



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

O'Brien Energy
18 Congress St Ste 207
Portsmouth, NH 03801
ATTN: Keith Clumsky

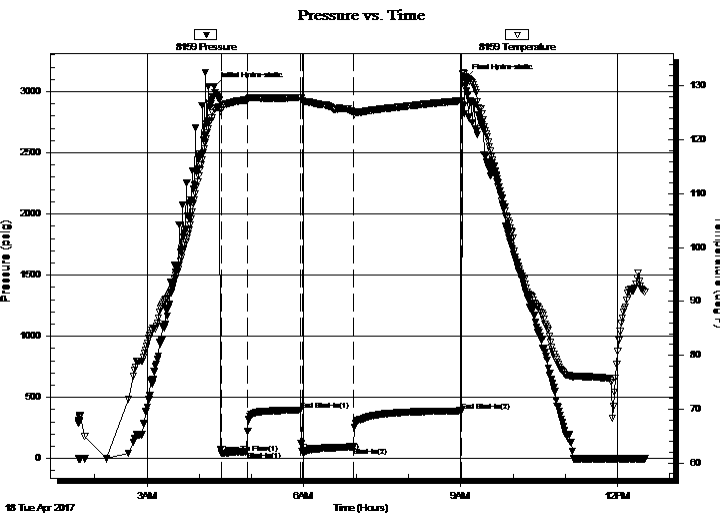
33-33S-29W Meade
Clayton 5-33
Job Ticket: 59936 **DST#: 1**
Test Start: 2017.04.18 @ 01:41:18

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Straddle (Initial)
Time Tool Opened: 04:25:03 Tester: Leal Cason
Time Test Ended: 12:32:18 Unit No: 74
Interval: **5788.00 ft (KB) To 5840.00 ft (KB) (TVD)** Reference Elevations: 2351.00 ft (KB)
Total Depth: 6430.00 ft (KB) (TVD) 2339.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 12.00 ft

Serial #: 8159 Inside
Press@RunDepth: 95.39 psig @ 5789.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2017.04.18 End Date: 2017.04.18 Last Calib.: 2017.04.18
Start Time: 01:41:19 End Time: 12:32:18 Time On Btm: 2017.04.18 @ 04:16:48
Time Off Btm: 2017.04.18 @ 09:04:48

TEST COMMENT: IF: Strong Blow , BOB in 2 minutes, GTS in 28 minutes, Caught Sample
IS: 1/2 inch Blow Back
FF: Strong Blow , BOB & GTS Immediate, Gauged Gas
FS: 1/4 inch Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3042.80	125.68	Initial Hydro-static
9	45.30	125.53	Open To Flow (1)
38	57.46	127.37	Shut-In(1)
100	394.75	127.86	End Shut-In(1)
101	60.91	127.26	Open To Flow (2)
160	95.39	125.26	Shut-In(2)
284	389.85	127.27	End Shut-In(2)
288	3105.97	131.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	5656 GIP	0.00
125.00	SGCM 2%G 98%M	0.61

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	20.00	54.57
Last Gas Rate	0.25	42.00	89.47
Max. Gas Rate	0.25	42.00	89.47



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Job Ticket: 59936 **DST#: 1**
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GENERAL INFORMATION:

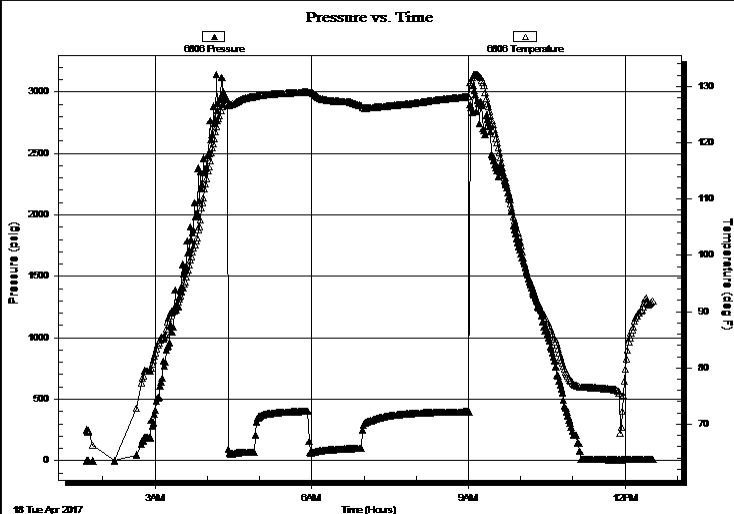
Formation: Morrow			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Straddle (Initial)	
Time Tool Opened: 04:25:03		Tester: Leal Cason	
Time Test Ended: 12:32:18		Unit No: 74	
Interval: 5788.00 ft (KB) To 5840.00 ft (KB) (TVD)		Reference Elevations: 2351.00 ft (KB)	
Total Depth: 6430.00 ft (KB) (TVD)		2339.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Good	KB to GR/CF: 12.00 ft	

Serial #: 6806

Outside

Press@RunDepth: psig @ 5789.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2017.04.18	End Date: 2017.04.18
Start Time: 01:41:19	End Time: 12:32:33
	Last Calib.: 1899.12.30
	Time On Btm:
	Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 2 minutes, GTS in 28 minutes, Caught Sample
IS: 1/2 inch Blow Back
FF: Strong Blow , BOB & GTS Immediate, Gauged Gas
FS: 1/4 inch Blow Back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	5656 GIP	0.00
125.00	SGCM 2%G 98%M	0.61

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	20.00	54.57
Last Gas Rate	0.25	42.00	89.47
Max. Gas Rate	0.25	42.00	89.47



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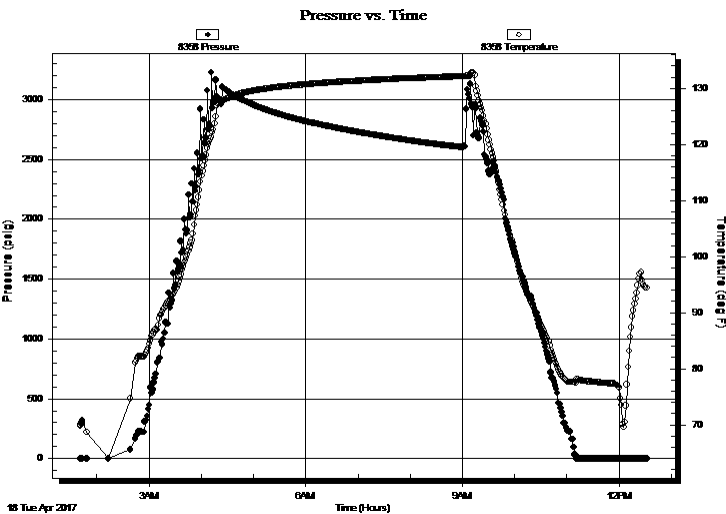
33-33S-29W Meade
Clayton 5-33
 Job Ticket: 59936 **DST#: 1**
 Test Start: 2017.04.18 @ 01:41:18

GENERAL INFORMATION:

Formation: **Morrow**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:25:03
 Time Test Ended: 12:32:18
 Interval: **5788.00 ft (KB) To 5840.00 ft (KB) (TVD)**
 Total Depth: 6430.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Straddle (Initial)
 Tester: Leal Cason
 Unit No: 74
 Reference Elevations: 2351.00 ft (KB)
 2339.00 ft (CF)
 KB to GR/CF: 12.00 ft

Serial #: 8358 Below (Straddle)
 Press@RunDepth: psig @ 5857.00 ft (KB)
 Start Date: 2017.04.18 End Date: 2017.04.18
 Start Time: 01:41:19 End Time: 12:32:48
 Capacity: 8000.00 psig
 Last Calib.: 2017.04.18
 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Strong Blow , BOB in 2 minutes, GTS in 28 minutes, Caught Sample
 IS: 1/2 inch Blow Back
 FF: Strong Blow , BOB & GTS Immediate, Gauged Gas
 FS: 1/4 inch Blow Back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	5656 GIP	0.00
125.00	SGCM 2%G 98%M	0.61

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	20.00	54.57
Last Gas Rate	0.25	42.00	89.47
Max. Gas Rate	0.25	42.00	89.47



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DRILL STEM TEST REPORT

FLUID SUMMARY

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33-33S-29W Meade
Clayton 5-33
Job Ticket: 59936 **DST#: 1**
Test Start: 2017.04.18 @ 01:41:18

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: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.00 in ³	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	5656 GIP	0.000
125.00	SGCM 2%G 98%M	0.615

Total Length: 125.00 ft Total Volume: 0.615 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: Sample Data: 2 Cu Ft Gas
 300 ML Mud @ 22PSI



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DRILL STEM TEST REPORT

GAS RATES

O'Brien Energy

33-33S-29W Meade

18 Congress St Ste 207
Portsmouth, NH 03801

Clayton 5-33

Job Ticket: 59936

DST#: 1

ATTN: Keith Clumsky

Test Start: 2017.04.18 @ 01:41:18

Gas Rates Information

Temperature: 59 (deg F)

Relative Density: 0.65

Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.25	20.00	54.57
2	20	0.25	26.00	64.09
2	30	0.25	38.00	83.13
2	40	0.25	40.00	86.30
2	50	0.25	42.00	89.47
2	60	0.25	42.00	89.47

