



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

CMX
 1700 N. Waterfront Pkw y.
 Bldg. 300 B
 Wichita KS. 67202
 ATTN: Ken LeBlanc

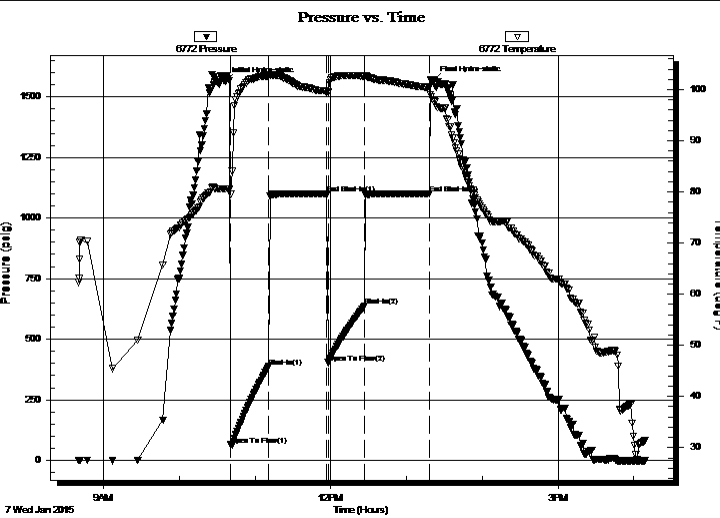
Sec. 21 - 13 s. - 14 w./ Russell
Woelk # 1-21
 Job Ticket: 62506 **DST#: 3**
 Test Start: 2015.01.07 @ 08:40:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:40:45
 Time Test Ended: 16:08:45
 Interval: **3250.00 ft (KB) To 3276.00 ft (KB) (TVD)**
 Total Depth: 3276.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bob Hamel
 Unit No: 72
 Reference Elevations: 1850.00 ft (KB)
 1842.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6772 Inside
 Press @ Run Depth: 638.33 psig @ 3258.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.01.07 End Date: 2015.01.07 Last Calib.: 2015.01.07
 Start Time: 08:40:05 End Time: 16:08:44 Time On Btm: 2015.01.07 @ 10:36:45
 Time Off Btm: 2015.01.07 @ 13:21:00

TEST COMMENT: I.F. - 30 - 3/4" INT. BLOW BUILT TO B.O.B. IN 1 1/2 MIN.
 I.S.I. - 45 - W.S.B.B. STARTED @ 9 1/2 MIN. NO BUILD
 F.F. - 30 - 1" INT. BLOW BUILT TO B.O.B. IN 2 MIN.
 F.S.I. - 45 - W.S.B.B. NO BUILD



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1564.39	80.62	Initial Hydro-static
4	64.15	79.50	Open To Flow (1)
34	386.76	102.63	Shut-In(1)
80	1098.10	99.65	End Shut-In(1)
81	403.26	99.52	Open To Flow (2)
110	638.33	102.61	Shut-In(2)
161	1100.08	100.40	End Shut-In(2)
165	1568.86	97.98	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
1260.00	S,M,C,H,O,C,W, 5%M 30%O 65%W (AV)17.67E)	
40.00	C/O 100%	0.56

* Recovery from multiple tests

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



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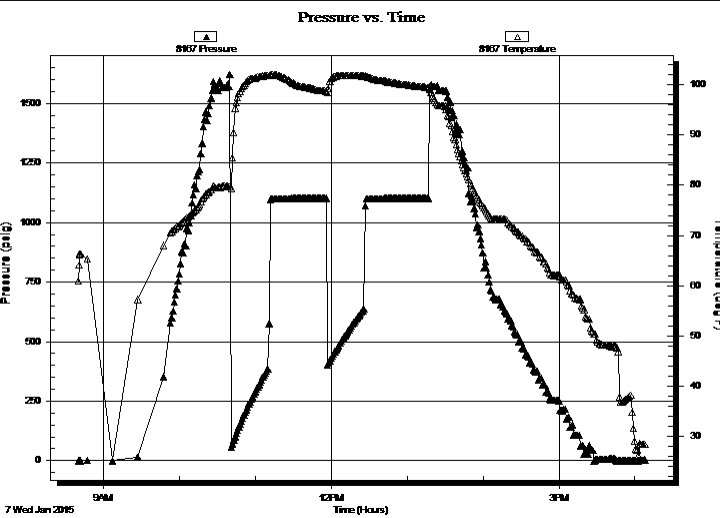
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 Interval: **3250.00 ft (KB) To 3276.00 ft (KB) (TVD)** Reference Elevations: 1850.00 ft (KB)
 Total Depth: 3276.00 ft (KB) (TVD) 1842.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8167 Outside
 Press @ Run Depth: psig @ 3258.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.01.07 End Date: 2015.01.07 Last Calib.: 2015.01.07
 Start Time: 08:40:05 End Time: 16:08:14 Time On Btm:
 Time Off Btm:

TEST COMMENT: I.F. - 30 - 3/4" INT. BLOW BUILT TO B.O.B. IN 1 1/2 MIN.
 I.S.I. - 45 - W.S.B.B. STARTED @ 9 1/2 MIN. NO BUILD
 F.F. - 30 - 1" INT. BLOW BUILT TO B.O.B. IN 2 MIN.
 F.S.I. - 45 - W.S.B.B. NO BUILD



PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery		
Length (ft)	Description	Volume (bbl)
1260.00	S,M,C,H,O,C,W, 5%M 30%O 65%W (A/V117.67E)	
40.00	C/O 100%	0.56

* Recovery from multiple tests

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



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DRILL STEM TEST REPORT

FLUID SUMMARY

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1700 N. Waterfront Pkw y.
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Wichita KS. 67202
ATTN: Ken LeBlanc

Sec. 21 - 13 s. - 14 w./ Russell
Woelk # 1-21
Job Ticket: 62506 **DST#: 3**
Test Start: 2015.01.07 @ 08:40:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 47.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.50 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 7000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1260.00	S,M,C,H,O,C,W, 5%M 30%O 65%W (AVERA	17.674
40.00	C/O 100%	0.561

Total Length: 1300.00 ft Total Volume: 18.235 bbl

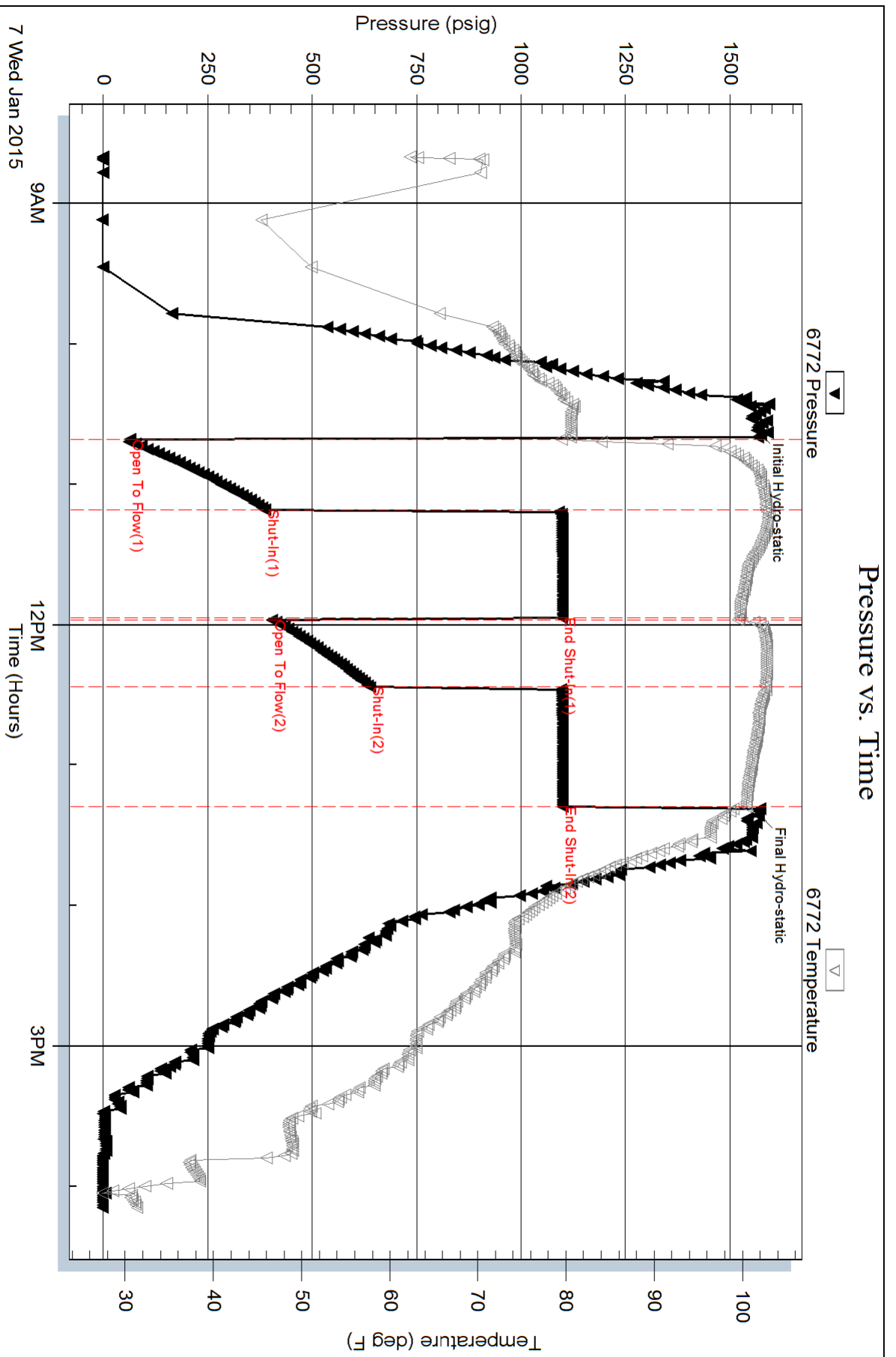
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: R.W. = 0.57 @ 39 DEG.

CHLORIDES = 23,000 P.P.M.
CORRECTED OIL GRAVITY = 33 API @ 60 DEG.

Pressure vs. Time



Serial #: 8167

Outside CMX

Woelk # 1-21

DST Test Number: 3

