



DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

Po Box 252
Great Bend KS 67530

ATTN: Jake Eastes

Nicholson #1

12-20s-16w Pawnee KS

Start Date: 2014.08.11 @ 12:56:00

End Date: 2014.08.11 @ 20:49:45

Job Ticket #: 59332 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.14 @ 11:09:47



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Charter Energy Inc
 Po Box 252
 Great Bend KS 67530
 ATTN: Jake Eastes

12-20s-16w Pawnee KS
Nicholson #1
 Job Ticket: 59332 **DST#: 1**
 Test Start: 2014.08.11 @ 12:56:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 16:46:15 Tester: Cody Bloedorn
 Time Test Ended: 20:49:45 Unit No: 73
 Interval: **3700.00 ft (KB) To 3759.00 ft (KB) (TVD)** Reference Elevations: 2067.00 ft (KB)
 Total Depth: 3759.00 ft (KB) (TVD) 2060.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 7.00 ft

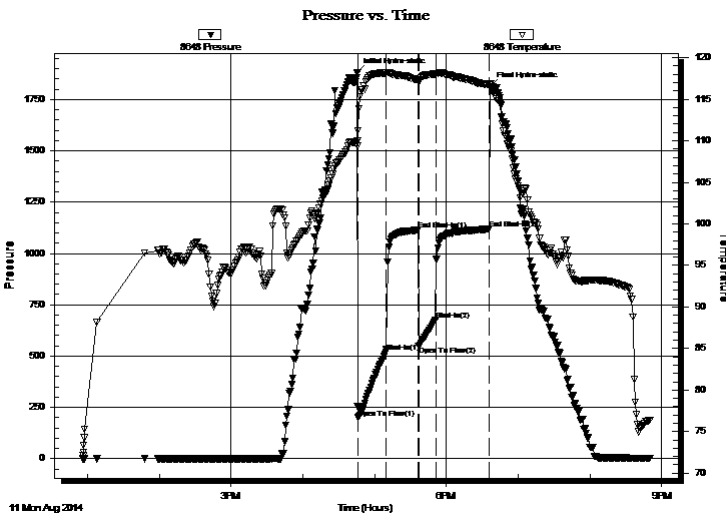
Serial #: 8648

Inside

Press@RunDepth: 675.90 psig @ 3738.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.11 End Date: 2014.08.11 Last Calib.: 2014.08.11
 Start Time: 12:56:05 End Time: 20:49:44 Time On Btm: 2014.08.11 @ 16:45:30
 Time Off Btm: 2014.08.11 @ 18:36:30

TEST COMMENT: 15 - IF- B.O.B. in 30 seconds
 30 - IS- 3" return
 15 - FF- B.O.B. in 1 minute
 45 - FS- 1/2" return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1882.25	110.01	Initial Hydro-static
1	199.03	111.25	Open To Flow (1)
24	518.18	118.15	Shut-In(1)
51	1114.09	117.33	End Shut-In(1)
52	549.33	117.05	Open To Flow (2)
66	675.90	118.03	Shut-In(2)
110	1118.53	116.72	End Shut-In(2)
111	1811.69	116.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
744.00	GMW, 5%G, 5%M, 90%W	10.44
372.00	MW, 40%M, 60%W	5.22
310.00	WM, 5%W, 95%M	4.35

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charter Energy Inc
Po Box 252
Great Bend KS 67530
ATTN: Jake Eastes

12-20s-16w Pawnee KS
Nicholson #1
Job Ticket: 59332 **DST#: 1**
Test Start: 2014.08.11 @ 12:56:00

Tool Information

Drill Pipe:	Length: 3695.00 ft	Diameter: 3.80 inches	Volume: 51.83 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:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 51.83 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	47000.00 lb
Depth to Top Packer:	3700.00 ft			Final	54000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	59.00 ft				
Tool Length:	80.00 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			3680.00	
Shut In Tool	5.00			3685.00	
Hydraulic tool	5.00			3690.00	
Packer	5.00			3695.00	21.00 Bottom Of Top Packer
Packer	5.00			3700.00	
Perforations	4.00			3704.00	
Stubb	1.00			3705.00	
Change Over Sub	1.00			3706.00	
Drill Pipe	31.00			3737.00	
Change Over Sub	1.00			3738.00	
Recorder	0.00	8648	Inside	3738.00	
Recorder	0.00	8940	Outside	3738.00	
Perforations	18.00			3756.00	
Bullnose	3.00			3759.00	59.00 Bottom Packers & Anchor

Total Tool Length: 80.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Charter Energy Inc
Po Box 252
Great Bend KS 67530
ATTN: Jake Eastes

12-20s-16w Pawnee KS
Nicholson #1
Job Ticket: 59332 **DST#: 1**
Test Start: 2014.08.11 @ 12:56:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	31000 ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.19 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

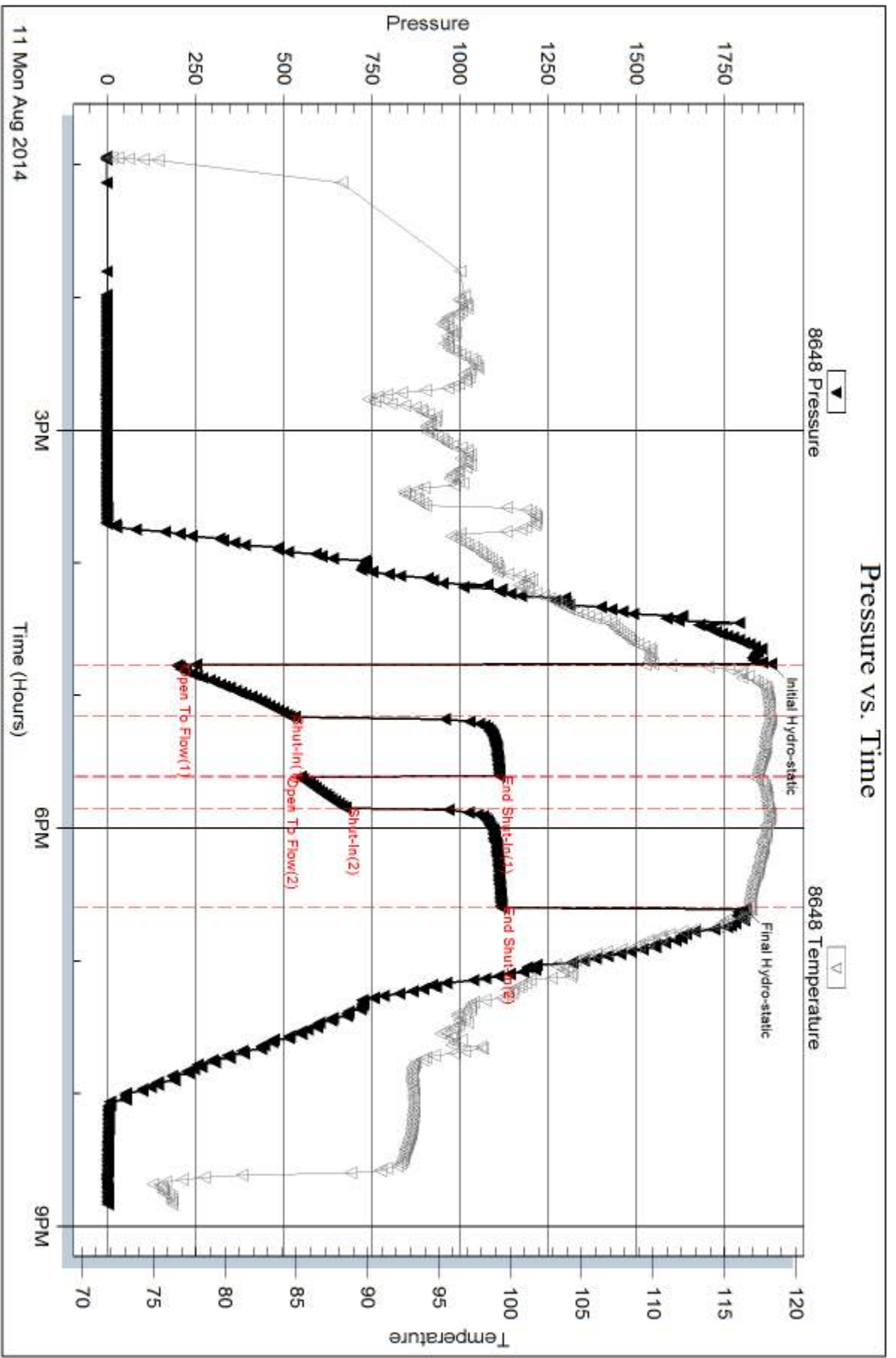
Length ft	Description	Volume bbl
744.00	GMW, 5%G, 5%M, 90%W	10.436
372.00	MW, 40%M, 60%W	5.218
310.00	WM, 5%W, 95%M	4.348

Total Length: 1426.00 ft Total Volume: 20.002 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: Salinity: .25 @ 60 Degrees = 31,000
*****HAD A HOLE IN PIPE *****

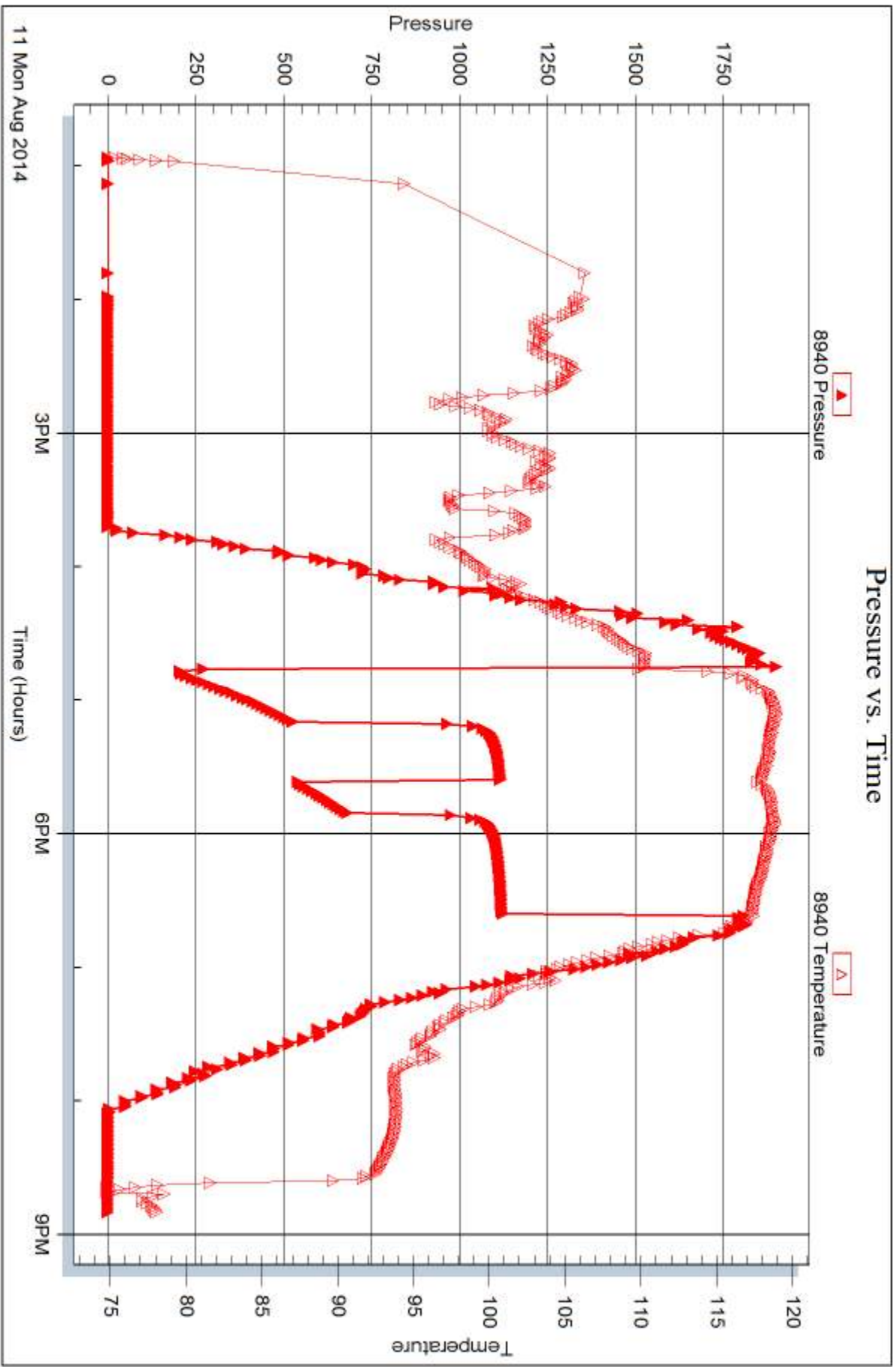


Serial #: 8940

Outside Charter Energy Inc

Nicholson #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 59332

Printed: 2014.08.14 @ 11:09:48



DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc**

Po Box 252
Great Bend KS 67530

ATTN: Jake Eastes

Nicholson #1

12-20s-16w Pawnee KS

Start Date: 2014.08.12 @ 04:53:00

End Date: 2014.08.12 @ 11:55:00

Job Ticket #: 59333 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.08.14 @ 11:09:18



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Charter Energy Inc
 Po Box 252
 Great Bend KS 67530
 ATTN: Jake Eastes

12-20s-16w Pawnee KS
Nicholson #1
 Job Ticket: 59333 **DST#: 2**
 Test Start: 2014.08.12 @ 04:53:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 07:32:15
 Tester: Cody Bloedorn
 Time Test Ended: 11:55:00
 Unit No: 73
 Interval: **3774.00 ft (KB) To 3796.00 ft (KB) (TVD)**
 Reference Elevations: 2067.00 ft (KB)
 Total Depth: 3796.00 ft (KB) (TVD)
 2060.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Fair
 KB to GR/CF: 7.00 ft

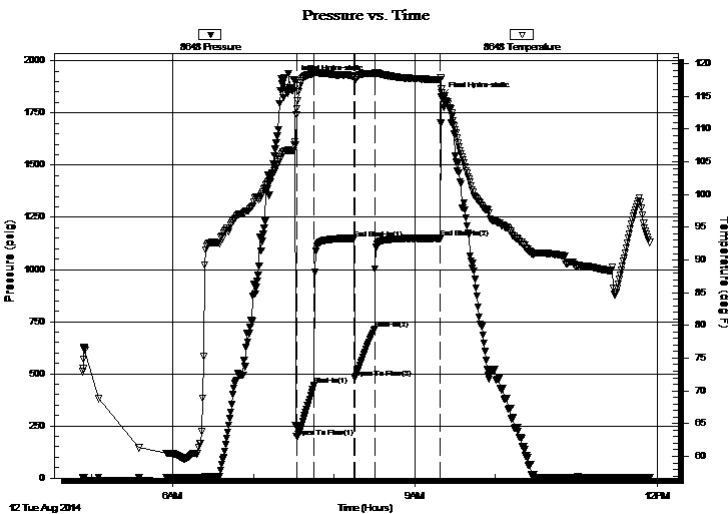
Serial #: 8648

Inside

Press@RunDepth: 712.71 psig @ 3775.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.08.12 End Date: 2014.08.12 Last Calib.: 2014.08.12
 Start Time: 04:53:05 End Time: 11:54:59 Time On Btm: 2014.08.12 @ 07:31:00
 Time Off Btm: 2014.08.12 @ 09:19:45

TEST COMMENT: 15 - IF- B.O.B. in 30 seconds
 30 - IS- 8 1/2" return
 15 - FF- B.O.B. instantly
 45 - FS- 2 1/2" return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1909.66	108.04	Initial Hydro-static
2	197.62	113.11	Open To Flow (1)
14	445.02	118.47	Shut-In(1)
44	1148.01	118.04	End Shut-In(1)
45	479.21	117.49	Open To Flow (2)
60	712.71	118.44	Shut-In(2)
108	1149.89	117.53	End Shut-In(2)
109	1829.94	116.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
930.00	MW, 5%M, 95%W	13.05
434.00	WM, 20%W, 80%M	6.09
186.00	Mud, w with oil spots, 100%M	2.61

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charter Energy Inc
Po Box 252
Great Bend KS 67530
ATTN: Jake Eastes

12-20s-16w Pawnee KS
Nicholson #1
Job Ticket: 59333 **DST#: 2**
Test Start: 2014.08.12 @ 04:53:00

Tool Information

Drill Pipe:	Length: 3758.00 ft	Diameter: 3.80 inches	Volume: 52.71 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: 30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: 52.71 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 47000.00 lb
Depth to Top Packer:	3774.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	43.00 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			3754.00	
Shut In Tool	5.00			3759.00	
Hydraulic tool	5.00			3764.00	
Packer	5.00			3769.00	21.00 Bottom Of Top Packer
Packer	5.00			3774.00	
Stubb	1.00			3775.00	
Recorder	0.00	8648	Inside	3775.00	
Recorder	0.00	8940	Outside	3775.00	
Perforations	18.00			3793.00	
Bullnose	3.00			3796.00	22.00 Bottom Packers & Anchor
Total Tool Length:	43.00				



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Charter Energy Inc
Po Box 252
Great Bend KS 67530
ATTN: Jake Eastes

12-20s-16w Pawnee KS
Nicholson #1
Job Ticket: 59333 **DST#: 2**
Test Start: 2014.08.12 @ 04:53:00

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 10.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 56.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.18 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 8000.00 ppm			
Filter Cake: inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
930.00	MW, 5%M, 95%W	13.045
434.00	WM, 20%W, 80%M	6.088
186.00	Mud, with oil spots, 100%M	2.609

Total Length: 1550.00 ft Total Volume: 21.742 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments: H2S present. 100+ PPM. Dropped bar.

Serial #: 8648

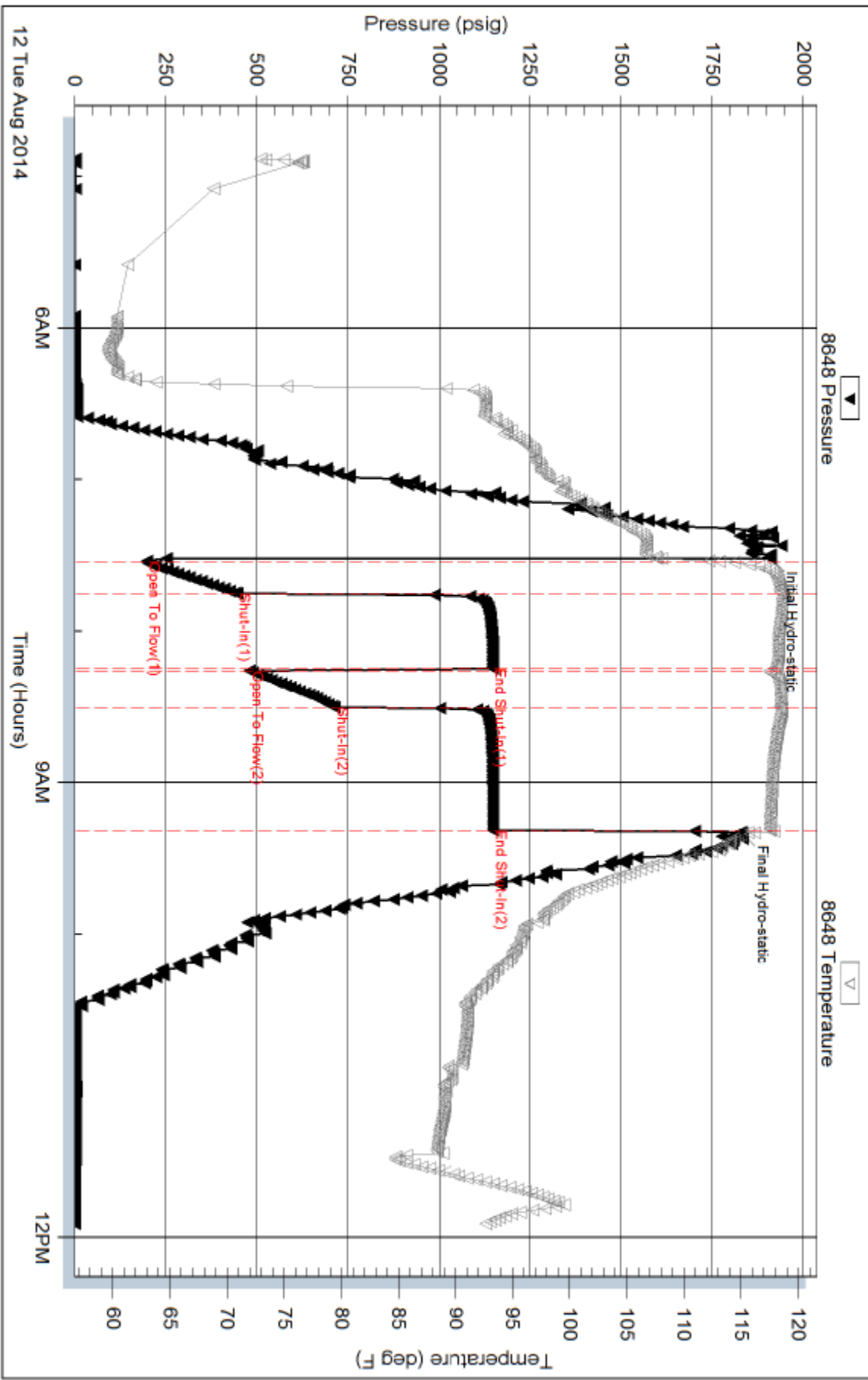
Inside

Charter Energy Inc

Nicholson #1

DST Test Number: 2

Pressure vs. Time

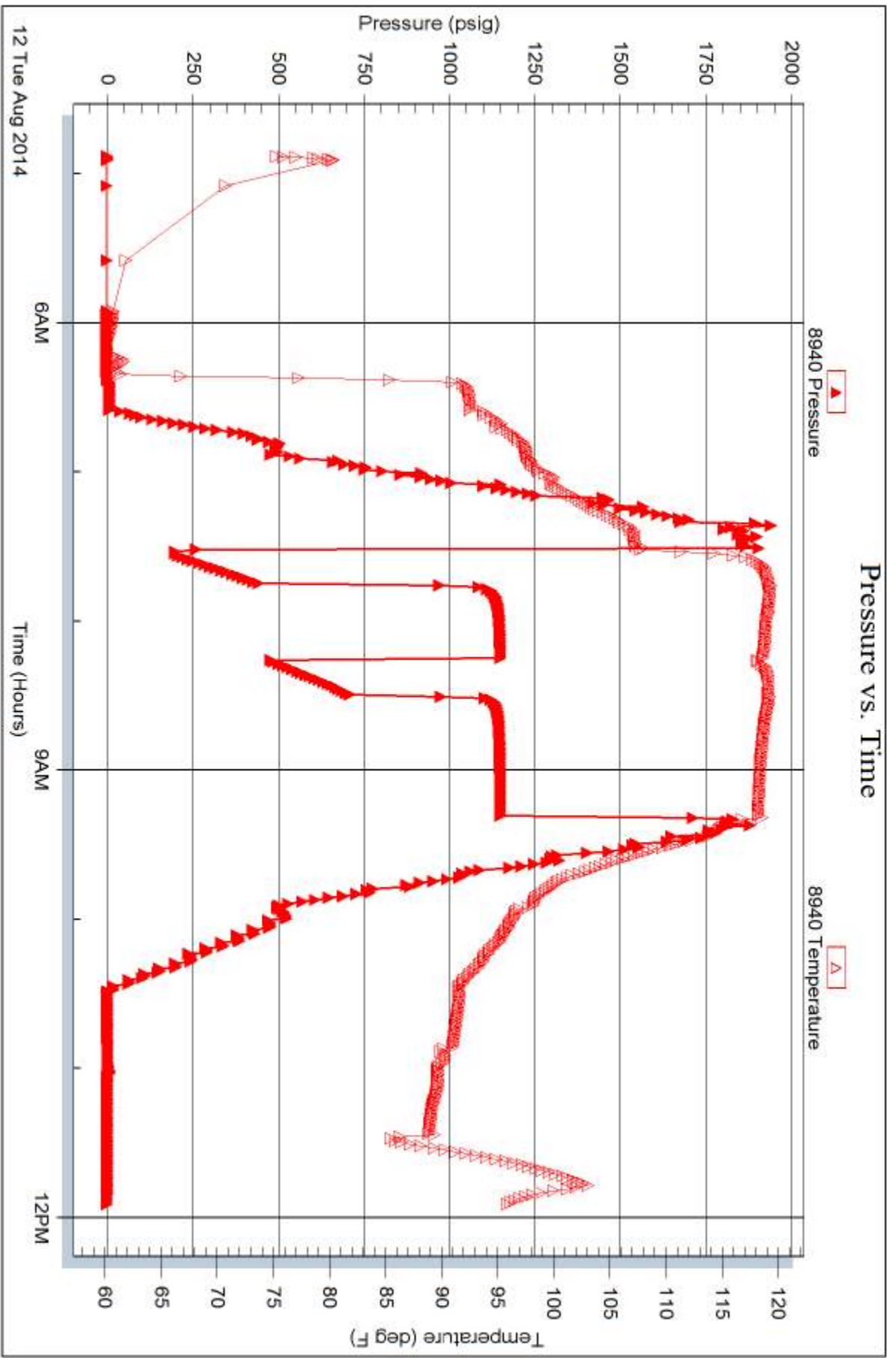


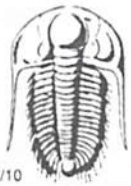
Serial #: 8940

Outside Charter Energy Inc

Nicholson #1

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59332

Well Name & No. Nicholson #1 Test No. 1 Date 8-11-14
 Company Charter Energy Inc Elevation 2067 KB 2060 GL
 Address Po Box 252, Great Bend KS, 67530
 Co. Rep / Geo. Jake Eastes 785-410-3310 Rig Royal #2
 Location: Sec. 12 Twp. 20s Rge. 16w Co. Pawnee State KS

Interval Tested 3700-3759 Zone Tested Arbuckle
 Anchor Length 59' Drill Pipe Run 3695' Mud Wt. 9.6
 Top Packer Depth 3695 Drill Collars Run — Vis 56
 Bottom Packer Depth 3700 Wt. Pipe Run — WL 10.2
 Total Depth 3759 Chlorides 8,000 ppm System LCM —

Blow Description IF - B.O.B. in 30 seconds
ISI - 3" return
FF - B.O.B. in 1 minute
FSI - 1/2" return

Rec	Feet of	%gas	%oil	%water	%mud
<u>744</u>	<u>6 MW</u>	<u>5</u>	<u>90</u>	<u>5</u>	<u>—</u>
<u>372</u>	<u>MW</u>	<u>—</u>	<u>60</u>	<u>40</u>	<u>—</u>
<u>310</u>	<u>WM</u>	<u>—</u>	<u>5</u>	<u>95</u>	<u>—</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1426' BHT 116° Gravity — API RW .25 @ 60° F Chlorides 31,000 ppm

(A) Initial Hydrostatic 1882 Test 1150 T-On Location 1228
 (B) First Initial Flow 199 Jars — T-Started 1256
 (C) First Final Flow 518 Safety Joint — T-Open 1646
 (D) Initial Shut-In 1114 Circ Sub — T-Pulled 1836
 (E) Second Initial Flow 549 Hourly Standby — T-Out 2049
 (F) Second Final Flow 675 Mileage 113RT 34rt 52.70 Comments Hole in Pipe
 (G) Final Shut-In 1118 Sampler —
 (H) Final Hydrostatic 1811 Straddle — Ruined Shale Packer —
 Shale Packer — Ruined Packer —

Initial Open 15 Extra Packer — Extra Copies —
 Initial Shut-In 30 Extra Recorder — Sub Total 0
 Final Flow 15 Day Standby — Total 1202.70
 Final Shut-In 45 Accessibility — MP/DST Disc't —
 Sub Total 1202.70

Approved By _____ Our Representative Cody Bloodorn

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 59333

Well Name & No. Nicholson #1 Test No. 2 Date 8-12-14
 Company Charter Energy Inc Elevation 2067 KB 2060 GL
 Address Po Box 252, Greatbend KS, 67530
 Co. Rep / Geo. Jake Eastes Rig Royal #2
 Location: Sec. 12 Twp. 20S Rge. 16W Co. Pawnee State KS

Interval Tested 3774-3796 Zone Tested Arbuckle
 Anchor Length 22' Drill Pipe Run 3758' Mud Wt. 9.6
 Top Packer Depth 3769 Drill Collars Run — Vis 56
 Bottom Packer Depth 3774 Wt. Pipe Run — WL 10.2
 Total Depth 3796 Chlorides 8,000 ppm System LCM —

Blow Description IF - B.O.B. in 30 seconds
ISI - 8 1/2" return
FF - B.O.B. instantly
FSD - 2 1/2" return

Rec	Feet of	%gas	%oil	%water	%mud
<u>930</u>	<u>MW</u>		<u>95</u>	<u>5</u>	
<u>434</u>	<u>WM</u>		<u>20</u>	<u>80</u>	
<u>186</u>	<u>Mud - oil spots</u>			<u>100</u>	
	<u>620' G.I.P.</u>				

Rec Total 1550 BHT 117° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1909</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0441</u>
(B) First Initial Flow <u>197</u>	<input type="checkbox"/> Jars <u>—</u>	T-Started <u>0453</u>
(C) First Final Flow <u>445</u>	<input type="checkbox"/> Safety Joint <u>—</u>	T-Open <u>0731</u>
(D) Initial Shut-In <u>1148</u>	<input checked="" type="checkbox"/> Circ Sub <u>50</u>	T-Pulled <u>0916</u>
(E) Second Initial Flow <u>479</u>	<input type="checkbox"/> Hourly Standby <u>—</u>	T-Out <u>1156</u>
(F) Second Final Flow <u>712</u>	<input checked="" type="checkbox"/> Mileage <u>113 RT 52.70.</u>	Comments <u>H2S present</u>
(G) Final Shut-In <u>1149</u>	<input type="checkbox"/> Sampler <u>—</u>	<u>100+ ppm</u>
(H) Final Hydrostatic <u>1829</u>	<input type="checkbox"/> Straddle <u>—</u>	<u>dropped bar</u>
	<input type="checkbox"/> Shale Packer <u>—</u>	<input type="checkbox"/> Ruined Shale Packer <u>—</u>
	<input type="checkbox"/> Shale Packer <u>—</u>	<input type="checkbox"/> Ruined Packer <u>—</u>
Initial Open <u>15</u>	<input type="checkbox"/> Extra Packer <u>—</u>	<input type="checkbox"/> Extra Copies <u>—</u>
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Recorder <u>—</u>	Sub Total <u>0</u>
Final Flow <u>15</u>	<input type="checkbox"/> Day Standby <u>—</u>	Total <u>1252.70</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Accessibility <u>—</u>	MP/DST Disc't <u>—</u>
	Sub Total <u>1252.70</u>	

Approved By _____ Our Representative Cody Bloodorn

TriLOBITE Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.