



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

D&R Unit #1

21-6s-20w Rooks,KS

Start Date: 2014.12.09 @ 05:52:50

End Date: 2014.12.09 @ 12:47:20

Job Ticket #: 60698 DST #: 1

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

Printed: 2014.12.12 @ 13:55:20



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

21-6s-20w Rooks, KS
D&R Unit #1
 Job Ticket: 60698 **DST#: 1**
 Test Start: 2014.12.09 @ 05:52:50

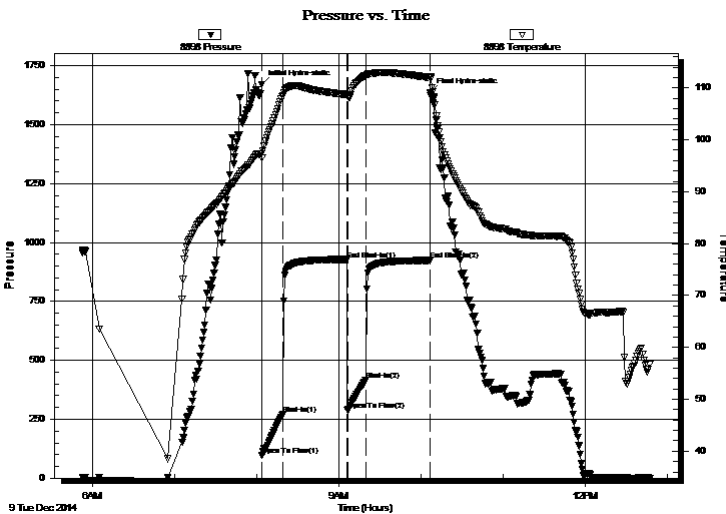
GENERAL INFORMATION:

Formation: **Toronto - LKC A**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 08:04:00
 Time Test Ended: 12:47:20
 Interval: **3367.00 ft (KB) To 3425.00 ft (KB) (TVD)**
 Total Depth: 3425.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Tate Lang
 Unit No: 77
 Reference Elevations: 2172.00 ft (KB)
 2164.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8898 Outside
 Press@RunDepth: 416.42 psig @ 3369.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.12.09 End Date: 2014.12.09 Last Calib.: 2014.12.09
 Start Time: 05:52:51 End Time: 12:47:20 Time On Btm: 2014.12.09 @ 08:03:50
 Time Off Btm: 2014.12.09 @ 10:07:00

TEST COMMENT: 15-B.O.B. in 1 min
 45-B.O.B. in 9 mins
 15-B.O.B. in 1 min
 45-B.O.B. in 9 mins

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1669.78	97.29	Initial Hydro-static
1	96.45	96.56	Open To Flow (1)
16	270.06	108.40	Shut-In(1)
62	927.44	108.71	End Shut-In(1)
63	288.79	108.49	Open To Flow (2)
77	416.42	112.43	Shut-In(2)
123	924.28	111.98	End Shut-In(2)
124	1634.81	112.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
180.00	MCGO 10%G 60%O 30%M	1.44
930.00	GO 25%G 75%O	13.05
0.00	990 GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

21-6s-20w Rooks,KS
D&R Unit #1
Job Ticket: 60698 **DST#: 1**
Test Start: 2014.12.09 @ 05:52:50

Tool Information

Drill Pipe:	Length: 3260.00 ft	Diameter: 3.80 inches	Volume: 45.73 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 46.32 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	32.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3367.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	58.00 ft				
Tool Length:	78.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3352.00	
Hydraulic tool	5.00			3357.00	
Packer	5.00			3362.00	20.00 Bottom Of Top Packer
Packer	5.00			3367.00	
Stubb	1.00			3368.00	
Perforations	1.00			3369.00	
Recorder	0.00	8897	Inside	3369.00	
Recorder	0.00	8898	Outside	3369.00	
Perforations	20.00			3389.00	
Change Over Sub	1.00			3390.00	
Drill Pipe	31.00			3421.00	
Change Over Sub	1.00			3422.00	
Bullnose	3.00			3425.00	58.00 Bottom Packers & Anchor

Total Tool Length: 78.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

D&R Unit #1

Job Ticket: 60698

DST#: 1

ATTN: Jeff Lawler

Test Start: 2014.12.09 @ 05:52:50

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 72.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
180.00	MCGO 10%G 60%O 30%M	1.441
930.00	GO 25%G 75%O	13.045
0.00	990 GIP	0.000

Total Length: 1110.00 ft Total Volume: 14.486 bbl

Num Fluid Samples: 0

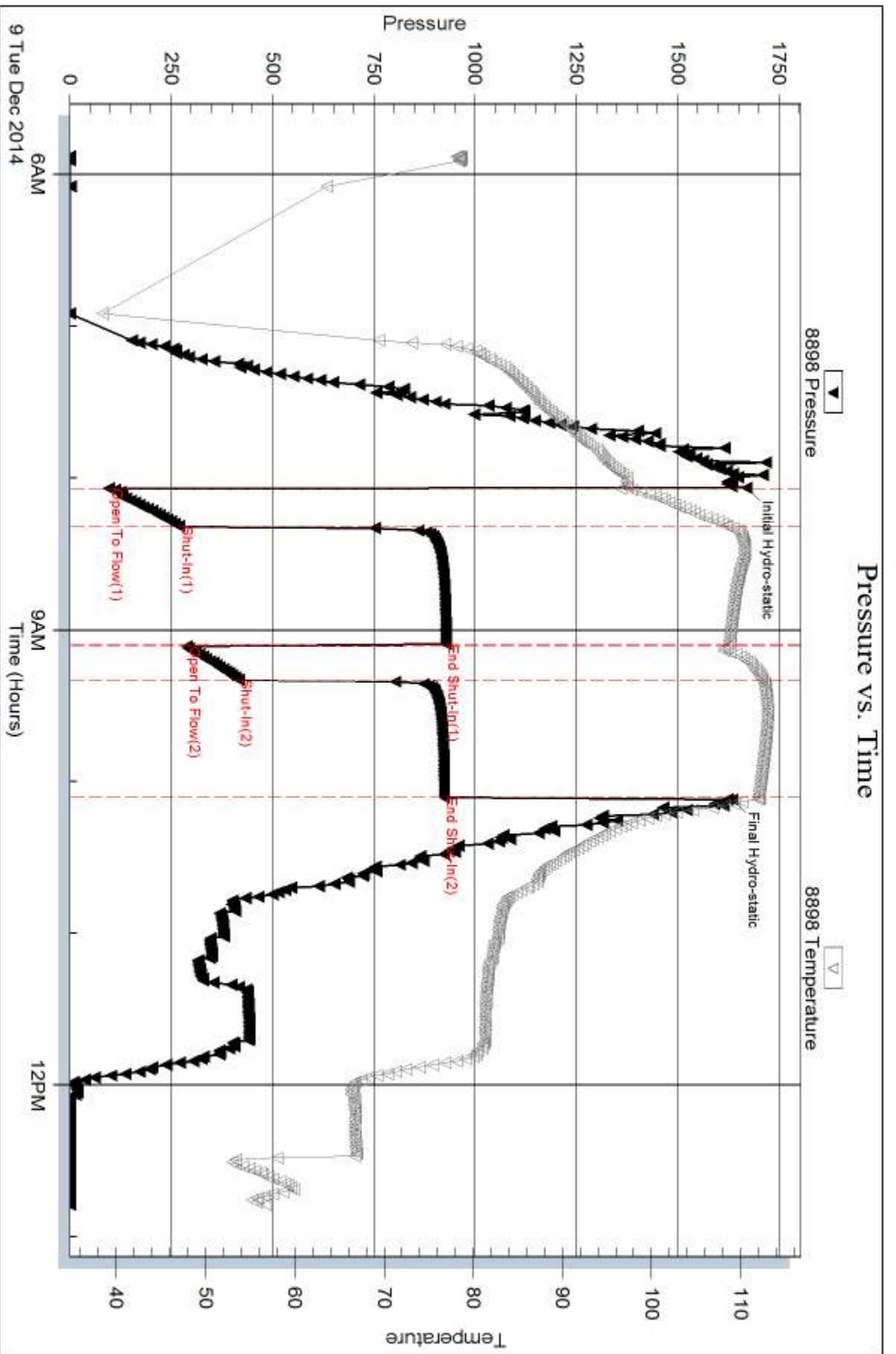
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



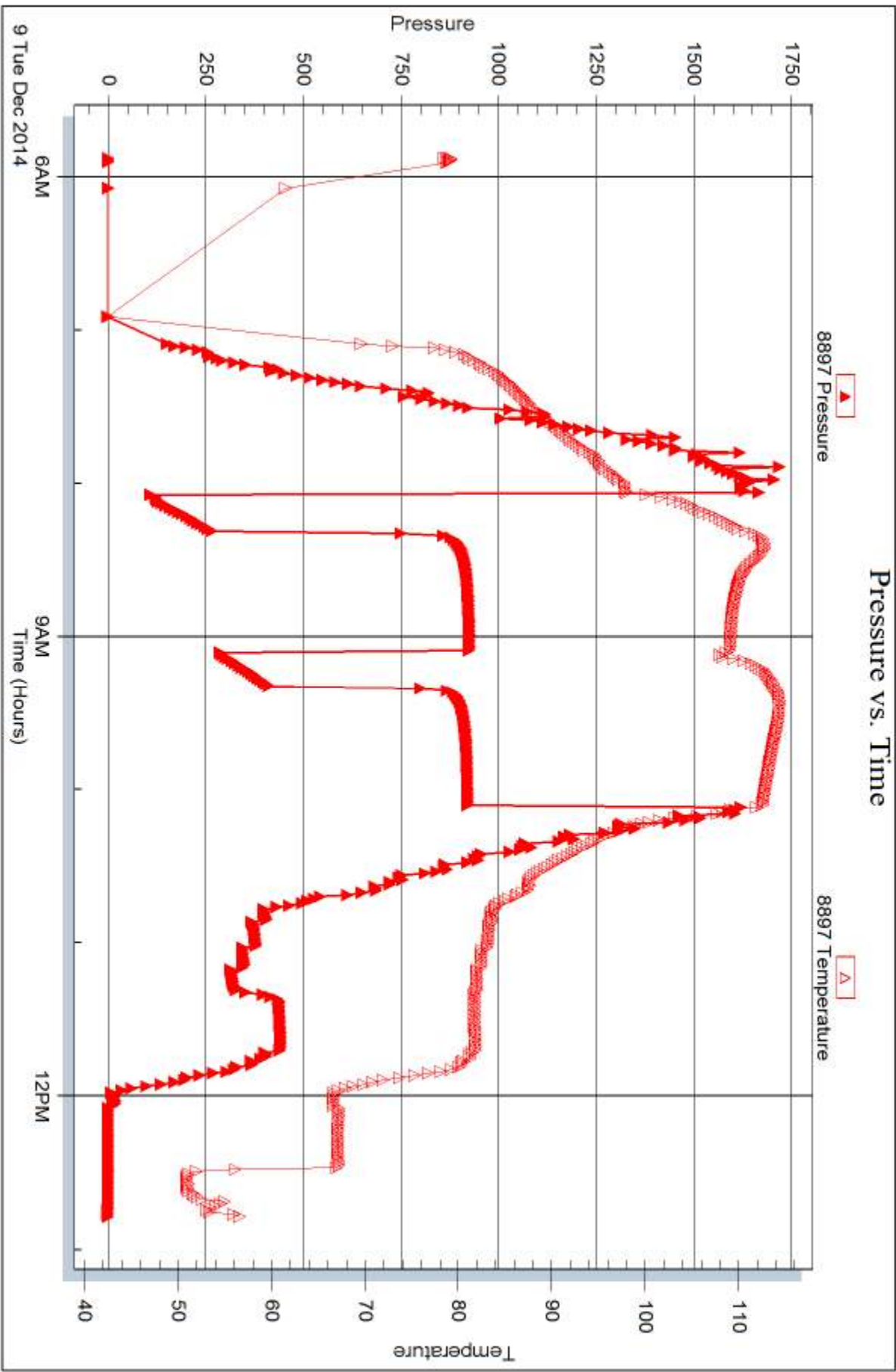
Serial #: 8897

Inside

Jaspar Co.

D&R Unit #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 60698

Printed: 2014.12.12 @ 13:55:22



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

D&R Unit #1

21-6s-20w Rooks,KS

Start Date: 2014.12.09 @ 19:29:45

End Date: 2014.12.10 @ 01:55:35

Job Ticket #: 60699 DST #: 2

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

Printed: 2014.12.12 @ 13:54:48

Jaspar Co. 21-6s-20w Rooks,KS D&R Unit #1 DST # 2 LKC C-D 2014.12.09



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

21-6s-20w Rooks, KS
D&R Unit #1
Job Ticket: 60699 **DST#: 2**
Test Start: 2014.12.09 @ 19:29:45

GENERAL INFORMATION:

Formation: **LKC C-D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:28:45
 Time Test Ended: 01:55:35
 Interval: **3426.00 ft (KB) To 3469.00 ft (KB) (TVD)**
 Total Depth: 3469.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Tate Lang
 Unit No: 77
 Reference Elevations: 2172.00 ft (KB)
 2164.00 ft (CF)
 KB to GR/CF: 8.00 ft

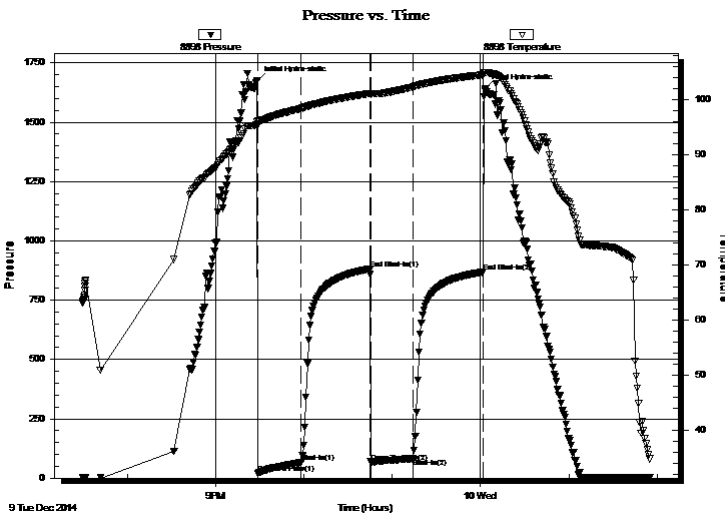
Serial #: 8898

Outside

Press@RunDepth: 81.58 psig @ 3433.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.12.09 End Date: 2014.12.10 Last Calib.: 2014.12.10
 Start Time: 19:29:46 End Time: 01:55:35 Time On Btm: 2014.12.09 @ 21:28:35
 Time Off Btm: 2014.12.10 @ 00:03:24

TEST COMMENT: 30-B.O.B. in 27 mins
 45-Weak surface blow built to 1/4"
 30-B.O.B. in 21 mins
 45-Weak surface blow built to 1/2"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1675.10	96.10	Initial Hydro-static
1	18.61	95.26	Open To Flow (1)
30	66.13	98.38	Shut-In(1)
76	880.22	101.10	End Shut-In(1)
77	68.82	100.99	Open To Flow (2)
106	81.58	102.31	Shut-In(2)
154	868.16	104.51	End Shut-In(2)
155	1639.81	104.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	SGOCM 5%G 15%O 80%M	0.30
60.00	GOCM 5%G 40%O 55%M	0.30
30.00	MCGO 20%G 40%O 40%M	0.42
10.00	GO 10%G 90%O	0.14
0.00	140 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Jaspar Co.
 PO Box 1120
 Hays KS 67601
 ATTN: Jeff Lawler

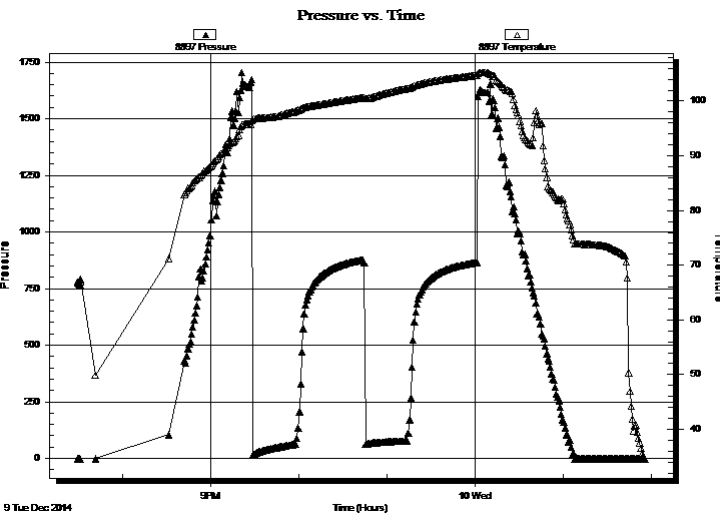
21-6s-20w Rooks, KS
D&R Unit #1
 Job Ticket: 60699 **DST#: 2**
 Test Start: 2014.12.09 @ 19:29:45

GENERAL INFORMATION:

Formation: **LKC C-D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 21:28:45
 Time Test Ended: 01:55:35
 Interval: **3426.00 ft (KB) To 3469.00 ft (KB) (TVD)**
 Total Depth: 3469.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Tate Lang
 Unit No: 77
 Reference Elevations: 2172.00 ft (KB)
 2164.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8897 **Inside**
 Press@RunDepth: psig @ 3433.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.12.09 End Date: 2014.12.10 Last Calib.: 2014.12.10
 Start Time: 19:29:11 End Time: 01:55:10 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-B.O.B. in 27 mins
 45-Weak surface blow built to 1/4"
 30-B.O.B. in 21 mins
 45-Weak surface blow built to 1/2"



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	SGOCM 5%G 15%O 80%M	0.30
60.00	GOCM 5%G 40%O 55%M	0.30
30.00	MCGO 20%G 40%O 40%M	0.42
10.00	GO 10%G 90%O	0.14
0.00	140 GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

21-6s-20w Rooks,KS
D&R Unit #1
Job Ticket: 60699 **DST#: 2**
Test Start: 2014.12.09 @ 19:29:45

Tool Information

Drill Pipe:	Length: 3293.00 ft	Diameter: 3.80 inches	Volume: 46.19 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	45000.00 lb
			<u>Total Volume: 46.78 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	6.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3426.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	43.00 ft				
Tool Length:	63.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3411.00	
Hydraulic tool	5.00			3416.00	
Packer	5.00			3421.00	20.00 Bottom Of Top Packer
Packer	5.00			3426.00	
Stubb	1.00			3427.00	
Perforations	6.00			3433.00	
Recorder	0.00	8897	Inside	3433.00	
Recorder	0.00	8898	Outside	3433.00	
Change Over Sub	1.00			3434.00	
Drill Pipe	31.00			3465.00	
Change Over Sub	1.00			3466.00	
Bullnose	3.00			3469.00	43.00 Bottom Packers & Anchor

Total Tool Length: 63.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

21-6s-20w Rooks,KS
D&R Unit #1
Job Ticket: 60699 **DST#: 2**
Test Start: 2014.12.09 @ 19:29:45

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: 72.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.97 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 500.00 ppm			
Filter Cake: 1.00 inches			

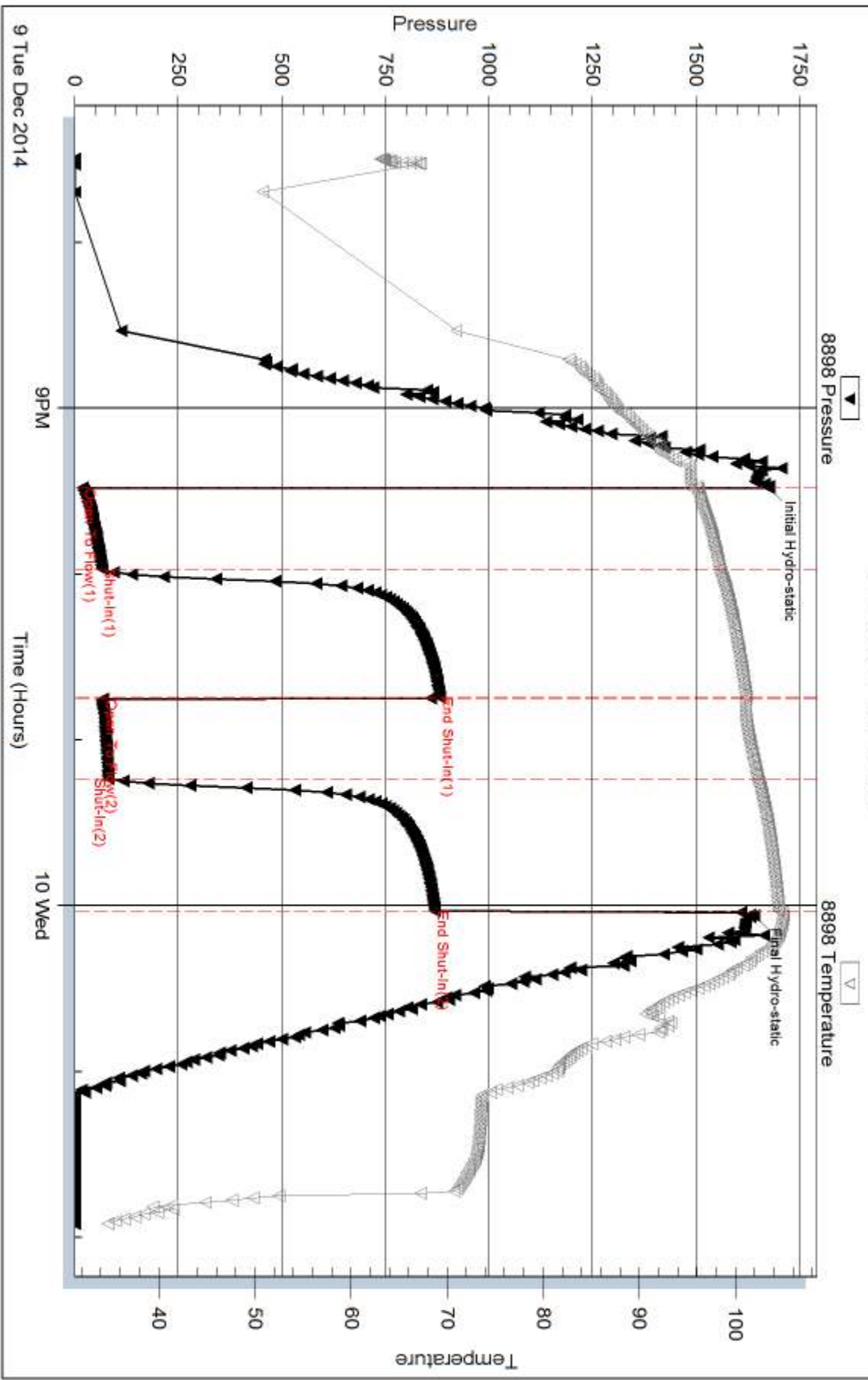
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	SGOCM 5%G 15%O 80%M	0.295
60.00	GOCM 5%G 40%O 55%M	0.304
30.00	MCGO 20%G 40%O 40%M	0.421
10.00	GO 10%G 90%O	0.140
0.00	140 GIP	0.000

Total Length: 160.00 ft Total Volume: 1.160 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time



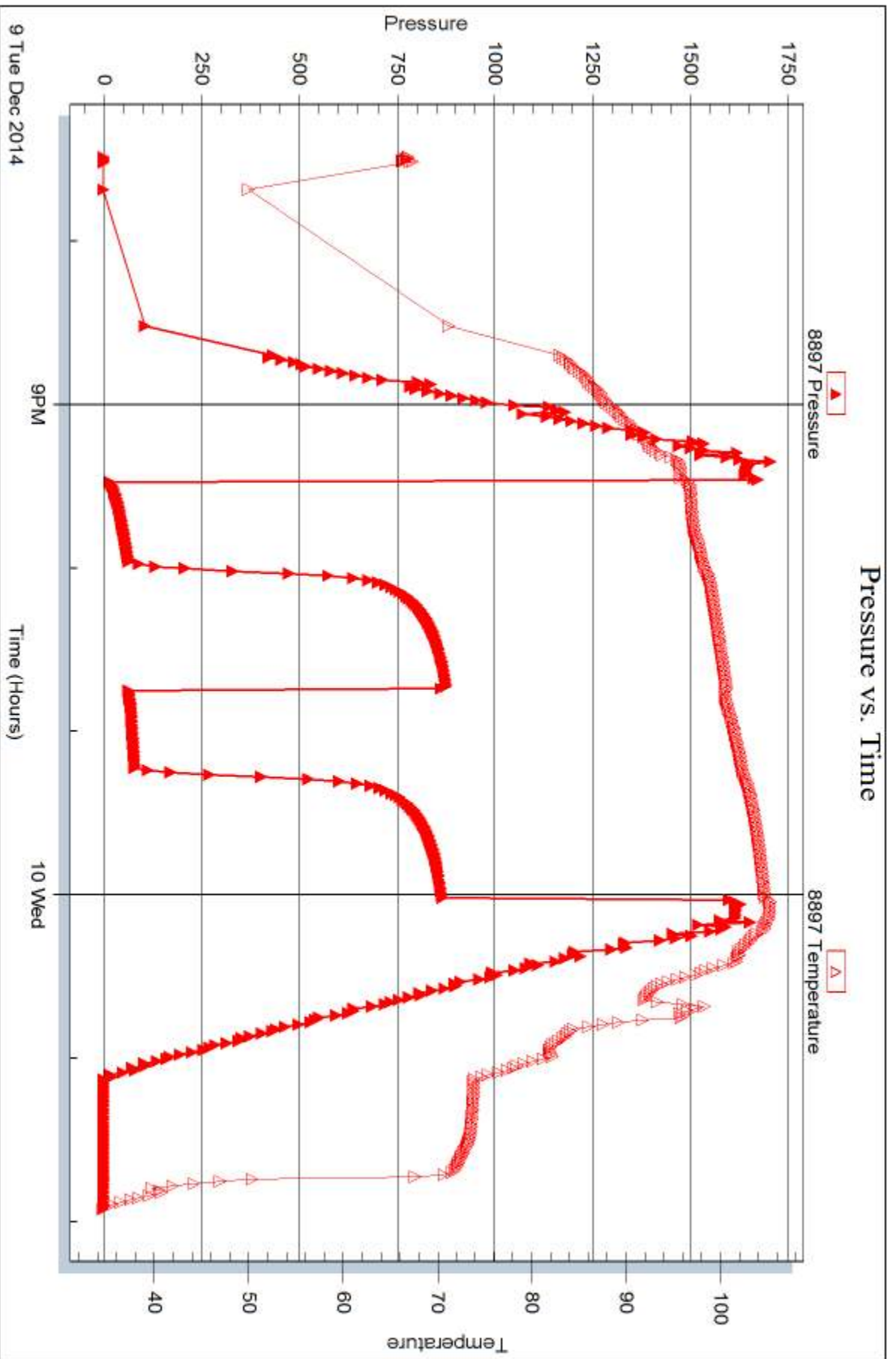
Serial #: 8897

Inside

Jaspar Co.

D&R Unit #1

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 60699

Printed: 2014.12.12 @ 13:54:50



DRILL STEM TEST REPORT

Prepared For: **Jaspar Co.**

PO Box 1120
Hays KS 67601

ATTN: Jeff Lawler

D&R Unit #1

21-6s-20w Rooks,KS

Start Date: 2014.12.10 @ 19:50:08

End Date: 2014.12.11 @ 02:42:58

Job Ticket #: 60700 DST #: 3

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

Printed: 2014.12.12 @ 13:46:52

Jaspar Co. 21-6s-20w Rooks,KS D&R Unit #1 DST # 3 LKC J&K 2014.12.10



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

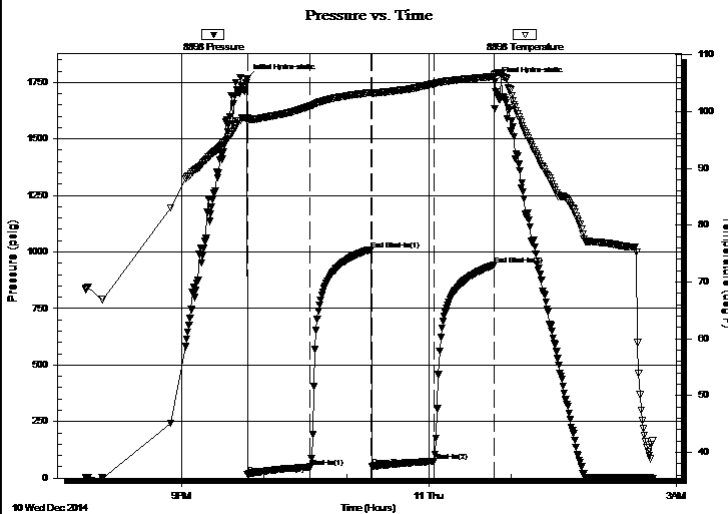
21-6s-20w Rooks, KS
D&R Unit #1
Job Ticket: 60700 **DST#: 3**
Test Start: 2014.12.10 @ 19:50:08

GENERAL INFORMATION:

Formation: **LKC J&K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 21:47:48
Time Test Ended: 02:42:58
Interval: **3563.00 ft (KB) To 3600.00 ft (KB) (TVD)**
Total Depth: 3600.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Reset)
Tester: Tate Lang
Unit No: 77
Reference Elevations: 2172.00 ft (KB)
2164.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8898 Outside
Press@RunDepth: 73.56 psig @ 3565.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.12.10 End Date: 2014.12.11 Last Calib.: 2014.12.11
Start Time: 19:50:09 End Time: 02:42:58 Time On Btm: 2014.12.10 @ 21:47:38
Time Off Btm: 2014.12.11 @ 00:48:08

TEST COMMENT: 45-Fair blow built to 4"
45-Dead no blow back
45-Weak surface blow built to 2 1/2"
45-Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1767.40	98.93	Initial Hydro-static
1	18.01	98.29	Open To Flow (1)
46	49.36	100.94	Shut-In(1)
91	1007.82	103.36	End Shut-In(1)
91	51.91	103.15	Open To Flow (2)
136	73.56	104.88	Shut-In(2)
180	942.54	106.14	End Shut-In(2)
181	1753.15	106.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	SMCW 10%W 90%M	0.60

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Jaspar Co.
PO Box 1120
Hays KS 67601
ATTN: Jeff Lawler

21-6s-20w Rooks, KS
D&R Unit #1
Job Ticket: 60700 **DST#: 3**
Test Start: 2014.12.10 @ 19:50:08

Tool Information

Drill Pipe:	Length: 3450.00 ft	Diameter: 3.80 inches	Volume: 48.39 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 119.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 48.98 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	26.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3563.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	37.00 ft				
Tool Length:	57.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3548.00	
Hydraulic tool	5.00			3553.00	
Packer	5.00			3558.00	20.00 Bottom Of Top Packer
Packer	5.00			3563.00	
Stubb	1.00			3564.00	
Perforations	1.00			3565.00	
Recorder	0.00	8897	Inside	3565.00	
Recorder	0.00	8898	Outside	3565.00	
Perforations	32.00			3597.00	
Bullnose	3.00			3600.00	37.00 Bottom Packers & Anchor
Total Tool Length:	57.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Jaspar Co.

21-6s-20w Rooks,KS

PO Box 1120
Hays KS 67601

D&R Unit #1

Job Ticket: 60700

DST#: 3

ATTN: Jeff Lawler

Test Start: 2014.12.10 @ 19:50:08

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: 45.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 700.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	SMCW 10%W 90%M	0.599

Total Length: 120.00 ft Total Volume: 0.599 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

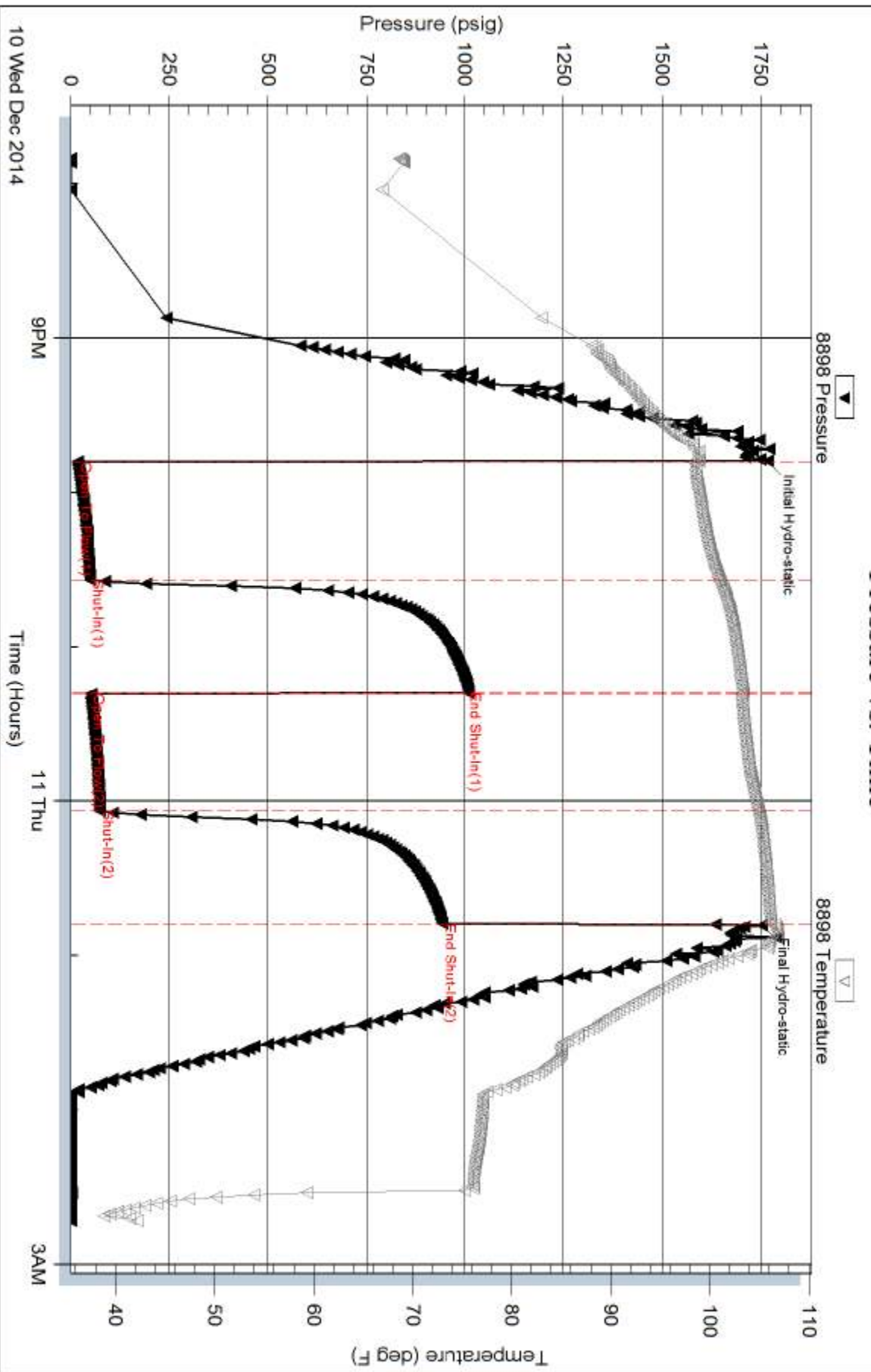
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time



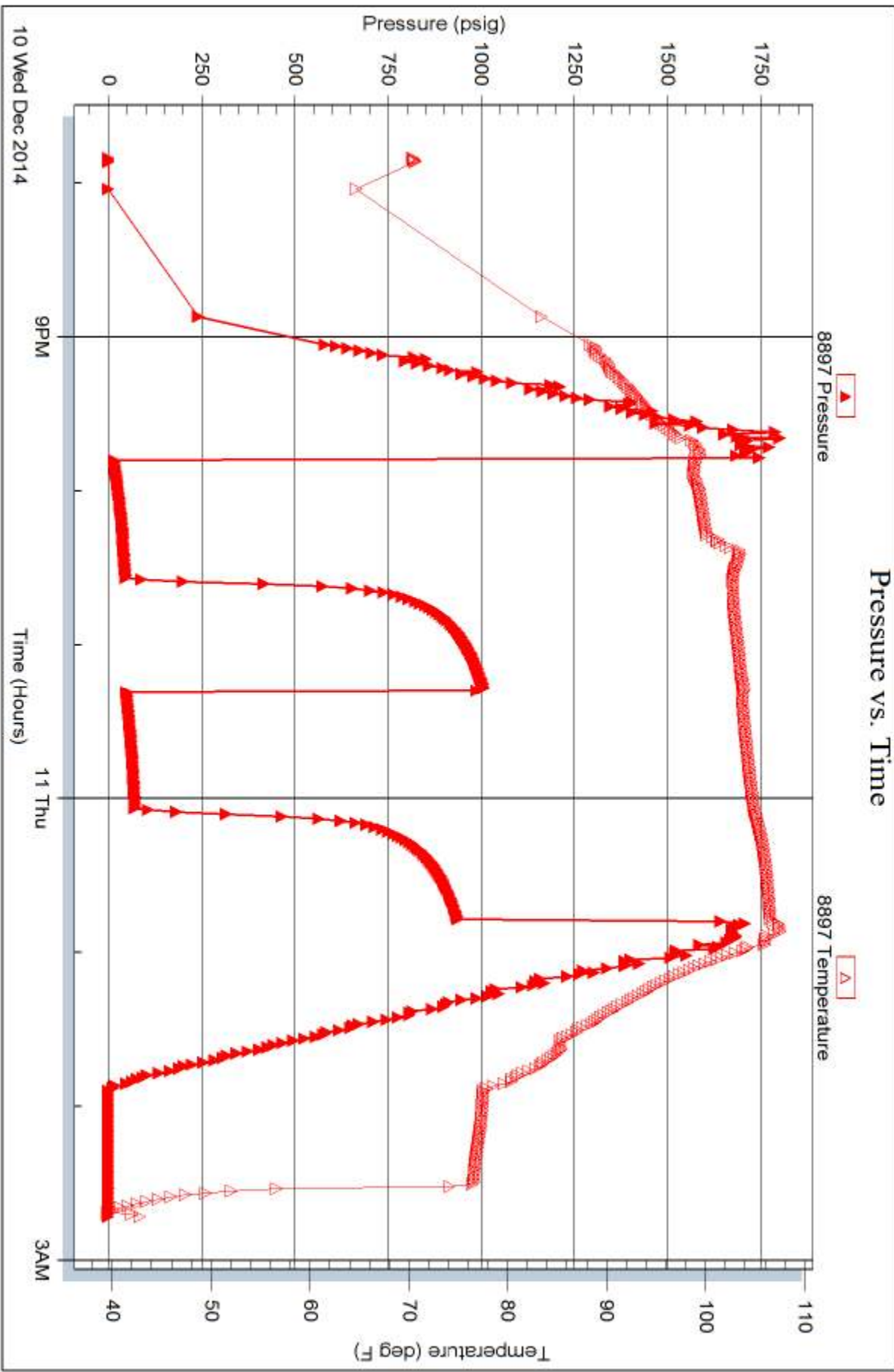
Serial #: 8897

Inside

Jaspar Co.

D&R Unit #1

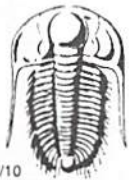
DST Test Number: 3



Tribble Testing, Inc

Ref. No: 60700

Printed: 2014.12.12 @ 13:46:53



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60698

4/10

Well Name & No. D+R Unit #1 Test No. 1 Date 12-9-14
 Company Jasper Co. Elevation 2172 KB 2164 GL
 Address 1681 Limestone Rd S Po Box 1120 Hays KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW #12
 Location: Sec. 21 Twp. 6 Rge. 20 Co. ~~Wichita~~ Roots State KS

Interval Tested 3367 3425 Zone Tested Toronto - LKCA
 Anchor Length 58 Drill Pipe Run 3260 Mud Wt. 8.9
 Top Packer Depth 3362 Drill Collars Run 119 Vis 72
 Bottom Packer Depth 3367 Wt. Pipe Run 0 WL 8
 Total Depth 3425 Chlorides 500 ppm System LCM 2 1/2 #

Blow Description B.O.B. IN 1min
B.O.B. IN 9min
B.O.B. IN 1min
B.O.B. IN 9min

Rec	Feet of	%gas	%oil	%water	%mud
<u>150</u>	<u>MCGO</u>	<u>10</u>	<u>60</u>	<u>30</u>	
<u>930</u>	<u>GO</u>	<u>25</u>	<u>75</u>		
<u>0</u>	<u>990 GIP</u>	<u>100</u>			

Rec Total 1110 BHT 112 Gravity 37 API RW @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 1670 Test 1150 T-On Location 0430
 (B) First Initial Flow 96 Jars _____ T-Started 0552
 (C) First Final Flow 270 Safety Joint N/C T-Open 08 03
 (D) Initial Shut-In 927 Circ Sub _____ T-Pulled 10 03
 (E) Second Initial Flow 289 Hourly Standby _____ T-Out 12 47
 (F) Second Final Flow 416 Mileage 124 R/T 192.20 Comments _____
 (G) Final Shut-In 924 Sampler _____
 (H) Final Hydrostatic 1635 Straddle _____ Ruined Shale Packer _____

Initial Open 15 Shale Packer 250 Ruined Packer _____
 Initial Shut-In 45 Extra Packer _____ Extra Copies _____
 Final Flow 15 Extra Recorder _____ Sub Total 0
 Final Shut-In 45 Day Standby _____ Total 1592.20
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1592.20

Approved By _____ Our Representative Jeff Lawler
 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. 60699

4/10

Well Name & No. DTR Unit #1 Test No. 2 Date 12-9-14
 Company Jasper Co. Elevation 2172 KB 2164 GL
 Address 1681 Limestone Rd S, PO Box 1120 Hays KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW #12
 Location: Sec. 21 Twp. 6 Rge. 20 Co. Roots State KS

Interval Tested 3426 3469 Zone Tested LRC-C-D
 Anchor Length 43 Drill Pipe Run 3293 Mud Wt. 8.9
 Top Packer Depth 3421 Drill Collars Run 119 Vis 72
 Bottom Packer Depth 3426 Wt. Pipe Run 0 WL 8.0
 Total Depth 3469 Chlorides 500 ppm System LCM 2 1/2 #
 Blow Description B.O.B. IN 27 mins
Weak surface built to 1/4 in
B.O.B. FN 21 mins

Rec	Feet of	%gas	%oil	%water	%mud
60	SGOCM	5	15		80
60	GOCM	5	40		55
30	MCGO	20	40		40
10	GO	10	90		
0	140 GIP	100			

Rec Total 160 BHT 104 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 1675 Test 1150 T-On Location 1915
 (B) First Initial Flow 19 Jars _____ T-Started 1929
 (C) First Final Flow 66 Safety Joint _____ T-Open 2128
 (D) Initial Shut-In 880 Circ Sub _____ T-Pulled 2358
 (E) Second Initial Flow 69 Hourly Standby _____ T-Out 0155 (12-10-14)
 (F) Second Final Flow 82 Mileage 192.20 Comments _____
 (G) Final Shut-In 868 Sampler _____
 (H) Final Hydrostatic 1640 Straddle _____ Ruined Shale Packer _____
 Shale Packer 250 Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 1592.20
 Final Flow 30 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 45 Sub Total 1592.20

Approved By _____ Our Representative [Signature]
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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 60700

Well Name & No. D+R Unit #1 Test No. 3 Date 12-10-14
 Company Jasper Co. Elevation 2172 KB 2164 GL
 Address 11981 Limestone Rd S PO Box 1120 Hays KS 67601
 Co. Rep / Geo. Jeff Lawler Rig WW #12
 Location: Sec. 21 Twp. 6 Rge. 20 Co. Rooks State KS

Interval Tested 3563 3600 Zone Tested LKC JHK
 Anchor Length 37 Drill Pipe Run 3450 Mud Wt. 9.3
 Top Packer Depth 3558 Drill Collars Run 119 Vis 45
 Bottom Packer Depth 3563 Wt. Pipe Run 0 WL 7.6
 Total Depth 3600 Chlorides 700 ppm System LCM 2#

Blow Description Fair blow built to 4in
Dead no blow back
bleeds surface blow built to 2 1/2 in
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>120</u>	Feet of <u>SWCM / Oil spots</u>			<u>10</u>	<u>90</u>

Rec Total 120 BHT 106 Gravity _____ API RW _____ @ _____ ° F Chlorides _____ ppm

(A) Initial Hydrostatic 1767 Test 1150 T-On Location 1845
 (B) First Initial Flow 18 Jars _____ T-Started 1950
 (C) First Final Flow 49 Safety Joint _____ T-Open 2148
 (D) Initial Shut-In 1608 Circ Sub _____ T-Pulled 0048/12-11-14
 (E) Second Initial Flow 52 Hourly Standby _____ T-Out 0248
 (F) Second Final Flow 74 Mileage X2 384.40 Comments Loaded
 (G) Final Shut-In 943 Sampler _____ 18:30 12-11-14
 (H) Final Hydrostatic 1753 Straddle _____
 Shale Packer 250 Ruined Shale Packer _____
 Extra Packer _____ Ruined Packer _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1884.40
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1884.40

Initial Open 45
 Initial Shut-In 45
 Final Flow 45
 Final Shut-In 45

Approved By _____ Our Representative [Signature]

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