 2015.03.02 End Date: 2015.03.02
 Start Time: 09:04:33 End Time: 14:13:12
 Capacity: 8000.00 psig
 Last Calib.: 2015.03.02
 Time On Btm: 2015.03.02 @ 10:18:28
 Time Off Btm: 2015.03.02 @ 12:50:58

TEST COMMENT: IF: Strong blow . BOB @ 5 min.
 IS: Fair blow . Surf. - 3"
 FF: Strong blow . BOB @ 1 min.
 FS: Good blow . Surf. - 7"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1815.33	91.91	Initial Hydro-static
2	31.48	94.72	Open To Flow (1)
31	40.88	101.01	Shut-In(1)
59	856.78	103.35	End Shut-In(1)
60	51.88	102.14	Open To Flow (2)
105	70.81	105.63	Shut-In(2)
152	962.01	106.75	End Shut-In(2)
153	1784.06	106.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	GOCM 7%g, 30%m, 63%o	0.56
90.00	Clean Gassy Oil 5%g, 95%o	1.26
0.00	1970' GIP	0.00

* Recovery from multiple tests

Gas Rates

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

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

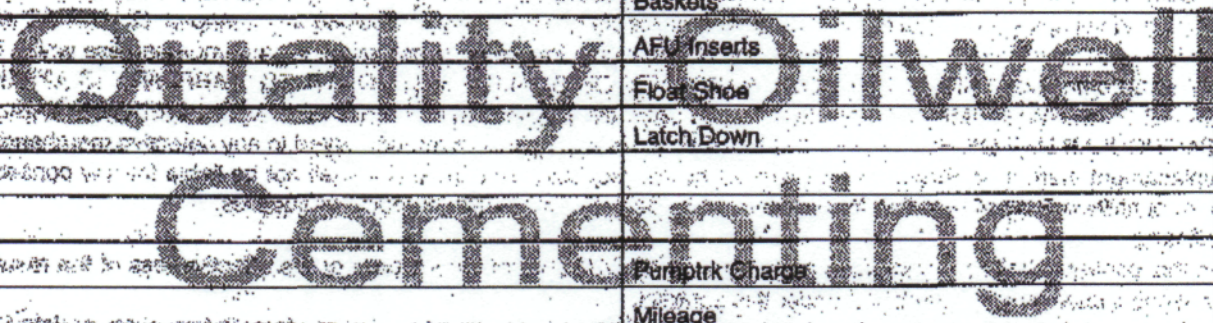
Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 1134

Cell 785-324-1041

Date	2-25-15	Sec.	21	Twp.	21	Range	12	County	Stafford	State	KS	On Location		Finish	11:00 PM
Location								Canaan Road, KS - 115 to 170 Rd, 6 E to							
Lease	Hammeke B			Well No.	6			Owner	G. R. 1/8 N W 1/4						
Contractor	Southwind			3				To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.							
Type Job	Surface														
Hole Size	13 1/4"			T.D.	647'			Charge To	Main oil operations						
Csg.	8 5/8"			Depth	647'			Street							
Tool				Depth				City	State						
Cement Left in Csg.	20'			Shoe Joint	20'			The above was done to satisfaction and supervision of owner agent or contractor.							
Meas Line				Displace	40' BLS			Cement Amount Ordered 400 60140 3%CC 2%Gel 1/4"Flt							
EQUIPMENT								Common							
Pumptrk	20			No.				Cementer	DICK						
Bulktrk	21			No.				Helper	DICK						
Bulktrk	p.u.			No.				Driver	DICK						
JOB SERVICES & REMARKS								Hulls							
Remarks	Cement did Circulate														
Rat Hole	Flowseal 200th														
Mouse Hole	Kol-Seal														
Centralizers	Mud CLR 48														
Baskets	CFL-117 or CD110 CAF 38														
D/V or Port Collar	Sand														
	Handling														
	Mileage														
FLOAT EQUIPMENT								Guide Shoe Rubber plug							
	Centralizer														
	Baskets														
	AFU Inserts														
	Float Shoe														
	Latch Down														
	Pumptrk Charge														
	Mileage														
	Tax														
	Discount														
	Total Charge														



QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1137

Date	3-3-15	Sec.	21	Twp.	21	Range	12	County	Stafford	State	Ks	On Location		Finish	11845 AW
------	--------	------	----	------	----	-------	----	--------	----------	-------	----	-------------	--	--------	----------

Location Great Bend, Ks - 115 to 170 Rd, 6E to

Lease	Hammeke	Well No.	6	Owner	60 Rd 1/8 N, w/into
Contractor	Southwind		3	To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.	
Type Job	Production			Charge To <u>Ma: oil operations</u>	
Hole Size	7 7/8"	T.D.	3700'	Street	
Csg.	5 1/2" New 14#	Depth	3695'	City	
Tbg. Size		Depth		State	
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	21.46'	Shoe Joint	21.46'	Cement Amount Ordered <u>160 60/40 100% Salt 2% Gel</u>	
Meas Line		Displace	89 1/2 BLS	<u>1/4# Flt seal 1000 mud Clear 48</u>	

EQUIPMENT

Pumptrk	16	No.		Cementer		Common
				Helper	Billy	Poz. Mix
Bulktrk	14	No.		Driver	Downy	Gel.
				Driver		Calcium
Bulktrk	p.u.	No.		Driver	Rick	
				Driver		

JOB SERVICES & REMARKS

Remarks:		Hulls
Rat Hole		Salt
Mouse Hole		Flowseal
Centralizers	1-10 12,13,14	Kol-Seal
Baskets	pipe on bottom break Circulation	Mud CLR 48
D/V or Port Collar	pump 1000 gal mud Clear 48	CFL-117 or CD110 CAF 38
plug Rathole w/ 305x Hook to 5 1/2"		Sand
Casing + mix 1300x Cement. Shut		Handling
down wash pump + lines Released		Mileage
plug + Displaced w/ 89 1/2 BLS of		FLOAT EQUIPMENT
H2O. Released + held.		Guide Shoe
		Centralizer
		13
		Baskets
		AFU Inserts
		Float Shoe
		Latch Down

Landset plug to	pressure 600 #	
	1500 #	

Pumptrk Charge		Tax
Mileage		Discount
		Total Charge
X Signature	<i>[Signature]</i>	

