



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Woolsey Operating Co
 125 N Market Ste 1000
 Wichita, KS 67202
 ATTN: Bill Klaver

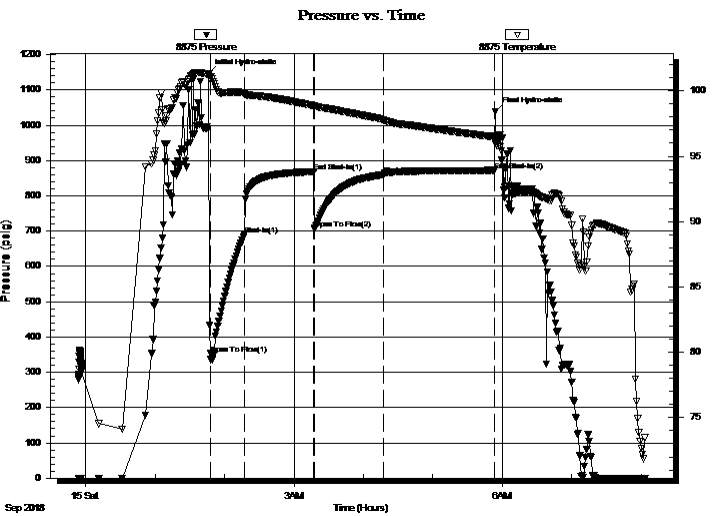
1-32S-8W Harper
Hubbard 1
 Job Ticket: 63969 **DST#: 1**
 Test Start: 2018.09.14 @ 23:53:48

GENERAL INFORMATION:

Formation: **Neva**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 01:47:35 Tester: Leal Cason
 Time Test Ended: 08:03:50 Unit No: 74
 Interval: **2024.00 ft (KB) To 2092.00 ft (KB) (TVD)** Reference Elevations: 1510.00 ft (KB)
 Total Depth: 2092.00 ft (KB) (TVD) 1498.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 12.00 ft

Serial #: 8875 Inside
 Press@RunDepth: 859.87 psig @ 2025.00 ft (KB) Capacity: psig
 Start Date: 2018.09.14 End Date: 2018.09.15 Last Calib.: 2018.09.15
 Start Time: 23:53:49 End Time: 08:03:50 Time On Btm: 2018.09.15 @ 01:46:20
 Time Off Btm: 2018.09.15 @ 05:53:50

TEST COMMENT: IF: Strong Blow , BOB in 30 seconds, Built to 236 inches, Died Off to 199 inches
 IS: No Blow Back
 FF: Strong Blow , BOB in 1 minute, Built to 162 inches, Died Off to 98 inches
 FS: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1147.11	101.28	Initial Hydro-static
2	352.86	101.10	Open To Flow (1)
31	690.37	99.76	Shut-In(1)
91	868.19	98.84	End Shut-In(1)
92	706.89	98.82	Open To Flow (2)
152	859.87	97.75	Shut-In(2)
247	872.32	96.45	End Shut-In(2)
248	1038.67	96.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1197.00	Water	15.69
441.00	MCW 30%M 70%W	6.19

Gas Rates

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



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Hubbard 1
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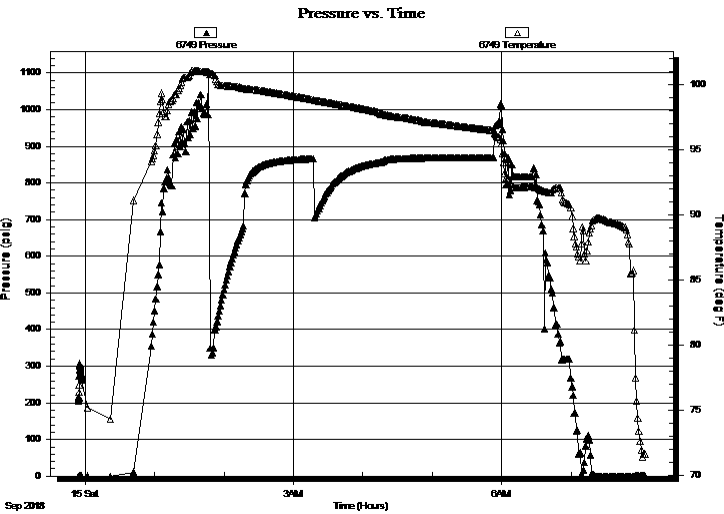
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 Total Depth: 2092.00 ft (KB) (TVD) 1498.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 12.00 ft

Serial #: 6749

Outside

Press@RunDepth: psig @ 2025.00 ft (KB) Capacity: psig
 Start Date: 2018.09.14 End Date: 2018.09.15 Last Calib.: 2018.09.15
 Start Time: 23:53:59 End Time: 08:04:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 30 seconds, Built to 236 inches, Died Off to 199 inches
 IS: No Blow Back
 FF: Strong Blow , BOB in 1 minute, Built to 162 inches, Died Off to 98 inches
 FS: No Blow Back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1197.00	Water	15.69
441.00	MCW 30%M 70%W	6.19

Gas Rates

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



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TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

1-32S-8W Harper

125 N Market Ste 1000
Wichita, KS 67202

Hubbard 1

Job Ticket: 63969

DST#: 1

ATTN: Bill Klaver

Test Start: 2018.09.14 @ 23:53:48

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:

68000 ppm

Viscosity: 27.00 sec/qt

Cushion Volume:

bbbl

Water Loss: in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 83000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1197.00	Water	15.689
441.00	MCW 30%M 70%W	6.186

Total Length: 1638.00 ft Total Volume: 21.875 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW w as .11 @ 72 degrees

Pressure vs. Time

