

Form	ACO1 - Well Completion
Operator	Pioneer Resources Inc.
Well Name	BUNKER 5
Doc ID	1427262

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	14	221	Common	150	3



Geologic Report

Drilling Time and Sample Log

Operator **Pioneer Resources, Inc.**

Lease **Bunker** No. **5**

API # **15-195-23062-0000**

Field **Un-named**

Location **344' FSL & 893' FEL**

County **Trego** State **Kansas**

Formation	Log Tops	Sample Tops	Struct Comp
Anhydrite		1743' +575	FL
Base		1789' +529	-1
Topeka		3354' -1036	-1
Heebner		3573' -1255	FL
Toronto		3598' -1280	+1
Lansing		3608' -1290	+1
BKC		3844' -1526	+3
Marmaton		3933' -1615	FL
Conglomerate		3977' -1659	FL
Arbuckle		4028' -1710	-25
Total Depth		4040' -1722	

Reference Well For Structural Comparison **John Jay Darrah Jr Keller #1**
NE NE NE Sec. 25 T12s R22w Trego County, Kansas

Drilling Contractor	Shields Drilling	Rig #1
Commenced	9-18-2018	Completed 9-28-2018
Samples Saved From	3350'	To RTD
Drilling Time Kept From	3200'	To RTD
Samples Examined From	3350'	To RTD
Geological Supervision From	3350'	To RTD

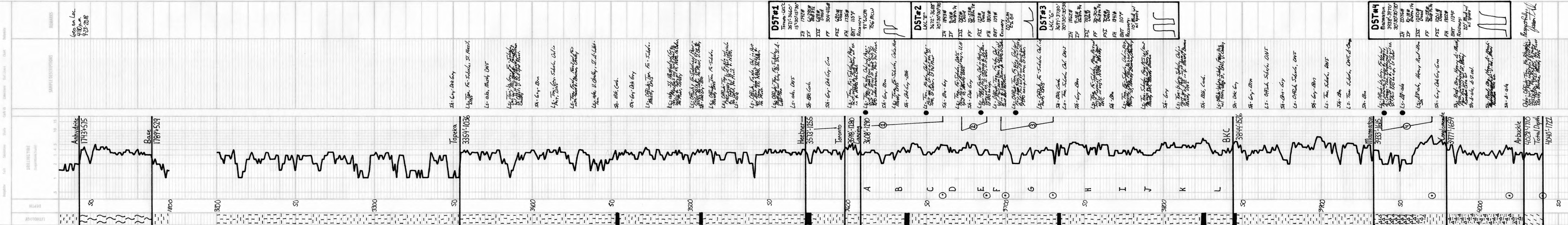
Displacement 3200' Mud Type Chemical

Summary and Recommendations

The location for the Bunker was found via 3-D seismic survey. The new well ran structurally slightly lower than expected via the survey and significantly lower on the Arbuckle. Four Drill Stem Tests were conducted, all of which were negative. After all gathered data had been examined the decision was made to plug and abandon the Bunker #5 well.

Respectfully Submitted,

Jason T Alm
Hard Rock Consulting, Inc.



0013233

SERVICE POINT:
RUSSELL, KS

HANDLING _____ @ _____
MILEAGE _____
TOTAL _____

DISCOUNT _____ IF PAID IN 30 DAYS

GLOBAL OIL FIELD SERVICES, LLC

0013175

REMIT TO 24 S. Lincoln
Russell, KS 67665

SERVICE POINT: Russell KS

DATE <u>9-19-18</u>	SEC. <u>24</u>	TWP. <u>12S</u>	RANGE <u>22W</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH <u>1:15 am</u>
LEASE <u>Bunker</u>	WELL # <u>5</u>	LOCATION <u>3 mi S East of Ogalla KS</u>			COUNTY <u>Pr. 30</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE)			<u>Northgate</u>				

CONTRACTOR Shields Drilling Rig #2
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 T.D. 221'
 CASING SIZE 8 5/8 DEPTH
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 25'
 PERFS
 DISPLACEMENT

OWNER Pioneer Res INC

CEMENT AMOUNT ORDERED 150 SK COM 3% AC

COMMON @
 POZMIX @
 GEL @
 CHLORIDE @
 ASC @
 @
 @
 @
 @
 @
 @
 HANDLING @
 MILEAGE @

TOTAL

REMARKS:

Ran 5 hrs of 8 5/8 casing + Ljt Hooked
to Rig Probe Circulation Hooked to pump
truck pump 150 SK of cement + displaced
12 1/2 bbls of H2O + shut IN.

SERVICE

DEPTH OF JOB
 PUMP TRUCK CHARGE
 EXTRA FOOTAGE @
 MILEAGE @
 MANIFOLD @
 @
 @

TOTAL

PLUG & FLOAT EQUIPMENT

@
 @
 @
 @
 @

TOTAL

CHARGE TO: Pioneer Res
 STREET
 CITY STATE ZIP

Global Oil Field Services, LLC

You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME George Begler

SIGNATURE George Begler

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

Geological Report

Bunker #5

344' FSL & 893' FEL

Sec. 24 T12s R22w

Trego County, Kansas



Pioneer Resources, Inc.

General Data

Well Data:	Pioneer Resources, Inc. Bunker #5 344' FSL & 893' FEL Sec. 24 T12s R22w Trego County, Kansas API # 15-195-23062-0000
Drilling Contractor:	Discovery Drilling Co. Inc. Rig #4
Geologist:	Jason T Alm
Spud Date:	September 18, 2018
Completion Date:	September 28, 2018
Elevation:	2313' Ground Level 2318' Kelly Bushing
Directions:	Ogallah KS, East 1 mi, North and East into location.
Casing:	218' 8 5/8" surface casing
Samples:	10' wet and dry, 3350' to RTD
Drilling Time:	3200' to RTD
Electric Logs:	None
Drillstem Tests:	Four, Trilobite Testing, Inc. "Matt Smith"
Problems:	None
Remarks:	None

Formation Tops

	Pioneer Resources, Inc.
	Bunker #5
	Sec. 24 T12s R22w
	344' FSL & 893' FEL
Formation	
Anhydrite	1743' +575
Base	1789' +529
 Topeka	 3354' -1036
Heebner	3573' -1255
Toronto	3598' -1280
Lansing	3608' -1290
BKC	3844' -1526
Marmaton	3933' -1615
Conglomerate	3977' -1659
Arbuckle	4028' -1710
RTD	4040' -1722

Sample Zone Descriptions

LKC A zone	(3608' -1290): Covered in DST #1 Ls – Fine crystalline, oolitic with poor to scattered fair oomoldic and oolitic porosity, light to fair spotted oil stain with light spot saturation, slight show of free oil when broken, fair yellow fluorescents.
LKC C zone	(3646' -1328): Covered in DST #1 Ls – Fine crystalline, oolitic with poor to fair oolitic porosity, light to fair oil stain, slight show of free oil, light odor, light yellow fluorescents.
LKC E zone	(3682' -1364): Covered in DST #2 Ls – Fine crystalline, oolitic in part with poor to scattered fair inter-crystalline porosity, light brown to tarry oil stain, slight show of free oil, very light odor, light show of free oil on cup.
LKC G zone	(3702' -1384): Covered in DST #3 Ls – Fine crystalline, oolitic with fair oomoldic and oolitic with scattered fair vuggy porosity, light to fair oil stain with light spotted saturation, fair show of free oil on cup and tray, light odor.
Marmaton	(3933' -1615): Covered in DST #4 Ls – Δ – Fine crystalline with poor inter-crystalline and vuggy porosity, heavy multicolored chert, slightly weathered with pinpoint vuggy porosity, light to fair oil stain, slight to fair show of free oil on cup, light odor.

Drill Stem Tests

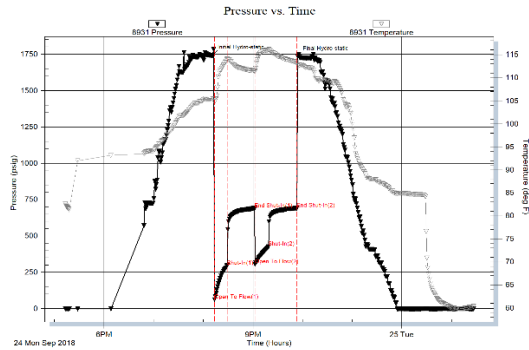
Trilobite Testing, Inc.
"Matt Smith"

DST #1 Toronto thru LKC C zone

Interval (3571' – 3660') Anchor Length 89'

IHP	– 1742 #	
IFP	– 15" – B.O.B. 3 ½ min.	61-295 #
ISI	– 30" – Dead	688 #
FFP	– 15" – B.O.B. 6 min.	304-426 #
FSI	– 30" – Dead	690 #
FHP	– 1735 #	
BHT	– 115°F	

Recovery: 97' WCM
756' MCW

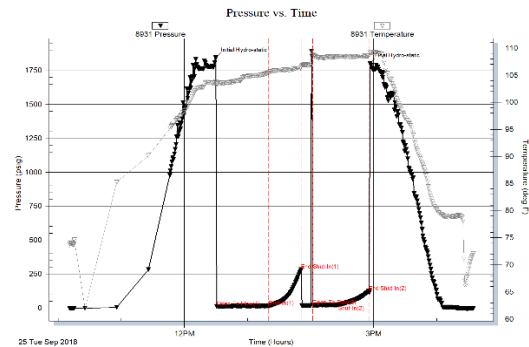


DST #2 LKC E zone

Interval (3672' – 3688') Anchor Length 16'

IHP	– 1843 #	
IFP	– 30" – Built to ¼ in.	9-14 #
ISI	– 30" – Dead	282 #
FFP	– 30" – Built to 1/8 in.	20-23 #
FSI	– 30" – Dead	123 #
FHP	– 1801 #	
BHT	– 109°F	

Recovery: 20' SOCM 2% Oil

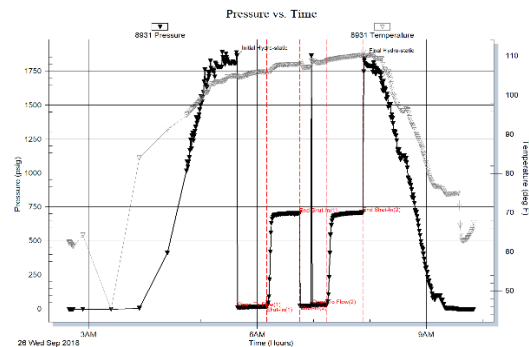


DST #3 LKC G zone

Interval (3697' – 3730') Anchor Length 33'

IHP	– 1862 #	
IFP	– 30" – Built to ¾ in.	9-18 #
ISI	– 30" – Dead	703 #
FFP	– 30" – Built to ¼ in.	30-30 #
FSI	– 30" – Dead	708 #
FHP	– 1841 #	
BHT	– 110°F	

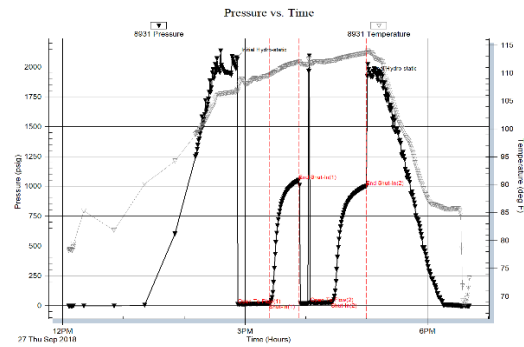
Recovery: 10' Mud w/ oil spots



DST #4 Marmaton

Interval (3938' – 3970') Anchor Length 32'

IHP – 2076 #
 IFP – 30" – Built to 1 ¼ in. 10-18 #
 ISI – 30" – Dead 1050 #
 FFP – 30" – Built to ¼ in. 24-28 #
 FSI – 30" – Dead 1001 #
 FHP – 1922 #
 BHT – 113°F



Recovery: 20' Mud w/ oil spots

Structural Comparison

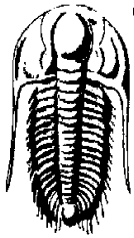
	Pioneer Resources, Inc.	John Jay Darrah Jr.		Hess Oil Co	
	Bunker #5	Keller #1		Bunker #2	
	Sec. 24 T12s R22w	Sec. 25 T12s R22w		Sec. 24 T12s R22w	
Formation	344' FSL & 893' FEL	NE NE NE		1980' FSL & 2970' FEL	
Anhydrite	1743' +575	1760' +575	FL	1769' +580	(-5)
Base	1789' +529	1806' +530	(-1)	1816' +533	(-4)
Topeka	3354' -1036	3374' -1035	(-1)	3378' -1029	(-7)
Heebner	3573' -1255	3590' -1255	FL	3596' -1247	(-8)
Toronto	3598' -1280	3616' -1281	(+1)	3620' -1271	(-11)
Lansing	3608' -1290	3626' -1291	(+1)	3632' -1283	(-13)
BKC	3844' -1526	3864' -1529	(+3)	NA	NA
Marmaton	3933' -1615	3950' -1615	FL	3693' -1614	(-1)
Conglomerate	3977' -1659	3994' -1659	FL	4012' -1663	(+4)
Arbuckle	4028' -1710	4024' -1685	(-25)	Not Reached	NR

Summary

The location for the Bunker #5 was found via 3-D seismic survey. The new well ran structurally slightly lower than expected via the survey and significantly lower on the Arbuckle. Four Drill Stem Tests were conducted, all of which were negative. After all gathered data had been examined the decision was made to plug and abandon the Bunker #5 well.

Respectfully Submitted,

Jason T Alm
 Hard Rock Consulting, Inc.



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Pioneer Resources Inc

80 Windmill Rd
Phillipsburg, Ks. 67661

ATTN: Jason Alm

24-12s-22w Trego Co. Ks

Bunker #5

Job Ticket: 64705

DST#: 1

Test Start: 2018.09.24 @ 17:13:18

GENERAL INFORMATION:

Formation: **Toronto - LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:13:18

Time Test Ended: 01:27:03

Test Type: Conventional Bottom Hole (Initial)

Tester: Matt Smith

Unit No: 68

Interval: 3571.00 ft (KB) To 3660.00 ft (KB) (TVD)

Reference Elevations: 2318.00 ft (KB)

Total Depth: 3660.00 ft (KB) (TVD)

2313.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8931 Inside

Press@RunDepth: 426.14 psig @ 3572.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.09.24

End Date:

2018.09.25

Last Calib.: 2018.09.25

Start Time: 17:13:23

End Time:

01:27:02

Time On Btm: 2018.09.24 @ 20:11:18

Time Off Btm: 2018.09.24 @ 21:54:18

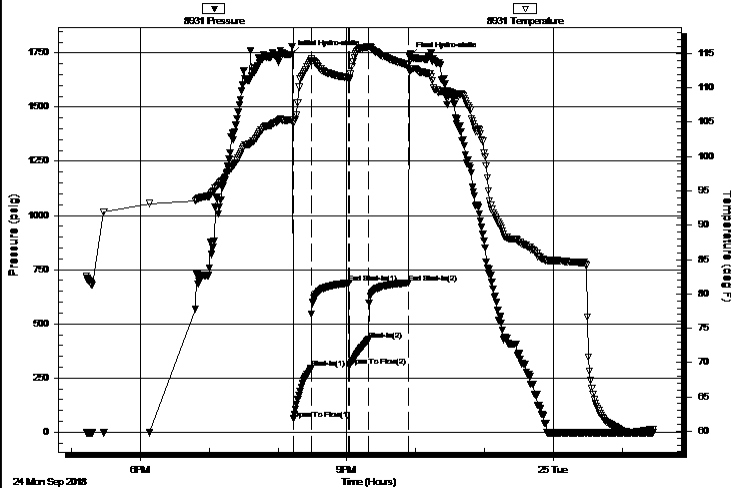
TEST COMMENT: IF: Strong blow . B.O.B. in 3 1/2 mins. Built to 39".

ISI: No blow .

FF: Strong blow . B.O.B. in 6 mins. Built to 23".

FSI: No blow .

Pressure vs. Time



PRESSURE SUMMARY

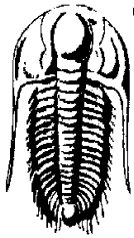
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1741.94	105.37	Initial Hydro-static
2	61.54	104.76	Open To Flow (1)
18	294.69	114.02	Shut-In (1)
51	687.61	111.48	End Shut-In (1)
51	304.10	111.30	Open To Flow (2)
68	426.14	115.98	Shut-In (2)
102	689.64	113.36	End Shut-In (2)
103	1734.68	112.56	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
62.00	MCW 77%w 23%w	0.47
372.00	WCM 95%w 5%w	2.83
320.00	WCM 75%w 25%w	4.49
64.00	WCM 60%w 40%w	0.90
35.00	MCW 98%w 2%w	0.49

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Pioneer Resources Inc

80 Windmill Rd
Phillipsburg, Ks. 67661

ATTN: Jason Alm

24-12s-22w Trego Co. Ks

Bunker #5

Job Ticket: 64705

DST#: 1

Test Start: 2018.09.24 @ 17:13:18

GENERAL INFORMATION:

Formation: **Toronto - LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:13:18

Time Test Ended: 01:27:03

Test Type: Conventional Bottom Hole (Initial)

Tester: Matt Smith

Unit No: 68

Interval: 3571.00 ft (KB) To 3660.00 ft (KB) (TVD)

Reference Elevations: 2318.00 ft (KB)

Total Depth: 3660.00 ft (KB) (TVD)

2313.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8792 Outside

Press@RunDepth: psig @ 3572.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.09.24

End Date:

2018.09.25

Last Calib.:

2018.09.25

Start Time: 17:13:45

End Time:

01:23:24

Time On Btm:

Time Off Btm:

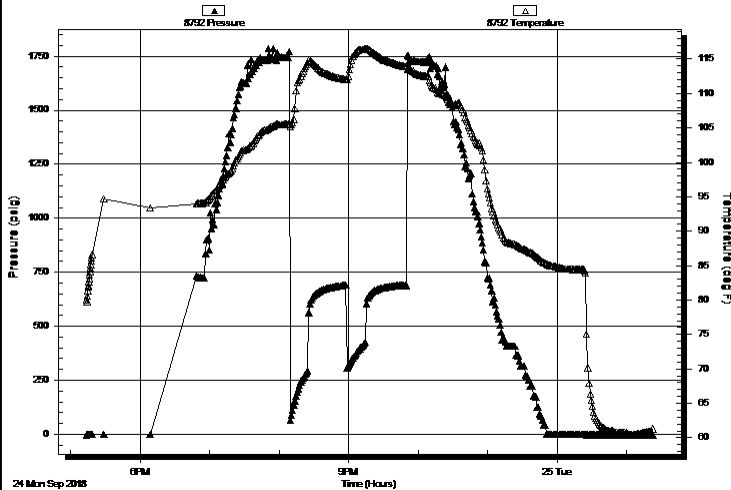
TEST COMMENT: IF: Strong blow . B.O.B. in 3 1/2 mins. Built to 39".

ISI: No blow .

FF: Strong blow . B.O.B. in 6 mins. Built to 23".

FSI: No blow .

Pressure vs. Time



PRESSURE SUMMARY

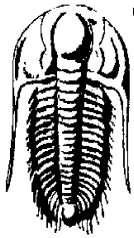
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
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Recovery

Length (ft)	Description	Volume (bbl)
62.00	MCW 77%w 23%w	0.47
372.00	WCM 95%w 5%w	2.83
320.00	WCM 75%w 25%w	4.49
64.00	WCM 60%w 40%w	0.90
35.00	MCW 98%w 2%w	0.49

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources Inc

24-12s-22w Trego Co. Ks

80 Windmill Rd
Phillipsburg, Ks. 67661

Bunker #5

Job Ticket: 64705

DST#: 1

ATTN: Jason Alm

Test Start: 2018.09.24 @ 17:13:18

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 57.00 sec/qt

Water Loss: 7.19 in³

Resistivity: ohm.m

Salinity: 2300.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

ft

bbl

psig

deg API

Water Salinity: 42000 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	MCW 77%m 23%w	0.472
372.00	WCM 95%w 5%m	2.833
320.00	WCM 75%w 25%m	4.488
64.00	WCM 60%w 40%m	0.898
35.00	MCW 98%m 2%w	0.491

Total Length: 853.00 ft

Total Volume: 9.182 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Water Salinity is RW .21 @ 63.5 degrees = 42,000 Chlorides. Grinds outs had gas smell and some slight oil.

Serial #: 8931

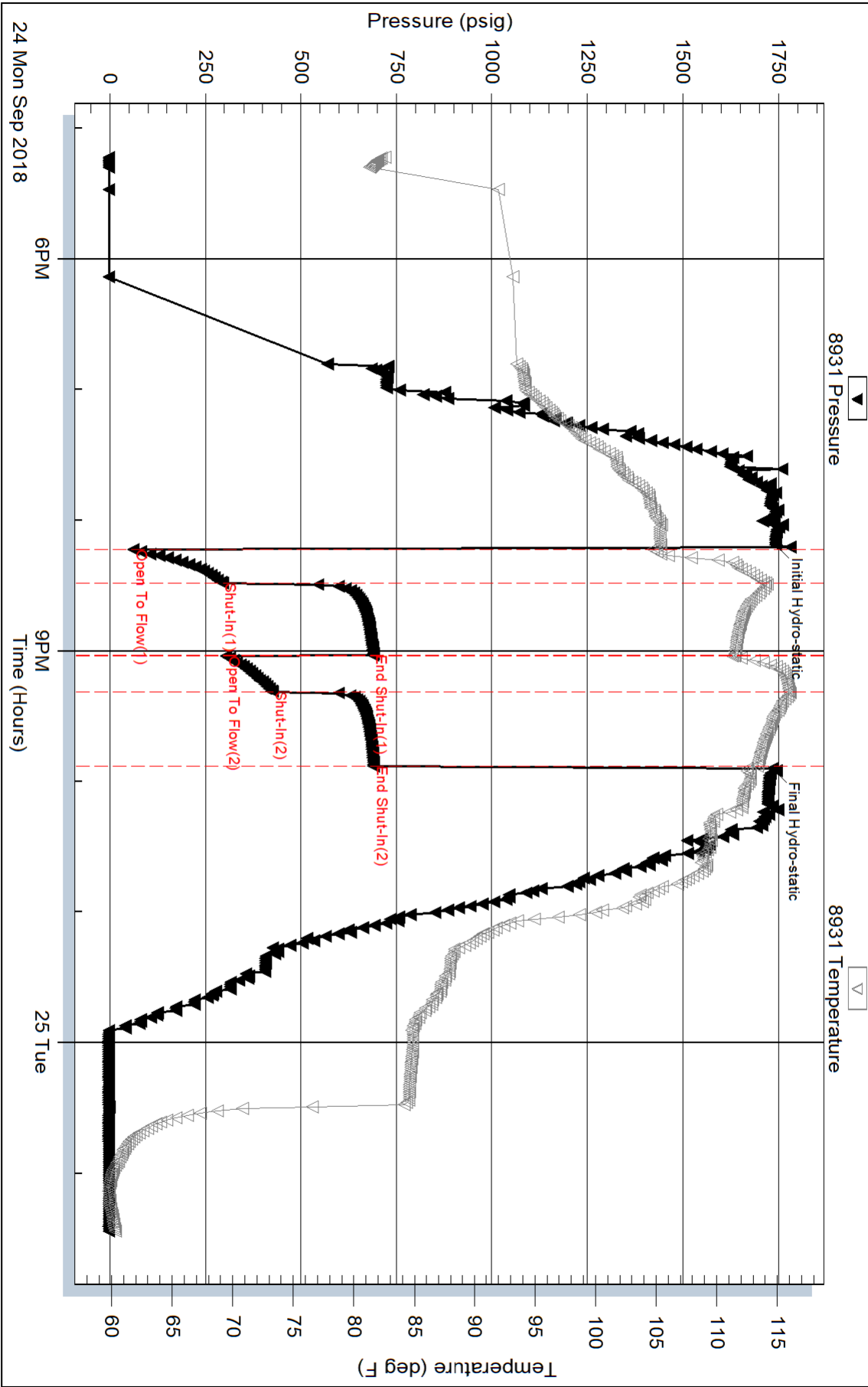
Inside

Pioneer Resources Inc

Bunker #5

DST Test Number: 1

Pressure vs. Time

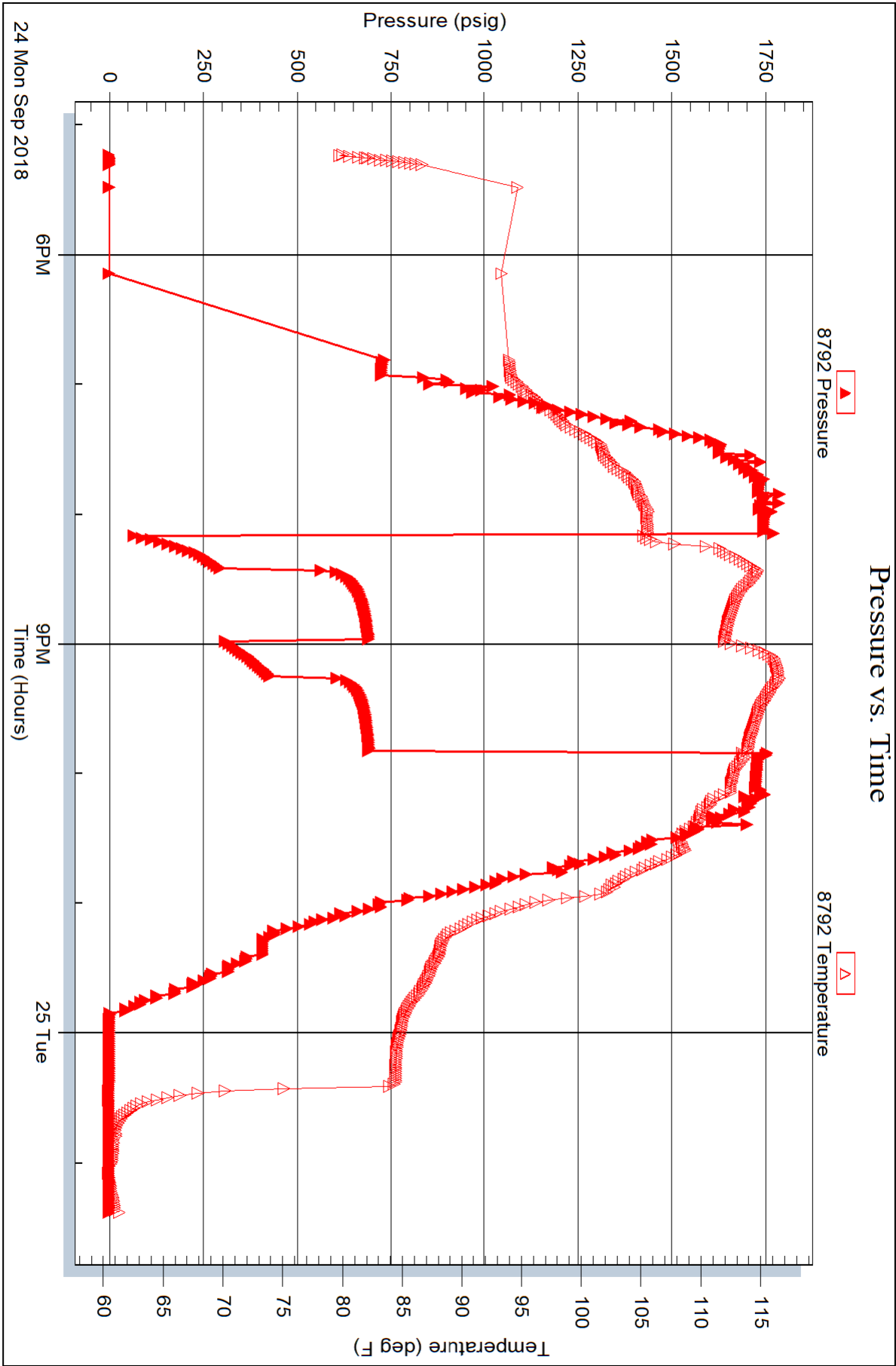


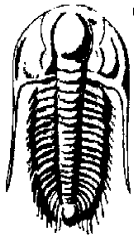
Serial #: 8792

Outside Pioneer Resources Inc

Bunker #5

DST Test Number: 1





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Pioneer Resources Inc

80 Windmill Rd
Phillipsburg, Ks. 67661

ATTN: Jason Alm

24-12s-22w Trego Co. Ks

Bunker #5

Job Ticket: 64706

DST#: 2

Test Start: 2018.09.25 @ 10:10:38

GENERAL INFORMATION:

Formation: **LKC "E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:30:33

Time Test Ended: 16:34:47

Test Type: Conventional Bottom Hole (Reset)

Tester: Matt Smith

Unit No: 68

Interval: 3672.00 ft (KB) To 3688.00 ft (KB) (TVD)

Total Depth: 3688.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2318.00 ft (KB)

2313.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8931 Inside

Press@RunDepth: 22.58 psig @ 3673.00 ft (KB)

Start Date: 2018.09.25

End Date:

2018.09.25

Start Time: 10:10:38

End Time:

16:34:47

Capacity: 8000.00 psig

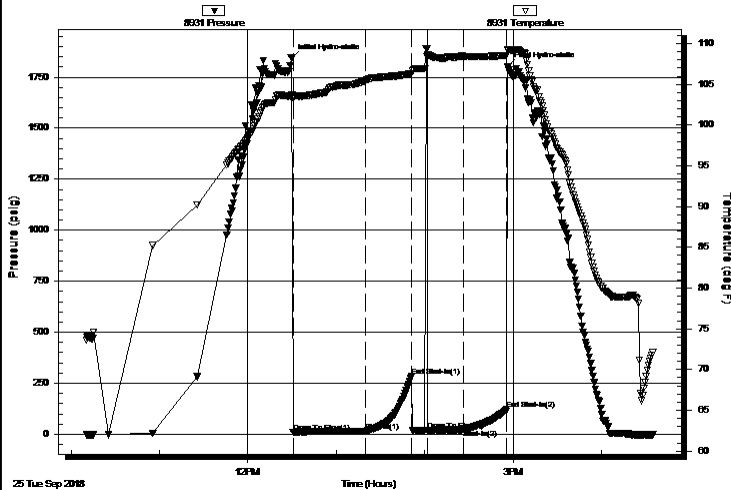
Last Calib.: 2018.09.25

Time On Btm: 2018.09.25 @ 12:29:48

Time Off Btm: 2018.09.25 @ 14:56:17

TEST COMMENT: IF: Weak blow . Surface - 1/4".
IS: No blow .
FF: Weak blow . Surface - 1/8". Flushed tool.
FS: No blow .

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1843.35	103.73	Initial Hydro-static
1	9.55	103.28	Open To Flow (1)
50	14.34	105.45	Shut-In(1)
82	282.37	106.29	End Shut-In(1)
92	20.35	108.67	Open To Flow (2)
117	22.58	108.43	Shut-In(2)
146	122.55	108.54	End Shut-In(2)
147	1801.21	109.26	Final Hydro-static

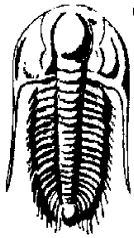
Recovery

Length (ft)	Description	Volume (bbl)
20.00	MCO 98% m 2% o	0.15

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Pioneer Resources Inc

80 Windmill Rd
Phillipsburg, Ks. 67661

ATTN: Jason Alm

24-12s-22w Trego Co. Ks

Bunker #5

Job Ticket: 64706

DST#: 2

Test Start: 2018.09.25 @ 10:10:38

GENERAL INFORMATION:

Formation: **LKC "E"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:30:33

Time Test Ended: 16:34:47

Test Type: Conventional Bottom Hole (Reset)

Tester: Matt Smith

Unit No: 68

Interval: 3672.00 ft (KB) To 3688.00 ft (KB) (TVD)

Reference Elevations: 2318.00 ft (KB)

Total Depth: 3688.00 ft (KB) (TVD)

2313.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8792 Outside

Press@RunDepth: psig @ 3673.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.09.25

End Date:

2018.09.25

Last Calib.:

2018.09.25

Start Time: 10:14:12

End Time:

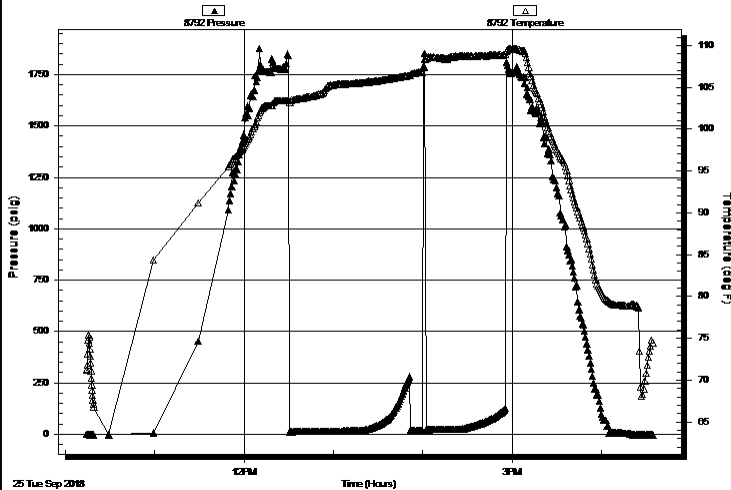
16:34:36

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak blow . Surface - 1/4".
IS: No blow .
FF: Weak blow . Surface - 1/8". Flushed tool.
FS: No blow .

Pressure vs. Time



PRESSURE SUMMARY

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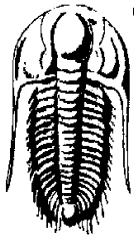
Recovery

Length (ft)	Description	Volume (bbl)
20.00	MCO 98% m 2% o	0.15

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources Inc

24-12s-22w Trego Co. Ks

80 Windmill Rd
Phillipsburg, Ks. 67661

Bunker #5

Job Ticket: 64706

DST#: 2

ATTN: Jason Alm

Test Start: 2018.09.25 @ 10:10:38

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 50.00 sec/qt

Water Loss: 6.00 in³

Resistivity: ohm.m

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

deg API

Water Salinity: 5000 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	MCO 98% m 2% o	0.152

Total Length: 20.00 ft Total Volume: 0.152 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Flushed tool in Final open. Gas smell in mud.

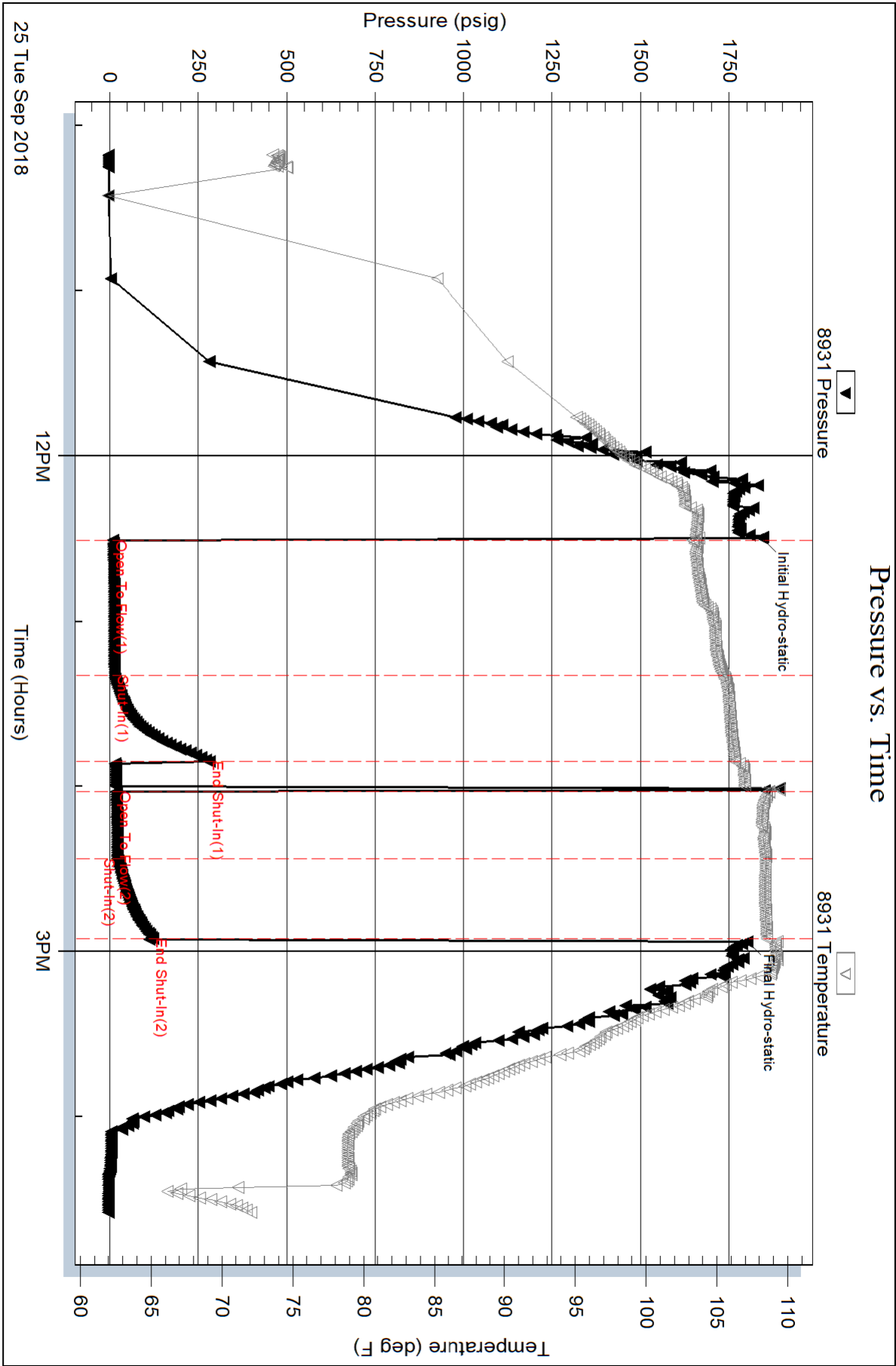
Serial #: 8931

Inside

Pioneer Resources Inc

Bunker #5

DST Test Number: 2

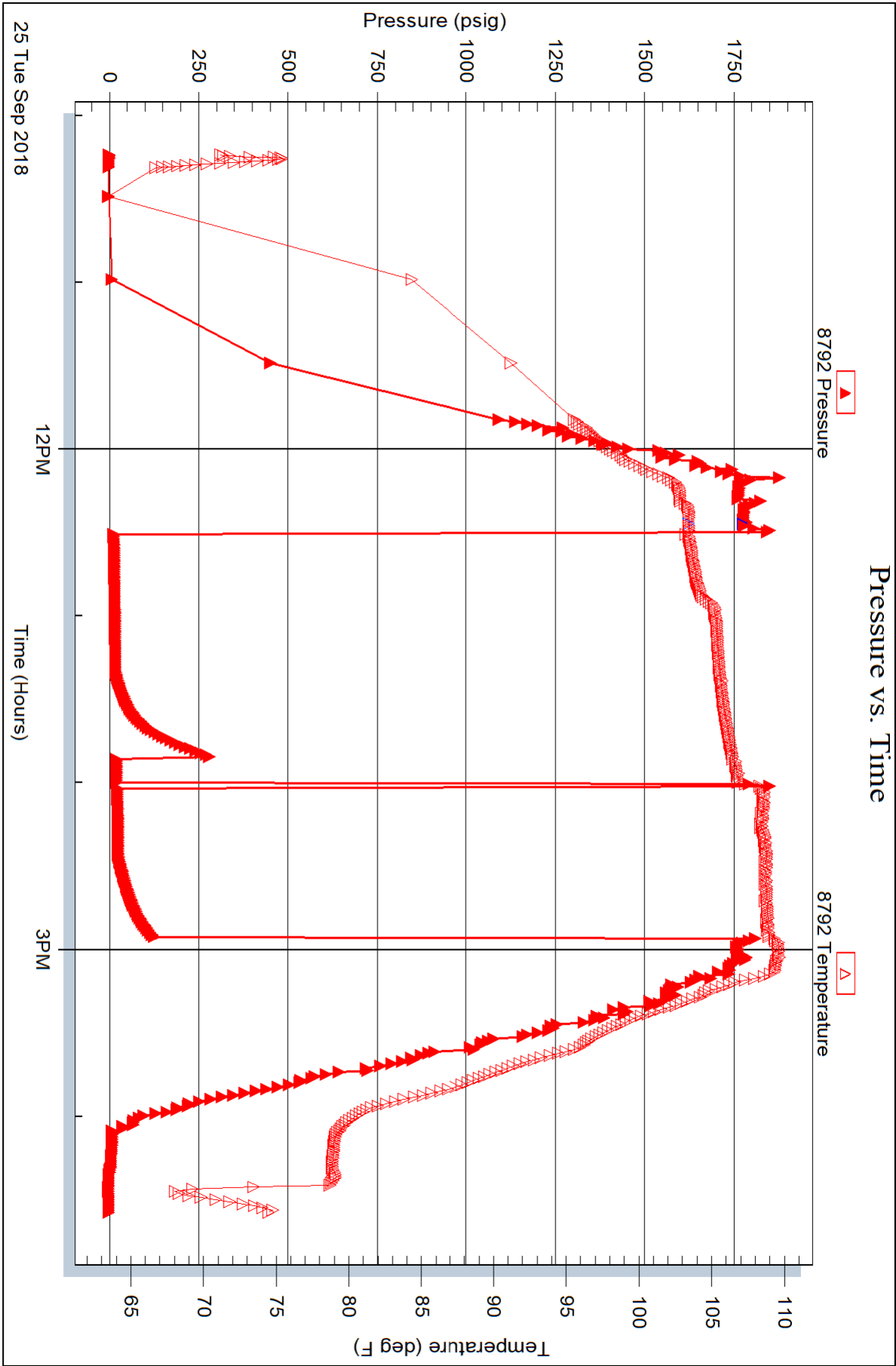


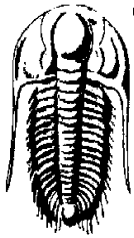
Serial #: 8792

Outside Pioneer Resources Inc

Bunker #5

DST Test Number: 2





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Pioneer Resources Inc

80 Windmill Rd
Phillipsburg, Ks. 67661

ATTN: Jason Alm

24-12s-22w Trego Co. Ks

Bunker #5

Job Ticket: 64707

DST#: 3

Test Start: 2018.09.26 @ 02:39:01

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:38:46

Time Test Ended: 09:50:31

Test Type: Conventional Bottom Hole (Reset)

Tester: Matt Smith

Unit No: 68

Interval: 3697.00 ft (KB) To 3730.00 ft (KB) (TVD)

Total Depth: 3730.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2318.00 ft (KB)

2313.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8931 Inside

Press@RunDepth: 30.42 psig @ 3698.00 ft (KB)

Start Date: 2018.09.26

End Date:

2018.09.26

Start Time: 02:39:06

End Time:

09:50:30

Capacity: 8000.00 psig

Last Calib.: 2018.09.26

Time On Btm: 2018.09.26 @ 05:38:01

Time Off Btm: 2018.09.26 @ 07:53:46

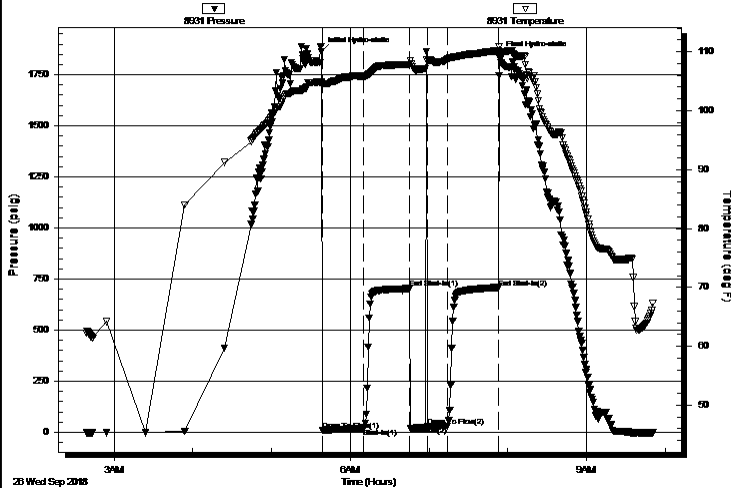
TEST COMMENT: IF: Weak blow . Built to 3/4".

ISI: No blow .

FF: Weak blow . Surface to 1/4".

FSI: No blow .

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1862.03	104.97	Initial Hydro-static
1	9.32	104.28	Open To Flow (1)
32	18.26	105.88	Shut-In(1)
67	703.45	107.85	End Shut-In(1)
81	30.22	108.22	Open To Flow (2)
96	30.42	108.79	Shut-In(2)
135	707.75	110.16	End Shut-In(2)
136	1841.34	109.72	Final Hydro-static

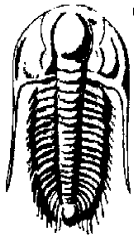
Recovery

Length (ft)	Description	Volume (bbl)
10.00	Drig Mw O Specs	0.08

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Pioneer Resources Inc

80 Windmill Rd
Phillipsburg, Ks. 67661

ATTN: Jason Alm

24-12s-22w Trego Co. Ks

Bunker #5

Job Ticket: 64707

DST#: 3

Test Start: 2018.09.26 @ 02:39:01

GENERAL INFORMATION:

Formation: **LKC "G"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:38:46

Time Test Ended: 09:50:31

Test Type: Conventional Bottom Hole (Reset)

Tester: Matt Smith

Unit No: 68

Interval: 3697.00 ft (KB) To 3730.00 ft (KB) (TVD)

Total Depth: 3730.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2318.00 ft (KB)

2313.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8792 Outside

Press@RunDepth: psig @ 3698.00 ft (KB)

Start Date: 2018.09.26

End Date:

2018.09.26

Start Time: 02:43:15

End Time:

09:50:39

Capacity: 8000.00 psig

Last Calib.:

2018.09.26

Time On Btm:

Time Off Btm:

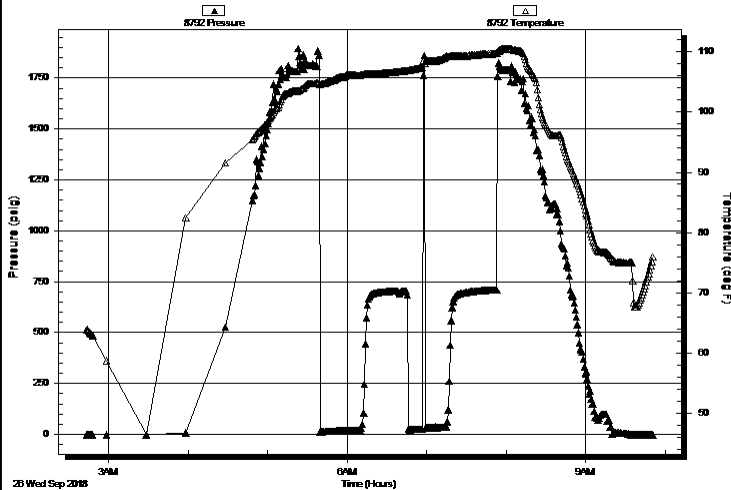
TEST COMMENT: IF: Weak blow . Built to 3/4".

ISI: No blow .

FF: Weak blow . Surface to 1/4".

FSI: No blow .

Pressure vs. Time



PRESSURE SUMMARY

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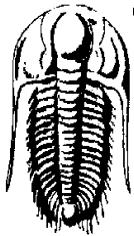
Recovery

Length (ft)	Description	Volume (bbl)
10.00	Drig Mw O Specs	0.08

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources Inc

24-12s-22w Trego Co. Ks

80 Windmill Rd
Phillipsburg, Ks. 67661

Bunker #5

Job Ticket: 64707

DST#: 3

ATTN: Jason Alm

Test Start: 2018.09.26 @ 02:39:01

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 53.00 sec/qt

Water Loss: 6.00 in³

Resistivity: ohm.m

Salinity: 5000.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

Water Salinity: 5000 ppm

ft

bbl

psig

deg API

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Drig Mw O Specs	0.076

Total Length: 10.00 ft Total Volume: 0.076 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments:

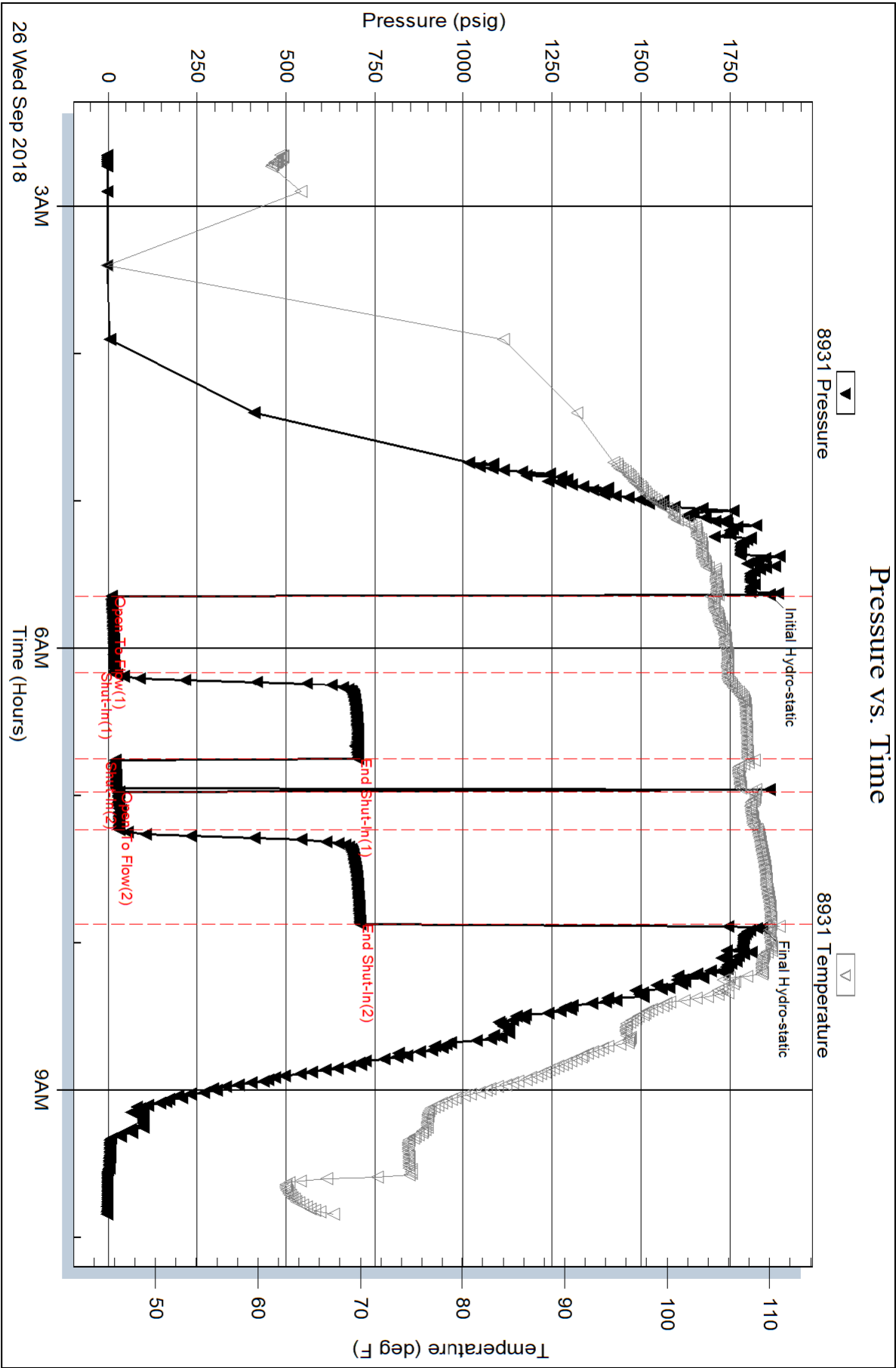
Serial #: 8931

Inside

Pioneer Resources Inc

Bunker #5

DST Test Number: 3

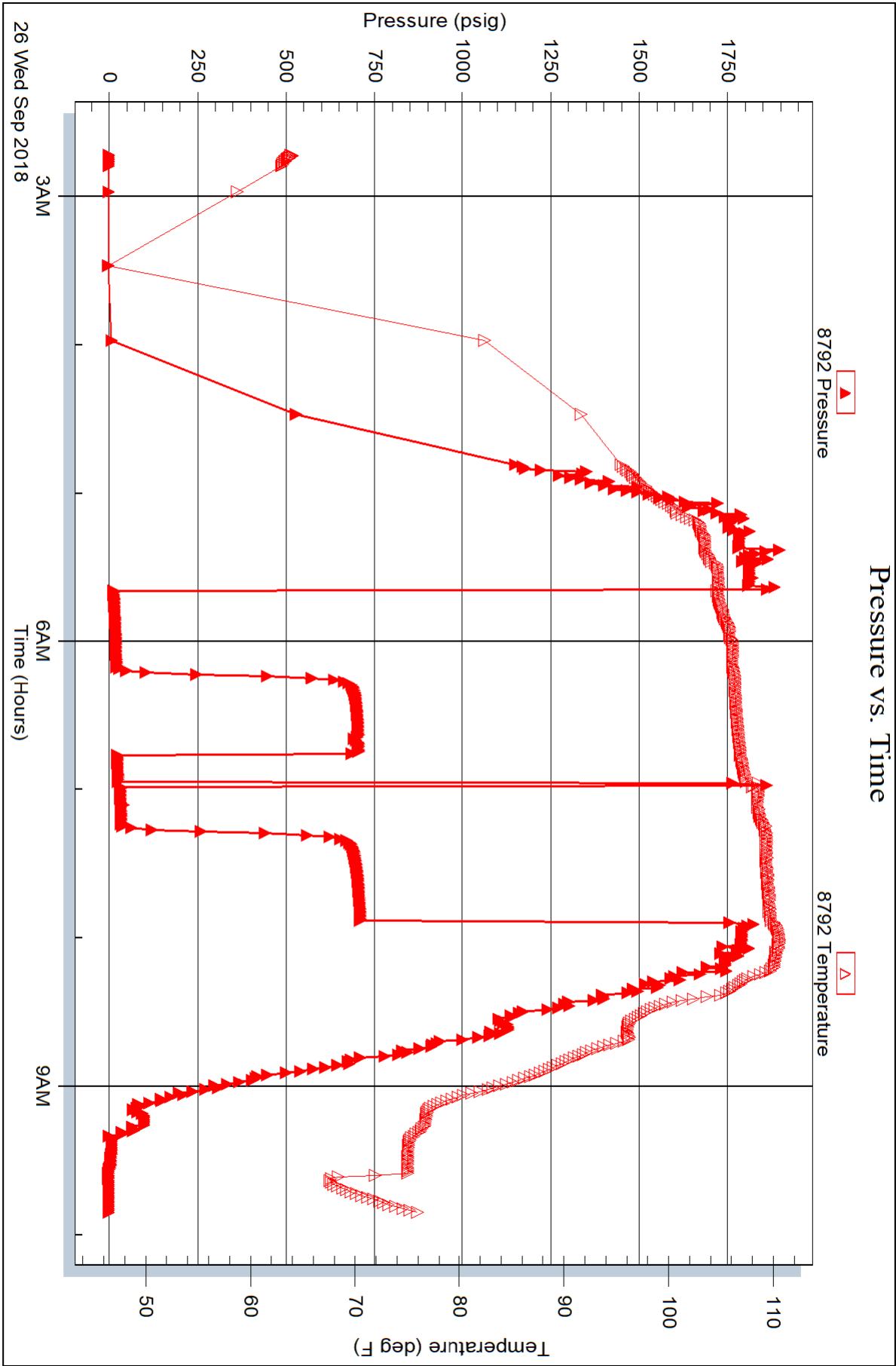


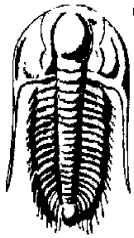
Serial #: 8792

Outside Pioneer Resources Inc

Bunker #5

DST Test Number: 3





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Pioneer Resources Inc

80 Windmill Rd
Phillipsburg, Ks. 67661

ATTN: Jason Alm

24-12s-22w Trego Co. Ks

Bunker #5

Job Ticket: 64708

DST#: 4

Test Start: 2018.09.27 @ 12:05:46

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:52:46

Time Test Ended: 18:41:31

Test Type: Conventional Bottom Hole (Reset)

Tester: Matt Smith

Unit No: 68

Interval: 3938.00 ft (KB) To 3970.00 ft (KB) (TVD)

Total Depth: 3970.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2318.00 ft (KB)

2313.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 8931 Inside

Press@RunDepth: 28.09 psig @ 3939.00 ft (KB)

Start Date: 2018.09.27

End Date:

2018.09.27

Start Time: 12:05:51

End Time:

18:41:30

Capacity: 8000.00 psig

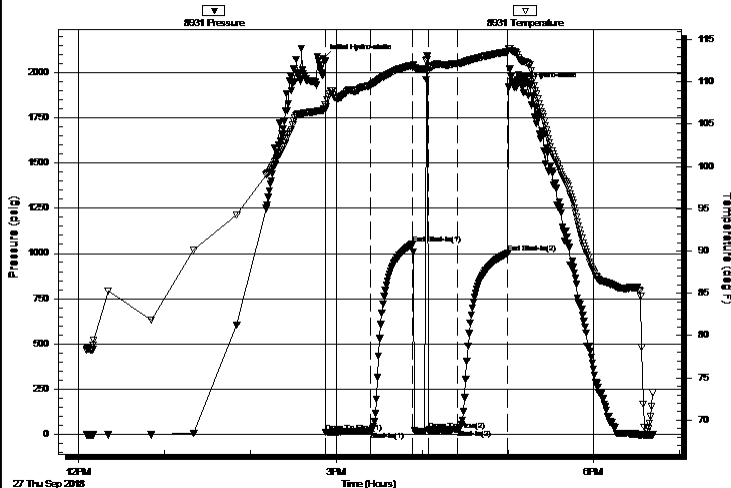
Last Calib.: 2018.09.27

Time On Btm: 2018.09.27 @ 14:51:16

Time Off Btm: 2018.09.27 @ 17:00:46

TEST COMMENT: IF: Weak blow . Built to 1 1/4".
ISI: No blow .
FF: Weak blow . Built to 1/4", after flush.
FSI: No blow .

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2076.63	106.67	Initial Hydro-static
2	10.66	106.79	Open To Flow (1)
33	17.79	109.62	Shut-In(1)
62	1050.42	111.97	End Shut-In(1)
74	24.32	111.86	Open To Flow (2)
94	28.09	112.18	Shut-In(2)
129	1001.09	113.55	End Shut-In(2)
130	1922.05	113.93	Final Hydro-static

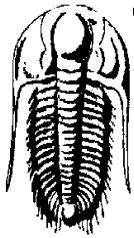
Recovery

Length (ft)	Description	Volume (bbl)
20.00	Drig M w Oil specs	0.15

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Pioneer Resources Inc

80 Windmill Rd
Phillipsburg, Ks. 67661

ATTN: Jason Alm

24-12s-22w Trego Co. Ks

Bunker #5

Job Ticket: 64708

DST#: 4

Test Start: 2018.09.27 @ 12:05:46

GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:52:46

Time Test Ended: 18:41:31

Test Type: Conventional Bottom Hole (Reset)

Tester: Matt Smith

Unit No: 68

Interval: 3938.00 ft (KB) To 3970.00 ft (KB) (TVD)

Reference Elevations: 2318.00 ft (KB)

Total Depth: 3970.00 ft (KB) (TVD)

2313.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8792 Outside

Press@RunDepth: psig @ 3939.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.09.27

End Date:

2018.09.27

Last Calib.:

2018.09.27

Start Time: 12:05:48

End Time:

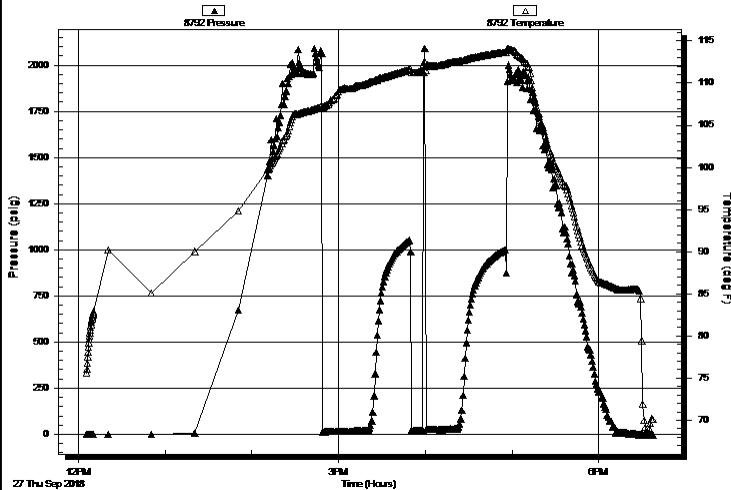
18:37:42

Time On Btm:

Time Off Btm:

TEST COMMENT: IF: Weak blow . Built to 1 1/4".
IS: No blow .
FF: Weak blow . Built to 1/4", after flush.
FS: No blow .

Pressure vs. Time



PRESSURE SUMMARY

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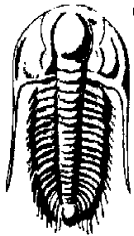
Recovery

Length (ft)	Description	Volume (bbl)
20.00	Drig M w Oil specs	0.15

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Pioneer Resources Inc

24-12s-22w Trego Co. Ks

80 Windmill Rd
Phillipsburg, Ks. 67661

Bunker #5

Job Ticket: 64708

DST#: 4

ATTN: Jason Alm

Test Start: 2018.09.27 @ 12:05:46

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 10.00 lb/gal

Viscosity: 60.00 sec/qt

Water Loss: 6.80 in³

Resistivity: ohm.m

Salinity: 4800.00 ppm

Filter Cake: 0.20 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

Oil API:

deg API

Water Salinity: 4800 ppm

ft

bbl

psig

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Drig Mw Oil specs	0.152

Total Length: 20.00 ft Total Volume: 0.152 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Vis for DST 4 is 60+.

Serial #: 8931

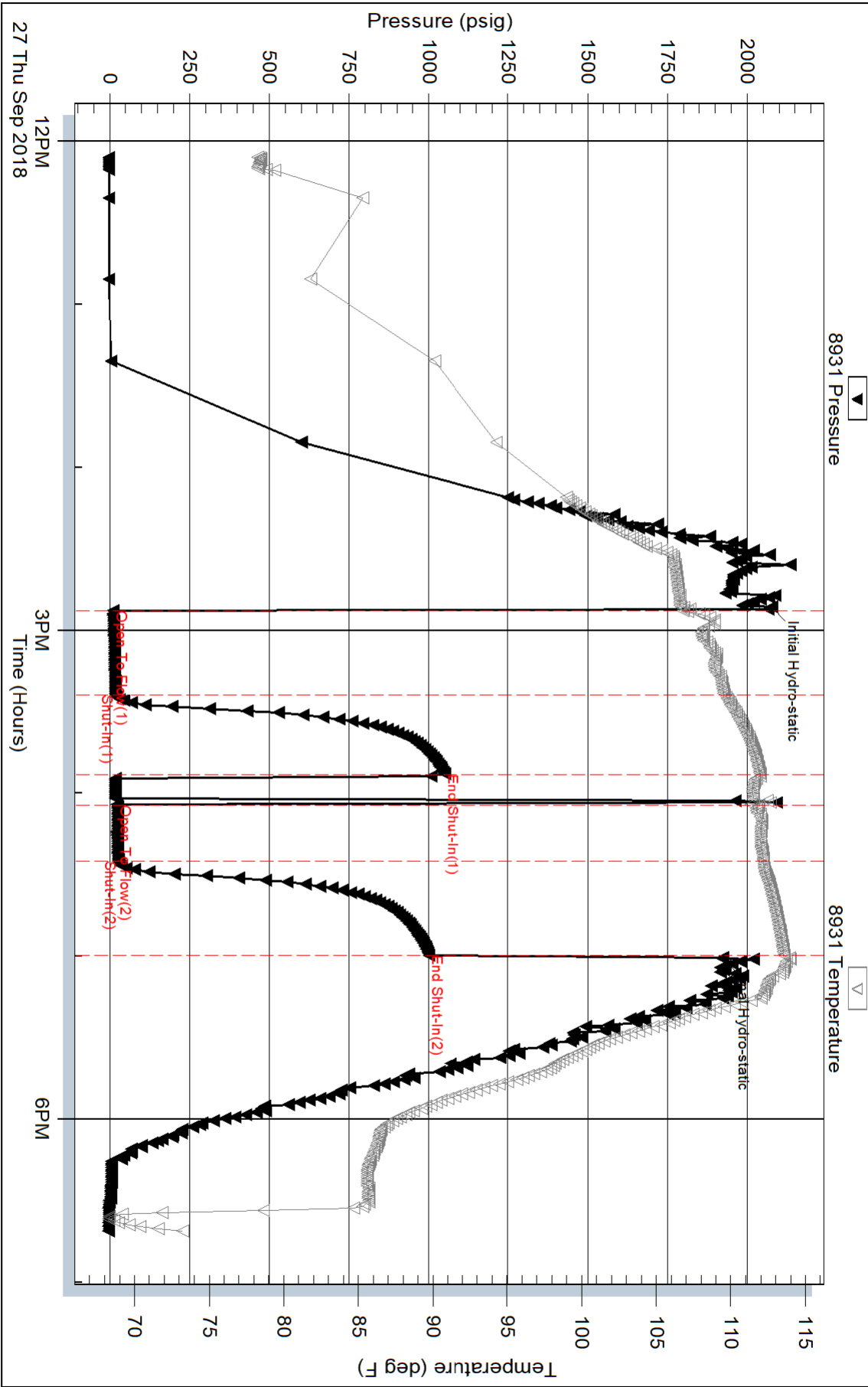
Inside

Pioneer Resources Inc

Bunker #5

DST Test Number: 4

Pressure vs. Time



Serial #: 8792

Outside Pioneer Resources Inc

Bunker #5

DST Test Number: 4

