



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Owen's Pumping Service

19-15s-10w Ellsworth, KS

640 E Sunset Ave
Russell, KS 67665

Branda A 1

Job Ticket: 47482

DST#: 1

ATTN: Kitt Noah

Test Start: 2012.04.16 @ 08:09:15

GENERAL INFORMATION:

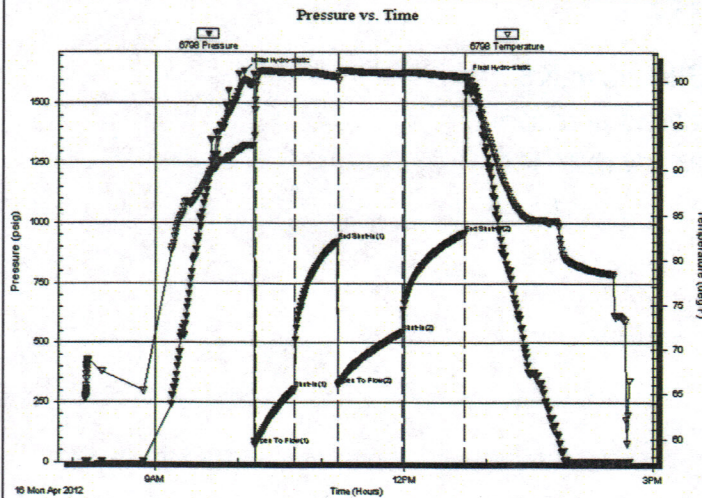
Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 10:12:00
 Time Test Ended: 14:43:00
 Interval: **3279.00 ft (KB) To 3290.00 ft (KB) (TVD)**
 Total Depth: 3290.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Leal Cason
 Unit No: 45
 Reference Elevations: 1774.00 ft (KB)
 1765.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 6798

Inside

Press@RunDepth: 544.54 psig @ 3280.00 ft (KB)
 Start Date: 2012.04.16 End Date: 2012.04.16 Capacity: 8000.00 psig
 Start Time: 08:09:16 End Time: 14:43:00 Last Calib.: 2012.04.16
 Time On Btm: 2012.04.16 @ 10:04:00
 Time Off Btm: 2012.04.16 @ 12:44:45

TEST COMMENT: IF: Strong Blow, BOB in 3 minutes
 IS: No Blow Back
 FF: Strong Blow, BOB in 3 minutes
 FS: No Blow Back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1636.03	92.59	Initial Hydro-static
8	72.23	96.74	Open To Flow (1)
37	305.29	100.91	Shut-In(1)
68	924.37	100.46	End Shut-In(1)
69	323.99	100.06	Open To Flow (2)
115	544.54	100.86	Shut-In(2)
160	957.95	100.51	End Shut-In(2)
161	1607.33	100.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
960.00	Water	13.47
120.00	MCW 40%M 60%W	1.68

Gas Rates

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



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TOOL DIAGRAM

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Tool Information

Drill Pipe:	Length: 3292.00 ft	Diameter: 3.80 inches	Volume: 46.18 bbl	Tool Weight: 2100.00 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: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 46.18 bbl</u>	Tool Chased ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 40000.00 lb
Depth to Top Packer:	3279.00 ft			Final 44000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	11.00 ft			
Tool Length:	31.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			3264.00	
Hydraulic tool	5.00			3269.00	
Packer	5.00			3274.00	20.00 Bottom Of Top Packer
Packer	5.00			3279.00	
Stubb	1.00			3280.00	
Recorder	0.00	6798	Inside	3280.00	
Recorder	0.00	8367	Outside	3280.00	
Perforations	7.00			3287.00	
Bullnose	3.00			3290.00	11.00 Bottom Packers & Anchor
Total Tool Length:	31.00				



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FLUID SUMMARY

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DST#: 1

ATTN: Kitt Noah

Test Start: 2012.04.16 @ 08:09:15

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 52.00 sec/qt
Water Loss: 8.18 in³
Resistivity: ohm.m
Salinity: 2800.00 ppm
Filter Cake: 0.20 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 40000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
960.00	Water	13.466
120.00	MCW 40%M 60%W	1.683

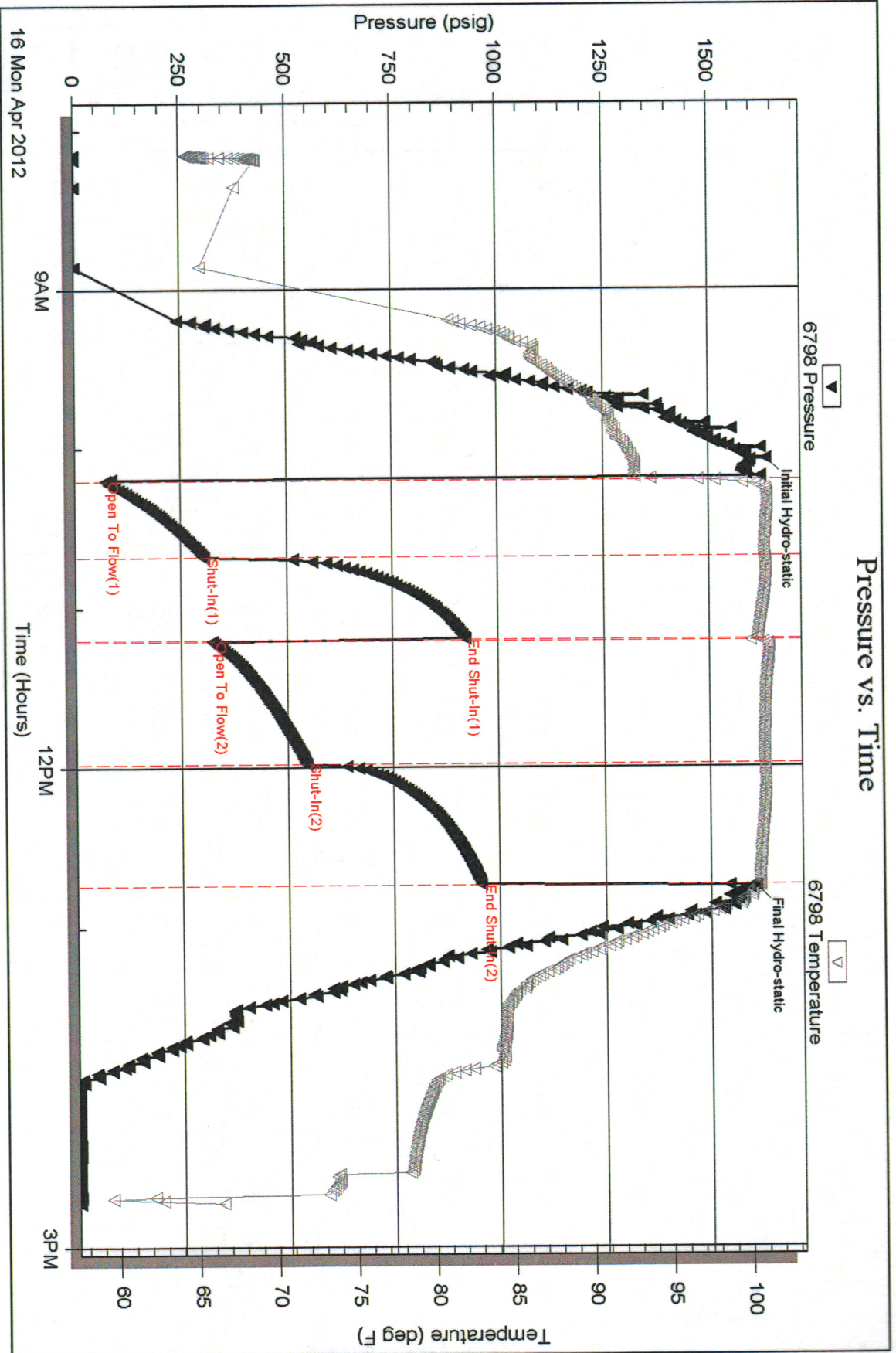
Total Length: 1080.00 ft Total Volume: 15.149 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: RW was .17 @ 75 degrees

Pressure vs. Time





TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED

APR 17 2012

Test Ticket

NO. 47482

Well Name & No. Branda A-1 Test No. 1 Date 04/16/12
 Company Owen's Pumping Service Elevation 1774 KB 1765 GL
 Address 640 E Sunset Ave Russell, KS 67665
 Co. Rep / Geo. Kitt Noah Rig Southwind 6
 Location: Sec. 19 Twp. 15S Rge. 10W Co. Ellsworth State KS

Interval Tested 3279 - 3290 Zone Tested Arbuckle
 Anchor Length 11 Drill Pipe Run 3292 Mud Wt. 9.1
 Top Packer Depth 3274 Drill Collars Run 0 Vis 52
 Bottom Packer Depth 3279 Wt. Pipe Run 0 WL 2.2
 Total Depth 3290 Chlorides 2800 ppm System LCM 1 1/2

Blow Description IF: Strong Blow, BOB in 3 minutes
IST: NO Blow Back
FF: Strong Blow, BOB in 3 minutes
FST: NO Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>MCW</u>			<u>60%</u>	<u>40%</u>
<u>960</u>	<u>water</u>				

Rec Total 1080 BHT 100 Gravity N/C API RW .17 @ 75 °F Chlorides 40000 ppm

(A) Initial Hydrostatic 1136 Test 1150' T-On Location 06:45
 (B) First Initial Flow 72 Jars T-Started 08:09
 (C) First Final Flow 305 Safety Joint T-Open 10:12
 (D) Initial Shut-In 924 Circ Sub T-Pulled 12:44
 (E) Second Initial Flow 324 Hourly Standby T-Out 14:43
 (F) Second Final Flow 544 Mileage (170) 263.50 Comments _____
 (G) Final Shut-In 958 Sampler _____
 (H) Final Hydrostatic 1607 Straddle _____
 Shale Packer _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Initial Open 30
 Initial Shut-In 30
 Final Flow 45
 Final Shut-In 45
 Sub Total 1413.50
 Total 1413.50
 MP/DST Disc't _____

Approved By Kitt Noah Our Representative [Signature]

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