

Confidentiality Requested:

Yes  No

**KANSAS CORPORATION COMMISSION  
OIL & GAS CONSERVATION DIVISION**

Form ACO-1

January 2018

**Form must be Typed**

**Form must be Signed**

**All blanks must be Filled**

**WELL COMPLETION FORM  
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Address 1: \_\_\_\_\_

Address 2: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_ + \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: ( \_\_\_\_\_ ) \_\_\_\_\_

CONTRACTOR: License # \_\_\_\_\_

Name: \_\_\_\_\_

Wellsite Geologist: \_\_\_\_\_

Purchaser: \_\_\_\_\_

Designate Type of Completion:

New Well  Re-Entry  Workover

Oil  WSW  SWD

Gas  DH  EOR

OG  GSW

CM (Coal Bed Methane)

Cathodic  Other (Core, Expl., etc.): \_\_\_\_\_

If Workover/Re-entry: Old Well Info as follows:

Operator: \_\_\_\_\_

Well Name: \_\_\_\_\_

Original Comp. Date: \_\_\_\_\_ Original Total Depth: \_\_\_\_\_

Deepening  Re-perf.  Conv. to EOR  Conv. to SWD

Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or Recompletion Date \_\_\_\_\_ Date Reached TD \_\_\_\_\_ Completion Date or Recompletion Date \_\_\_\_\_

API No.: \_\_\_\_\_

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

GPS Location: Lat: \_\_\_\_\_, Long: \_\_\_\_\_  
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**Drilling Fluid Management Plan**

*(Data must be collected from the Reserve Pit)*

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite: \_\_\_\_\_

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**AFFIDAVIT**

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

**KCC Office Use ONLY**

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to [kcc-well-logs@kcc.ks.gov](mailto:kcc-well-logs@kcc.ks.gov). Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Southwind Petroleum Corp.
Well Name	CDK HOLDINGS, LLC 16-2
Doc ID	1520076

All Electric Logs Run

ELI-GR/DIL
ELI-MICRO
ELI-NEU/DEN
ELI-SONIC









**CEMENT TREATMENT REPORT**

Customer: <b>SOUTHWIND PETROLEUM CORP.</b>	Well: <b>CDK HOLDINGS, LLC 16-2</b>	Ticket: <b>ICT 3449</b>
City, State:	County: <b>STAFFORD,KS.</b>	Date: <b>3/27/2020</b>
Field Rep: <b>DALTON POPP</b>	S-T-R: <b>16-24S-14W</b>	Service: <b>5 1/2" LONGSTRING</b>

Downhole Information		Calculated Slurry - Lead		Calculated Slurry - Tail	
Hole Size:	7 7/8 in	Blend:	CLASS A	Blend:	
Hole Depth:	4280 ft	Weight:	14.5 ppg	Weight:	ppg
Casing Size:	5 1/2 in	Water / Sx:	6.6 gal / sx	Water / Sx:	gal / sx
Casing Depth:	ft	Yield:	1.48 ft <sup>3</sup> / sx	Yield:	ft <sup>3</sup> / sx
Tubing / Liner:	in	Annular Bbls / Ft.:	bbs / ft.	Annular Bbls / Ft.:	bbs / ft.
PLUG Depth:	4278 ft	Depth:	417.3 ft	Depth:	ft
Tool / Packer:		Annular Volume:	0.0 bbls	Annular Volume:	0 bbls
Tool Depth:	ft	Excess:		Excess:	
Displacement:	101.5 bbls	Total Slurry:	49.0 bbls	Total Slurry:	0.0 bbls
		Total Sacks:	185 sx	Total Sacks:	#DIV/0! sx

TIME	RATE	PSI	STAGE BBLs	TOTAL BBLs	REMARKS
8:00PM			-	-	ON LOCATION- SPOT EQUIPMENT
10:00PM				-	RUN 103 JTS 5 1/2"CASING 15.5 #
				-	TURBOLIZERS-- 1-2-3-4-5-7-9-11
				-	BASKETS-- TOP OF SHOE- 1 -9-10
				-	TYPE B BASKET SHOE ON BOTTOM (FILL CSG 2 TIMES GOING IN HOLE)
12:15AM				-	CSG. ON BOTTOM
1:00AM		500.0		-	HOOK UP TO CSG./ BREAK CIRCULATION WITH RIG PUMP- OPEN BASKET SHOE AT END OF CIRCULATION
2:00AM	5.0		5.0	5.0	H2o AHEAD
2:03AM	5.0		12.0	17.0	MUDFLUSH
2:05AM	5.0		5.0	22.0	H2o SPACER
2:06AM	5.0		49.0	71.0	MIX 185 SKS CLASS A CEMENT (W/ 3% BENTONITE, 2% CALCIUM CHLORIDE, 5 PPS GILSONITE, 1 PPS PHEN)
2:18AM				71.0	SHUT DOWN - CLEAR PUMP AND LINES- DROP LATCH DOWN PLUG
2:25AM	6.0		-	71.0	START DISPLACEMENT
2:36AM	5.0		65.0	136.0	LIFT PRESSURE
2:42AM	4.0		90.0	226.0	SLOW RATE
2:50AM	3.0		101.5	327.5	PLUG DOWN - HELD
3:00AM			7.0	334.5	PLUG RATHOLE WITH 30 SKS H PLUG
3:15AM			5.0	339.5	PLUG MOUSEHOLE WITH 20 SKS H PLUG
				339.5	JOB COMPLETE,
				339.5	THANKS, KEVEN
				339.5	
				339.5	
				339.5	
				339.5	
				339.5	
				339.5	
				339.5	

CREW		UNIT	SUMMARY		
Cementer:	LESLEY	75	Average Rate	Average Pressure	Total Fluid
Pump Operator:	OSBOURNE	524-522	4.8 bpm	500 psi	340 bbls
Bulk #1:	MIKE McGRAW	176-260			
Bulk #2:					



## DRILL STEM TEST REPORT

Prepared For: **Southwind Petroleum Corporation**

1400 West 14th Street  
Wichita Kansas 67203

ATTN: Bob Williams

### **CDK Holdings**

#### **16-24s-14w**

Start Date: 2020.03.24 @ 04:52:00

End Date: 2020.03.24 @ 11:06:00

Job Ticket #: 01399                      DST #: 1

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2020.03.24 @ 11:21:37



# DRILL STEM TEST REPORT

Southwind Petroleum Corporation

16-24s-14w

1400 West 14th Street  
Wichita Kansas 67203

CDK Holdings

ATTN: Bob Williams

Job Ticket: 01399

DST#: 1

Test Start: 2020.03.24 @ 04:52:00

## GENERAL INFORMATION:

Formation: **Kansas City "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:00:00

Time Test Ended: 11:06:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3682.00 ft (KB) To 3708.00 ft (KB) (TVD)**

Reference Elevations: 1982.00 ft (KB)

Total Depth: 3708.00 ft (KB) (TVD)

1974.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 8.00 ft

Serial #: 9139

Outside

Press@RunDepth: 1001.70 psig @ 3705.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2020.03.24

End Date:

2020.03.24

Last Calib.:

1899.12.30

Start Time: 04:52:00

End Time:

11:04:29

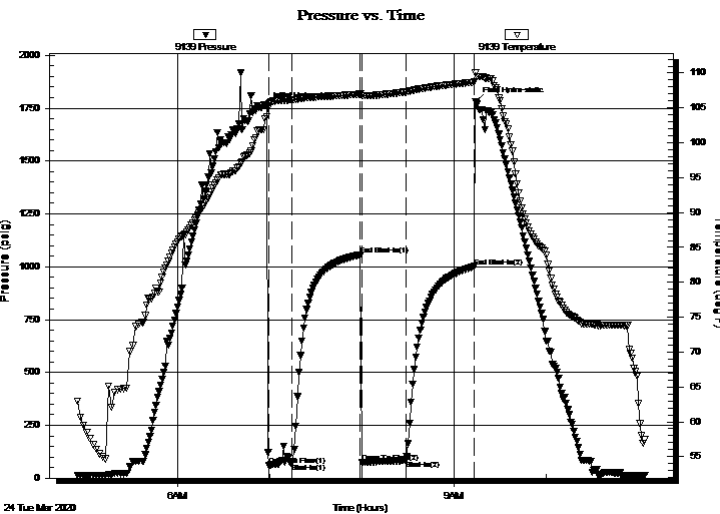
Time On Btm:

2020.03.24 @ 06:58:00

Time Off Btm:

2020.03.24 @ 09:14:00

TEST COMMENT: 1st Opening 15 minutes weak blow built to 4 inches and decreased to 3 inches  
1st Shut-In 45 Minutes  
2nd Opening 30 Minutes very weak surface blow for 21 minutes and died  
2nd Shut-In 45 Minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1758.45	103.74	Initial Hydro-static
2	61.15	105.66	Open To Flow (1)
17	71.70	106.15	Shut-In(1)
61	1057.24	106.98	End Shut-In(1)
62	74.59	106.73	Open To Flow (2)
91	83.27	107.28	Shut-In(2)
135	1001.70	108.70	End Shut-In(2)
136	1778.65	110.09	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	Drilling Mud	0.39

## Gas Rates

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





# DRILL STEM TEST REPORT

Southwind Petroleum Corporation

16-24s-14w

1400 West 14th Street  
Wichita Kansas 67203

CDK Holdings

ATTN: Bob Williams

Job Ticket: 01399

DST#: 1

Test Start: 2020.03.24 @ 04:52:00

## GENERAL INFORMATION:

Formation: **Kansas City "B"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:00:00

Time Test Ended: 11:06:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3682.00 ft (KB) To 3708.00 ft (KB) (TVD)**

Reference Elevations: 1982.00 ft (KB)

Total Depth: 3708.00 ft (KB) (TVD)

1974.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition:

KB to GR/CF: 8.00 ft

Serial #: 9119

Inside

Press@RunDepth: 1008.99 psig @ 3704.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2020.03.24

End Date:

2020.03.24

Last Calib.:

2020.03.24

Start Time: 04:52:00

End Time:

11:06:00

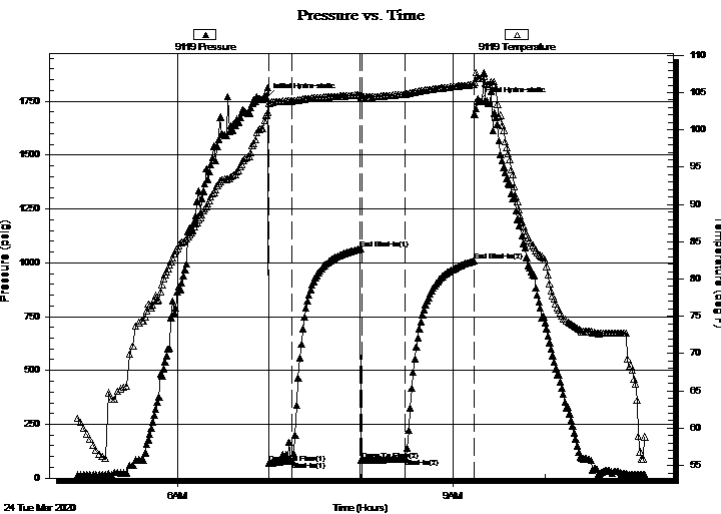
Time On Btm:

2020.03.24 @ 06:58:30

Time Off Btm:

2020.03.24 @ 09:16:30

TEST COMMENT: 1st Opening 15 minutes weak blow built to 4 inches and decreased to 3 inches  
1st Shut-In 45 Minutes  
2nd Opening 30 Minutes very weak surface blow for 21 minutes and died  
2nd Shut-In 45 Minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1764.70	102.05	Initial Hydro-static
2	68.70	103.53	Open To Flow (1)
17	78.49	103.86	Shut-In(1)
61	1063.94	104.69	End Shut-In(1)
62	81.95	104.41	Open To Flow (2)
90	90.14	104.79	Shut-In(2)
135	1008.99	106.08	End Shut-In(2)
138	1748.96	106.91	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	Drilling Mud	0.39

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Southw ind Petroleum Corporation

**16-24s-14w**

1400 West 14th Street  
Wichita Kansas 67203

**CDK Holdings**

Job Ticket: 01399

**DST#: 1**

ATTN: Bob Williams

Test Start: 2020.03.24 @ 04:52:00

## Tool Information

Drill Pipe:	Length: 3556.00 ft	Diameter: 3.80 inches	Volume: 49.88 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: 114.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose:	72000.00 lb
			<u>Total Volume: 50.44 bbl</u>	Tool Chased	10.00 ft
Drill Pipe Above KB:	16.00 ft			String Weight: Initial	58000.00 lb
Depth to Top Packer:	3682.00 ft			Final	58000.00 lb
Depth to Bottom Packer:	ft				
Interval betw een Packers:	26.00 ft				
Tool Length:	54.00 ft				
Number of Packers:	2	Diameter:	inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3659.00	
Hydraulic tool	5.00			3664.00	
Jars	6.00			3670.00	
Safety Joint	2.00		Fluid	3672.00	
Top Packer	5.00			3677.00	
Packer	5.00			3682.00	28.00 Bottom Of Top Packer
Anchor	21.00			3703.00	
Recorder	1.00	9119	Inside	3704.00	
Recorder	1.00	9139	Outside	3705.00	
Bullnose	3.00			3708.00	26.00 Anchor Tool
<b>Total Tool Length:</b>	<b>54.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Southw ind Petroleum Corporation

**16-24s-14w**

1400 West 14th Street  
Wichita Kansas 67203

**CDK Holdings**

Job Ticket: 01399

**DST#: 1**

ATTN: Bob Williams

Test Start: 2020.03.24 @ 04:52:00

### 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: 68.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.60 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
80.00	Drilling Mud	0.393

Total Length: 80.00 ft      Total Volume: 0.393 bbl

Num Fluid Samples: 0

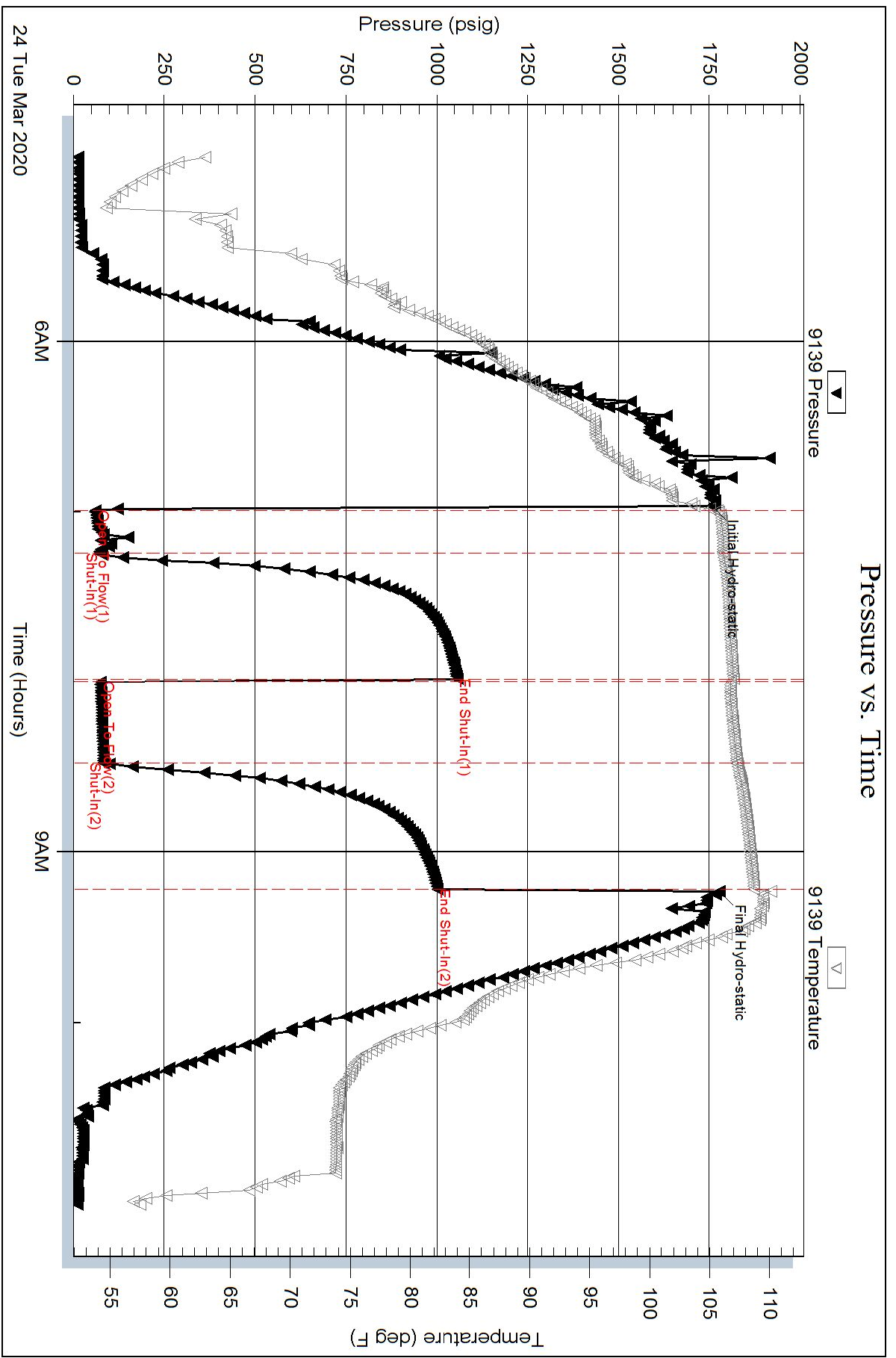
Num Gas Bombs: 0

Serial #:

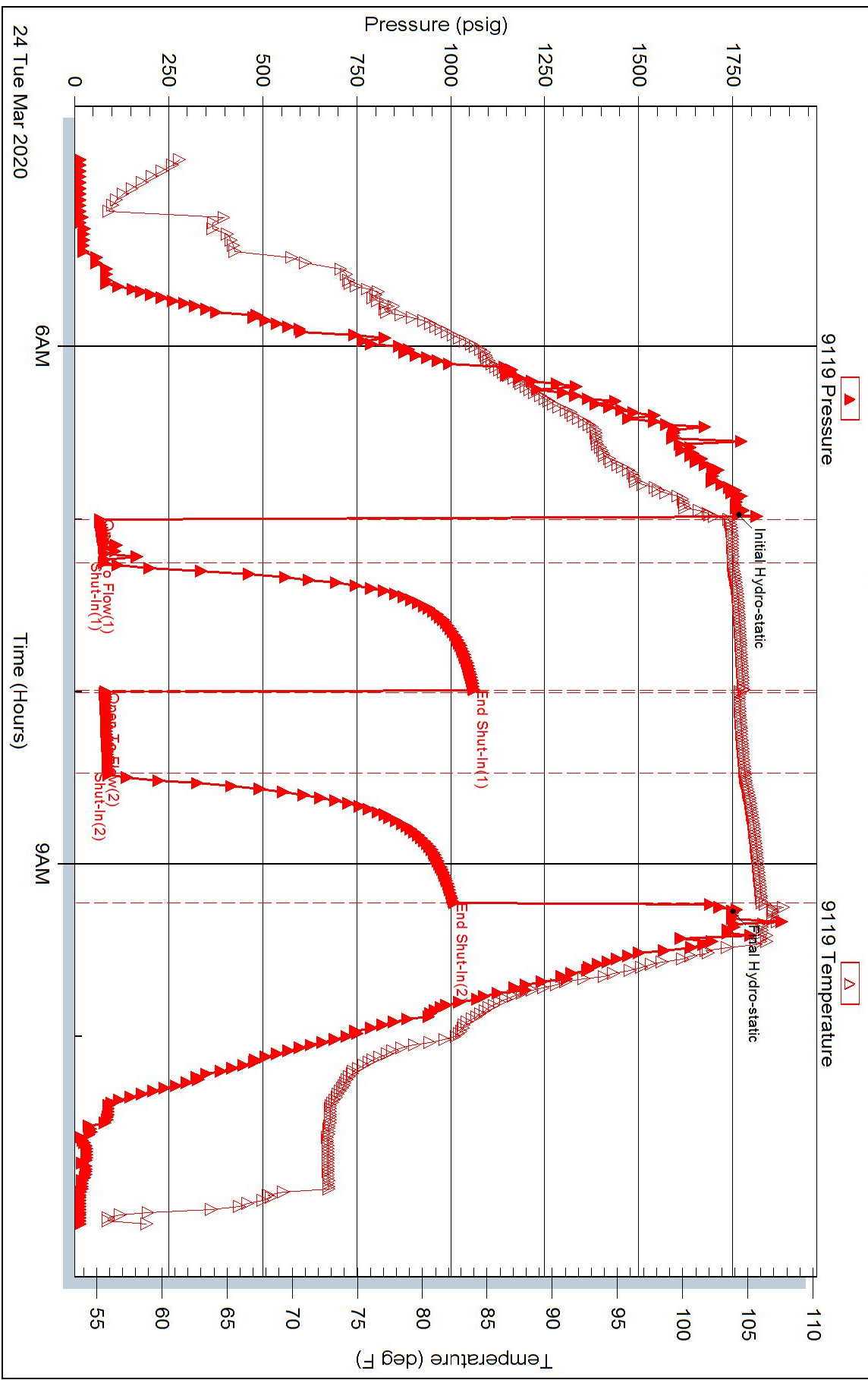
Laboratory Name:

Laboratory Location:

Recovery Comments:



### Pressure vs. Time







## DRILL STEM TEST REPORT

Prepared For: **Southwind Petroleum Corporation**

1400 West 14th Street  
Wichita Kansas 67203

ATTN: Bob Williams

### **CDK Holdings**

#### **16-24s-14w**

Start Date: 2020.03.24 @ 09:52:00

End Date: 2020.03.25 @ 04:15:00

Job Ticket #: 01459                      DST #: 2

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2020.03.25 @ 04:37:10



# DRILL STEM TEST REPORT

Southwind Petroleum Corporation

**16-24s-14w**

1400 West 14th Street  
Wichita Kansas 67203

**CDK Holdings**

Job Ticket: 01459

**DST#: 2**

ATTN: Bob Williams

Test Start: 2020.03.24 @ 09:52:00

## GENERAL INFORMATION:

Formation: **KansAS city "i"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:52:00

Time Test Ended: 04:15:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

**Interval: 3787.00 ft (KB) To 3810.00 ft (KB) (TVD)**

Reference Elevations: 1982.00 ft (KB)

Total Depth: 3810.00 ft (KB) (TVD)

1974.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

**Serial #: 1939 Outside**

Press@RunDepth: 1130.15 psig @ 3807.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2020.03.24

End Date: 2020.03.25

Last Calib.: 2020.03.25

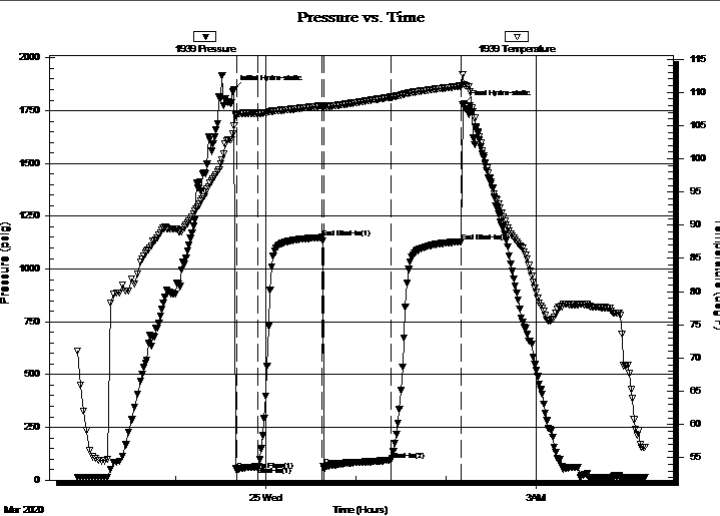
Start Time: 21:52:00

End Time: 04:11:59

Time On Btm: 2020.03.24 @ 23:39:00

Time Off Btm: 2020.03.25 @ 02:11:00

**TEST COMMENT:** 1ST Opew ning 15 Minutes Good blow built to the bottom of the bucket in 5 Minutes  
1 shut-in 45 Minutes fair blow back  
2nd Opening 45 Minutes Good b;low built to the bottom of the bucket in 2 minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1848.52	104.96	Initial Hydro-static
2	48.11	106.59	Open To Flow (1)
16	63.48	106.83	Shut-In(1)
59	1149.47	108.00	End Shut-In(1)
60	64.70	107.78	Open To Flow (2)
105	95.32	109.27	Shut-In(2)
151	1130.15	110.93	End Shut-In(2)
152	1779.68	112.69	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	29000 feet of gas in the pipe	0.00
175.00	slightly mud cut gassy frothy oil	1.42
0.00	would not grind out	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

Southwind Petroleum Corporation

16-24s-14w

1400 West 14th Street  
Wichita Kansas 67203

CDK Holdings

ATTN: Bob Williams

Job Ticket: 01459

DST#: 2

Test Start: 2020.03.24 @ 09:52:00

## GENERAL INFORMATION:

Formation: **KansAS city "i"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:52:00

Time Test Ended: 04:15:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3787.00 ft (KB) To 3810.00 ft (KB) (TVD)**

Reference Elevations: 1982.00 ft (KB)

Total Depth: 3810.00 ft (KB) (TVD)

1974.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9119

Inside

Press@RunDepth: 1137.92 psig @ 3806.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2020.03.24

End Date:

2020.03.25

Last Calib.:

2020.03.25

Start Time: 21:52:00

End Time:

04:11:59

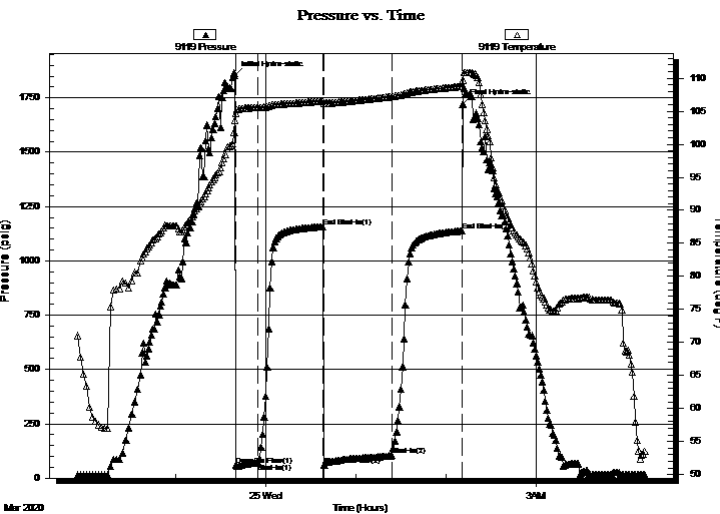
Time On Btm:

2020.03.24 @ 23:39:30

Time Off Btm:

2020.03.25 @ 02:11:00

TEST COMMENT: 1ST Opew ning 15 Minutes Good blow built to the bottom of the bucket in 5 Minutes  
1 shut-in 45 Minutes fair blow back  
2nd Opening 45 Minutes Good b;low built to the bottom of the bucket in 2 minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1851.80	103.66	Initial Hydro-static
1	59.90	104.71	Open To Flow (1)
15	69.84	105.53	Shut-In(1)
59	1156.70	106.55	End Shut-In(1)
60	61.15	106.24	Open To Flow (2)
105	103.80	107.22	Shut-In(2)
151	1137.92	108.78	End Shut-In(2)
152	1721.29	109.73	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
0.00	29000 feet of gas in the pipe	0.00
175.00	slightly mud cut gassy frothy oil	1.42
0.00	would not grind out	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Southw ind Petroleum Corporation

**16-24s-14w**

1400 West 14th Street  
Wichita Kansas 67203

**CDK Holdings**

Job Ticket: 01459

**DST#: 2**

ATTN: Bob Williams

Test Start: 2020.03.24 @ 09:52:00

## Tool Information

Drill Pipe:	Length: 3650.00 ft	Diameter: 3.80 inches	Volume: 51.20 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: 114.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose:	83000.00 lb
			<u>Total Volume: 51.76 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial	60000.00 lb
Depth to Top Packer:	3787.00 ft			Final	lb
Depth to Bottom Packer:	ft				
Interval betw een Packers:	23.00 ft				
Tool Length:	51.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			3764.00	
Hydraulic tool	5.00			3769.00	
Jars	6.00			3775.00	
Safety Joint	2.00		Fluid	3777.00	
Top Packer	5.00			3782.00	
Packer	5.00			3787.00	28.00 Bottom Of Top Packer
Anchor	18.00			3805.00	
Recorder	1.00	9119	Inside	3806.00	
Recorder	1.00	1939	Outside	3807.00	
Bullnose	3.00			3810.00	23.00 Anchor Tool
<b>Total Tool Length:</b>	<b>51.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Southw ind Petroleum Corporation

**16-24s-14w**

1400 West 14th Street  
Wichita Kansas 67203

**CDK Holdings**

Job Ticket: 01459

**DST#: 2**

ATTN: Bob Williams

Test Start: 2020.03.24 @ 09:52:00

### 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: 47.00 sec/qt

Cushion Volume:

bbf

Water Loss: 8.60 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
0.00	29000 feet of gas in the pipe	0.000
175.00	slightly mud cut gassy frothy oil	1.416
0.00	would not grind out	0.000

Total Length: 175.00 ft      Total Volume: 1.416 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

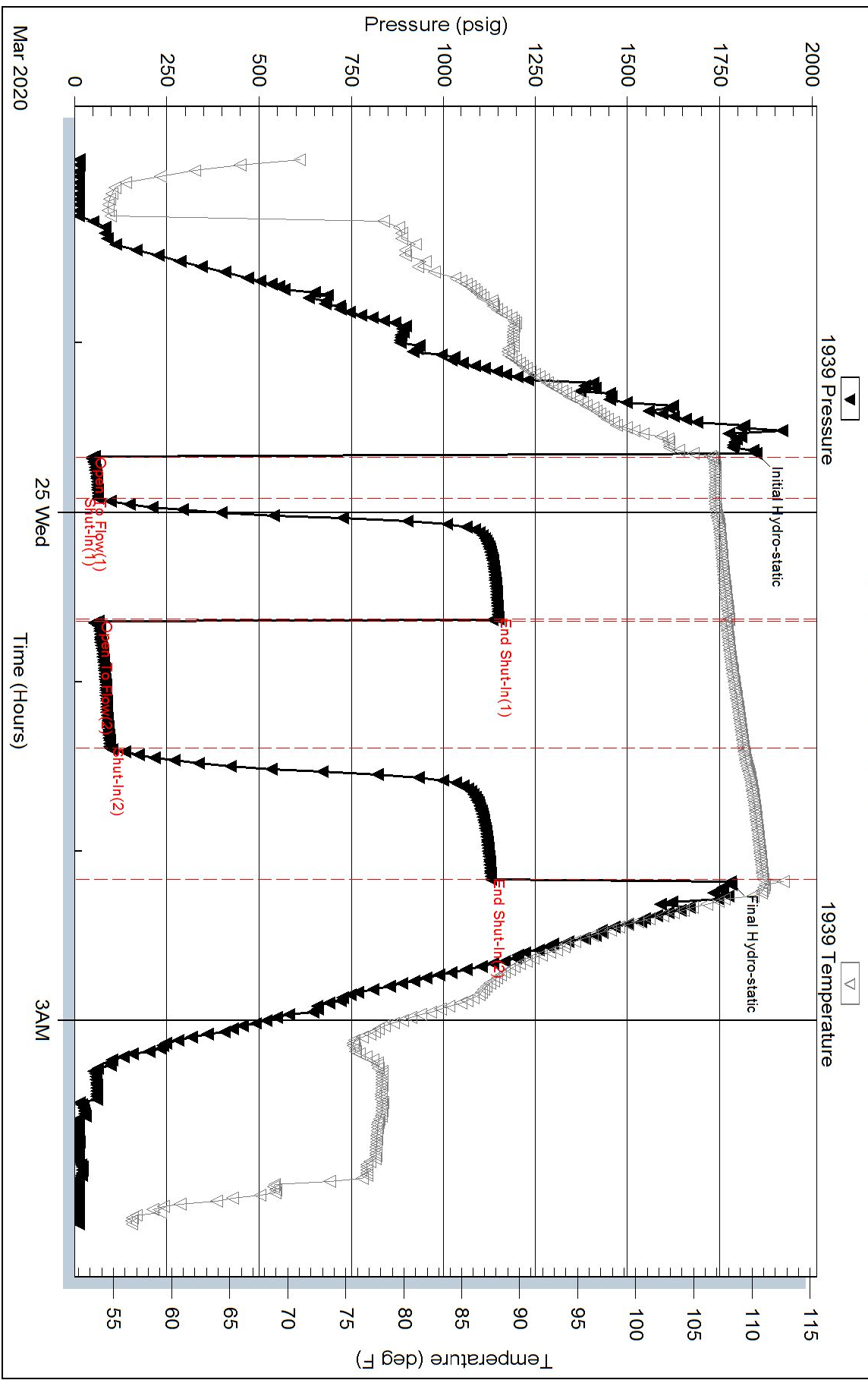
Laboratory Name:

Laboratory Location:

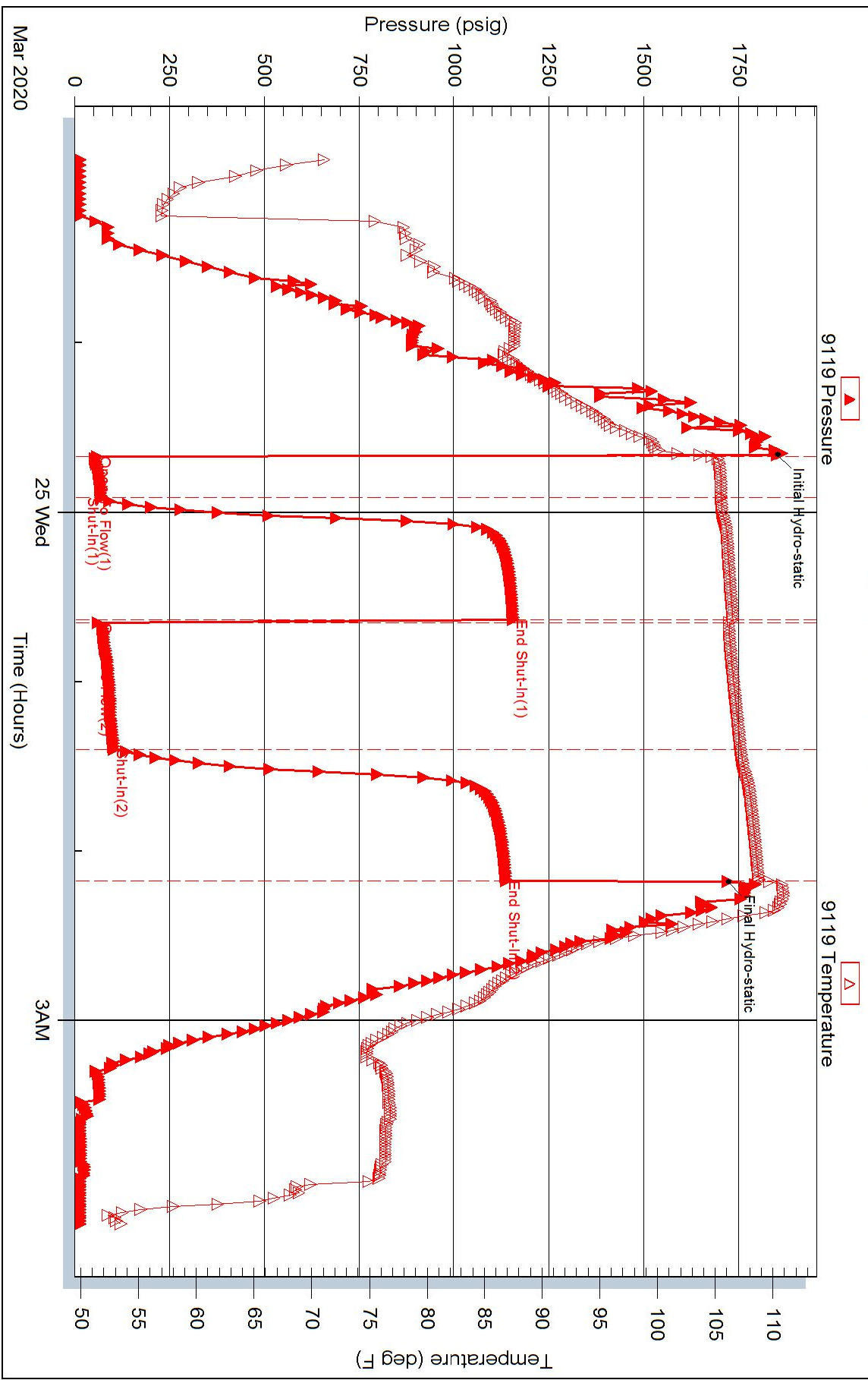
Recovery Comments:



# Pressure vs. Time



# Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Southwind Petroleum Corporation**

1400 West 14th Street  
Wichita Kansas 67203

ATTN: Bob Williams

### **CDK Holdings**

#### **16-24s-14w**

Start Date: 2020.03.26 @ 11:43:00

End Date: 2020.03.26 @ 17:08:00

Job Ticket #: 01451                      DST #: 3

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2020.03.26 @ 17:27:15



# DRILL STEM TEST REPORT

Southwind Petroleum Corporation

16-24s-14w

1400 West 14th Street  
Wichita Kansas 67203

CDK Holdings

ATTN: Bob Williams

Job Ticket: 01451

DST#: 3

Test Start: 2020.03.26 @ 11:43:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:58:00

Time Test Ended: 17:08:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **4237.00 ft (KB) To 4275.00 ft (KB) (TVD)**

Reference Elevations: 1982.00 ft (KB)

Total Depth: 4275.00 ft (KB) (TVD)

1974.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **9139** Outside

Press@RunDepth: 1079.83 psig @ 4272.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2020.03.26

End Date: 2020.03.26

Last Calib.: 2020.03.26

Start Time: 11:43:00

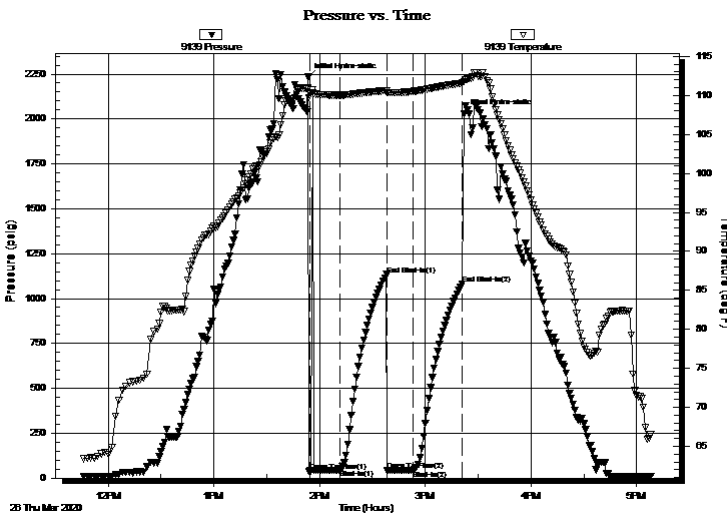
End Time: 17:08:00

Time On Btm: 2020.03.26 @ 13:53:30

Time Off Btm: 2020.03.26 @ 15:22:00

TEST COMMENT: 1st Opening 15 minutes good surge no blow  
1st shut-in 30 Minutes  
2nd Opening 15 Minutes no blow  
2nd Shut-In 30 Minutes

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2233.10	110.93	Initial Hydro-static
1	40.72	110.34	Open To Flow (1)
18	47.86	110.03	Shut-In(1)
45	1133.78	110.62	End Shut-In(1)
45	43.79	110.37	Open To Flow (2)
60	43.03	110.51	Shut-In(2)
88	1079.83	111.58	End Shut-In(2)
89	2027.77	111.79	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	drilling mud with a fair show of oil	0.05
0.00	betw een the tools	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

Southwind Petroleum Corporation

16-24s-14w

1400 West 14th Street  
Wichita Kansas 67203

CDK Holdings

ATTN: Bob Williams

Job Ticket: 01451

DST#: 3

Test Start: 2020.03.26 @ 11:43:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:58:00

Time Test Ended: 17:08:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **4237.00 ft (KB) To 4275.00 ft (KB) (TVD)**

Reference Elevations: 1982.00 ft (KB)

Total Depth: 4275.00 ft (KB) (TVD)

1974.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 9119

Inside

Press@RunDepth: 1096.57 psig @ 4271.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2020.03.26

End Date:

2020.03.26

Last Calib.:

2020.03.26

Start Time: 11:43:00

End Time:

17:07:29

Time On Btm:

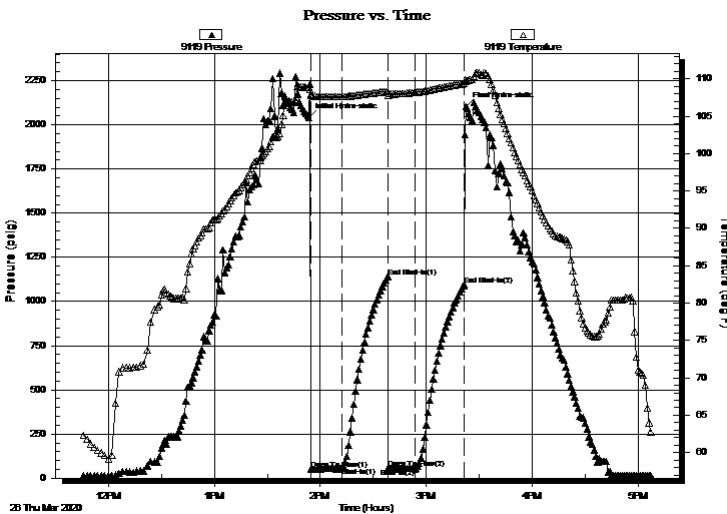
2020.03.26 @ 13:53:30

Time Off Btm:

2020.03.26 @ 15:22:30

TEST COMMENT: 1st Opening 15 minutes good surge no blow  
1st shut-in 30 Minutes  
2nd Opening 15 Minutes no blow  
2nd Shut-In 30 Minutes

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2039.85	108.84	Initial Hydro-static
1	51.91	107.85	Open To Flow (1)
19	59.46	107.64	Shut-In(1)
45	1141.63	108.32	End Shut-In(1)
45	54.53	107.84	Open To Flow (2)
60	53.60	108.18	Shut-In(2)
88	1096.57	109.38	End Shut-In(2)
89	2104.56	109.71	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
10.00	drilling mud with a fair show of oil	0.05
0.00	betw een the tools	0.00

## Gas Rates

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





# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Southwind Petroleum Corporation

**16-24s-14w**

1400 West 14th Street  
Wichita Kansas 67203

**CDK Holdings**

Job Ticket: 01451

**DST#: 3**

ATTN: Bob Williams

Test Start: 2020.03.26 @ 11:43:00

## Tool Information

Drill Pipe:	Length: 4122.00 ft	Diameter: 3.80 inches	Volume: 57.82 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: 114.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose:	74000.00 lb
			<u>Total Volume: 58.38 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	4237.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	38.00 ft				
Tool Length:	66.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			4214.00	
Hydraulic tool	5.00			4219.00	
Jars	6.00			4225.00	
Safety Joint	2.00		Fluid	4227.00	
Top Packer	5.00			4232.00	
Packer	5.00			4237.00	28.00 Bottom Of Top Packer
Anchor	33.00			4270.00	
Recorder	1.00	9119	Inside	4271.00	
Recorder	1.00	9139	Outside	4272.00	
Bullnose	3.00			4275.00	38.00 Anchor Tool
<b>Total Tool Length:</b>	<b>66.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Southw ind Petroleum Corporation

**16-24s-14w**

1400 West 14th Street  
Wichita Kansas 67203

**CDK Holdings**

Job Ticket: 01451

**DST#: 3**

ATTN: Bob Williams

Test Start: 2020.03.26 @ 11:43:00

### 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: 68.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 12.40 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8700.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	drilling mud with a fair show of oil	0.049
0.00	betw een the tools	0.000

Total Length: 10.00 ft      Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

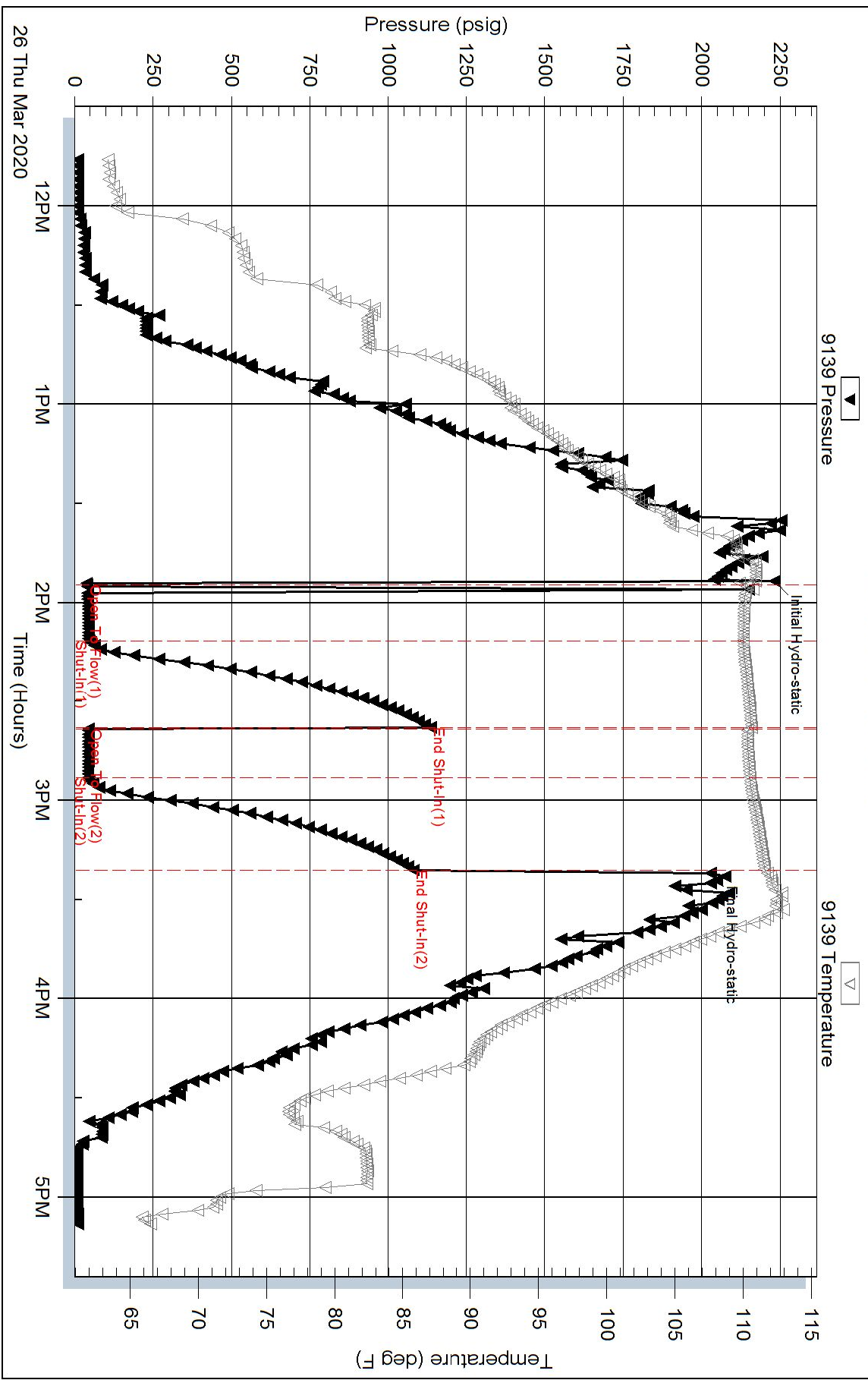
Serial #: 9139

Outside Southw ind Petroleum Corporation

CDK Holdings

DST Test Number: 3

### Pressure vs. Time

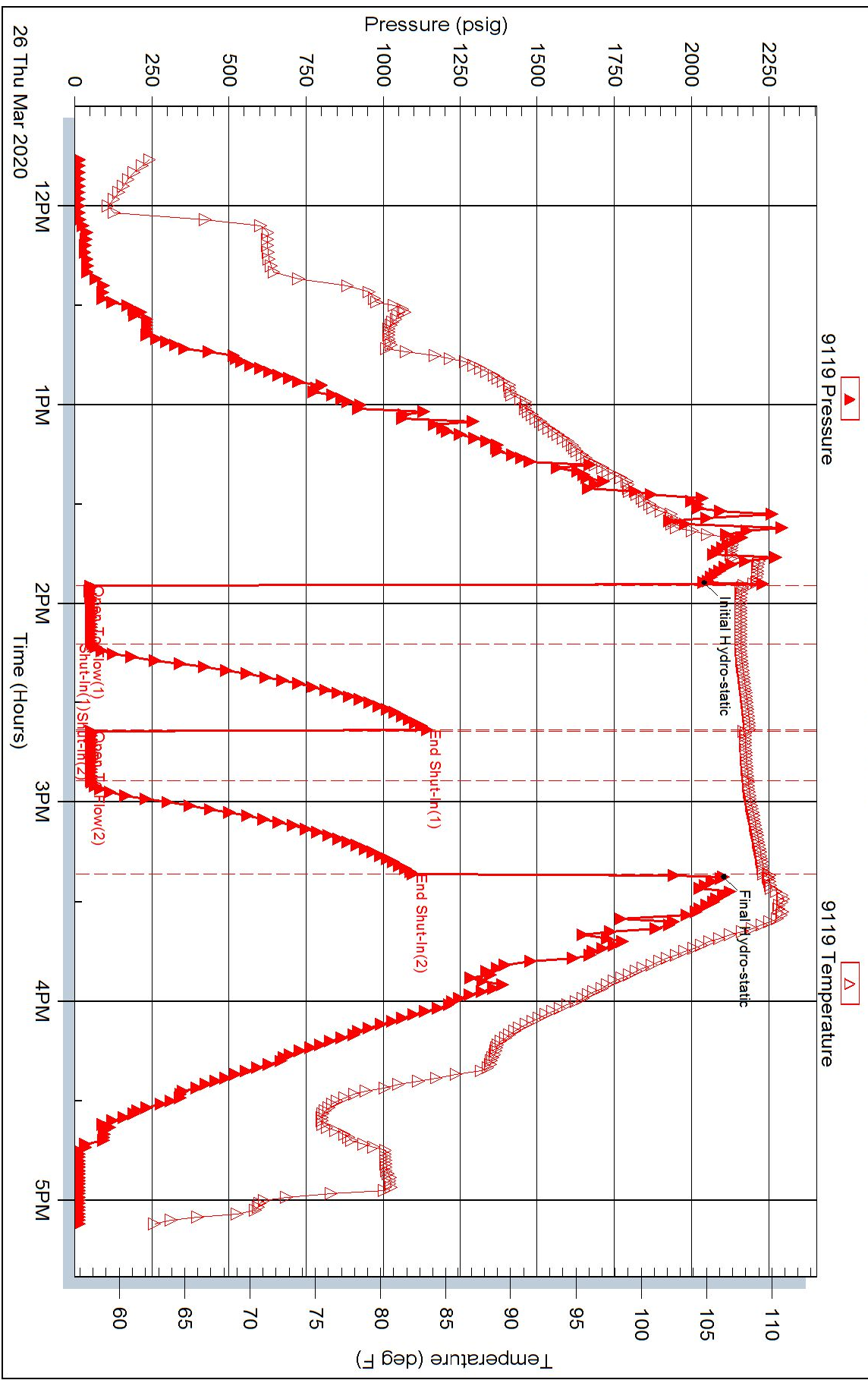


Eagle Testers

Ref. No: 01451

Printed: 2020.03.26 @ 17:27:17

### Pressure vs. Time





## DRILL STEM TEST REPORT

Prepared For: **Southwind Petroleum Corporation**

1400 West 14th Street  
Wichita Kansas 67203

ATTN: Bob Williams

### **CDK Holdings**

#### **16-24s-14w**

Start Date: 2020.03.27 @ 00:48:00

End Date: 2020.03.27 @ 00:00:00

Job Ticket #: 01452                      DST #: 4

Eagle Testers  
1309 Patton Road    Great Bend, Kansas 67530  
620-791-7394

Printed: 2020.03.27 @ 08:49:01





# DRILL STEM TEST REPORT

Southwind Petroleum Corporation

16-24s-14w

1400 West 14th Street  
Wichita Kansas 67203

CDK Holdings

ATTN: Bob Williams

Job Ticket: 01452

DST#: 4

Test Start: 2020.03.27 @ 00:48:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:57:00

Time Test Ended: 00:00:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **4250.00 ft (KB) To 4280.00 ft (KB) (TVD)**

Reference Elevations: 1982.00 ft (KB)

Total Depth: 4280.00 ft (KB) (TVD)

1974.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: **9139** Outside

Press@RunDepth: 1478.29 psig @ 4277.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2020.03.27

End Date: 2020.03.27

Last Calib.: 2020.03.27

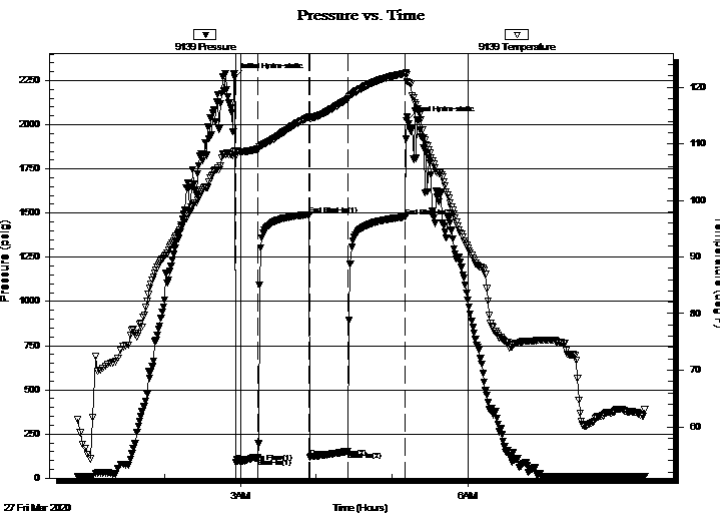
Start Time: 00:48:00

End Time: 08:20:30

Time On Btm: 2020.03.27 @ 02:55:30

Time Off Btm: 2020.03.27 @ 05:11:30

TEST COMMENT: 1st Opening 15 Minutes weak blow built to 2 inches decreased to 1 1/2 inch blow  
1st Shut-In 45 Minutes  
2nd Opening 30 Minutes Very weak surface blow  
2nd Shut-In 45 Minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2268.42	108.77	Initial Hydro-static
1	87.68	107.80	Open To Flow (1)
18	114.78	109.09	Shut-In(1)
59	1490.92	114.77	End Shut-In(1)
60	119.27	114.50	Open To Flow (2)
90	151.68	117.91	Shut-In(2)
135	1478.29	122.44	End Shut-In(2)
136	2024.01	122.20	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	heavy oil cut mud	0.25
0.00	45 % Oil 55% Mud 10% Water	0.00
60.00	oil and water cut mud	0.30
0.00	28% Oil 50% mud 22% Water	0.00
60.00	Oil & Water cut mud	0.81
0.00	35% oil 45% Mud 20% water	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

Southwind Petroleum Corporation

16-24s-14w

1400 West 14th Street  
Wichita Kansas 67203

CDK Holdings

ATTN: Bob Williams

Job Ticket: 01452

DST#: 4

Test Start: 2020.03.27 @ 00:48:00

## GENERAL INFORMATION:

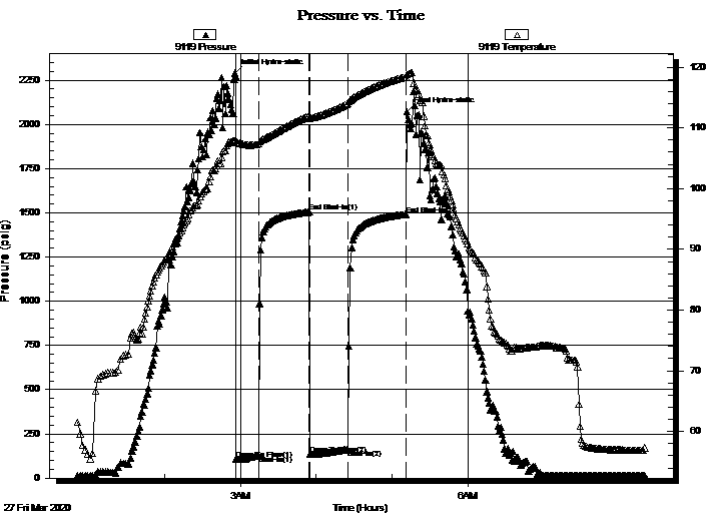
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 02:57:00  
 Time Test Ended: 00:00:00  
 Interval: **4250.00 ft (KB) To 4280.00 ft (KB) (TVD)**  
 Total Depth: 4280.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Gene Budig  
 Unit No: 1  
 Reference Elevations: 1982.00 ft (KB)  
 1974.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 9119

Inside

Press@RunDepth: 1492.00 psig @ 4276.00 ft (KB) Capacity: 5000.00 psig  
 Start Date: 2020.03.27 End Date: 2020.03.27 Last Calib.: 2020.03.27  
 Start Time: 00:48:00 End Time: 08:20:30 Time On Btm: 2020.03.27 @ 02:55:30  
 Time Off Btm: 2020.03.27 @ 05:12:00

TEST COMMENT: 1st Opening 15 Minutes weak blow built to 2 inches decreased to 1 1/2 inch blow  
 1st Shut-In 45 Minutes  
 2nd Opening 30 Minutes Very weak surface blow  
 2nd Shut-In 45 Minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2289.67	107.89	Initial Hydro-static
1	104.65	107.63	Open To Flow (1)
19	129.62	107.34	Shut-In(1)
59	1504.54	112.01	End Shut-In(1)
60	134.19	111.58	Open To Flow (2)
90	163.41	114.00	Shut-In(2)
136	1492.00	118.39	End Shut-In(2)
137	2073.33	118.78	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
50.00	heavy oil cut mud	0.25
0.00	45 % Oil 55% Mud 10% Water	0.00
60.00	oil and water cut mud	0.30
0.00	28% Oil 50% mud 22% Water	0.00
60.00	Oil & Water cut mud	0.81
0.00	35% oil 45% Mud 20% water	0.00

## Gas Rates

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



# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Southwind Petroleum Corporation

**16-24s-14w**

1400 West 14th Street  
Wichita Kansas 67203

**CDK Holdings**

Job Ticket: 01452

**DST#: 4**

ATTN: Bob Williams

Test Start: 2020.03.27 @ 00:48:00

## Tool Information

Drill Pipe:	Length: 4128.00 ft	Diameter: 3.80 inches	Volume: 57.90 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: 114.00 ft	Diameter: 2.25 inches	Volume: 0.56 bbl	Weight to Pull Loose: 78000.00 lb
			<u>Total Volume: 58.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4250.00 ft			Final 62000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	30.00 ft			
Tool Length:	58.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut In Tool	5.00			4227.00	
Hydraulic tool	5.00			4232.00	
Jars	6.00			4238.00	
Safety Joint	2.00		Fluid	4240.00	
Top Packer	5.00			4245.00	
Packer	5.00			4250.00	28.00 Bottom Of Top Packer
Anchor	25.00			4275.00	
Recorder	1.00	9119	Inside	4276.00	
Recorder	1.00	9139	Outside	4277.00	
Bullnose	3.00			4280.00	30.00 Anchor Tool
<b>Total Tool Length:</b>	<b>58.00</b>				



# DRILL STEM TEST REPORT

## FLUID SUMMARY

Southwind Petroleum Corporation

**16-24s-14w**

1400 West 14th Street  
Wichita Kansas 67203

**CDK Holdings**

Job Ticket: 01452

**DST#: 4**

ATTN: Bob Williams

Test Start: 2020.03.27 @ 00:48:00

### Mud and Cushion Information

Mud Type: Gel Chem  
Mud Weight: 9.00 lb/gal  
Viscosity: 68.00 sec/qt  
Water Loss: 12.40 in<sup>3</sup>  
Resistivity: ohm.m  
Salinity: 8700.00 ppm  
Filter Cake: 1.00 inches

Cushion Type:  
Cushion Length: ft  
Cushion Volume: bbl  
Gas Cushion Type:  
Gas Cushion Pressure: psig

Oil API: deg API  
Water Salinity: ppm

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	heavy oil cut mud	0.246
0.00	45 % Oil 55% Mud 10% Water	0.000
60.00	oil and water cut mud	0.295
0.00	28% Oil 50% mud 22% Water	0.000
60.00	Oil & Water cut mud	0.805
0.00	35% oil 45% Mud 20% water	0.000
60.00	oil cut muddy water	0.842
0.00	30% oil 35% mud 35% water	0.000
60.00	oil and mud cut water	0.842
0.00	35% Oil 25% mud 40% water	0.000
0.00	chlorides 17,000	0.000

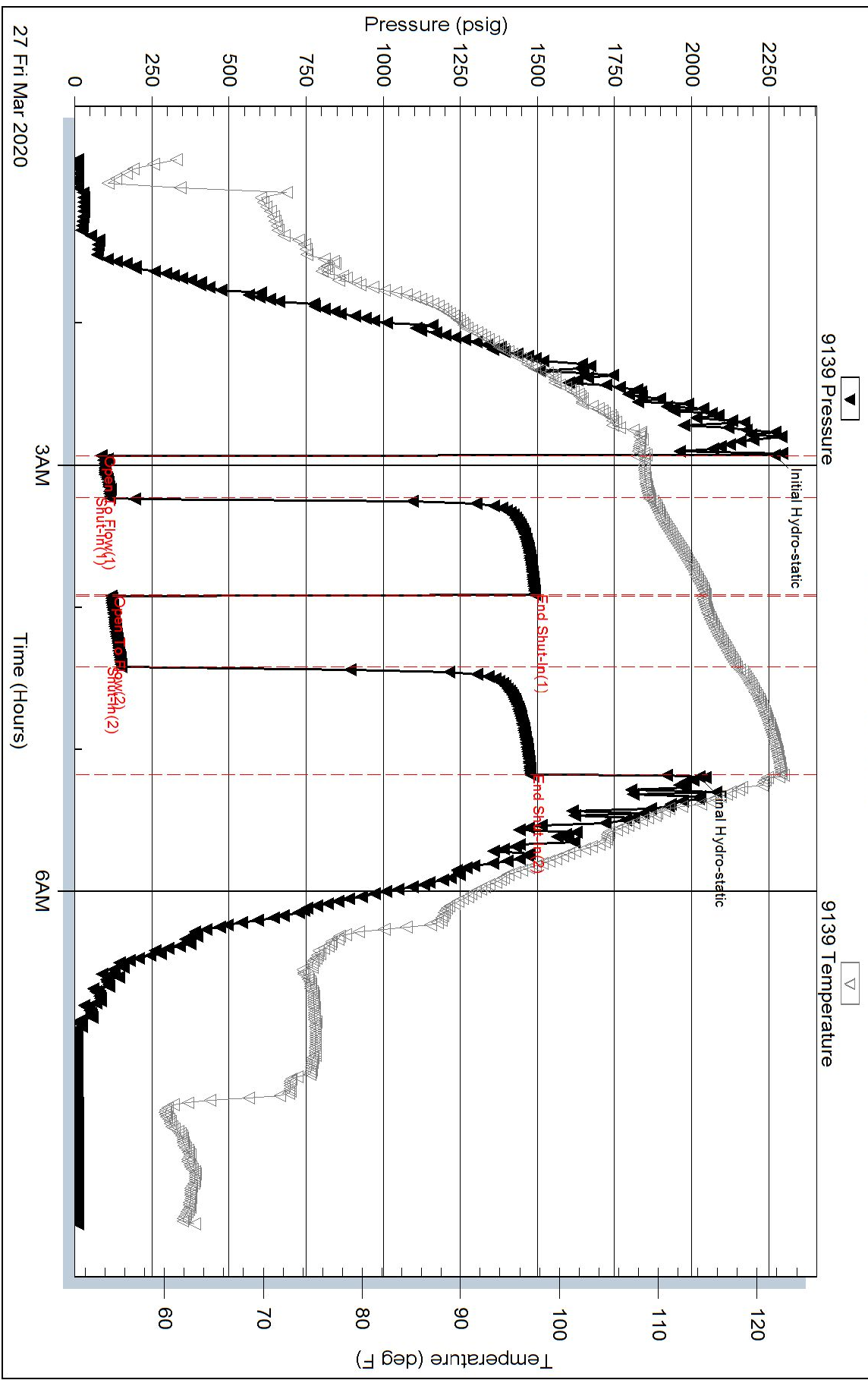
Total Length: 290.00 ft      Total Volume: 3.030 bbl

Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments:

# Pressure vs. Time



# Pressure vs. Time

