

15-129-21882

4-33s-39w

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Weatherford®
Completion Systems

DRILL STEM TEST REPORT

EOG Resources

 3817 NW Expressway Ste. 500 Oklahoma City
 Ok. 73112+1483

ATTN: Jackie

Degarmo 4-1

4/33/39

Job Ticket: 37579

Test Start: 2009.11.13 @ 03:45:00

KCC WICHITA

DST#: 1

GENERAL INFORMATION:

Formation: **Lower Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:15:09

Time Test Ended: 17:42:00

Test Type: Conventional Straddle

Tester: Harley Davidson

Unit No: 33

Interval: 5978.00 ft (KB) To 6024.00 ft (KB) (TVD)

Total Depth: 6417.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 3250.00 ft (KB)

3238.00 ft (CF)

KB to GRVCF: 12.00 ft

Serial #: 6773

Inside

Press@RunDepth: 1333.86 psig @ 6013.00 ft (KB)

Start Date: 2009.11.13

End Date:

2009.11.13

Start Time: 03:45:05

End Time:

17:42:00

Capacity: 7000.00 psig

Last Calib.: 2009.11.13

Time On Btm: 2009.11.13 @ 08:09:09

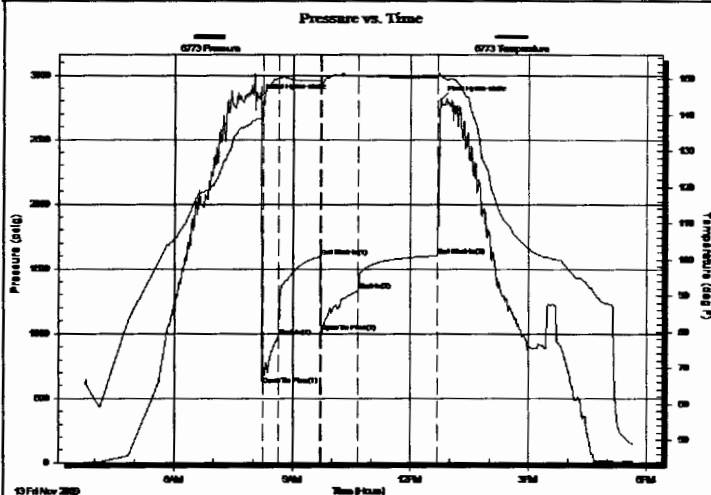
Time Off Btm: 2009.11.13 @ 12:45:10

TEST COMMENT: IF- Strong blow BOB ASAO, GTS 21min. TSTM.

IS- Weak blow back.

FF- Strong blow, BOB GTS, ASAO.

FS- Weak blow back.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2823.40	138.93	Initial Hydro-static
6	604.00	141.81	Open To Flow (1)
30	978.46	150.29	Shut-In(1)
93	1595.99	149.44	End Shut-In(1)
95	1009.78	148.58	Open To Flow (2)
150	1333.86	150.82	Shut-In(2)
272	1601.20	150.48	End Shut-In(2)
277	2809.19	150.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3150.00	10%gas30%mud70%water	41.66

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	8.00	8.38
Last Gas Rate	0.13	11.50	9.69
Max. Gas Rate	0.13	11.50	9.69

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EOG Resources

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4/33/39

Job Ticket: 37579

Test Start: 2009.11.13 @ 03:45:00

DST#: 1

*Ken
11/2/10*

GENERAL INFORMATION:

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Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:15:09

Time Test Ended: 17:42:00

Test Type: Conventional Straddle

Tester: Harley Davidson

Unit No: 33

Interval: **5978.00 ft (KB) To 6024.00 ft (KB) (TVD)**

Total Depth: 6417.00 ft (KB) (TVD)

Hole Diameter: 7.78 inches Hole Condition: Fair

Reference Elevations: 3250.00 ft (KB)

3238.00 ft (CF)

KB to GR/CF: 12.00 ft

Serial #: 8355 Inside

Press@RunDepth: psig @ 6031.00 ft (KB)

Start Date: 2009.11.13

End Date:

2009.11.13

Capacity: 7000.00 psig

Last Calib.: 2009.11.13

Start Time: 03:45:05

End Time:

17:42:00

Time On Btm:

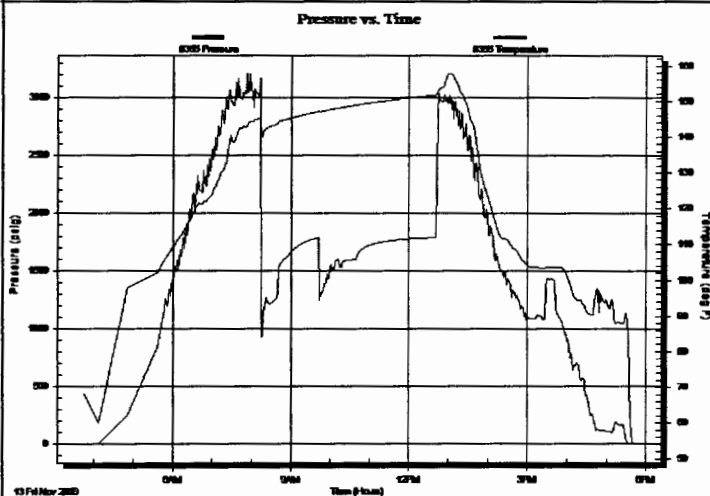
Time Off Btm:

TEST COMMENT: IF- Strong blow BOB ASAO, GTS 21min. TSTM.

IS- Weak blow back.

FF- Strong blow, BOB GTS, ASAO.

FS- Weak blow back.



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
3150.00	10% gas 30% mud 70% water	41.66

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	8.00	8.38
Last Gas Rate	0.13	11.50	9.69
Max. Gas Rate	0.13	11.50	9.69



Weatherford® Completion Systems

DRILL STEM TEST REPORT

RUST

TOOL DIAGRAM

EOG Resources

3817 NW Expressway Ste. 500 Oklahoma City
Ok. 73112+1483

ATTN: Jackie

Degarmo 4-1

4/33/39

Job Ticket: 37579

Test Start: 2009.11.13 @ 03:45:00

DST#: 1

Handwritten signature/initials

Tool Information

Drill Pipe:	Length: 5678.00 ft	Diameter: 3.80 inches	Volume: 79.65 bbl	Tool Weight: 2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 276.00 ft	Diameter: 2.24 inches	Volume: 1.35 bbl	Weight to Pull Loose: 120000.0 lb
		Total Volume:	81.00 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 80000.00 lb
Depth to Top Packer:	5978.00 ft			Final 92000.00 lb
Depth to Bottom Packer:	6025.00 ft			
Interval between Packers:	47.00 ft			
Tool Length:	459.00 ft			
Number of Packers:	3	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			5949.00	
Shut In Tool	5.00			5954.00	
Sampler	2.00			5956.00	
Hydraulic tool	5.00			5961.00	
Jars	5.00			5966.00	
Safety Joint	3.00			5969.00	
Packer	5.00			5974.00	30.00 Bottom Of Top Packer
Packer	4.00			5978.00	
Stubb	1.00			5979.00	
Perforations	1.00			5980.00	
Change Over Sub	1.00			5981.00	
Drill Pipe	31.00			6012.00	
Change Over Sub	1.00			6013.00	
Recorder	0.00	6773	Inside	6013.00	
Perforations	11.00			6024.00	
Blank Off Sub	1.00			6025.00	47.00 Tool Interval
Packer	4.00			6029.00	
Stubb	1.00			6030.00	
Perforations	1.00			6031.00	
Recorder	0.00	8355	Inside	6031.00	
Change Over Sub	1.00			6032.00	
Drill Pipe	375.00			6407.00	382.00 Bottom Packers & Anchor

Total Tool Length: 459.00



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DRILL STEM TEST REPORT

TRUST

FLUID SUMMARY

EOG Resources

Degarmo 4-1
^3817 NW Expressway Ste. 500 Oklahoma City
Ok. 73112+1483

4/33/39

Job Ticket: 37579

DST#: 1

ATTN: Jackie

Test Start: 2009.11.13 @ 03:45:00

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: 54.00 sec/qt

Cushion Volume:

bbl

Water Loss: 7.20 cm³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3150.00	10%gas30%mud70%water	41.660

Total Length: 3150.00 ft Total Volume: 41.660 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data- 8 CFD of gas 1500ML water with a trace of mud @ 1600 PSI



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DRILL STEM TEST REPORT

TRUST

GAS RATES

EOG Resources

3817 NW Expressway Ste. 500 Oklahoma City
Ok. 73112+1483

ATTN: Jackie

Degarmo 4-1

4/33/39

Job Ticket: 37579

Test Start: 2009.11.13 @ 03:45:00

DST#: 1

RE
11/1/10

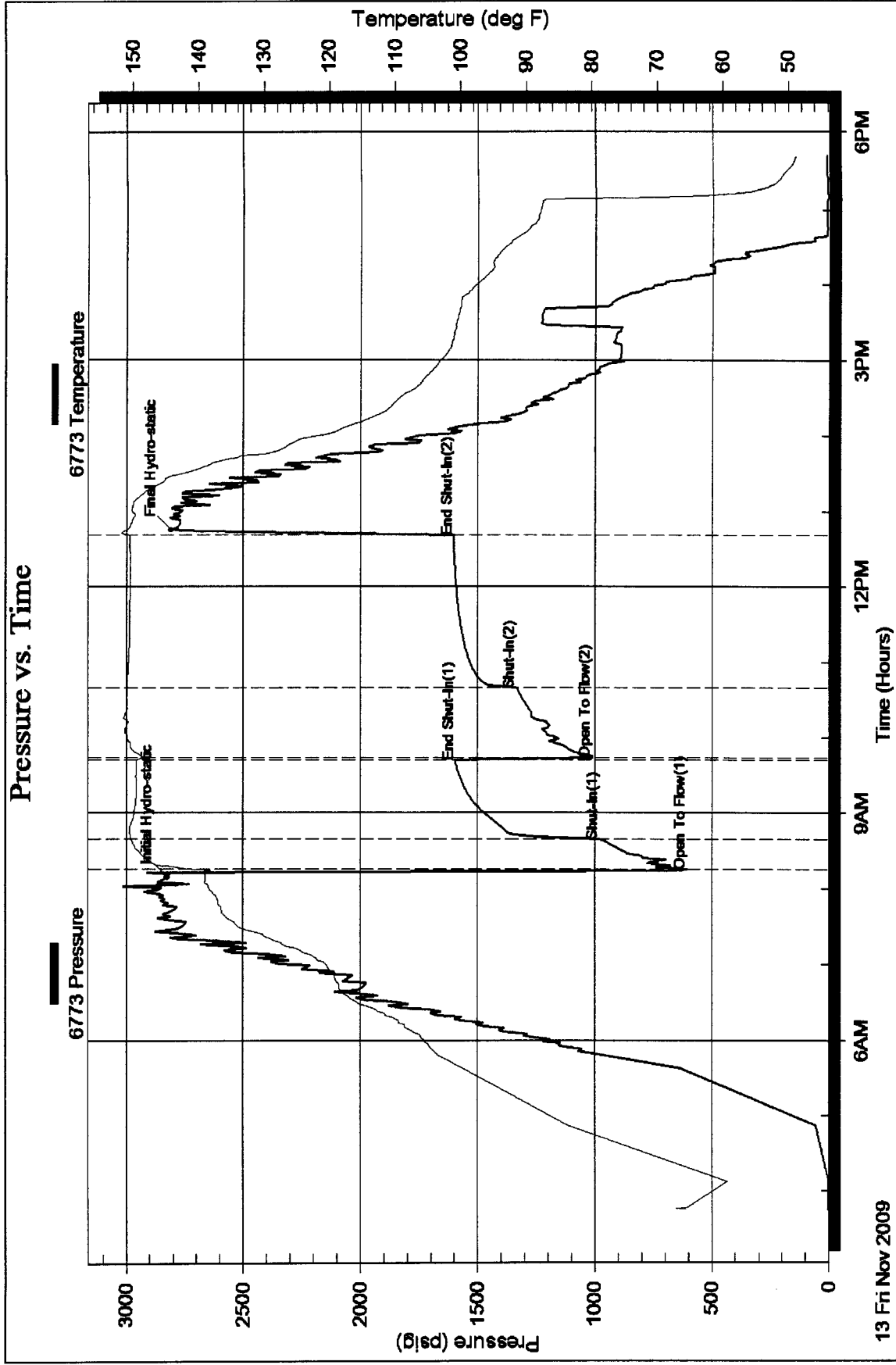
Gas Rates Information

Temperature: 59 deg C
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (mm)	Pressure (kPaa)	Gas Rate (m³/d)
2	30	0.13	8.00	8.38
2	40	0.13	11.50	9.69
2	50	0.13	11.50	9.69
2	60	0.13	11.50	9.69

Pressure vs. Time



Pressure vs. Time

