



DRILL STEM TEST REPORT

Prepared For: **Phillips Exploratiom Co.**

PO Box 850
Andover KS 67002

ATTN: Jim Phillips

Rosproy #1-20

20-14s-24w Trego,KS

Start Date: 2013.09.08 @ 14:30:00

End Date: 2013.09.08 @ 21:58:30

Job Ticket #: 54768 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.11 @ 16:15:52



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Phillips Exploration Co.
PO Box 850
Andover KS 67002
ATTN: Jim Phillips

20-14s-24w Trego, KS
Rosproy #1-20
Job Ticket: 54768 **DST#: 1**
Test Start: 2013.09.08 @ 14:30:00

GENERAL INFORMATION:

Formation: **KC "A-C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:51:30
Time Test Ended: 21:58:30
Interval: **3622.00 ft (KB) To 3690.00 ft (KB) (TVD)**
Total Depth: 3690.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2346.00 ft (KB)
2341.00 ft (CF)
KB to GR/CF: 5.00 ft
Test Type: Conventional Bottom Hole (Initial)
Tester: Brett Dickinson
Unit No: 59

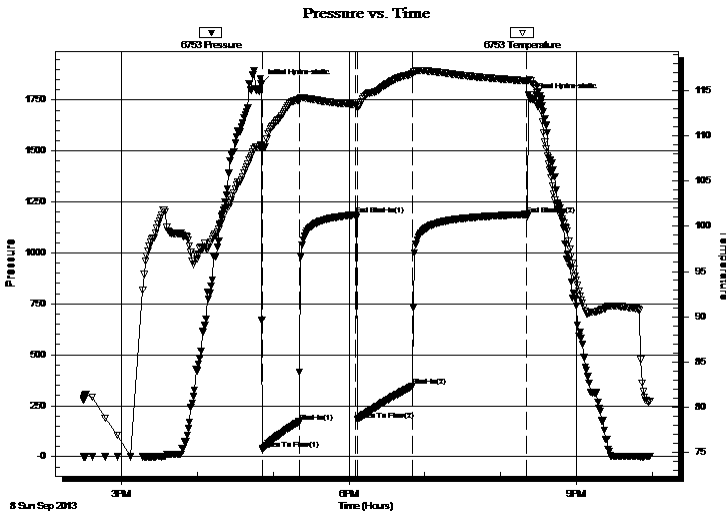
Serial #: 6753

Inside

Press @ Run Depth: 346.49 psig @ 3628.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.09.08 End Date: 2013.09.08 Last Calib.: 2013.09.08
Start Time: 14:30:05 End Time: 21:58:29 Time On Btm: 2013.09.08 @ 16:50:30
Time Off Btm: 2013.09.08 @ 20:23:00

TEST COMMENT: IF-BOB in 9 min
ISI-No blow
FF-BOB in 13 min
FSI-No blow

PRESSURE SUMMARY



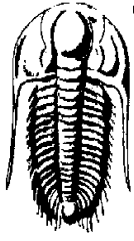
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1828.99	108.96	Initial Hydro-static
1	36.27	108.62	Open To Flow (1)
30	171.09	113.95	Shut-In(1)
75	1186.74	113.49	End Shut-In(1)
76	180.89	113.18	Open To Flow (2)
120	346.49	116.86	Shut-In(2)
210	1188.51	116.11	End Shut-In(2)
213	1759.60	116.21	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
500.00	SMCW 10%M 90%W	6.74
240.00	WCM 30%W 70%M	3.37

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Phillips Exploration Co.
 PO Box 850
 Andover KS 67002
 ATTN: Jim Phillips

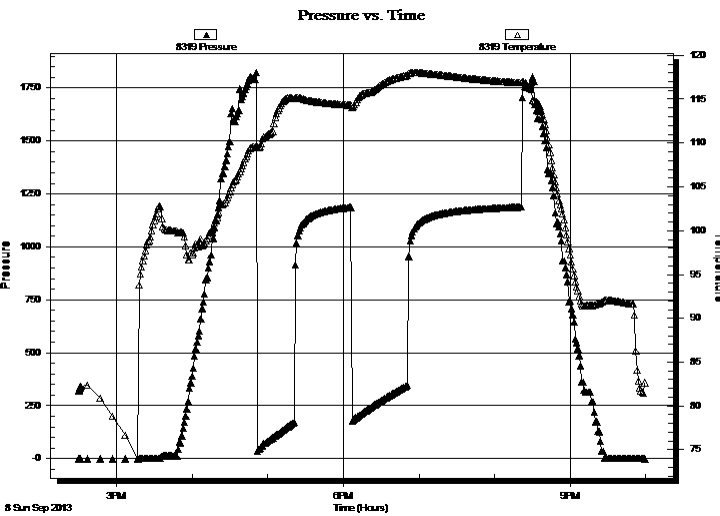
20-14s-24w Trego, KS
Rosproy #1-20
 Job Ticket: 54768 **DST#: 1**
 Test Start: 2013.09.08 @ 14:30:00

GENERAL INFORMATION:

Formation: **KC "A-C"**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 16:51:30 Tester: Brett Dickinson
 Time Test Ended: 21:58:30 Unit No: 59
Interval: 3622.00 ft (KB) To 3690.00 ft (KB) (TVD) Reference Elevations: 2346.00 ft (KB)
 Total Depth: 3690.00 ft (KB) (TVD) 2341.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

Serial #: 8319 **Outside**
 Press @ RunDepth: psig @ 3628.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.09.08 End Date: 2013.09.08 Last Calib.: 2013.09.08
 Start Time: 14:30:05 End Time: 21:58:59 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF-BOB in 9 min
 IS- No blow
 FF-BOB in 13 min
 FS- No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
500.00	SMCW 10%M 90%W	6.74
240.00	WCM 30%W 70%M	3.37

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Phillips Exploratiom Co.

20-14s-24w Trego,KS

PO Box 850
Andover KS 67002

Rosproy #1-20

Job Ticket: 54768

DST#: 1

ATTN: Jim Phillips

Test Start: 2013.09.08 @ 14:30:00

Tool Information

Drill Pipe:	Length: 3581.00 ft	Diameter: 3.80 inches	Volume: 50.23 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 30.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial	50000.00 lb
Depth to Top Packer:	3622.00 ft			Final	53000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	68.00 ft				
Tool Length:	92.00 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			3599.00	
Shut In Tool	5.00			3604.00	
Hydraulic tool	5.00			3609.00	
Safety Joint	3.00			3612.00	
Packer - Shale	5.00			3617.00	
Packer	5.00			3622.00	24.00 Bottom Of Top Packer
Stubb	1.00			3623.00	
Perforations	5.00			3628.00	
Recorder	0.00	6753	Inside	3628.00	
Recorder	0.00	8319	Outside	3628.00	
Change Over Sub	1.00			3629.00	
Drill Pipe	32.00			3661.00	
Change Over Sub	1.00			3662.00	
Perforations	25.00			3687.00	
Bullnose	3.00			3690.00	68.00 Anchor Tool

Total Tool Length: 92.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Phillips Exploratiom Co.

20-14s-24w Trego,KS

PO Box 850
Andover KS 67002

Rosproy #1-20

Job Ticket: 54768

DST#: 1

ATTN: Jim Phillips

Test Start: 2013.09.08 @ 14:30:00

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: 100000 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
500.00	SMCW 10%M 90%W	6.740
240.00	WCM 30%W 70%M	3.367

Total Length: 740.00 ft Total Volume: 10.107 bbl

Num Fluid Samples: 0

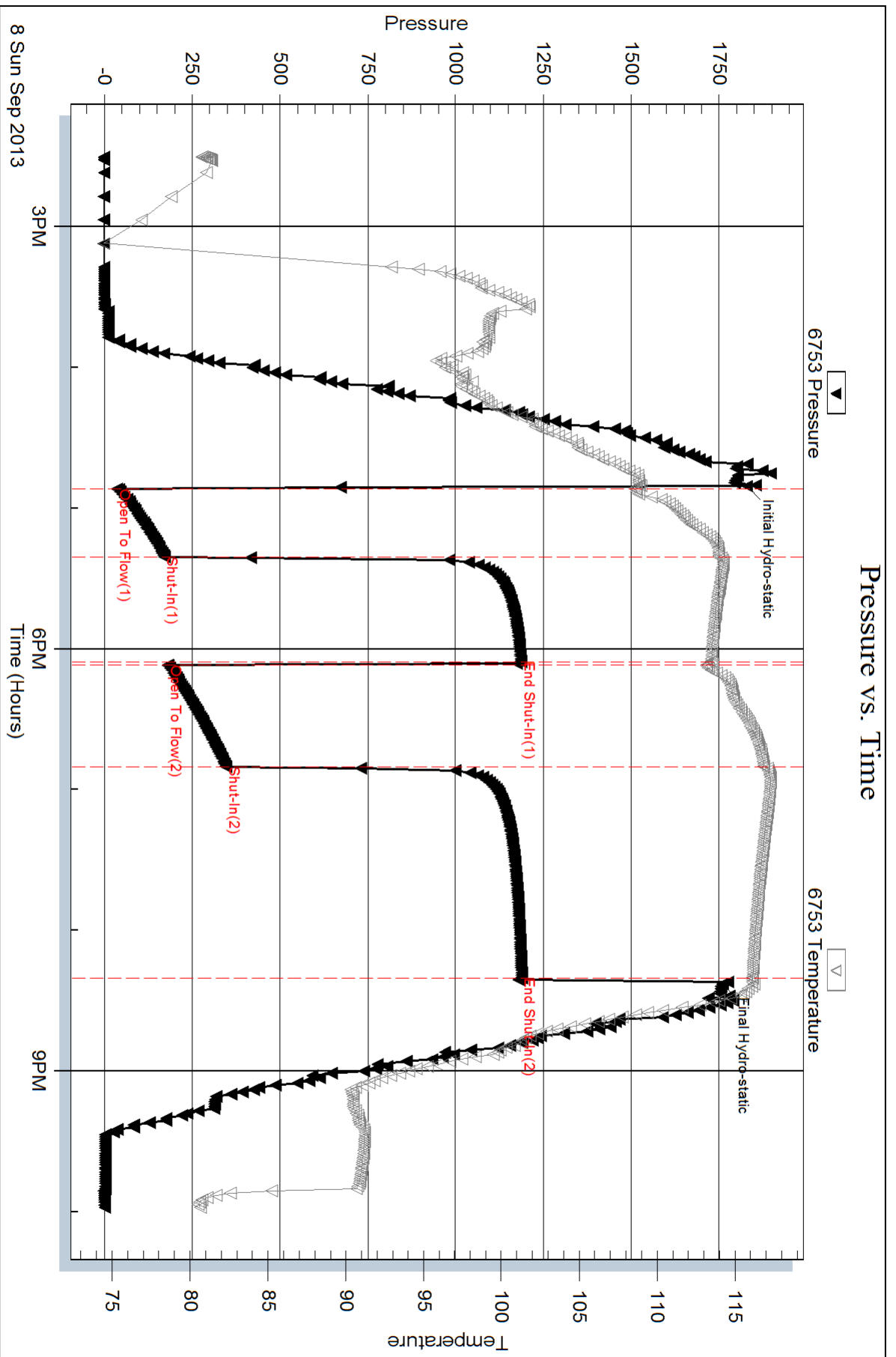
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



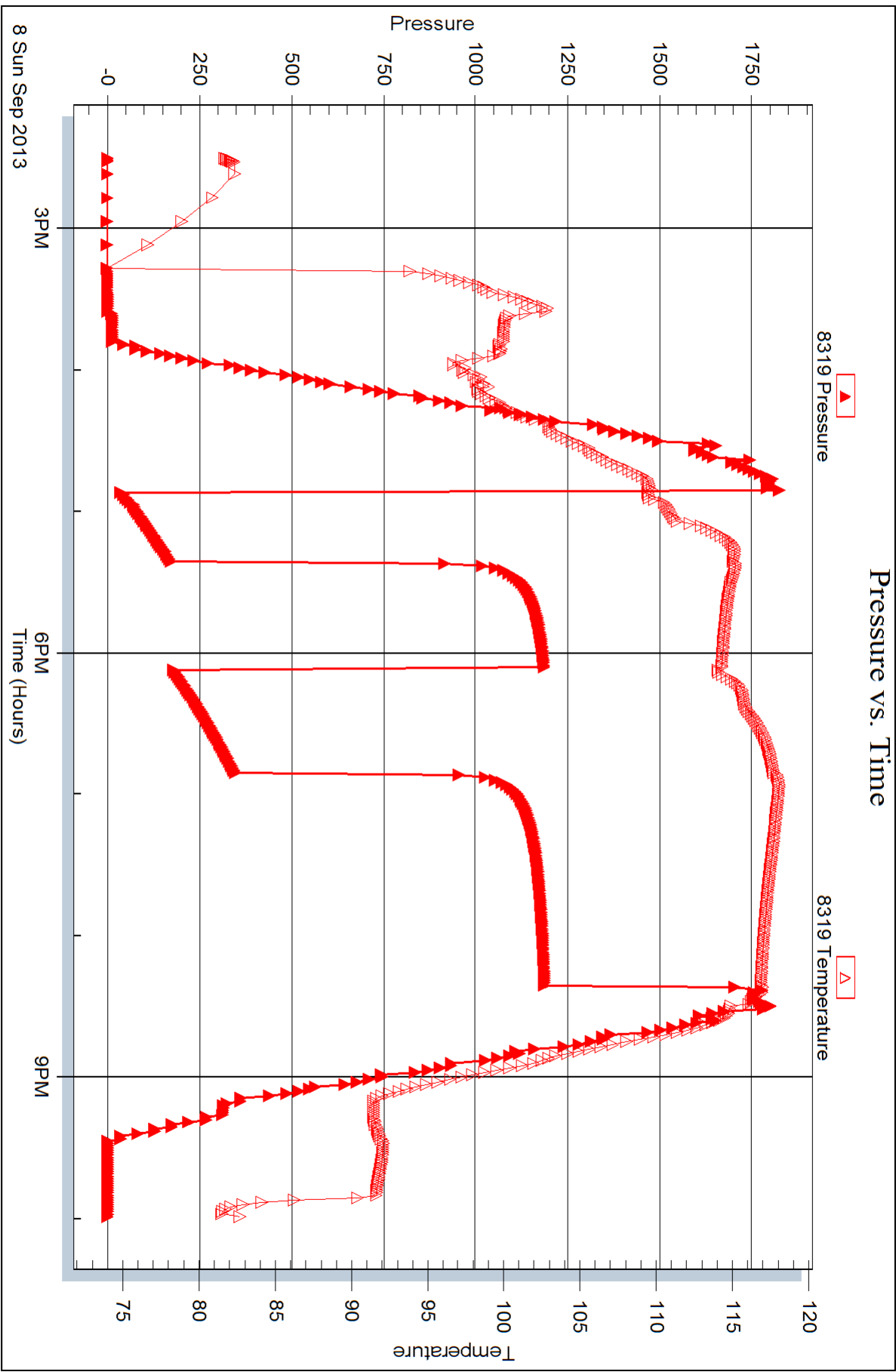
Serial #: 8319

Outside

Phillips Exploration Co.

Rosproy #1-20

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Phillips Exploration Co.**

PO Box 850
Andover KS 67002

ATTN: Jim Phillips

Rosproy #1-20

20-14s-24w Trego,KS

Start Date: 2013.09.10 @ 09:50:00

End Date: 2013.09.10 @ 15:22:30

Job Ticket #: 54769 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.11 @ 16:15:07



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Phillips Exploration Co.

20-14s-24w Trego, KS

PO Box 850
Andover KS 67002

Rosproy #1-20

Job Ticket: 54769

DST#: 2

ATTN: Jim Phillips

Test Start: 2013.09.10 @ 09:50:00

GENERAL INFORMATION:

Formation: **Pawnee - Ft. Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:46:00

Time Test Ended: 15:22:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 4028.00 ft (KB) To 4140.00 ft (KB) (TVD)

Reference Elevations: 2346.00 ft (KB)

Total Depth: 4140.00 ft (KB) (TVD)

2341.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6753

Inside

Press @ Run Depth: 32.88 psig @ 4030.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.10

End Date:

2013.09.10

Last Calib.:

2013.09.10

Start Time: 09:50:05

End Time:

15:22:29

Time On Btm:

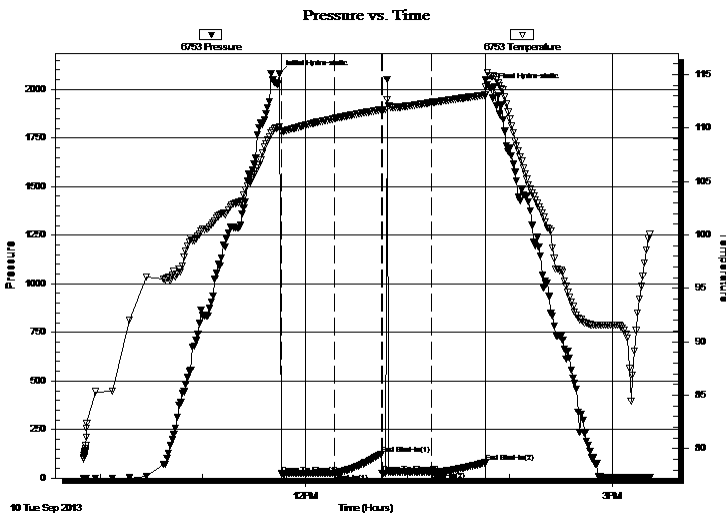
2013.09.10 @ 11:45:00

Time Off Btm:

2013.09.10 @ 13:49:00

TEST COMMENT: IF-Very weak surface blow died in 20 min
 IS-No blow
 FF-No blow flush tool surge No blow
 FS-No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2078.57	110.11	Initial Hydro-static
1	22.03	109.65	Open To Flow (1)
32	26.22	110.89	Shut-In(1)
60	124.37	111.73	End Shut-In(1)
60	25.48	111.70	Open To Flow (2)
89	32.88	112.39	Shut-In(2)
121	79.03	113.08	End Shut-In(2)
124	2007.11	114.88	Final Hydro-static

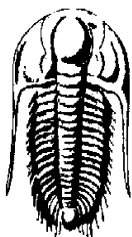
Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Phillips Exploratiom Co.
PO Box 850
Andover KS 67002
ATTN: Jim Phillips

20-14s-24w Trego,KS
Rosproy #1-20
Job Ticket: 54769 **DST#: 2**
Test Start: 2013.09.10 @ 09:50:00

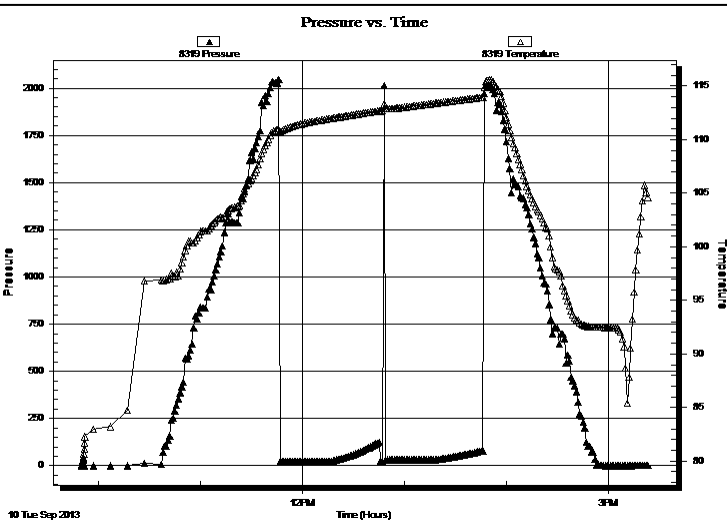
GENERAL INFORMATION:

Formation: **Pawnee - Ft. Scott**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 11:46:00
Time Test Ended: 15:22:30
Interval: **4028.00 ft (KB) To 4140.00 ft (KB) (TVD)**
Total Depth: 4140.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2346.00 ft (KB)
2341.00 ft (CF)
KB to GR/CF: 5.00 ft
Test Type: Conventional Bottom Hole (Reset)
Tester: Brett Dickinson
Unit No: 59

Serial #: 8319 Outside

Press @ Run Depth: psig @ 4030.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.09.10 End Date: 2013.09.10 Last Calib.: 2013.09.10
Start Time: 09:50:05 End Time: 15:22:59 Time On Btm:
Time Off Btm:

TEST COMMENT: IF-Very weak surface blow died in 20 min
ISI-No blow
FF-No blow flush tool surge No blow
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud	0.02

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Phillips Exploratiom Co.

20-14s-24w Trego,KS

PO Box 850
Andover KS 67002

Rosproy #1-20

Job Ticket: 54769

DST#: 2

ATTN: Jim Phillips

Test Start: 2013.09.10 @ 09:50:00

Tool Information

Drill Pipe:	Length: 3830.00 ft	Diameter: 3.80 inches	Volume: 53.72 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 180.00 ft	Diameter: 2.25 inches	Volume: 0.89 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	4028.00 ft			Final 61000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	112.00 ft			
Tool Length:	136.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Change Over Sub	1.00			4005.00	
Shut In Tool	5.00			4010.00	
Hydraulic tool	5.00			4015.00	
Safety Joint	3.00			4018.00	
Packer	5.00			4023.00	24.00 Bottom Of Top Packer
Packer	5.00			4028.00	
Packer - Shale	0.00			4028.00	
Stubb	1.00			4029.00	
Perforations	1.00			4030.00	
Recorder	0.00	6753	Inside	4030.00	
Recorder	0.00	8319	Outside	4030.00	
Change Over Sub	1.00			4031.00	
Drill Pipe	95.00			4126.00	
Change Over Sub	1.00			4127.00	
Perforations	10.00			4137.00	
Bullnose	3.00			4140.00	112.00 Bottom Packers & Anchor
Total Tool Length:	136.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Phillips Exploratiom Co.

20-14s-24w Trego,KS

PO Box 850
Andover KS 67002

Rosproy #1-20

Job Ticket: 54769

DST#: 2

ATTN: Jim Phillips

Test Start: 2013.09.10 @ 09:50:00

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: 46.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl

Num Fluid Samples: 0

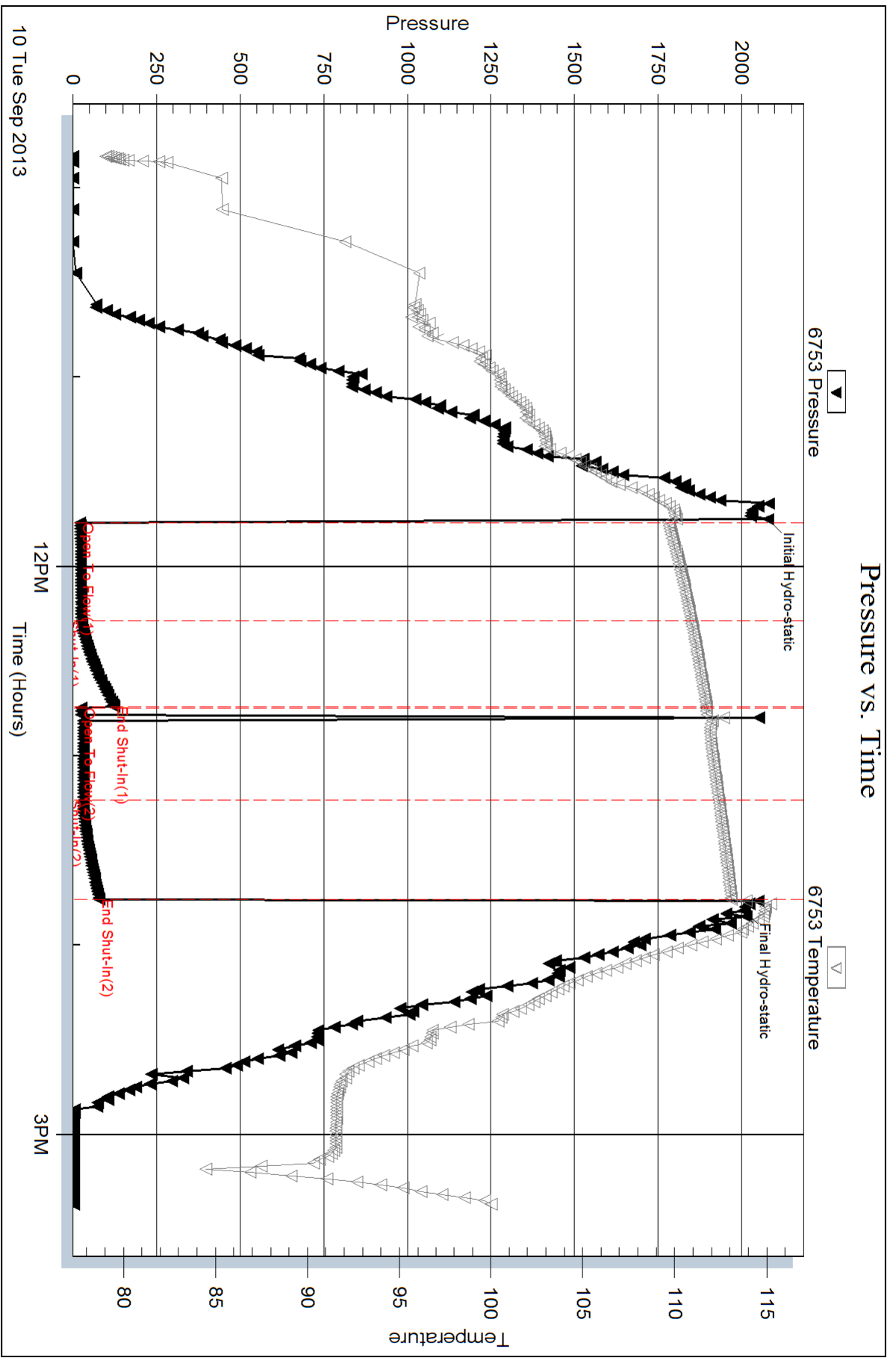
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

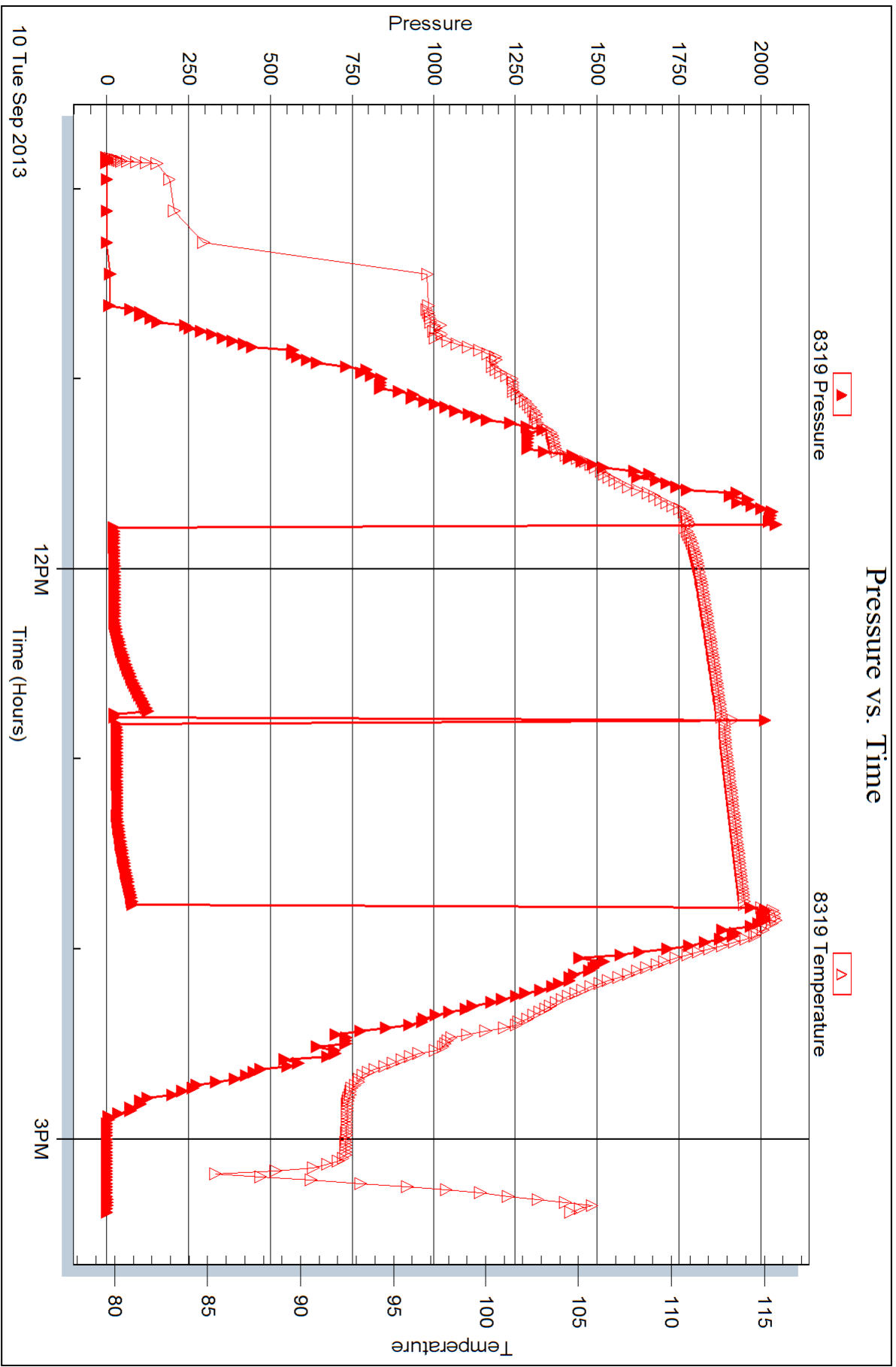


Serial #: 8319

Outside Phillips Exploration Co.

Rosproy #1-20

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 54769

Printed: 2013.09.11 @ 16:15:08



DRILL STEM TEST REPORT

Prepared For: **Phillips Exploratiom Co.**

PO Box 850
Andover KS 67002

ATTN: Jim Phillips

Rosproy #1-20

20-14s-24w Trego,KS

Start Date: 2013.09.11 @ 05:45:00

End Date: 2013.09.11 @ 14:15:30

Job Ticket #: 54770 DST #: 3

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.09.11 @ 16:13:05

Phillips Exploration Co.

20-14s-24w Trego,KS

Rosproy #1-20

DST # 3

Cherokee - Mississip

2013.09.11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Phillips Exploration Co.

20-14s-24w Trego, KS

PO Box 850
Andover KS 67002

Rosproy #1-20

Job Ticket: 54770

DST#: 3

ATTN: Jim Phillips

Test Start: 2013.09.11 @ 05:45:00

GENERAL INFORMATION:

Formation: **Cherokee - Mississip**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:41:00

Time Test Ended: 14:15:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: 4138.00 ft (KB) To 4266.00 ft (KB) (TVD)

Reference Elevations: 2346.00 ft (KB)

Total Depth: 4266.00 ft (KB) (TVD)

2341.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6753

Inside

Press @ Run Depth: 320.44 psig @ 4140.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.11

End Date:

2013.09.11

Last Calib.:

2013.09.11

Start Time: 05:45:05

End Time:

14:15:29

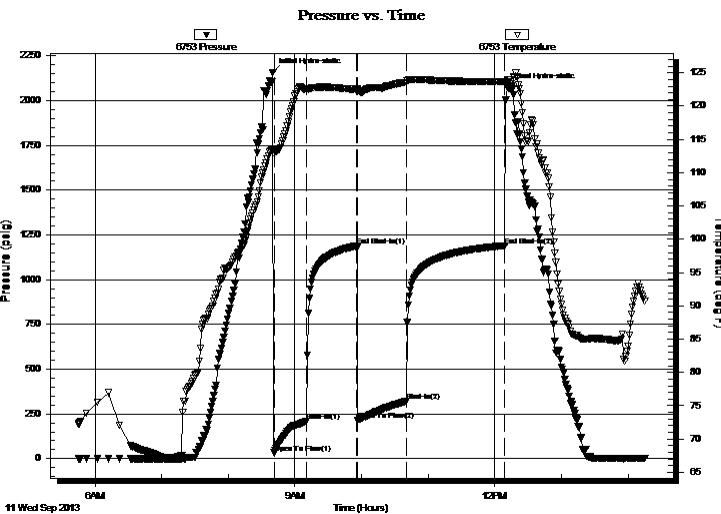
Time On Btm:

2013.09.11 @ 08:40:00

Time Off Btm:

2013.09.11 @ 12:11:00

TEST COMMENT: IF-BOB in 13 1/2 min
ISI-No blow
FF-BOB in 19 min
FSI-No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2157.79	113.50	Initial Hydro-static
1	33.01	113.02	Open To Flow (1)
31	208.27	122.47	Shut-In(1)
76	1188.50	122.54	End Shut-In(1)
77	216.36	122.28	Open To Flow (2)
120	320.44	123.58	Shut-In(2)
209	1190.25	123.64	End Shut-In(2)
211	2073.32	123.61	Final Hydro-static

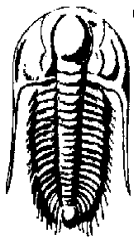
Recovery

Length (ft)	Description	Volume (bbl)
185.00	SMCW 85%W 15%M	0.91
325.00	WCM 30% W 70%M	3.56
220.00	Mud	3.09

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Phillips Exploration Co.

20-14s-24w Trego, KS

PO Box 850
Andover KS 67002

Rosproy #1-20

Job Ticket: 54770

DST#: 3

ATTN: Jim Phillips

Test Start: 2013.09.11 @ 05:45:00

GENERAL INFORMATION:

Formation: **Cherokee - Mississipp**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 08:41:00

Time Test Ended: 14:15:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Brett Dickinson

Unit No: 59

Interval: **4138.00 ft (KB) To 4266.00 ft (KB) (TVD)**

Reference Elevations: 2346.00 ft (KB)

Total Depth: 4266.00 ft (KB) (TVD)

2341.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8319 Outside

Press @ RunDepth: psig @ 4140.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.09.11

End Date: 2013.09.11

Last Calib.: 2013.09.11

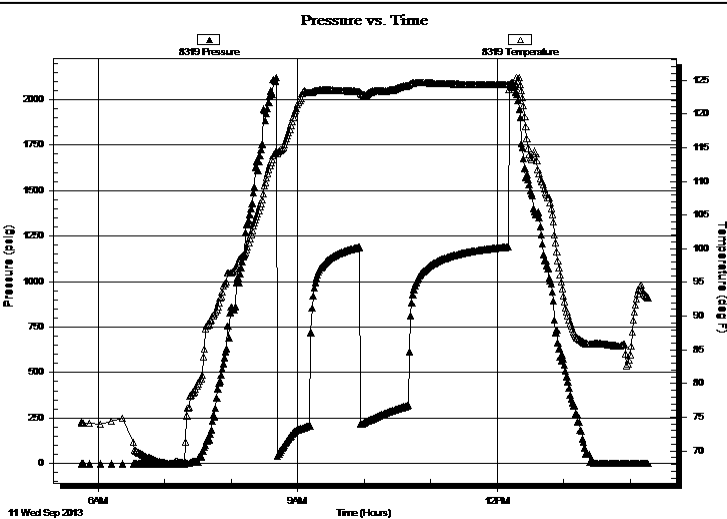
Start Time: 05:45:05

End Time: 14:15:59

Time On Btm:

Time Off Btm:

TEST COMMENT: IF-BOB in 13 1/2 min
ISI-No blow
FF-BOB in 19 min
FSI-No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
185.00	SMCW 85%W 15%M	0.91
325.00	WCM 30% W 70%M	3.56
220.00	Mud	3.09

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Phillips Exploratiom Co.

20-14s-24w Trego,KS

PO Box 850
Andover KS 67002

Rosproy #1-20

Job Ticket: 54770

DST#: 3

ATTN: Jim Phillips

Test Start: 2013.09.11 @ 05:45:00

Tool Information

Drill Pipe:	Length: 3830.00 ft	Diameter: 3.80 inches	Volume: 53.72 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 295.00 ft	Diameter: 2.25 inches	Volume: 1.45 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	11.00 ft			String Weight: Initial 70000.00 lb
Depth to Top Packer:	4138.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval betw een Packers:	128.00 ft			
Tool Length:	152.00 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			4115.00	
Shut In Tool	5.00			4120.00	
Hydraulic tool	5.00			4125.00	
Safety Joint	3.00			4128.00	
Packer	5.00			4133.00	24.00 Bottom Of Top Packer
Packer	5.00			4138.00	
Packer - Shale	0.00			4138.00	
Stubb	1.00			4139.00	
Perforations	1.00			4140.00	
Recorder	0.00	6753	Inside	4140.00	
Recorder	0.00	8319	Outside	4140.00	
Change Over Sub	1.00			4141.00	
Drill Pipe	95.00			4236.00	
Change Over Sub	1.00			4237.00	
Perforations	26.00			4263.00	
Bullnose	3.00			4266.00	128.00 Bottom Packers & Anchor
Total Tool Length:	152.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Phillips Exploratiom Co.

20-14s-24w Trego,KS

PO Box 850
Andover KS 67002

Rosproy #1-20

Job Ticket: 54770

DST#: 3

ATTN: Jim Phillips

Test Start: 2013.09.11 @ 05:45:00

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:

26000 ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2900.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
185.00	SMCW 85%W 15%M	0.910
325.00	WCM 30% W 70%M	3.557
220.00	Mud	3.086

Total Length: 730.00 ft

Total Volume: 7.553 bbl

Num Fluid Samples: 0

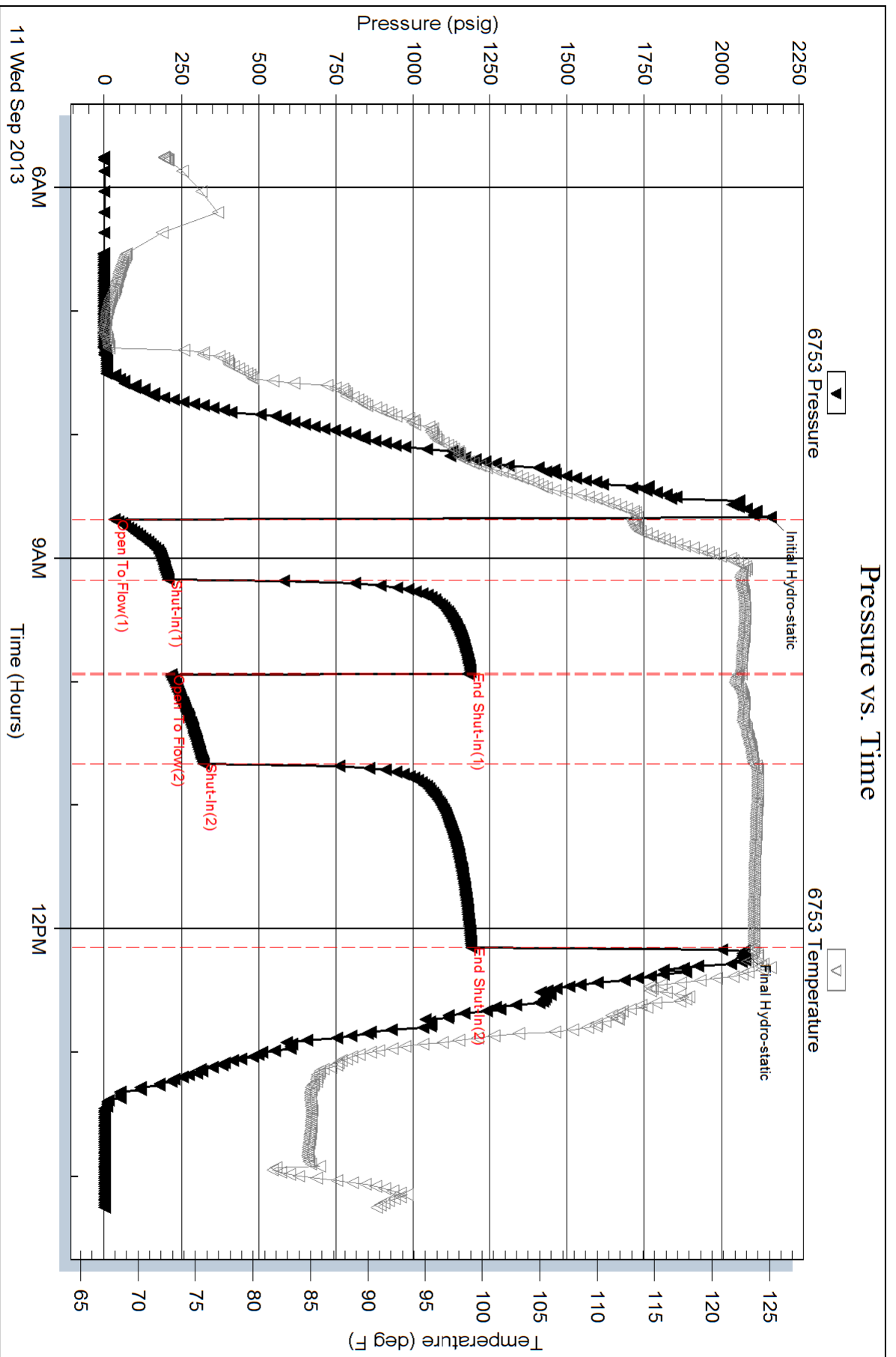
Num Gas Bombs: 0

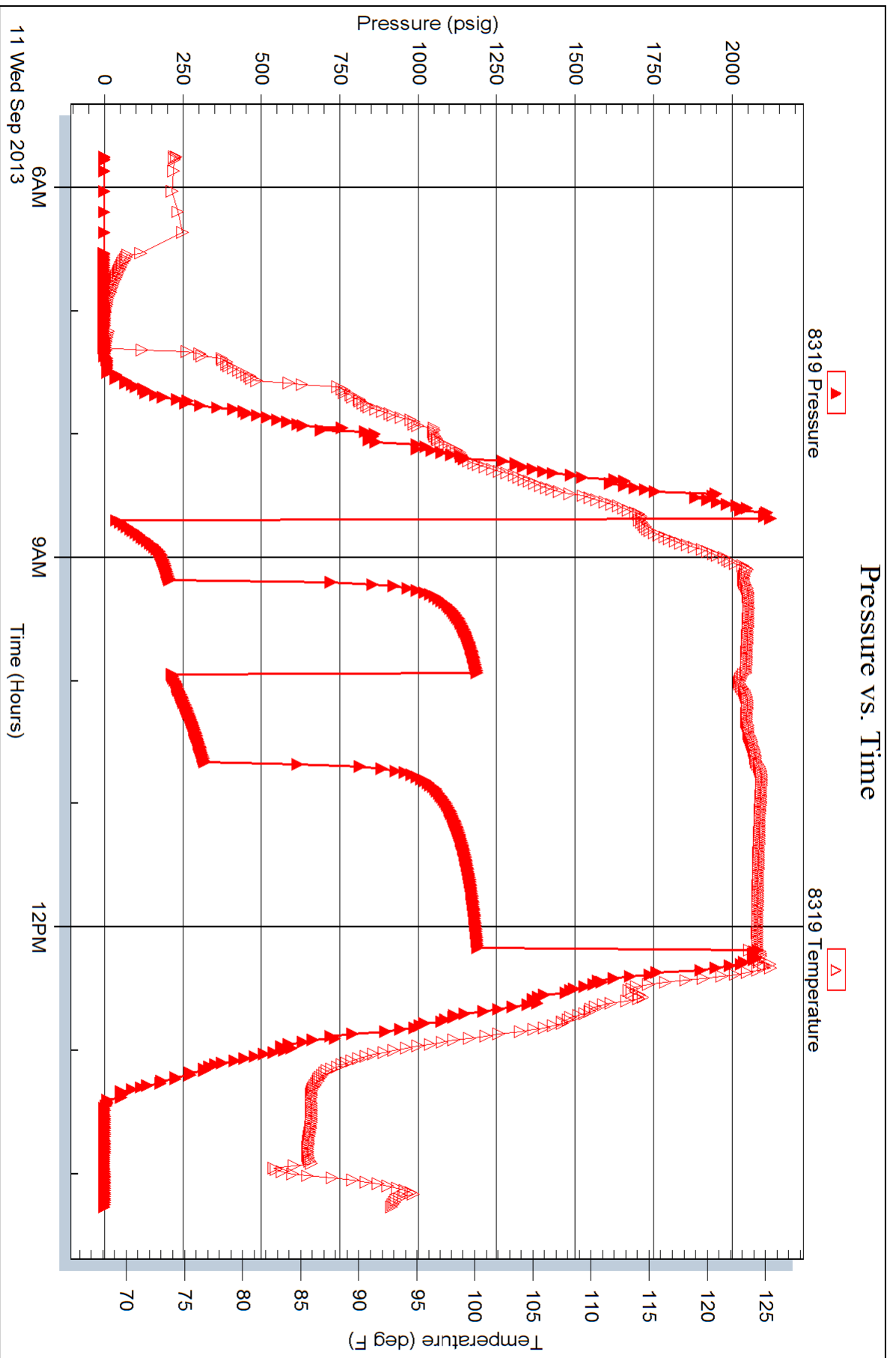
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54768

4/10

Well Name & No. Rosproy #1-20 Test No. 1 Date 9/18/13
 Company Phillips Exploration Co L.C. Elevation 2346 KB 2341 GL
 Address PO Box 850 Andover KS 67002
 Co. Rep / Geo. _____ Rig Martin #16
 Location: Sec. 20 Twp. 14 Rge. 24 Co. Trego State KS

Interval Tested 3627-3690 Zone Tested AC "A-C"
 Anchor Length 68 Drill Pipe Run 3581 Mud Wt. 9.5
 Top Packer Depth 3617 Drill Collars Run 30 Vis 56
 Bottom Packer Depth 3622 Wt. Pipe Run — WL 8.8
 Total Depth 3690 Chlorides 3000 ppm System LCM 1
 Blow Description IF - BOB in 9 min
ISL - No blow
FI - BOB in 13 min
FSL - No blow

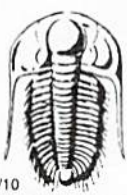
Rec	Feet of	%gas	%oil	%water	%mud
<u>240</u>	<u>wcm</u>			<u>30</u>	<u>70</u>
<u>500</u>	<u>SMCW</u>			<u>90</u>	<u>10</u>
____	____				
____	____				
____	____				

Rec Total 740 BHT 116 Gravity _____ API RW 08 @ 70 °F Chlorides 100,000 ppm

(A) Initial Hydrostatic <u>1,829</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>13:30</u>
(B) First Initial Flow <u>36</u>	<input type="checkbox"/> Jars _____	T-Started <u>14:30</u>
(C) First Final Flow <u>171</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>16:49</u>
(D) Initial Shut-In <u>1,187</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>20:19</u>
(E) Second Initial Flow <u>181</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>21:57</u>
(F) Second Final Flow <u>346</u>	<input checked="" type="checkbox"/> Mileage <u>129-T</u> 199.95	Comments _____
(G) Final Shut-In <u>1,189</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>1,760</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby _____	Total <u>1674.95</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1674.95</u>	

Approved By _____ Our Representative Burt Paul

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. 54769

4/10

Well Name & No. Rosproy #1-20 Test No. 2 Date 9/10/13
 Company Phillips Exploration Co LC Elevation 2346 KB 2341 GL
 Address _____
 Co. Rep / Geo. Jim Phillips Rig Murkin #16
 Location: Sec. 20 Twp. 14 Rge. 24 Co. Trego State KS

Interval Tested ~~3028-4140~~ 4028-4140 Zone Tested Paw - Ft. Scott
 Anchor Length 112 Drill Pipe Run _____ Mud Wt. 9.7
 Top Packer Depth 4023 Drill Collars Run 180 Vis 46
 Bottom Packer Depth 4028 Wt. Pipe Run _____ WL 8.8
 Total Depth 4140 Chlorides 3000 ppm System LCM 1/2

Blow Description IF - very weak surface blow died after 20 min
ISI - No blow
FF - No blow - flush tool surge no blow
FST - No blow

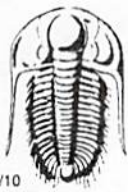
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 113 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic <u>2079</u>	<input checked="" type="checkbox"/> Test 1250	T-On Location <u>9:00</u>
(B) First Initial Flow <u>22</u>	<input type="checkbox"/> Jars _____	T-Started <u>9:50</u>
(C) First Final Flow <u>26</u>	<input checked="" type="checkbox"/> Safety Joint 75	T-Open <u>11:45</u>
(D) Initial Shut-In <u>124</u>	<input type="checkbox"/> Circ Sub _____	T-Pulled <u>13:45</u>
(E) Second Initial Flow <u>25</u>	<input type="checkbox"/> Hourly Standby _____	T-Out <u>15:22</u>
(F) Second Final Flow <u>33</u>	<input checked="" type="checkbox"/> Mileage <u>129 RT</u> 199.95	Comments _____
(G) Final Shut-In <u>79</u>	<input type="checkbox"/> Sampler _____	
(H) Final Hydrostatic <u>2007</u>	<input type="checkbox"/> Straddle _____	<input checked="" type="checkbox"/> Ruined Shale Packer 350
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer 250	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>383.33</u>
Final Shut-In <u>30</u>	<input checked="" type="checkbox"/> Day Standby 1d 11.5h	Total <u>2508.28</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1774.95</u>	

Approved By _____ Our Representative [Signature]

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54770

4/10

Well Name & No. Rosproy #1-20 Test No. 3 Date 9/11/13
 Company Phillips Exploration Co Lc Elevation 2346 KB 2341 GL
 Address _____
 Co. Rep / Geo. Jim Phillips Rig Martin #16
 Location: Sec. 20 Twp. 14 Rge. 24 Co. Trego State KS

Interval Tested 4138-4266 Zone Tested Cherokee - Miss
 Anchor Length 128 Drill Pipe Run 3830 Mud Wt. 9.6
 Top Packer Depth 4133 Drill Collars Run 295 Vis 53
 Bottom Packer Depth 4138 Wt. Pipe Run — WL 9.0
 Total Depth 4266 Chlorides 2,900 ppm System LCM 1

Blow Description IF - BOB in 13 1/2 min
ISI - No blow
FF - BOB in 19 min
FSE - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>185</u>	<u>SMEW</u>		<u>85</u>	<u>15</u>	
<u>325</u>	<u>WCM</u>		<u>30</u>	<u>70</u>	
<u>220</u>	<u>Mud</u>				
_____	_____				
_____	_____				

Rec Total 730 BHT 124 Gravity _____ API RW .25 @ 75 °F Chlorides 26,000 ppm

(A) Initial Hydrostatic 2,158 Test 1250 T-On Location 6:00
 (B) First Initial Flow 33 Jars _____ T-Started 5:45
 (C) First Final Flow 208 Safety Joint 75 T-Open 8:35
 (D) Initial Shut-In 1,189 Circ Sub _____ T-Pulled 12:05
 (E) Second Initial Flow 216 Hourly Standby _____ T-Out 14:12
 (F) Second Final Flow 320 Mileage 129 RT 199.95 Comments _____
 (G) Final Shut-In 1,190 Sampler _____
 (H) Final Hydrostatic 2,073 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 1774.95
 Final Flow 45 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1774.95

Approved By _____ Our Representative Butler

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