



DRILL STEM TEST REPORT

Prepared For: **GL Allison Oil Operations Incorporated**

15 Southeast 30 Road
Great Bend, Kansas 67530

ATTN: Kevin Bailey

Younkin 21-Maycee

21/12S/32W/Logan

Start Date: 2013.09.26 @ 20:30:00

End Date: 2013.09.27 @ 02:26:00

Job Ticket #: 18158 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2013.09.27 @ 03:02:30



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GL Allison Oil Operations Incorporated

21/12S/32W/Logan

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Job Ticket: 18158

DST#: 1

ATTN: Kevin Bailey

Test Start: 2013.09.26 @ 20:30:00

GENERAL INFORMATION:

Formation: **Lansing/Kansas City**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 22:16:30

Time Test Ended: 02:26:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Ken Swinney

Unit No: 3325 Scott City/74

Interval: 4192.00 ft (KB) To 4287.00 ft (KB) (TVD)

Reference Elevations: 3064.00 ft (KB)

Total Depth: 4287.00 ft (KB) (TVD)

3057.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 6749 Inside

Press @ RunDepth: 168.72 psia @ 4283.01 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.09.26 End Date: 2013.09.27

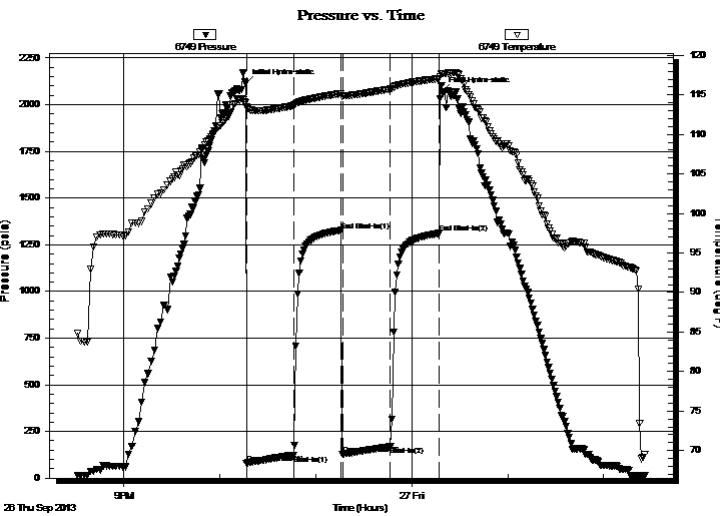
Last Calib.: 2013.09.27

Start Time: 20:31:00 End Time: 02:26:00

Time On Btm: 2013.09.26 @ 22:16:00

Time Off Btm: 2013.09.27 @ 00:19:00

TEST COMMENT: 1ST Open 30 Minutes/Good blow/Blow built to 10 1/2 inches
 1ST Shut In 30 Minutes/No blow back
 2ND Open 30 Minutes/Good blow/Blow built to 9 inches
 2ND Shut In 30 Minutes/Surface blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2111.50	114.05	Initial Hydro-static
1	78.79	113.46	Open To Flow (1)
30	124.24	113.66	Shut-In(1)
60	1327.40	115.18	End Shut-In(1)
61	128.37	114.85	Open To Flow (2)
91	168.72	115.76	Shut-In(2)
121	1311.31	117.07	End Shut-In(2)
123	2071.70	117.69	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
197.00	Muddy Water	2.76
0.00	Mud 50% Water 50%	0.00
20.00	Clean Oil 100%	0.28
0.00	31 feet of gas in pipe	0.00
0.00	Recov. Chlorides 39,000 ppm	0.00
0.00	Recov. Resist. .25 ohms @ 76 deg	0.00

Gas Rates

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



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Tester: Ken Swinney

Unit No: 3325 Scott City/74

Interval: 4192.00 ft (KB) To 4287.00 ft (KB) (TVD)

Reference Elevations: 3064.00 ft (KB)

Total Depth: 4287.00 ft (KB) (TVD)

3057.00 ft (CF)

Hole Diameter: 7.80 inches Hole Condition: Fair

KB to GR/CF: 7.00 ft

Serial #: 6666 Outside

Press @ RunDepth: 1310.24 psia @ 4284.01 ft (KB)

Capacity: 5000.00 psia

Start Date: 2013.09.26

End Date: 2013.09.27

Last Calib.: 2013.09.27

Start Time: 20:31:00

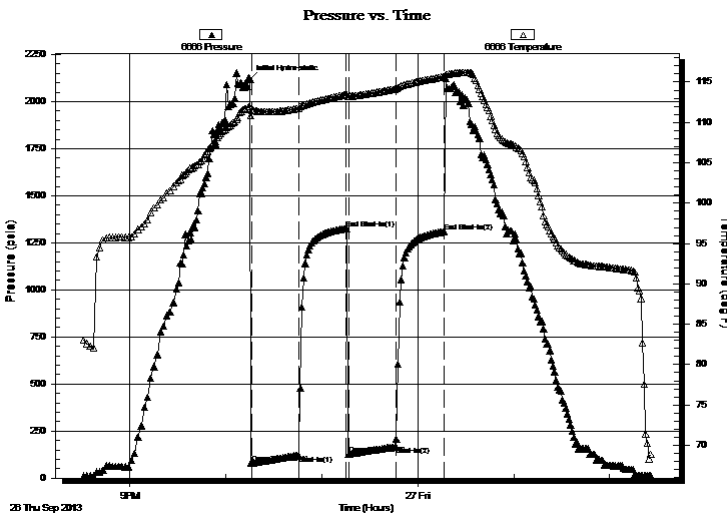
End Time: 02:26:00

Time On Btm: 2013.09.26 @ 22:15:00

Time Off Btm:

TEST COMMENT: 1ST Open 30 Minutes/Good blow/Blow built to 10 1/2 inches
 1ST Shut In 30 Minutes/No blow back
 2ND Open 30 Minutes/Good blow/Blow built to 9 inches
 2ND Shut In 30 Minutes/Surface blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	2117.08	111.95	Initial Hydro-static
1	77.92	111.53	Open To Flow (1)
31	122.63	111.77	Shut-In(1)
60	1326.27	113.44	End Shut-In(1)
62	127.66	113.23	Open To Flow (2)
91	167.02	114.16	Shut-In(2)
122	1310.24	115.67	End Shut-In(2)

Recovery

Length (ft)	Description	Volume (bbl)
197.00	Muddy Water	2.76
0.00	Mud 50% Water 50%	0.00
20.00	Clean Oil 100%	0.28
0.00	31 feet of gas in pipe	0.00
0.00	Recov. Chlorides 39,000 ppm	0.00
0.00	Recov. Resist. .25 ohms @ 76 deg	0.00

Gas Rates

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



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TOOL DIAGRAM

GL Allison Oil Operations Incorporated

21/12S/32W/Logan

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Great Bend, Kansas 67530

Younkin 21-Maycee

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DST#: 1

ATTN: Kevin Bailey

Test Start: 2013.09.26 @ 20:30:00

Tool Information

Drill Pipe:	Length: 4190.00 ft	Diameter: 3.80 inches	Volume: 58.77 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: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 58.77 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4192.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	95.01 ft			
Tool Length:	122.01 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			4170.00	
Hydraulic Tool	5.00			4175.00	
Jars	5.00			4180.00	
Safety Joint	2.00			4182.00	
Packer	5.00			4187.00	27.00 Bottom Of Top Packer
Packer	5.00			4192.00	
Perforations	6.00			4198.00	
Change Over Sub	0.75			4198.75	
Drill Pipe	62.51			4261.26	
Change Over Sub	0.75			4262.01	
Anchor	20.00			4282.01	
Recorder	1.00	6749	Inside	4283.01	
Recorder	1.00	6666	Outside	4284.01	
Bullnose	3.00			4287.01	95.01 Bottom Packers & Anchor

Total Tool Length: 122.01



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FLUID SUMMARY

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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: 69.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.58 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psia

Salinity: 2000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
197.00	Muddy Water	2.763
0.00	Mud 50% Water 50%	0.000
20.00	Clean Oil 100%	0.281
0.00	31 feet of gas in pipe	0.000
0.00	Recov. Chlorides 39,000 ppm	0.000
0.00	Recov. Resist. .25 ohms @ 76 deg	0.000

Total Length: 217.00 ft

Total Volume: 3.044 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 6749

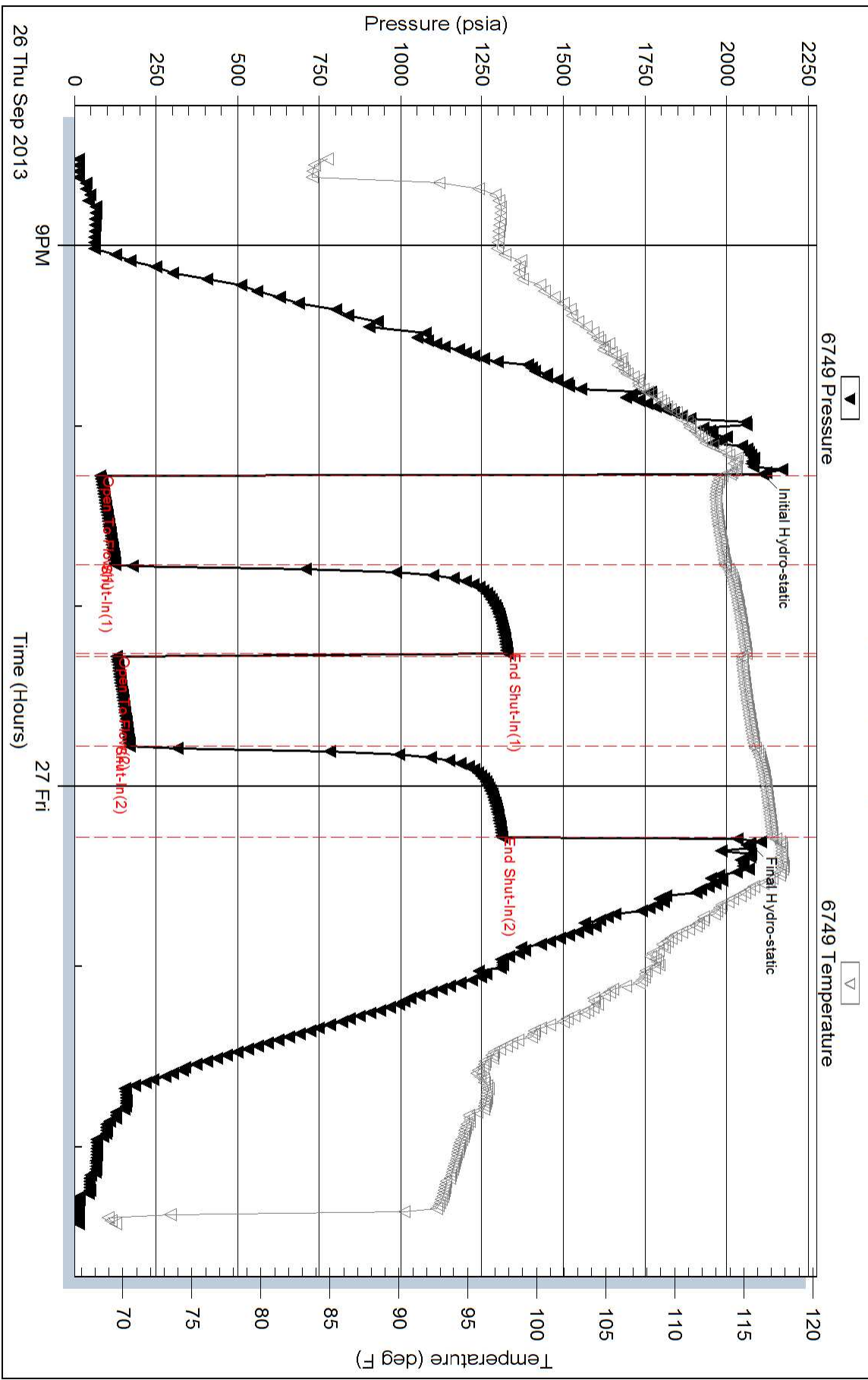
Inside

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Younkin 21-Maycee

DST Test Number: 1

Pressure vs. Time



Pressure vs. Time

