

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

31-30S-6W Kingman

Harder 2

Job Ticket: 64970

DST#: 1

Test Start: 2019.05.25 @ 01:28:00

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:52:17

Time Test Ended: 10:02:02

Test Type: Conventional Bottom Hole (Initial)

Tester: Leal Cason

Unit No: 74

Interval: 4335.00 ft (KB) To 4345.00 ft (KB) (TVD)

Total Depth: 4345.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 1592.00 ft (KB)

1580.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8672

Inside

Press@RunDepth: 44.86 psig @ 4336.00 ft (KB)

Start Date: 2019.05.25

End Date: 2019.05.25

Start Time: 01:28:01

End Time: 10:02:02

Capacity: psig

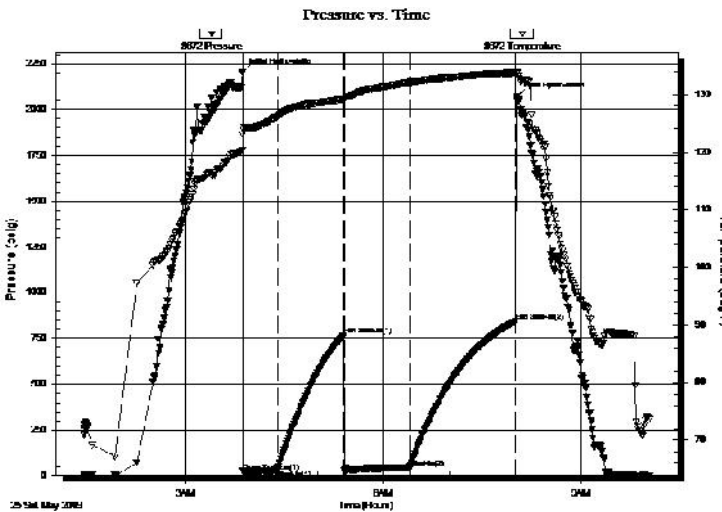
Last Calib.: 2019.05.25

Time On Btm: 2019.05.25 @ 03:51:47

Time Off Btm: 2019.05.25 @ 08:01:17

TEST COMMENT: IF: Strong Blow, BOB in 90 seconds, Built to 49 inches
 IS: No Blow Back
 FF: Strong Blow, BOB Immediate, Built to 73 inches
 FS: No Blow Back

PRESSURE SUMMARY



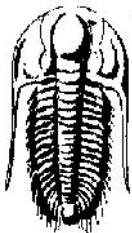
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2203.72	120.24	Initial Hydro-static
1	22.29	123.00	Open To Flow (1)
33	31.34	126.23	Shut-In(1)
92	765.87	129.15	End Shut-In(1)
93	22.56	129.16	Open To Flow (2)
153	44.86	132.10	Shut-In(2)
249	843.30	133.75	End Shut-In(2)
250	2069.18	133.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	682 GIP	0.00
62.00	GOWCM 20%G 10%O 24%W 36%M	0.30

Gas Rates

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



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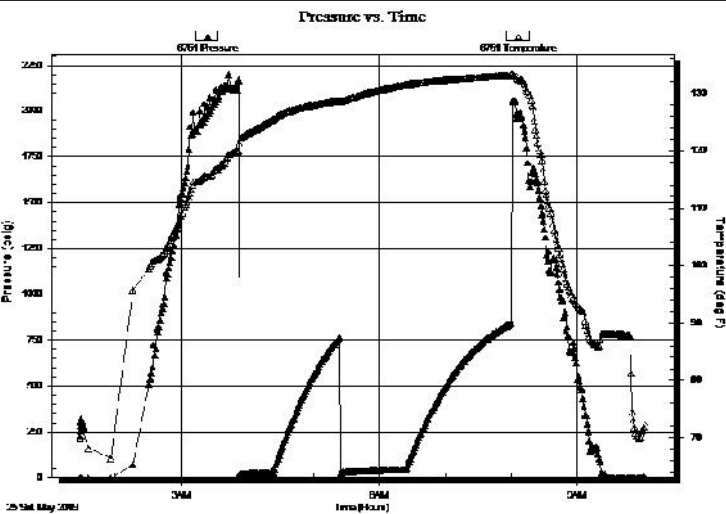
31-30S-6W Kingman
Harder 2
 Job Ticket: 64970 **DST#: 1**
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 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 03:52:17 Tester: Leal Cason
 Time Test Ended: 10:02:02 Unit No: 74
 Interval: **4335.00 ft (KB) To 4345.00 ft (KB) (TVD)** Reference Elevations: 1592.00 ft (KB)
 Total Depth: 4345.00 ft (KB) (TVD) 1580.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 12.00 ft

Serial #: 6751 Outside
 Press@RunDepth: psig @ 4336.00 ft (KB) Capacity: psig
 Start Date: 2019.05.25 End Date: 2019.05.25 Last Calib.: 2019.05.25
 Start Time: 01:28:01 End Time: 10:02:02 Time On Btm:
 Time Off Btm:

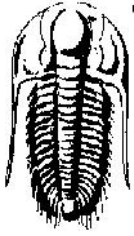
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PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery		
Length (ft)	Description	Volume (bbl)
0.00	682 GIP	0.00
62.00	GOWCM 20%G 10%O 24%W 36%M	0.30

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



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TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Woolsey Operating Co

31-30S-6W Kingman

125 N Market Ste 1000
Wichita, KS 67202

Harder 2

Job Ticket: 64970

DST#: 1

ATTN: Bill Klaver

Test Start: 2019.05.25 @ 01:28:00

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:

68000 ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4000.00 ppm

Filter Cake: 0.02 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	682 GIP	0.000
62.00	GOWCM 20%G 10%O 24%W 36%M	0.305

Total Length: 62.00 ft Total Volume: 0.305 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW was .1 @ 80 degrees

Pressure vs. Time

