



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI, Inc.
1310 Bison Rd.
Hays, KS 67601
ATTN: Herb Dienes

Yarnell-Gross Unit #1
4/15S/19W-Ellis
Job Ticket: 45224 **DST#: 1**
Test Start: 2011.08.01 @ 06:20:15

GENERAL INFORMATION:

Formation: **LKC "H,I,&J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 08:25:45
Time Test Ended: 14:10:45
Interval: **3470.00 ft (KB) To 3557.00 ft (KB) (TVD)**
Total Depth: 3557.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole
Tester: Dustin Rash
Unit No: 38
Reference Elevations: 2055.00 ft (KB)
2045.00 ft (CF)
KB to GR/CF: 10.00 ft

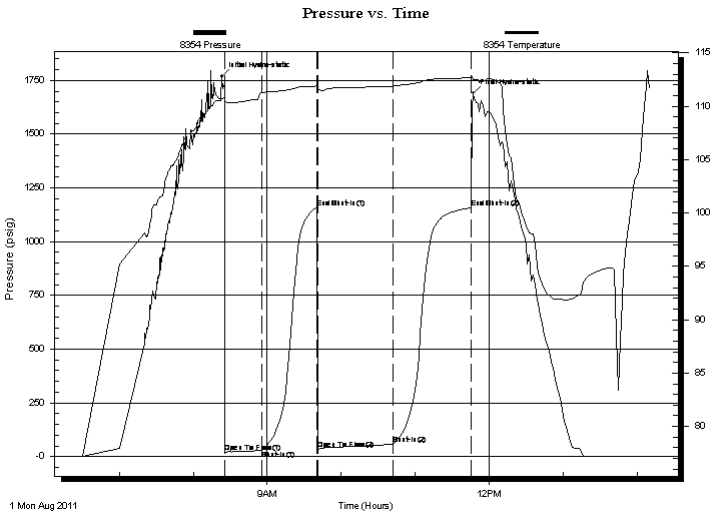
Serial #: 8354

Inside

Press @ Run Depth: 57.05 psig @ 3540.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2011.08.01 End Date: 2011.08.01 Last Calib.: 2011.08.01
Start Time: 06:30:15 End Time: 14:10:45 Time On Btm: 2011.08.01 @ 08:23:15
Time Off Btm: 2011.08.01 @ 11:47:15

TEST COMMENT: IF-Fair building blow . BOB in 20 minutes 30 seconds.
ISI-No Return.
FF-Strong building blow . BOB in 3 minutes.
FSI-No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1767.82	110.68	Initial Hydro-static
3	19.65	110.40	Open To Flow (1)
33	30.25	111.25	Shut-In(1)
77	1157.27	111.88	End Shut-In(1)
78	32.00	111.62	Open To Flow (2)
139	57.05	111.88	Shut-In(2)
203	1157.78	112.65	End Shut-In(2)
204	1689.10	112.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	50%Gas/30%Mud/20%Oil	0.84
50.00	80%Mud/10%Oil/10%Gas	0.70
0.00	620' G.I.P.	0.00

Gas Rates

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



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Yarnell-Gross Unit #1
4/15S/19W-Ellis
Job Ticket: 45224 **DST#: 1**
Test Start: 2011.08.01 @ 06:20:15

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: 41.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.80 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2300.00 ppm			
Filter Cake: inches			

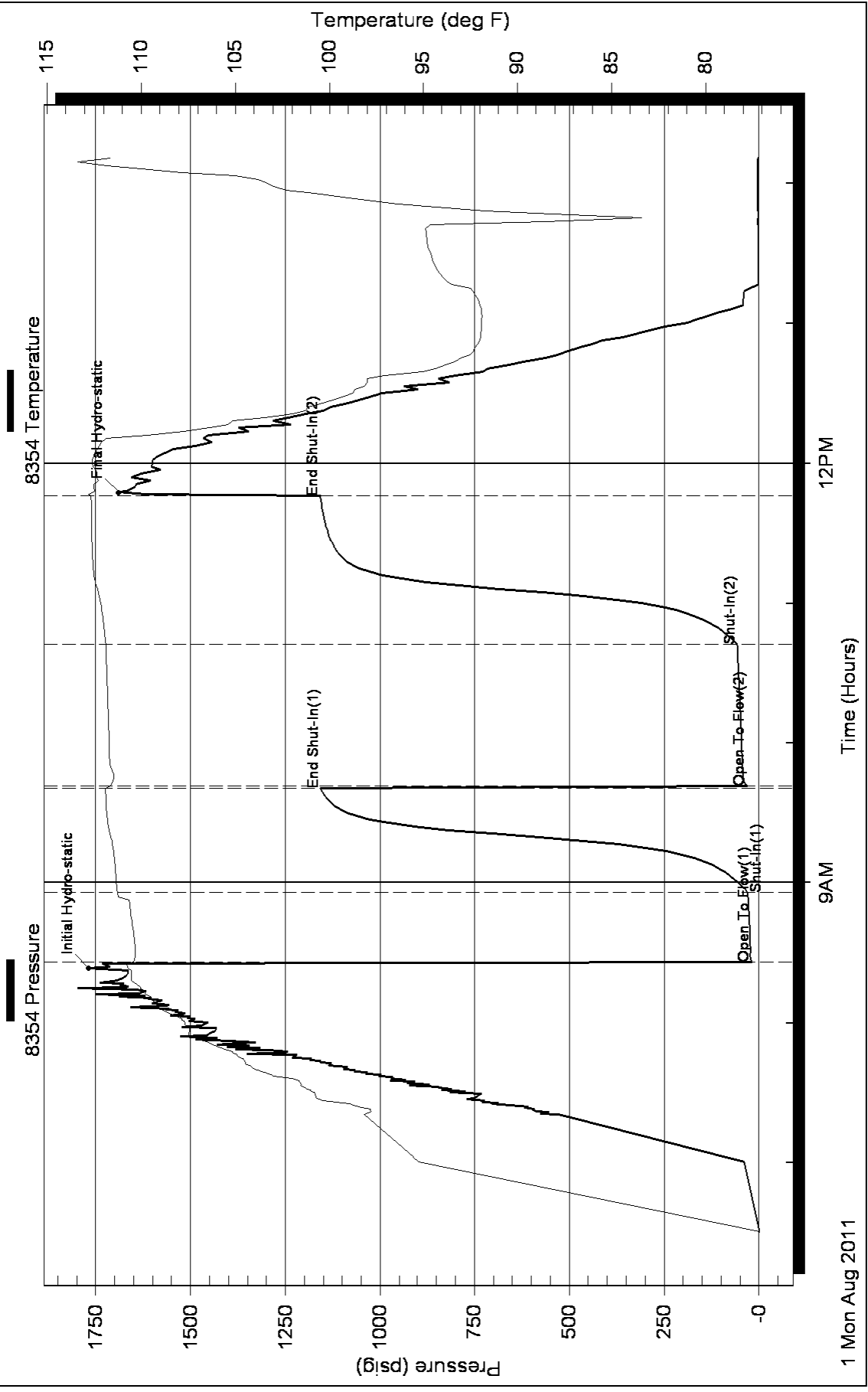
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	50%Gas/30%Mud/20%Oil	0.842
50.00	80%Mud/10%Oil/10%Gas	0.701
0.00	620' G.I.P.	0.000

Total Length: 110.00 ft Total Volume: 1.543 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time





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Yarnell-Gross Unit #1
4/15S/19W-Ellis
Job Ticket: 45225 **DST#: 2**
Test Start: 2011.08.02 @ 04:07:30

GENERAL INFORMATION:

Formation: **Cong Sand & Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:10:30

Time Test Ended: 11:16:00

Test Type: Conventional Bottom Hole

Tester: Dustin Rash

Unit No: 38

Interval: 3674.00 ft (KB) To 3686.00 ft (KB) (TVD)

Reference Elevations: 2055.00 ft (KB)

Total Depth: 3686.00 ft (KB) (TVD)

2045.00 ft (CF)

Hole Diameter: 7.85 inches Hole Condition: Fair

KB to GR/CF: 10.00 ft

Serial #: 8354 Inside

Press @ Run Depth: 33.28 psig @ 3676.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2011.08.02 End Date: 2011.08.02

Last Calib.: 2011.08.02

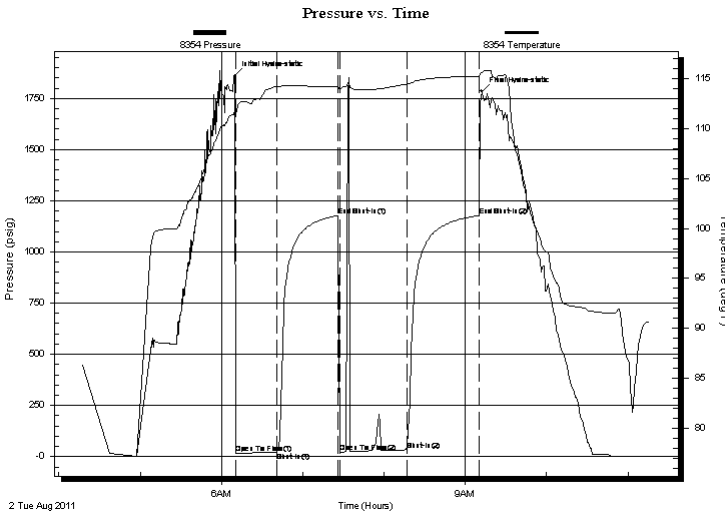
Start Time: 04:17:30 End Time: 11:16:00

Time On Btm: 2011.08.02 @ 06:10:00

Time Off Btm: 2011.08.02 @ 09:12:00

TEST COMMENT: IF-Very weak building blow . Built to 1&1/2 inches.
ISI-No Return.
FF-No blow . Flushed tool. Weak surface blow . No build.
FSI-No Return.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1858.68	111.92	Initial Hydro-static
1	17.74	111.60	Open To Flow (1)
31	21.69	114.21	Shut-In(1)
76	1175.32	114.18	End Shut-In(1)
78	23.08	113.93	Open To Flow (2)
127	33.28	114.45	Shut-In(2)
181	1177.29	115.27	End Shut-In(2)
182	1783.35	115.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	90%Oil/10%Oil	0.28
15.00	75%Oil/25%Gas	0.21
0.00	25' G.I.P.	0.00

Gas Rates

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



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Job Ticket: 45225 **DST#: 2**
Test Start: 2011.08.02 @ 04:07:30

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 31 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.20 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2500.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	90%Oil/10%Oil	0.281
15.00	75%Oil/25%Gas	0.210
0.00	25' G.I.P.	0.000

Total Length: 35.00 ft Total Volume: 0.491 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time

