



DRILL STEM TEST REPORT

Prepared For: **Red Oak Energy, Inc**

7701 E Kellogg Dr Ste 710
Wichita, KS 67207

ATTN: Sean Deenihan

Rita Doidge #1-34

34-14s-41w Wallace, Ks

Start Date: 2016.12.01 @ 06:33:00

End Date: 2016.12.01 @ 16:22:15

Job Ticket #: 63471 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2016.12.05 @ 10:27:47



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Red Oak Energy, Inc
7701 E Kellogg Dr Ste 710
Wichita, KS 67207
ATTN: Sean Deenihan

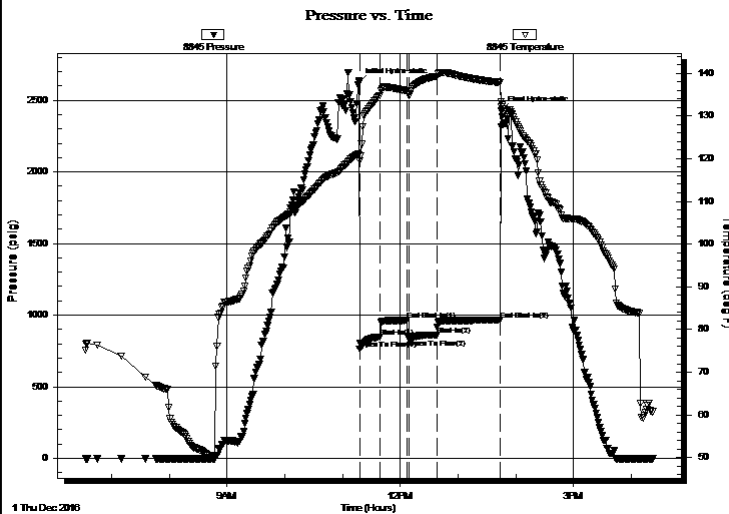
34-14s-41w Wallace, Ks
Rita Doidge #1-34
Job Ticket: 63471 **DST#: 1**
Test Start: 2016.12.01 @ 06:33:00

GENERAL INFORMATION:

Formation: **Morrow Sand**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:17:30
Time Test Ended: 16:22:15
Interval: **4968.00 ft (KB) To 5006.00 ft (KB) (TVD)**
Total Depth: 5006.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Reference Elevations: 3804.00 ft (KB)
3793.00 ft (CF)
KB to GR/CF: 11.00 ft
Test Type: Conventional Bottom Hole (Initial)
Tester: Bradley Walter
Unit No: 78

Serial #: 8845 Outside
Press@RunDepth: 861.80 psig @ 4969.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2016.12.01 End Date: 2016.12.01 Last Calib.: 2016.12.01
Start Time: 06:33:05 End Time: 16:22:15 Time On Btm: 2016.12.01 @ 11:17:15
Time Off Btm: 2016.12.01 @ 13:45:00

TEST COMMENT: IF: BOB @ 20 Sec. Gas to surface @ 5 min.
IS: BOB
FF: BOB @ open.
FS: BOB



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2626.24	120.85	Initial Hydro-static
1	761.34	119.54	Open To Flow (1)
22	845.79	134.89	Shut-In(1)
50	963.66	135.91	End Shut-In(1)
52	831.02	134.88	Open To Flow (2)
81	861.80	139.30	Shut-In(2)
147	964.07	137.87	End Shut-In(2)
148	2425.46	132.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	gocm 45g 20o 35m	0.30
80.00	gsocm 5g 5o 90m	0.39
0.00	GTS	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	1.00	100.00	3288.86
Last Gas Rate	1.00	145.00	4582.56
Max. Gas Rate	1.00	145.00	4582.56



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TOOL DIAGRAM

Red Oak Energy, Inc

34-14s-41w Wallace, Ks

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Job Ticket: 63471

DST#: 1

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Test Start: 2016.12.01 @ 06:33:00

Tool Information

Drill Pipe:	Length: 4697.00 ft	Diameter: 3.80 inches	Volume: 65.89 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 264.00 ft	Diameter: 2.25 inches	Volume: 1.30 bbl	Weight to Pull Loose: 93000.00 lb
			<u>Total Volume: 67.19 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 78000.00 lb
Depth to Top Packer:	4968.00 ft			Final 78000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	65.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4942.00	
Shut In Tool	5.00			4947.00	
Hydraulic tool	5.00			4952.00	
Jars	5.00			4957.00	
Safety Joint	2.00			4959.00	
Packer	5.00			4964.00	27.00 Bottom Of Top Packer
Packer	4.00			4968.00	
Stubb	1.00			4969.00	
Recorder	0.00	8365	Inside	4969.00	
Recorder	0.00	8845	Outside	4969.00	
Perforations	2.00			4971.00	
Change Over Sub	0.50			4971.50	
Drill Pipe	31.00			5002.50	
Change Over Sub	0.50			5003.00	
Bullnose	3.00			5006.00	38.00 Bottom Packers & Anchor

Total Tool Length: 65.00



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FLUID SUMMARY

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34-14s-41w Wallace, Ks

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Rita Doidge #1-34

Job Ticket: 63471

DST#: 1

ATTN: Sean Deenihan

Test Start: 2016.12.01 @ 06:33:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.79 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4500.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	gocm 45g 20o 35m	0.295
80.00	gsocm 5g 5o 90m	0.393
0.00	GTS	0.000

Total Length: 140.00 ft

Total Volume: 0.688 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



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GAS RATES

Red Oak Energy, Inc

34-14s-41w Wallace, Ks

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ATTN: Sean Deenihan

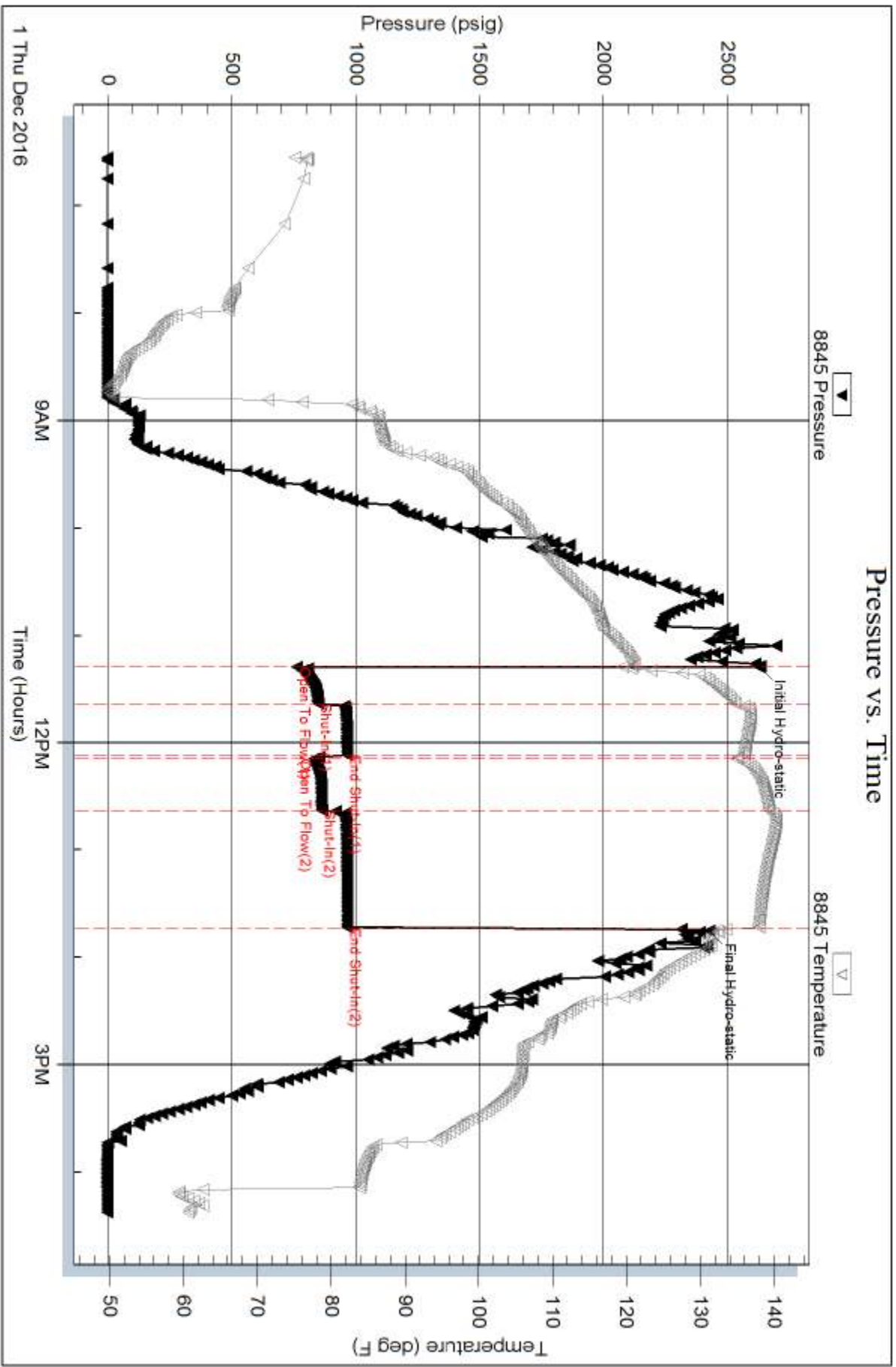
Test Start: 2016.12.01 @ 06:33:00

Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	5	1.00	100.00	3288.86
1	10	1.00	125.00	4007.59
1	15	1.00	135.00	4295.07
1	20	1.00	140.00	4438.82
2	5	1.00	115.00	3720.10
2	10	1.00	135.00	4295.07
2	15	1.00	140.00	4438.82
2	20	1.00	142.00	4496.31
2	25	1.00	145.00	4582.56
2	30	1.00	145.00	4582.56



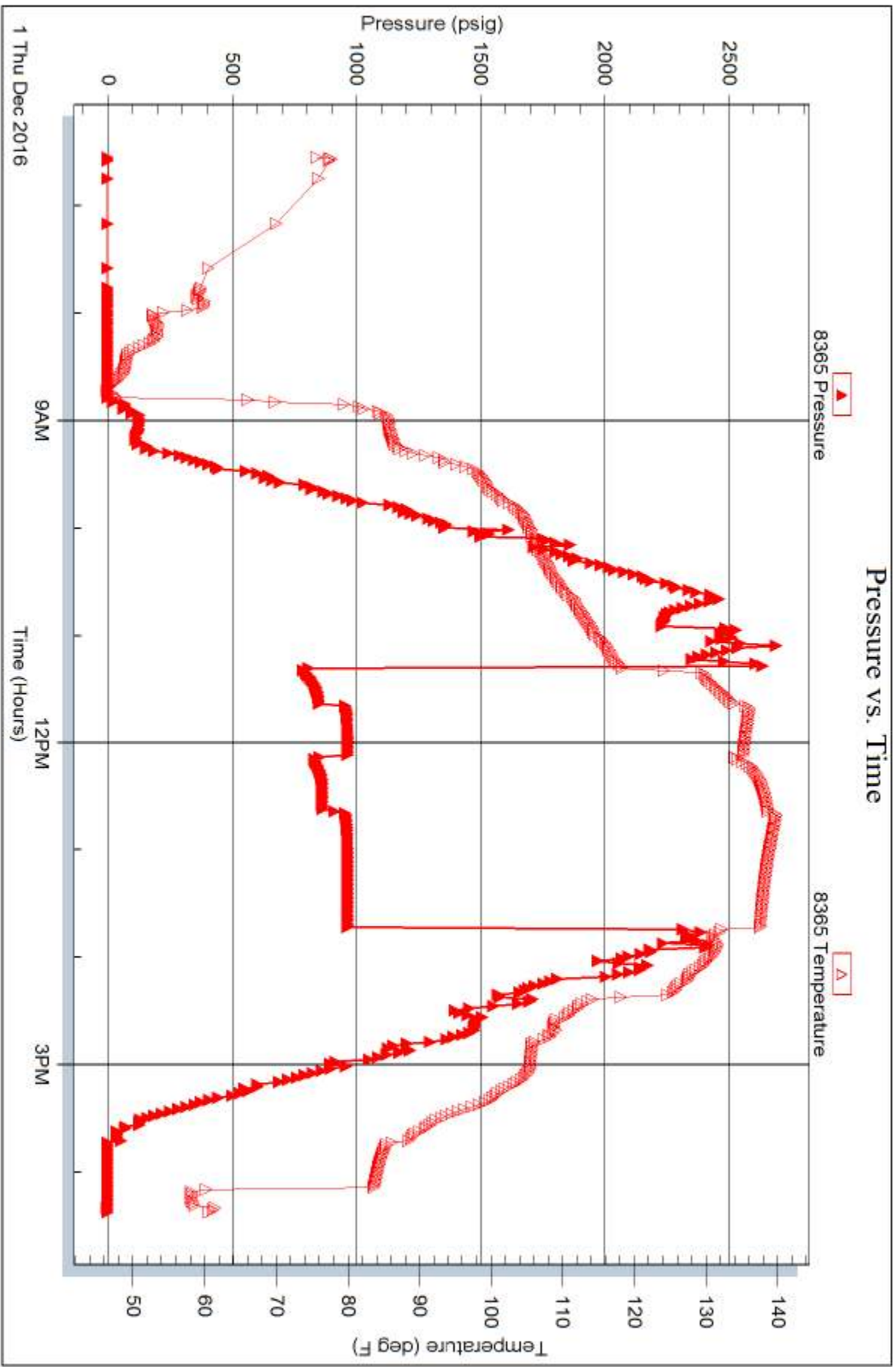
Serial #: 8365

Inside

Red Oak Energy, Inc

Rita Dodge #1-34

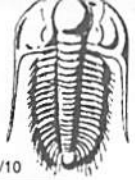
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 63471

Printed: 2016.12.05 @ 10:27:48



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **63471**

Well Name & No. Rita Doidge #1-34 Test No. 1 Date 12/01/2016
 Company Red Oak Energy, Inc Elevation 3804 KB 3793 GL
 Address 7701 E Kellogg Dr Ste 710 Wichita, ks 67207
 Co. Rep / Geo. Sean Deauman Rig Mudsen 22
 Location: Sec. 34 Twp. 14s Rge. 41w Co. Wallace State _____

Interval Tested 4968-5006 Zone Tested Morrow Sand
 Anchor Length 38' Drill Pipe Run 4697 Mud Wt. 9.3
 Top Packer Depth 4963 Drill Collars Run 264 Vis 60
 Bottom Packer Depth 4968 Wt. Pipe Run 0 WL 8.8
 Total Depth 5006 Chlorides 4500 ppm System LCM 8th
 Blow Description IF BOB @ 20 sec 3us to surface @ 5 min. (Slight OIL MIST)
IF BOB
FF BOB
FS BOB

Sec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>60cm</u>	<u>5</u>	<u>5</u>	<u>90</u>	
<u>60</u>	<u>650cm</u>	<u>45</u>	<u>20</u>	<u>35</u>	
	<u>Gas to surface Gauged</u>				
	<u>Gas to surface</u>				

Rec Total 140 BHT 138 Gravity - API RW - @ - °F Chlorides _____ ppm

A) Initial Hydrostatic <u>2626</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>0600</u>
B) First Initial Flow <u>761</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0635</u>
C) First Final Flow <u>846</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1118</u>
D) Initial Shut-In <u>964</u>	<input checked="" type="checkbox"/> Circ Sub 4/C	T-Pulled <u>1338</u>
E) Second Initial Flow <u>831</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1622</u>
F) Second Final Flow <u>862</u>	<input checked="" type="checkbox"/> Mileage <u>156 RT X2</u> <u>234</u>	Comments <u>P/U Tool 1600 12/02</u>
G) Final Shut-In <u>964</u>	<input type="checkbox"/> Sampler	
H) Final Hydrostatic <u>2425</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
	<input type="checkbox"/> Day Standby	Total <u>1809</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't _____
	Sub Total <u>1809</u>	

Approved By _____ Our Representative [Signature]

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