



## DRILL STEM TEST REPORT

Prepared For: **Bear Petroleum LLC**

PO Box 438  
Haysville KS 67060-0438

ATTN: R.A.Schremmer, Jim Mu

### **Holopirek #28-2**

### **28-18s-17w Rush,KS**

Start Date: 2016.12.12 @ 23:20:50

End Date: 2016.12.13 @ 07:17:59

Job Ticket #: 64078                      DST #: 1

Trilobite Testing, Inc  
PO Box 362 Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2016.12.14 @ 09:43:37



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Bear Petroleum LLC  
 PO Box 438  
 Haysville KS 67060-0438  
 ATTN: R.A.Schremmer, Jim Mu

**28-18s-17w Rush, KS**  
**Holopirek #28-2**  
 Job Ticket: 64078 **DST#: 1**  
 Test Start: 2016.12.12 @ 23:20:50

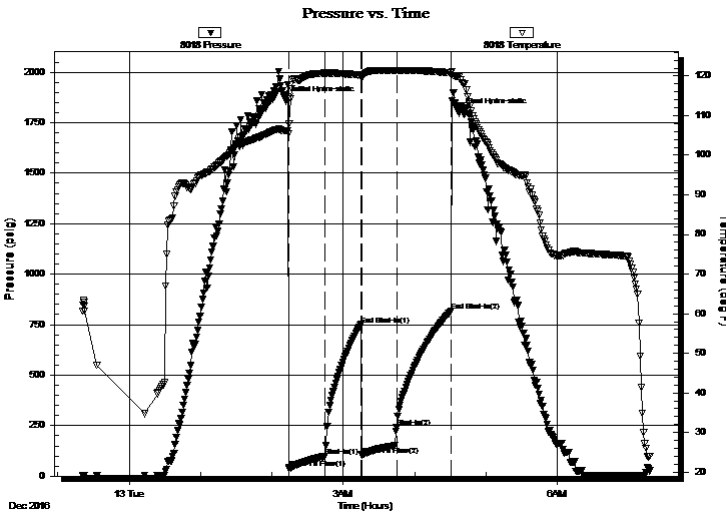
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:14:00  
 Time Test Ended: 07:17:59  
 Interval: **3720.00 ft (KB) To 3728.00 ft (KB) (TVD)**  
 Total Depth: 3728.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ray Schwager  
 Unit No: 77  
 Reference Elevations: 1980.00 ft (KB)  
 1970.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8018 Inside**  
 Press@RunDepth: 243.40 psig @ 3721.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2016.12.12 End Date: 2016.12.13 Last Calib.: 2016.12.13  
 Start Time: 23:20:50 End Time: 07:17:59 Time On Btm: 2016.12.13 @ 02:11:45  
 Time Off Btm: 2016.12.13 @ 04:37:14

**TEST COMMENT:** 30-IFP-strg bl in 3 min  
 30-ISIP-1/2" bl bk  
 30-FFP-strg bl in 9 min  
 45-FSIP-surface bl bk

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1857.25	106.16	Initial Hydro-static
3	39.27	105.38	Open To Flow (1)
33	99.41	120.72	Shut-In(1)
63	750.13	120.24	End Shut-In(1)
64	104.94	119.90	Open To Flow (2)
93	243.40	121.38	Shut-In(2)
139	819.02	120.76	End Shut-In(2)
146	1797.29	119.75	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	Water	1.74
80.00	MGWCO 10%G20%W30%M40%O	1.12
145.00	CO	2.03
0.00	340' GIP	0.00

## Gas Rates

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



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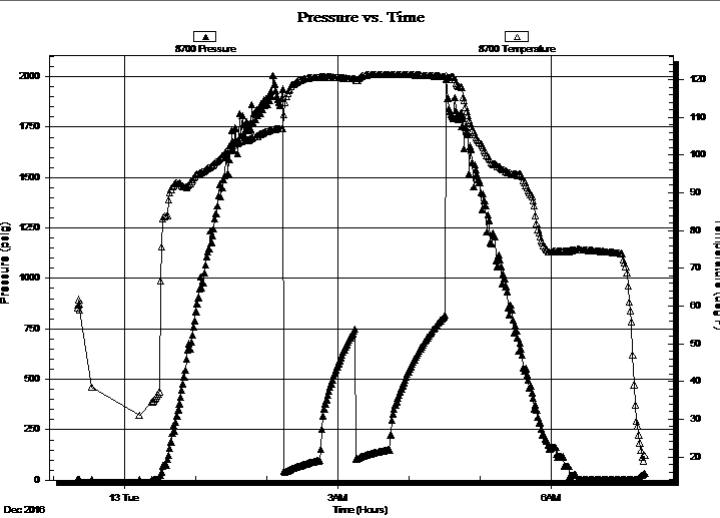
**28-18s-17w Rush, KS**  
**Holopirek #28-2**  
 Job Ticket: 64078 **DST#: 1**  
 Test Start: 2016.12.12 @ 23:20:50

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Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:14:00  
 Time Test Ended: 07:17:59  
 Interval: **3720.00 ft (KB) To 3728.00 ft (KB) (TVD)**  
 Total Depth: 3728.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ray Schwager  
 Unit No: 77  
 Reference Elevations: 1980.00 ft (KB)  
 1970.00 ft (CF)  
 KB to GR/CF: 10.00 ft

**Serial #: 8700 Outside**  
 Press@RunDepth: psig @ 3721.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2016.12.12 End Date: 2016.12.13 Last Calib.: 2016.12.13  
 Start Time: 23:20:47 End Time: 07:19:11 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** 30-IFP-strg bl in 3 min  
 30-ISIP-1/2" bl bk  
 30-FFP-strg bl in 9 min  
 45-FSIP-surface bl bk



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

Recovery		
Length (ft)	Description	Volume (bbl)
124.00	Water	1.74
80.00	MGWCO 10%G20%W30%M40%O	1.12
145.00	CO	2.03
0.00	340' GIP	0.00

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bear Petroleum LLC  
PO Box 438  
Haysville KS 67060-0438  
ATTN: R.A.Schremmer, Jim Mu

**28-18s-17w Rush, KS**  
**Holopirek #28-2**  
Job Ticket: 64078 **DST#: 1**  
Test Start: 2016.12.12 @ 23:20:50

**Tool Information**

Drill Pipe:	Length: 3729.00 ft	Diameter: 3.80 inches	Volume: 52.31 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 52.31 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3720.00 ft			Final	60000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	8.00 ft				
Tool Length:	29.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
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Change Over Sub	1.00			3700.00	
Shut In Tool	5.00			3705.00	
Hydraulic tool	5.00			3710.00	
Packer	5.00			3715.00	21.00 Bottom Of Top Packer
Packer	5.00			3720.00	
Stubb	1.00			3721.00	
Recorder	0.00	8018	Inside	3721.00	
Recorder	0.00	8700	Outside	3721.00	
Perforations	4.00			3725.00	
Bullnose	3.00			3728.00	8.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>29.00</b>				



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**FLUID SUMMARY**

Bear Petroleum LLC  
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ATTN: R.A.Schremmer, Jim Mu

**28-18s-17w Rush, KS**  
**Holopirek #28-2**  
Job Ticket: 64078      **DST#: 1**  
Test Start: 2016.12.12 @ 23:20:50

## Mud and Cushion Information

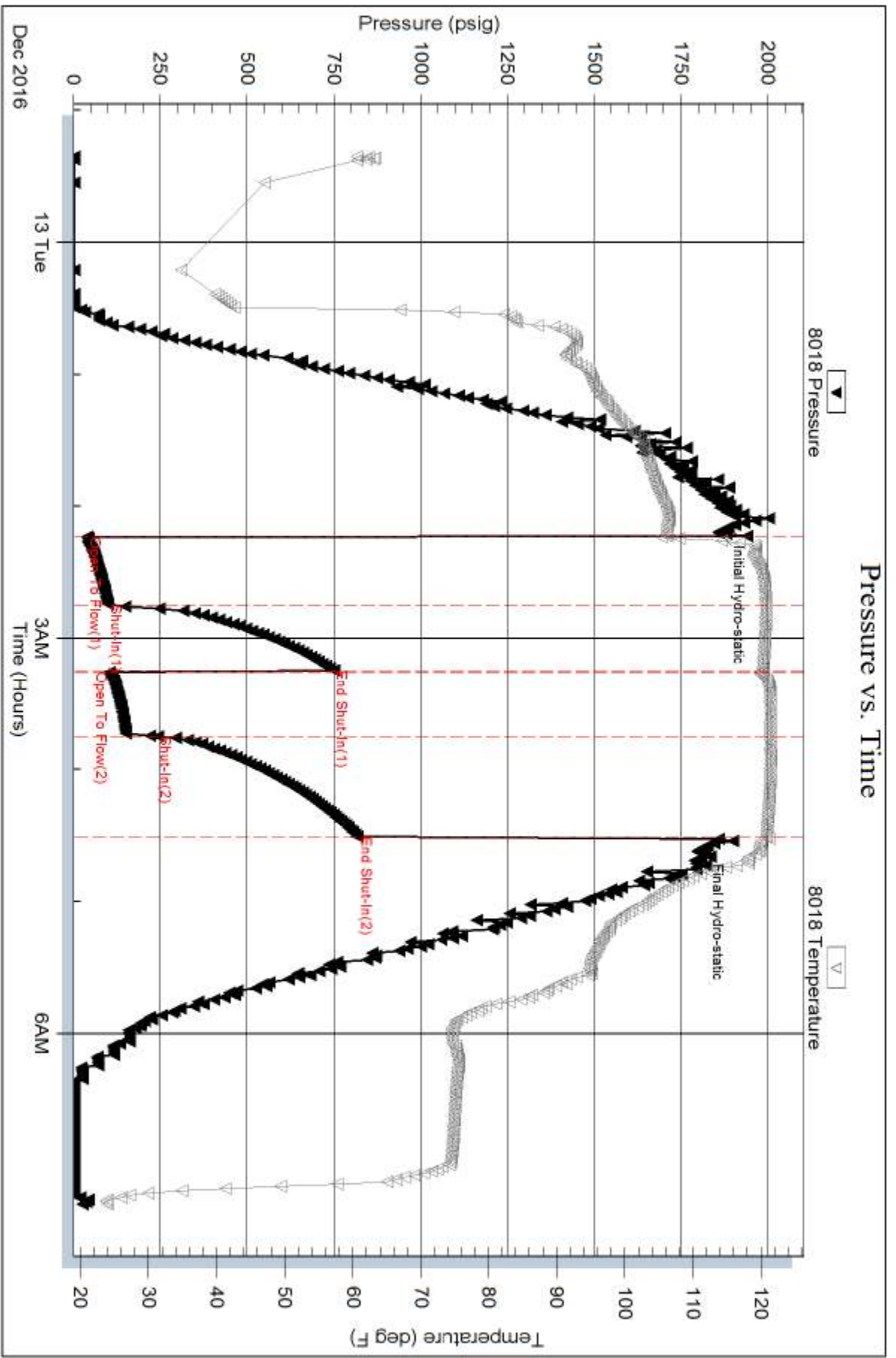
Mud Type: Gel Chem	Cushion Type:	Oil API: 39 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 28000 ppm
Viscosity: 63.00 sec/qt	Cushion Volume: bbl	
Water Loss: 10.34 in <sup>3</sup>	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 5000.00 ppm		
Filter Cake: 1.00 inches		

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
124.00	Water	1.739
80.00	MGWCO 10%G20%W30%M40%O	1.122
145.00	CO	2.034
0.00	340' GIP	0.000

Total Length: 349.00 ft      Total Volume: 4.895 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: RW .28@60F

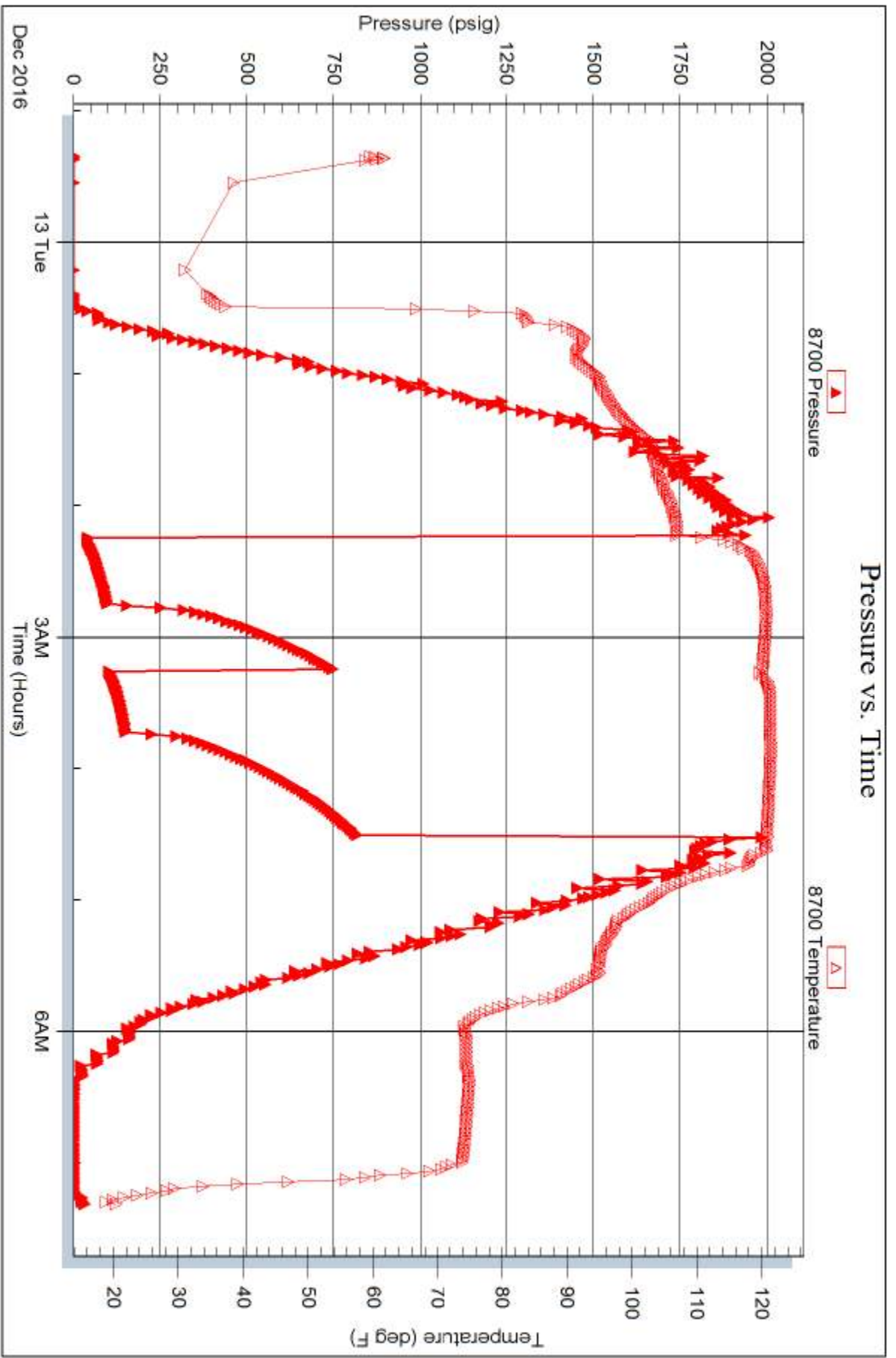


Serial #: 8700

Outside Bear Petroleum LLC

Holopiek #28-2

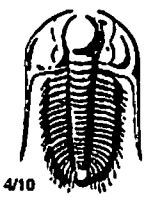
DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 64078

Printed: 2016.12.14 @ 09:43:38



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64078

Well Name & No. Holopirek 28-2 Test No. 1 Date 12-12-16  
 Company Bear Petroleum LLC Elevation 1980 KB 1970 cr. GL  
 Address PO Box 438 Haysville, Ks 67060-0438  
 Co. Rep / Geo. Jim Musgrove Rig E.C. Services rig  
 Location: Sec. 28 Twp. 18<sup>s</sup> Rge. 17<sup>w</sup> Co. Rush State Ks

Interval Tested 3720-3728 Zone Tested Arbuckle  
 Anchor Length 8 Drill Pipe Run 3729 Mud Wt. 9.4  
 Top Packer Depth 3715 Drill Collars Run - Vis 6.3  
 Bottom Packer Depth 3720 Wt. Pipe Run - WL 10.4  
 Total Depth 3728 Chlorides 5000 ppm System LCM 1 1/2 #  
 Blow Description IFP - STRONG BLOW IN 3 MIN  
TSIP - 1/2" Blow Back  
FFP - STRONG BLOW IN 9 MIN  
FSIP - surface Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>340</u>	<u>GIP</u>				
<u>145</u>	<u>CO</u>				
<u>80</u>	<u>M6WCO</u>	<u>10</u>	<u>40</u>	<u>20</u>	<u>30</u>
<u>124</u>	<u>WATER</u>				
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 369 BHT 120 Gravity 39 API RW .28 @ 60 °F Chlorides 28000 ppm  
 Test 1050  
 Jars \_\_\_\_\_  
 Safety Joint \_\_\_\_\_  
 Circ Sub \_\_\_\_\_  
 Hourly Standby \_\_\_\_\_  
 Mileage 75 RT 56.25  
 Sampler \_\_\_\_\_  
 Straddle \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_  
 Sub Total 1106.25  
 T-On Location 2220  
 T-Started 2320  
 T-Open 0210  
 T-Pulled 0425  
 T-Out 0717  
 Comments \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Sub Total 0  
 Total 1106.25  
 MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 30  
 Final Flow 30  
 Final Shut-In 45  
 Approved By \_\_\_\_\_ Our Representative Ray Schwager Thank you  
 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.