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Mai Oil Operations
Wagner #2
E/2-W/2-NW (1320' FNL & 990' FWL)
Section 7-17s-14w
Barton County, Kansas

5 ½" Production Casing Set

Contractor: Southwind Drilling Co. (Rig #3)

Commenced: January 24, 2014

Completed: January 30, 2014

Elevation: 1966' K.B; 1964' D.F; 1958' G.L.

Casing program: Surface; 8 5/8" @ 938'
Production; 5 ½" @ 3524'

Sample: Samples saved and examined 2800' to the Rotary Total Depth.

Drilling time: One (1) foot drilling time recorded and kept 2800 ft. 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.

Formation	Log Depth	Sub-Sea Datum
Anhydrite	947	+1019
Base Anhydrite	975	+991
Heebner	3147	-1181
Toronto	3164	-1198
Lansing	3212	-1246
Base Kansas City	3428	-1462
Arbuckle	3453	-1487
Rotary Total Depth	3525	-1559
Log Total Depth	3525	-1559

(All tops and zones corrected to Electric Log measurements).

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

TOPEKA SECTION

3062-3068' Limestone; tan, fossiliferous, poorly developed porosity, dark brown to black spotty stain, no free oil and no odor in fresh samples.

3090-3110' Limestone; gray, white, finely crystalline, sub oomoldic, chalky, poorly developed porosity, no shows.

TORONTO SECTION

3164-3176' Limestone; gray, white, finely crystalline, chalky, poor visible porosity, no shows.

LANSING SECTION

3212-3220' Limestone; gray, white, finely crystalline, fossiliferous in part, poorly developed porosity, no shows.

3228-3232' Limestone; as above.

3248-3256' Limestone; white, gray, finely crystalline, oomoldic, chalky, poor to fair porosity, poor stain, no free oil and no odor in fresh samples.

3260-3276' Limestone; white, gray, finely crystalline, chalky, trace white chert.

3285-3294' Limestone; gray, white, finely crystalline, oolitic, chalky in part, scattered porosity, brown stain, show of free oil and faint odor in fresh samples.

3296-3304' Limestone; as above, fossiliferous, brown stain, show of free oil and good odor in fresh samples.

Drill Stem Test #1 3230-3310'

- Misrun -

Drill Stem Test #2 3216-3310'

Times: 30-45-45-60

Blow: Fair

Recovery: 90' mud with oil spots

Pressures:

ISIP	**669**	**psi**
FSIP	**632**	**psi**
IFP	**19-35**	**psi**
FFP	**35-52**	**psi**
HSH	**1551-1545**	**psi**

3333-3342' Limestone; white, tan, few fossiliferous, poor porosity, slightly chalky, no shows.

3360-3376' Limestone; white, gray, finely crystalline, few fossiliferous, poor porosity, chalky, no shows.

3385-3390' Limestone; white, tan, finely crystalline, few oolitic, chalky.

3403-3414' Limestone; white/gray, finely crystalline, poorly developed porosity, trace white/tan chert.

ARBUCKLE SECTION

3453-3460' Dolomite; white, medium crystalline, fair intercrystalline porosity, golden brown to dark brown stain, show of free oil and good odor, trace pyrite.

Drill Stem Test #3 3398-3460'

Times: 30-45-30-45

Blow: Strong

Recovery: 464' gas in pipe
588' gassy oil
124' muddy gassy oil
(20% gas, 40% oil, 40% mud)
124' heavily oil and gas cut watery mud
(10% gas, 55% oil, 15% water, 20% mud)

Pressures:		
ISIP	**1093**	**psi**
FSIP	**1092**	**psi**
IFP	**39-206**	**psi**
FFP	**214-336**	**psi**
HSH	**1730-1686**	**psi**

3460-3470' Dolomite; white, medium crystalline, fair intercrystalline porosity, golden to dark brown stain, show of free oil and good odor in fresh samples.

3470-3490' Dolomite; white, fine and medium crystalline, good intercrystalline to finely vuggy porosity, golden brown stain, trace of free oil and good odor in fresh samples.

3490-3510' Dolomite; white, light gray, fine to medium crystalline, good intercrystalline porosity, few with good vuggy porosity, dark brown stain, trace of free oil and fair odor in fresh samples.

3510-3520' Dolomite; white, medium crystalline, good intercrystalline and vuggy porosity, dark brown stain, trace of free oil and no odor in fresh samples.

3520-3525' Dolomite; white, light gray, medium crystalline, good intercrystalline and finely vuggy porosity, dark brown to black stain, trace of free oil and no odor in fresh samples.

Rotary Total Depth 3525
Log Total Depth 3525

Recommendations:
5 ½" production casing was set and cemented on the Mai Oil Operations, Wagner #2.

Respectfully submitted;

James C. Musgrove and
Kurt Talbott
Petroleum Geologists

JAMES C. MUSGROVE LICENSED 307 KANSAS GEOLOGIST

DRILL STEM TEST REPORT

Mai Oil Operations

8411 Preston Rd STE 800
Dallas TX 75225

ATTN: Jim Musgrove

7-17S-14W Barton,KS

Wagner #2

Job Ticket: 56048 **DST#: 1**

Test Start: 2014.01.28 @ 08:47:50

GENERAL INFORMATION:

Formation: **C-F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:22:50
Time Test Ended: 13:37:40

Test Type: Conventional Bottom Hole (Initial)
Tester: Tate Lang
Unit No: 49

Interval: 3230.00 ft (KB) To 3310.00 ft (KB) (TVD)
Total Depth: 3310.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

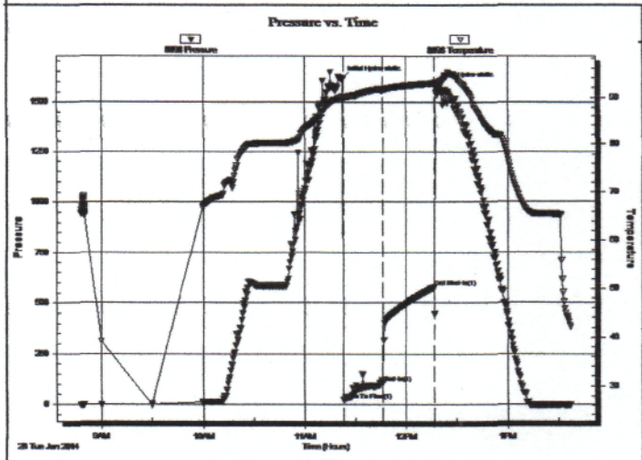
Reference Elevations: 1966.00 ft (KB)
1958.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8898 **Outside**

Press@RunDepth: 108.51 psig @ 3242.00 ft (KB)
Start Date: 2014.01.28 End Date: 2014.01.28
Start Time: 08:47:51 End Time: 13:37:40

Capacity: 8000.00 psig
Last Calib.: 2014.01.28
Time On Btm: 2014.01.28 @ 11:22:30
Time Off Btm: 2014.01.28 @ 12:17:20

TEST COMMENT: B.O.B. In 7 mins
Dead no blow back
Took mud on IF and Pulled it after ISI



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1616.11	90.08	Initial Hydro-static
1	24.00	89.74	Open To Flow (1)
24	108.51	91.43	Shut-In(1)
55	576.10	92.88	End Shut-In(1)
55	1584.84	93.08	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
160.00	100%M	2.24

Gas Rates

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

DRILL STEM TEST REPORT

Mai Oil Operations

8411 Preston Rd STE 800
Dallas TX 75225

ATTN: Jim Musgrove

7-17S-14W Barton,KS

Wagner #2

Job Ticket: 56049 **DST#: 2**

Test Start: 2014.01.28 @ 17:39:53

GENERAL INFORMATION:

Formation: **A-F**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:51:53
Time Test Ended: 23:19:53

Test Type: Conventional Bottom Hole (Reset)
Tester: Tate Lang
Unit No: 49

Interval: 3216.00 ft (KB) To 3310.00 ft (KB) (TVD)
Total Depth: 3310.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

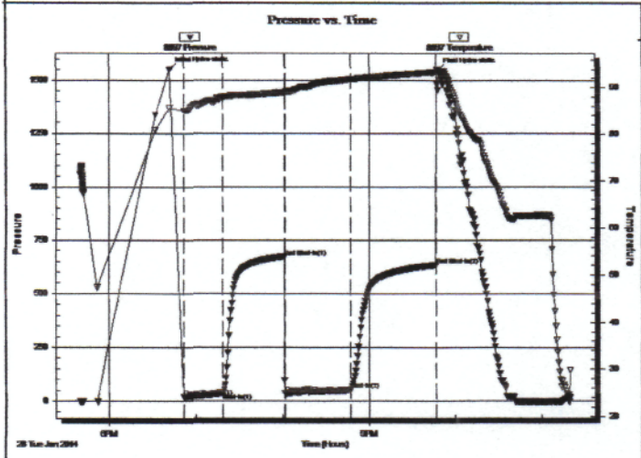
Reference Elevations: 1966.00 ft (KB)
1958.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8897 **Inside**

Press@RunDepth: 51.85 psig @ 3242.00 ft (KB)
Start Date: 2014.01.28 End Date: 2014.01.28
Start Time: 17:39:54 End Time: 23:19:53

Capacity: 8000.00 psig
Last Calib.: 2014.01.28
Time On Btm: 2014.01.28 @ 18:41:53
Time Off Btm: 2014.01.28 @ 21:47:53

TEST COMMENT: Fair surface blow built to 5 1/2"
Dead no blow back
Good surface blow built to 7"
Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1551.11	85.66	Initial Hydro-static
10	18.64	85.08	Open To Flow (1)
37	34.94	88.06	Shut-In(1)
80	669.39	88.98	End Shut-In(1)
80	35.35	88.88	Open To Flow (2)
125	51.85	91.88	Shut-In(2)
185	632.12	93.39	End Shut-In(2)
186	1544.76	93.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
90.00	100%M with oil spots	1.26

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

Mai Oil Operations

8411 Preston Rd STE 800
Dallas TX 75225

ATTN: Jim Musgrove

7-17S-14W Barton,KS

Wagner #2

Job Ticket: 56050 **DST#: 3**

Test Start: 2014.01.29 @ 14:34:33

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:53:23
Time Test Ended: 20:40:12

Test Type: Conventional Bottom Hole (Reset)
Tester: Tate Lang
Unit No: 49

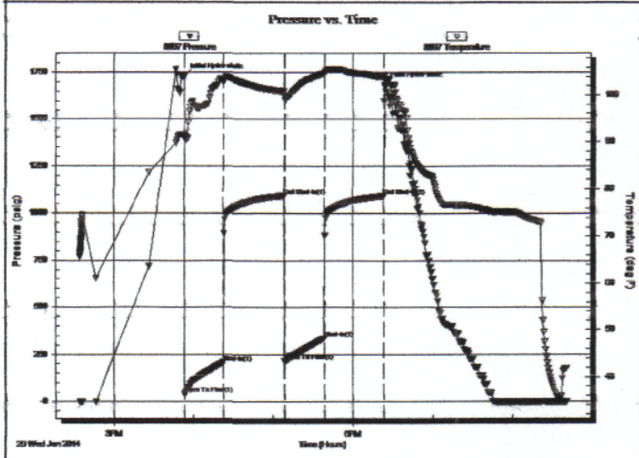
Interval: 3398.00 ft (KB) To 3460.00 ft (KB) (TVD)
Total Depth: 3460.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1966.00 ft (KB)
1958.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8897 **Inside**
Press@RunDepth: 336.46 psig @ 3424.00 ft (KB)
Start Date: 2014.01.29 End Date: 2014.01.29
Start Time: 14:34:34 End Time: 20:40:13

Capacity: 8000.00 psig
Last Calib.: 2014.01.29
Time On Btm: 2014.01.29 @ 15:53:13
Time Off Btm: 2014.01.29 @ 18:23:53

TEST COMMENT: B.O.B. In 3 mins
Strong blow back built to 9 1/2"
B.O.B. In 4 mins
Fair blow back built to 4 1/2"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1730.25	91.38	Initial Hydro-static
1	39.43	90.71	Open To Flow (1)
29	206.42	102.97	Shut-In(1)
75	1093.13	100.82	End Shut-In(1)
76	214.38	99.96	Open To Flow (2)
106	336.46	104.54	Shut-In(2)
150	1091.52	104.00	End Shut-In(2)
151	1685.63	103.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
588.00	40%G 60%O	8.25
124.00	20%G 40%O 40%M	1.74
124.00	10%G 55%O 15%W 20%M	1.74
0.00	464 GIP	0.00

* Recovery from multiple tests

Gas Rates

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