



## DRILL STEM TEST REPORT

Prepared For: **Captiva Energy II LLC**

445 Union BLVD. Suite 208  
Lakewood Colorado 80228

ATTN: Bruce Ard

**13/21S/16W Pawnee**

**Fleske #1-13**

Start Date: 2011.02.17 @ 05:48:00

End Date: 2011.02.17 @ 12:48:00

Job Ticket #: 15656                      DST #: 2

Superior Testers Enterprises LLC  
PO Box 138 Great Bend KS 67530  
1-800-792-6902

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Captiva Energy II LLC  
Fleske #1-13  
13/21S/16W Pawnee  
DST # 2  
Arbuckle  
2011.02.17



# DRILL STEM TEST REPORT

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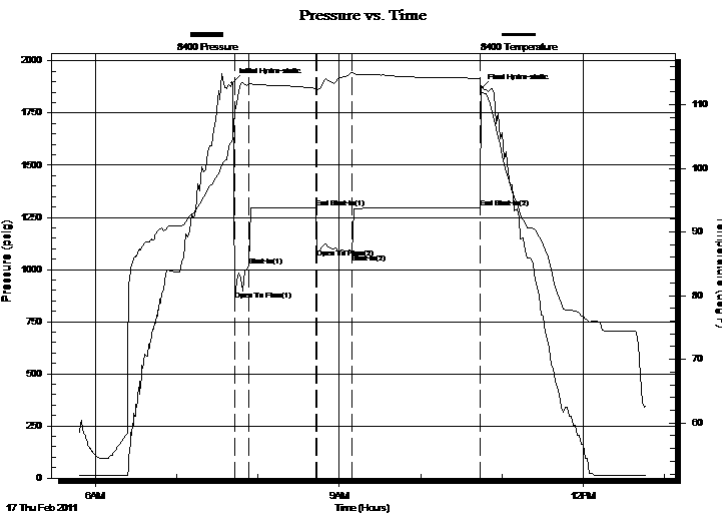
**Fleske #1-13**  
**13/21S/16W Pawnee**  
 Job Ticket: 15656 **DST#: 2**  
 Test Start: 2011.02.17 @ 05:48:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Test Type: Conventional Bottom Hole (Initial)  
 Time Tool Opened: 07:42:30 Tester: Dylan E Ellis  
 Time Test Ended: 12:48:00 Unit No: 3345/Great Bend/45  
 Interval: **3827.00 ft (KB) To 3845.00 ft (KB) (TVD)** Reference Elevations: 1976.00 ft (KB)  
 Total Depth: 3845.00 ft (KB) (TVD) 1965.00 ft (CF)  
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

**Serial #: 8400 Outside**  
 Press @ Run Depth: 1076.32 psig @ 3842.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2011.02.17 End Date: 2011.02.17 Last Calib.: 2011.02.17  
 Start Time: 05:48:00 End Time: 12:48:00 Time On Btm: 2011.02.17 @ 07:41:00  
 Time Off Btm: 2011.02.17 @ 10:45:00

**TEST COMMENT:** 1ST Opening 10 minutes very strong blow/bottom of the bucket instantly/gas to surface in 1 minute  
 1ST Shut-In 45 minutes yes blow back  
 2ND Opening 30 minutes very strong blow/bottom of the bucket instantly/gas and mud mix/surged to much  
 2ND Shut-In 90 minutes yes blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1895.78	104.45	Initial Hydro-static
2	852.91	108.97	Open To Flow (1)
12	1016.27	113.19	Shut-In(1)
62	1296.15	112.53	End Shut-In(1)
63	1054.57	112.38	Open To Flow (2)
89	1076.32	115.07	Shut-In(2)
183	1296.01	114.15	End Shut-In(2)
184	1869.41	112.05	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
110.00	Clean Gassy Oil 100%	0.54
472.00	Very Slightly Oil spotted Water	5.26
0.00	Oil 1% Water 99%	0.00
0.00	2985 feet of gas in the pipe	0.00
0.00	Chlorides were 31,000.0	0.00
0.00	Gravity of Oil corrected were 37	0.00

## Gas Rates

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



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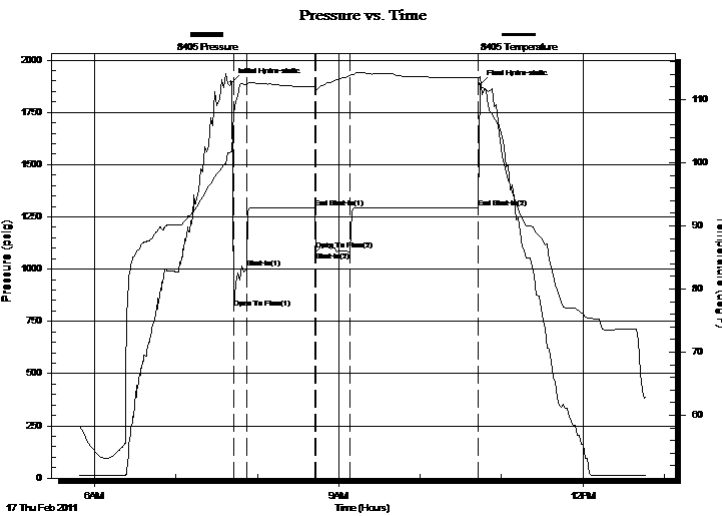
**Fleske #1-13**  
**13/21S/16W Pawnee**  
 Job Ticket: 15656 **DST#: 2**  
 Test Start: 2011.02.17 @ 05:48:00

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 07:42:30  
 Time Test Ended: 12:48:00  
 Interval: **3827.00 ft (KB) To 3845.00 ft (KB) (TVD)**  
 Total Depth: 3845.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Dylan E Ellis  
 Unit No: 3345/Great Bend/45  
 Reference Elevations: 1976.00 ft (KB)  
 1965.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8405 Inside**  
 Press @ Run Depth: 1295.07 psig @ 3841.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2011.02.17 End Date: 2011.02.17 Last Calib.: 2011.02.17  
 Start Time: 05:48:00 End Time: 12:47:56 Time On Btm: 2011.02.17 @ 07:40:56  
 Time Off Btm: 2011.02.17 @ 10:43:56

**TEST COMMENT:** 1ST Opening 10 minutes very strong blow /bottom of the bucket instantly/gas to surface in 1 minute  
 1ST Shut-In 45 minutes yes blow back  
 2ND Opening 30 minutes very strong blow /bottom of the bucket instantly/gas and mud mix/surged to much  
 2ND Shut-In 90 minutes yes blow back



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1894.54	101.70	Initial Hydro-static
2	812.30	107.93	Open To Flow (1)
11	1006.71	112.29	Shut-In(1)
62	1295.29	112.02	End Shut-In(1)
63	1093.31	111.72	Open To Flow (2)
88	1083.88	113.82	Shut-In(2)
182	1295.07	113.41	End Shut-In(2)
183	1884.69	113.64	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
110.00	Clean Gassy Oil 100%	0.54
472.00	Very Slightly Oil spotted Water	5.26
0.00	Oil 1% Water 99%	0.00
0.00	2985 feet of gas in the pipe	0.00
0.00	Chlorides were 31,000.0	0.00
0.00	Gravity of Oil corrected were 37	0.00

## Gas Rates

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



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**TOOL DIAGRAM**

Captiva Energy II LLC  
 445 Union BLVD. Suite 208  
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 ATTN: Bruce Ard

**Fleske #1-13**  
**13/21S/16W Pawnee**  
 Job Ticket: 15656 **DST#: 2**  
 Test Start: 2011.02.17 @ 05:48:00

## Tool Information

Drill Pipe:	Length: 3567.00 ft	Diameter: 3.80 inches	Volume: 50.04 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: 259.04 ft	Diameter: 2.25 inches	Volume: 1.27 bbl	Weight to Pull Loose:	11000.00 lb
			<u>Total Volume: 51.31 bbl</u>	Tool Chased	7.00 ft
Drill Pipe Above KB:	27.04 ft			String Weight: Initial	76000.00 lb
Depth to Top Packer:	3827.00 ft			Final	80000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	18.00 ft				
Tool Length:	46.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments: Tool slide about 7.0 foot to bottom

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3804.00	
Hydraulic Tool	5.00			3809.00	
Jars	6.00			3815.00	
Safety Joint	2.00			3817.00	
Packer	5.00			3822.00	28.00 Bottom Of Top Packer
Packer	5.00			3827.00	
Perforations	13.00			3840.00	
Recorder	1.00	8405	Inside	3841.00	
Recorder	1.00	8400	Outside	3842.00	
Bull Plug	3.00			3845.00	18.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>46.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

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 Job Ticket: 15656      **DST#: 2**  
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### 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:	31000 ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.19 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6000.00 ppm			
Filter Cake: 1.00 inches			

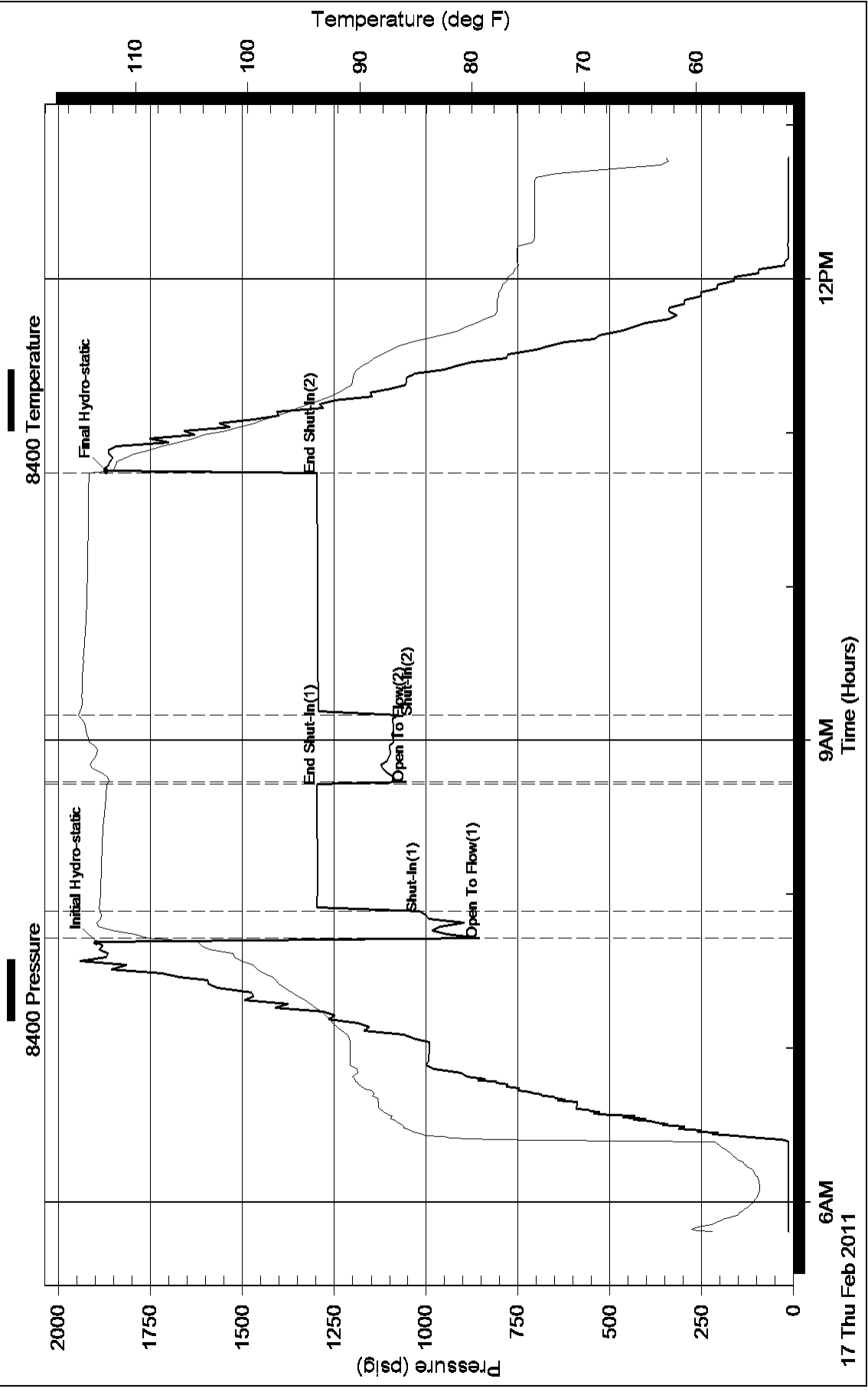
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
110.00	Clean Gassy Oil 100%	0.541
472.00	Very Slightly Oil spotted Water	5.263
0.00	Oil 1% Water 99%	0.000
0.00	2985 feet of gas in the pipe	0.000
0.00	Chlorides were 31,000.0	0.000
0.00	Gravity of Oil corrected were 37	0.000
0.00	Resistivity was 3.5 @ 70 degrees	0.000

Total Length: 582.00 ft      Total Volume: 5.804 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments: Thank you for the work! Also very nice well!

### Pressure vs. Time



### Pressure vs. Time

