



DRILL STEM TEST REPORT

Prepared For: **Captiva**

2717 Canal Blvd. Suite C
Hays Kansas 67601

ATTN: Charlie Sturdavant

7/22S/16W Pawnee

Eakin Unit # 1-7

Start Date: 2011.01.20 @ 19:23:00

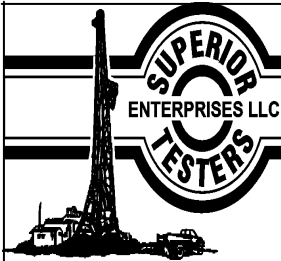
End Date: 2011.01.21 @ 03:56:08

Job Ticket #: 16019 DST #: 2

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

Printed: 2011.01.21 @ 04:20:17

Captiva
Eakin Unit # 1-7
7/22S/16W Pawnee
DST # 2
LANSING F ZONE
2011.01.20



DRILL STEM TEST REPORT

Captiva
 2717 Canal Blvd. Suite C
 Hays Kansas 67601
 ATTN: Charlie Sturdavant

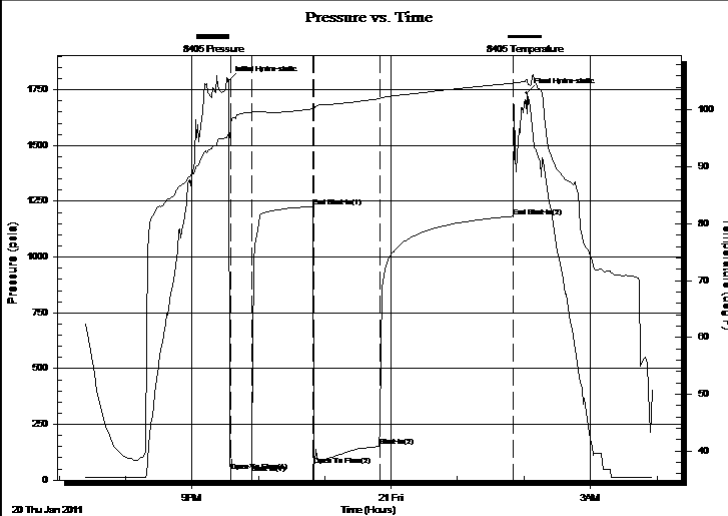
Eakin Unit # 1-7
7/22S/16W Pawnee
 Job Ticket: 16019 **DST#: 2**
 Test Start: 2011.01.20 @ 19:23:00

GENERAL INFORMATION:

Formation: **LANSING F ZONE**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 21:34:38 Tester: JARED SCHECK
 Time Test Ended: 03:56:08 Unit No: 3345-GREAT BEND-50
 Interval: **3605.00 ft (KB) To 3622.00 ft (KB) (TVD)** Reference Elevations: 2018.00 ft (KB)
 Total Depth: 3322.00 ft (KB) (TVD) 2007.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 11.00 ft

Serial #: 8405 Inside
 Press@RunDepth: 151.46 psia @ 3618.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2011.01.20 End Date: 2011.01.21 Last Calib.: 2011.01.21
 Start Time: 19:23:00 End Time: 03:56:08 Time On Btm: 2011.01.20 @ 21:33:08
 Time Off Btm: 2011.01.21 @ 02:02:38

TEST COMMENT: 15/INITIAL OPEN :WEAK BUT BUILDING BLOW BUILT 3 1/4 INCH INTO WATER IN 15 MINUTES
 60/INITIAL SHUT IN:1/2 INCH BLOW BACK
 60/FINAL OPEN :WEAK BLOW BUILT BOTTOM OF BUCKET IN 48 MINUTES
 120/FINAL SHUT IN :1/4 INCH BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1790.76	95.84	Initial Hydro-static
2	40.46	97.06	Open To Flow (1)
21	69.11	99.58	Shut-In(1)
76	1225.94	100.24	End Shut-In(1)
77	64.74	100.09	Open To Flow (2)
137	151.46	102.00	Shut-In(2)
257	1182.67	104.73	End Shut-In(2)
270	1735.26	105.33	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
260.00	WATER 15%MUD 85%WATER	1.29
0.00	CHLORIDES 43,000	0.00
0.00	RESISTIVITY .2 @73 DEGREES	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Captiva
 2717 Canal Blvd. Suite C
 Hays Kansas 67601
 ATTN: Charlie Sturdavant

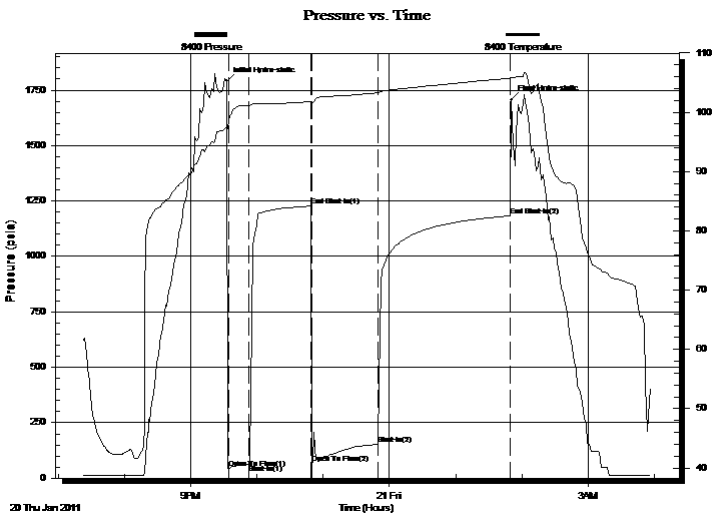
Eakin Unit # 1-7
7/22S/16W Pawnee
 Job Ticket: 16019 **DST#: 2**
 Test Start: 2011.01.20 @ 19:23:00

GENERAL INFORMATION:

Formation: **LANSING F ZONE**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 21:34:38 Tester: JARED SCHECK
 Time Test Ended: 03:56:08 Unit No: 3345-GREAT BEND-50
 Interval: **3605.00 ft (KB) To 3622.00 ft (KB) (TVD)** Reference Elevations: 2018.00 ft (KB)
 Total Depth: 3322.00 ft (KB) (TVD) 2007.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Poor KB to GR/CF: 11.00 ft

Serial #: 8400 Outside
 Press@RunDepth: 1183.22 psia @ 3619.00 ft (KB) Capacity: 5000.00 psia
 Start Date: 2011.01.20 End Date: 2011.01.21 Last Calib.: 2011.01.21
 Start Time: 19:23:00 End Time: 03:56:30 Time On Btm: 2011.01.20 @ 21:33:00
 Time Off Btm: 2011.01.21 @ 01:50:30

TEST COMMENT: 15/INITIAL OPEN :WEAK BUT BUILDING BLOW BUILT 3 1/4 INCH INTO WATER IN 15 MINUTES
 60/INITIAL SHUT IN:1/2 INCH BLOW BACK
 60/FINAL OPEN :WEAK BLOW BUILT BOTTOM OF BUCKET IN 48 MINUTES
 120/FINAL SHUT IN :1/4 INCH BLOW BACK



PRESSURE SUMMARY

Time (Min.)	Pressure (psia)	Temp (deg F)	Annotation
0	1789.98	97.36	Initial Hydro-static
2	42.82	98.61	Open To Flow (1)
20	61.55	101.14	Shut-In(1)
76	1226.79	101.81	End Shut-In(1)
77	66.42	101.57	Open To Flow (2)
137	153.02	103.28	Shut-In(2)
257	1183.22	105.77	End Shut-In(2)
258	1705.54	105.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
260.00	WATER 15%MUD 85%WATER	1.29
0.00	CHLORIDES 43,000	0.00
0.00	RESISTIVITY .2 @73 DEGREES	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Captiva
 2717 Canal Blvd. Suite C
 Hays Kansas 67601
 ATTN: Charlie Sturdavant

Eakin Unit # 1-7
7/22S/16W Pawnee
 Job Ticket: 16019 **DST#: 2**
 Test Start: 2011.01.20 @ 19:23:00

Tool Information

Drill Pipe:	Length: 3350.00 ft	Diameter: 3.80 inches	Volume: 46.99 bbl	Tool Weight:	1000.00 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: 259.00 ft	Diameter: 2.25 inches	Volume: 1.27 bbl	Weight to Pull Loose:	90000.00 lb
			<u>Total Volume: 48.26 bbl</u>	Tool Chased	2.00 ft
Drill Pipe Above KB:	33.00 ft			String Weight: Initial	70000.00 lb
Depth to Top Packer:	3605.00 ft			Final	71000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	17.00 ft				
Tool Length:	46.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments: TOOL CHASED 2 FEET TO BOTTOM

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3577.00	
Shut-In Tool	5.00			3582.00	
Hydraulic Tool	5.00			3587.00	
Jars	6.00			3593.00	
Safety Joint	2.00			3595.00	
Packer	5.00			3600.00	29.00 Bottom Of Top Packer
Packer	5.00			3605.00	
Perforations	12.00			3617.00	
Recorder	1.00	8405	Inside	3618.00	
Recorder	1.00	8400	Outside	3619.00	
Bullnose	3.00			3622.00	17.00 Bottom Packers & Anchor

Total Tool Length: 46.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Captiva
 2717 Canal Blvd. Suite C
 Hays Kansas 67601
 ATTN: Charlie Sturdavant

Eakin Unit # 1-7
7/22S/16W Pawnee
 Job Ticket: 16019 **DST#: 2**
 Test Start: 2011.01.20 @ 19:23:00

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:	ppm
Viscosity: 67.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.20 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psia		
Salinity: 8900.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
260.00	WATER 15%MUD 85%WATER	1.288
0.00	CHLORIDES 43,000	0.000
0.00	RESISTIVITY .2 @73 DEGREES	0.000

Total Length: 260.00 ft Total Volume: 1.288 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 8405

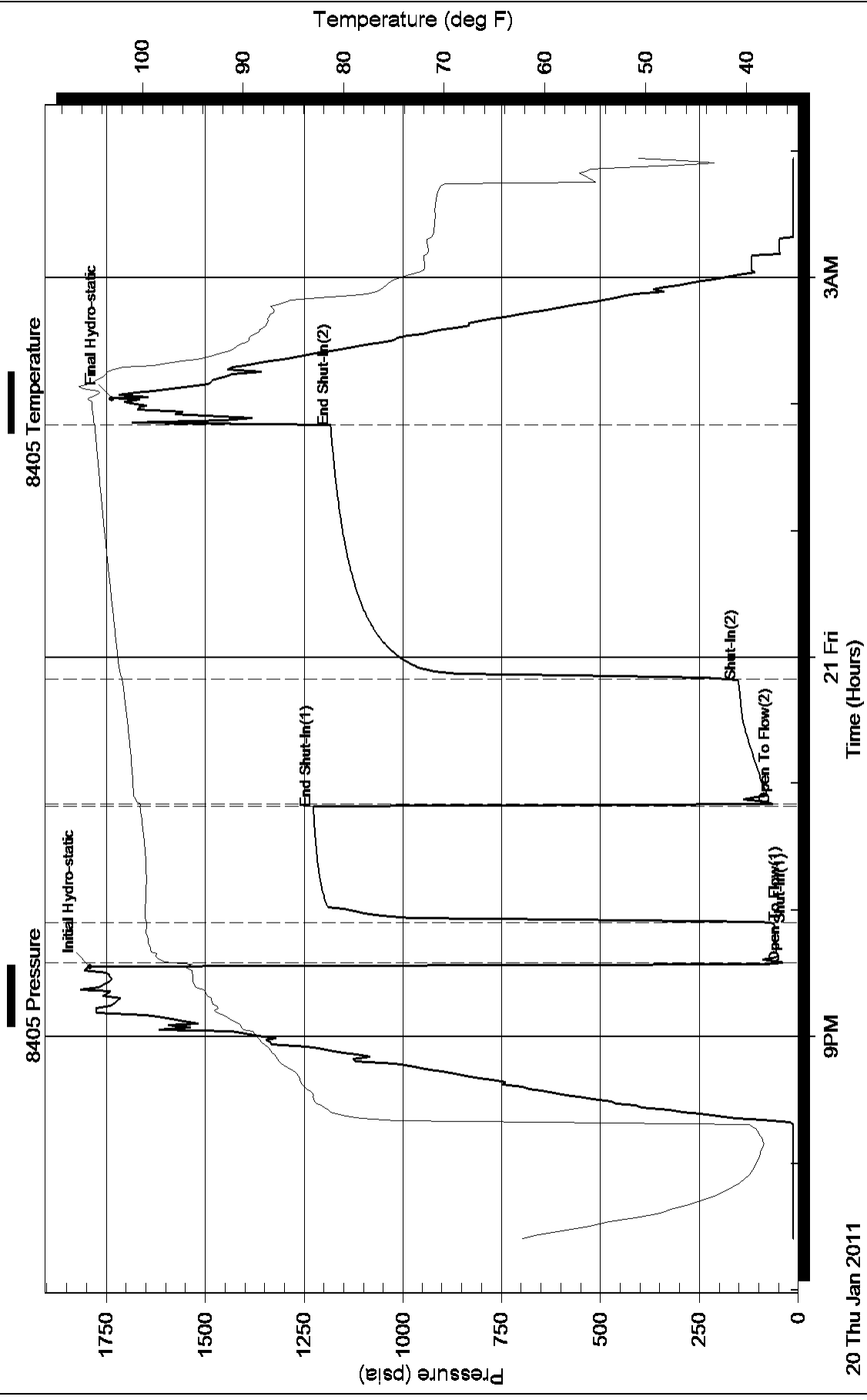
Inside

Captiva

7/22S/16W Paw nee

DST Test Number: 2

Pressure vs. Time



Serial #: 8400

Outside Captiva

7/22S/16W Pawnee

DST Test Number: 2

Pressure vs. Time

