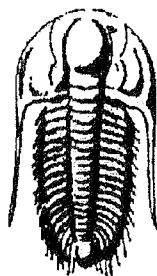


15-069-25553

5-16s-13w

IND



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Charter Energy Inc.**

PO Box 252
Great Bend, KS 67530+0252

ATTN: Jim Musgrove

5-16s-13w Barton, KS

Popp-Harms #2

Start Date: 2011.05.16 @ 22:15:05

End Date: 2011.05.17 @ 04:09:29

Job Ticket #: 041825 DST #: 1

15-069-25553

Trilobite Testing, Inc

PO Box 1733 Hays, KS 67601

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

RECEIVED

AUG 23 2011

KCC WICHITA

Charter Energy Inc.

Popp-Harms #2

5-16s-13w Barton, KS

DST # 1

Arbuckle

2011.05.16



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Charter Energy Inc.
PO Box 252
Great Bend, KS 67530-0252
ATTN: Jim Musgrove

Popp-Harms #2
5-16s-13w Barton, KS
Job Ticket: 041825 **DST#: 1**
Test Start: 2011.05.16 @ 22:15:05

GENERAL INFORMATION:

Formation: Arbuckle
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:50:00
Time Test Ended: 04:09:29

Test Type: Conventional Bottom Hole
Tester: Andy Carreira
Unit No: 39

Interval: 3323.00 ft (KB) To 3358.00 ft (KB) (TVD)
Total Depth: 3358.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Poor

Reference Elevations: 1913.00 ft (KB)
1906.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8352

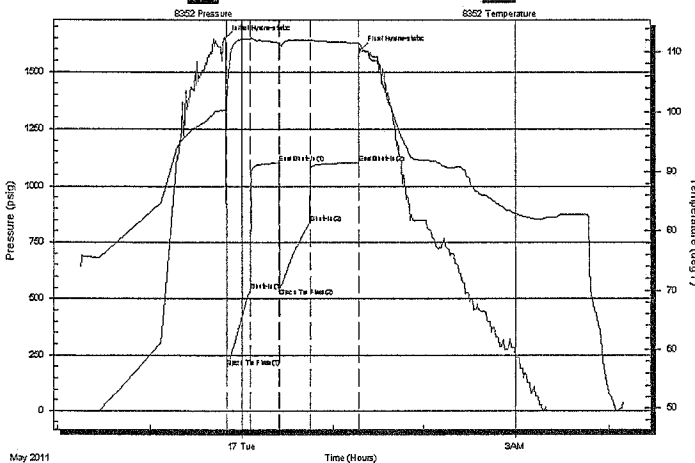
Outside

Press@RunDepth: 834.98 psig @ 3324.00 ft (KB)
Start Date: 2011.05.16 End Date: 2011.05.17
Start Time: 22:15:05 End Time: 04:09:29

Capacity: 8000.00 psig
Last Calib.: 2011.05.17
Time On Btm: 2011.05.16 @ 23:49:30
Time Off Btm: 2011.05.17 @ 01:18:10

TEST COMMENT: IF:(15min) BOB, 1 min.
IS:(20min) No Return
FF:(20min) BOB, immediately
FS:(30min) No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1646.61	100.33	Initial Hydro-static
1	199.52	100.15	Open To Flow (1)
16	535.01	112.21	Shut-In (1)
36	1100.29	111.55	End Shut-In (1)
36	549.86	111.30	Open To Flow (2)
56	834.98	111.95	Shut-In (2)
88	1099.96	111.42	End Shut-In (2)
89	1599.05	111.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
840.00	Ww=100%	11.78
370.00	GOVM g=30% o=40% w=25% m=5%	5.19
340.00	GOVM g=30% o=30% w=25% m=15%	4.77
340.00	GOVM g=10% o=60% w=20% m=10%	4.77

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)
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**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Charter Energy Inc.

Popp-Harms #2

PO Box 252
Great Bend, KS 67530-0252

5-16s-13w Barton, KS

Job Ticket: 041825

DST#: 1

ATTN: Jim Musgrove

Test Start: 2011.05.16 @ 22:15:05

Tool Information

Drill Pipe:	Length: 3330.00 ft	Diameter: 3.80 inches	Volume: 46.71 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: 46.71 bbl

Tool Weight: 2000.00 lb

Weight set on Packer: 24000.00 lb

Weight to Pull Loose: 64000.00 lb

Tool Chased 0.00 ft

String Weight: Initial 47000.00 lb

Final 54000.00 lb

Drill Pipe Above KB: 27.00 ft

Depth to Top Packer: 3323.00 ft

Depth to Bottom Packer: ft

Interval between Packers: 35.00 ft

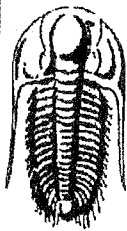
Tool Length: 55.00 ft

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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Change Over Sub	1.00			3304.00	
Shut In Tool	5.00			3309.00	
Hydraulic tool	5.00			3314.00	
Packer	5.00			3319.00	20.00 Bottom Of Top Packer
Packer	4.00			3323.00	
Stubb	1.00			3324.00	
Recorder	0.00	8017	Inside	3324.00	
Recorder	0.00	8352	Outside	3324.00	
Perforations	31.00			3355.00	
Bullnose	3.00			3358.00	35.00 Bottom Packers & Anchor
Total Tool Length:	55.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Charter Energy Inc.

Popp-Harms #2

PO Box 252
Great Bend, KS 67530+0252

5-16s-13w Barton, KS

Job Ticket: 041825

DST#: 1

ATTN: Jim Musgrove

Test Start: 2011.05.16 @ 22:15:05

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:

38000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbl

Water Loss: 9.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 6200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
840.00	Ww=100%	11.783
370.00	GOWM g=30% o=40% w=25% m=5%	5.190
340.00	GOWM g=30% o=30% w=25% m=15%	4.769
340.00	GOWM g=10% o=60% w=20% m=10%	4.769

Total Length: 1890.00 ft

Total Volume: 26.511 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Resistivity= .25@52=38000

