



DRILL STEM TEST REPORT

Prepared For: **Canyon Operating LLC**

5228 Lonetree Drive
Loveland, CO 80537

ATTN: Bruce Ard

B Bar B #25-1

25-8S-23W Graham,KS

Start Date: 2018.11.06 @ 09:49:44

End Date: 2018.11.06 @ 15:00:08

Job Ticket #: 64793 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.11.09 @ 15:01:11



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

ATTN: Bruce Ard

Job Ticket: 64793

DST#: 1

Test Start: 2018.11.06 @ 09:49:44

GENERAL INFORMATION:

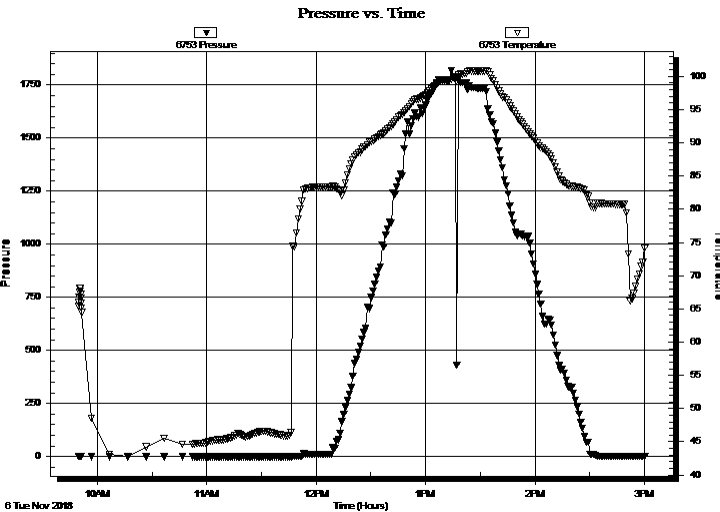
Formation: **Lansing "C&D"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened:
 Time Test Ended: 15:00:08
Interval: 3545.00 ft (KB) To 3579.00 ft (KB) (TVD)
 Total Depth: 3579.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Brannan Lonsdale
 Unit No: 73
 Reference Elevations: 2238.00 ft (KB)
 2233.00 ft (CF)
 KB to GR/CF: 5.00 ft

Serial #: 6753

Outside

Press@RunDepth: psig @ 3546.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2018.11.06 End Date: 2018.11.06 Last Calib.: 2018.11.06
 Start Time: 09:49:44 End Time: 15:00:08 Time On Btm:
 Time Off Btm:

TEST COMMENT: PACKER FAILURE



PRESSURE SUMMARY

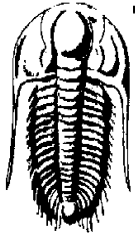
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
90.00	M	0.73

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64793

DST#: 1

ATTN: Bruce Ard

Test Start: 2018.11.06 @ 09:49:44

GENERAL INFORMATION:

Formation: **Lansing "C&D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened:

Time Test Ended: 15:00:08

Test Type: Conventional Bottom Hole (Initial)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3545.00 ft (KB) To 3579.00 ft (KB) (TVD)

Reference Elevations: 2238.00 ft (KB)

Total Depth: 3579.00 ft (KB) (TVD)

2233.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 6771

Inside

Press@RunDepth: psig @ 3546.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.06

End Date:

2018.11.06

Last Calib.:

2018.11.06

Start Time: 09:49:41

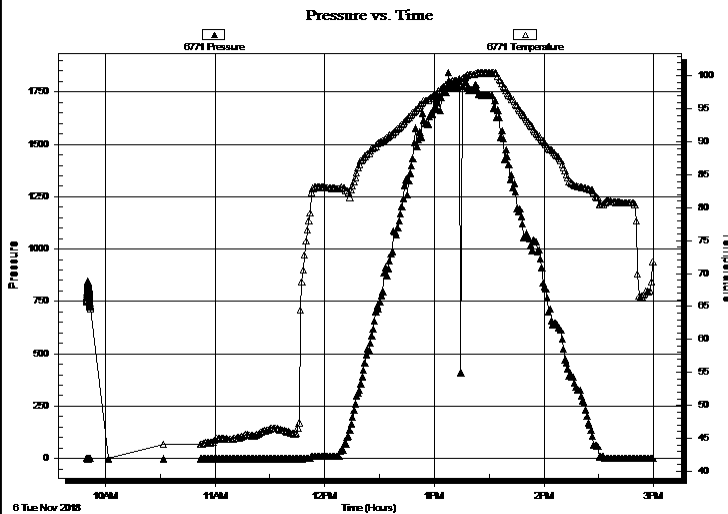
End Time:

15:00:01

Time On Btm:

Time Off Btm:

TEST COMMENT: PACKER FAILURE



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
90.00	M	0.73

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64793

DST#: 1

ATTN: Bruce Ard

Test Start: 2018.11.06 @ 09:49:44

Tool Information

Drill Pipe:	Length: 3485.00 ft	Diameter: 3.82 inches	Volume: 49.40 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 59.00 ft	Diameter: 2.25 inches	Volume: 0.29 bbl	Weight to Pull Loose:	lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	55000.00 lb
Depth to Top Packer:	3545.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval between Packers:	34.00 ft				
Tool Length:	62.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3518.00	
Shut In Tool	5.00			3523.00	
Hydraulic tool	5.00			3528.00	
Jars	5.00			3533.00	
Safety Joint	3.00			3536.00	
Packer	5.00			3541.00	28.00 Bottom Of Top Packer
Packer	4.00			3545.00	
Stubb	1.00			3546.00	
Recorder	0.00	6771	Inside	3546.00	
Recorder	0.00	6753	Outside	3546.00	
Perforations	30.00			3576.00	
Bullnose	3.00			3579.00	34.00 Bottom Packers & Anchor

Total Tool Length: 62.00



**TRILOBITE
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DRILL STEM TEST REPORT

FLUID SUMMARY

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64793

DST#: 1

ATTN: Bruce Ard

Test Start: 2018.11.06 @ 09:49:44

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: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
90.00	M	0.730

Total Length: 90.00 ft Total Volume: 0.730 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

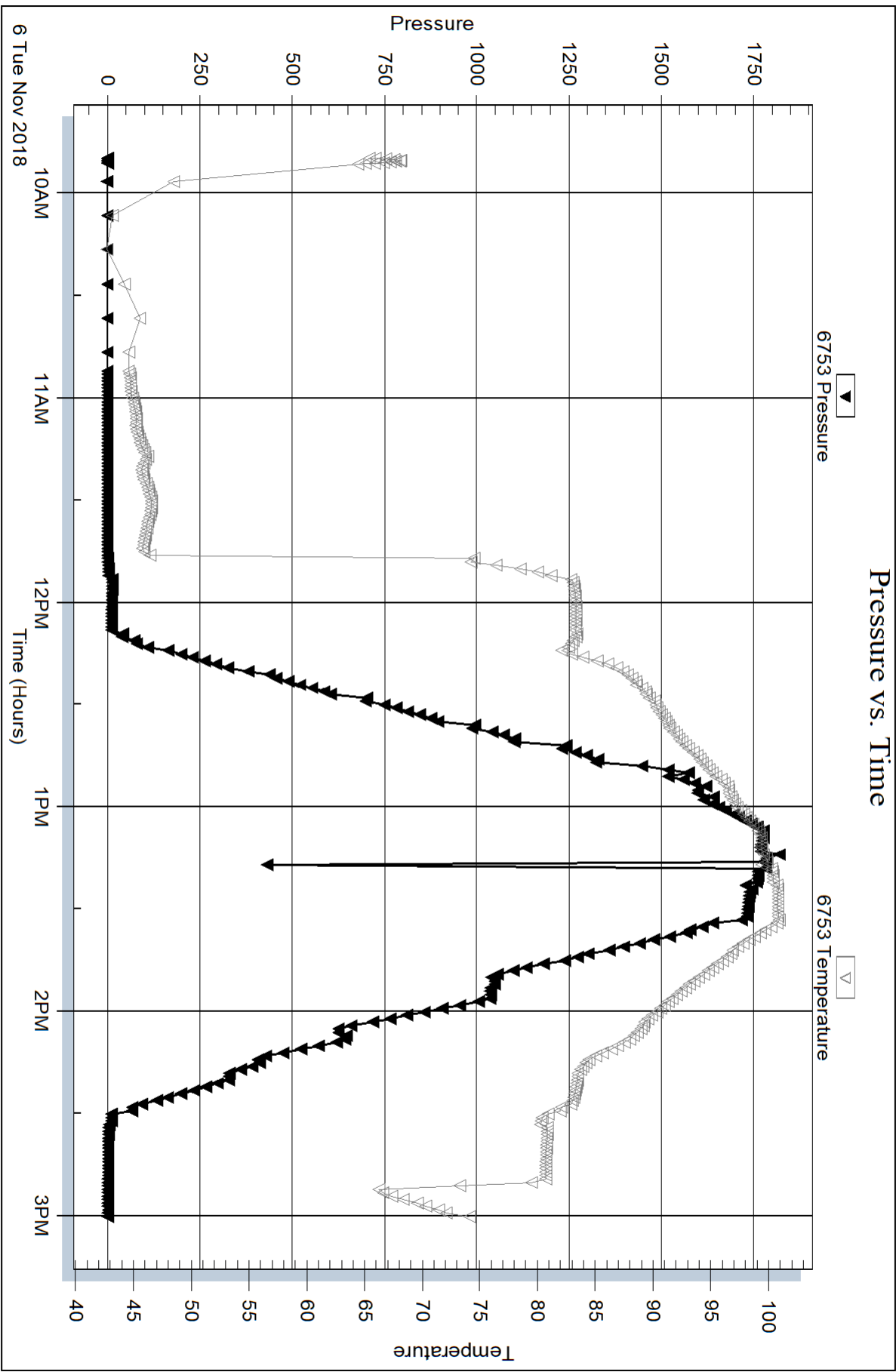
Recovery Comments:

Serial #: 6753

Outside Canyon Operating LLC

B Bar B#25-1

DST Test Number: 1



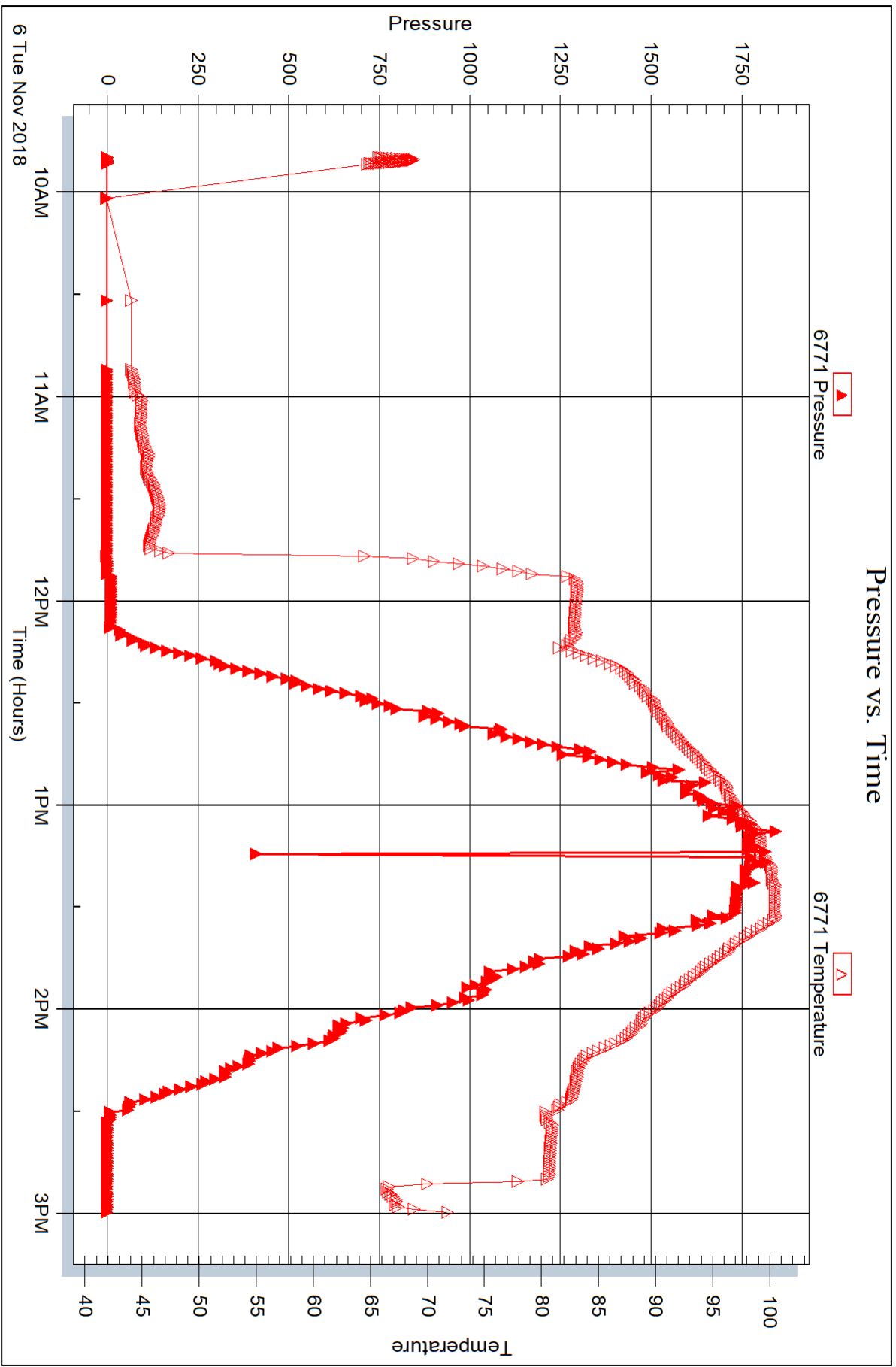
Serial #: 6771

Inside

Canyon Operating LLC

B Bar B#25-1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **Canyon Operating LLC**

5228 Lonetree Drive
Loveland, CO 80537

ATTN: Bruce Ard

B Bar B #25-1

25-8S-23W Graham,KS

Start Date: 2018.11.06 @ 15:18:53

End Date: 2018.11.06 @ 21:46:14

Job Ticket #: 64794 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.11.09 @ 15:00:45



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64794

DST#: 2

ATTN: Bruce Ard

Test Start: 2018.11.06 @ 15:18:53

GENERAL INFORMATION:

Formation: **LKC "C - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:43:31

Time Test Ended: 21:46:14

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3539.00 ft (KB) To 3579.00 ft (KB) (TVD)

Reference Elevations: 2238.00 ft (KB)

Total Depth: 3579.00 ft (KB) (TVD)

2233.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6753 Outside

Press@RunDepth: 31.93 psig @ 3540.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.06

End Date:

2018.11.06

Last Calib.:

2018.11.06

Start Time: 15:18:58

End Time:

21:46:14

Time On Btm:

2018.11.06 @ 16:42:01

Time Off Btm:

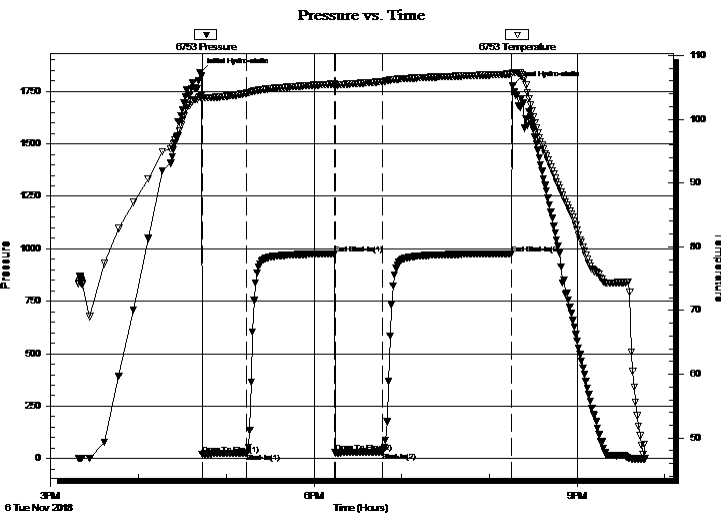
2018.11.06 @ 20:16:01

TEST COMMENT: 30- IF- Slowly built to 1.95"

60- IS- No blow

30- FF- No blow

90- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1839.76	103.46	Initial Hydro-static
2	21.15	103.29	Open To Flow (1)
32	26.88	104.06	Shut-In(1)
92	976.15	105.54	End Shut-In(1)
93	28.67	105.10	Open To Flow (2)
125	31.93	105.91	Shut-In(2)
213	975.97	107.09	End Shut-In(2)
214	1775.97	107.35	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	M	0.35

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Canyon Operating LLC

5228 Lonetree Drive
Loveland, CO 80537

ATTN: Bruce Ard

25-8S-23W Graham, KS

B Bar B #25-1

Job Ticket: 64794

DST#: 2

Test Start: 2018.11.06 @ 15:18:53

GENERAL INFORMATION:

Formation: **LKC "C - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 16:43:31

Time Test Ended: 21:46:14

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3539.00 ft (KB) To 3579.00 ft (KB) (TVD)

Reference Elevations: 2238.00 ft (KB)

Total Depth: 3579.00 ft (KB) (TVD)

2233.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6771 Inside

Press@RunDepth: psig @ 3540.00 ft (KB)

Start Date: 2018.11.06

End Date:

2018.11.06

Start Time: 15:19:23

End Time:

21:49:43

Capacity: 8000.00 psig

Last Calib.:

2018.11.06

Time On Btm:

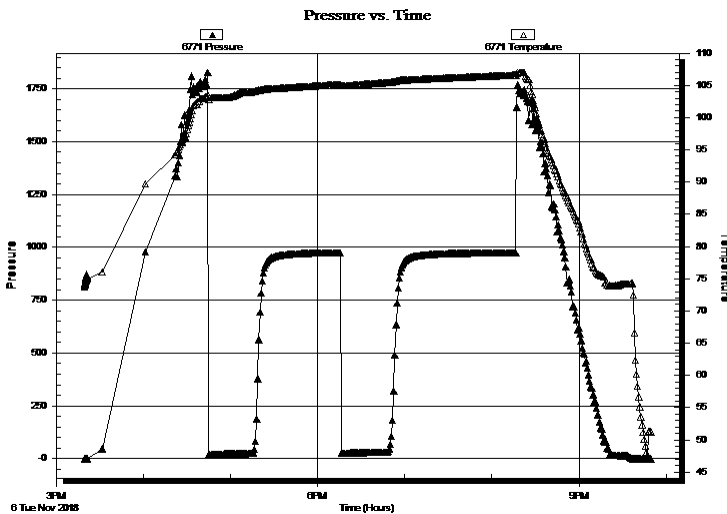
Time Off Btm:

TEST COMMENT: 30- IF- Slowly built to 1.95"

60- IS- No blow

30- FF- No blow

90- FSI- No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
25.00	M	0.35

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
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DRILL STEM TEST REPORT

TOOL DIAGRAM

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64794

DST#: 2

ATTN: Bruce Ard

Test Start: 2018.11.06 @ 15:18:53

Tool Information

Drill Pipe:	Length: 3517.00 ft	Diameter: 3.82 inches	Volume: 49.85 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3539.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	40.00 ft			
Tool Length:	68.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3512.00	
Shut In Tool	5.00			3517.00	
Hydraulic tool	5.00			3522.00	
Jars	5.00			3527.00	
Safety Joint	3.00			3530.00	
Packer	5.00			3535.00	28.00 Bottom Of Top Packer
Packer	4.00			3539.00	
Stubb	1.00			3540.00	
Recorder	0.00	6771	Inside	3540.00	
Recorder	0.00	6753	Outside	3540.00	
Perforations	36.00			3576.00	
Bullnose	3.00			3579.00	40.00 Bottom Packers & Anchor

Total Tool Length: 68.00



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DRILL STEM TEST REPORT

FLUID SUMMARY

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64794

DST#: 2

ATTN: Bruce Ard

Test Start: 2018.11.06 @ 15:18:53

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: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
25.00	M	0.354

Total Length: 25.00 ft Total Volume: 0.354 bbl

Num Fluid Samples: 0

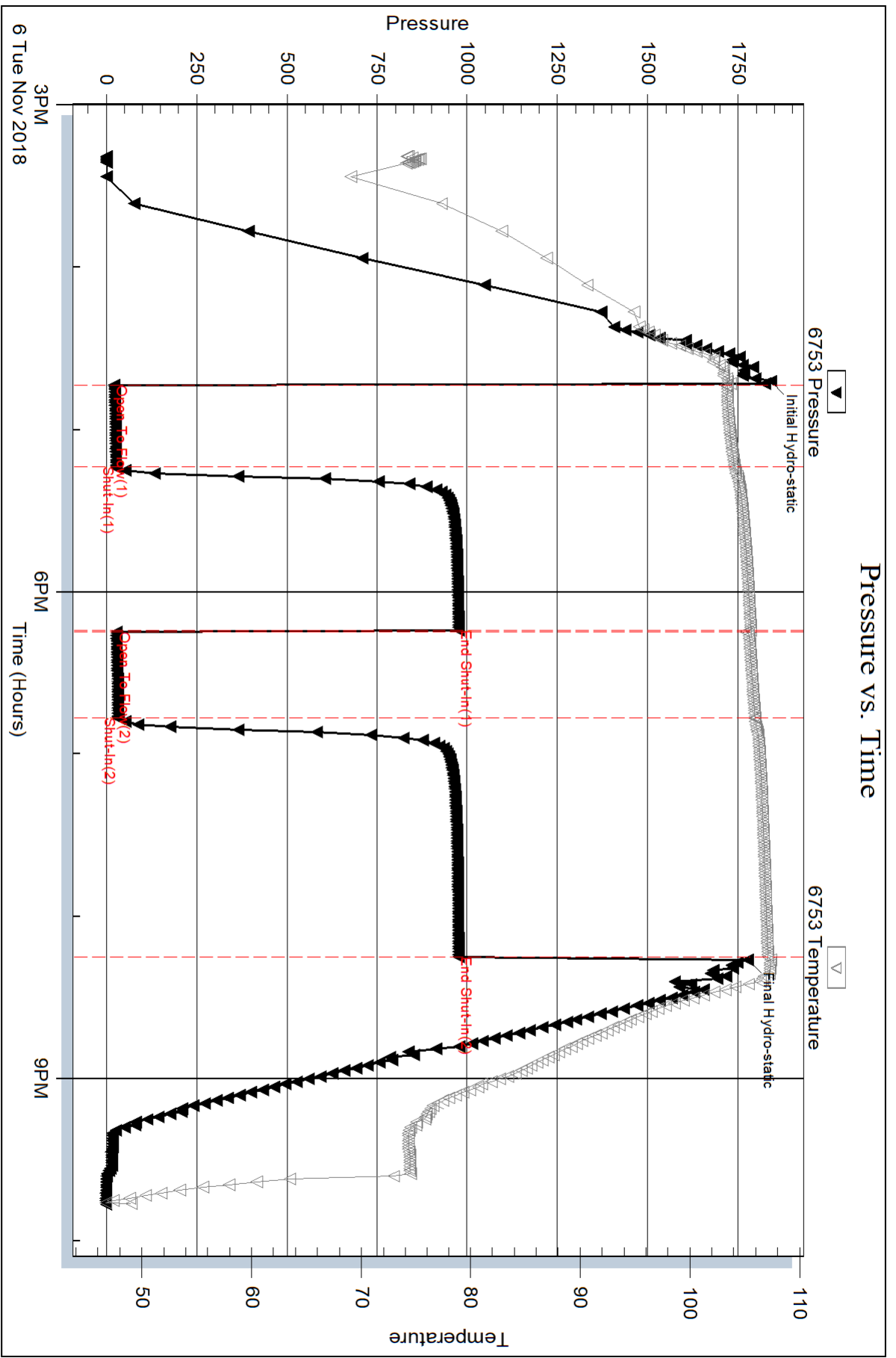
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



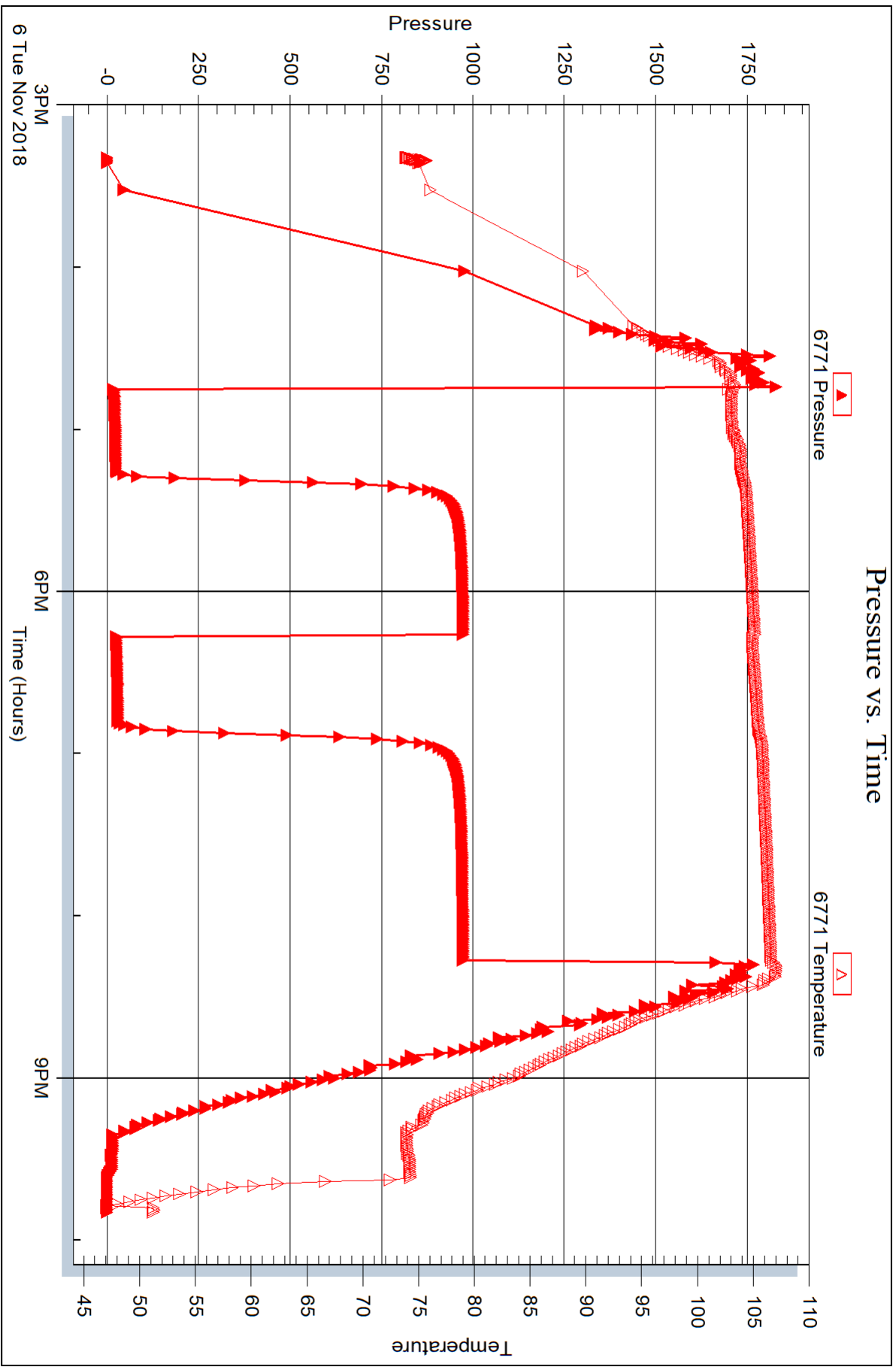
Serial #: 6771

Inside

Canyon Operating LLC

B Bar B#25-1

DST Test Number: 2





DRILL STEM TEST REPORT

Prepared For: **Canyon Operating LLC**

5228 Lonetree Drive
Loveland, CO 80537

ATTN: Bruce Ard

B Bar B #25-1

25-8S-23W Graham,KS

Start Date: 2018.11.07 @ 03:45:04

End Date: 2018.11.07 @ 11:16:04

Job Ticket #: 64795 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.11.09 @ 14:59:55



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64795

DST#: 3

ATTN: Bruce Ard

Test Start: 2018.11.07 @ 03:45:04

GENERAL INFORMATION:

Formation: **LKC "E - F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:43:34

Time Test Ended: 11:16:04

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3575.00 ft (KB) To 3605.00 ft (KB) (TVD)

Reference Elevations: 2238.00 ft (KB)

Total Depth: 3605.00 ft (KB) (TVD)

2233.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6753 Outside

Press@RunDepth: 97.50 psig @ 3576.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.07

End Date:

2018.11.07

Last Calib.:

2018.11.07

Start Time: 03:45:09

End Time:

11:16:03

Time On Btm:

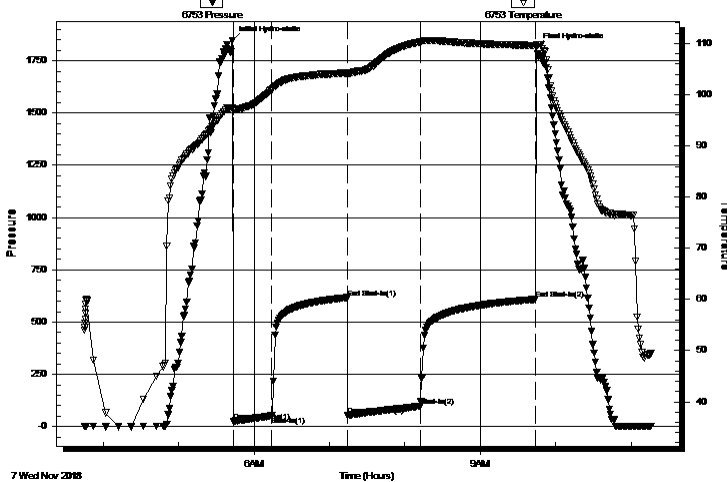
2018.11.07 @ 05:42:34

Time Off Btm:

2018.11.07 @ 09:44:34

TEST COMMENT: 30- IF- Slow ly built to 6.61"
60- IS- No blow
60- FF- Slow ly built to 8.48"
90- FSI- No blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1847.16	97.34	Initial Hydro-static
1	23.13	96.78	Open To Flow (1)
32	51.53	100.97	Shut-In(1)
92	616.74	104.25	End Shut-In(1)
92	54.44	104.04	Open To Flow (2)
150	97.50	110.31	Shut-In(2)
242	608.69	109.62	End Shut-In(2)
242	1814.20	109.76	Final Hydro-static

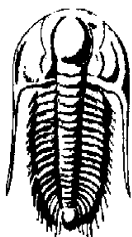
Recovery

Length (ft)	Description	Volume (bbl)
180.00	MW, 25%M 75%W	2.55

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64795

DST#: 3

ATTN: Bruce Ard

Test Start: 2018.11.07 @ 03:45:04

GENERAL INFORMATION:

Formation: **LKC "E - F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:43:34

Time Test Ended: 11:16:04

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3575.00 ft (KB) To 3605.00 ft (KB) (TVD)

Reference Elevations: 2238.00 ft (KB)

Total Depth: 3605.00 ft (KB) (TVD)

2233.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6771

Inside

Press@RunDepth: psig @ 3576.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.07 End Date: 2018.11.07

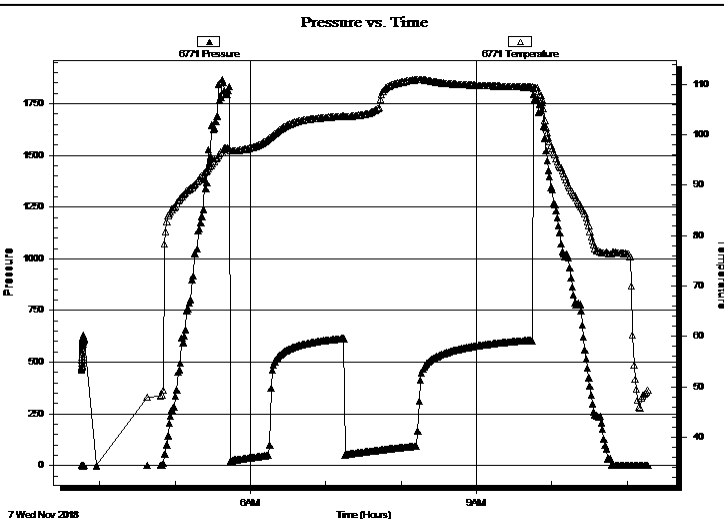
Last Calib.: 2018.11.07

Start Time: 03:45:36 End Time: 11:16:41

Time On Btm:

Time Off Btm:

TEST COMMENT: 30- IF- Slow ly built to 6.61"
60- IS- No blow
60- FF- Slow ly built to 8.48"
90- FS- No blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MW, 25%M 75%W	2.55

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64795

DST#: 3

ATTN: Bruce Ard

Test Start: 2018.11.07 @ 03:45:04

Tool Information

Drill Pipe:	Length: 3580.00 ft	Diameter: 3.82 inches	Volume: 50.75 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 58000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	3575.00 ft			Final 51000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3548.00	
Shut In Tool	5.00			3553.00	
Hydraulic tool	5.00			3558.00	
Jars	5.00			3563.00	
Safety Joint	3.00			3566.00	
Packer	5.00			3571.00	28.00 Bottom Of Top Packer
Packer	4.00			3575.00	
Stubb	1.00			3576.00	
Recorder	0.00	6771	Inside	3576.00	
Recorder	0.00	6753	Outside	3576.00	
Perforations	26.00			3602.00	
Bullnose	3.00			3605.00	30.00 Bottom Packers & Anchor

Total Tool Length: 58.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64795

DST#: 3

ATTN: Bruce Ard

Test Start: 2018.11.07 @ 03:45:04

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:

60000 ppm

Viscosity: 59.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
180.00	MW, 25%M 75%W	2.552

Total Length: 180.00 ft Total Volume: 2.552 bbl

Num Fluid Samples: 0

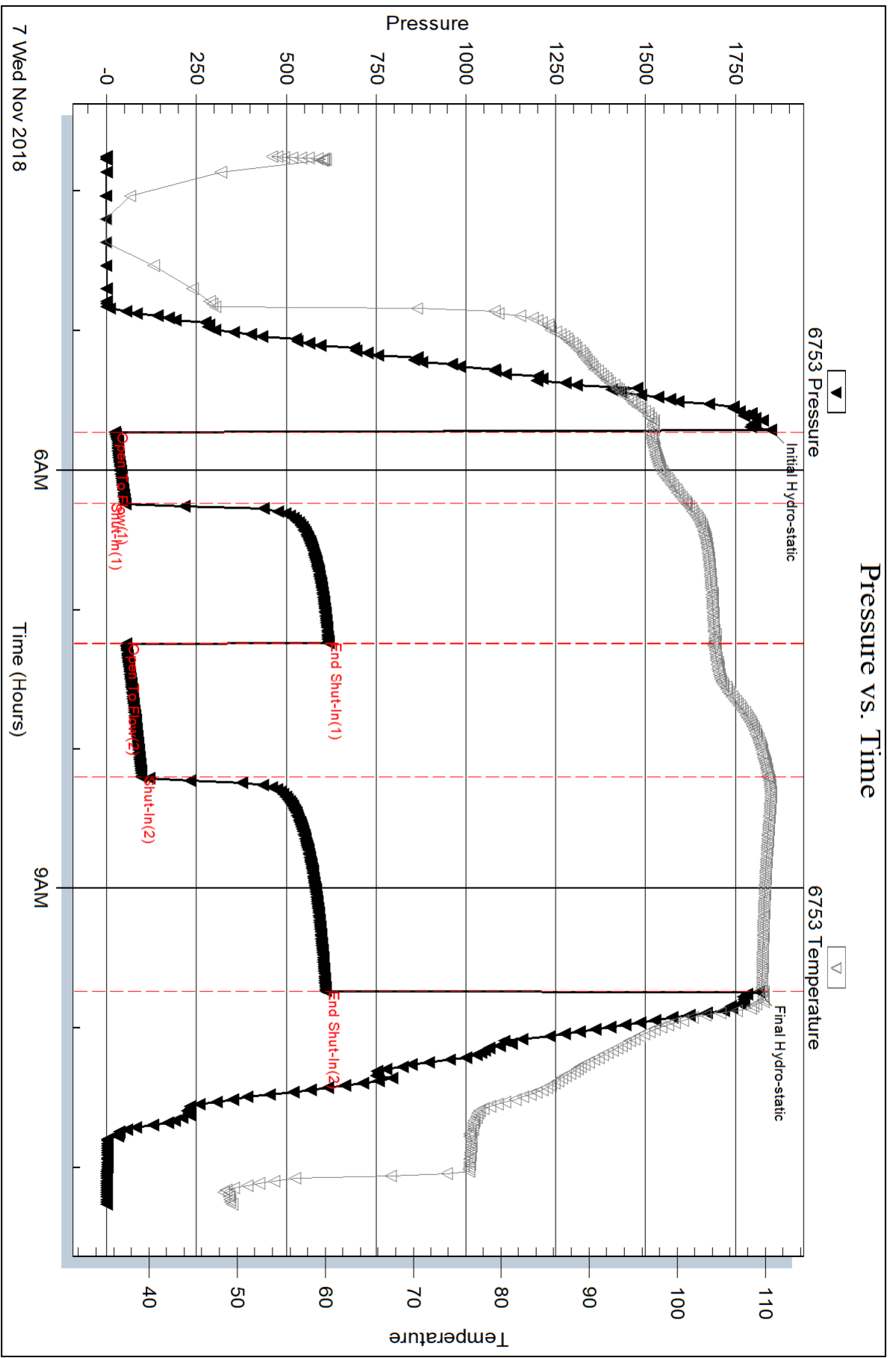
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW: .14@54deg



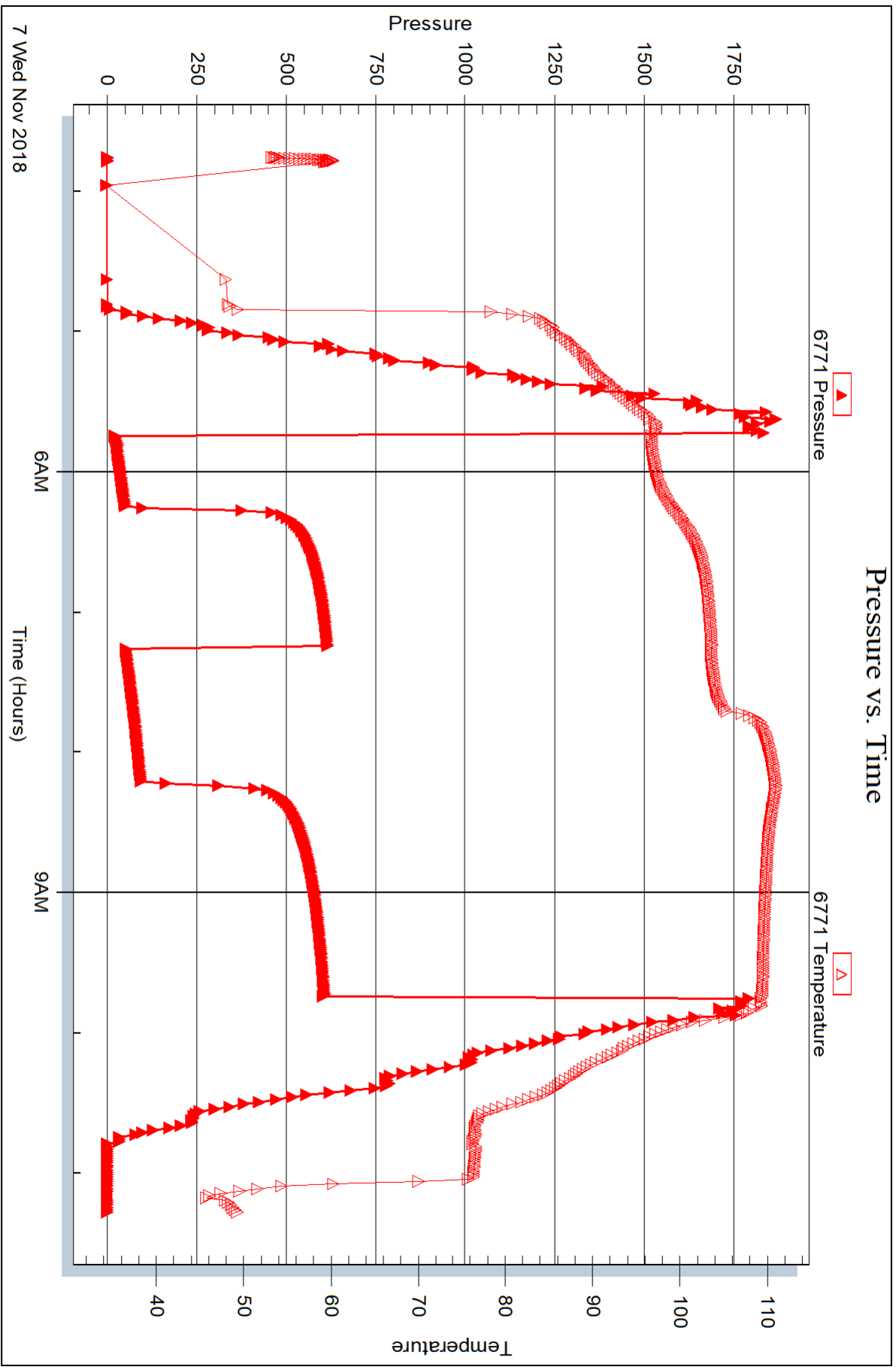
Serial #: 6771

Inside

Canyon Operating LLC

B Bar B#25-1

DST Test Number: 3





DRILL STEM TEST REPORT

Prepared For: **Canyon Operating LLC**

5228 Lonetree Drive
Loveland, CO 80537

ATTN: Bruce Ard

B Bar B #25-1

25-8S-23W Graham,KS

Start Date: 2018.11.07 @ 22:57:42

End Date: 2018.11.08 @ 05:14:12

Job Ticket #: 64796 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.11.09 @ 14:59:19



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64796

DST#: 4

ATTN: Bruce Ard

Test Start: 2018.11.07 @ 22:57:42

GENERAL INFORMATION:

Formation: **LKC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:02:42

Time Test Ended: 05:14:12

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3665.00 ft (KB) To 3692.00 ft (KB) (TVD)

Reference Elevations: 2238.00 ft (KB)

Total Depth: 3692.00 ft (KB) (TVD)

2233.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6753 Outside

Press@RunDepth: 143.49 psig @ 3666.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.07 End Date: 2018.11.08

Last Calib.: 2018.11.08

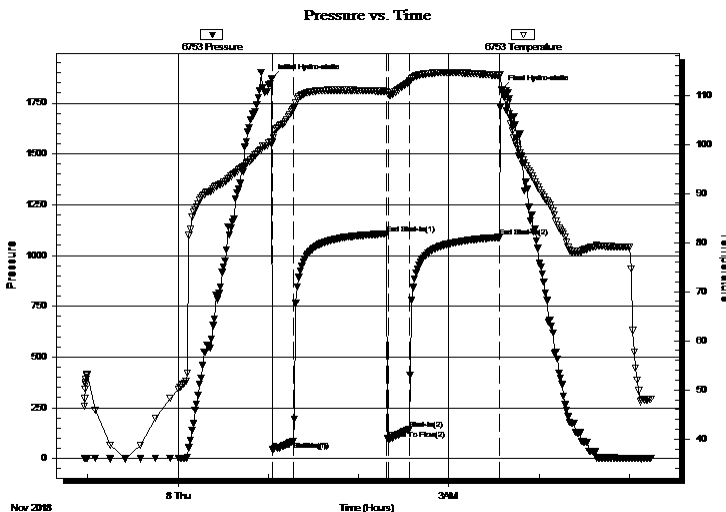
Start Time: 22:57:47 End Time: 05:14:11

Time On Btm: 2018.11.08 @ 01:02:12

Time Off Btm: 2018.11.08 @ 03:35:12

TEST COMMENT: 15- IF- BOB 90secs. Built to 51.48"
60- IS- BOB 8mins. Built to 18.58"
15- FF- BOB 3mins. Built to 42.80"
60- FSI- BOB 10mins. Built to 19.66"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1871.14	100.51	Initial Hydro-static
1	42.78	100.40	Open To Flow (1)
15	86.50	107.18	Shut-In(1)
76	1107.21	110.80	End Shut-In(1)
78	94.10	110.13	Open To Flow (2)
92	143.49	112.68	Shut-In(2)
152	1089.40	114.01	End Shut-In(2)
153	1817.00	111.06	Final Hydro-static

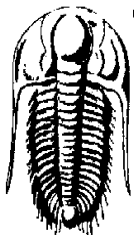
Recovery

Length (ft)	Description	Volume (bbl)
63.00	GOCM, 20%G 15%O 65%M	0.89
273.00	CGO, 20%G 80%O	3.87
0.00	1058' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64796

DST#: 4

ATTN: Bruce Ard

Test Start: 2018.11.07 @ 22:57:42

GENERAL INFORMATION:

Formation: **LKC "I"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:02:42

Time Test Ended: 05:14:12

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3665.00 ft (KB) To 3692.00 ft (KB) (TVD)

Reference Elevations: 2238.00 ft (KB)

Total Depth: 3692.00 ft (KB) (TVD)

2233.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6771

Inside

Press@RunDepth: psig @ 3666.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.07

End Date:

2018.11.08

Last Calib.:

2018.11.08

Start Time: 22:57:50

End Time:

05:14:25

Time On Btm:

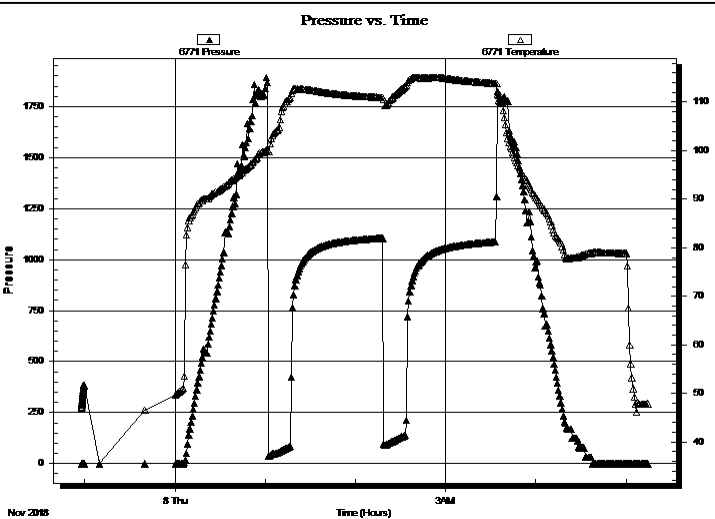
Time Off Btm:

TEST COMMENT: 15- IF- BOB 90secs. Built to 51.48"

60- ISL- BOB 8mins. Built to 18.58"

15- FF- BOB 3mins. Built to 42.80"

60- FSI- BOB 10mins. Built to 19.66"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
63.00	GOCM, 20%G 15%O 65%M	0.89
273.00	CGO, 20%G 80%O	3.87
0.00	1058' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64796

DST#: 4

ATTN: Bruce Ard

Test Start: 2018.11.07 @ 22:57:42

Tool Information

Drill Pipe:	Length: 3643.00 ft	Diameter: 3.82 inches	Volume: 51.64 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 52000.00 lb
			<u>Total Volume: - bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3665.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	27.00 ft			
Tool Length:	55.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3638.00	
Shut In Tool	5.00			3643.00	
Hydraulic tool	5.00			3648.00	
Jars	5.00			3653.00	
Safety Joint	3.00			3656.00	
Packer	5.00			3661.00	28.00 Bottom Of Top Packer
Packer	4.00			3665.00	
Stubb	1.00			3666.00	
Recorder	0.00	6771	Inside	3666.00	
Recorder	0.00	6753	Outside	3666.00	
Perforations	23.00			3689.00	
Bullnose	3.00			3692.00	27.00 Bottom Packers & Anchor

Total Tool Length: 55.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64796

DST#: 4

ATTN: Bruce Ard

Test Start: 2018.11.07 @ 22:57:42

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

33 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
63.00	GOCM, 20%G 15%O 65%M	0.893
273.00	CGO, 20%G 80%O	3.870
0.00	1058' GIP	0.000

Total Length: 336.00 ft

Total Volume: 4.763 bbl

Num Fluid Samples: 0

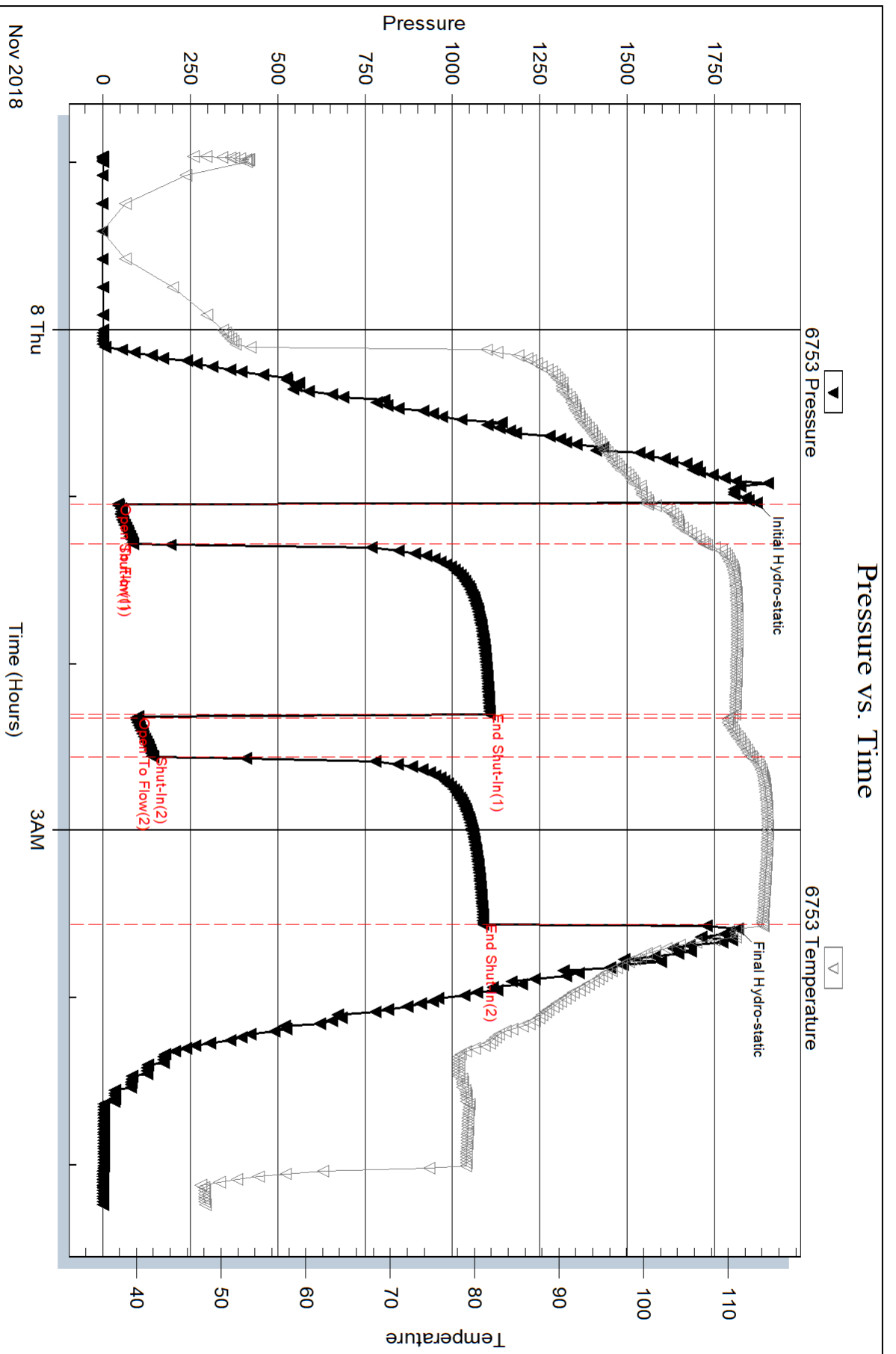
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



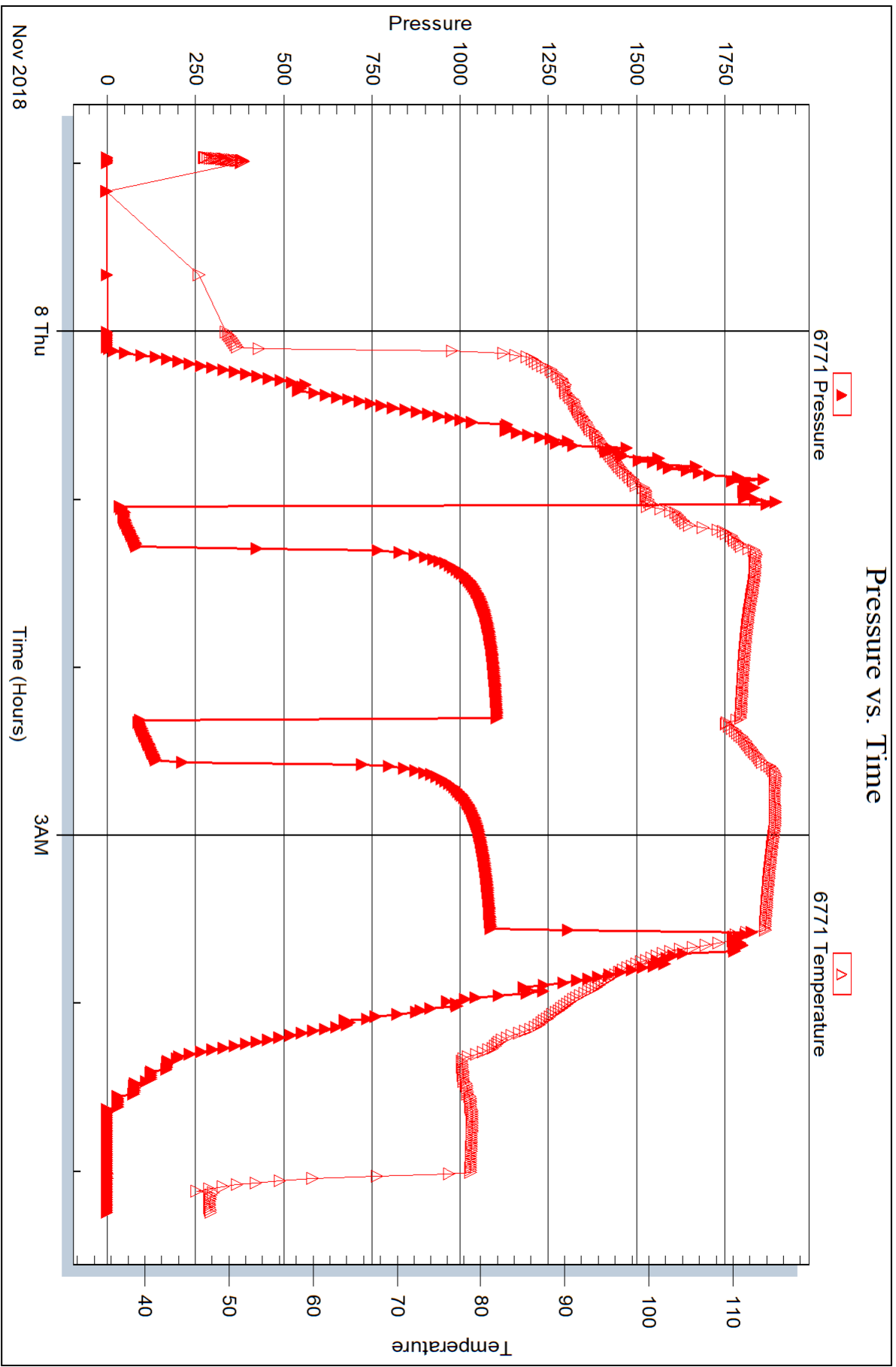
Serial #: 6771

Inside

Canyon Operating LLC

B Bar B#25-1

DST Test Number: 4





DRILL STEM TEST REPORT

Prepared For: **Canyon Operating LLC**

5228 Lonetree Drive
Loveland, CO 80537

ATTN: Bruce Ard

B Bar B #25-1

25-8S-23W Graham,KS

Start Date: 2018.11.08 @ 12:42:53

End Date: 2018.11.08 @ 19:55:23

Job Ticket #: 64797 DST #: 5

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.11.09 @ 14:58:45



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64797

DST#: 5

ATTN: Bruce Ard

Test Start: 2018.11.08 @ 12:42:53

GENERAL INFORMATION:

Formation: **LKC "J - K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:03:53

Time Test Ended: 19:55:23

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3690.00 ft (KB) To 3733.00 ft (KB) (TVD)

Reference Elevations: 2238.00 ft (KB)

Total Depth: 3733.00 ft (KB) (TVD)

2233.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 6753 Outside

Press@RunDepth: 25.14 psig @ 3691.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.08

End Date: 2018.11.08

Last Calib.: 2018.11.08

Start Time: 12:42:58

End Time: 19:55:22

Time On Btm: 2018.11.08 @ 15:02:53

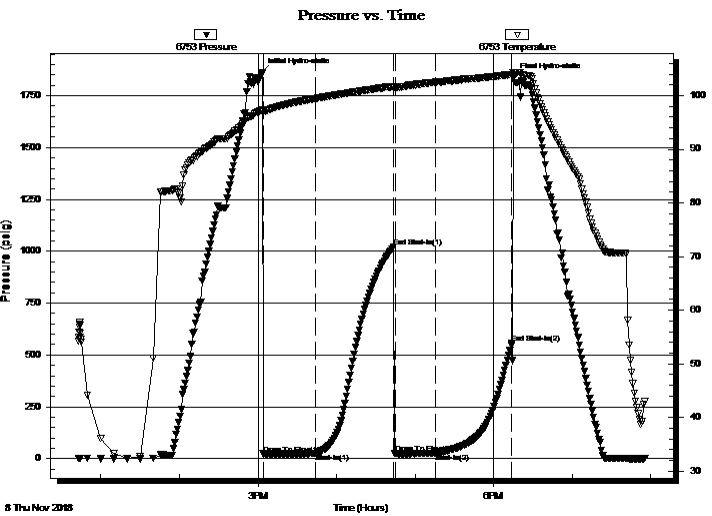
Time Off Btm: 2018.11.08 @ 18:14:53

TEST COMMENT: 40- IF- Slowly built to 1.76"

60- IS- No blow

30- FF- Built to 0.29"

60- FSI- No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1862.41	97.22	Initial Hydro-static
1	23.02	96.90	Open To Flow (1)
41	25.19	99.46	Shut-In(1)
101	1019.39	101.63	End Shut-In(1)
102	24.44	101.61	Open To Flow (2)
133	25.14	102.50	Shut-In(2)
191	556.13	103.95	End Shut-In(2)
192	1837.12	104.20	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM, 25%O 75%M	0.21

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Canyon Operating LLC

25-8S-23W Graham, KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64797

DST#: 5

ATTN: Bruce Ard

Test Start: 2018.11.08 @ 12:42:53

GENERAL INFORMATION:

Formation: **LKC "J - K"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:03:53

Time Test Ended: 19:55:23

Test Type: Conventional Bottom Hole (Reset)

Tester: Brannan Lonsdale

Unit No: 73

Interval: 3690.00 ft (KB) To 3733.00 ft (KB) (TVD)

Total Depth: 3733.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2238.00 ft (KB)

2233.00 ft (CF)

KB to GR/CF: 5.00 ft

Serial #: 6771

Inside

Press@RunDepth: psig @ 3691.00 ft (KB)

Start Date: 2018.11.08

End Date:

2018.11.08

Start Time: 12:42:33

End Time:

19:55:08

Capacity: 8000.00 psig

Last Calib.: 2018.11.08

Time On Btm:

Time Off Btm:

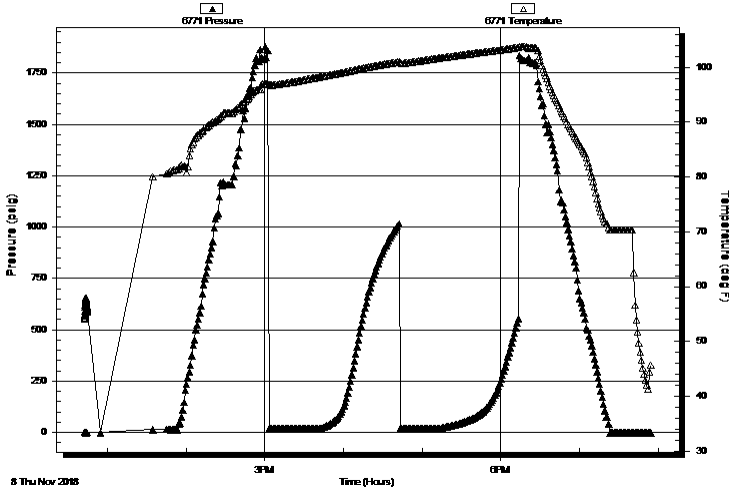
TEST COMMENT: 40- IF- Slowly built to 1.76"

60- IS- No blow

30- FF- Built to 0.29"

60- FS- No blow

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
15.00	OCM, 25%O 75%M	0.21

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64797

DST#: 5

ATTN: Bruce Ard

Test Start: 2018.11.08 @ 12:42:53

Tool Information

Drill Pipe:	Length: 3675.00 ft	Diameter: 3.82 inches	Volume: 52.09 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: inches	Volume: - bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 54000.00 lb
			Total Volume: - bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 51000.00 lb
Depth to Top Packer:	3690.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	71.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3663.00	
Shut In Tool	5.00			3668.00	
Hydraulic tool	5.00			3673.00	
Jars	5.00			3678.00	
Safety Joint	3.00			3681.00	
Packer	5.00			3686.00	28.00 Bottom Of Top Packer
Packer	4.00			3690.00	
Stubb	1.00			3691.00	
Recorder	0.00	6771	Inside	3691.00	
Recorder	0.00	6753	Outside	3691.00	
Perforations	5.00			3696.00	
Change Over Sub	1.00			3697.00	
Drill Pipe	32.00			3729.00	
Change Over Sub	1.00			3730.00	
Bullnose	3.00			3733.00	43.00 Bottom Packers & Anchor

Total Tool Length: 71.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Canyon Operating LLC

25-8S-23W Graham,KS

5228 Lonetree Drive
Loveland, CO 80537

B Bar B #25-1

Job Ticket: 64797

DST#: 5

ATTN: Bruce Ard

Test Start: 2018.11.08 @ 12:42:53

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

34 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2000.00 ppm

Filter Cake: inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	OCM, 25%O 75%M	0.213

Total Length: 15.00 ft Total Volume: 0.213 bbl

Num Fluid Samples: 0

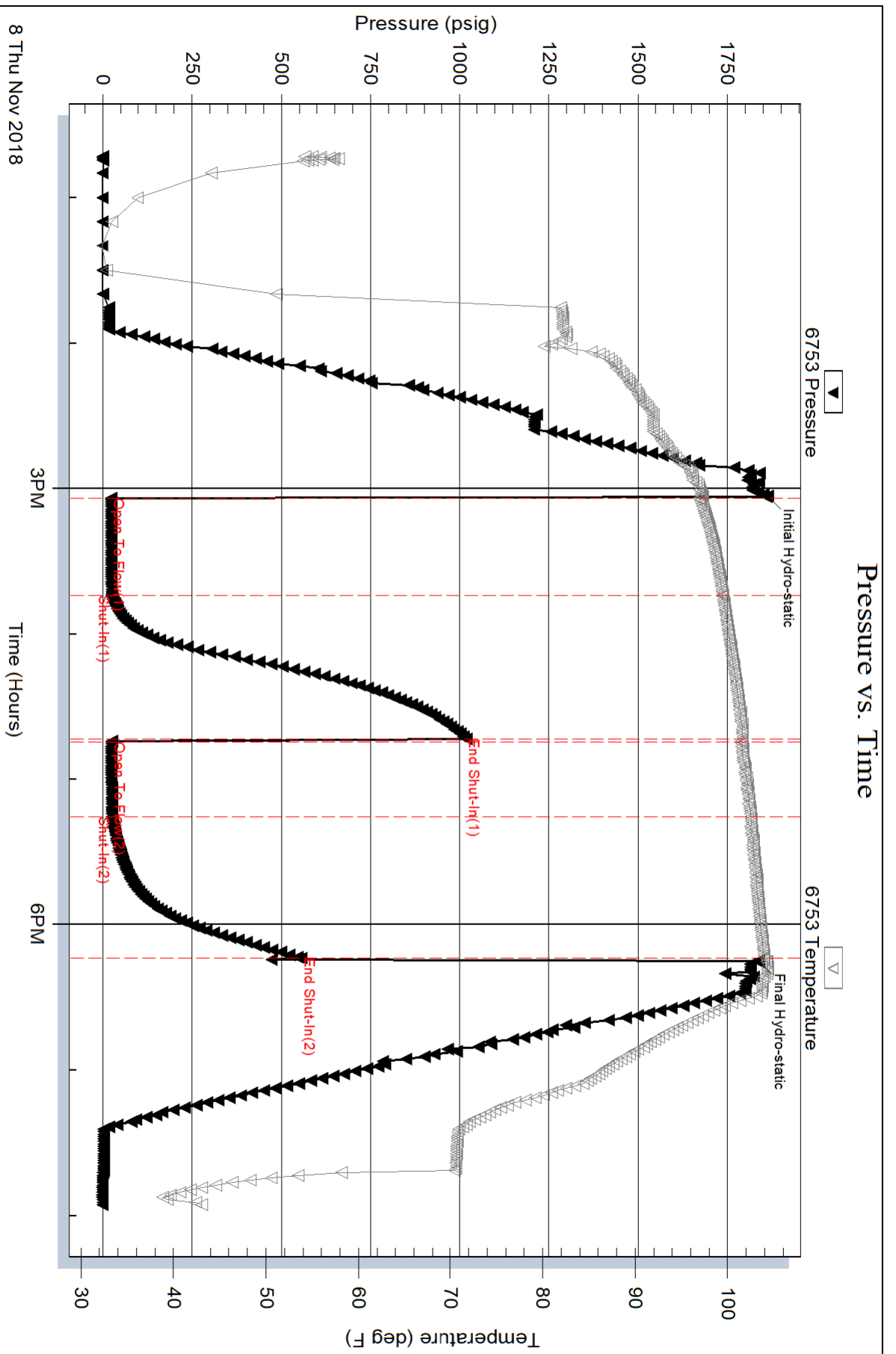
Num Gas Bombs: 0

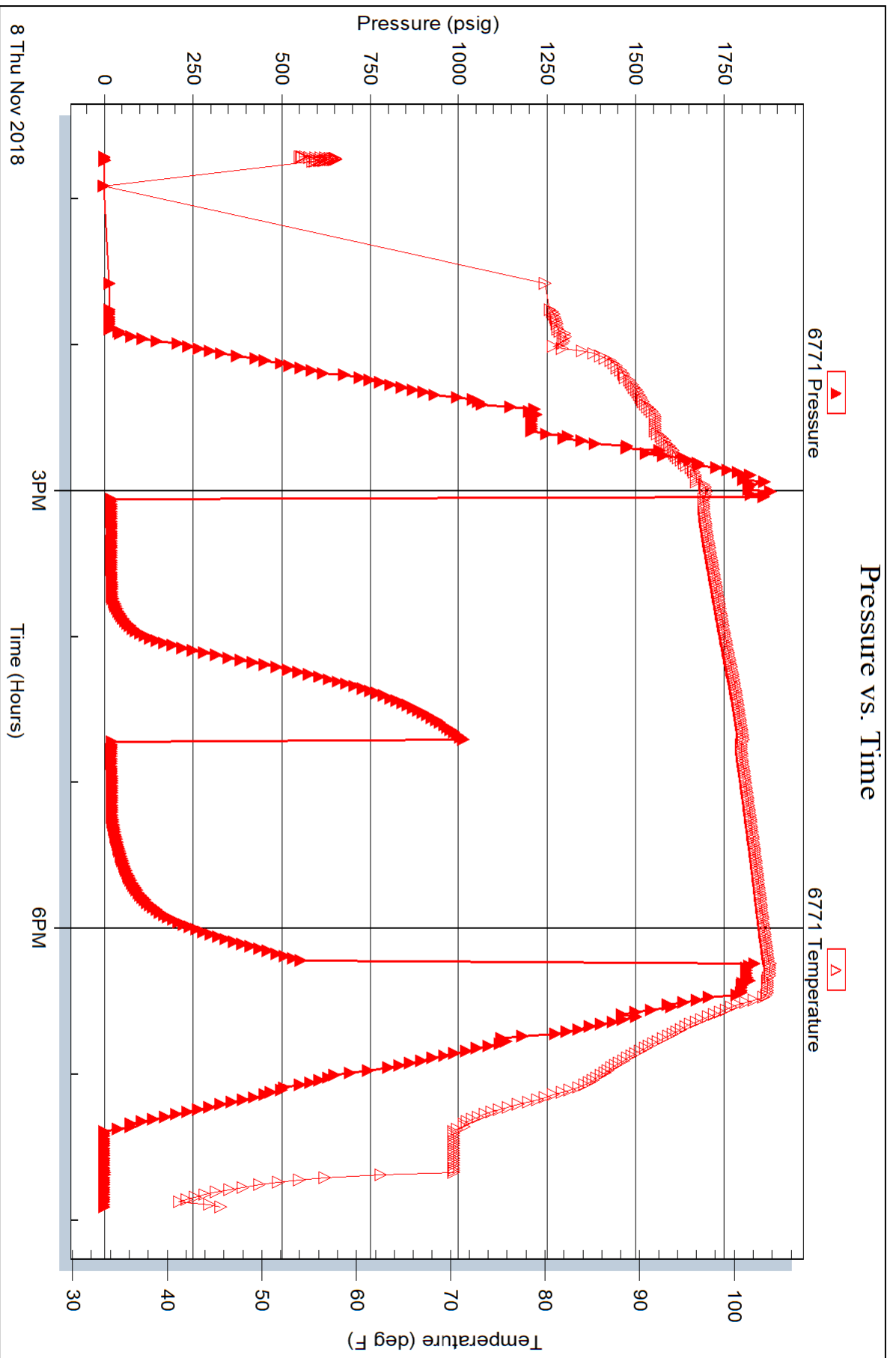
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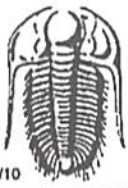
Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64793

Well Name & No. B Bar B #25-1 Test No. 1 Date 11/6/18
 Company Canyon Operating LLC Elevation 2238 KB 2233 GL
 Address 5228 Lonetree Drive Loveland, CO 80537
 Co. Rep / Geo. Bruce Arnd Rig Murphy 16
 Location: Sec. 25 Twp 8 S Rge. 23 W Co. Crawham State KS

Interval Tested 3545-3579 Zone Tested Lansing "C+D"
 Anchor Length 34' Drill Pipe Run 3485 Mud Wt. 9.2
 Top Packer Depth 3540 Drill Collars Run 59 Vis 59
 Bottom Packer Depth 3545 Wt. Pipe Run _____ WL 7.2
 Total Depth 3579 Chlorides 2,060 ppm System LCM Tr
 Blow Description _____

PACKER FAILURE

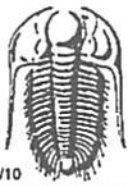
Rec	Feet of	%gas	%oil	%water	%mud
<u>90</u>	<u>M</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 90' BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic _____ Test 850 T-On Location 0930
 (B) First Initial Flow _____ Jars 250 T-Started 0949
 (C) First Final Flow _____ Safety Joint 75 T-Open _____
 (D) Initial Shut-In _____ Circ Sub _____ T-Pulled _____
 (E) Second Initial Flow _____ Hourly Standby _____ T-Out 1459
 (F) Second Final Flow _____ Mileage 118 RT 118 Comments _____
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic _____ Straddle _____ EM Tool _____
 Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Extra Copies _____
 Day Standby _____ Sub Total 0
 Accessibility _____ Total 1543
 Sub Total 1543 MP/DST Disc't _____

Approved By _____

Our Representative Brian Lonsdale



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64794

Well Name & No. B-Bar-B #25-1 Test No. 2 Date 11/6/18
 Company Canyon Operating LLC Elevation 2238 KB 2233 GL
 Address 5228 Loretree Drive Loveland, CO 80537
 Co. Rep / Geo. Bruce Aard Rig Murfin 16
 Location: Sec. 25 Twp 8 S Rge. 23 W Co. Ciraham State KS

Interval Tested 3539-3579 Zone Tested Lansing "C+D"
 Anchor Length 40' Drill Pipe Run 3517 Mud Wt. 9.2
 Top Packer Depth 3534 Drill Collars Run --- Vis 59
 Bottom Packer Depth 3539 Wt. Pipe Run --- WL 7.2
 Total Depth 3579 Chlorides 3600 ppm System LCM Tr

Blow Description IF - slowly built to 1.95"
ISF - No blow
FF - No blow
FSF - No blow

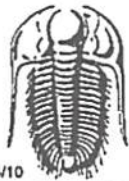
Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>M</u>				

Rec Total 25' BHT 107° Gravity --- API RW --- @ --- F Chlorides --- ppm

(A) Initial Hydrostatic <u>1840</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1459</u>
(B) First Initial Flow <u>21</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1519</u>
(C) First Final Flow <u>27</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1644</u>
(D) Initial Shut-In <u>976</u>	<input type="checkbox"/> Circ Sub <u>---</u>	T-Pulled <u>2014</u>
(E) Second Initial Flow <u>29</u>	<input type="checkbox"/> Hourly Standby <u>---</u>	T-Out <u>2149</u>
(F) Second Final Flow <u>32</u>	<input type="checkbox"/> Mileage <u>---</u>	Comments <u>---</u>
(G) Final Shut-In <u>976</u>	<input type="checkbox"/> Sampler <u>---</u>	
(H) Final Hydrostatic <u>1776</u>	<input type="checkbox"/> Straddle <u>---</u>	
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> EM Tool <u>---</u>
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer <u>---</u>	<input type="checkbox"/> Ruined Shale Packer <u>---</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>---</u>	<input type="checkbox"/> Ruined Packer <u>---</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby <u>---</u>	<input type="checkbox"/> Extra Copies <u>---</u>
	<input type="checkbox"/> Accessibility <u>---</u>	Sub Total <u>0</u>
	Sub Total <u>1725</u>	Total <u>1725</u>

Approved By _____ Our Representative Bryan Lonsdale

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **64795**

Well Name & No. B-Bar-B #25-1 Test No. 3 Date 11/7/18
 Company Canyon Operating LLC Elevation 2238 KB 2233 GL
 Address 5228 Lantree Dr. Loveland, CO 80537
 Co. Rep / Geo. Bruce Arnd Rig Murfin 10
 Location: Sec. 25 Twp 8 S Rge. 23 W Co. Crawham State KS

Interval Tested 3575-3605 Zone Tested Lansing "E+F"
 Anchor Length 30' Drill Pipe Run 3580 Mud Wt. 9.2
 Top Packer Depth 3570 Drill Collars Run --- Vls 59
 Bottom Packer Depth 3575 Wt. Pipe Run --- WL 7.2
 Total Depth 3605 Chlorides 3000 ppm System LCM Tr

Blow Description IF - slowly built to 6.61"
ISI - No blow
FF - slowly built to 8.48"
FST - No blow

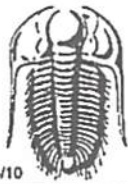
Rec	Feet of	%gas	%oil	%water	%mud
<u>180</u>	<u>MW</u>			<u>75</u>	<u>25</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 180' BHT 110° Gravity --- API RW .14 @ 54 °F Chlorides 60,000 ppm

(A) Initial Hydrostatic <u>1847</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>0330</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>0345</u>
(C) First Final Flow <u>52</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0543</u>
(D) Initial Shut-In <u>617</u>	<input type="checkbox"/> Circ Sub <u>---</u>	T-Pulled <u>0943</u>
(E) Second Initial Flow <u>54</u>	<input type="checkbox"/> Hourly Standby <u>---</u>	T-Out <u>1116</u>
(F) Second Final Flow <u>98</u>	<input checked="" type="checkbox"/> Mileage <u>118 RT</u> 118	Comments <u>---</u>
(G) Final Shut-In <u>609</u>	<input type="checkbox"/> Sampler <u>---</u>	<input type="checkbox"/> EM Tool <u>---</u>
(H) Final Hydrostatic <u>1814</u>	<input type="checkbox"/> Straddle <u>---</u>	<input type="checkbox"/> Ruined Shale Packer <u>---</u>
Initial Open <u>30</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Packer <u>---</u>
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer <u>---</u>	<input type="checkbox"/> Extra Copies <u>---</u>
Final Flow <u>60</u>	<input type="checkbox"/> Extra Recorder <u>---</u>	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby <u>---</u>	Total <u>1843</u>
	<input type="checkbox"/> Accessibility <u>---</u>	MP/DST Disc't <u>---</u>
	Sub Total <u>1843</u>	

Approved By _____ Our Representative Brannon Lansdale

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64796

Well Name & No. B Bar B #25-1 Test No. 4 Date 11/7/18
 Company Canyon Operating LLC Elevation 2238 KB 2233 GL
 Address 5228 Lanefree Dr. Loveland, CO 80537
 Co. Rep / Geo. Bruce Arcl Rig Murfm 16
 Location: Sec. 25 Twp 8 S Rge. 23 W Co. Graham State KS

Interval Tested 3665-3692 Zone Tested Lansing "I"
 Anchor Length 27' Drill Pipe Run 3643 Mud Wt. 9.4
 Top Packer Depth 3660 Drill Collars Run — Vis 50
 Bottom Packer Depth 3665 Wt. Pipe Run — WL 7.2
 Total Depth 3692 Chlorides 2000 ppm System LCM Tr
 Blow Description IF-BOB 90 sec. Built to 51.48"
ISF-BOB 8 mins. Built to 18.58"
FF-BOB 3 mins. Built to 42.80"
PSF-BOB 10 mins. Built to 19.66"

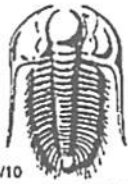
Rec	Feet of	%gas	%oil	%water	%mud
63	60CM	20	15		65
273	CAO	20	80		
	1058' GAP				

Rec Total 336 BHT 114' Gravity 33 API RW —@ —° F Chlorides — ppm
 (A) Initial Hydrostatic 1871 Test 1050 T-On Location 2240
 (B) First Initial Flow 43 Jars 250 T-Started 2258
 (C) First Final Flow 87 Safety Joint 75 T-Open 11/8 0103
 (D) Initial Shut-In 1107 Circ Sub — T-Pulled 0333
 (E) Second Initial Flow 94 Hourly Standby — T-Out 0515
 (F) Second Final Flow 143 Mileage 118 RT 118 Comments —
 (G) Final Shut-In 1089 Sampler —
 (H) Final Hydrostatic 1817 Straddle —
 Shale Packer 250 EM Tool —
 Extra Packer — Ruined Shale Packer —
 Extra Recorder — Ruined Packer —
 Day Standby — Extra Copies —
 Accessibility — Sub Total 0
 Sub Total 1843 Total 1843 MP/DST Disc't —

Approved By _____

Our Representative Bremer Lonsdale

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64797

Well Name & No. B Bar B #25-1 Test No. 5 Date 11/8/18
 Company Canyon Operating LLC Elevation 2238 KB 2233 GL
 Address 5228 Lonetree Dr. Loveland, CO 80537
 Co. Rep / Geo. Bruce Ard Rig Murfin 16
 Location: Sec. 25 Twp 8 S Rge. 23 W Co. Graham State KS

Interval Tested 3690-3733 Zone Tested Lansing "J+K"
 Anchor Length 43' Drill Pipe Run 3675 Mud Wt. 9.4
 Top Packer Depth 3685 Drill Collars Run --- Vis 50
 Bottom Packer Depth 3690 Wt. Pipe Run --- WL 7.2
 Total Depth 3733 Chlorides 2,000 ppm System LCM Tr

Blow Description IF - Slowly built to 1.76"
ISF - No blow
PF - Built to 0.29"
F5F - No blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>OCM</u>	<u>25</u>		<u>75</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 15' BHT 104° Gravity 34 API RW --- @ --- °F Chlorides --- ppm

(A) Initial Hydrostatic <u>1862</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>1225</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1242</u>
(C) First Final Flow <u>25</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1503</u>
(D) Initial Shut-In <u>1029</u>	<input type="checkbox"/> Circ Sub <u>---</u>	T-Pulled <u>1813</u>
(E) Second Initial Flow <u>25</u>	<input type="checkbox"/> Hourly Standby <u>---</u>	T-Out <u>1955</u>
(F) Second Final Flow <u>25</u>	<input checked="" type="checkbox"/> Mileage <u>118 RT x 2</u> ¹¹⁸⁺¹¹⁸	Comments <u>Tools loaded</u>
(G) Final Shut-In <u>556</u>	<input type="checkbox"/> Sampler <u>---</u>	<u>119@ 0445</u>
(H) Final Hydrostatic <u>1837</u>	<input type="checkbox"/> Straddle <u>---</u>	<input type="checkbox"/> EM Tool <u>---</u>
Initial Open <u>40</u>	<input checked="" type="checkbox"/> Shale Packer <u>250</u>	<input type="checkbox"/> Ruined Shale Packer <u>---</u>
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer <u>---</u>	<input type="checkbox"/> Ruined Packer <u>---</u>
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder <u>---</u>	<input type="checkbox"/> Extra Copies <u>---</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby <u>---</u>	Sub Total <u>0</u>
	<input type="checkbox"/> Accessibility <u>---</u>	Total <u>1961</u>
	Sub Total <u>1961</u>	MP/DST Disc't <u>---</u>

Approved By _____ Our Representative Brannan Lonsdale

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