



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1244633
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

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
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

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

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical 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

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



1244633

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

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

INSTRUCTIONS: Show important tops 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.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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 List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

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
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Bickle Energies LLC
Well Name	LYC 23-1
Doc ID	1244633

All Electric Logs Run

Dual Induction
Compensated Density Neutron Log
Micro Resistivity Log
Borehole Compensated Sonic Log

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

No. 1072

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

Date	1-8-15	Sec.	23	Twp.	4	Range	27	County	Decatur	State	KANSAS	On Location		Finish	2:00PM
Location								Jennings KS 1N1/2W SS							

Lease	Lyc	Well No.	25-1	Owner	To Quality Oilwell Cementing, 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	Maverick 102	Type Job	Rotary Plug	Charge To	BICKLE ENERGIES LLC
Hole Size	7 7/8	T.D.	3602'	Street	
Csg.	8 5/8 SURFACE	Depth	200'	City	State
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Tool	4 1/2 X-H	Depth	2130	Cement Amount Ordered	240 SX - 60 40 49 gel 4 F10
Cement Left in Csg.		Shoe Joint			

Meas Line	Displace		Common
EQUIPMENT			Poz. Mix
Pumptrk	20 No.	Cementer	GEL.
		Helper	Calcium
Bulktrk	No.	Driver	Hulls
		Driver	Salt
Bulktrk	9 No.	Driver	Flowseal
		Driver	Kol-Seal
JOB SERVICES & REMARKS			Mud CLR 48
Remarks:			CFL-117 or CD110 CAF 38
Rat Hole			Sand
Mouse Hole			Handling
Centralizers			Mileage
Baskets			
D/V or Port Collar			

50 SX @ @ 2130'
100 SX @ @ 1425'
50 SX @ @ 260'
10 SX @ 40' w/wiper Plug
30 SX @ Rathole

FLOAT EQUIPMENT	
Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	
Mileage	

THANKS!

X Signature *Ed E. Farmer*

Tax	
Discount	
Total Charge	

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 743

Date	12-22-14	Sec.	23	Twp.	4	Range	27	County	Decatur	State	KS	On Location		Finish	5:30 PM
Location													Jennings IN 1 1/2 W Sinto		

Lease	LYC		Well No.	23-1		Owner	To Quality Oilwell Cementing, 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	Maverick					Charge To	Bickle Energies									
Type Job	Surface					Hole Size	12 1/4	T.D.	214'		Csg.	8 5/8	Depth	214'		
Tbg. Size						Tool						Street				
Cement Left in Csg.	20'		Shoe Joint													
Meas Line						Displace	12 1/4 bbl									

EQUIPMENT				Common			
Pumptrk	5	No.	Cement Helper	David		Poz. Mix	
Bulktrk	3	No.	Driver	Ryan		Gel.	
Bulktrk	PU	No.	Driver	Brett		Calcium	

JOB SERVICES & REMARKS				Hulls			
Remarks:				Salt			
Rat Hole				Flowseal			
Mouse Hole				Kol-Seal			
Centralizers				Mud CLR 48			
Baskets				CFL-117 or CD110 CAF 38			
D/V or Port Collar				Sand			
				Handling			
				Mileage			

Cement Circulated!				FLOAT EQUIPMENT			
				Guide Shoe			
				Centralizer			
				Baskets			
				AFU Inserts			
				Float Shoe			
				Latch Down			
				Pumptrk Charge			
				Mileage			

Signature			Paul E. Lamm		Tax	
					Discount	
					Total Charge	



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave.
Hays KS 67601

Lyc #23-1

Job Ticket: 62560

DST#: 1

ATTN: Eli Fells / Jeff Bur

Test Start: 2015.01.01 @ 17:14:00

GENERAL INFORMATION:

Formation: **Tarkio**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:29:40

Time Test Ended: 00:53:20

Test Type: Conventional Bottom Hole (Initial)

Tester: Donovan Baumann

Unit No: 78

Interval: 3178.00 ft (KB) To 3245.00 ft (KB) (TVD)

Reference Elevations: 2574.00 ft (KB)

Total Depth: 3245.00 ft (KB) (TVD)

2567.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 6752 Inside

Press @ Run Depth: 41.30 psig @ 3179.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.01

End Date: 2015.01.02

Last Calib.: 2015.01.02

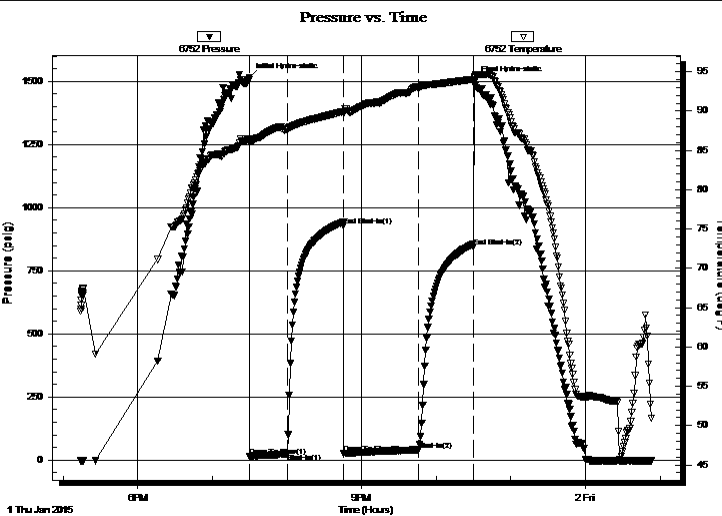
Start Time: 17:14:01

End Time: 00:53:20

Time On Btm: 2015.01.01 @ 19:29:30

Time Off Btm: 2015.01.01 @ 22:31:00

TEST COMMENT: 30 - IF - Weak surface blow built to 3 3/4 in. in 30 min.
45 - ISI - Weak return started 10 min. in and stayed for the rest of the shut-in
60 - FF - Weak surface blow built to 4 1/2 in. in 60 min.
45 - FSI - Weak return stayed for the shut-in



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1515.90	86.35	Initial Hydro-static
1	14.67	86.09	Open To Flow (1)
31	26.20	87.75	Shut-In(1)
76	928.55	89.93	End Shut-In(1)
77	26.16	89.73	Open To Flow (2)
137	41.30	93.02	Shut-In(2)
181	844.67	94.05	End Shut-In(2)
182	1501.35	94.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	WCM - 5W - 95M	0.70

Gas Rates

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



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave.
Hays KS 67601

Lyc #23-1

Job Ticket: 62560

DST#: 1

ATTN: Eli Fells / Jeff Bur

Test Start: 2015.01.01 @ 17:14:00

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: 49.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 750.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	WCM - 5W - 95M	0.701

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

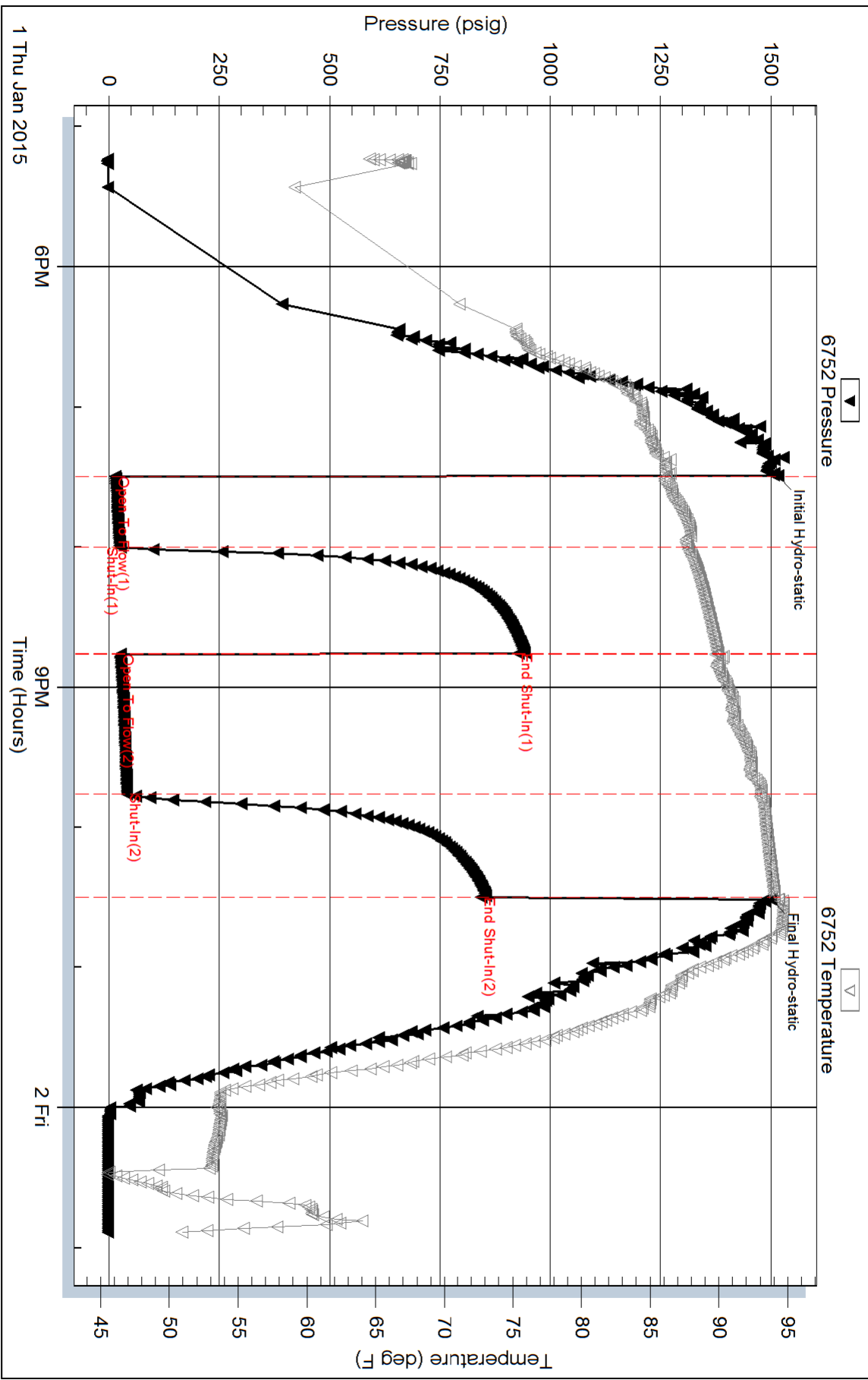
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave.
Hays KS 67601

Lyc #23-1

Job Ticket: 62139

DST#: 2

ATTN: Eli Fells / Jeff Bur

Test Start: 2015.01.02 @ 11:07:00

GENERAL INFORMATION:

Formation: **Howard Lime**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:59:50

Time Test Ended: 18:43:39

Test Type: Conventional Bottom Hole (Initial)

Tester: Donovan Baumann

Unit No: 78

Interval: 3253.00 ft (KB) To 3270.00 ft (KB) (TVD)

Reference Elevations: 2574.00 ft (KB)

Total Depth: 3270.00 ft (KB) (TVD)

2567.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 6752 Inside

Press @ Run Depth: 48.17 psig @ 3254.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.02 End Date: 2015.01.02

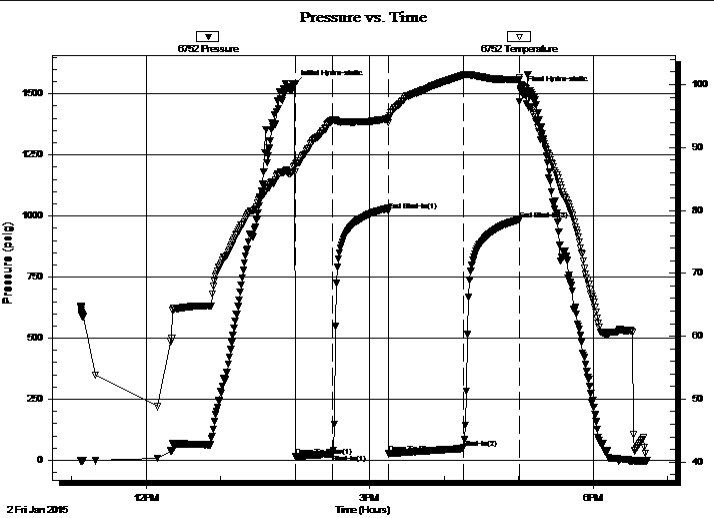
Last Calib.: 2015.01.02

Start Time: 11:07:01 End Time: 18:43:40

Time On Btm: 2015.01.02 @ 13:59:40

Time Off Btm: 2015.01.02 @ 17:01:30

TEST COMMENT: 30 - IF - Strong surface blow built up to 5 in. in 30 min. (In Diesel)
45 - ISI - Real weak return started 6 min. in and stayed for the shut-in
60 - FF - Weak surface blow built to 5 1/2 in. in 60 min.
45 - FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1538.66	87.04	Initial Hydro-static
1	17.56	86.17	Open To Flow (1)
31	26.15	94.34	Shut-In(1)
76	1022.54	94.51	End Shut-In(1)
76	27.25	93.98	Open To Flow (2)
136	48.17	101.48	Shut-In(2)
181	985.66	100.80	End Shut-In(2)
182	1514.51	99.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
75.00	WCM - 45W - 55M	1.05

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave.
Hays KS 67601

Lyc #23-1

Job Ticket: 62139

DST#: 2

ATTN: Eli Fells / Jeff Bur

Test Start: 2015.01.02 @ 11:07:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
75.00	WCM - 45W - 55M	1.052

Total Length: 75.00 ft Total Volume: 1.052 bbl

Num Fluid Samples: 0

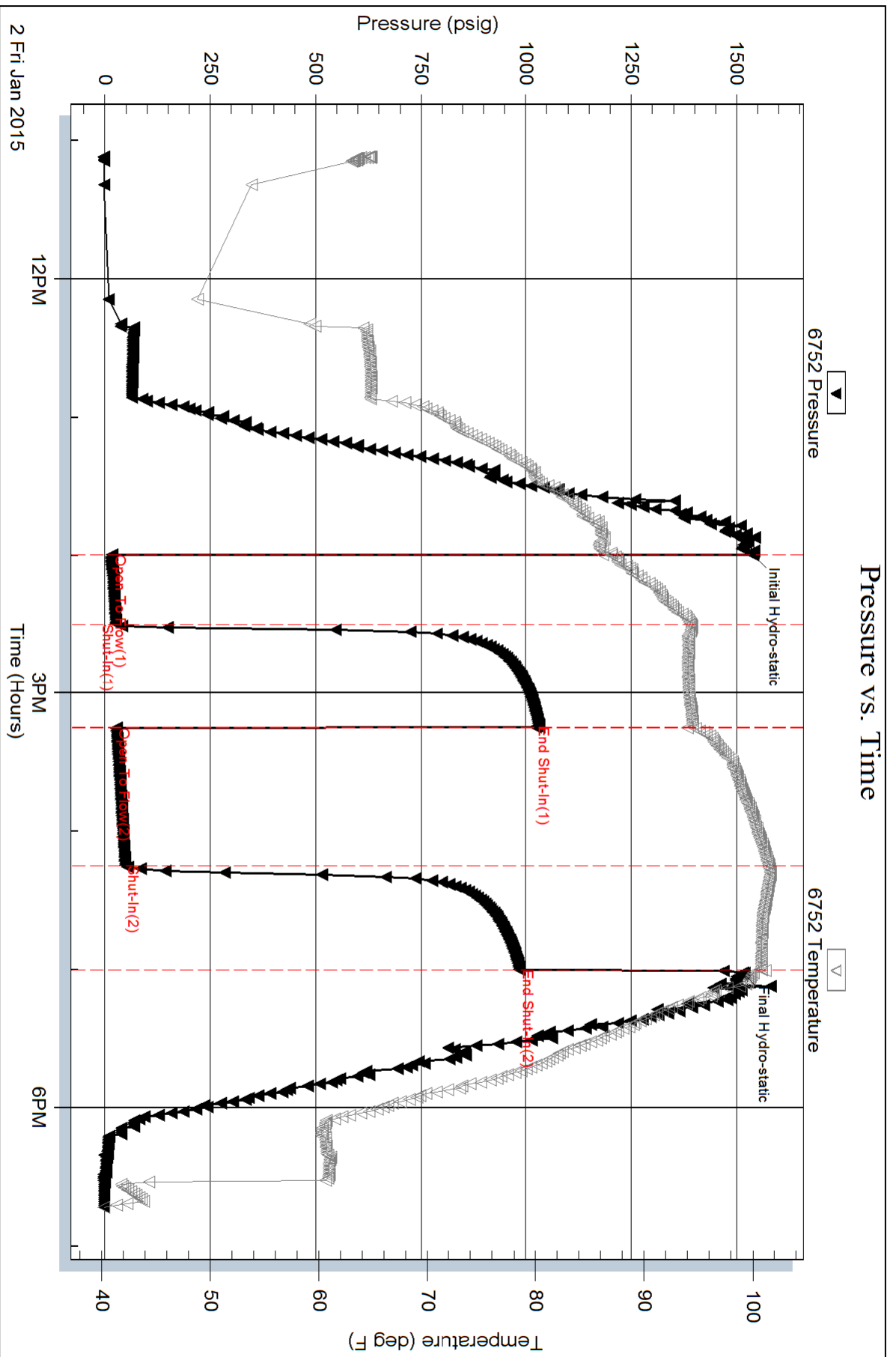
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
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DRILL STEM TEST REPORT

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave.
Hays KS 67601

Lyc #23-1

Job Ticket: 62140

DST#: 3

ATTN: Eli Fells / Jeff Bur

Test Start: 2015.01.03 @ 07:30:00

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:46:20

Time Test Ended: 14:48:20

Test Type: Conventional Bottom Hole (Initial)

Tester: Donovan Baumann

Unit No: 78

Interval: 3303.00 ft (KB) To 3350.00 ft (KB) (TVD)

Reference Elevations: 2574.00 ft (KB)

Total Depth: 3350.00 ft (KB) (TVD)

2567.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 6752 Inside

Press @ Run Depth: 169.02 psig @ 3304.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.03

End Date: 2015.01.03

Last Calib.: 2015.01.03

Start Time: 07:30:01

End Time: 14:48:20

Time On Btm: 2015.01.03 @ 09:46:10

Time Off Btm: 2015.01.03 @ 12:47:39

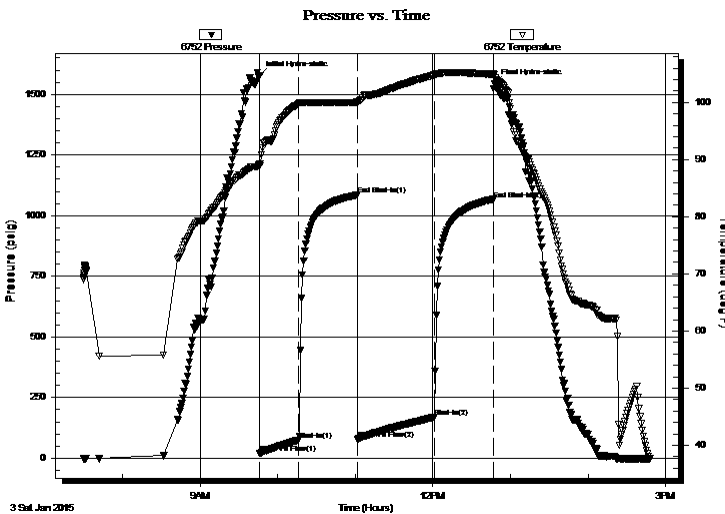
TEST COMMENT: 30 - IF - Strong surface blow built to BOB in 14 min. (In Diesel)

45 - ISI - No return

60 - FF - Strong surface blow built to BOB in 20 min.

45 - FSI - No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1576.65	89.19	Initial Hydro-static
1	19.22	88.87	Open To Flow (1)
31	75.32	99.86	Shut-In(1)
76	1085.04	100.03	End Shut-In(1)
76	79.49	99.84	Open To Flow (2)
135	169.02	104.78	Shut-In(2)
181	1067.61	104.93	End Shut-In(2)
182	1544.52	104.91	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
63.00	WCM - 5W - 95M	0.88
189.00	MCW - 35M - 65W	2.65
73.00	OSWCM - Oil spots - 45W - 55M	1.02

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave.
Hays KS 67601

Lyc #23-1

Job Ticket: 62140

DST#: 3

ATTN: Eli Fells / Jeff Bur

Test Start: 2015.01.03 @ 07:30:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
63.00	WCM - 5W - 95M	0.884
189.00	MCW - 35M - 65W	2.651
73.00	OSWCM - Oil spots - 45W - 55M	1.024

Total Length: 325.00 ft Total Volume: 4.559 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

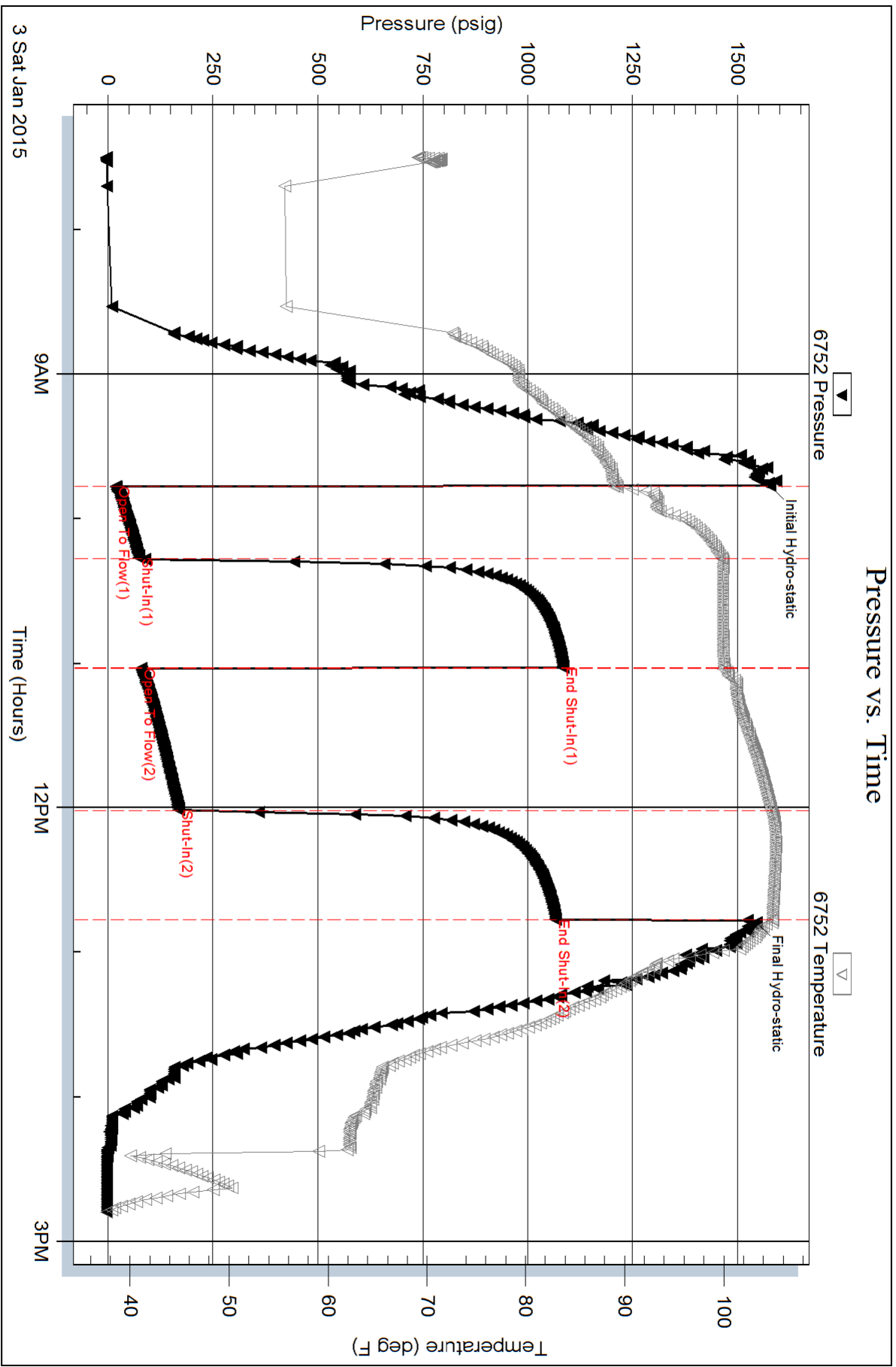
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: API RW - .34 @ 37 DEG

Chlorides - 42000 ppm





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave.
Hays KS 67601

Lyc #23-1

Job Ticket: 62561

DST#: 4

ATTN: Eli Fells / Jeff Bur

Test Start: 2015.01.04 @ 10:32:00

GENERAL INFORMATION:

Formation: **Toronto - LKC " A "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:36:20

Time Test Ended: 18:21:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 3448.00 ft (KB) To 3502.00 ft (KB) (TVD)

Total Depth: 3502.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2574.00 ft (KB)

2567.00 ft (CF)

KB to GR/CF: 7.00 ft

Serial #: 6752 Inside

Press @ Run Depth: 31.63 psig @ 3449.00 ft (KB)

Start Date: 2015.01.04

End Date:

2015.01.04

Start Time: 10:32:01

End Time:

18:21:10

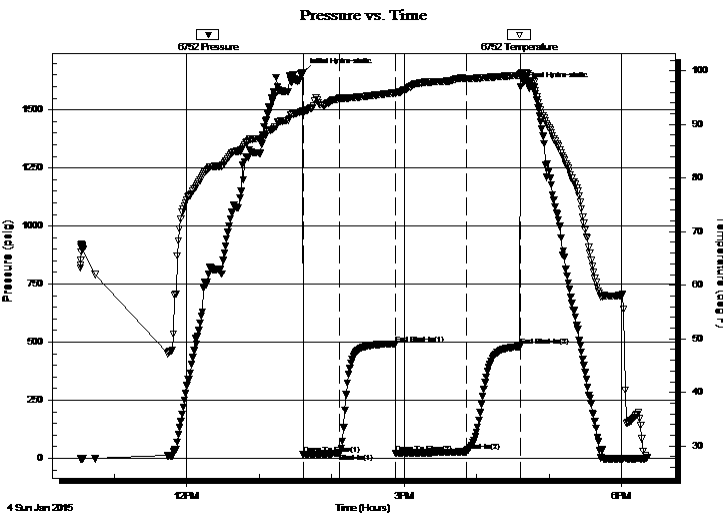
Capacity: 8000.00 psig

Last Calib.: 2015.01.04

Time On Btm: 2015.01.04 @ 13:36:10

Time Off Btm: 2015.01.04 @ 16:36:39

TEST COMMENT: 30 IF - 1/2" blow built to 2" (in diesel)
45 ISI - Surface blow
60 FF - Surface blow built to 1"
45 FSI - No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1661.15	92.47	Initial Hydro-static
1	15.34	91.98	Open To Flow (1)
31	20.15	94.85	Shut-In(1)
77	491.15	95.91	End Shut-In(1)
77	20.94	95.74	Open To Flow (2)
136	31.63	98.59	Shut-In(2)
181	481.17	99.19	End Shut-In(2)
181	1598.76	99.40	Final Hydro-static

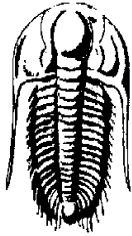
Recovery

Length (ft)	Description	Volume (bbl)
30.00	OCM - 15%o - 85%M	0.42

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Bickle Energies
 2052 250th Ave.
 Hays KS 67601
 ATTN: Eli Fells / Jeff Bur

23-4S-27W Decatur KS

Lyc #23-1

Job Ticket: 62561 **DST#: 4**
 Test Start: 2015.01.04 @ 10:32:00

GENERAL INFORMATION:

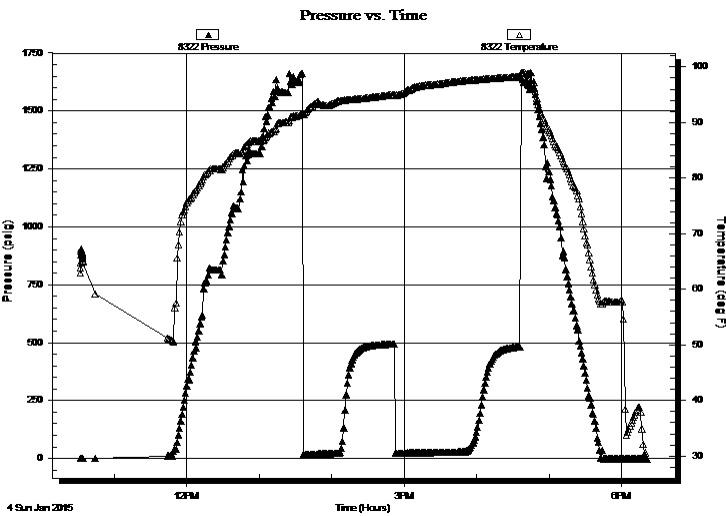
Formation: **Toronto - LKC " A "**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 13:36:20 Tester: Ryan Nichols
 Time Test Ended: 18:21:09 Unit No: 78

Interval: 3448.00 ft (KB) To 3502.00 ft (KB) (TVD) Reference Elevations: 2574.00 ft (KB)
 Total Depth: 3502.00 ft (KB) (TVD) 2567.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 7.00 ft

Serial #: 8322 Outside

Press @RunDepth: psig @ 3449.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.01.04 End Date: 2015.01.04 Last Calib.: 2015.01.04
 Start Time: 10:32:01 End Time: 18:21:10 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30 IF - 1/2" blow built to 2" (in diesel)
 45 ISI - Surface blow
 60 FF - Surface blow built to 1"
 45 FSI - No return

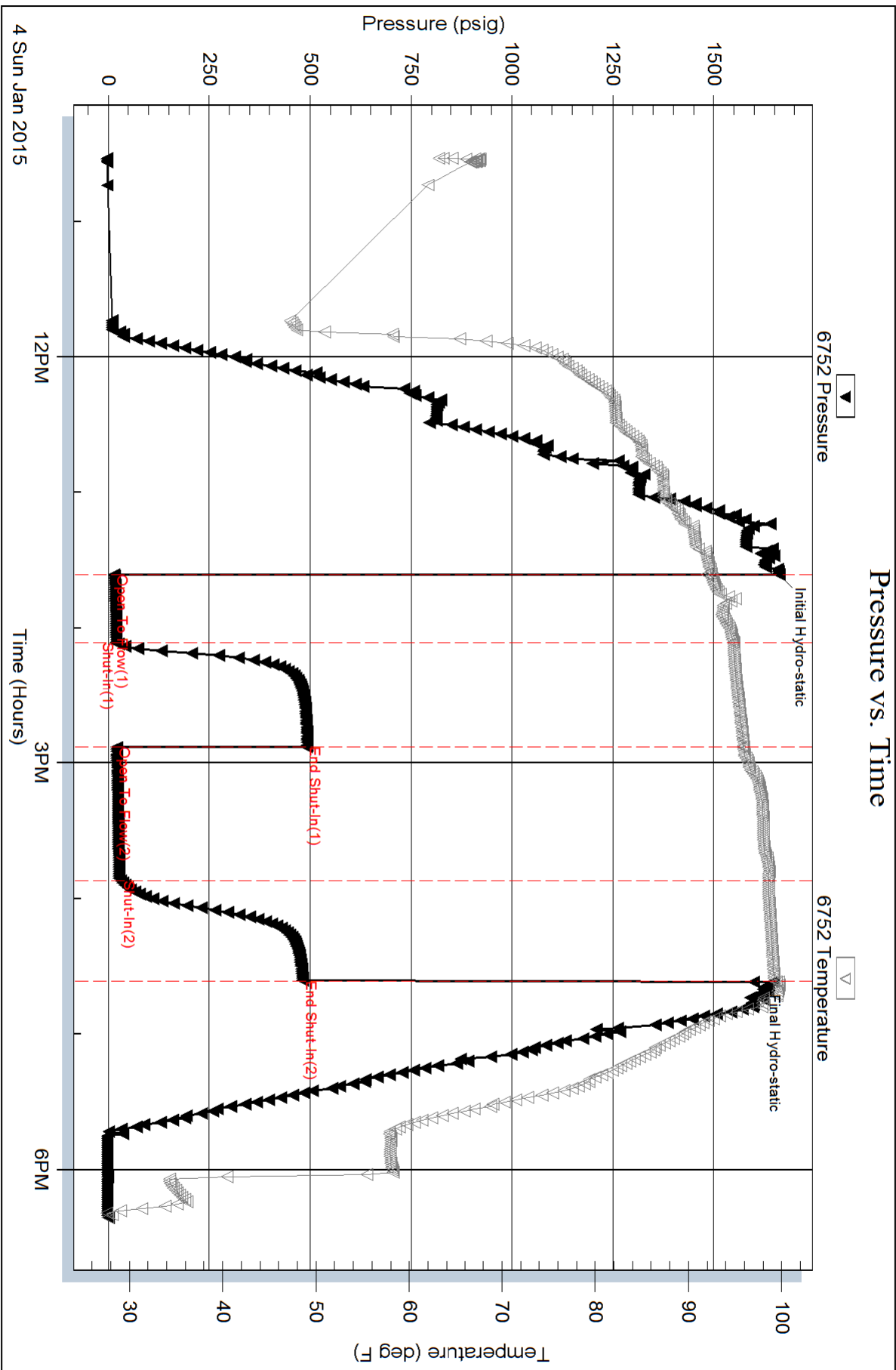


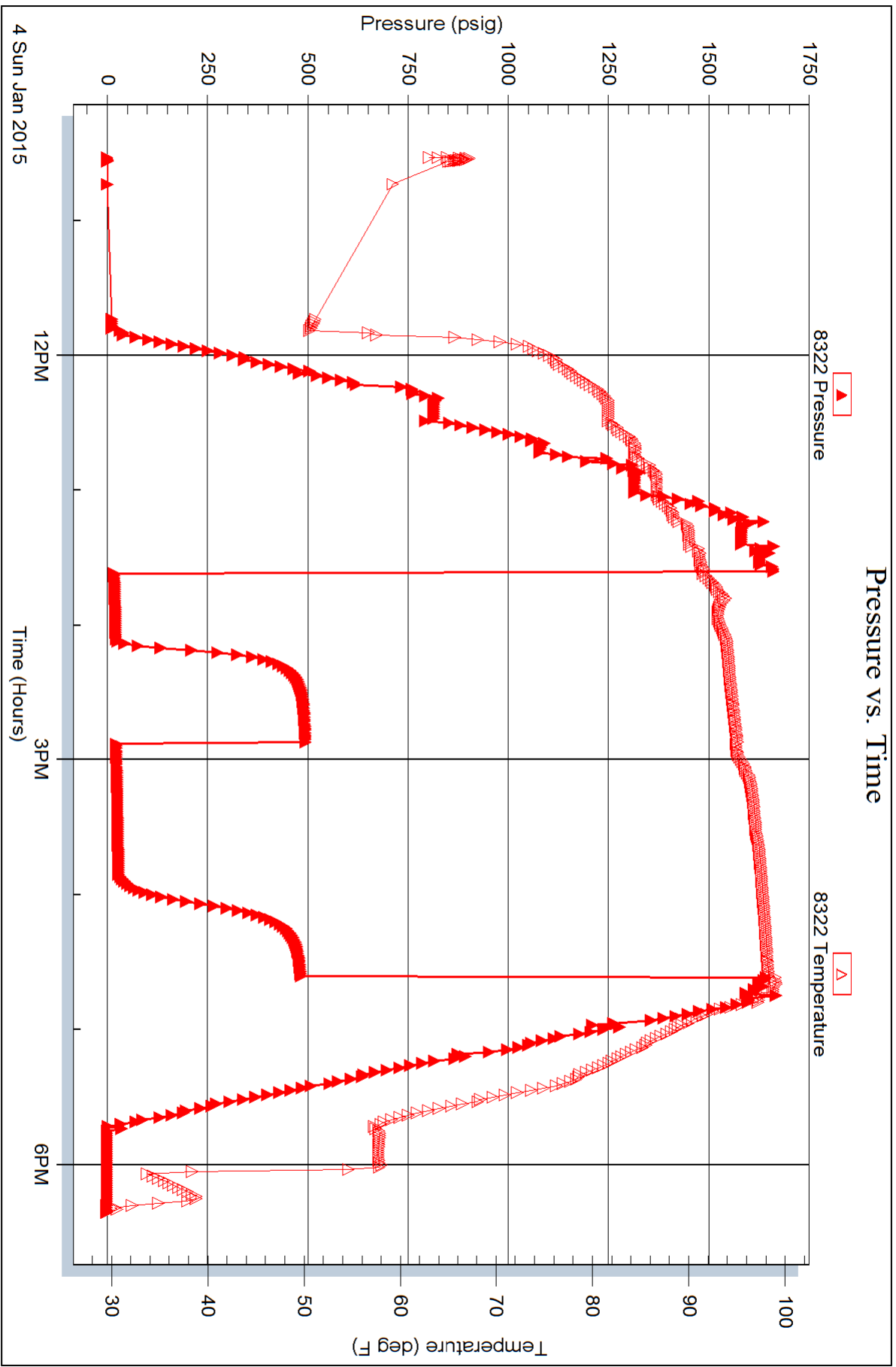
PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery		
Length (ft)	Description	Volume (bbl)
30.00	OCM - 15%o - 85%M	0.42

* Recovery from multiple tests

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







**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave.
Hays KS 67601

Lyc #23-1

Job Ticket: 62562

DST#: 5

ATTN: Eli Fells / Jeff Bur

Test Start: 2015.01.05 @ 04:34:00

GENERAL INFORMATION:

Formation: **LKC " B - D "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:28:20

Time Test Ended: 13:55:40

Test Type: Conventional Bottom Hole (Reset)

Tester: Donovan Baumann

Unit No: 78

Interval: 3501.00 ft (KB) To 3540.00 ft (KB) (TVD)

Reference Elevations: 2574.00 ft (KB)

Total Depth: 3540.00 ft (KB) (TVD)

2567.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 6752

Inside

Press@RunDepth: 456.70 psig @ 3502.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.05

End Date:

2015.01.05

Last Calib.:

2015.01.05

Start Time: 04:34:01

End Time:

13:55:40

Time On Btm:

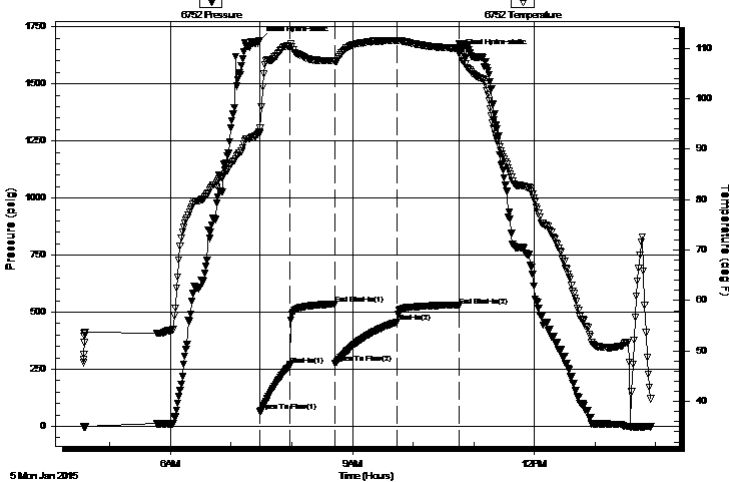
2015.01.05 @ 07:28:00

Time Off Btm:

2015.01.05 @ 10:45:39

TEST COMMENT: 30 IF - 2" blow built to BoB @ 2 mins
45 ISI - Surface blow built to 2"
60 FF - 1" blow built to BoB @ 6 mins
60 FSI - Surface blow built to 1 3/4"

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1689.19	93.36	Initial Hydro-static
1	65.33	93.14	Open To Flow (1)
31	269.26	110.31	Shut-In(1)
75	535.38	107.51	End Shut-In(1)
75	276.96	107.41	Open To Flow (2)
136	456.70	111.46	Shut-In(2)
198	528.93	109.93	End Shut-In(2)
198	1631.79	109.83	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	GOWCM - 10%G - 5%o - 25%W - 60%M	0.60
186.00	GOMCW - 10%G - 10%o - 20%M - 60%W	2.61
301.00	GOMCW - 5%G - 10%o - 10%M - 75%W	4.22
248.00	GOMCW - 15%G - 15%o - 20%M - 50%W	3.48
40.00	GO - 10%G - 90%o	0.56
0.00	217' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave.
Hays KS 67601

Lyc #23-1

Job Ticket: 62562

DST#: 5

ATTN: Eli Fells / Jeff Bur

Test Start: 2015.01.05 @ 04:34:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1250.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	GOWCM - 10%G - 5%o - 25%W - 60%M	0.596
186.00	GOMCW - 10%G - 10%o - 20%M - 60%W	2.609
301.00	GOMCW - 5%G - 10%o - 10%M - 75%W	4.222
248.00	GOMCW - 15%G - 15%o - 20%M - 50%W	3.479
40.00	GO - 10%G - 90%o	0.561
0.00	217' GIP	0.000

Total Length: 837.00 ft Total Volume: 11.467 bbl

Num Fluid Samples: 0

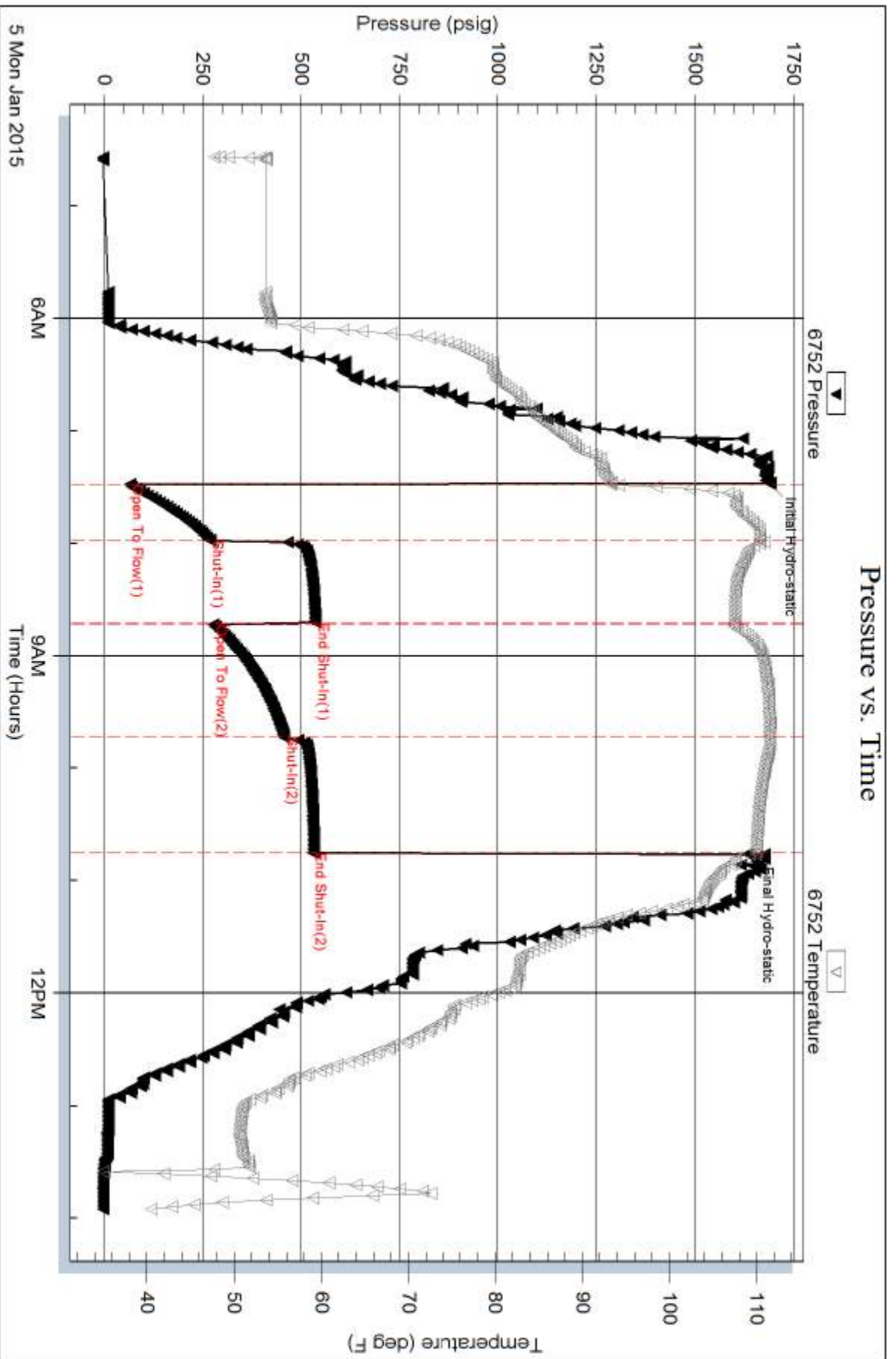
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: OIL API = 38 @ 50 DEG F = 39 COR 60 DEG F





**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave
Hays KS 67601

Lyc #23-1

Job Ticket: 62563

DST#: 6

ATTN: Eli Felts - Jeff Bur

Test Start: 2015.01.06 @ 07:25:00

GENERAL INFORMATION:

Formation: **LKC " H "**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 09:53:30

Time Test Ended: 15:42:20

Test Type: Conventional Bottom Hole (Reset)

Tester: Ryan Nichols

Unit No: 78

Interval: 3538.00 ft (KB) To 3610.00 ft (KB) (TVD)

Reference Elevations: 2574.00 ft (KB)

Total Depth: 3610.00 ft (KB) (TVD)

2567.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 7.00 ft

Serial #: 6752

Inside

Press@RunDepth: 626.45 psig @ 3539.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.01.06

End Date:

2015.01.06

Last Calib.:

2015.01.06

Start Time: 07:25:01

End Time:

15:42:20

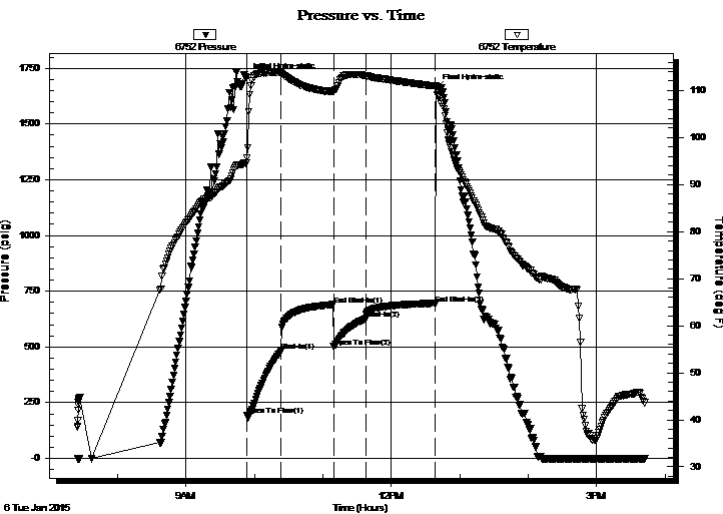
Time On Btm:

2015.01.06 @ 09:53:00

Time Off Btm:

2015.01.06 @ 12:39:00

TEST COMMENT: 30 IF - BoB @ 50 secs (in diesel)
45 ISI - Surface blow started @ 10 mins
30 FF - BoB @ 3 mins
60 ISI - Surface blow started @ 6 mins built to 2"



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1709.40	94.62	Initial Hydro-static
1	191.65	95.56	Open To Flow (1)
31	480.59	113.70	Shut-In(1)
77	689.96	109.73	End Shut-In(1)
77	501.08	109.65	Open To Flow (2)
105	626.45	113.12	Shut-In(2)
166	694.01	110.92	End Shut-In(2)
166	1659.83	110.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	MCW - 45%M - 55%W	0.60
434.00	OMCW - 5%o - 5%M - 90%W	6.09
558.00	OMCW - 5%o - 15%M - 90%W	7.83
186.00	GOMCW - 5%G - 5%o - 35%M - 55%W	2.61
62.00	OMCW - 10%o - 40%M - 50%W	0.87
0.00	30' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Bickle Energies

23-4S-27W Decatur KS

2052 250th Ave
Hays KS 67601

Lyc #23-1

Job Ticket: 62563

DST#: 6

ATTN: Eli Felts - Jeff Bur

Test Start: 2015.01.06 @ 07:25:00

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:

57000 ppm

Viscosity: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.99 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
62.00	MCW - 45%M - 55%W	0.596
434.00	OMCW - 5%o - 5%M - 90%W	6.088
558.00	OMCW - 5%o - 15%M - 90%W	7.827
186.00	GOMCW - 5%G - 5%o - 35%M - 55%W	2.609
62.00	OMCW - 10%o - 40%M - 50%W	0.870
0.00	30' GIP	0.000

Total Length: 1302.00 ft Total Volume: 17.990 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

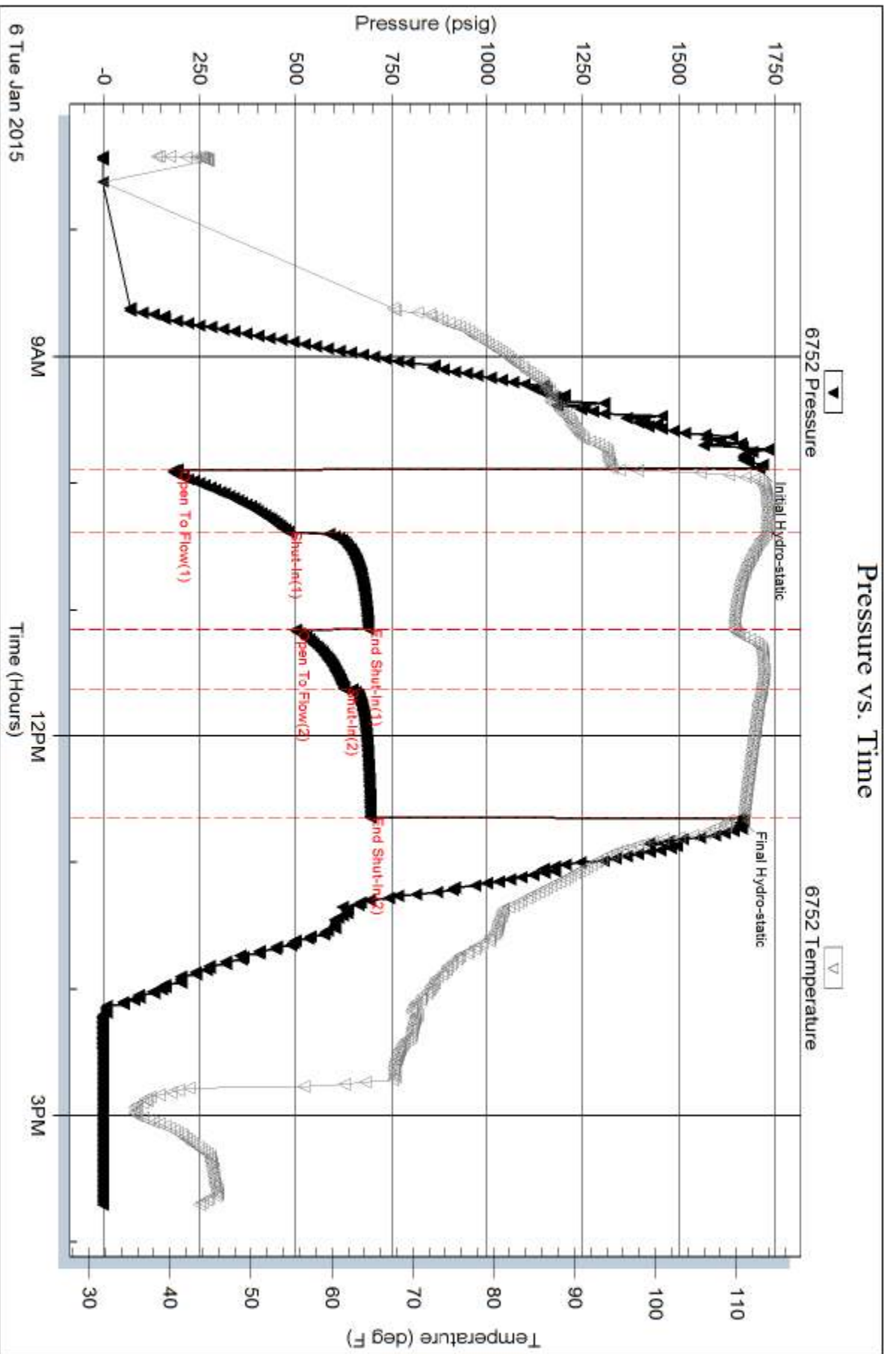
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW - .283 @ 34 DEG F

CHLORIDES - 57,000 PPM



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