

15-129-21875

28-33s-39w

IND



Weatherford[®] Completion Systems

DRILL STEM TEST REPORT

Prepared For: **EOG Resorces Inc.**

3817 NW Expressway Oklahoma City Ok.
73112

ATTN: Dale P. **CONFIDENTIAL**

28/33/39 OCT 13 2009

RENEE 28-5 KCC

Start Date: 2009.07.03 @ 12:15:00

End Date: 2009.07.04 @ 00:51:00

Job Ticket #: 34076 DST #: 1

EOG Resorces Inc.

RENEE 28-5

28/33/39

DST # 1

Morrow

2009.07.03

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CONSERVATION DIVISION
WICHITA, KS

ALPINE OIL SERVICES CORPORATION
2460, 240 - 4 Avenue S.W. Calgary, AB. T2P 4H4
ph: 263-7800 fax: 264-7260



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Completion Systems

DRILL STEM TEST REPORT

EOG Resources Inc.

RENEE 28-5

3817 NW Expressway Oklahoma City Ok. 73112

28/33/39

Job Ticket: 34076

DST#: 1

ATTN: Dale P.

Test Start: 2009.07.03 @ 12:15:00

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:06:45

Time Test Ended: 00:51:00

Test Type: Conventional Bottom Hole

Tester: Harley Davidson

Unit No: 33

Interval: **5715.00 ft (KB) To 5843.00 ft (KB) (TVD)**

Reference Elevations: 3264.00 ft (KB)

Total Depth: 5843.00 ft (KB) (TVD)

3252.00 ft (CF)

Hole Diameter: 7.78 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: 6773

Press@RunDepth: 859.28 psig @ ft (KB)

Capacity: 7000.00 psig

Start Date: 2009.07.03

End Date:

2009.07.04

Last Calib.: 2009.07.04

Start Time: 12:15:01

End Time:

00:51:00

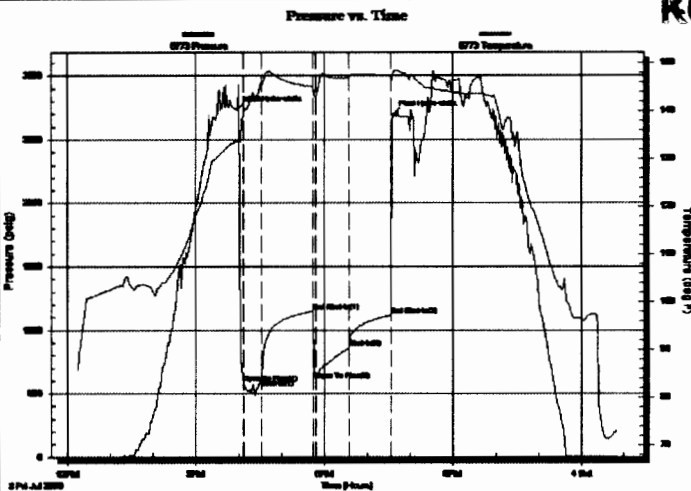
Time On Btm: 2009.07.03 @ 15:57:45

Time Off Btm: 2009.07.03 @ 19:36:45

TEST COMMENT: F- Strong blow BOB, ASAO, GTS 5min
 IS- Weak blow back.
 FF- Strong blow BOB, ASAO, GTS ASAO.
 FS- Strong blow back.

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PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2734.77	133.65	Initial Hydro-static
9	587.01	139.36	Open To Flow (1)
35	618.05	145.59	Shut-in(1)
107	1149.23	145.04	End Shut-in(1)
111	609.13	142.72	Open To Flow (2)
157	859.28	147.00	Shut-in(2)
216	1115.79	147.24	End Shut-in(2)
219	2692.74	147.61	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5500.00	50%gas 30%oil 20%mud trace of water	73.79

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.50	30.00	299.51
Last Gas Rate	0.13	38.00	19.61
Max. Gas Rate	0.13	38.00	19.61

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DRILL STEM TEST REPORT

TOOL DIAGRAM

EOG Resources Inc.

RENEE 28-5

3817 NW Expressway Oklahoma City Ok. 73112

28/33/39

ATTN: Dale P.

Job Ticket: 34076

DST#: 1

Test Start: 2009.07.03 @ 12:15:00

Tool Information

Drill Pipe:	Length: 5341.00 ft	Diameter: 3.80 inches	Volume: 74.92 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: 369.00 ft	Diameter: 2.25 inches	Volume: 1.81 bbl	Weight to Pull Loose: 105000.0 lb
			<u>Total Volume: 76.73 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 88000.00 lb
Depth to Top Packer:	5715.00 ft			Final 99000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	118.00 ft			
Tool Length:	148.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

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Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			5686.00	
Shut In Tool	5.00			5691.00	
Sampler	3.00			5694.00	
Hydraulic tool	5.00			5699.00	
Jars	5.00			5704.00	
Safety Joint	2.00			5706.00	
Packer	5.00			5711.00	30.00 Bottom Of Top Packer
Packer	4.00			5715.00	
Stubb	1.00			5716.00	
Perforations	19.00			5735.00	
Recorder	0.00	8355	Inside	5735.00	
Recorder	0.00	6773	Inside	5735.00	
Change Over Sub	1.00			5736.00	
Drill Pipe	93.00			5829.00	
Change Over Sub	1.00			5830.00	
Bullnose	3.00			5833.00	118.00 Bottom Packers & Anchor
Total Tool Length:	148.00				

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DRILL STEM TEST REPORT

FLUID SUMMARY

EOG Resources Inc.

RENEE 28-5

3817 NW Expressway Oklahoma City Ok. 73112

28/33/39

Job Ticket: 34076

DST#: 1

ATTN: Dale P.

Test Start: 2009.07.03 @ 12:15:00

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: 9.38 cm³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1300.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5500.00	50%gas 30%oil 20%mud trace of water.	73.789

Total Length: 5500.00 ft

Total Volume: 73.789 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Sampler Data- 1500 ML of 5% mud, 95% condensate, with 20 CFD gas @ 1100 PSI.

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DRILL STEM TEST REPORT

GAS RATES

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EOG Resources Inc.

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3817 NW Expressway Oklahoma City Ok. 73112

28/33/39

ATTN: Dale P.

Job Ticket: 34076

DST#: 1

Test Start: 2009.07.03 @ 12:15:00

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 (m ³ /d)
1	10	0.50	30.00	299.51
1	10	0.50	30.00	299.51
1	20	0.50	33.00	319.75
1	30	0.50	31.00	306.25
2	20	0.13	9.00	8.76
CONFIDENTIAL		0.13	19.00	12.50
2	40	0.13	30.00	16.62
027	3 2009	0.13	38.00	19.61

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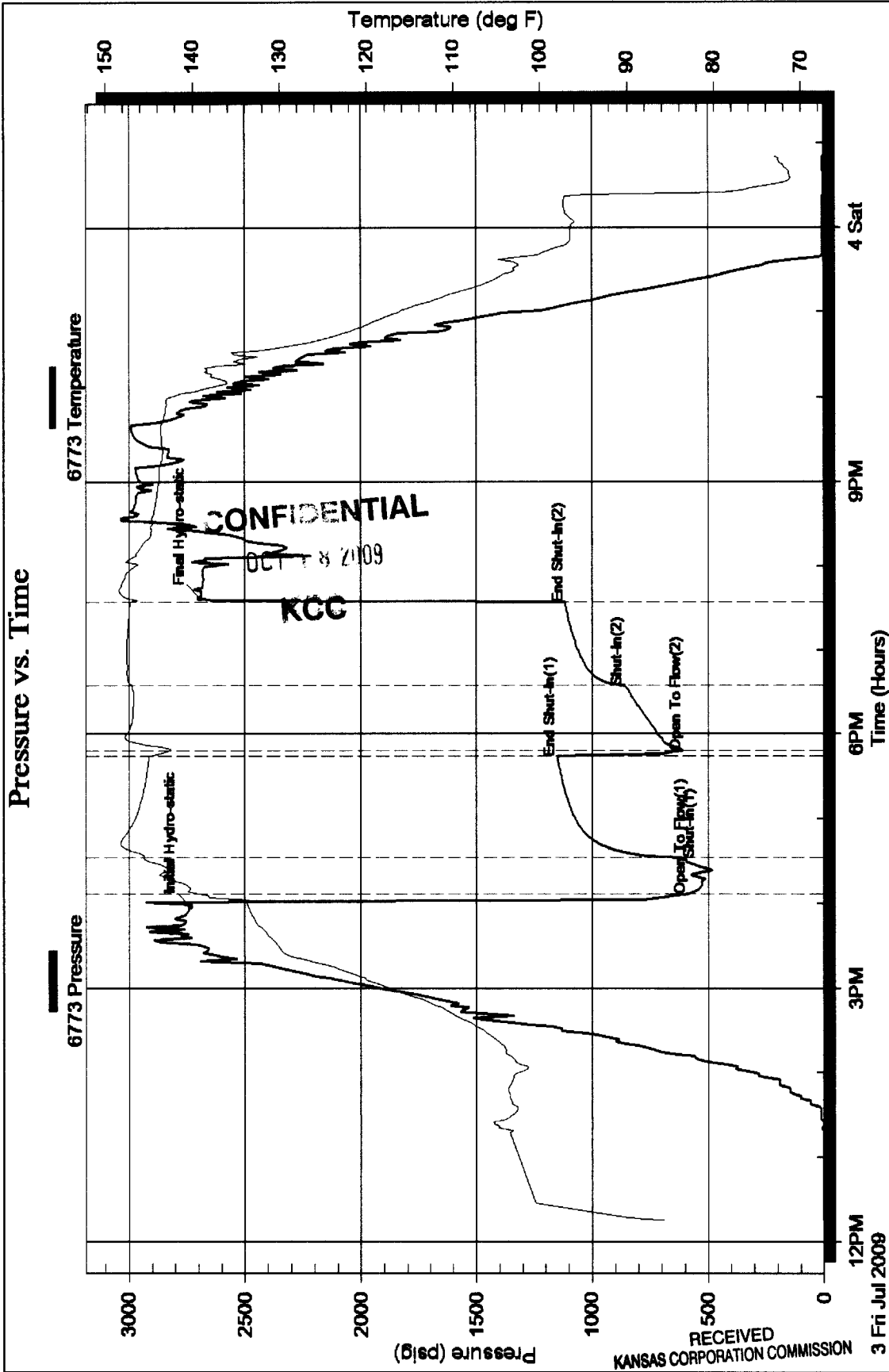
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EOG Resources Inc.

28/33/39

DST Test Number: 1

Pressure vs. Time



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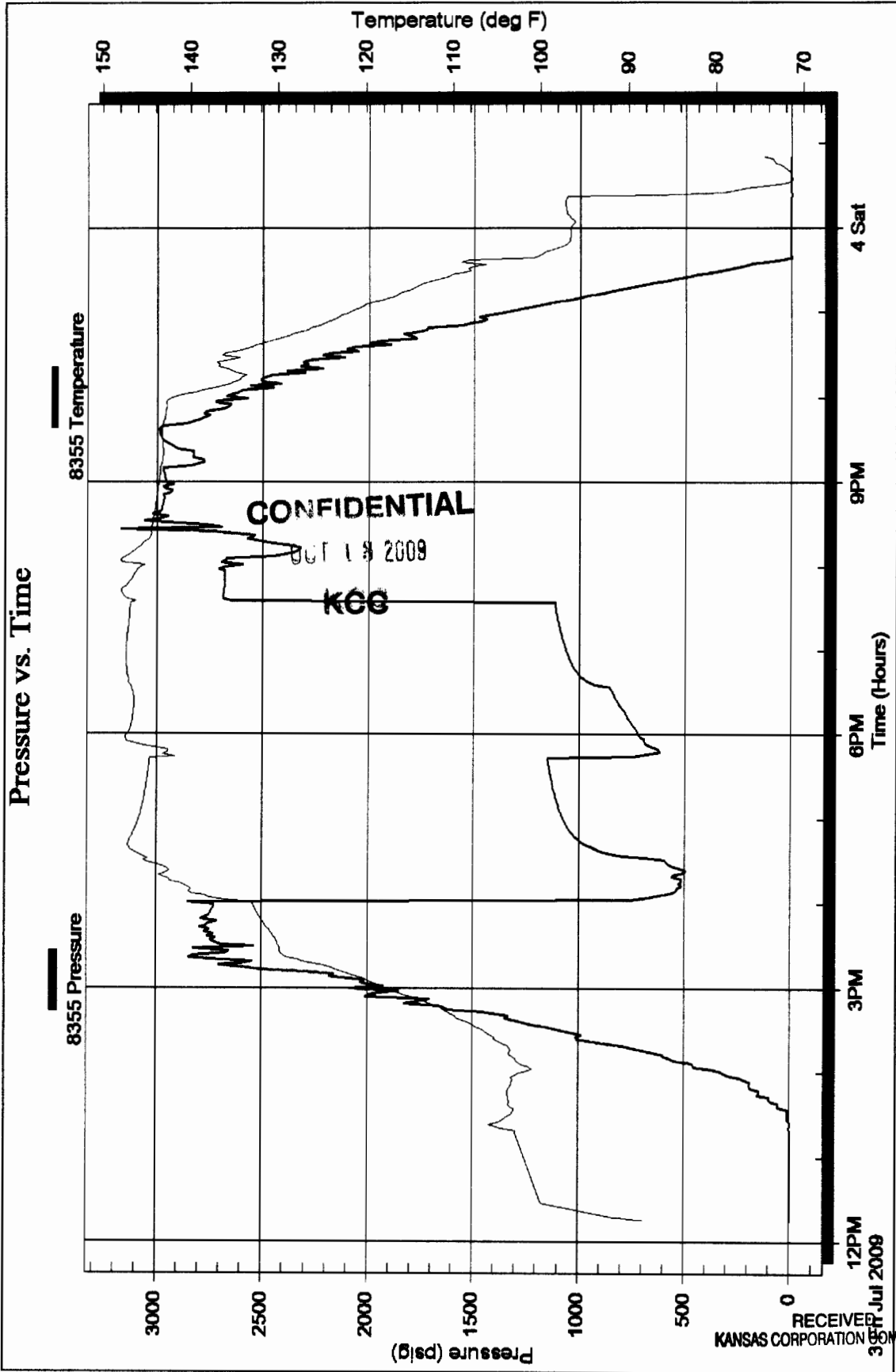
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EOG Resources Inc.

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DST Test Number: 1

Pressure vs. Time



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