



WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Conv. to GSW
- Plug Back: _____ Plug Back Total Depth _____
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date Date Reached TD Completion Date or Recompletion Date

API No. 15 - _____

Spot Description: _____

_____-_____-_____- Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Letter of Confidentiality Received
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



1149978

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Submitted Electronically <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(If no, Submit Copy)</i> List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
_____ Perforate _____ Protect Casing _____ Plug Back TD _____ Plug Off Zone				

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR. _____ Producing Method: Flowing Pumping Gas Lift Other (Explain) _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
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DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> <input type="checkbox"/> Other (Specify) _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Liberty Oper & Compl, Inc
Well Name	Randy 1
Doc ID	1149978

Tops

Name	Top	Datum
Anhydrite Top	1304	742
Base	1323	723
Topeka	3014	-968
Heebner Shale	3239	-1193
Toronto	3263	-1217
LKC	3281	-1235
BKC	3522	-1476
Conglomerate	3539	-1492
RTD	3639	-1593

QUALITY WELL SERVICE, INC.

5828

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124
 Heath's Cell 620-727-3410
 Office / Fax 620-672-3663

Rich's Cell 620-727-3409
 Brady's Cell 620-727-6964

Date	2-24-13	Sec.	289	Twp.	10	Range	17	County	Bohls	State	KS	On Location		Finish	5:00-5:30	
Lease	Ready	Well No.	1	Location	Heath's 45 14 N SE 5 N NW						Owner	To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.				
Contractor	White Knight															
Type/Job	Lost Circulation															
Hole Size	12 1/4	T.D.	113													
Csg.		Depth														
Tbg. Size		Depth														
Tool		Depth														
Cement Left In Csg.		Shoe Joint														
Meas Line		Displace														
EQUIPMENT																
Pumptrk	No.	8	Cody	Common 225												
Bulktrk	No.	4	David	Poz. Mix												
Bulktrk	No.	11	Heath	Gel.												
Pickup	No.			Calcium 14												
JOB SERVICES & REMARKS																
Rat Hole	Salt															
Mouse Hole	Flowseal No Charge for Pump Truck															
Centralizers	Kol-Seal or Mileage.															
Baskets	Mud CLR 48															
DN or Port Collar	CFL-117 or CD110 CAF 38															
	Sand															
	Hook up and mix 1050 rcm 5%CLC															
	Open end - shut down for 2 hrs and															
	mix 125 rcm open end with 5000# balls															
	FLOAT EQUIPMENT															
	Lost Circulation @ 32' so we come															
	out and mixed 225 rcm to shut out															
	hole															
	AFU Inserts															
	Hole was full and wait 8 hrs															
	to drill out															
	Latch Down															
	Pumptrk Charge Lost Circulation															
	Mileage 30															
	Tax															
	Discount															
	Total Charge															
X	Signature															

QUALITY WELL SERVICE, INC.

5829

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124
 Heath's Cell 620-727-3410
 Office / Fax 620-672-3663

Rich's Cell 620-727-3409
 Brady's Cell 620-727-6964

Date 2-25-13	Sec. 29	Twp. 10	Range 17	County Rooks	State KS	On Location	Finish 3:30-4:00pm
Lease <u>Randy</u>	Well No. 1	Location <u>14 N of Hwy 5, US SE SW N. 70</u>		Owner	To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.		
Contractor <u>White Knight</u>	Type Job <u>Surface</u>	Hole Size <u>12 1/4</u>	T.D. <u>223</u>	Csg. <u>8 5/8</u>	Depth <u>221</u>	Tbg. Size	Depth
Tool	Depth	Cement Left in Csg. <u>15 ft</u>	Shoe Joint	Meas Line	Displace <u>13.15 bbl</u>	The above was done to satisfaction and supervision of owner agent or contractor.	
EQUIPMENT							
Pumptrk No.	<u>8</u>	Common	<u>150</u>				
Bulktrk No.	<u>1</u>	Poz. Mix					
Bulktrk No.		Gel.	<u>3</u>				
Pickup No.		Calcium	<u>5</u>				
JOB SERVICES & REMARKS							
Rat Hole		Salt					
Mouse Hole		Flowseal					
Centralizers		Kol-Seal					
Baskets		Mud CLR 48					
DV or Port Collar		CFL-117 or CD110 CAF 38					
<u>Ran 5 hrs at 8 5/8 casing and landing</u>		Sand					
<u>Est Circulation with mud pump.</u>		Handling <u>158</u>					
<u>Woke up and mix 1500r and d.s.p</u>		Mileage <u>30</u>		FLOAT EQUIPMENT			
<u>13 1/2 bbl at 1200' shut in @ 300 psi</u>		Guide Shoe					
		Centralizer					
		Baskets					
		AFU Inserts					
		Float Shoe					
		Latch Down					
		Pumptrk Charge <u>Surface</u>					
		Mileage <u>30</u>					
		Tax					
		Discount					
		Total Charge					
X Signature <u>Tony J. Brady</u>							

QUALITY WELL SERVICE, INC.

5831

Federal Tax I.D. # 481187368

Home Office 324 Simpson St., Pratt, KS 67124
 Heath's Cell 620-727-3410
 Office / Fax 620-672-3663

Rich's Cell 620-727-3409
 Brady's Cell 620-727-6964

Date	3-5-13	Sec.	89	Twp.	10	Range	17	County	Rooks	State	KS	On Location		Finish	3:30 - 4:00 pm
Lease	Road	Well No.	1	Location	New's KS HW S-E SW R10										
Contractor	White Knight	Owner	To Quality Well Service, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.												
Type Job	Rodney Plug	Charge To	Liberty op												
Hole Size		T.D.	3690												
Csg.		Depth													
Tbg. Size		Depth													
Tool		Depth													
Cement Left In Csg.		Shoe Joint													
Meas Line		Displace													
EQUIPMENT															
Pumptrk	No.	A	Common 155												
Bulktrk	No.	10	Poz. Mix 100												
Bulktrk	No.		Gel. 9												
Pickup	No.		Calcium												
JOB SERVICES & REMARKS															
Rat Hole	205r	Hulls													
Mouse Hole		Salt													
Centralizers		Flowseal													
Baskets		Kol-Seal													
DN or Port Collar		Mud CLR 48													
1st Plug	3615'	CFL-117 or CD110 CAF 38													
		Sand													
2nd Plug	1320' = 255r	Handling 264													
		Mileage 30													
FLOAT EQUIPMENT															
3rd Plug	766' = 1005r	Guide Shoe													
		Centralizer													
4th Plug	270' = 405r	Baskets													
		AFU Inserts													
5th Plug	410' = 105r and super plug	Float Shoe													
		Latch Down													
305r = PH		Pumptrk Charge Rodney Plug													
		Mileage 30													
		Tax													
		Discount													
		Total Charge													
Signature	Tommy Williams														

Thank You!

g5th plug hole plug



DRILL STEM TEST REPORT

Prepared For: **Liberty Operations & Completions**

308 W Mill
Plainville KS 67663

ATTN: Roger L Comeau

Randy #1

29-10s-17w Rooks,KS

Start Date: 2013.03.01 @ 23:19:33

End Date: 2013.03.02 @ 08:45:03

Job Ticket #: 50397 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.03.08 @ 14:07:54



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Liberty Operations & Completions

29-10s-17w Rooks,KS

308 W Mill
Plainville KS 67663

Randy #1

Job Ticket: 50397

DST#: 1

ATTN: Roger L Comeau

Test Start: 2013.03.01 @ 23:19:33

GENERAL INFORMATION:

Formation: **Oread- Plattsmouth**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:52:03

Time Test Ended: 08:45:03

Test Type: Conventional Bottom Hole (Initial)

Tester: Jeff Brown

Unit No: 67

Interval: 3168.00 ft (KB) To 3235.00 ft (KB) (TVD)

Reference Elevations: 2046.00 ft (KB)

Total Depth: 3235.00 ft (KB) (TVD)

2041.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8679 Inside

Press @ Run Depth: 786.23 psig @ 3207.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.01

End Date:

2013.03.02

Last Calib.: 2013.03.01

Start Time: 23:19:34

End Time:

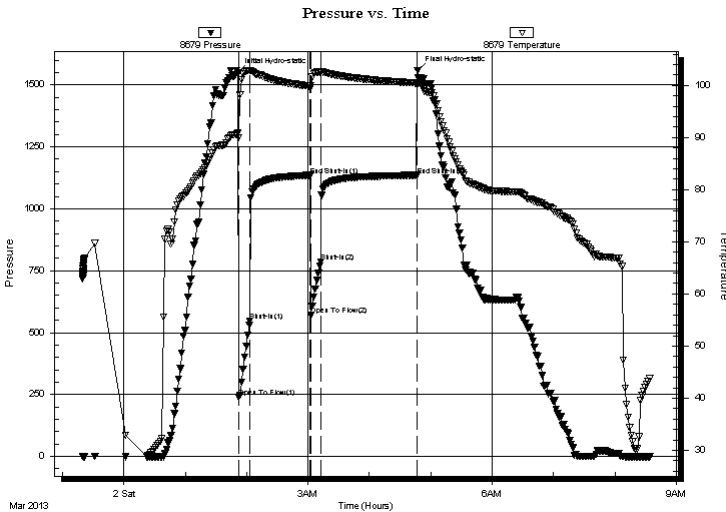
08:34:03

Time On Btm: 2013.03.02 @ 01:51:33

Time Off Btm: 2013.03.02 @ 04:47:03

TEST COMMENT: IFP=Strong blow BOB in 30 sec
ISI=Weak surface blow back died out in 38 min
FFP=Strong blow BOB in 45 sec
FSI=Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1548.48	90.82	Initial Hydro-static
1	239.41	90.01	Open To Flow (1)
12	545.17	102.76	Shut-In(1)
71	1135.09	99.84	End Shut-In(1)
71	569.37	99.62	Open To Flow (2)
81	786.23	102.53	Shut-In(2)
175	1135.02	100.42	End Shut-In(2)
176	1557.77	100.51	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1323.00	MW 15%M 85%W	18.56
220.00	WM 35%W 65%M	3.09

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Liberty Operations & Completions

29-10s-17w Rooks,KS

308 W Mill
Plainville KS 67663

Randy #1

Job Ticket: 50397

DST#: 1

ATTN: Roger L Comeau

Test Start: 2013.03.01 @ 23:19:33

Tool Information

Drill Pipe:	Length: 3172.00 ft	Diameter: 3.80 inches	Volume: 44.49 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 22000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 44000.00 lb
			<u>Total Volume: 44.49 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 20000.00 lb
Depth to Top Packer:	3168.00 ft			Final 28000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	67.00 ft			
Tool Length:	87.00 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			3149.00	
Shut In Tool	5.00			3154.00	
Hydraulic tool	5.00			3159.00	
Packer	4.00			3163.00	20.00 Bottom Of Top Packer
Packer	5.00			3168.00	
Stubb	1.00			3169.00	
Perforations	5.00			3174.00	
Change Over Sub	1.00			3175.00	
Drill Pipe	31.00			3206.00	
Change Over Sub	1.00			3207.00	
Recorder	0.00	8679	Inside	3207.00	
Recorder	0.00	8321	Outside	3207.00	
Perforations	25.00			3232.00	
Bullnose	3.00			3235.00	67.00 Bottom Packers & Anchor

Total Tool Length: 87.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Liberty Operations & Completions

29-10s-17w Rooks,KS

308 W Mill
Plainville KS 67663

Randy #1

Job Ticket: 50397

DST#: 1

ATTN: Roger L Comeau

Test Start: 2013.03.01 @ 23:19:33

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:

ppm

Viscosity: 40.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.16 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
1323.00	MW 15%M 85%W	18.558
220.00	WM 35%W 65%M	3.086

Total Length: 1543.00 ft Total Volume: 21.644 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

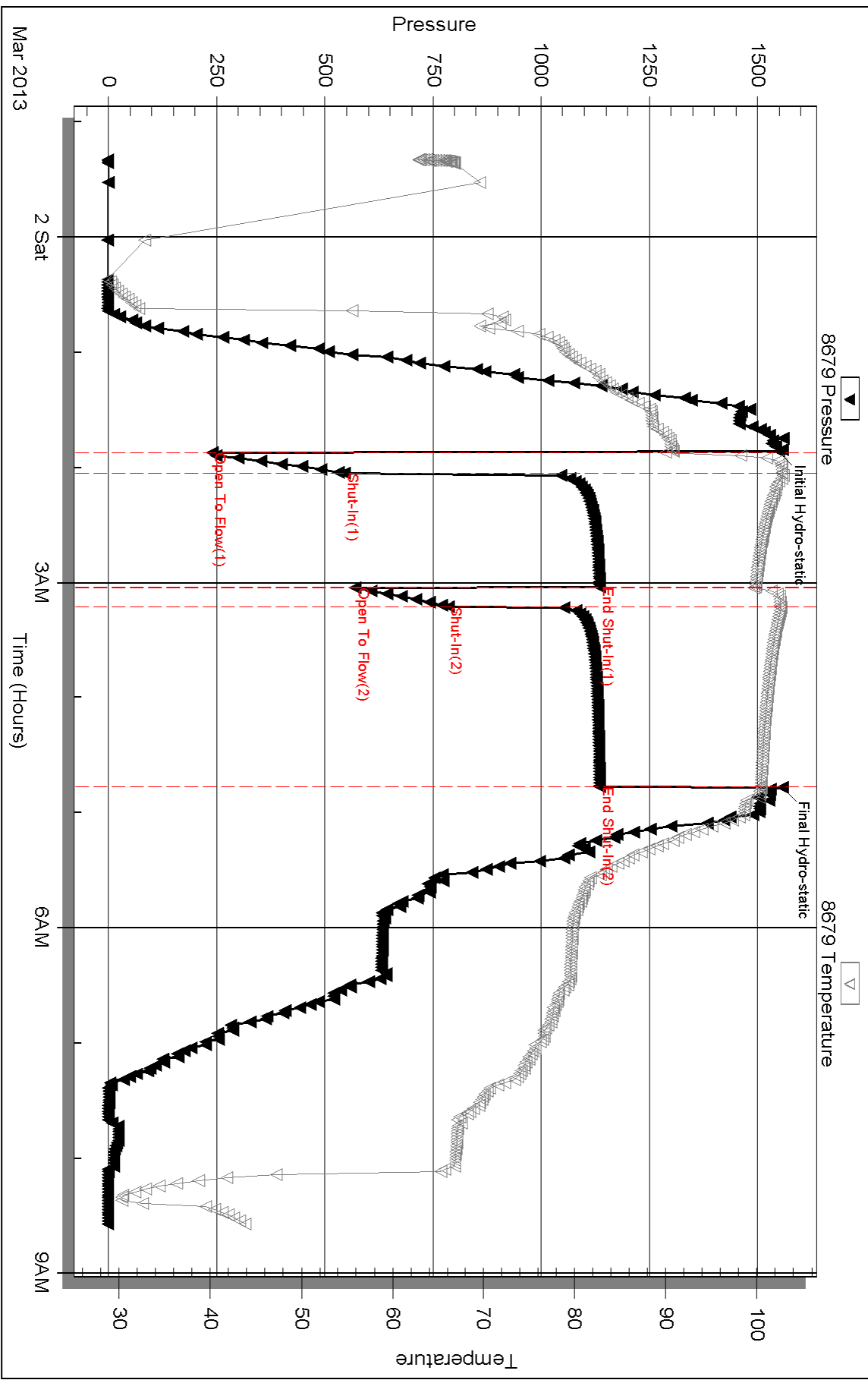
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Liberty Operations & Completions**

308 W Mill
Plainville KS 67663

ATTN: Roger L Comeau

Randy #1

29-10s-17w Rooks,KS

Start Date: 2013.03.03 @ 11:38:24

End Date: 2013.03.03 @ 18:45:14

Job Ticket #: 50398 DST #: 2

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

Printed: 2013.03.08 @ 14:06:03



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Liberty Operations & Completions

29-10s-17w Rooks,KS

308 W Mill
Plainville KS 67663

Randy #1

Job Ticket: 50398

DST#: 2

ATTN: Roger L Comeau

Test Start: 2013.03.03 @ 11:38:24

GENERAL INFORMATION:

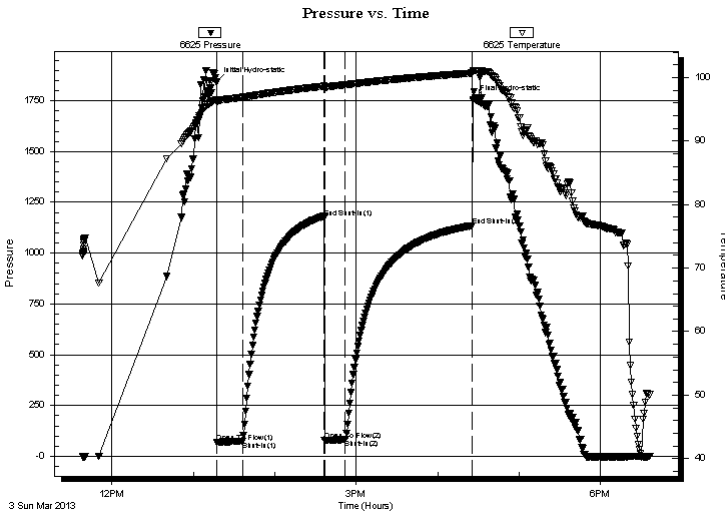
Formation: **Conglomerate**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:17:24
 Time Test Ended: 18:45:14
 Interval: **3495.00 ft (KB) To 3615.00 ft (KB) (TVD)**
 Total Depth: 3615.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Jeff Brown
 Unit No: 67
 Reference Elevations: 2046.00 ft (KB)
 2041.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 83.59 psig @ 3592.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.03.03 End Date: 2013.03.03 Last Calib.: 2013.03.03
 Start Time: 11:38:25 End Time: 18:36:14 Time On Btm: 2013.03.03 @ 13:17:14
 Time Off Btm: 2013.03.03 @ 16:25:54

TEST COMMENT: IFP=Weak blow built to 1" died back to a weak surface blow
 ISI=Dead no blow back
 FFP=Weak surface blow built to 3/4"
 FSI=Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1844.26	96.49	Initial Hydro-static
1	68.90	96.16	Open To Flow (1)
19	74.15	96.90	Shut-In(1)
80	1176.14	98.66	End Shut-In(1)
80	78.47	98.21	Open To Flow (2)
95	83.59	98.88	Shut-In(2)
189	1135.56	100.73	End Shut-In(2)
189	1754.03	100.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud w with a scum of oil	0.63

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Liberty Operations & Completions

29-10s-17w Rooks,KS

308 W Mill
Plainville KS 67663

Randy #1

Job Ticket: 50398

DST#: 2

ATTN: Roger L Comeau

Test Start: 2013.03.03 @ 11:38:24

Tool Information

Drill Pipe:	Length: 3482.00 ft	Diameter: 3.80 inches	Volume: 48.84 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	34000.00 lb
			<u>Total Volume: 48.84 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.00 ft			String Weight: Initial	26000.00 lb
Depth to Top Packer:	3495.00 ft			Final	26000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	120.00 ft				
Tool Length:	140.00 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			3476.00	
Shut In Tool	5.00			3481.00	
Hydraulic tool	5.00			3486.00	
Packer	4.00			3490.00	20.00 Bottom Of Top Packer
Packer	5.00			3495.00	
Stubb	1.00			3496.00	
Perforations	3.00			3499.00	
Change Over Sub	1.00			3500.00	
Drill Pipe	91.00			3591.00	
Change Over Sub	1.00			3592.00	
Recorder	0.00	8679	Inside	3592.00	
Recorder	0.00	6625	Outside	3592.00	
Perforations	20.00			3612.00	
Bullnose	3.00			3615.00	120.00 Bottom Packers & Anchor

Total Tool Length: 140.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Liberty Operations & Completions

29-10s-17w Rooks,KS

308 W Mill
Plainville KS 67663

Randy #1

Job Ticket: 50398

DST#: 2

ATTN: Roger L Comeau

Test Start: 2013.03.03 @ 11:38:24

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: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	Mud with a scum of oil	0.631

Total Length: 45.00 ft Total Volume: 0.631 bbl

Num Fluid Samples: 0

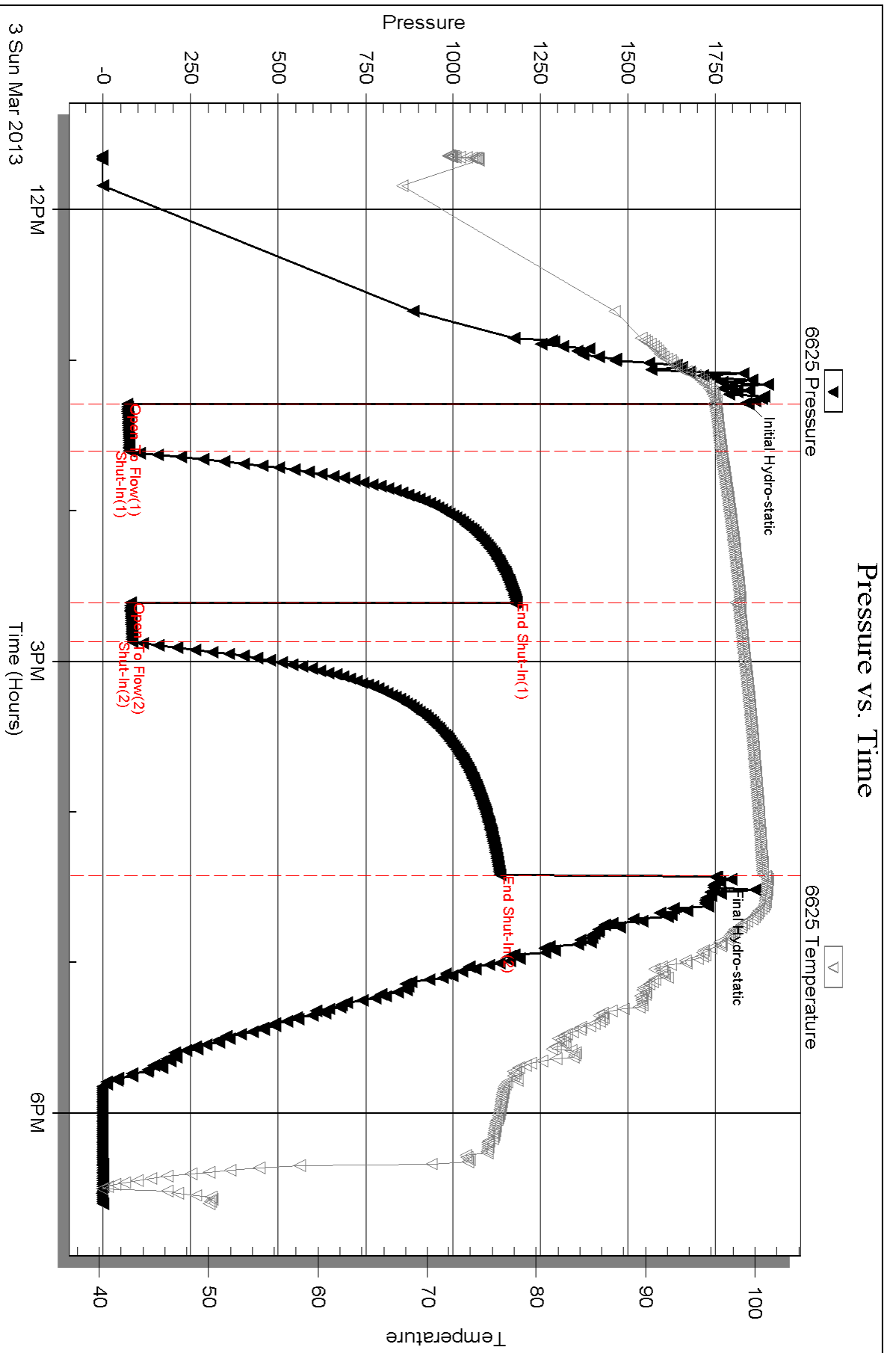
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



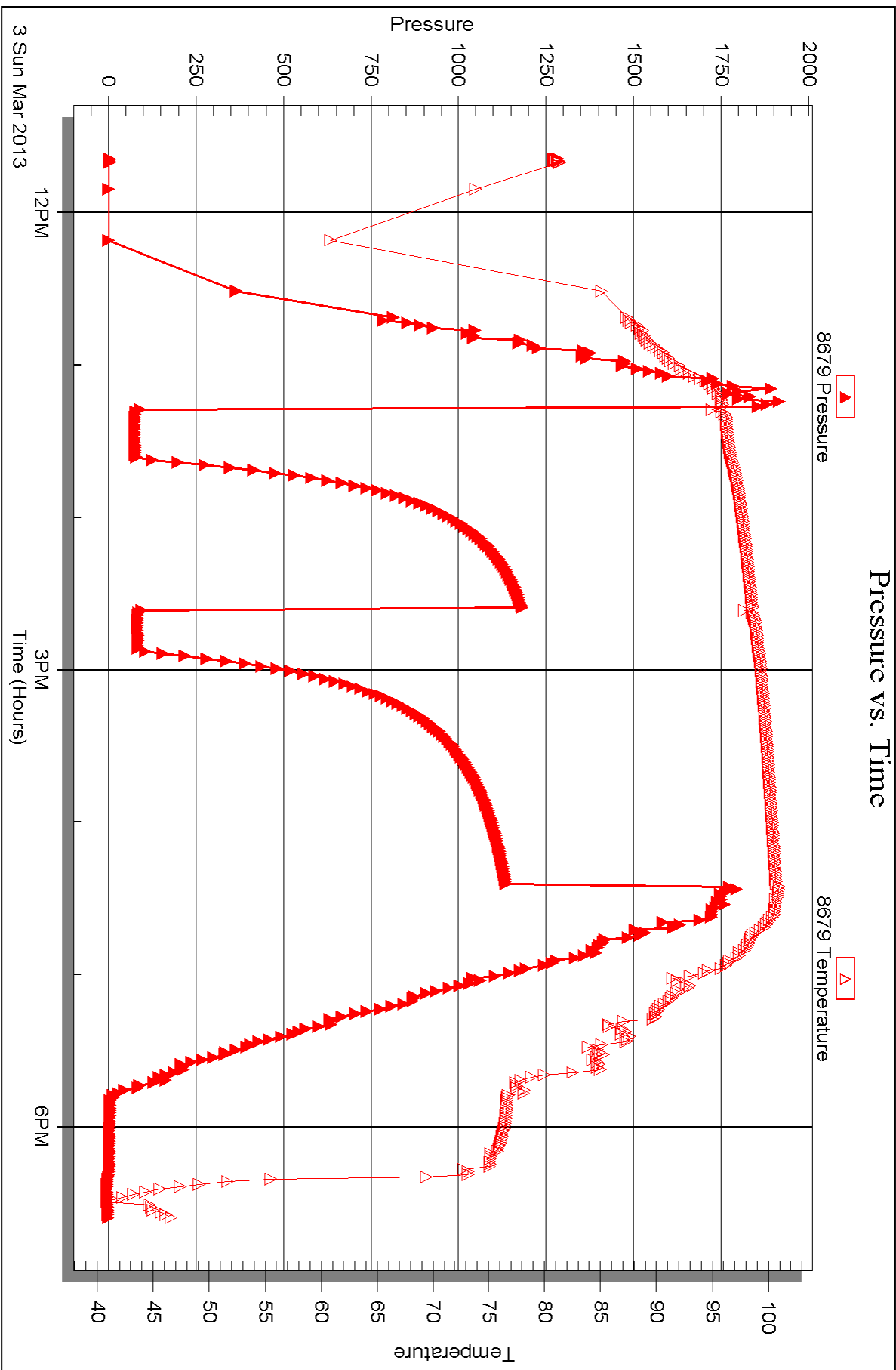
Serial #: 8679

Inside

Liberty Operations & Completions

Randy #1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Liberty Operations & Completions**

308 W Mill
Plainville KS 67663

ATTN: Roger L Comeau

Randy #1

29-10s-17w Rooks,KS

Start Date: 2013.03.04 @ 07:28:56

End Date: 2013.03.04 @ 15:15:16

Job Ticket #: 50399 DST #: 3

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

Printed: 2013.03.08 @ 14:05:14



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Liberty Operations & Completions

29-10s-17w Rooks,KS

308 W Mill
Plainville KS 67663

Randy #1

Job Ticket: 50399

DST#: 3

ATTN: Roger L Comeau

Test Start: 2013.03.04 @ 07:28:56

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:48:06

Time Test Ended: 15:15:16

Test Type: Conventional Bottom Hole (Reset)

Tester: Jeff Brown

Unit No: 67

Interval: 3560.00 ft (KB) To 3647.00 ft (KB) (TVD)

Reference Elevations: 2046.00 ft (KB)

Total Depth: 3647.00 ft (KB) (TVD)

2041.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6625 Outside

Press @ Run Depth: 247.94 psig @ 3626.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.03.04

End Date:

2013.03.04

Last Calib.: 2013.03.04

Start Time: 07:28:57

End Time:

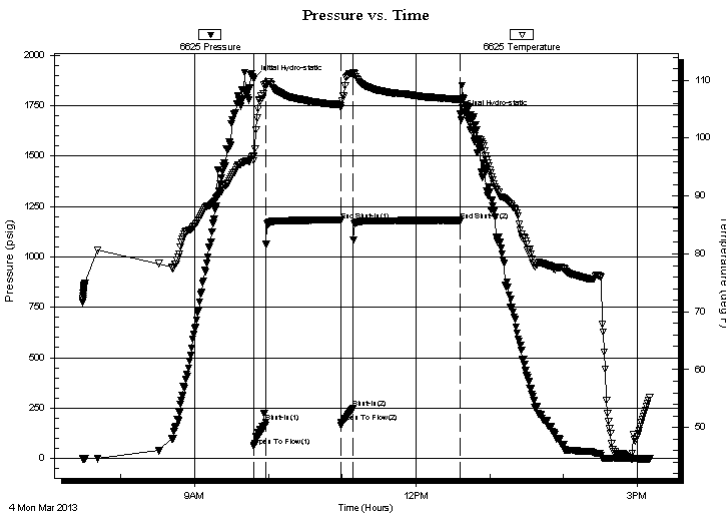
15:10:16

Time On Btm: 2013.03.04 @ 09:47:56

Time Off Btm: 2013.03.04 @ 12:36:05

TEST COMMENT: IFP=Strong blow BOB in 3 1/4 min
ISI=Weak surface blow back died out in 17 min
FFP=Strong blow BOB in 3 min
FSI=Weak surface died out in 22 min

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1882.47	96.94	Initial Hydro-static
1	61.52	96.15	Open To Flow (1)
10	180.45	109.22	Shut-In(1)
71	1180.71	105.78	End Shut-In(1)
71	179.45	105.30	Open To Flow (2)
81	247.94	111.17	Shut-In(2)
168	1177.06	106.69	End Shut-In(2)
169	1707.78	106.82	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
186.00	MW 30%M 70%W	2.61
243.00	GWM With oil spots 5%G 5%W 90%M	3.41

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Liberty Operations & Completions

29-10s-17w Rooks,KS

308 W Mill
Plainville KS 67663

Randy #1

Job Ticket: 50399

DST#: 3

ATTN: Roger L Comeau

Test Start: 2013.03.04 @ 07:28:56

Tool Information

Drill Pipe:	Length: 3545.00 ft	Diameter: 3.80 inches	Volume: 49.73 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	22000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	35000.00 lb
			<u>Total Volume: 49.73 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	25000.00 lb
Depth to Top Packer:	3560.00 ft			Final	30000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	87.00 ft				
Tool Length:	107.00 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			3541.00	
Shut In Tool	5.00			3546.00	
Hydraulic tool	5.00			3551.00	
Packer	4.00			3555.00	20.00 Bottom Of Top Packer
Packer	5.00			3560.00	
Stubb	1.00			3561.00	
Perforations	3.00			3564.00	
Change Over Sub	1.00			3565.00	
Drill Pipe	60.00			3625.00	
Change Over Sub	1.00			3626.00	
Recorder	0.00	8679	Inside	3626.00	
Recorder	0.00	6625	Outside	3626.00	
Perforations	18.00			3644.00	
Bullnose	3.00			3647.00	87.00 Bottom Packers & Anchor

Total Tool Length: 107.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Liberty Operations & Completions

29-10s-17w Rooks,KS

308 W Mill
Plainville KS 67663

Randy #1

Job Ticket: 50399

DST#: 3

ATTN: Roger L Comeau

Test Start: 2013.03.04 @ 07:28:56

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:

ppm

Viscosity: 62.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 11.97 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 10000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
186.00	MW 30%M 70%W	2.609
243.00	GWM With oil spots 5%G 5%W 90%M	3.409

Total Length: 429.00 ft

Total Volume: 6.018 bbl

Num Fluid Samples: 0

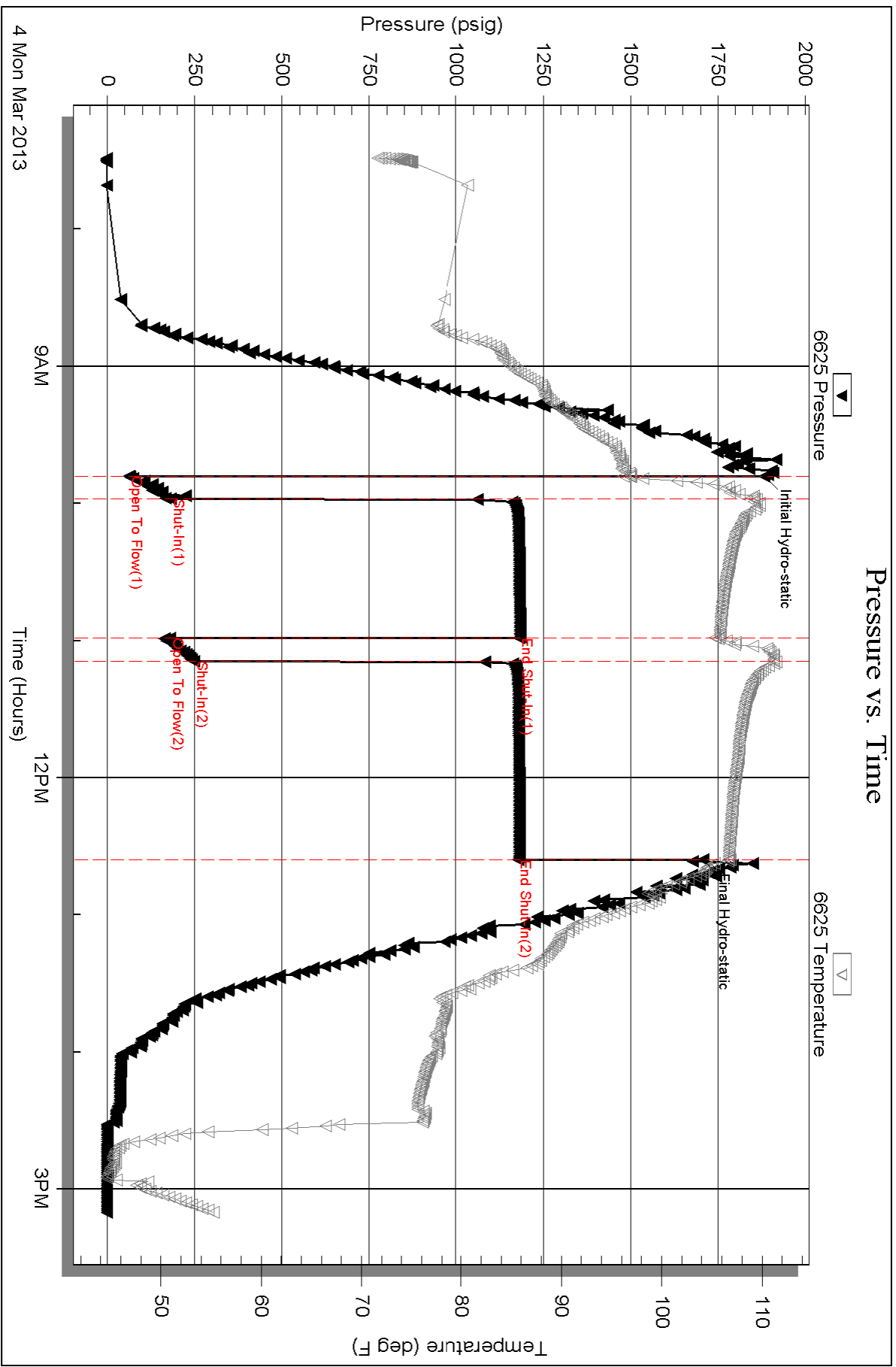
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



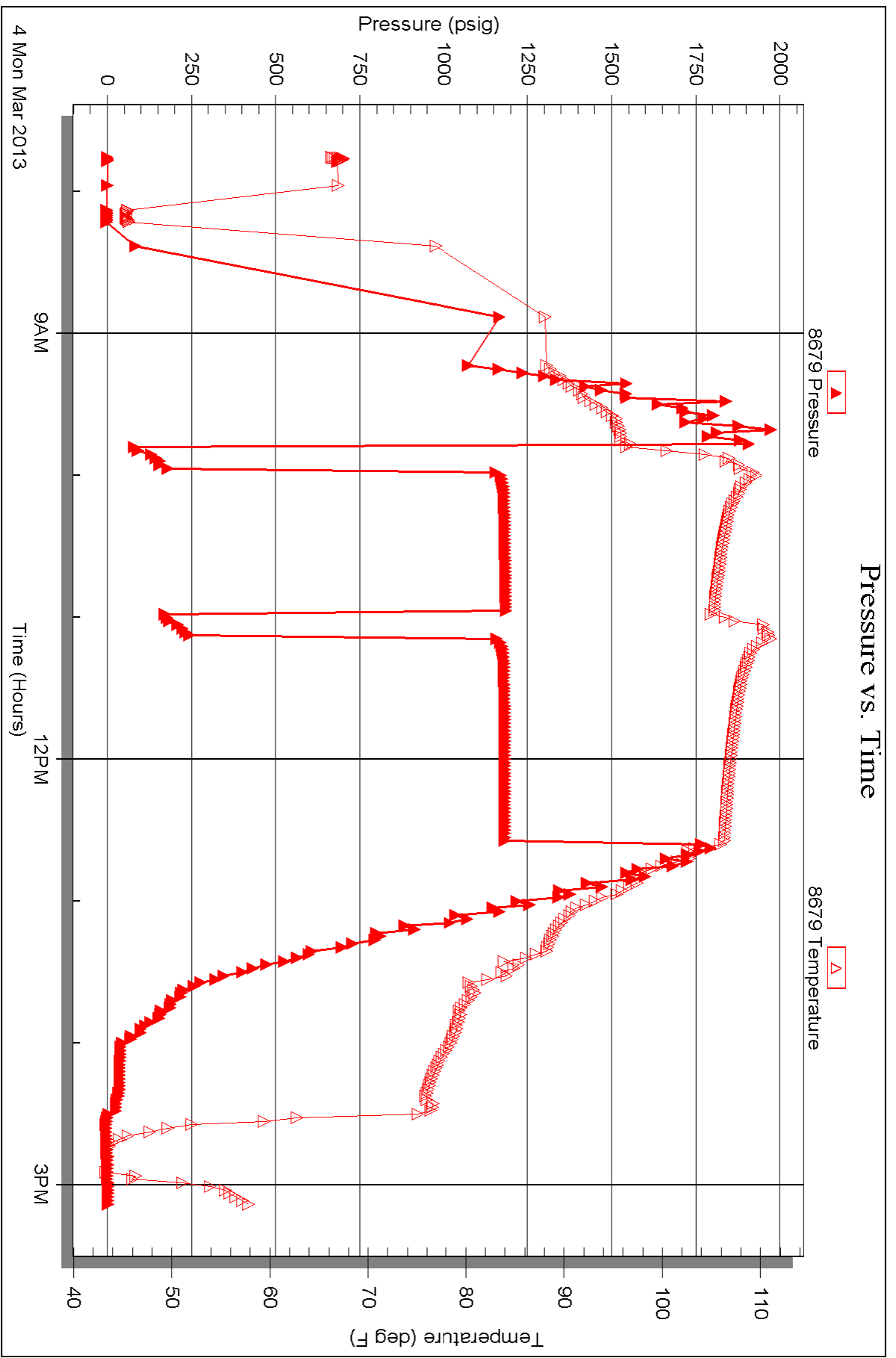
Serial #: 8679

Inside

Liberty Operations & Completions

Randy #1

DST Test Number: 3





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50397

Well Name & No. Randy #1 Test No. 1 Date 3-1-13
 Company Liberty Oper & Compl INC Elevation 2046 KB 2041 GL
 Address 308 W Mill Plainville KS 67463
 Co. Rep / Geo. Jeff Lawler Rig White Knight
 Location: Sec. 29 Twp. 10 S Rge. 17 W Co. Rooks State KS

Interval Tested 3168 - 3235 Zone Tested Oread - Platts mouth
 Anchor Length 67 Drill Pipe Run 3172 Mud Wt. 8.7
 Top Packer Depth 3163 Drill Collars Run 0 Vis 40
 Bottom Packer Depth 3168 Wt. Pipe Run 0 WL 11.2
 Total Depth 3235 Chlorides 3000 ppm System LCM 2

Blow Description 1st - Strong Blow Bob IN 30 sec
1st - Weak surface Blow Back Died out IN 38 min
2nd - Strong Blow Bob IN 45 sec
2nd - Dead No Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>1323</u>	<u>MW</u>			<u>85</u>	<u>15</u>
<u>220</u>	<u>Wm</u>			<u>35</u>	<u>45</u>

Rec Total 1543 BHT _____ Gravity _____ API RW 202 @ 42.1 °F Chlorides 58,000 ppm

(A) Initial Hydrostatic 1548 Test 1150 T-On Location 22:35
 (B) First Initial Flow 239 Jars _____ T-Started 23:19
 (C) First Final Flow 545 Safety Joint _____ T-Open 1:53
 (D) Initial Shut-In 1135 Circ Sub _____ T-Pulled 4:43
 (E) Second Initial Flow 569 Hourly Standby _____ T-Out 8:45
 (F) Second Final Flow 786 Mileage 48 RT 74.40
 (G) Final Shut-In 1135 Sampler _____
 (H) Final Hydrostatic 1558 Straddle _____

Initial Open 10 Shale Packer X2 500
 Initial Shut-In 60 Extra Packer _____
 Final Flow 10 Extra Recorder _____
 Final Shut-In 90 Day Standby _____
 Sub Total 1724.40 Accessibility _____
 Sub Total 1724.40 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1724.40
 MP/DST Disc't _____

Approved By _____ Our Representative Jeff Brown

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50398

4/10

Well Name & No. Randy #1 Test No. 2 Date 3-03-13
 Company Liberty Oper + Compl Inc Elevation 2046 KB 2041 GL
 Address 308 W Mill Plainville KS 67463
 Co. Rep / Geo. Jeff Lawler Rig White Knight
 Location: Sec. 29 Twp. 10S Rge. 17W Co. Rooks State KS

Interval Tested 3495 - 3615 Zone Tested Conglomerate
 Anchor Length 120 Drill Pipe Run 3482 Mud Wt. 9.6
 Top Packer Depth 3490 Drill Collars Run 0 Vis 55
 Bottom Packer Depth 3495 Wt. Pipe Run 0 WL 12.0
 Total Depth 3615 Chlorides 9000 ppm System LCM 1

Blow Description IFP-Weak surface blow built to 1 IN died to a weak surface blow
ISJ-Dead no blow back
IFP-Weak surface blow built to 3/4 IN
ISJ-Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>45</u>	<u>Mud with a scum of oil</u>				<u>100</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

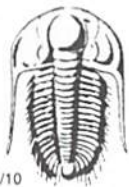
Rec Total 45 BHT 101 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1844 Test 1150 T-On Location 11:05
 (B) First Initial Flow 69 Jars _____ T-Started 11:38
 (C) First Final Flow 74 Safety Joint _____ T-Open 13:18
 (D) Initial Shut-In 1176 Circ Sub _____ T-Pulled 16:22
 (E) Second Initial Flow 78 Hourly Standby _____ T-Out 18:45
 (F) Second Final Flow 84 Mileage 74.40 Comments _____
 (G) Final Shut-In 1136 Sampler _____
 (H) Final Hydrostatic 1754 Straddle _____

Shale Packer x2 500 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1724.40
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1724.40

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 50399

Well Name & No. Randy #1 Test No. 3 Date 3-4-13
 Company Liberty Oper + Completions Elevation 2046 KB 2041 GL
 Address 308 W Mill Plainville KS 67663
 Co. Rep / Geo. Jeff Lawler Rig White Knight
 Location: Sec. 29 Twp. 10S Rge. 17W Co. Rooks State KS

Interval Tested 3560-3647 Zone Tested AirBuckle
 Anchor Length 87 Drill Pipe Run 3545 Mud Wt. 9.4
 Top Packer Depth 3555 Drill Collars Run 0 Vis 6.2
 Bottom Packer Depth 3560 Wt. Pipe Run 0 WL 12.0
 Total Depth 3647 Chlorides 10,000 ppm System LCM 2 #

Blow Description IFF-Strong Blow BoB IN 3 1/4 min
ISI-Weak Surface Blow
IFF-Strong Blow BoB IN 3 min
ISI-Weak Surface Blow Back DIED OUT IN 22min

Rec	Feet of	%gas	%oil	%water	%mud
<u>186</u>	<u>MW</u>		<u>70</u>	<u>30</u>	
<u>243</u>	<u>Gwm with oil SPOT</u>	<u>5</u>	<u>5</u>	<u>90</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 429 BHT 107 Gravity _____ API RW 328 @ 54.5° F Chlorides 27000 ppm

(A) Initial Hydrostatic 1882 Test 1150 T-On Location 6:53
 (B) First Initial Flow 6.2 Jars _____ T-Started 7:28
 (C) First Final Flow 180 Safety Joint _____ T-Open 9:48
 (D) Initial Shut-In 1181 Circ Sub _____ T-Pulled 12:38
 (E) Second Initial Flow 179 Hourly Standby _____ T-Out 15:15
 (F) Second Final Flow 248 Mileage 74.40 Comments _____
 (G) Final Shut-In 1177 Sampler _____
 (H) Final Hydrostatic 1708 Straddle _____
 Shale Packer 500 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____

Initial Open 10
 Initial Shut-In 60
 Final Flow 10
 Final Shut-In 90
 Sub Total 1724.40
 Total 1724.40
 MP/DST Disc't _____

Approved By _____ Our Representative Jeff Brown

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