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Mai Oil Operations
Hammeke 'B' #3
N/2-SE-SE-SE (620' FSL & 330' FEL)
Section 21-21s-12w
Stafford County, Kansas

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5 1/2" Production Casing Set

Contractor: Southwind Drilling Co. (rig #3)
Commenced: October 11, 2014
Completed: October 19, 2014
Elevation: 1851' K.B., 1849' D.F., 1843' G.L.
Casing program: Surface; 8 5/8" @ ~~3714'~~ 640'
Production, 5 1/2" @ 3714'
Sample: Samples saved and examined 2100' to 2400', 2900' the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 2100' to 2400', 2900' to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were nine (9) Drill Stem Tests ran by Diamond Testing Co.
Electric Log: By Pioneer, Dual Induction, Dual Compensated Porosity and Micro-Resistivity Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	643	+1208
Base Anhydrite	663	+1188
Red Eagle	2232	-381
Heebner	3107	-1256
Toronto	3125	-1274
Douglas	3140	-1289
Brown Lime	3242	-1391
Lansing	3251	-1400
Base Kansas City	3478	-1627
Viola	3488	-1637
Simpson Shale	3518	-1667
Arbuckle	3571	-1720
Rotary Total Depth	3715	-1864
Log Total Depth	3715	-1864

All tops and zones corrected to Electric Log Measurement.

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

RED EAGLE SECTION

Limestone, cream, white, oomoldic, granular in part, good oomoldic porosity, no gas bubbles, no odor and no shows.

TOPEKA SECTION

There were several zones of well-developed porosity encountered in the drilling of the Topeka Section but no shows of oil and/or gas was noted (see attached sample log/geologist report).

TORONTO SECTION

3125-3134' Limestone, tan, cream, finely crystalline, chalky, poor visible porosity, no shows.

LANSING SECTION

3252-3260' Limestone, white, tan, finely crystalline, oolitic, poor visible porosity, no shows.

3272-3280' Limestone, tan, cream, white, finely crystalline, granular in part, fossiliferous, poor inter-crystalline porosity, trace brown stain, trace of free oil and faint odor in fresh samples.

3287-3294' Limestone, tan, finely crystalline, oolitic, sub-oomoldic, scattered porosity, golden brown to dark brown stain, show of free oil and faint odor in fresh samples.

Drill Stem Test #1 3254-3300

Times: 30-45-30-60

Blow: Strong

Recovery: 31' gas in pipe
30' mud

Pressures: ISIP 372 psi
FSIP 348 psi
IFP 67-34 psi
FFP 33-36 psi
HSH 1643-1609 psi

- 3311-3316' Limestone, white, gray, fossiliferous, sub-oomoldic, chalky in part; golden brown stain weak show of free oil and questionable odor in fresh samples.
- 3319-3330' Limestone, gray, white, oolitic, chalky, gray and brown stain, show of free oil and faint to fair odor in fresh samples.
- 3336-3342' Limestone, gray, tan, fossiliferous, scattered porosity, fair stain and saturation, show of free oil and fair odor in fresh samples.

Drill Stem Test #2 **3300-3345**

Times: 30-30-30-30

Blow: Weak

Recovery: 15' very slightly oil spotted mud

Pressures:

ISIP	62	psi
FSIP	52	psi
IFP	33-34	psi
FFP	32-37	psi
HSH	1622-1602	psi

- 3379-3386' Limestone, gray, white, oomoldic, fair oomoldic porosity, brown to dark brown stain, show of free oil and faint odor in fresh samples.
- 3397-3410' Limestone, white, gray, oolitic, chalky, brown and dark brown stain, show of free oil and questionable odor in fresh samples.
- 3415-3425' Limestone, tan, gray, white, finely crystalline, fossiliferous/oolitic, brown to dark brown stain, show of free oil and faint odor in fresh samples.
- 3435-3444' Limestone, tan, gray, oolitic, poor porosity, trace brown stain, weak show of free oil and no odor in fresh samples.

Drill Stem Test #3 **3370-3445**

Times: 30-30-45-60

Blow: Good to Strong

Recovery: 154' very slightly oil spotted mud

Pressures:

ISIP	870	psi
FSIP	843	psi
IFP	50-86	psi
FFP	84-117	psi
HSH	1719-1585	psi

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3464-3474' Limestone, white, tan, finely crystalline, oolitic, chalky, brown stain, trace of free oil and fair odor in fresh samples.

VIOLA SECTION

3488-3518' Chert, white, gray, boney, fresh; black/brown stain, trace of free oil and questionable odor in fresh samples.

Drill Stem Test #4 **3454-3522**

Times: 30-30-30-30

Blow: Weak

Recovery: 10' mud

Pressures: ISIP 65 psi
FSIP 55 psi
IFP 45-50 psi
FFP 45-48 psi
HSH 1788-1711 psi

SIMPSON SECTION

3522-3530' Sand, white, clear, sub-rounded, friable, poor to fair inter-granular porosity, black stain, no free oil and no odor in fresh samples.

ARBUCKLE SECTION

3571-3580' Dolomite, tan, fine and medium crystalline, sucrosic in part, scattered inter-crystalline to pinpoint type porosity, good stain and saturation, show of free oil and strong odor in fresh samples.

3580-3591' Dolomite, as above, medium crystalline, good inter-crystalline porosity, few 100% stain and saturated; fair to good show of free oil and strong odor in fresh samples.

Drill Stem Test #5 **3512-3591**

Times: 30-30-45-45

Blow: Strong

Recovery: 252' clean gassy oil
348' muddy gassy oil
(35% gas; 60% oil; 5% mud)

Pressures: ISIP 987 psi
FSIP 993 psi
IFP 91-158 psi
FFP 186-262 psi
HSH 1805-1720 psi

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3591-3611' Dolomite, gray, white, medium crystalline, good inter-crystalline porosity, good stain and saturation, good show of free oil and strong odor, plus tan, sucrosic dolomite, fair porosity, good stain, show of free oil.

Drill Stem Test #6 **3584-3611**

Times: 30-30-45-45

Blow: Strong

Recovery: 344' clean gassy oil
126' muddy gassy oil
(35% gas; 60% oil; 5% mud)

Pressures: ISIP 926 psi
FSIP 878 psi
IFP 57-105 psi
FFP 141-201 psi
HSH 1868-1752 psi

3614-3634' Dolomite, gray, finely crystalline, few medium crystalline, good inter-crystalline and vuggy type porosity, good dark brown stain and saturation, good show of free oil and strong odor in fresh samples.

Drill Stem Test #7 **3614-3634**

Times: 30-30-45-45

Blow: Strong

Recovery: 1314' clean gassy oil
126' muddy gassy oil
(50% gas; 47% oil; 3% mud)

Pressures: ISIP 1092 psi
FSIP 1066878 psi
IFP 83-306 psi
FFP 300-501 psi
HSH 1811-1811 psi

3634-3648' Dolomite, gray, finely crystalline, sucrosic, oomoldic, good vuggy and oomoldic porosity, good stain and saturation, good show of free oil and good odor in fresh samples.

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Drill Stem Test #8 **3634-3648**

Times: 30-30-45-45
Blow: Strong
Recovery: 174' clean gassy oil
126' muddy gassy oil
(50% gas; 45% oil; 5% mud)
Pressures: ISIP 1149 psi
FSIP 1120 psi
IFP 23-63 psi
FFP 82-129 psi
HSH 1837-1788 psi

3648-3663' Dolomite, gray, white, oomoldic, fair oomoldic porosity, fair stain and saturation, show of free oil and good odor in fresh samples.

Drill Stem Test #9 **3648-3663**

Times: 30-30-45-45
Blow: Weak
Recovery: 10' oil spotted mud
Pressures: ISIP 417 psi
FSIP 69 psi
IFP 19-57 psi
FFP 22-23 psi
HSH 1841-1762 psi

3663-3683' Dolomite, tan, fine and medium crystalline, fair inter-crystalline porosity, brown and dark brown stain, show of free oil (heavy tarry) and faint odor in fresh samples.

3684-3696' Dolomite, tan, oomoldic, fair oomoldic porosity, no shows.

3696-3715' Dolomite, white, gray, finely crystalline sucrosic, scattered pinpoint porosity, black/gray stain, show of free oil (tarry, black) and faint odor in fresh samples.

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Stafford County, Kansas


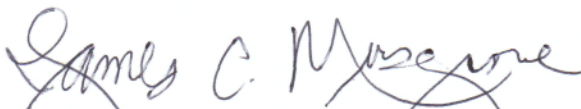
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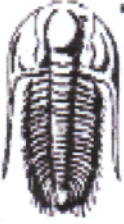
Rotary Total Depth	3715
Log Total Depth	3715

Recommendations:

The 5 1/2" production casing set and cemented on the Hammeke 'B' #3.

Respectfully yours,

 & 
Kurt Talbott and James C. Musgrove
Petroleum Geologists



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mai Oil Operations
 8411 Preston Road Ste 800
 Dallas TX 75225
 ATTN: Kurt Talbot

21-21s-12w Stafford,KS
Hammeke B #3
 Job Ticket: 60277 **DST#: 1**
 Test Start: 2014.10.15 @ 03:24:00

GENERAL INFORMATION:

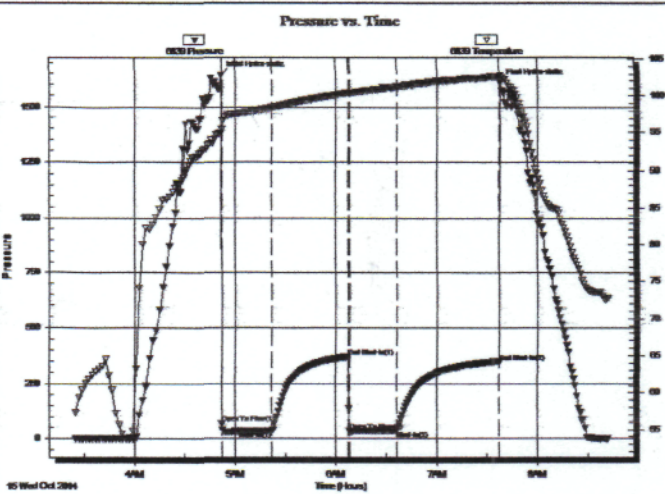
Formation: **LKC A-C**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:52:00
 Time Test Ended: 08:42:00
 Interval: **3254.00 ft (KB) To 3300.00 ft (KB) (TVD)**
 Total Depth: 3300.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: S2
 Reference Elevations: 1851.00 ft (KB)
 1843.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6839

Inside

Press@RunDepth: 36.73 psig @ 3295.00 ft (KB)
 Start Date: 2014.10.15 End Date: 2014.10.15
 Start Time: 03:25:00 End Time: 08:42:00
 Capacity: 5000.00 psig
 Last Calib.: 2014.10.15
 Time On Btm: 2014.10.15 @ 04:51:30
 Time Off Btm: 2014.10.15 @ 07:37:30

TEST COMMENT: IFP 30 BOB in 2 minutes.
 ISI 45 No blow back.
 FFP 30 BOB instantly.
 FSI 60 No blow back.



PRESSURE SUMMARY

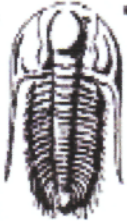
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1643.71	94.91	Initial Hydro-static
1	67.08	95.40	Open To Flow (1)
31	34.26	98.45	Shut-In(1)
76	372.04	100.39	End Shut-In(1)
77	33.56	100.34	Open To Flow (2)
105	36.73	101.20	Shut-In(2)
166	348.32	102.63	End Shut-In(2)
166	1609.79	102.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Mud 100%	0.42
0.00	30' .GIP	0.00

Gas Rates

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



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DRILL STEM TEST REPORT

Mai Oil Operations
 8411 Preston Road Ste 800
 Dallas TX 75225
 ATTN: Kurt Talbot

21-21s-12w Stafford,KS
Hammeke B #3
 Job Ticket: 60278 **DST#: 2**
 Test Start: 2014.10.15 @ 15:29:00

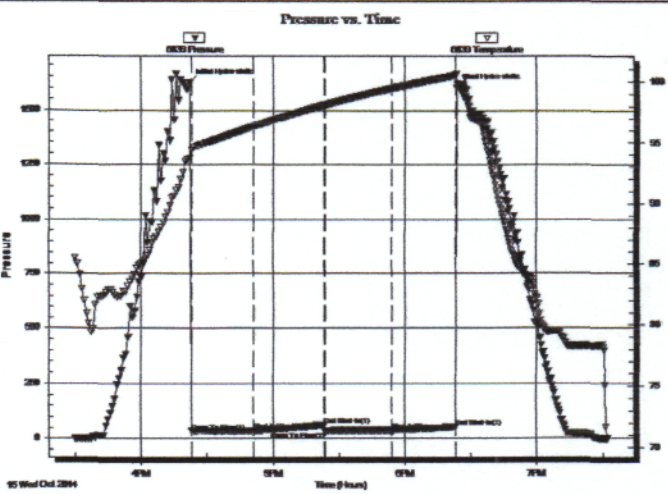
GENERAL INFORMATION:

Formation: **LKC E-G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:22:00
 Time Test Ended: 19:32:00
 Interval: **3300.00 ft (KB) To 3345.00 ft (KB) (TVD)**
 Total Depth: 3345.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: S2
 Reference Elevations: 1851.00 ft (KB)
 1843.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6839 Outside
 Press@RunDepth: 37.59 psig @ 3340.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2014.10.15 End Date: 2014.10.15 Last Calib.: 2014.10.15
 Start Time: 15:30:00 End Time: 19:32:00 Time On Btrn: 2014.10.15 @ 16:22:00
 Time Off Btrn: 2014.10.15 @ 18:23:30

TEST COMMENT: FP 30 Weak building blow built to 1 1/2"
 ISI 30 No blow back.
 FFP 30 Weak blow built to 1"
 FSI 30 No blow back.



PRESSURE SUMMARY

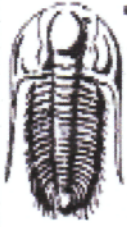
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1622.24	93.70	Initial Hydro-static
1	33.30	94.40	Open To Flow (1)
29	34.84	96.31	Shut-In(1)
61	62.28	98.09	End Shut-In(1)
62	32.83	98.10	Open To Flow (2)
92	37.59	99.46	Shut-In(2)
121	52.75	100.51	End Shut-In(2)
122	1602.51	100.63	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	Very slightly oil spotted mud 100%	0.21

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mai Oil Operations
 8411 Preston Road Ste 800
 Dallas TX 75225
 ATTN: Kurt Talbot

21-21s-12w Stafford,KS
Hammeke B #3
 Job Ticket: 60279 **DST#: 3**
 Test Start: 2014.10.16 @ 05:33:00

GENERAL INFORMATION:

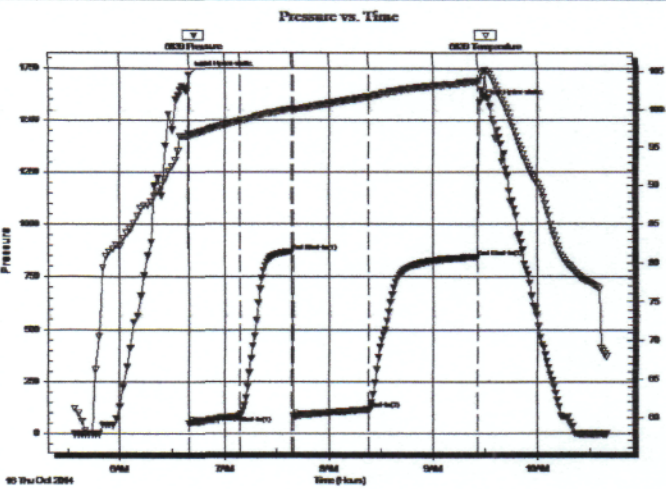
Formation: **LKC H - L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:40:00
 Time Test Ended: 10:39:30
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: S2
 Interval: **3370.00 ft (KB) To 3445.00 ft (KB) (TVD)**
 Total Depth: 3445.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Reference Elevations: 1851.00 ft (KB)
 1843.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6839

Inside

Press@RunDepth: 117.27 psig @ 3440.12 ft (KB) Capacity: 5000.00 psig
 Start Date: 2014.10.16 End Date: 2014.10.16 Last Calib.: 2014.10.16
 Start Time: 05:34:00 End Time: 10:39:30 Time On Btm: 2014.10.16 @ 06:39:30
 Time Off Btm: 2014.10.16 @ 09:26:30

TEST COMMENT: FP 30 Fair building blow built to 11"
 ISI 30 No blow back
 FFP 45 BOB in 29 min
 FSI 60 No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1719.46	96.76	Initial Hydro-static
1	50.25	96.55	Open To Flow (1)
30	86.70	98.39	Shut-In(1)
59	870.70	100.11	End Shut-In(1)
60	84.91	99.97	Open To Flow (2)
104	117.27	101.67	Shut-In(2)
166	843.24	103.61	End Shut-In(2)
167	1585.69	103.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
154.00	Very lightly oil spotted mud100%	2.16
0.00	125' GIP	0.00

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mai Oil Operations
 8411 Preston Road Ste 800
 Dallas TX 75225
 ATTN: Kurt Talbot

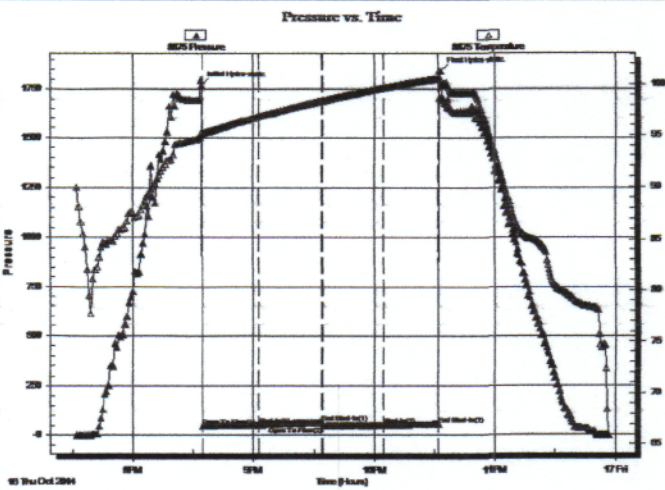
21-21s-12w Stafford,KS
Hammeke B #3
 Job Ticket: 60280 **DST#: 4**
 Test Start: 2014.10.16 @ 19:31:00

GENERAL INFORMATION:

Formation: **Viola**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:33:00
 Time Test Ended: 23:56:00
 Interval: **3454.00 ft (KB) To 3522.00 ft (KB) (TVD)**
 Total Depth: 3522.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: S2
 Reference Elevations: 1851.00 ft (KB)
 1843.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8875 Outside
 Press@RunDepth: 56.42 psig @ 3517.14 ft (KB) Capacity: 5000.00 psig
 Start Date: 2014.10.16 End Date: 2014.10.16 Last Calib.: 2014.10.17
 Start Time: 19:32:00 End Time: 23:56:30 Time On Btrm: 2014.10.16 @ 20:34:00
 Time Off Btrm: 2014.10.16 @ 22:33:00

TEST COMMENT: IFP 30 Weak surface blow died off after 27 minutes.
 ISI 30 No blow back.
 FFP 30 Weak surface blow died off after 22 minutes
 FSI 30 No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1769.50	95.29	Initial Hydro-static
1	46.97	95.09	Open To Flow (1)
29	51.16	96.81	Shut-In(1)
61	66.05	98.41	End Shut-In(1)
61	45.80	98.42	Open To Flow (2)
91	49.25	99.66	Shut-In(2)
118	56.42	100.60	End Shut-In(2)
119	1843.58	100.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100%	0.14

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mai Oil Operations
8411 Preston Road Ste 800
Dallas TX 75225
ATTN: Kurt Talbott

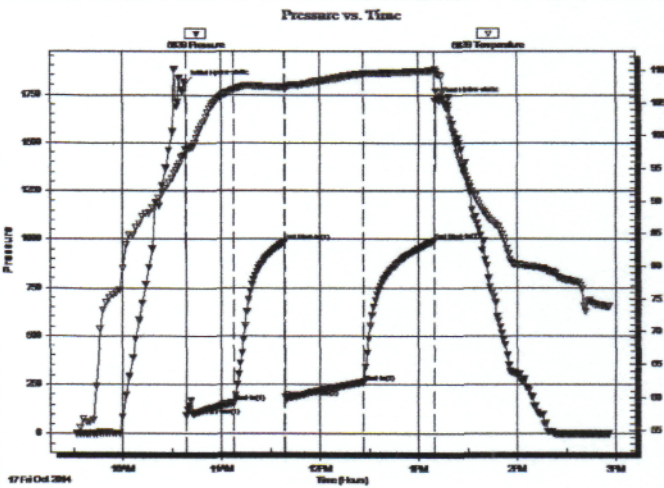
21-21s-12w Stafford,KS
Hammeke B #3
Job Ticket: 60281 **DST#: 5**
Test Start: 2014.10.17 @ 09:31:00

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:38:30
Time Test Ended: 14:56:00
Interval: **3512.00 ft (KB) To 3591.00 ft (KB) (TVD)**
Total Depth: 3591.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Ellis
Unit No: S2
Reference Elevations: 1851.00 ft (KB)
1843.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6839 Inside
Press@RunDepth: 262.82 psig @ 3576.96 ft (KB) Capacity: 5000.00 psig
Start Date: 2014.10.17 End Date: 2014.10.17 Last Calib.: 2014.10.17
Start Time: 09:32:00 End Time: 14:56:00 Time On Btm: 2014.10.17 @ 10:38:00
Time Off Btm: 2014.10.17 @ 13:10:00

TEST COMMENT: IFF 30 BOB in 4 minutes .
ISI 30 No blow back
FFP 45 BOB in 8 minutes.
FSI 45 No blow back



PRESSURE SUMMARY

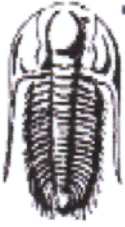
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1805.80	97.89	Initial Hydro-static
1	91.74	97.75	Open To Flow (1)
30	158.94	107.02	Shut-In(1)
61	987.26	107.35	End Shut-In(1)
61	183.99	107.13	Open To Flow (2)
109	262.82	109.47	Shut-In(2)
152	993.45	109.91	End Shut-In(2)
152	1720.78	110.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
252.00	Clean gassy oil 100%	3.53
348.00	GMCO Gas 35% Oil 60% Mud 5%	4.88
0.00	2646' GIP	0.00

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mai Oil Operations
 8411 Preston Road Ste 800
 Dallas TX 75225
 ATTN: Kurt Talbot

21-21s-12w Stafford,KS
Hammeke B #3
 Job Ticket: 60282 **DST#: 6**
 Test Start: 2014.10.17 @ 20:50:00

GENERAL INFORMATION:

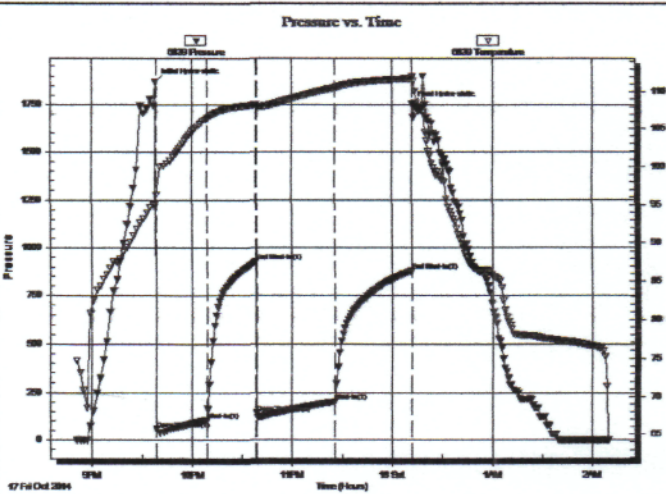
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:39:00
 Time Test Ended: 02:09:30
 Interval: **3584.00 ft (KB) To 3611.00 ft (KB) (TVD)**
 Total Depth: 3611.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: S2
 Reference Elevations: 1851.00 ft (KB)
 1843.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6839

Inside

Press@RunDepth: 201.41 psig @ 3606.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2014.10.17 End Date: 2014.10.18 Last Calib.: 2014.10.18
 Start Time: 20:51:00 End Time: 02:09:30 Time On Btrm: 2014.10.17 @ 21:38:00
 Time Off Btrm: 2014.10.18 @ 00:12:00

TEST COMMENT: IFP 30 BOB in 2 minutes.
 ISI 30 No blow back
 FFP 45 BOB in 4 minutes
 FSI 45 No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1868.12	95.05	Initial Hydro-static
1	57.65	96.36	Open To Flow (1)
31	105.50	106.37	Shut-In(1)
61	926.44	108.25	End Shut-In(1)
61	141.87	107.92	Open To Flow (2)
108	201.41	110.45	Shut-In(2)
154	878.34	111.66	End Shut-In(2)
154	1752.39	111.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
344.00	Clean gassy oil 100%	4.83
126.00	GMCO Gas 35% Oil60% mud5%	1.77
0.00	2800' GIP	0.00

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Mai Oil Operations
 8411 Preston Road Ste 800
 Dallas TX 75225
 ATTN: Kurt Talbot

21-21s-12w Stafford,KS
Hammeke B #3
 Job Ticket: 60283 **DST#: 7**
 Test Start: 2014.10.18 @ 08:11:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 09:14:30
 Time Test Ended: 13:56:30
 Interval: **3614.00 ft (KB) To 3634.00 ft (KB) (TVD)**
 Total Depth: 3634.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair

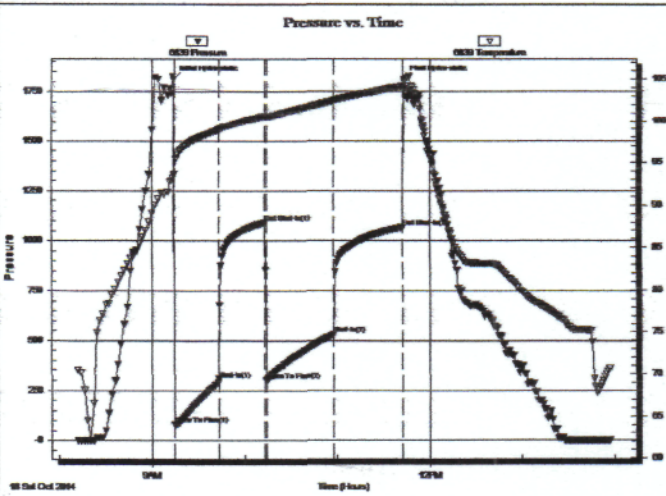
Test Type: Conventional Bottom Hole (Initial)
 Tester: Dustin Ellis
 Unit No: S2
 Reference Elevations: 1851.00 ft (KB)
 1843.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6839

Inside

Press@RunDepth: 531.40 psig @ 3629.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2014.10.18 End Date: 2014.10.18 Last Calib.: 2014.10.18
 Start Time: 08:12:00 End Time: 13:56:30 Time On Btrr: 2014.10.18 @ 09:14:00
 Time Off Btrr: 2014.10.18 @ 11:43:00

TEST COMMENT: IFP 30 BOB in 1 minute.
 ISI 30 No blow back
 FFP 45 BOB in 2 minutes.
 FSI 45 No blow back.



PRESSURE SUMMARY

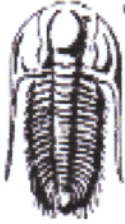
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1811.69	93.65	Initial Hydro-static
1	83.10	93.65	Open To Flow (1)
29	306.75	98.89	Shut-In(1)
59	1092.19	100.63	End Shut-In(1)
60	300.86	100.50	Open To Flow (2)
104	531.40	102.43	Shut-In(2)
149	1066.03	104.18	End Shut-In(2)
149	1811.76	104.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1314.00	Clean gassy oil 50%gas 50%oil	18.43
126.00	GSMCO 50%Gas 47%Oil 3%Mud	1.77
0.00	3560' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Mai Oil Operations
8411 Preston Road Ste 800
Dallas TX 75225
ATTN: Kurt Talbott

21-21s-12w Stafford,KS
Hammeke B #3
Job Ticket: 60284 **DST#: 8**
Test Start: 2014.10.18 @ 19:22:00

GENERAL INFORMATION:

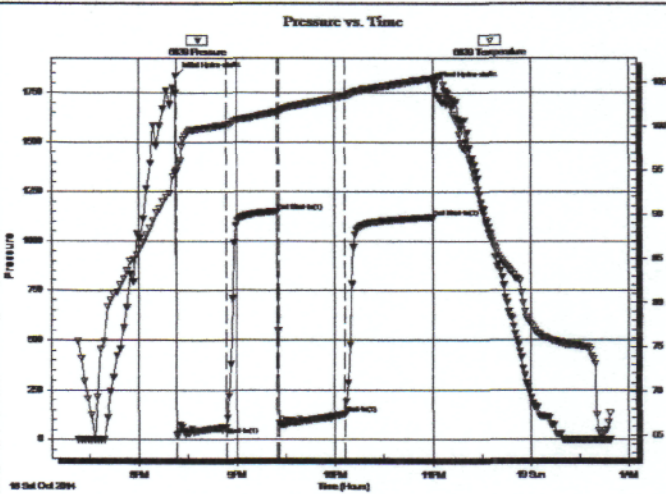
Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 20:23:30
Time Test Ended: 00:49:00
Interval: **3634.00 ft (KB) To 3648.00 ft (KB) (TVD)**
Total Depth: 3648.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Dustin Ellis
Unit No: S2
Reference Elevations: 1851.00 ft (KB)
1843.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 6839

Inside

Press@RunDepth: 129.42 psig @ 3643.00 ft (KB) Capacity: 5000.00 psig
Start Date: 2014.10.18 End Date: 2014.10.19 Last Calib.: 2014.10.18
Start Time: 19:23:00 End Time: 00:49:00 Time On Btm: 2014.10.18 @ 20:23:00
Time Off Btm: 2014.10.18 @ 23:01:00

TEST COMMENT: IFP 30 BOB in 6 minutes.
ISI 30 No blow back
FFP 45 BOB in 4 minutes
FSI 45 No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1837.51	94.87	Initial Hydro-static
1	23.55	94.98	Open To Flow (1)
31	63.84	100.11	Shut-In(1)
63	1149.64	101.68	End Shut-In(1)
63	82.47	101.64	Open To Flow (2)
104	129.42	103.44	Shut-In(2)
158	1120.04	105.41	End Shut-In(2)
158	1788.30	105.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
174.00	Clean gassy oil 100%	2.44
126.00	VGSOCM Gas 50% Oil 45% Mud 5%	1.77

Gas Rates

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

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. 854

Date	10-11-14	Sec.	21	Twp.	21	Range	12	County	Stafford	State	KS	On Location		Finish	11:45
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Location *1/4 mi Bend 11s to Rd 170 6E 1/4 N West into*

Lease	<i>Hammek B</i>	Well No.	<i>3</i>	Owner	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.
Contractor	<i>Sidwind</i>				
Type Job	<i>Surface</i>				
Hole Size	<i>12 1/4</i>	T.D.	<i>640'</i>	Charge To	<i>mai oil operations</i>
Csg.	<i>8 5/8</i>	Depth	<i>640'</i>	Street	
Tbg. Size		Depth		City	State
Tool		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Cement Left in Csg.	<i>15'</i>	Shoe Joint	<i>15'</i>	Cement Amount Ordered	<i>400 @ 60/40 3% cc</i>
Meas Line		Displace	<i>39 3/4 Bx</i>		<i>2% gel 1/2 lb Flow Seal</i>

EQUIPMENT

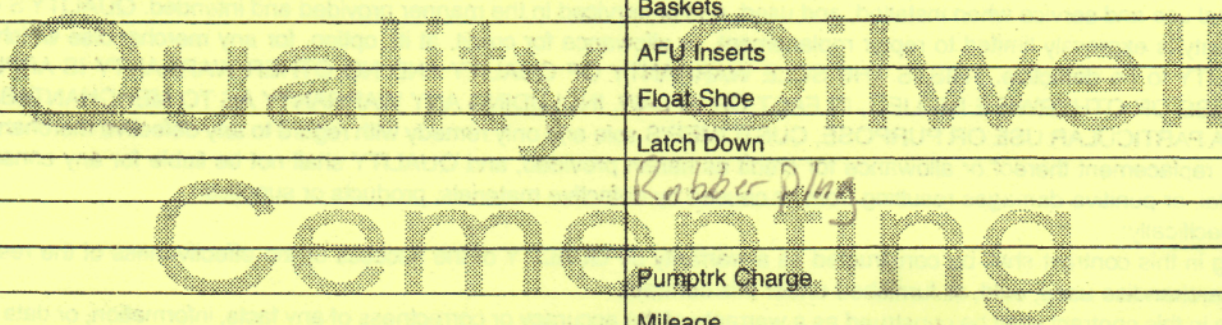
Pumptrk	<i>16</i>	No.		Cementer		Common
				Helper	<i>Bill</i>	Poz. Mix
Bulktrk	<i>4</i>	No.		Driver	<i>Lomien</i>	Gel.
				Driver		Calcium
Bulktrk	<i>Pu</i>	No.		Driver	<i>Rick</i>	
				Driver		

JOB SERVICES & REMARKS

Remarks:	<i>Cement did circulate</i>	Hulls	
Rat Hole		Salt	
Mouse Hole		Flowseal	
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	
		Sand	
		Handling	
		Mileage	

FLOAT EQUIPMENT

		Guide Shoe	
		Centralizer	
		Baskets	
		AFU Inserts	
		Float Shoe	
		Latch Down	
		<i>Rubber Plug</i>	
		Pumptrk Charge	
		Mileage	



X Signature *Jay [unclear]*

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. 822

Date	Sec.	Twp.	Range	County	State	On Location	Finish
10-20-2014	22	21	12	STAFFORD	KS.		9:30 AM
Lease				Location			
HAMMEKE "B"				GREAT BEND KS 11 S RD 170 6 E '44			
Well No. #3				Owner			
Contractor SOUTHWIND DRILLING RIG #3 "JAY"				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 STRING				Charge To MAI OIL OPERATIONS INC			
Hole Size 7 7/8 ATD. 3715 & LTD				Street			
Csg. 5 1/2 New				Depth @ 3705			
Tbg. Size 14 # Csg.				Depth			
Tool LATCH DOWN PLUG				Depth @ 3687			
Cement Left in Csg. 18.25				Shoe Joint 18.25			
Meas Line 8 5/8 @ 640'				Displace 90.00 BAL			
EQUIPMENT				Common			
Pumptrk 17	No.	Cementer	GLENN G.		Poz. Mix		
		Helper	RODY B.				
Bulktrk 15	No.	Driver	RYAN M.		Gel.		
		Driver					
Bulktrk	No.	Driver			Calcium		
		Driver					
JOB SERVICES & REMARKS				Hulls			
Remarks:				Salt			
Rat Hole 30 SX				Flowseal			
Mouse Hole				Kol-Seal			
Centralizers 123, 567, 9 10 11, 13 14 15				Mud CLR 48 1,000 GAL			
Baskets				CFL-117 or CD110 CAF 38			
D/V or Port Collar 640' OF 8 5/8 SURFACE				Sand			
SET 5 1/2 @ 3				Handling			
RECEIVED CIRC. DROP AFU "BALL"				Mileage			
CIRCULATE 3/4 HR.				FLOAT EQUIPMENT			
Pump 1000 GAL MUD CLR 48.				Guide Shoe			
Plug Retool w/ 30 SX.				Centralizer TURBO X 12			
Mixed 145 SX DOWN-HOLE.				Baskets			
Clear-Lines, Release LATCH DN.				AFU Inserts			
Plug.				Float Shoe X 1			
Displace a TOTAL OF 90 BAL				Latch Down X 1			
H ₂ O LAND PLUG @ 1500 #				Pumptrk Charge			
HAD 700 # LIFT PRESSURE.				Mileage			
Release Pressure & AFU-PLUG (HELD)							
Mix slurry @ 14-14.8 LB.							
THANKS							
Signature KAW							
				Tax			
				Discount			
				Total Charge			