TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Downing-Nelson Oil Co**

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

17-23s-18w Pawnee,KS

Meckfessel Trust #1-17

Start Date: 2014.06.03 @ 10:14:38

End Date: 2014.06.03 @ 17:49:31

Job Ticket #: 51987 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.06.05 @ 10:03:45

DRILL STEM TEST REPORT

Dow ning-Nelson Oil Co

PO Box 1019
Hays, KS 67601

ATTN: Marc Dow ning

Meckfessel Trust #1-17

17-23s-18w Pawnee,KS

Job Ticket: 51987 **DST#: 1**

Test Start: 2014.06.03 @ 10:14:38

GENERAL INFORMATION:

Formation: **Cherokee Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:34:01
Time Test Ended: 17:49:31

Test Type: Conventional Bottom Hole (Initial)
Tester: Leal Cason
Unit No: 68

Interval: 4416.00 ft (KB) To 4450.00 ft (KB) (TVD)
Total Depth: 4450.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good

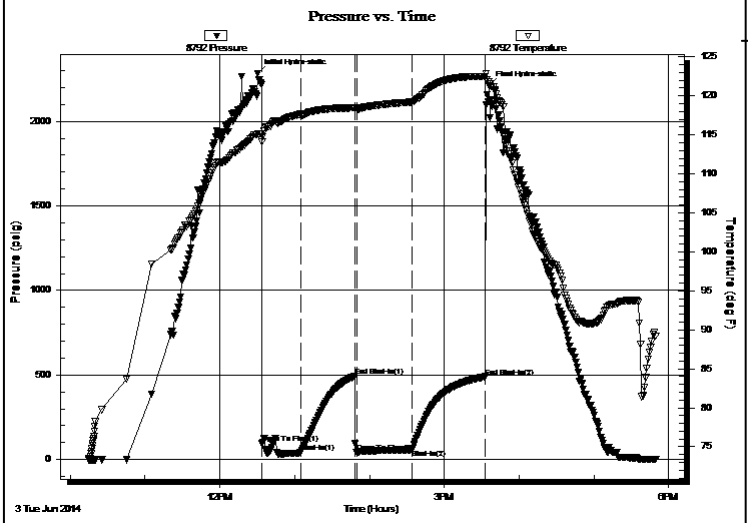
Reference Elevations: 2193.00 ft (KB)
2180.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8792 **Outside**

Press@RunDepth: 58.80 psig @ 4417.00 ft (KB)
Start Date: 2014.06.03 End Date: 2014.06.03
Start Time: 10:14:43 End Time: 17:49:30

Capacity: 8000.00 psig
Last Calib.: 2014.06.03
Time On Btm: 2014.06.03 @ 12:30:31
Time Off Btm: 2014.06.03 @ 15:36:16

TEST COMMENT: IF: Fair Blow , BOB in 5 minutes
ISI: No Blow Back
FF: Strong Blow , BOB in 1 minute
FSI: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2283.79	115.16	Initial Hydro-static
4	96.24	114.14	Open To Flow (1)
34	40.72	117.66	Shut-In(1)
78	492.81	118.47	End Shut-In(1)
79	42.90	118.35	Open To Flow (2)
124	58.80	119.21	Shut-In(2)
183	489.25	122.49	End Shut-In(2)
186	2209.96	121.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	768 GIP	0.00
62.00	GOMCW 20%G 20%O 30%M 30%W	0.87
50.00	GOCM 20%G 20%O 60%M	0.70

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (m³/d)

DRILL STEM TEST REPORT

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Hays, KS 67601

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Meckfessel Trust #1-17

17-23s-18w Pawnee,KS

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Reference Elevations: 2193.00 ft (KB)
2180.00 ft (CF)
KB to GR/CF: 13.00 ft

Serial #: 8790 **Inside**

Press@RunDepth: psig @ 4417.00 ft (KB)
Start Date: 2014.06.03 End Date: 2014.06.03
Start Time: 10:14:43 End Time: 17:50:07

Capacity: 8000.00 psig
Last Calib.: 2014.06.03
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Fair Blow , BOB in 5 minutes
ISI: No Blow Back
FF: Strong Blow , BOB in 1 minute
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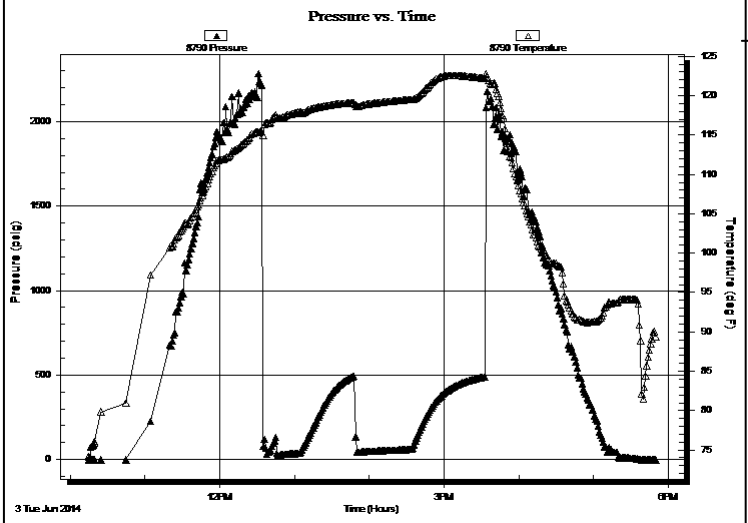


PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
0.00	768 GIP	0.00
62.00	GOMCW 20%G 20%O 30%M 30%W	0.87
50.00	GOCM 20%G 20%O 60%M	0.70

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (m³/d)

DRILL STEM TEST REPORT

TOOL DIAGRAM

Dow ning-Nelson Oil Co

PO Box 1019
Hays, KS 67601

ATTN: Marc Dow ning

Meckfessel Trust #1-17

17-23s-18w Pawnee,KS

Job Ticket: 51987 **DST#: 1**

Test Start: 2014.06.03 @ 10:14:38

Tool Information

Drill Pipe:	Length:	4395.00 ft	Diameter:	3.80 inches	Volume:	61.65 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
					Total Volume:	61.65 bbl	

Drill Pipe Above KB:	6.00 ft
Depth to Top Packer:	4416.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	34.00 ft
Tool Length:	61.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2100.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		70000.00 lb
Tool Chased		ft
String Weight:	Initial	55000.00 lb
	Final	56000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4390.00		
Shut In Tool	5.00			4395.00		
Hydraulic tool	5.00			4400.00		
Jars	5.00			4405.00		
Safety Joint	2.00			4407.00		
Packer	5.00			4412.00	27.00	Bottom Of Top Packer
Packer	4.00			4416.00		
Stubb	1.00			4417.00		
Recorder	0.00	8790	Inside	4417.00		
Recorder	0.00	8792	Outside	4417.00		
Perforations	30.00			4447.00		
Bullnose	3.00			4450.00	34.00	Bottom Packers & Anchor
Total Tool Length:	**61.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Downing-Nelson Oil Co

PO Box 1019
Hays, KS 67601

ATTN: Marc Downing

Meckfessel Trust #1-17

17-23s-18w Pawnee,KS

Job Ticket: 51987 **DST#: 1**

Test Start: 2014.06.03 @ 10:14:38

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:	40000 ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.19 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3000.00 ppm				
Filter Cake:	0.02 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	768 GIP	0.000
62.00	GOMCW 20%G 20%O 30%M 30%W	0.870
50.00	GOCM 20%G 20%O 60%M	0.701

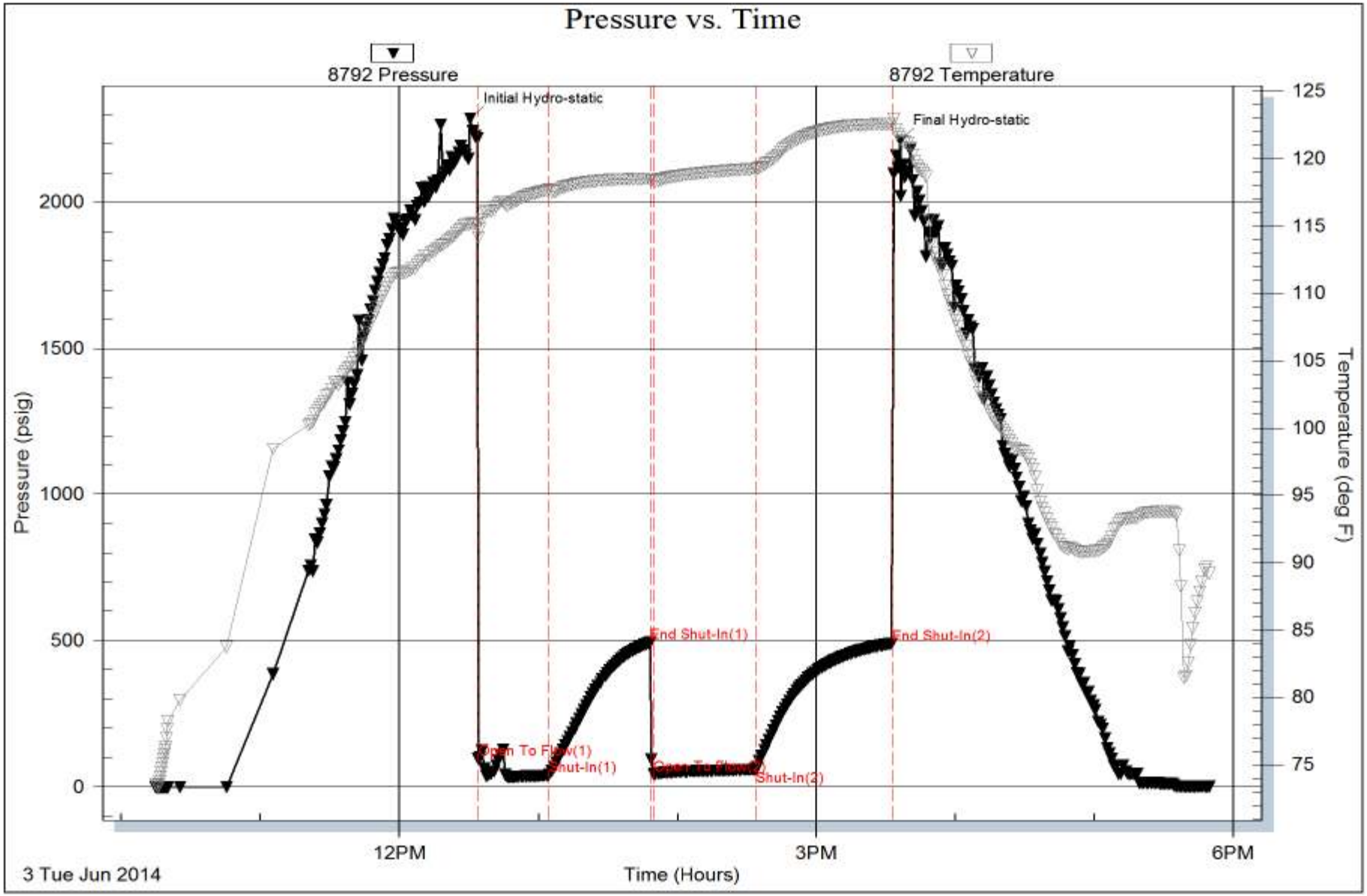
Total Length: 112.00 ft Total Volume: 1.571 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

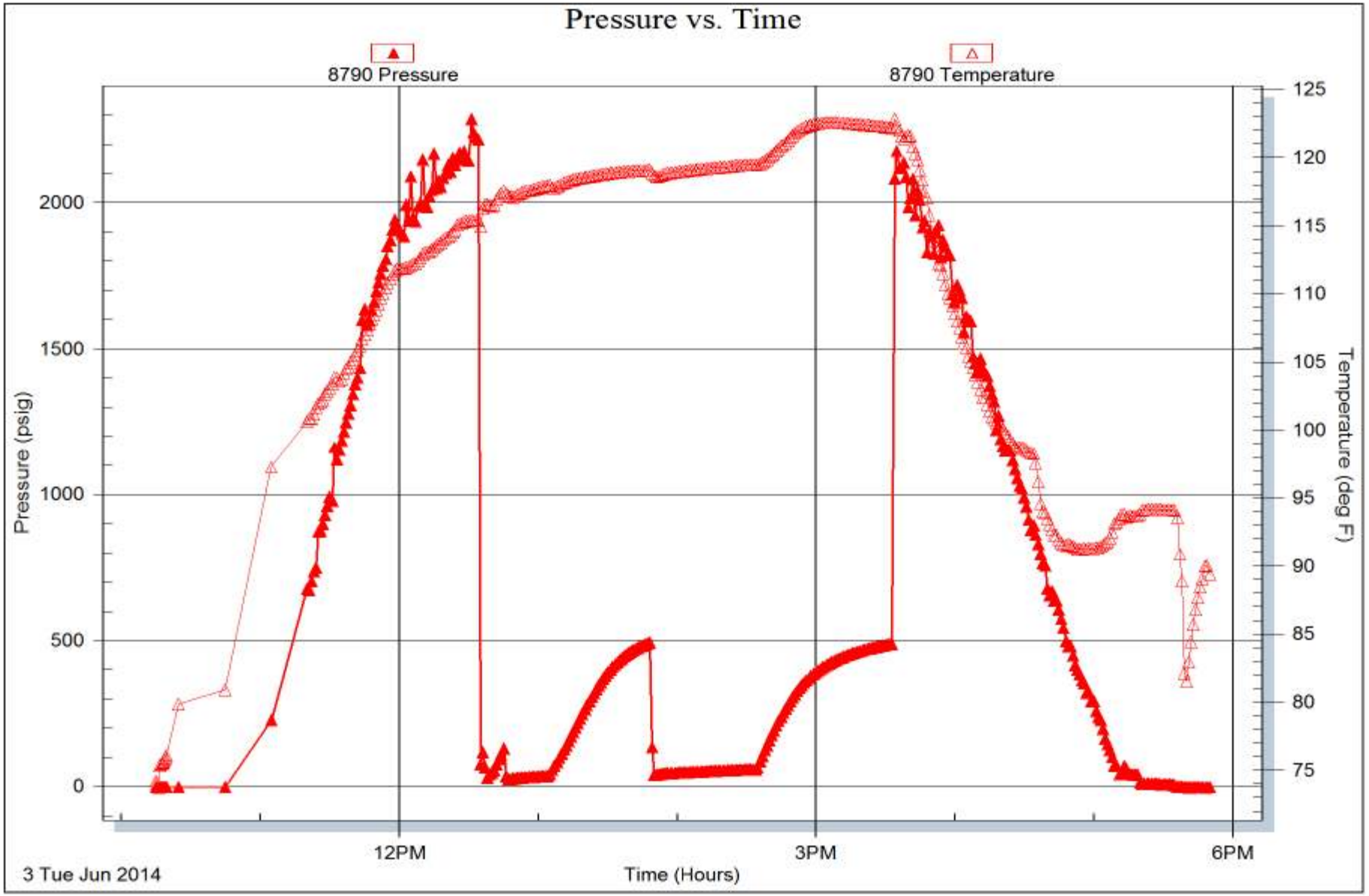
Recovery Comments: RW was .15 @ 84 degrees

Serial #: 8792 **Outside** Dow ning-Nelson Oil Co 17-23s-18w Paw nee,KS DST Test Number: 1



Trilobite Testing, Inc Ref. No: 51987 Printed: 2014.06.05 @ 10:03:46

Serial #: 8790 **Inside** Downing-Nelson Oil Co 17-23s-18w Pawnee,KS DST Test Number: 1



Trilobite Testing, Inc Ref. No: 51987 Printed: 2014.06.05 @ 10:03:46

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 51987

Well Name & No. Meckfessel Trust 1-17 Test No. 1 Date 06/03/14

Company Downing - Nelson oil co Elevation 2180 KB 2193 GL

Address PO Box 1019 Hays, KS 67601

Co. Rep / Geo. Marc Downing Rig #Minnescah 101

Location: Sec. 17 Twp. 23S Rge. 18W Co. Pawnee State KS

Interval Tested 4416 - 4450 Zone Tested Cherokee Sand

Anchor Length 34 Drill Pipe Run Mud Wt. 9.3

Top Packer Depth 4411 Drill Collars Run 0 Vis 51

Bottom Packer Depth 4416 Wt. Pipe Run 0 WL 7.2

Total Depth 4450 Chlorides 3000 ppm System LCM

Blow Description IF: Fair Blow, BOB in 5 minutes

ISI: No Blow Back

FF: Strong Blow, BOB in 1 minute

FSI: No Blow Back

Rec 168	Feet of GIP	%gas	%oil	%water	%mud	
Rec 50	Feet of GOCM	20 %gas	20 %oil	%water	60 %mud	
Rec 62	Feet of GOMCW	20 %gas	20 %oil	30 %water	30 %mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of	%gas	%oil	%water	%mud	

Rec Total 112 BHT 121 Gravity N/C API RW .15 @ 84 °F Chlorides 40000 ppm

(A) Initial Hydrostatic	2384	☑ Test	1250	T-On Location	08:00
(B) First Initial Flow	96	☑ Jars	250	T-Started	10:14
(C) First Final Flow	41	☑ Safety Joint	75	T-Open	12:34
(D) Initial Shut-In	493	☐ Circ Sub		T-Pulled	15:32
(E) Second Initial Flow	43	☐ Hourly Standby		T-Out	17:49
(F) Second Final Flow	59	☑ Mileage	120 186	Comments	
(G) Final Shut-In	489	☐ Sampler			
(H) Final Hydrostatic	2210	☐ Straddle			
		☐ Shale Packer		☐ Ruined Shale Packer	
Initial Open	30	☐ Extra Packer		☐ Ruined Packer	
Initial Shut-In	45	☐ Extra Recorder		☐ Extra Copies	
Final Flow	45	☐ Day Standby		Sub Total	0
Final Shut-In	60	☐ Accessibility		Total	1761
		Sub Total	1761	MP/DST Disc't	

Approved By Our Representative