

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

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
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> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Mid-Continent Energy Corp.
Well Name	NATIONAL LOAN 4-1
Doc ID	1378709

Tops

Name	Top	Datum
Anhydrite Top	973	853
Anhydrite Base	1018	808
Topeka	2747	-921
Heebner	2995	-1169
Lansing	3044	-1218
Stark	3240	-1414
Marmaton	3300	-1474
Simpson Shale	3390	-1564
Arbuckle	3417	-1649



PETERA CONSULTING SERVICES LTD. Scale 1:240 (5"-100') Imperial Measured Depth Log

Well Name: National Loan 4-1
API: 15-051-26886
Location: SW SE NE SW of Section (1) 12s 16w
License Number: 8/21/2017
Spud Date: 8/21/2017
Surface Coordinates: Longitude (NAD27): -99.0489759 Latitude (NAD27): 39.0343752
Bottom Hole Coordinates: Longitude (NAD27): -99.0489759 Latitude (NAD27): 39.0343752
Ground Elevation (ft): 1821' **K.B. Elevation (ft):** 1826'
Logged Interval (ft): 2500' **To:** 3479' **Total Depth (ft):** 3479'
Formation: Arbuckle Dolomite @ Total Depth
Type of Drilling Fluid: Chemical Drispac (Mudco)

OPERATOR

Company: Mid-Continent Energy Corp.
Address: 100 S. Broadway Suite 360 Wichita, KS 67202-4280

GEOLOGIST

Name: Eli J. Felts
Company: Petera Energy Services, LLC
Address: 7701 E. Kellogg Drive Suite #625 Wichita, KS 67202 (316) 204-5059

REFERENCE WELLS E-LOG TOPS

FORMATION	Check Structural Reference		E-L #1		E-L #2		Elevation	Depth
	ML (ft)	ML (m)	Mid-Continent Energy	Mid-Continent Energy	Mid-Continent Energy	Mid-Continent Energy		
Anhydrite Top	973	543	940	454	975	454	903	842
Anhydrite Base	1015	608	+1.0	+2.0	979	507	1174	808
Topkapi	2747	1671	+1.0	+3.0	2052	1022	2741	1524
Heabner	2955	-1169	+1.0	+2.0	2565	-1170	2951	-1171
Lansing	3644	-21	+2.0	+3.0	3005	-220	3644	-221
Stark	3340	-1414	+4.0	+5.0	3203	-1418	3338	-1418
Shank	3300	-1474	+4.0	+5.0	3260	-1475	3294	-1474
Simpson	3350	-1564	+1.0	+1.0	3360	-1625	3388	-1574
Arbuckle	3417	-1591	+1.0	+4.0	3487	-1692	3415	-1585
RTD	3479	-1649	+4.0	+5.0	3486	-1758	3450	-1759

DRILL STEM TEST REPORT

Mid-Continent Energy Corp. **1-12S-16W Ellis, KS**
National Loan #4-1
 Job Ticket: 63295 **DBT#1**
 Test Start: 2017.08.29 @ 10:52:27

GENERAL INFORMATION:
 Formation: **LHC 7"**
 Deviated: No **Whisperlock:** fl (DB)
 Time Test Opened: 13:26:17
 Time Test Ended: 17:30:53
 Interval: **2753.00 ft (DB) To 2796.00 ft (DB) (TVS)**
 Total Depth: **2782.00 ft (DB) (TVS)**
 Hole Diameter: **7.88 inches** **Condition:** Fair

Serial #: 6753
Pressure/Depth: 47.94 psi @ 3073.00 ft (DB)
 Start Date: 2017.08.29 End Date: 2017.08.29
 Start Time: 12:46:22 End Time: 18:10:52

TEST COMMENT: 30-FF: Surface blow died in 11 mins
 60-FF: BCB 2mins
 60-FF: BCB 5mins
 60-FF: No blow

REFERENCE ELEVATIONS: 1826.00 ft (DB) **1821.00 ft (CP)**
 5.00 ft (R)

CLASSIFICATION: Conventional Bottom Hole (Reset)
 Branham Lossback
 Unit No: 73

Pressure Summary:
 Time (Min): Pressure (psig) Temp (deg F) Airflow (SCFM)
 0 1309.62 96.58 Initial Hydro-static
 1 1507.12 96.47 Initial Hydro-static
 2 1507.12 96.47 Initial Hydro-static
 3 1507.12 96.47 Initial Hydro-static
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 30 1507.12 96.47 Initial Hydro-static
 31 43.68 96.51 End (SH-H2)
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 49 43.68 96.51 End (SH-H2)
 50 43.68 96.51 End (SH-H2)
 51 691.93 97.07 End (SH-H2)
 52 691.93 97.07 End (SH-H2)
 53 1296.13 97.25 Final Hydro-static

Recovery:
 Length (ft) Volume (bbl) Value (psi)
 65.00 SOCM 5%CO 20%VW 20%VM 0.32

Gas Rates:
 Classification Pressure (psig) Unit Rate (scfm)

Trilobite Testing, Inc. Ref. No: 63295 Printed: 2017.08.29 @ 19:42:27

DRILL STEM TEST REPORT

Mid-Continent Energy Corp. **1-12S-16W Ellis, KS**
National Loan #4-1
 Job Ticket: 63296 **DBT#2**
 Test Start: 2017.08.27 @ 09:49:37

GENERAL INFORMATION:
 Formation: **Toronto-LHC 7"**
 Deviated: No **Whisperlock:** fl (DB)
 Time Test Opened: 18:15:27
 Time Test Ended: 17:30:53
 Interval: **2954.00 ft (DB) To 3006.00 ft (DB) (TVS)**
 Total Depth: **2940.00 ft (DB) (TVS)**
 Hole Diameter: **7.88 inches** **Condition:** Fair

Serial #: 6753
Pressure/Depth: 47.94 psi @ 3073.00 ft (DB)
 Start Date: 2017.08.27 End Date: 2017.08.27
 Start Time: 12:46:22 End Time: 18:10:52

TEST COMMENT: 30-FF: BCB 2mins
 60-FF: BCB 5mins
 60-FF: BCB 5mins
 60-FF: No blow

REFERENCE ELEVATIONS: 1826.00 ft (DB) **1821.00 ft (CP)**
 5.00 ft (R)

CLASSIFICATION: Conventional Bottom Hole (Reset)
 Branham Lossback
 Unit No: 73

Pressure Summary:
 Time (Min): Pressure (psig) Temp (deg F) Airflow (SCFM)
 0 1459.17 100.09 Initial Hydro-static
 1 1459.17 100.09 Initial Hydro-static
 2 1459.17 100.09 Initial Hydro-static
 3 1459.17 100.09 Initial Hydro-static
 4 1459.17 100.09 Initial Hydro-static
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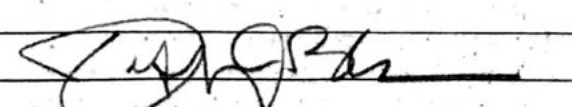
QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 375

Date	9-1-17	Sec.	1	Twp.	12	Range	16	County	Ellis	State	KS	On Location		Finish	11:45 A.M.
Lease								National Loan		Well No.		4-1			
Contractor								WW #4		Owner					
Type Job								Production String		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.					
Hole Size				7 7/8		T.D.		3475							
Csg.				5 1/2		Depth		3472							
Tbg. Size						Depth									
Tool						Depth									
Cement Left in Csg.				21.80		Shoe Joint		21.80							
Meas Line						Displace		80BCL							
EQUIPMENT								500 gal mud Clear							
Pumptrk				20		No.		Cement		Craig					
Bulktrk						No.		Helper		Brett					
Bulktrk				15		No.		Driver		David					
JOB SERVICES & REMARKS															
Remarks:								Hulls							
Rat Hole								30SK							
Mouse Hole															
Centralizers															
Baskets															
D/V or Port Collar															
5 1/2 size @ 3472								Baskets @ 3450.00							
PSA Circulation Pump								500 gal mud							
@ 1000 spacer								Plug Reel hole.							
M x 170SK + Displace								Phg. 1/2 20BCL							
K.L. Plug landed @								1800*							
Release pressure															
FLOAT EQUIPMENT															
								Guide Shoe							
								Centralizer 6							
								Baskets 2							
								AFU Inserts							
								Float Shoe 1							
								Latch Down 1							
								Pumptrk Charge							
								Mileage							
								Tax							
								Discount							
								Total Charge							
Signature															



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63291

DST#: 1

Test Start: 2017.08.26 @ 10:50:23

GENERAL INFORMATION:

Formation: **Topeka**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:29:53

Time Test Ended: 17:30:53

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 2753.00 ft (KB) To 2786.00 ft (KB) (TVD)

Reference Elevations: 1824.00 ft (KB)

Total Depth: 2786.00 ft (KB) (TVD)

1819.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Poor

KB to GR/CF: 5.00 ft

Serial #: 6753

Press@RunDepth: 47.76 psig @ ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.26

End Date: 2017.08.26

Last Calib.: 2017.08.26

Start Time: 10:50:28

End Time: 17:30:52

Time On Btm: 2017.08.26 @ 13:28:53

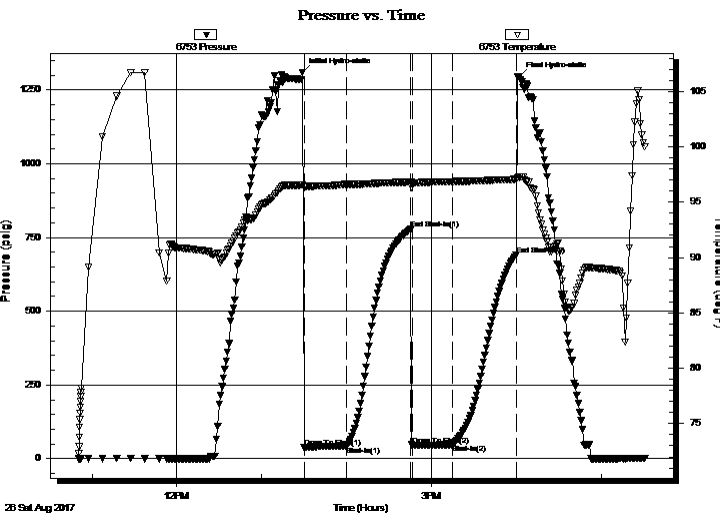
Time Off Btm: 2017.08.26 @ 16:01:53

TEST COMMENT: 30- IF- Surface blow died in 11mins

45- IS- No blow

30- FF- No blow

45- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1309.62	96.58	Initial Hydro-static
1	37.46	96.40	Open To Flow (1)
31	43.68	96.61	Shut-In(1)
77	777.64	96.83	End Shut-In(1)
78	45.06	96.69	Open To Flow (2)
106	47.76	96.86	Shut-In(2)
151	691.93	97.07	End Shut-In(2)
153	1296.13	97.25	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
65.00	SOCM, 5%O 95%M	0.32

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63291

DST#: 1

Test Start: 2017.08.26 @ 10:50:23

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 51.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4600.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
65.00	SOCM, 5%O 95%M	0.320

Total Length: 65.00 ft Total Volume: 0.320 bbl

Num Fluid Samples: 0

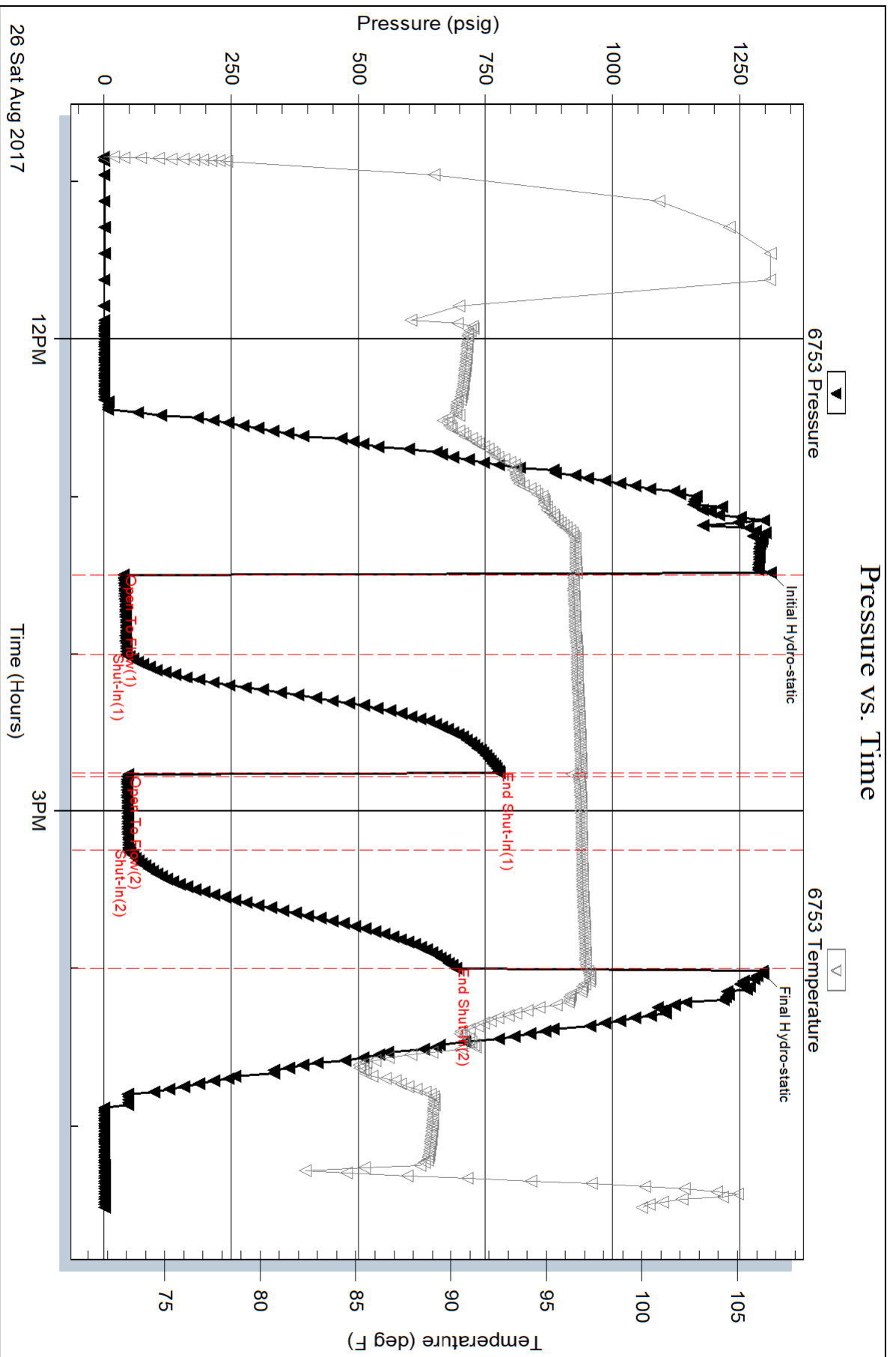
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



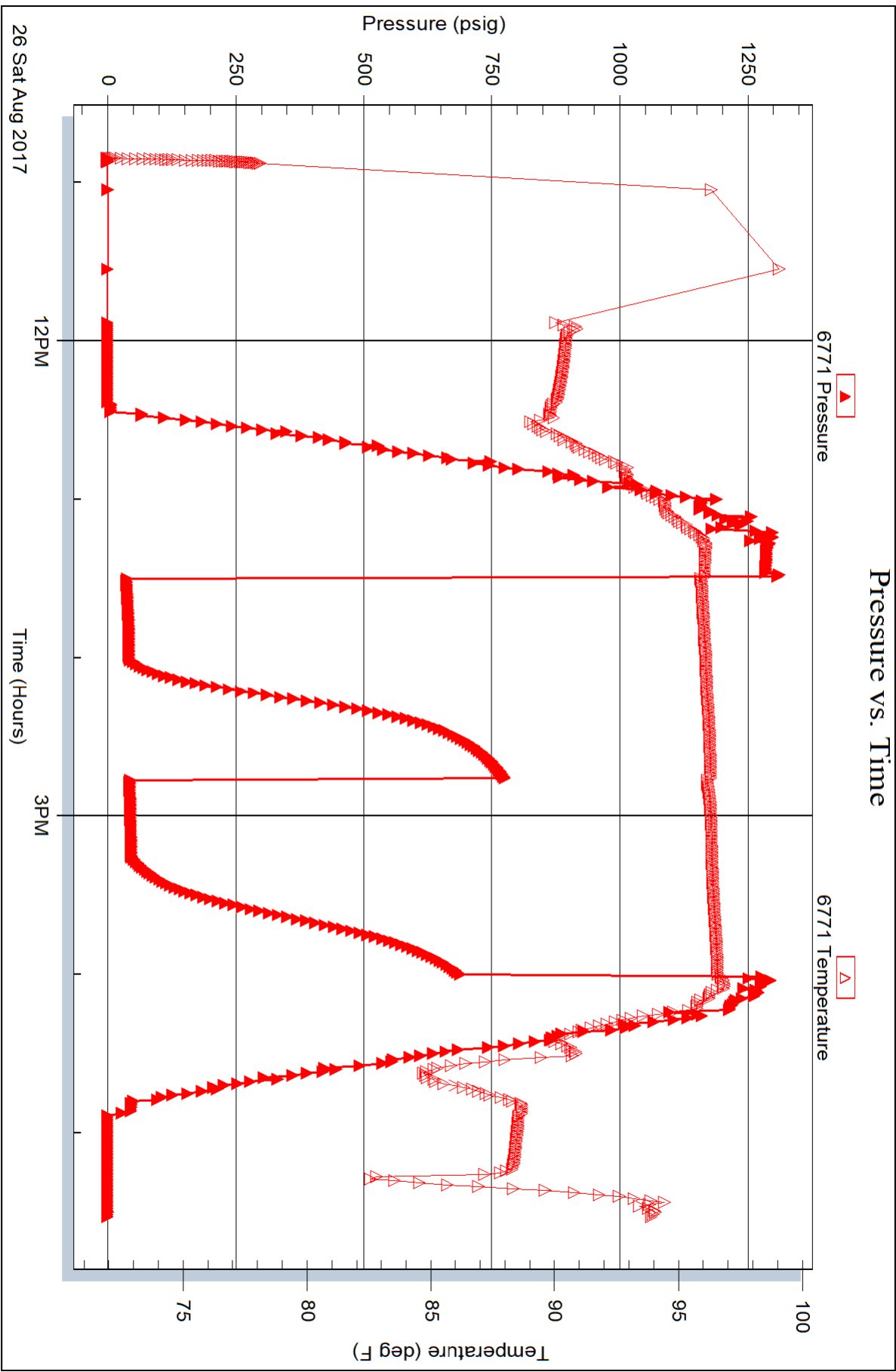
Serial #: 6771

Inside

Mtd- Continent Energy Corp.

National Loan #4-1

DST Test Number: 1





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63292

DST#: 2

Test Start: 2017.08.27 @ 08:49:27

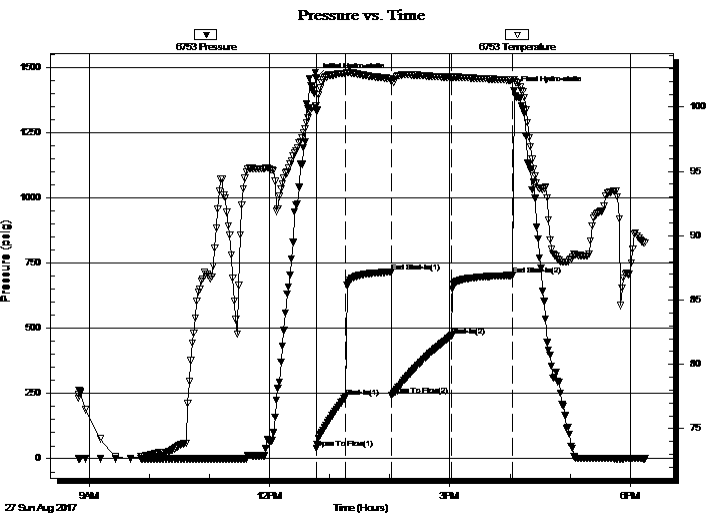
GENERAL INFORMATION:

Formation: **Toronto- LKC "A"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 12:46:57
 Time Test Ended: 18:15:27
 Interval: **2990.00 ft (KB) To 3054.00 ft (KB) (TVD)**
 Total Depth: 3054.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brannan Lonsdale
 Unit No: 73
 Reference Elevations: 1826.00 ft (KB)
 1821.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6753

Press@RunDepth: 471.94 psig @ ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.08.27 End Date: 2017.08.27 Last Calib.: 2017.08.27
 Start Time: 08:49:32 End Time: 18:15:27 Time On Btm: 2017.08.27 @ 12:46:27
 Time Off Btm: 2017.08.27 @ 16:03:57

TEST COMMENT: 30- IF- BOB 4mins
 45- IS- Surface blow for 18mins then intermittent
 60- FF- BOB 6mins
 60- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1459.17	100.09	Initial Hydro-static
1	39.21	99.72	Open To Flow (1)
30	236.95	102.59	Shut-In(1)
75	716.03	102.20	End Shut-In(1)
76	242.24	101.93	Open To Flow (2)
136	471.94	102.28	Shut-In(2)
196	703.14	102.09	End Shut-In(2)
198	1411.61	102.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
879.00	MW, 10%M 90%W	11.34
94.00	WOCM, 25%W 5%O 75%M	1.33
0.00	31' 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

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63292

DST#: 2

Test Start: 2017.08.27 @ 08:49:27

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

93000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
879.00	MW, 10%M 90%W	11.340
94.00	WOCM, 25%W 5%O 75%M	1.332
0.00	31' GIP	0.000

Total Length: 973.00 ft Total Volume: 12.672 bbl

Num Fluid Samples: 0

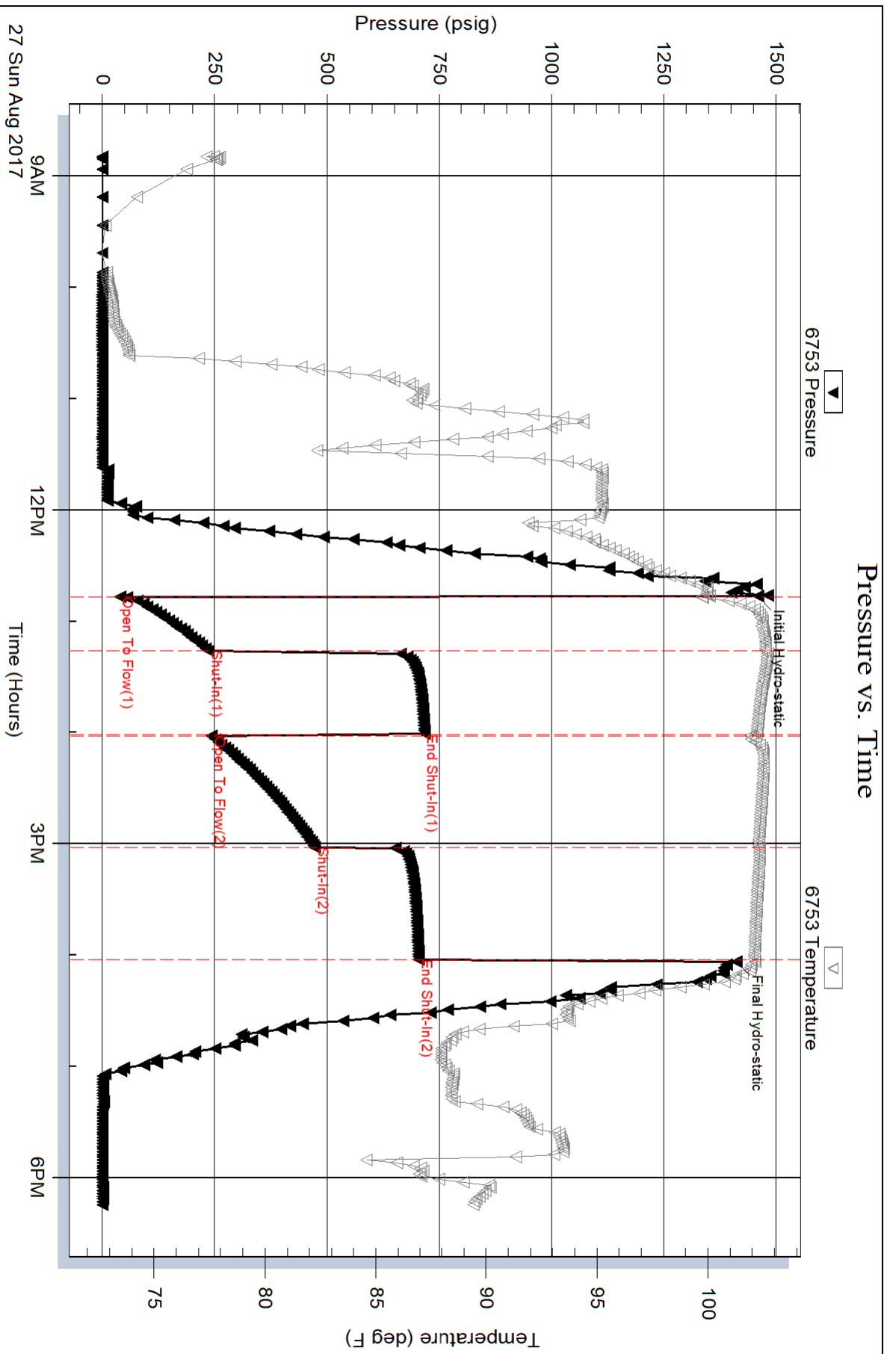
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .06@82deg



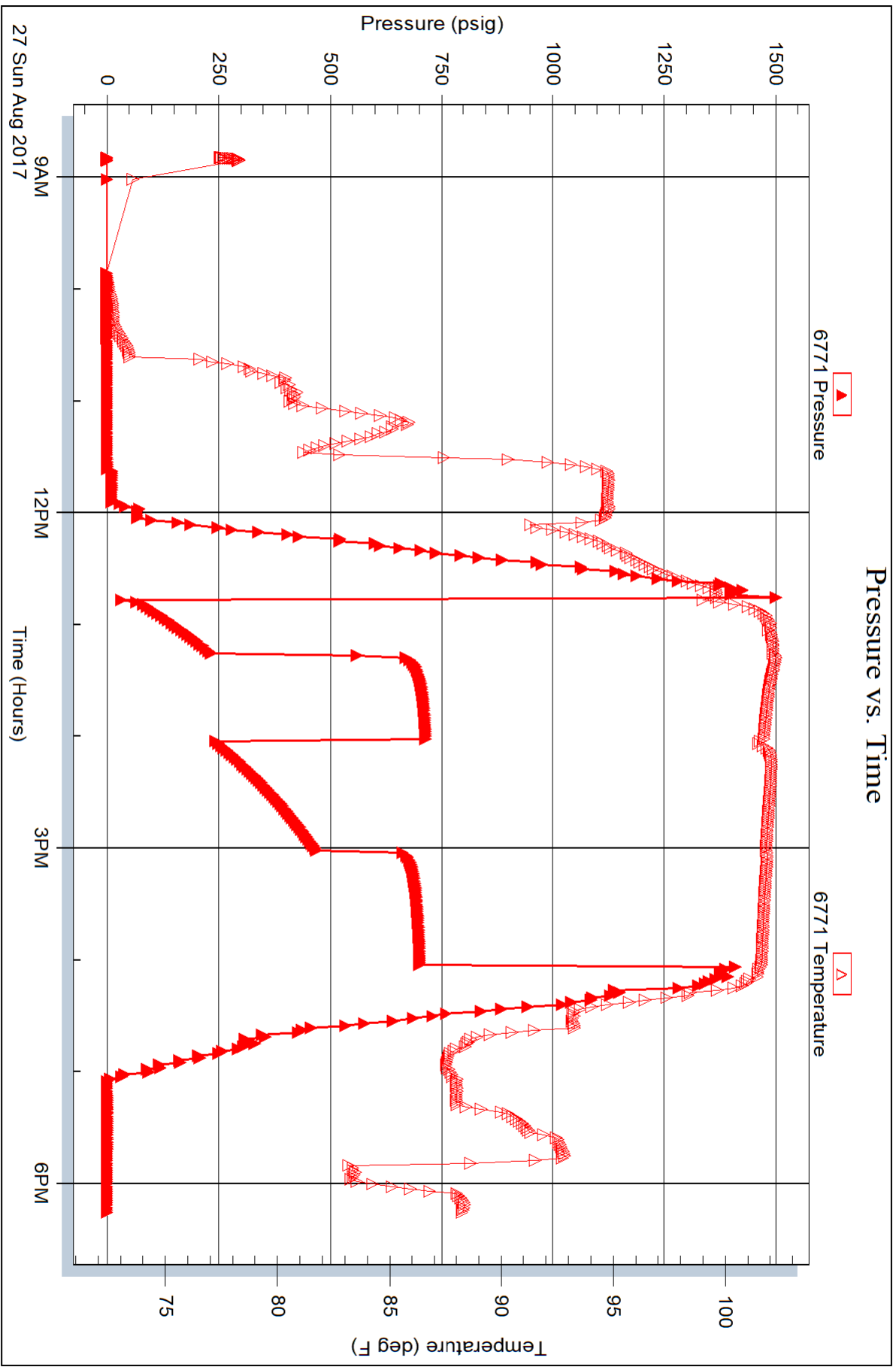
Serial #: 6771

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Mtd-Continent Energy Corp.

National Loan #4-1

DST Test Number: 2





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63293

DST#: 3

Test Start: 2017.08.27 @ 23:41:23

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:31:53

Time Test Ended: 07:49:53

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3060.00 ft (KB) To 3075.00 ft (KB) (TVD)

Reference Elevations: 1826.00 ft (KB)

Total Depth: 3075.00 ft (KB) (TVD)

1821.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6753

Outside

Press@RunDepth: 272.45 psig @ 3072.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.27

End Date:

2017.08.28

Last Calib.:

2017.08.28

Start Time: 23:41:28

End Time:

07:49:52

Time On Btm:

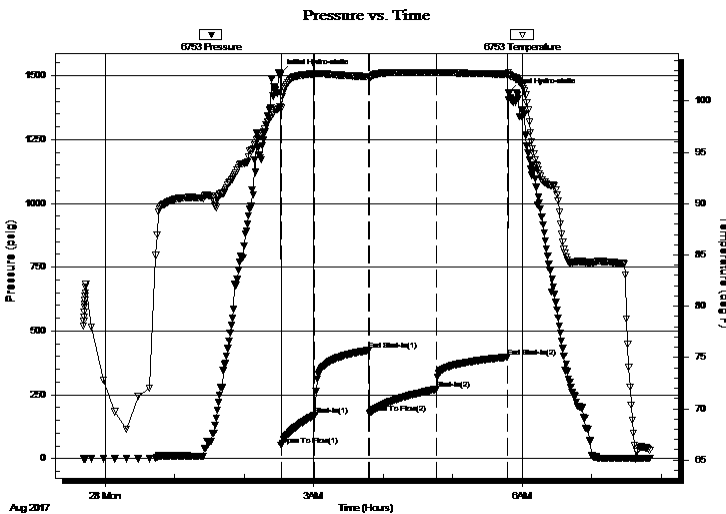
2017.08.28 @ 02:31:23

Time Off Btm:

2017.08.28 @ 05:48:23

TEST COMMENT: 30- IF- BOB 4mins
45- ISL- 2" blow back
60- FF- BOB 7mins
60- FSI- 3" blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1507.12	99.47	Initial Hydro-static
1	51.60	99.32	Open To Flow (1)
30	170.53	102.64	Shut-In(1)
76	423.81	102.40	End Shut-In(1)
77	178.44	102.32	Open To Flow (2)
135	272.45	102.79	Shut-In(2)
196	397.97	102.62	End Shut-In(2)
197	1433.07	102.60	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
533.00	MW, 25%M 75%W	6.44
15.00	CO	0.21
0.00	267' 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

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63293

DST#: 3

Test Start: 2017.08.27 @ 23:41:23

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

30 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

93000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5200.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
533.00	MW, 25%M 75%W	6.435
15.00	CO	0.213
0.00	267' GIP	0.000

Total Length: 548.00 ft Total Volume: 6.648 bbl

Num Fluid Samples: 0

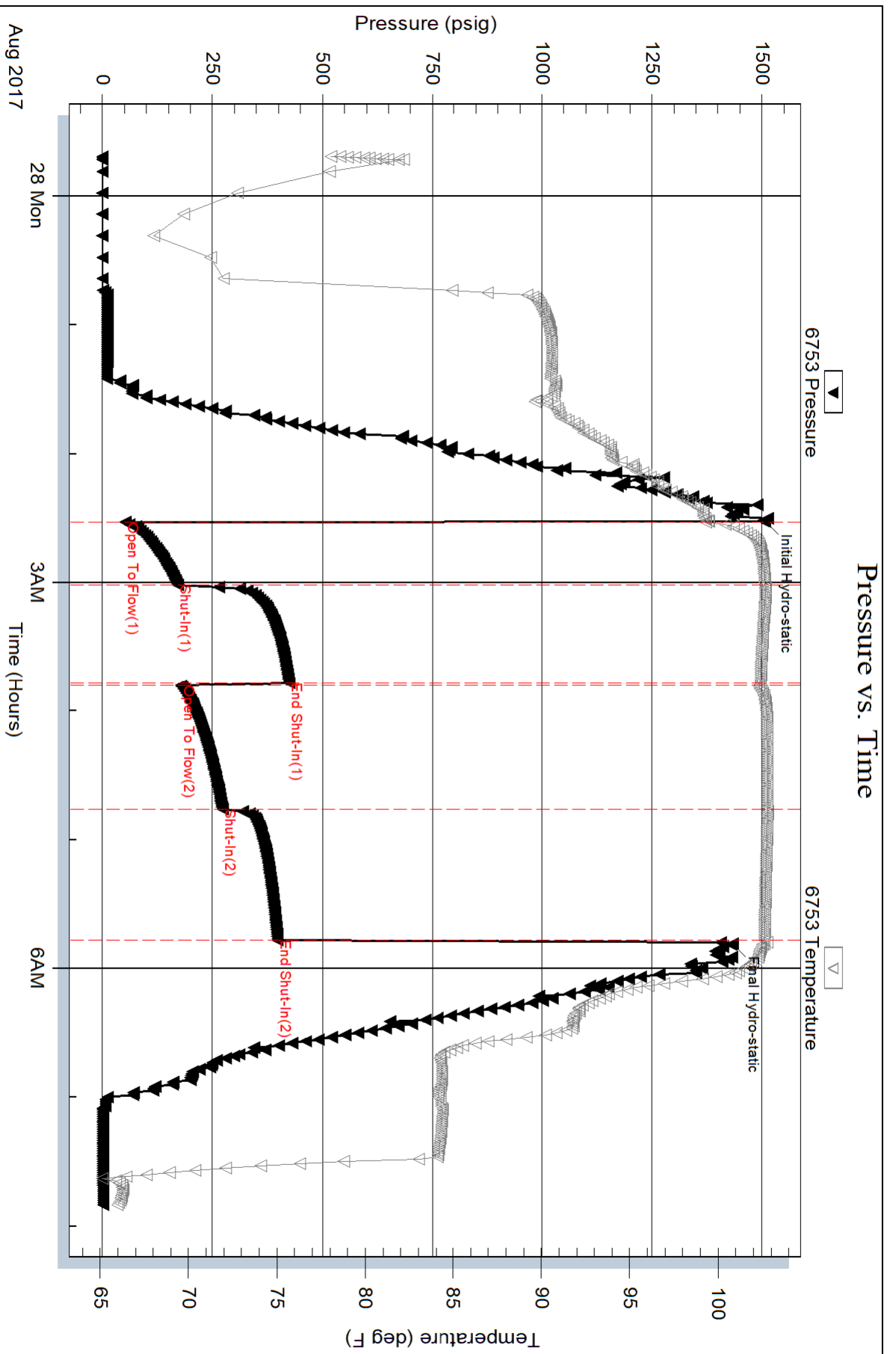
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .08@62deg



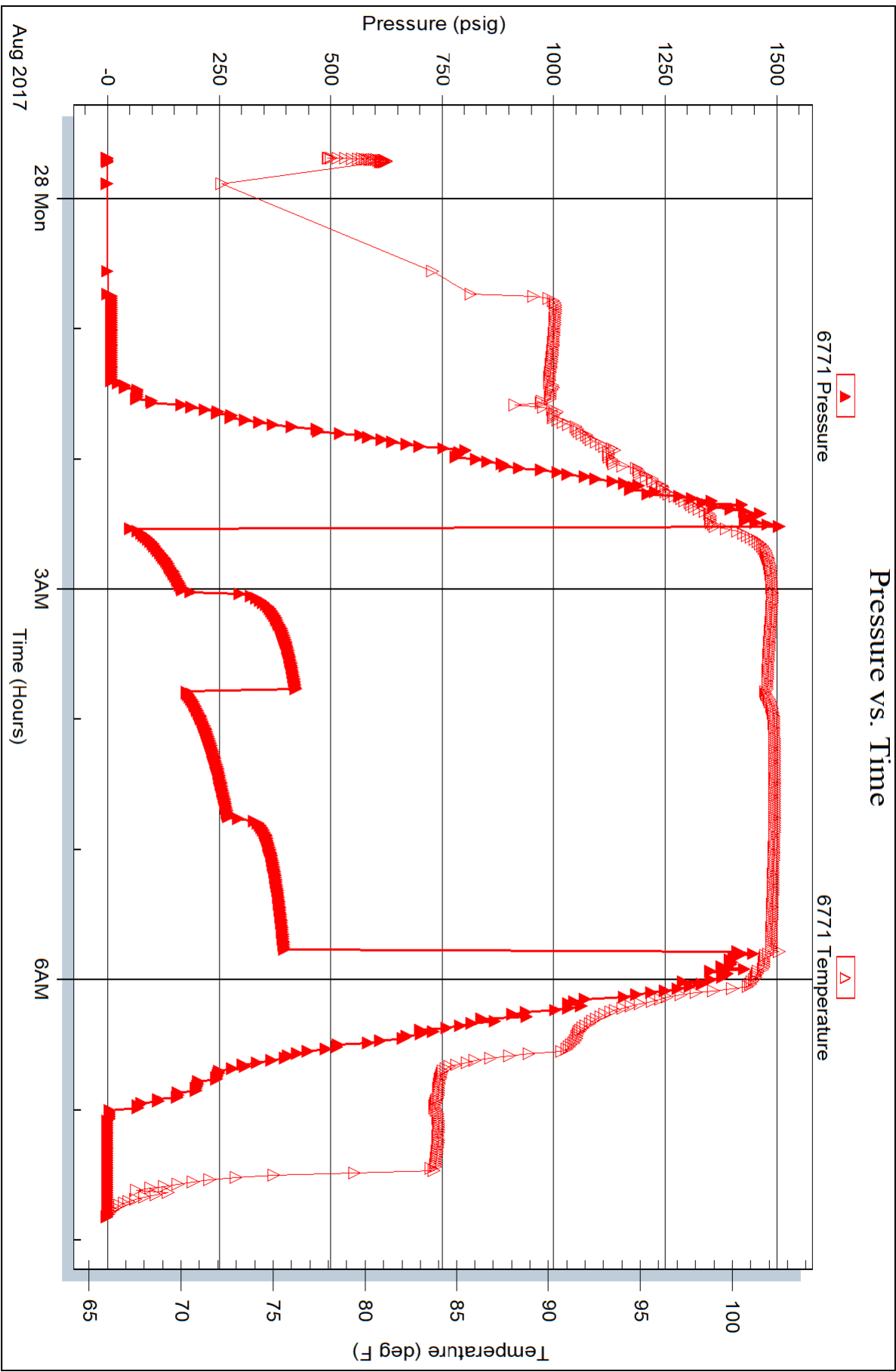
Serial #: 6771

Inside

Mtd-Continent Energy Corp.

National Loan #4-1

DST Test Number: 3





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63294

DST#: 4

Test Start: 2017.08.28 @ 13:33:16

GENERAL INFORMATION:

Formation: **LKC "D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:01:16

Time Test Ended: 20:48:46

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3082.00 ft (KB) To 3090.00 ft (KB) (TVD)

Reference Elevations: 1826.00 ft (KB)

Total Depth: 3090.00 ft (KB) (TVD)

1821.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6753 Outside

Press@RunDepth: 159.60 psig @ 3087.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.28 End Date: 2017.08.28

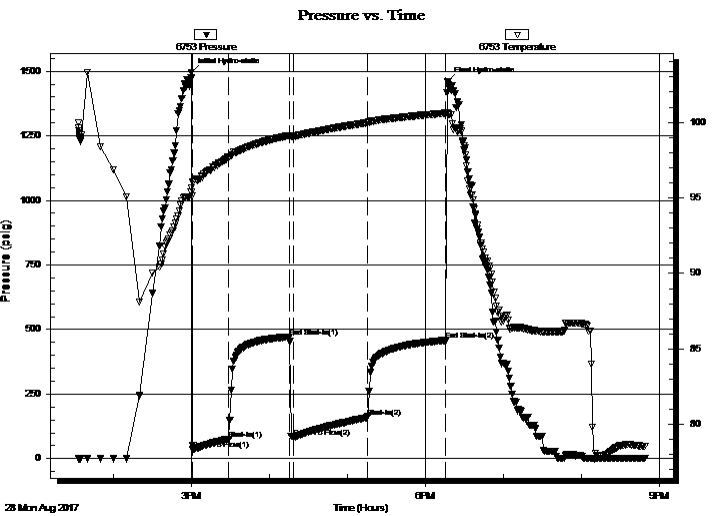
Last Calib.: 2017.08.28

Start Time: 13:33:21 End Time: 20:48:45

Time On Btm: 2017.08.28 @ 15:00:16

Time Off Btm: 2017.08.28 @ 18:17:16

TEST COMMENT: 30- IF- BOB 2mins
45- IS- BOB 5mins
60- FF- BOB instantly Gasto surface 46mins
60- FSI- BOB 6mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1495.67	95.68	Initial Hydro-static
1	35.64	96.02	Open To Flow (1)
28	74.87	97.64	Shut-In(1)
75	471.90	99.13	End Shut-In(1)
79	84.30	99.08	Open To Flow (2)
135	159.60	99.97	Shut-In(2)
196	457.75	100.61	End Shut-In(2)
197	1459.30	100.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
121.00	GWMCO, 15%G 50%O 5%W 30%M	0.60
126.00	GMCO, 30%G 60%O 10%M	1.79
220.00	CGO, 35%G 65%O	3.12
0.00	Gas to surface	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

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63294

DST#: 4

Test Start: 2017.08.28 @ 13:33:16

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

36 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

24000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
121.00	GWMCO, 15%G 50%O 5%W 30%M	0.595
126.00	GMCO, 30%G 60%O 10%M	1.786
220.00	CGO, 35%G 65%O	3.119
0.00	Gas to surface	0.000

Total Length: 467.00 ft

Total Volume: 5.500 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

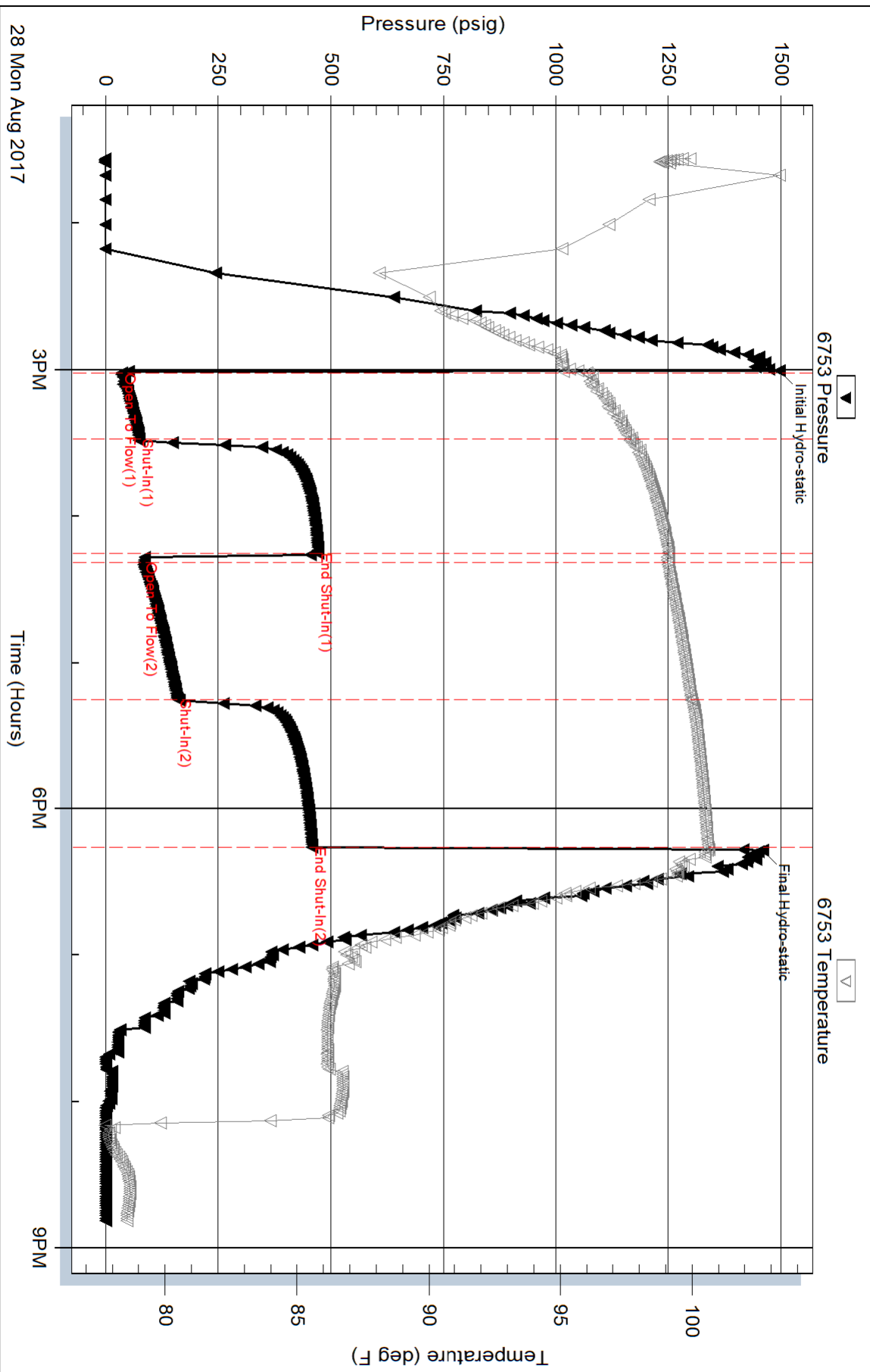
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .24@72deg

Pressure vs. Time



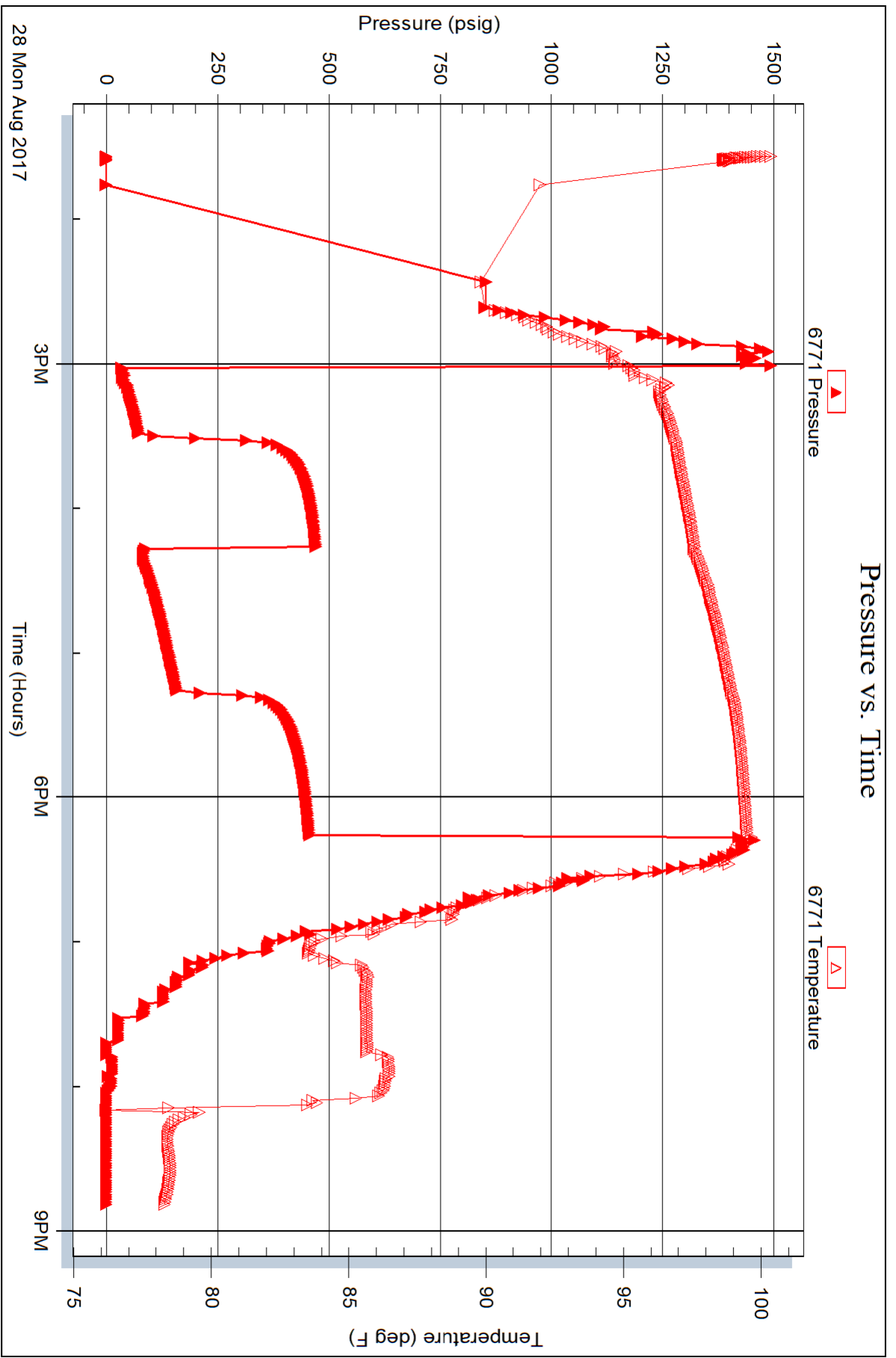
Serial #: 6771

Inside

Mtd-Continent Energy Corp.

National Loan #4-1

DST Test Number: 4





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63295 **DST#: 5**

Test Start: 2017.08.29 @ 04:20:43

GENERAL INFORMATION:

Formation: **LKC "F&G"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:55:13
 Time Test Ended: 11:41:43
 Interval: **3120.00 ft (KB) To 3142.00 ft (KB) (TVD)**
 Total Depth: 3142.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brannan Lonsdale
 Unit No: 73
 Reference Elevations: 1826.00 ft (KB)
 1821.00 ft (CF)
 KB to GR/CF: 5.00 ft

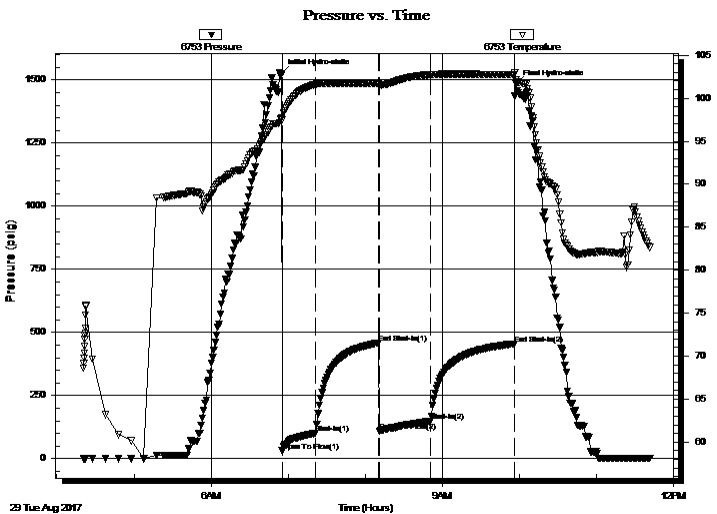
Serial #: 6753

Outside

Press@RunDepth: 149.02 psig @ 3139.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.08.29 End Date: 2017.08.29 Last Calib.: 2017.08.29
 Start Time: 04:20:48 End Time: 11:41:42 Time On Btm: 2017.08.29 @ 06:54:43
 Time Off Btm: 2017.08.29 @ 09:57:13

TEST COMMENT: 30- IF- BOB 13mins
 45- IS- No blow
 45- FF- BOB 16mins
 60- FSI- Built to 1" in 14mins then slowly died back to .25"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1523.36	97.71	Initial Hydro-static
1	31.07	97.54	Open To Flow (1)
27	101.44	101.61	Shut-In(1)
76	457.74	101.69	End Shut-In(1)
76	108.97	101.57	Open To Flow (2)
116	149.02	102.75	Shut-In(2)
181	454.87	102.73	End Shut-In(2)
183	1483.56	102.16	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
228.00	SOCMW, 5%O 60%W 35%M	2.11
10.00	CO	0.14
0.00	20' 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

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63295

DST#: 5

Test Start: 2017.08.29 @ 04:20:43

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

28 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

90000 ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.80 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
228.00	SOCMW, 5%O 60%W 35%M	2.112
10.00	CO	0.142
0.00	20' GIP	0.000

Total Length: 238.00 ft Total Volume: 2.254 bbl

Num Fluid Samples: 0

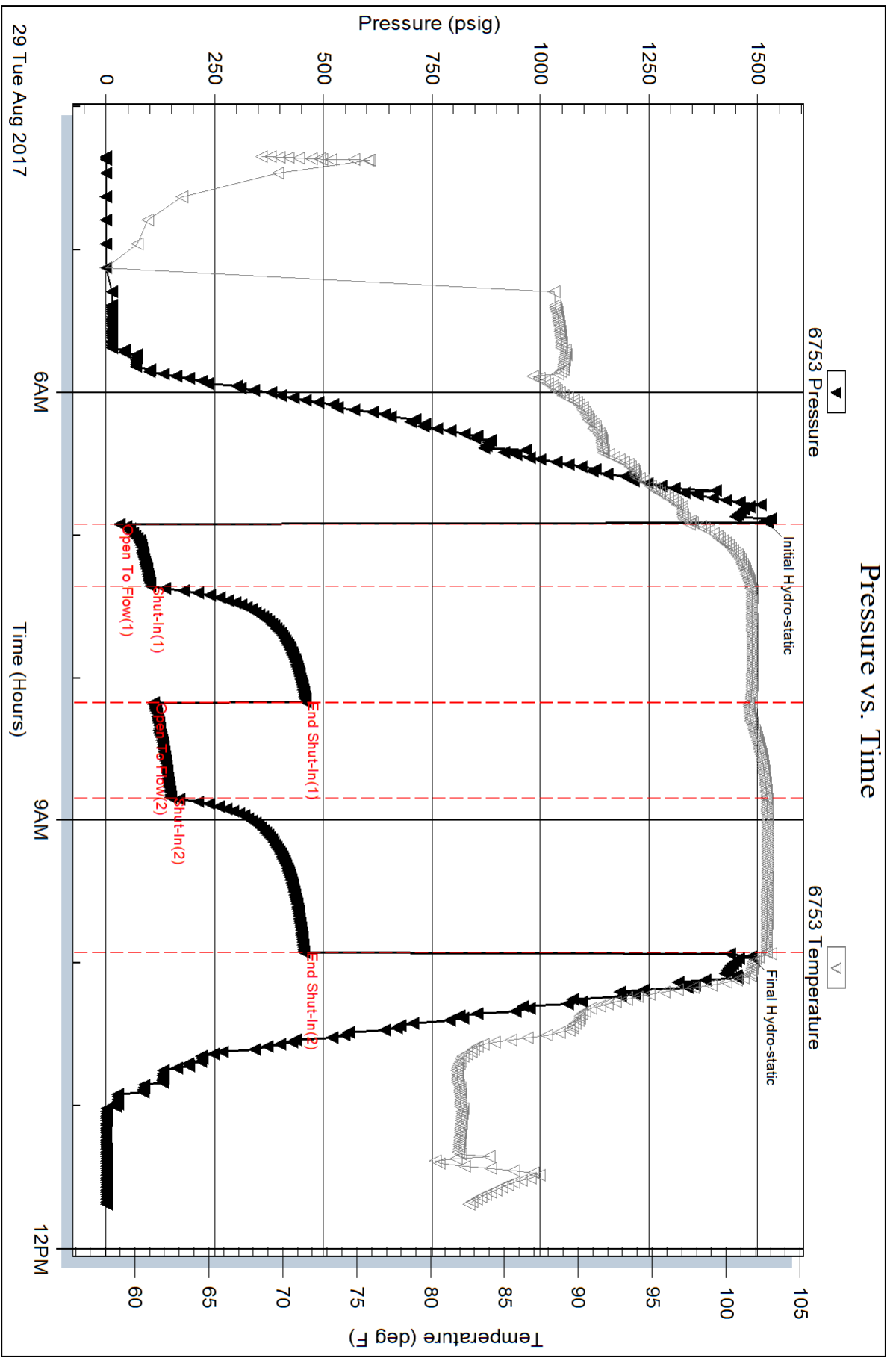
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .07@72deg



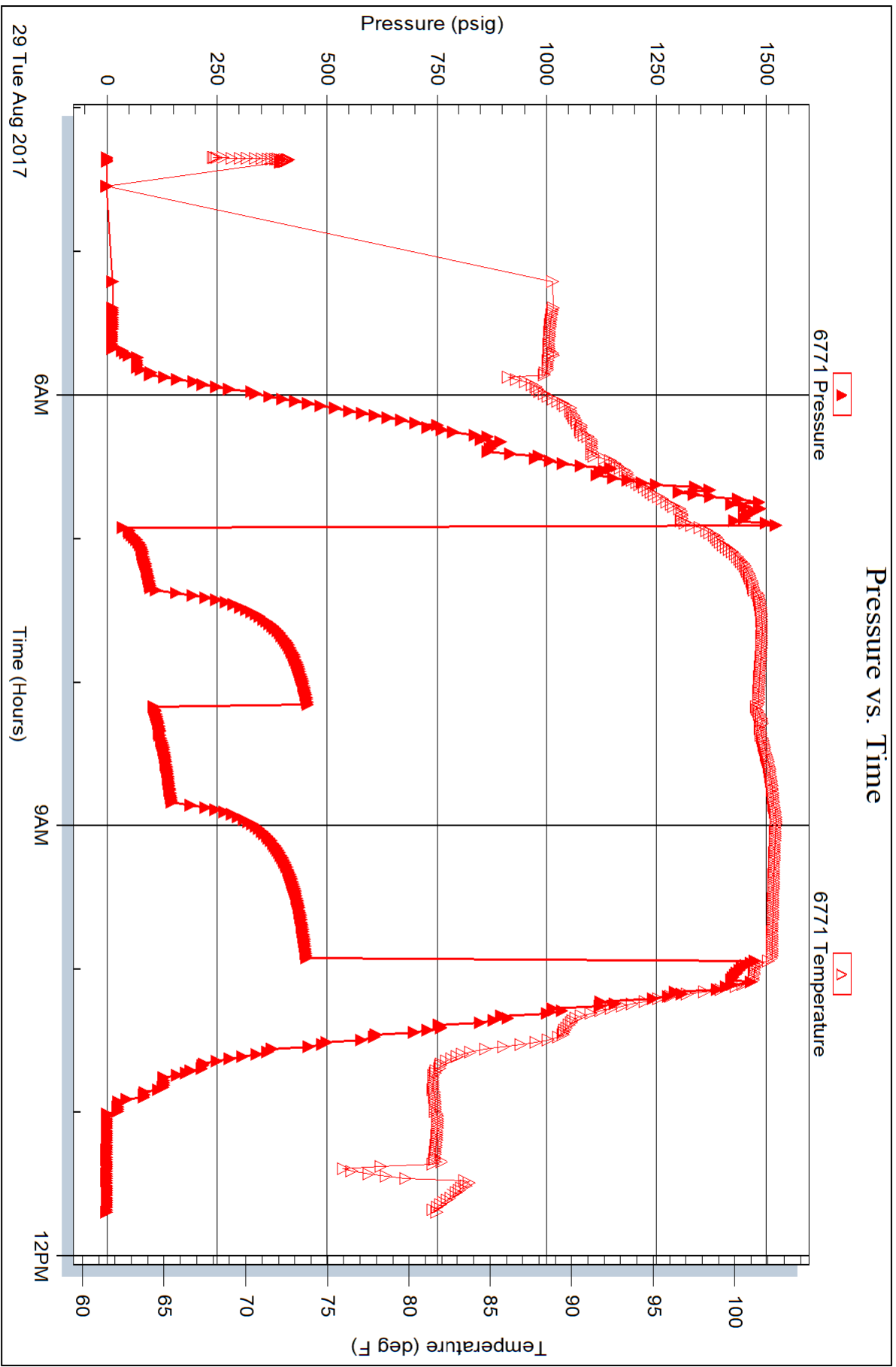
Serial #: 6771

Inside

Mtd- Continent Energy Corp.

National Loan #4-1

DST Test Number: 5





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63296 **DST#: 6**

Test Start: 2017.08.29 @ 22:34:04

GENERAL INFORMATION:

Formation: **LKC "H-J"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 00:34:40
 Time Test Ended: 05:21:55
 Interval: **3185.00 ft (KB) To 3230.00 ft (KB) (TVD)**
 Total Depth: 3230.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brannan Lonsdale
 Unit No: 73
 Reference Elevations: 1826.00 ft (KB)
 1821.00 ft (CF)
 KB to GR/CF: 5.00 ft

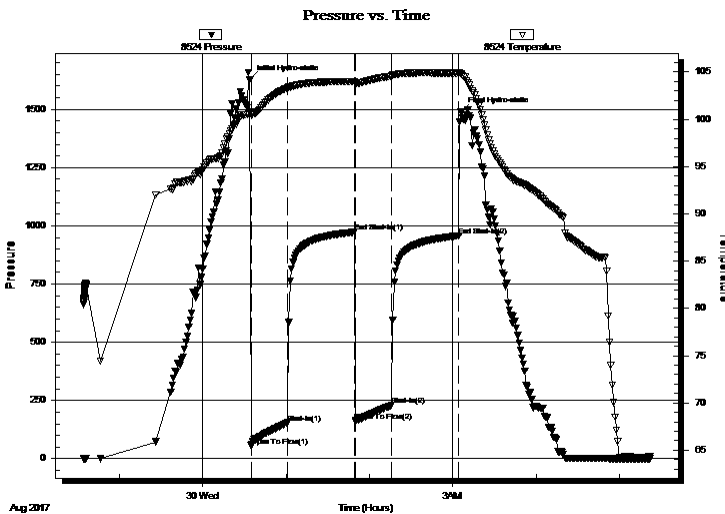
Serial #: 8524

Outside

Press@RunDepth: 229.21 psig @ 3227.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.08.29 End Date: 2017.08.30 Last Calib.: 2017.08.30
 Start Time: 22:34:05 End Time: 05:21:55 Time On Btm: 2017.08.30 @ 00:34:10
 Time Off Btm: 2017.08.30 @ 03:06:10

TEST COMMENT: 30- IF- BOB 8mins
 45- ISL- Weak surface blow
 30- FF- BOB 9mins
 45- FSL- Surface blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1629.91	100.79	Initial Hydro-static
1	55.78	100.49	Open To Flow (1)
27	154.42	103.32	Shut-In(1)
76	973.00	104.02	End Shut-In(1)
76	162.27	103.85	Open To Flow (2)
102	229.21	104.58	Shut-In(2)
151	956.34	104.86	End Shut-In(2)
152	1491.76	104.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
251.00	SOCMW, 5%O 80%W 15%M	2.44
220.00	SGWOCM, 5%G 15%O 25%W 55%M	3.12
0.00	94' 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

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63296

DST#: 6

Test Start: 2017.08.29 @ 22:34:04

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

26 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

75000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7500.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
251.00	SOCMW, 5%O 80%W 15%M	2.438
220.00	SGWOCM, 5%G 15%O 25%W 55%M	3.119
0.00	94' GIP	0.000

Total Length: 471.00 ft Total Volume: 5.557 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

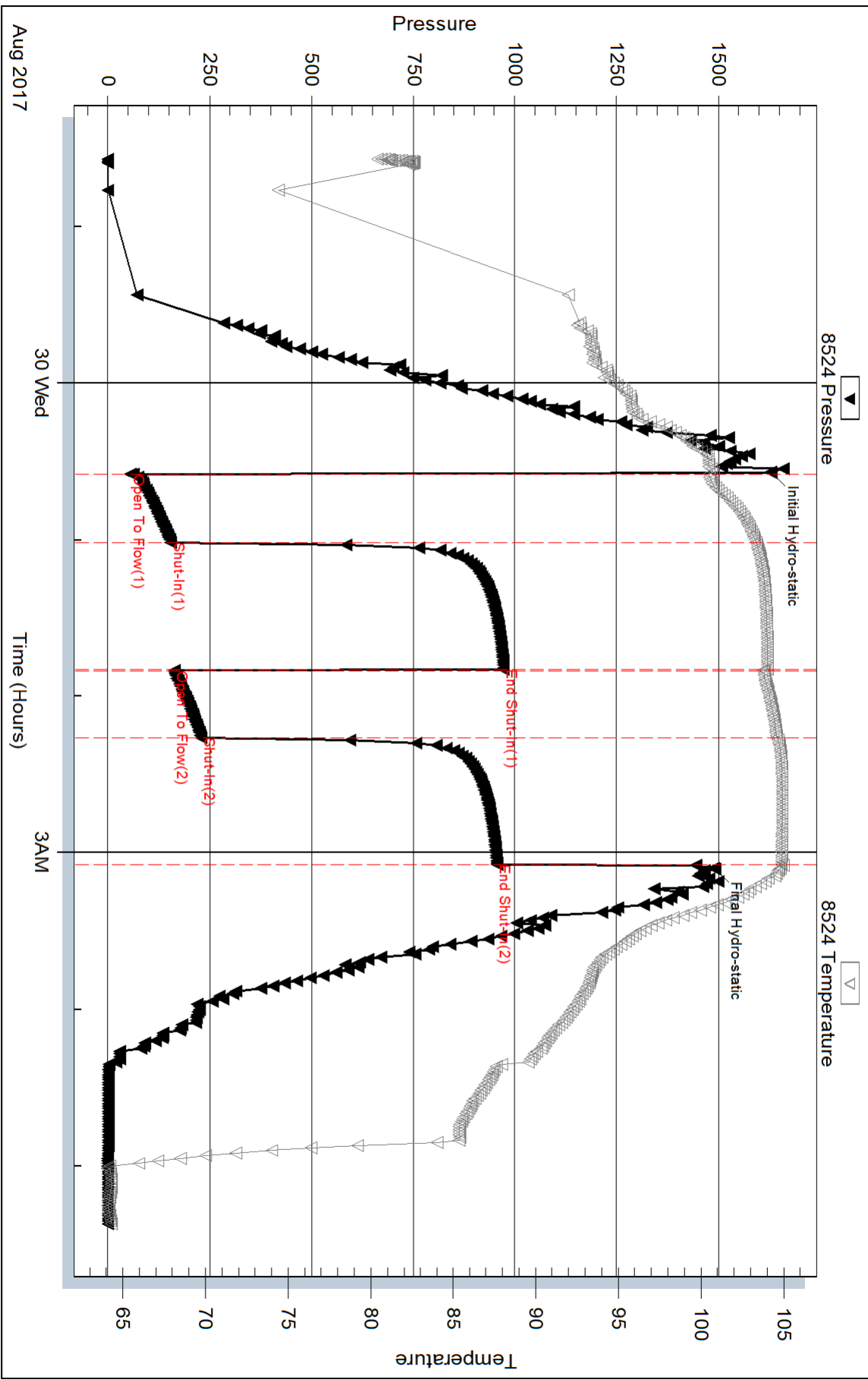
Serial #:

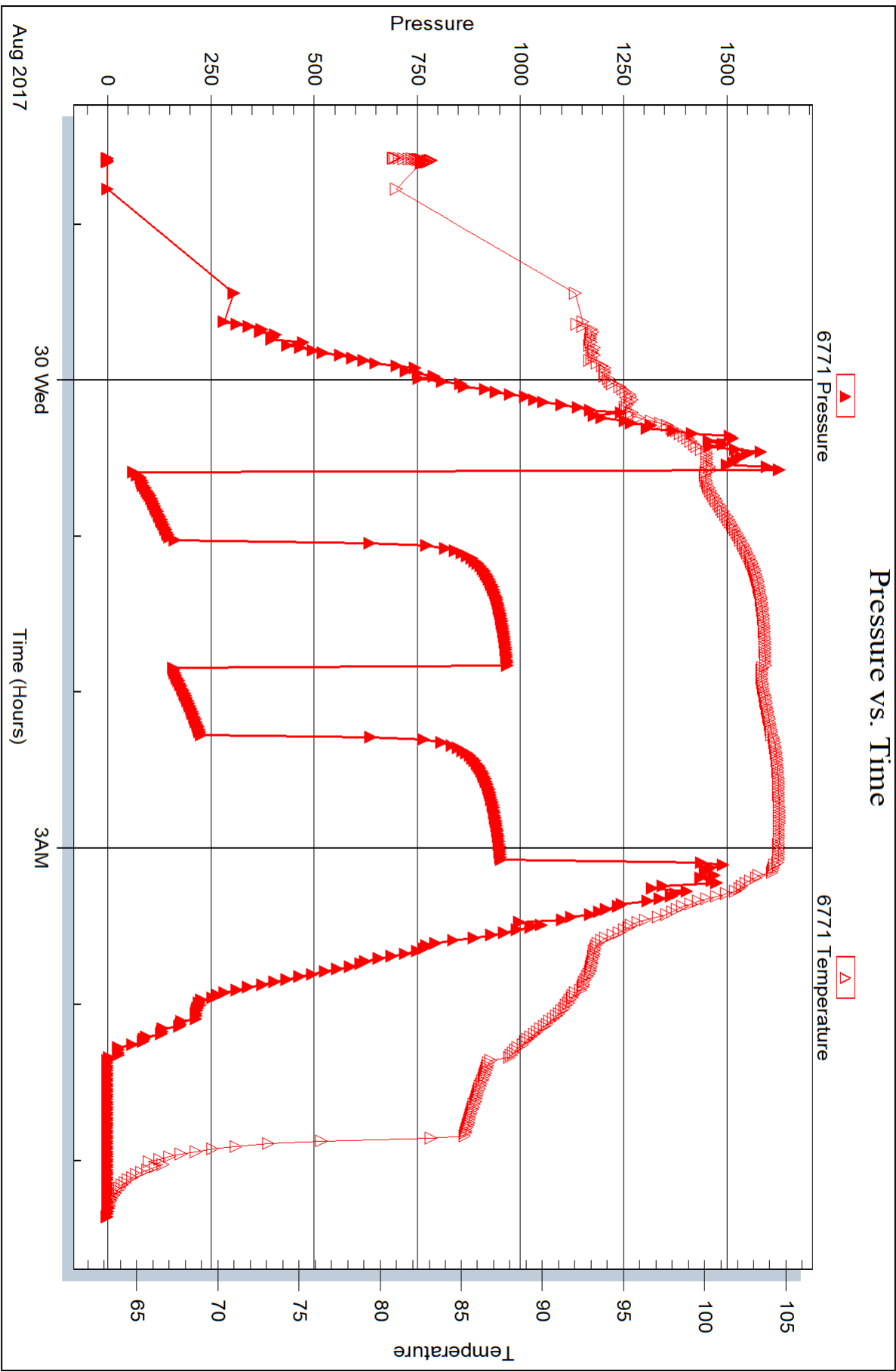
Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .10@60deg

Pressure vs. Time







TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63297

DST#: 7

Test Start: 2017.08.30 @ 11:33:08

GENERAL INFORMATION:

Formation: **LKC "K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:16:29

Time Test Ended: 18:25:44

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3240.00 ft (KB) To 3256.00 ft (KB) (TVD)

Reference Elevations: 1826.00 ft (KB)

Total Depth: 3256.00 ft (KB) (TVD)

1821.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 73.98 psig @ 3253.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2017.08.30 End Date: 2017.08.30

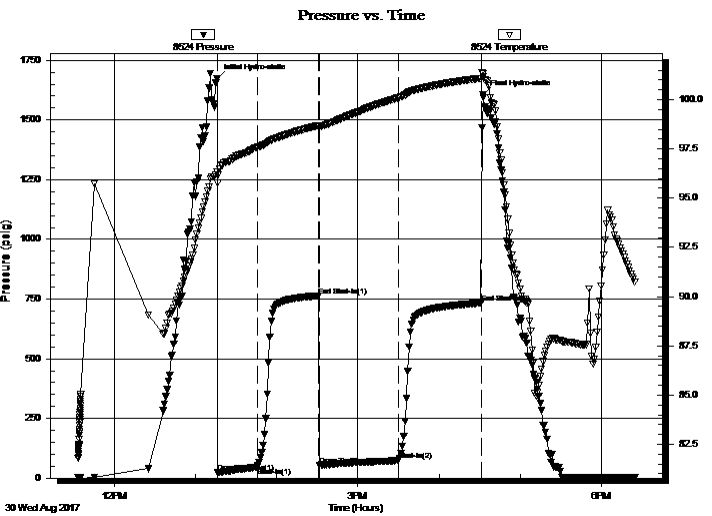
Last Calib.: 2017.08.30

Start Time: 11:33:09 End Time: 18:25:44

Time On Btm: 2017.08.30 @ 13:16:14

Time Off Btm: 2017.08.30 @ 16:32:44

TEST COMMENT: 30- IF- BOB 28mins
45- IS- Surface blow died in 3mins
60- FF- BOB 16mins
60- FS- Surface blow died in 7mins



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1673.42	96.34	Initial Hydro-static
1	24.20	95.78	Open To Flow (1)
30	46.19	97.58	Shut-In(1)
75	763.72	98.68	End Shut-In(1)
76	54.47	98.60	Open To Flow (2)
134	73.98	100.10	Shut-In(2)
195	733.46	101.08	End Shut-In(2)
197	1607.40	101.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
152.00	GSMCO, 10%G 10%M 80%O	1.03
0.00	2860' 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

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63297

DST#: 7

Test Start: 2017.08.30 @ 11:33:08

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
152.00	GSMCO, 10%G 10%M 80%O	1.034
0.00	2860' GIP	0.000

Total Length: 152.00 ft

Total Volume: 1.034 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

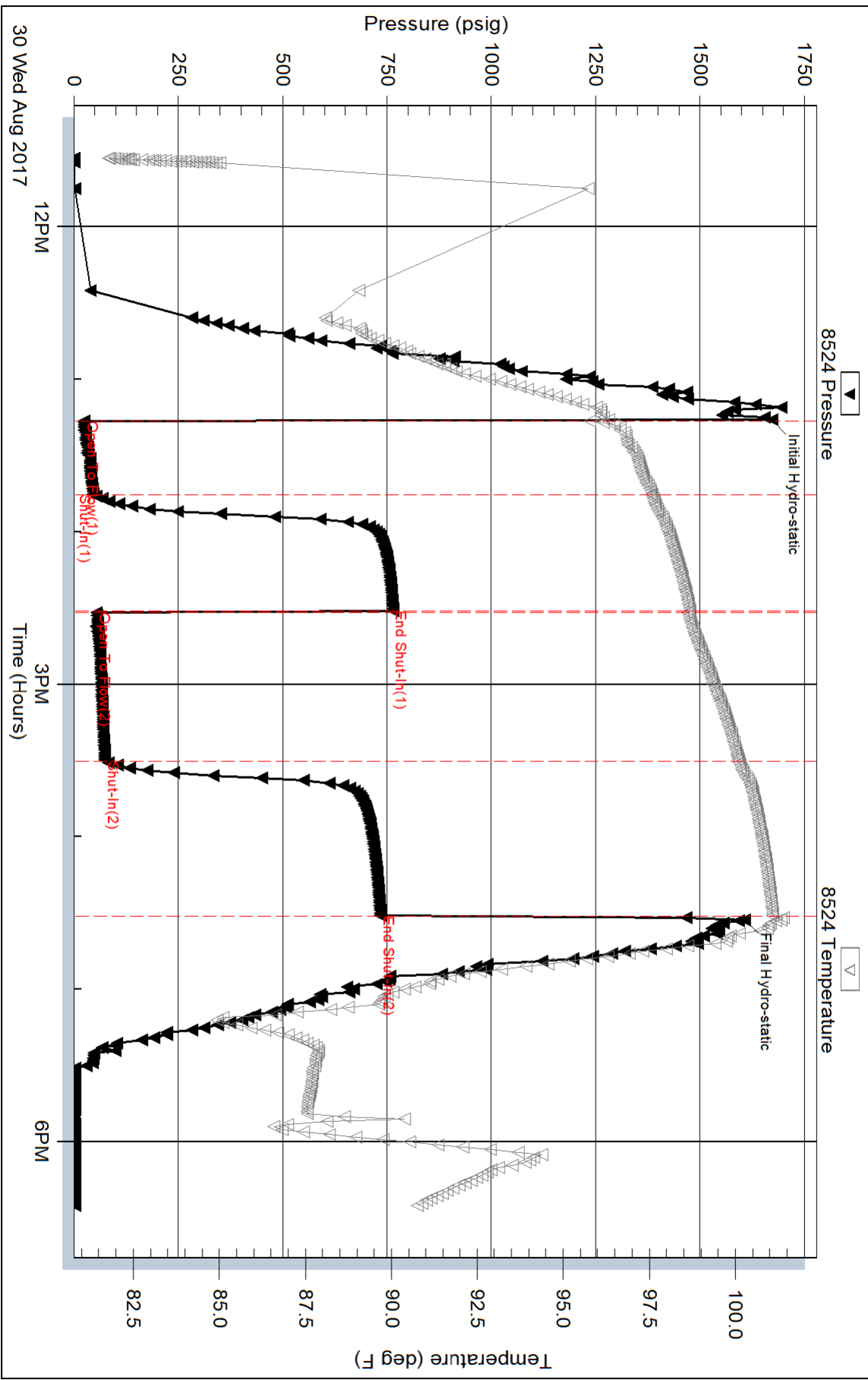
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



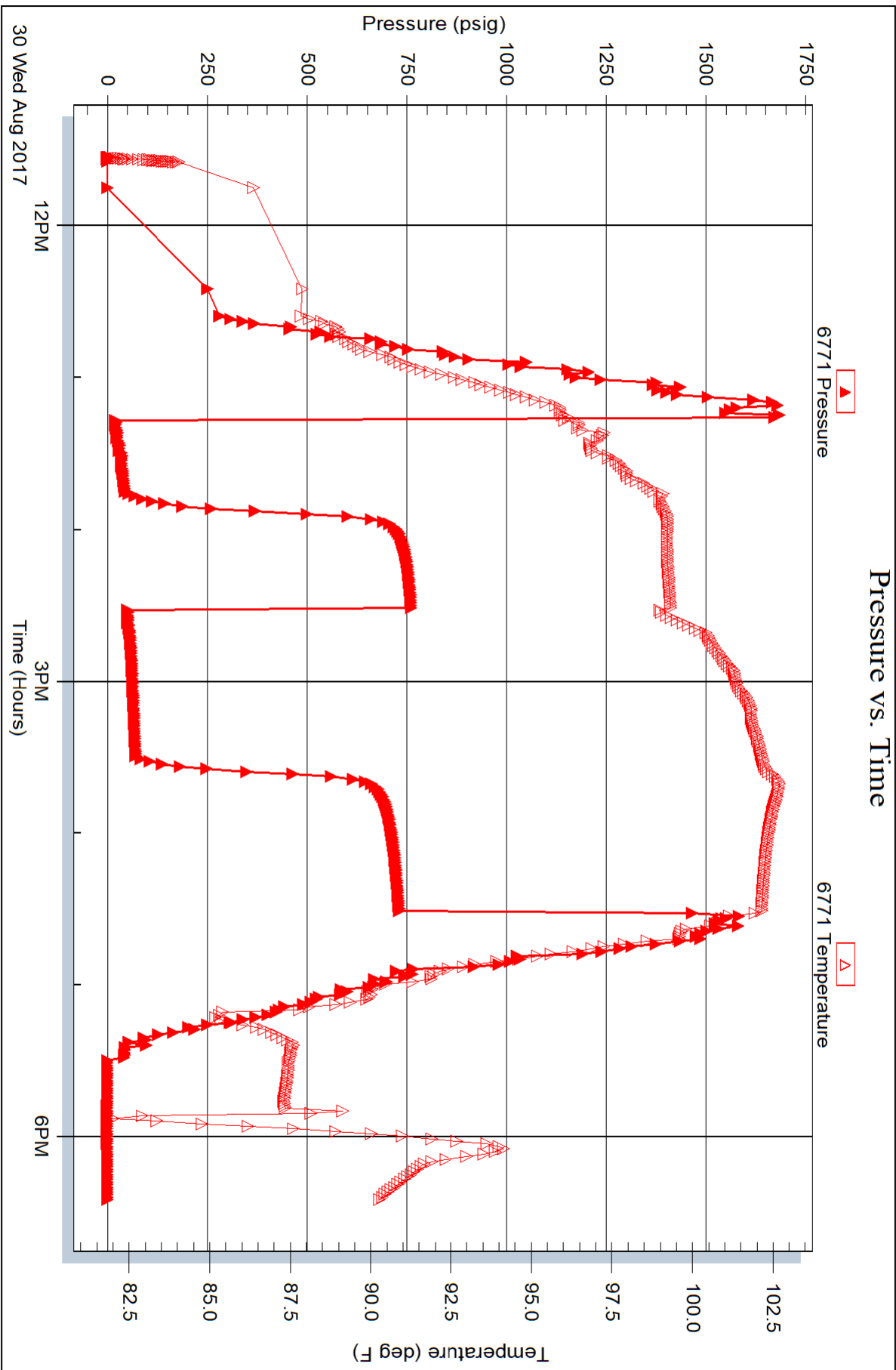
Serial #: 6771

Inside

Mtd- Continent Energy Corp.

National Loan #4-1

DST Test Number: 7





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63298 **DST#: 8**

Test Start: 2017.08.31 @ 01:48:47

GENERAL INFORMATION:

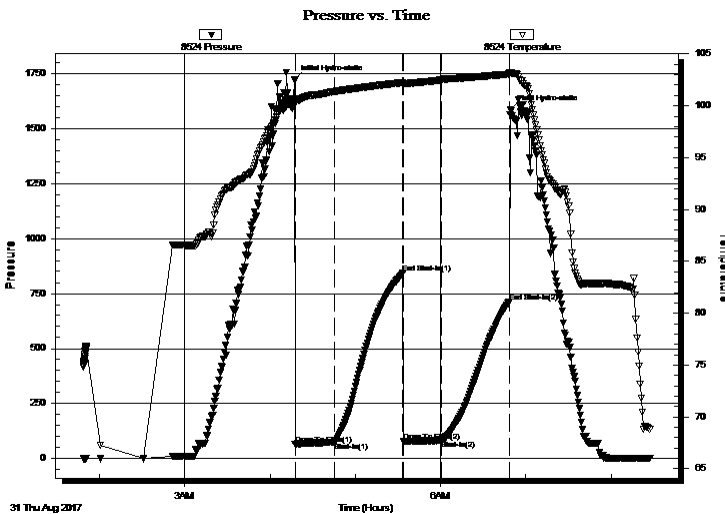
Formation: **Marmaton**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:17:38
 Time Test Ended: 08:27:08
 Interval: **3288.00 ft (KB) To 3310.00 ft (KB) (TVD)**
 Total Depth: 3310.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Brannan Lonsdale
 Unit No: 73
 Reference Elevations: 1826.00 ft (KB)
 1821.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 8524 Outside

Press@RunDepth: 81.95 psig @ 3307.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.08.31 End Date: 2017.08.31 Last Calib.: 2017.08.31
 Start Time: 01:48:48 End Time: 08:27:08 Time On Btm: 2017.08.31 @ 04:17:23
 Time Off Btm: 2017.08.31 @ 06:49:08

TEST COMMENT: 30- IF- Surface blow died in 11mins
 45- IS- No blow
 30- FF- No blow
 45- FSI- No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1719.83	100.66	Initial Hydro-static
1	66.04	100.27	Open To Flow (1)
28	73.71	101.38	Shut-In(1)
76	841.61	102.23	End Shut-In(1)
77	79.43	102.03	Open To Flow (2)
104	81.95	102.52	Shut-In(2)
151	711.17	103.05	End Shut-In(2)
152	1586.00	103.19	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	M	0.65

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mid-Continent Energy Corp.

1-12S-16W Ellis, KS

105 S. Broadway
Ste. 360
Wichita, KS 67202
ATTN: Eii J. Felts

National Loan #4-1

Job Ticket: 63298

DST#: 8

Test Start: 2017.08.31 @ 01:48:47

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: 60.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 9800.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
125.00	M	0.652

Total Length: 125.00 ft

Total Volume: 0.652 bbl

Num Fluid Samples: 0

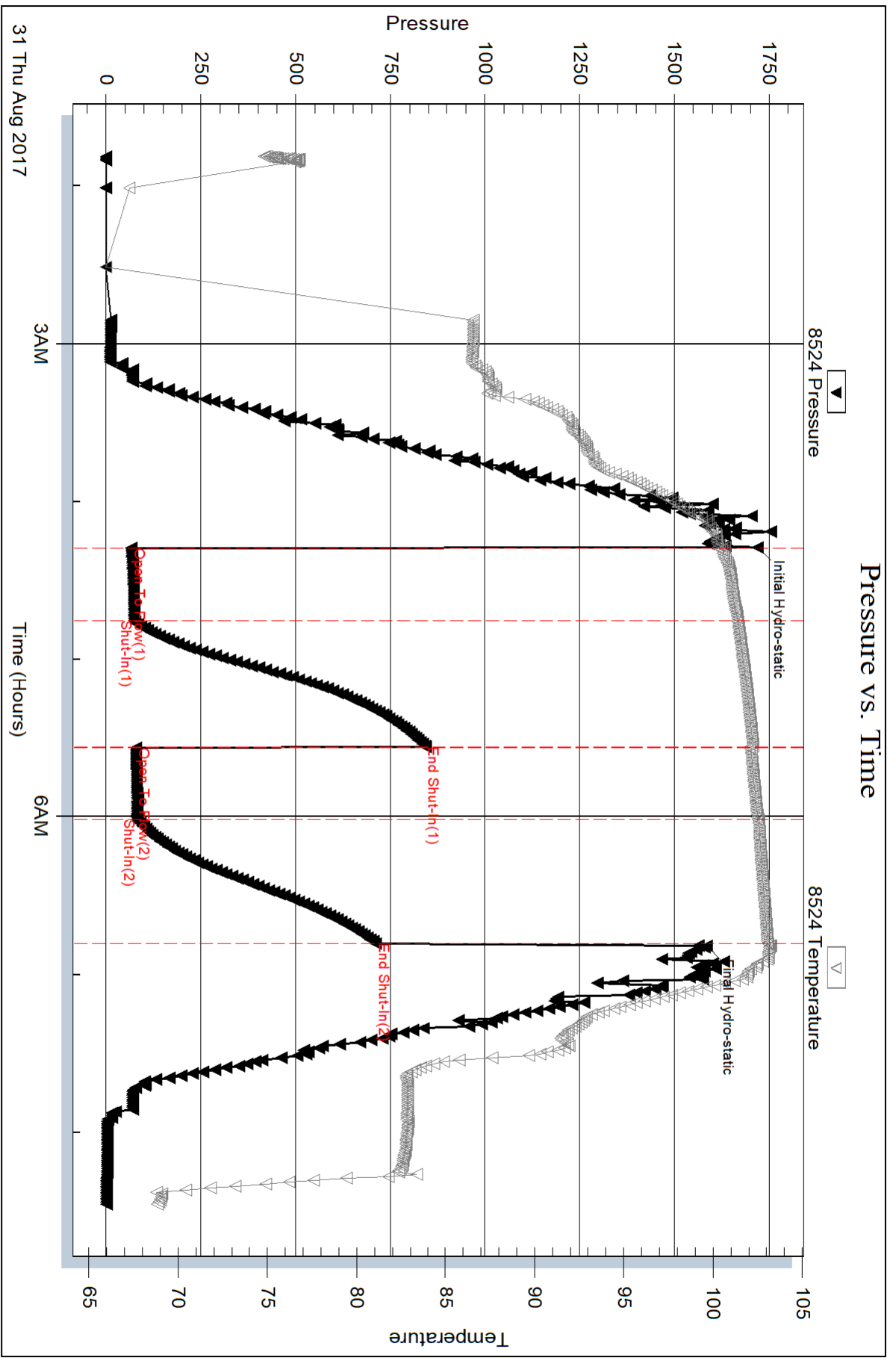
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



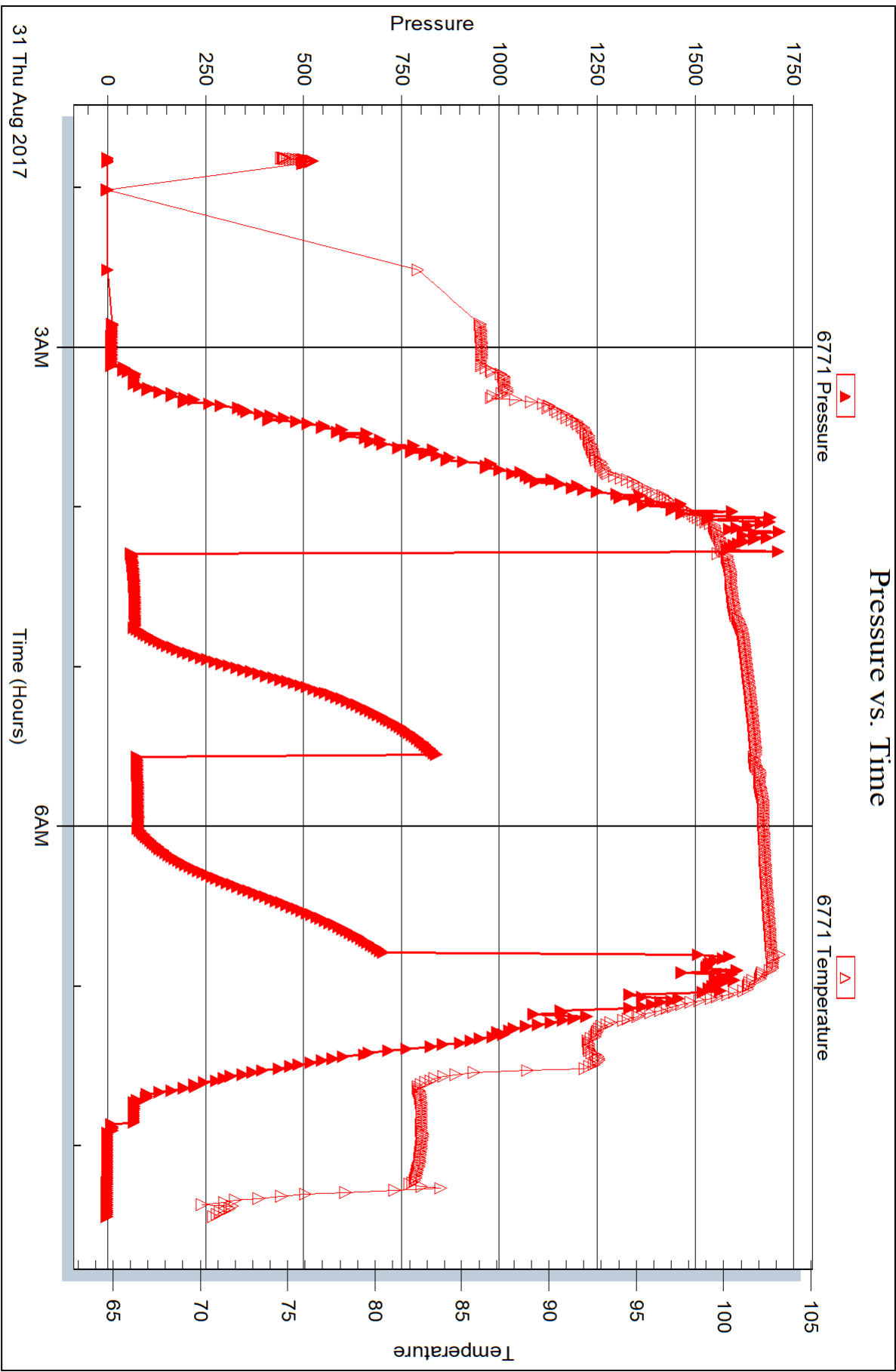
Serial #: 6771

Inside

Mtd-Continent Energy Corp.

National Loan #4-1

DST Test Number: 8



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. 290

Date	8-24-17	Sec.	1	Twp.	12	Range	16	County	Ellis	State	Ks	On Location		Finish	2:15 AM
------	---------	------	---	------	----	-------	----	--------	-------	-------	----	-------------	--	--------	---------

Location Fairport - w to T, 1/4 S, 3/4 W 5/4th

Lease	National loan	Well No.	4-1	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	WW #4			Charge To	Mid Continent Energy, Corp.
Type Job	Surface			Street	105 So. Broadway, Suite #300
Hole Size	12 1/4"	T.D.	990'	City	Wichita State KS 67202
Csg.	8 5/8"	Depth	985.50'		
Tbg. Size		Depth			
Tool		Depth			The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg.	49'	Shoe Joint	49'	Cement Amount Ordered	375 80/20 3+2
Meas Line		Displace	59 1/2 Bbl		

EQUIPMENT

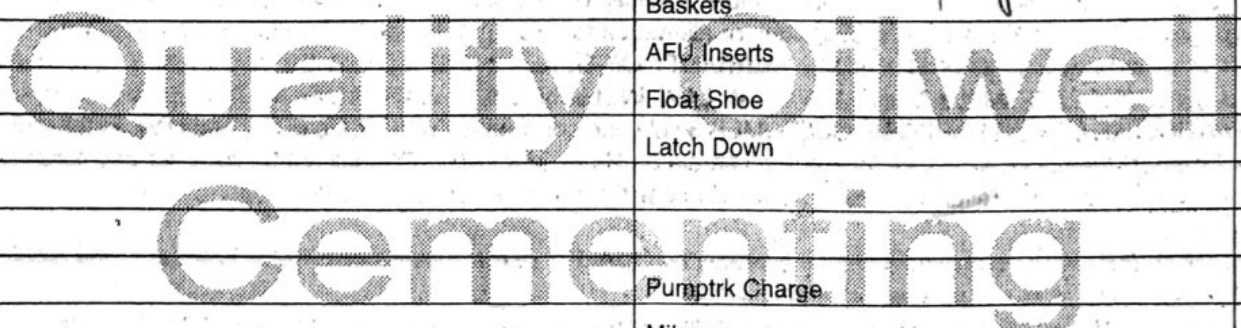
Pumptrk	18	No.	Cementer		Common
			Helper	Jordan	Poz. Mix
Bulktrk	19	No.	Driver	David	Gel.
			Driver	Reck	Calcium

JOB SERVICES & REMARKS

Remarks:	Cement did Circulate	Hulls	
Rat Hole		Salt	
Mouse Hole	Shut in @ 500#	Flowseal	
Centralizers		Kol-Seal	
Baskets		Mud CLR 48	
D/V or Port Collar		CFL-117 or CD110 CAF 38	
		Sand	
		Handling	
		Mileage	

FLOAT EQUIPMENT

Guide Shoe	Baffle plate
Centralizer	Rubber plug
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	



Pumptrk Charge	
Mileage	
Tax	
Discount	
Total Charge	

X Signature [Signature]

Conservation Division
266 N. Main St., Ste. 220
Wichita, KS 67202-1513



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Pat Apple, Chairman
Shari Feist Albrecht, Commissioner
Jay Scott Emler, Commissioner

Sam Brownback, Governor

January 09, 2018

Jeff Burk
Mid-Continent Energy Corp.
105 S BROADWAY STE 360
WICHITA, KS 67202-4280

Re: ACO-1
API 15-051-26886-00-00
NATIONAL LOAN 4-1
SW/4 Sec.01-12S-16W
Ellis County, Kansas

Dear Jeff Burk:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 8/22/2017 and the ACO-1 was received on January 09, 2018 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department