

**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Fossil Resources, LLC

108 E 12th St #5  
Hays, Ks 67607

ATTN: Lyle Herrman

**11 13s 36w Logan, Ks**

**Plummer #2**

Job Ticket: 64685

**DST#: 1**

Test Start: 2017.10.03 @ 19:29:00

### GENERAL INFORMATION:

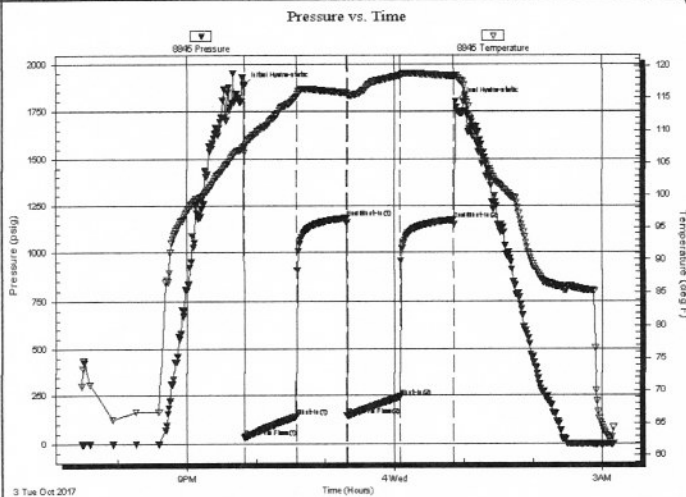
Formation: **LKC - C**  
 Deviated: **No Whipstock:** ft (KB)  
 Time Tool Opened: **21:49:30**  
 Time Test Ended: **03:09:45**  
 Interval: **3851.00 ft (KB) To 3880.00 ft (KB) (TVD)**  
 Total Depth: **3880.00 ft (KB) (TVD)**  
 Hole Diameter: **7.88 inches** Hole Condition:  
 Test Type: **Conventional Bottom Hole (Initial)**  
 Tester: **Bradley Walter**  
 Unit No: **78**  
 Reference Elevations: **3010.00 ft (KB)**  
**3004.00 ft (CF)**  
 KB to GR/CF: **6.00 ft**

### Serial #: 8845

**Outside**

Press@RunDepth: **244.74 psig @ 3852.00 ft (KB)** Capacity: **8000.00 psig**  
 Start Date: **2017.10.03** End Date: **2017.10.04** Last Calib.: **2017.10.04**  
 Start Time: **19:29:00** End Time: **03:09:45** Time On Btm: **2017.10.03 @ 21:49:15**  
 Time Off Btm: **2017.10.04 @ 00:52:45**

TEST COMMENT: IF: BOB @ 18 min.  
 IS: No return.  
 FF: BOB @ 21 min.  
 FSI: No return.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1884.09	107.57	Initial Hydro-static
1	35.34	106.65	Open To Flow (1)
46	140.88	115.26	Shut-In(1)
90	1182.46	115.81	End Shut-In(1)
90	145.34	115.37	Open To Flow (2)
136	244.74	118.41	Shut-In(2)
182	1173.56	118.34	End Shut-In(2)
184	1802.10	118.48	Final Hydro-static

### Recovery

Length (ft)	Description	Volume (bbl)
515.00	mcw 5m 95w (oil spots)	7.22
0.00	Oil show on top of tool	0.00

### Gas Rates

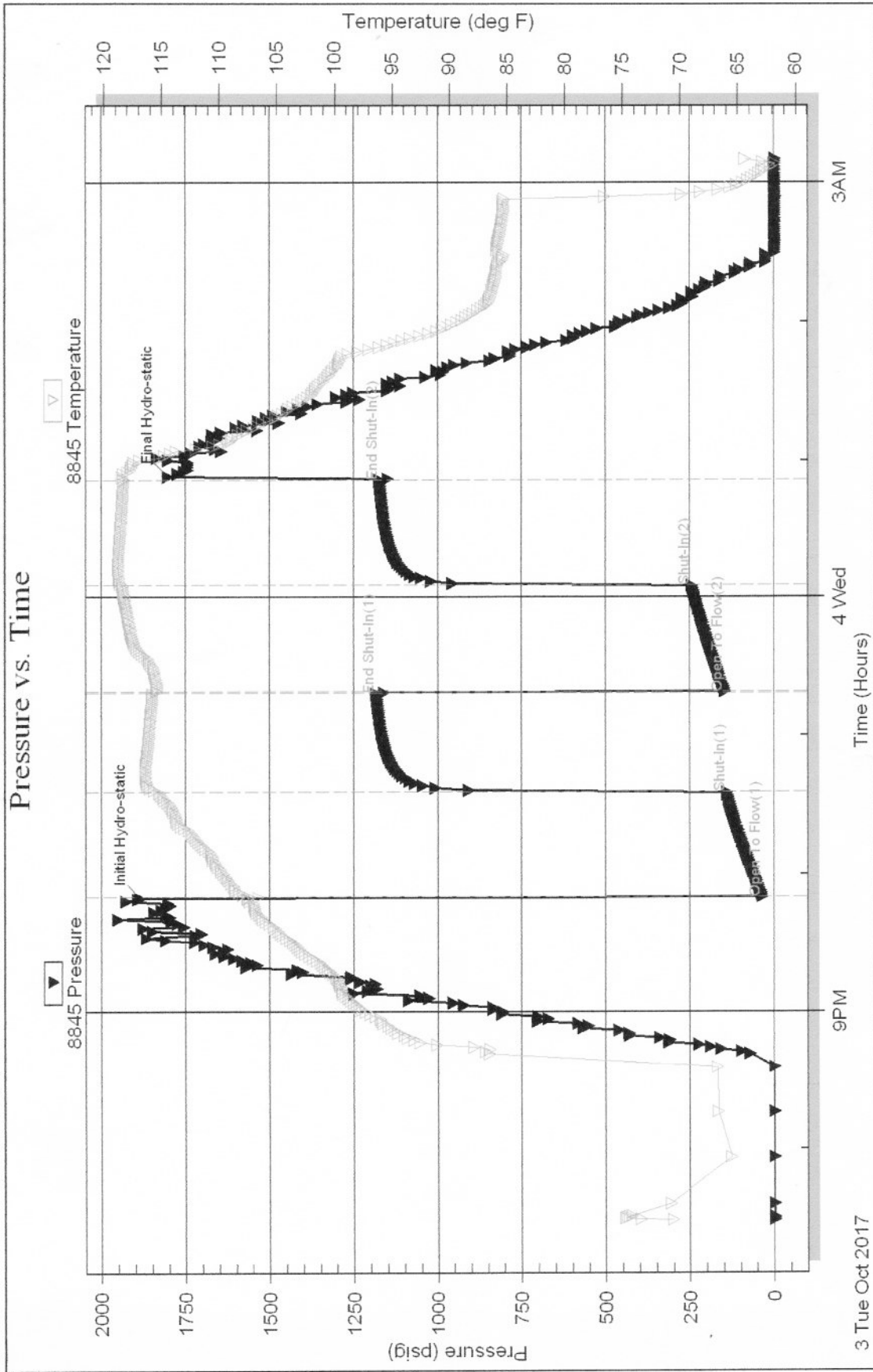
	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

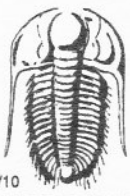
Serial #: 8845

Outside Fossil Resources, LLC

Plummer #2

DST Test Number: 1





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64685

Well Name & No. Fossil Plummer # 2 Test No. 1 Date 10/04/2017  
 Company Fossil Resources, LLC Elevation 3010 KB 3004 GL  
 Address 108 E 12th St #5 Hays, KS 67602  
 Co. Rep / Geo. Lyle Herrman Rig Royal #1  
 Location: Sec. 11 Twp. 13S Rge. 36W Co. Logan State Ks

Interval Tested 3851 3880 Zone Tested LRC C  
 Anchor Length 29' Drill Pipe Run 3834 Mud Wt. 8.7  
 Top Packer Depth 3846 Drill Collars Run Ø Vis 58  
 Bottom Packer Depth 3851 Wt. Pipe Run Ø WL 9.4  
 Total Depth 3880 Chlorides 10,000 ppm System LCM 3#  
 Blow Description IF: BOB @ 18 min.  
ISI: No return.  
FF: BOB @ 21 min.  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>SIS</u>	<u>mcw oil spots</u>		<u>95</u>	<u>5</u>	
	<u>oil show on top of tool</u>				

Rec Total SIS BHT 118 Gravity — API RW .207 @ 64 ° F Chlorides 38,000 ppm

(A) Initial Hydrostatic 1884  Test \_\_\_\_\_ T-On Location 1830  
 (B) First Initial Flow 35  Jars \_\_\_\_\_ T-Started 1929  
 (C) First Final Flow 141  Safety Joint \_\_\_\_\_ T-Open 2149  
 (D) Initial Shut-In 1182  Circ Sub N/C \_\_\_\_\_ T-Pulled 0049  
 (E) Second Initial Flow 145  Hourly Standby \_\_\_\_\_ T-Out \_\_\_\_\_  
 (F) Second Final Flow 245  Mileage 125 RT \_\_\_\_\_ Comments \_\_\_\_\_  
 (G) Final Shut-In 1174  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1802  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Total \_\_\_\_\_  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Sub Total \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

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**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Fossil Resources, LLC

108 E 12th St #5  
Hays, Ks 67607

ATTN: Lyle Herrman

**11 13s 36w Logan, Ks**

**Plummer #2**

Job Ticket: 64686

DST#: 2

Test Start: 2017.10.05 @ 10:44:00

## GENERAL INFORMATION:

Formation: **Pleasanton**

Deviated: **No** Whipstock:                      ft (KB)

Time Tool Opened: 12:34:45

Time Test Ended: 17:39:45

Test Type: **Conventional Bottom Hole (Reset)**

Tester: **Bradley Walter**

Unit No: **78**

Interval: **4145.00 ft (KB) To 4170.00 ft (KB) (TVD)**

Total Depth: **4170.00 ft (KB) (TVD)**

Hole Diameter: **7.88 inches** Hole Condition: **Good**

Reference Elevations: **3010.00 ft (KB)**

**3004.00 ft (CF)**

KB to GR/CF: **6.00 ft**

**Serial #: 8845**      **Outside**

Press@RunDepth: **46.27 psig @ 4146.00 ft (KB)**

Start Date: **2017.10.05**

End Date: **2017.10.05**

Start Time: **10:44:00**

End Time: **17:39:45**

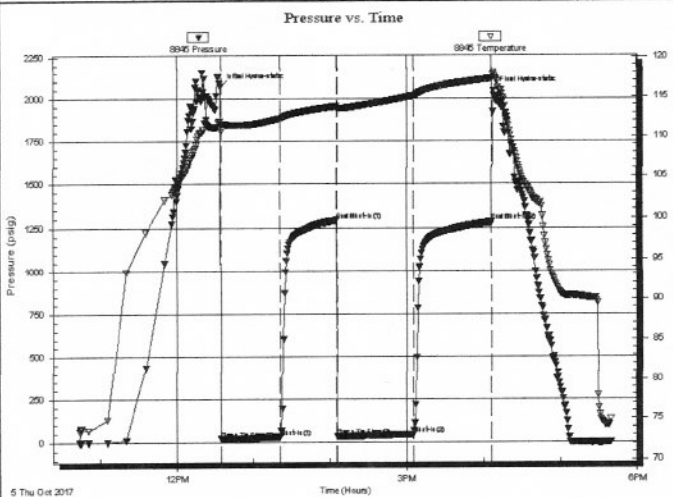
Capacity: **8000.00 psig**

Last Calib.: **2017.10.05**

Time On Btm: **2017.10.05 @ 12:34:15**

Time Off Btm: **2017.10.05 @ 16:07:15**

TEST COMMENT: IF: 3 1/2" blow.  
IS: No return.  
FF: 2 1/2" blow.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2070.39	111.93	Initial Hydro-static
1	18.39	110.60	Open To Flow (1)
47	30.24	112.24	Shut-In(1)
91	1293.66	113.81	End Shut-In(1)
92	31.85	113.30	Open To Flow (2)
151	46.27	115.09	Shut-In(2)
212	1283.48	117.25	End Shut-In(2)
213	2047.94	117.99	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
85.00	mcw (oil specks) <i>30m 70w</i>	1.19
0.00	oil puddle on top	0.00

\* Recovery from multiple tests

## Gas Rates

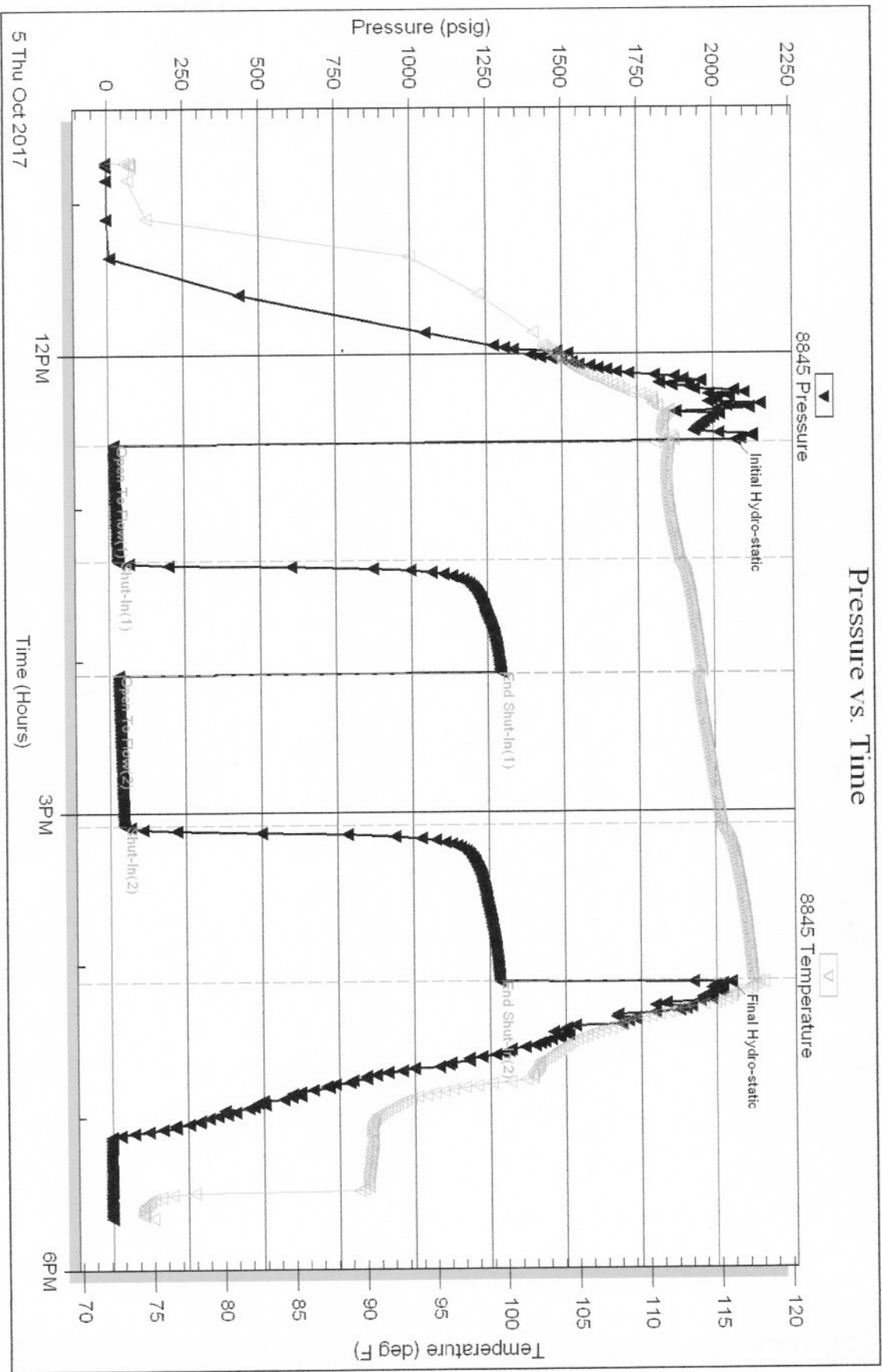
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)

Serial #: 8845

Outside Fossil Resources, LLC

Flumer #2

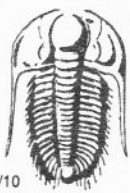
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 64686

Printed: 2017.10.05 @ 17:51:36



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64686

Well Name & No. Plummer #2 Test No. 2 Date 10/05/2016  
 Company Fossil Resources, LLC Elevation 3010 KB 3004 GL  
 Address 108 E 12<sup>th</sup> St #5 Hays, Ks 67607  
 Co. Rep / Geo. Lyle Herrman Rig Royal #1  
 Location: Sec. 11 Twp. 13S Rge. 36W Co. Logan State Ks

Interval Tested 4145-4170 Zone Tested Pleasanton  
 Anchor Length 25' Drill Pipe Run 4122 Mud Wt. 8.9  
 Top Packer Depth 4140 Drill Collars Run 0 Vis 48  
 Bottom Packer Depth 4145 Wt. Pipe Run 0 WL 134  
 Total Depth 4170 Chlorides 13,000 ppm System LCM 2#

Blow Description IF: 3 1/2" blow.  
ISI: No return.  
FF: 2 1/2" blow.  
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>85</u>	<u>new oil specks</u>		<u>70</u>	<u>30</u>	
	<u>oil puddle on top</u>				

Rec Total 85 BHT 117 Gravity - API RW 212 @ 75 °F Chlorides 36,000 ppm

(A) Initial Hydrostatic 2620  Test \_\_\_\_\_ T-On Location 1040  
 (B) First Initial Flow 18  Jars \_\_\_\_\_ T-Started 1043  
 (C) First Final Flow 30  Safety Joint \_\_\_\_\_ T-Open 1235  
 (D) Initial Shut-In 1294  Circ Sub 2 1/2 T-Pulled 1605  
 (E) Second Initial Flow 32  Hourly Standby \_\_\_\_\_ T-Out 1740  
 (F) Second Final Flow 46  Mileage 125AT Comments \_\_\_\_\_  
 (G) Final Shut-In 1283  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 2048  Straddle \_\_\_\_\_

Initial Open 45  Shale Packer \_\_\_\_\_  
 Initial Shut-In 45  Ruined Packer \_\_\_\_\_  
 Final Flow 60  Extra Packer \_\_\_\_\_  
 Final Shut-In 60  Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_ Sub Total \_\_\_\_\_  
 Accessibility \_\_\_\_\_ Total \_\_\_\_\_  
 Sub Total \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

Approved By \_\_\_\_\_ Our Representative [Signature]

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**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Fossil Resources, LLC

11 13s 36w Logan, Ks

108 E 12th St #5  
Hays, Ks 67607

**Plummer #2**

Job Ticket: 64687

**DST#: 3**

ATTN: Lyle Herrman

Test Start: 2017.10.06 @ 07:30:00

## GENERAL INFORMATION:

Formation: **Marmaton**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:28:30

Time Test Ended: 15:18:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: **4177.00 ft (KB) To 4270.00 ft (KB) (TVD)**

Total Depth: 4270.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 3010.00 ft (KB)

3004.00 ft (CF)

KB to GR/CF: 6.00 ft

**Serial #: 8365**

Inside

Press@RunDepth: 56.52 psig @ 4178.00 ft (KB)

Start Date: 2017.10.06

End Date:

2017.10.06

Start Time: 07:30:00

End Time:

15:18:00

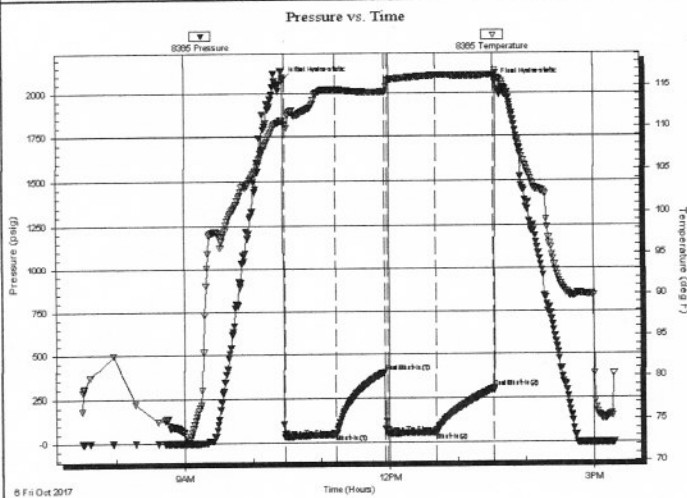
Capacity: 8000.00 psig

Last Calib.: 2017.10.06

Time On Btm: 2017.10.06 @ 10:27:00

Time Off Btm: 2017.10.06 @ 13:33:30

TEST COMMENT: IF: 6" blow.  
IS: No return.  
FF: 1/2" blow.  
FS: No return.



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2081.76	110.88	Initial Hydro-static
2	32.86	110.20	Open To Flow (1)
47	48.12	114.49	Shut-In(1)
89	393.96	114.27	End Shut-In(1)
92	51.48	115.59	Open To Flow (2)
134	56.52	116.28	Shut-In(2)
185	297.22	116.33	End Shut-In(2)
187	2063.49	116.90	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	w cm 20w 80m (oil specks)	1.12

\* Recovery from multiple tests

## Gas Rates

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

Serial #: 8365

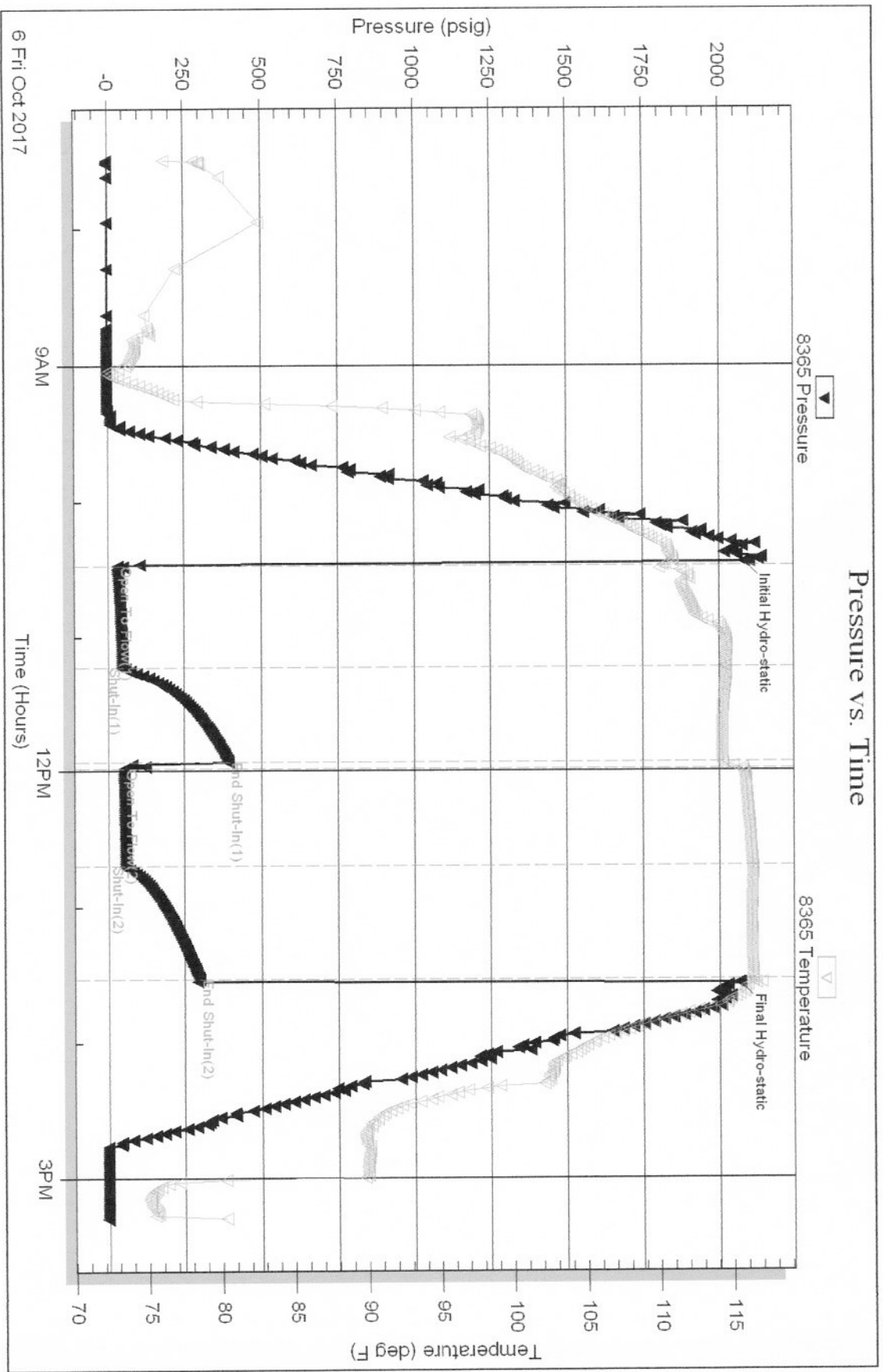
Inside

Fossil Resources, LLC

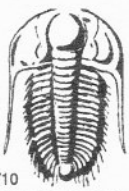
Plummer #2

DST Test Number: 3

### Pressure vs. Time







# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64687

Well Name & No. Plummer #2 Test No. 3 Date 10/06/2017  
 Company Fossil Resources, LLC Elevation 3010 KB 3004 GL  
 Address 108 E 12<sup>th</sup> St Hays, KS 67607  
 Co. Rep / Geo. Lyle Herrman Rig Royal #1  
 Location: Sec. 11 Twp. 13S Rge. 36W Co. Logan State KS

Interval Tested 4177 - 4270 Zone Tested Marmaton  
 Anchor Length 93' Drill Pipe Run 4157 Mud Wt. 9.1  
 Top Packer Depth 4172 Drill Collars Run 0 Vis 51  
 Bottom Packer Depth 4177 Wt. Pipe Run 0 WL 12.6  
 Total Depth 4270 Chlorides 11000 ppm System LCM 2#  
 Blow Description IF 6" blow.  
ISI No return.  
FF 1/2" blow  
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>80</u>	<u>wcm</u>			<u>20</u>	<u>20</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 80 BHT 116 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2082</u>	<input checked="" type="checkbox"/> Test	T-On Location <u>0715</u>
(B) First Initial Flow <u>33</u>	<input checked="" type="checkbox"/> Jars	T-Started <u>0730</u>
(C) First Final Flow <u>48</u>	<input checked="" type="checkbox"/> Safety Joint	T-Open <u>1028</u>
(D) Initial Shut-In <u>394</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1328</u>
(E) Second Initial Flow <u>51</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1518</u>
(F) Second Final Flow <u>57</u>	<input type="checkbox"/> Mileage	Comments
(G) Final Shut-In <u>297</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2063</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>45</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	Total
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total	

Approved By \_\_\_\_\_ Our Representative [Signature]

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