



## DRILL STEM TEST REPORT

Prepared For: **Bach Oil Production**

PO Box 723  
Alma, NE 68920

ATTN: Bob Peterson

### **KK Unit #1**

### **21-2s-19w Phillips,KS**

Start Date: 2012.07.08 @ 23:13:00

End Date: 2012.07.09 @ 05:46:00

Job Ticket #: 48124                      DST #: 1

Trilobite Testing, Inc  
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**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Bach Oil Production

**21-2s-19w Phillips,KS**

PO Box 723  
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**KK Unit #1**

Job Ticket: 48124

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ATTN: Bob Peterson

Test Start: 2012.07.08 @ 23:13:00

## GENERAL INFORMATION:

Formation: **LKC "A - F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:14:00

Time Test Ended: 05:46:00

Test Type: Conventional Bottom Hole (Initial)

Tester: James Winder

Unit No: 57

**Interval: 3384.00 ft (KB) To 3478.00 ft (KB) (TVD)**

Reference Elevations: 2185.00 ft (KB)

Total Depth: 3478.00 ft (KB) (TVD)

2180.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

**Serial #: 6719**

**Inside**

Press @ Run Depth: 110.16 psig @ 3385.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.07.08

End Date:

2012.07.09

Last Calib.:

2012.07.09

Start Time:

23:13:05

End Time:

05:45:59

Time On Btm:

2012.07.09 @ 01:13:30

Time Off Btm:

2012.07.09 @ 04:01:30

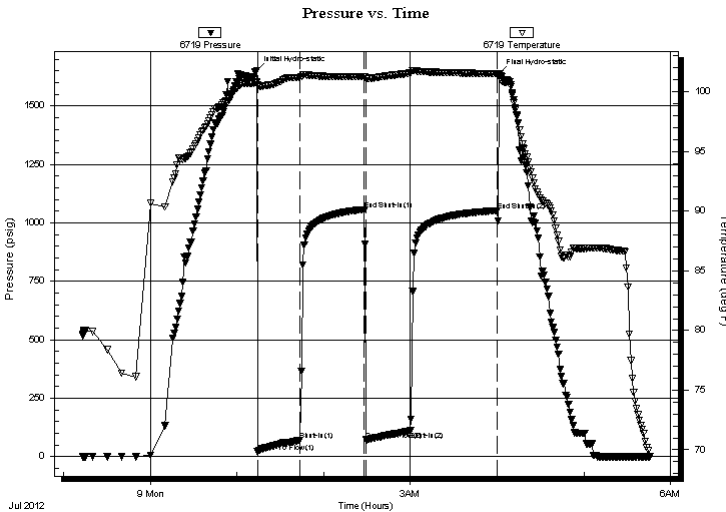
**TEST COMMENT:** 30 - IF: 1/2" Blow at open, built to BOB (11") at 29 min.

45 - IS: Bled off, No blow back

30 - FF: Blow built to 9 3/4"

60 - FS: Bled off, No blow back

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1651.62	100.80	Initial Hydro-static
1	20.84	100.56	Open To Flow (1)
30	70.25	101.21	Shut-In(1)
75	1056.94	101.28	End Shut-In(1)
76	72.49	101.07	Open To Flow (2)
107	110.16	101.56	Shut-In(2)
167	1052.51	101.52	End Shut-In(2)
168	1636.09	101.24	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
188.00	WCM w/trace of Oil 75%w, 25%w	2.37
12.00	SO/WCM 75%w, 23%w, 2%o	0.17

## Gas Rates

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





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## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Bach Oil Production

**21-2s-19w Phillips,KS**

PO Box 723  
Alma, NE 68920

**KK Unit #1**

Job Ticket: 48124

**DST#: 1**

ATTN: Bob Peterson

Test Start: 2012.07.08 @ 23:13:00

### Tool Information

Drill Pipe:	Length: 3362.00 ft	Diameter: 3.80 inches	Volume: 47.16 bbl	Tool Weight: 2500.00 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: 29.00 ft	Diameter: 2.25 inches	Volume: 0.14 bbl	Weight to Pull Loose: 48000.00 lb
			<u>Total Volume: 47.30 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	35.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3384.00 ft			Final 46000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	94.00 ft			
Tool Length:	122.00 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			3361.00	
Hydraulic tool	5.00			3366.00	
Jars	5.00			3371.00	
Safety Joint	3.00			3374.00	
Packer	5.00			3379.00	28.00 Bottom Of Top Packer
Packer	5.00			3384.00	
Stubb	1.00			3385.00	
Recorder	0.00	6719	Inside	3385.00	
Recorder	0.00	8671	Outside	3385.00	
Perforations	22.00			3407.00	
Blank Spacing	65.00			3472.00	
Perforations	3.00			3475.00	
Bullnose	3.00			3478.00	94.00 Bottom Packers & Anchor

**Total Tool Length: 122.00**



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**FLUID SUMMARY**

Bach Oil Production

**21-2s-19w Phillips,KS**

PO Box 723  
Alma, NE 68920

**KK Unit #1**

Job Ticket: 48124

**DST#: 1**

ATTN: Bob Peterson

Test Start: 2012.07.08 @ 23:13:00

## 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:

30000 ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.97 in<sup>3</sup>

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
188.00	WCM w/trace of Oil 75% <sub>m</sub> , 25% <sub>w</sub>	2.373
12.00	SO/WCM 75% <sub>m</sub> , 23% <sub>w</sub> , 2% <sub>o</sub>	0.168

Total Length: 200.00 ft      Total Volume: 2.541 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .237 ohms @ 70.2 deg F

Chlorides = 30,000 ppm

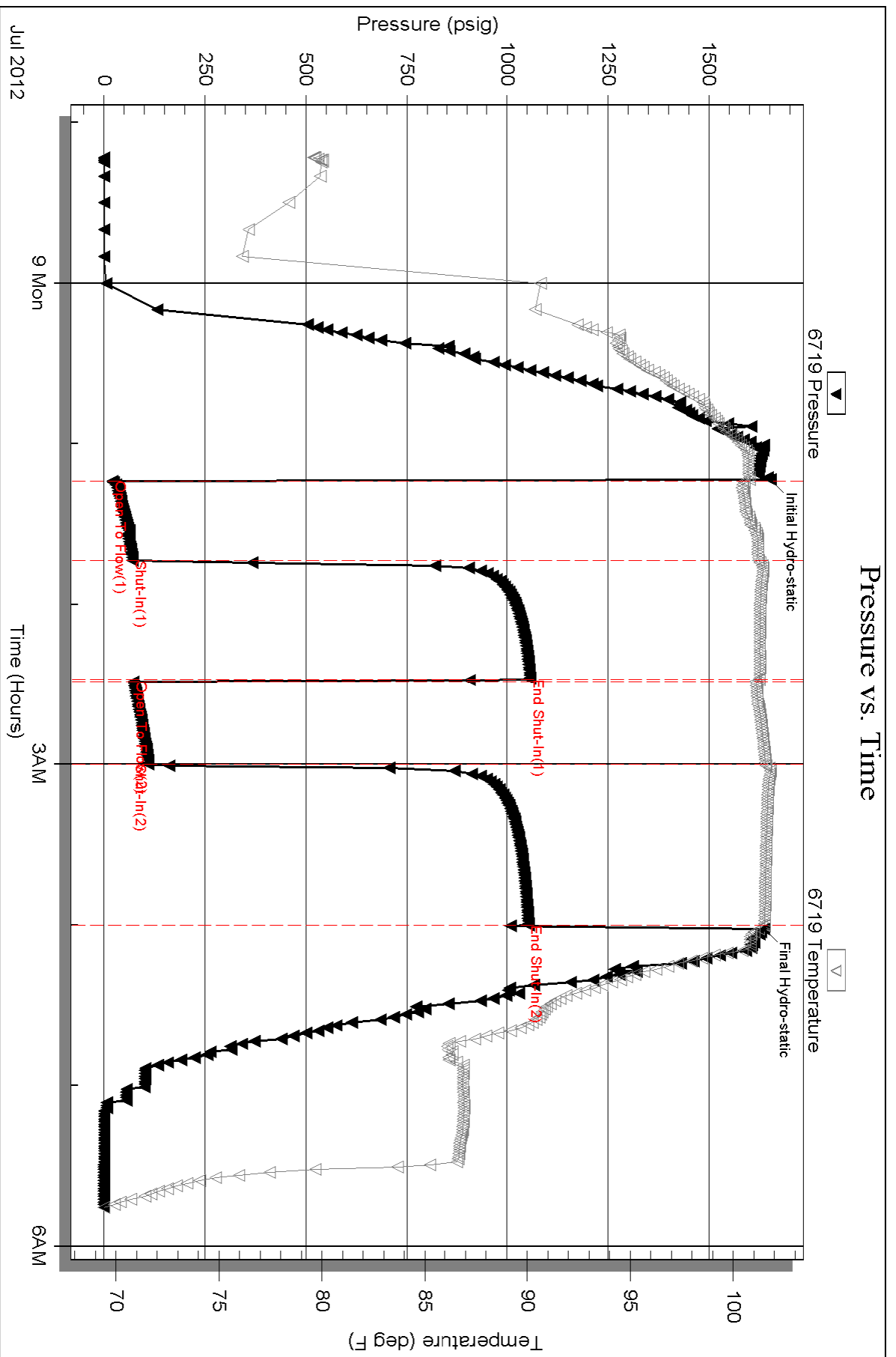
Serial #: 6719

Inside

Bach Oil Production

KK Unit #1

DST Test Number: 1



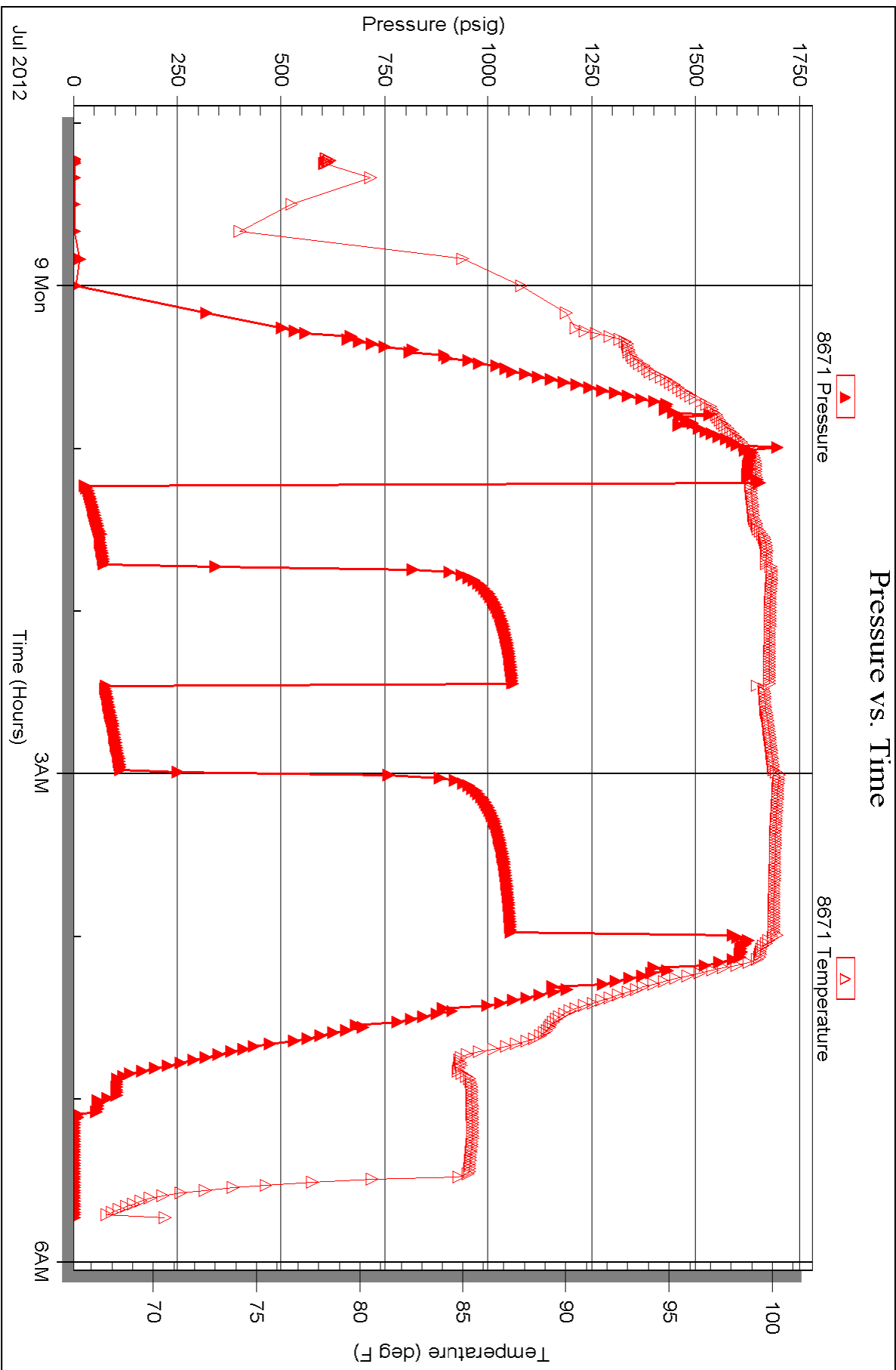
Serial #: 8671

Outside

Bach Oil Production

KK Unit #1

DST Test Number: 1





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

## Test Ticket

NO. 48124

Well Name & No. KK Unit #1 Test No. 1 Date 7-8-12  
 Company Bach Oil Production Elevation 2185 KB 2180 GL  
 Address PO Box 723 Alma, NE 68920  
 Co. Rep / Geo. Bob Peterson Rig Murfin #16  
 Location: Sec. 21 Twp. 2S Rge. 19W Co. Phillips State KS

Interval Tested 3384-3478 Zone Tested LKC\* A-F"  
 Anchor Length 94 Drill Pipe Run 3362 Mud Wt. 8.8  
 Top Packer Depth 3379 Drill Collars Run 29 Vis 50  
 Bottom Packer Depth 3384 Wt. Pipe Run - WL 8.0  
 Total Depth 3478 Chlorides 500 ppm System LCM 3  
 Blow Description IF: Blow built to BOB (11") at 29 min. (1/2" blow at open)  
ISI: Bled off, No blowback  
FF: Blow built to 9 3/4"  
FSI: Bled off, No blowback

Rec	Feet of	%gas	%oil	%water	%mud
<u>12</u>	<u>50/wcm</u>	<u>-</u>	<u>2</u>	<u>23</u>	<u>75</u>
<u>188</u>	<u>wcm w/trace of oil</u>	<u>-</u>	<u>trace</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 200 BHT 102 Gravity - API RW -237 @ 70.2 °F Chlorides 30,000 ppm

(A) Initial Hydrostatic 1652  Test \* 1150 T-On Location 22:30  
 (B) First Initial Flow 21  Jars \* 250 T-Started 23:13  
 (C) First Final Flow 70  Safety Joint \* 75 T-Open 1:14  
 (D) Initial Shut-In 1057  Circ Sub \*NA T-Pulled 4:00  
 (E) Second Initial Flow 72  Hourly Standby \_\_\_\_\_ T-Out 5:40  
 (F) Second Final Flow 110  Mileage 134RT 207.7 Comments \_\_\_\_\_  
 (G) Final Shut-In 1053  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1639  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Recorder \_\_\_\_\_ Sub Total 0  
 Initial Shut-In 45  Day Standby \_\_\_\_\_ Total 1682.70  
 Final Flow 30  Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60 Sub Total 1682.70

Approved By \_\_\_\_\_ Our Representative James Winder

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