

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 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. 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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DRILL STEM TEST REPORT

Prepared For: **Southwind Petroleum Corporation**

1400 West 14th Street North
Wichita, Kansas 67203-2901

ATTN: Bob William

CDK Holdings LLC

16-24s-14w

Start Date: 2020.01.01 @ 22:40:00

End Date: 2020.01.02 @ 06:50:00

Job Ticket #: 01391 DST #: 1

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

Printed: 2020.01.03 @ 12:53:56



DRILL STEM TEST REPORT

Southwind Petroleum Corporation

16-24s-14w

1400 West 14th Street North
Wichita, Kansas 67203-2901

CDK Holdings LLC

ATTN: Bob William

Job Ticket: 01391

DST#: 1

Test Start: 2020.01.01 @ 22:40:00

GENERAL INFORMATION:

Formation: **Kansas City "H"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:30:00

Time Test Ended: 06:50:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **3792.00 ft (KB) To 3815.00 ft (KB) (TVD)**

Reference Elevations: 1807.00 ft (KB)

Total Depth: 3815.00 ft (KB) (TVD)

1796.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 9139 Outside

Press@RunDepth: 1131.53 psig @ 3810.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2020.01.01

End Date:

2020.01.02

Last Calib.:

2020.01.03

Start Time: 22:40:00

End Time:

06:56:59

Time On Btm:

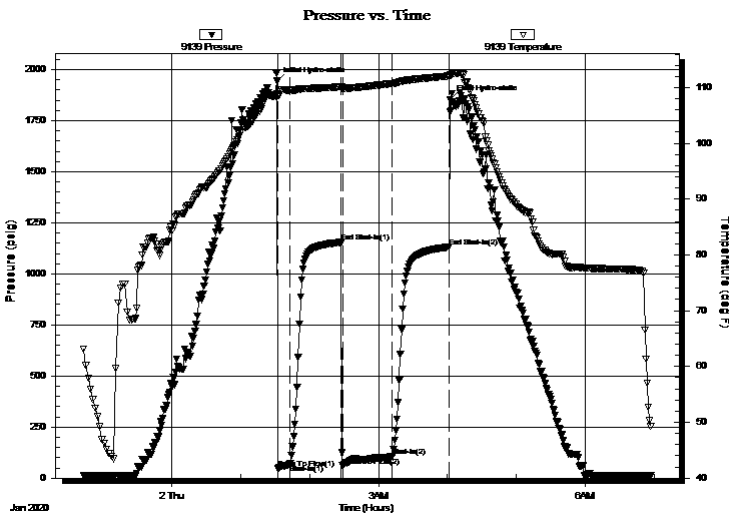
2020.01.02 @ 01:31:30

Time Off Btm:

2020.01.02 @ 04:02:30

TEST COMMENT: 1st Opening 10 minutes good blow built to the bottom of a 5 gallon bucket in 4 minutes
1st Shut-In 45 Minutes no blow back
2nd Opening 45 Minutes good blow built to the bottom of a 5 gallon bucket in 4 minutes
2nd Shut-In 45 Minutes fair blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1943.19	108.95	Initial Hydro-static
1	48.59	108.61	Open To Flow (1)
11	68.29	109.51	Shut-In(1)
56	1154.05	110.15	End Shut-In(1)
57	59.82	109.87	Open To Flow (2)
101	105.57	110.72	Shut-In(2)
150	1131.53	112.06	End Shut-In(2)
151	1853.28	112.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Heavy Oil cut mud 60% Oil 40% Mud	0.18
60.00	Heavy oil and gas cut mud	0.36
0.00	15% Gas 55% Oil 30% Mud	0.00
60.00	Gassy Slightly mud cut oil	0.36
0.00	65% Gas 30% Oil 5% Mud	0.00
60.00	Gassy Slightly mud cut oil	0.57

Gas Rates

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



DRILL STEM TEST REPORT

Southwind Petroleum Corporation

16-24s-14w

1400 West 14th Street North
Wichita, Kansas 67203-2901

CDK Holdings LLC

ATTN: Bob William

Job Ticket: 01391

DST#: 1

Test Start: 2020.01.01 @ 22:40:00

GENERAL INFORMATION:

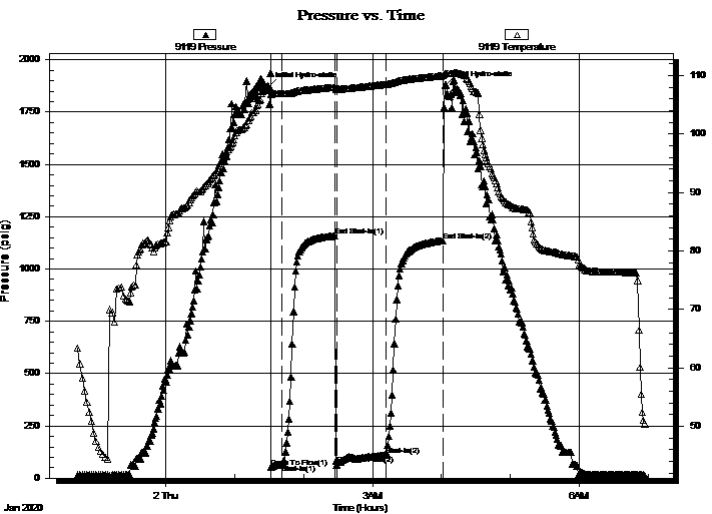
Formation: **Kansas City "H"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:30:00
 Time Test Ended: 06:50:00
 Interval: **3792.00 ft (KB) To 3815.00 ft (KB) (TVD)**
 Total Depth: 3815.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Gene Budig
 Unit No: 1
 Reference Elevations: 1807.00 ft (KB)
 1796.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 9119

Inside

Press@RunDepth: 1136.10 psig @ 3810.00 ft (KB) Capacity: 5000.00 psig
 Start Date: 2020.01.01 End Date: 2020.01.02 Last Calib.: 2020.01.03
 Start Time: 22:40:00 End Time: 06:56:59 Time On Btm: 2020.01.02 @ 01:29:30
 Time Off Btm: 2020.01.02 @ 04:03:00

TEST COMMENT: 1st Opening 10 minutes good blow built to the bottom of a 5 gallon bucket in 4 minutes
 1st Shut-In 45 Minutes no blow back
 2nd Opening 45 Minutes good blow built to the bottom of a 5 gallon bucket in 4 minutes
 2nd Shut-In 45 Minutes fair blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1872.41	107.54	Initial Hydro-static
2	52.90	106.78	Open To Flow (1)
11	68.10	106.84	Shut-In(1)
58	1158.30	108.01	End Shut-In(1)
59	64.11	107.68	Open To Flow (2)
102	108.49	108.50	Shut-In(2)
152	1136.10	109.97	End Shut-In(2)
154	1878.99	110.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	Heavy Oil cut mud 60% Oil 40% Mud	0.18
60.00	Heavy oil and gas cut mud	0.36
0.00	15% Gas 55% Oil 30% Mud	0.00
60.00	Gassy Slightly mud cut oil	0.36
0.00	65% Gas 30% Oil 5% Mud	0.00
60.00	Gassy Slightly mud cut oil	0.57

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 North
Wichita, Kansas 67203-2901

CDK Holdings LLC

ATTN: Bob William

Job Ticket: 01391

DST#: 1

Test Start: 2020.01.01 @ 22:40:00

Tool Information

Drill Pipe:	Length: 3597.00 ft	Diameter: 3.80 inches	Volume: 50.46 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: 184.00 ft	Diameter: 2.50 inches	Volume: 1.12 bbl	Weight to Pull Loose: 64000.00 lb
			<u>Total Volume: 51.58 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 58000.00 lb
Depth to Top Packer:	3792.00 ft			Final 58000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	53.00 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			3767.00	
Hydraulic tool	5.00			3772.00	
Jars	5.00			3777.00	
Safety Joint	5.00			3782.00	
Packer	5.00			3787.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	3792.00	
Anchor	18.00			3810.00	
Recorder	0.00	9119	Inside	3810.00	
Recorder	0.00	9139	Outside	3810.00	
Bullnose	5.00			3815.00	23.00 Bottom Packers & Anchor
Total Tool Length:	53.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Southw ind Petroleum Corporation

16-24s-14w

1400 West 14th Street North
Wichita, Kansas 67203-2901

CDK Holdings LLC

Job Ticket: 01391

DST#: 1

ATTN: Bob William

Test Start: 2020.01.01 @ 22:40:00

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: 70.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 10.00 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 8000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
30.00	Heavy Oil cut mud 60% Oil 40% Mud	0.182
60.00	Heavy oil and gas cut mud	0.364
0.00	15% Gas 55% Oil 30% Mud	0.000
60.00	Gassy Slightly mud cut oil	0.364
0.00	65% Gas 30% Oil 5% Mud	0.000
60.00	Gassy Slightly mud cut oil	0.571
0.00	75% Gas 20% Oil 5% Mud	0.000
0.00	1200 feet of gas in the pipe	0.000

Total Length: 210.00 ft Total Volume: 1.481 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

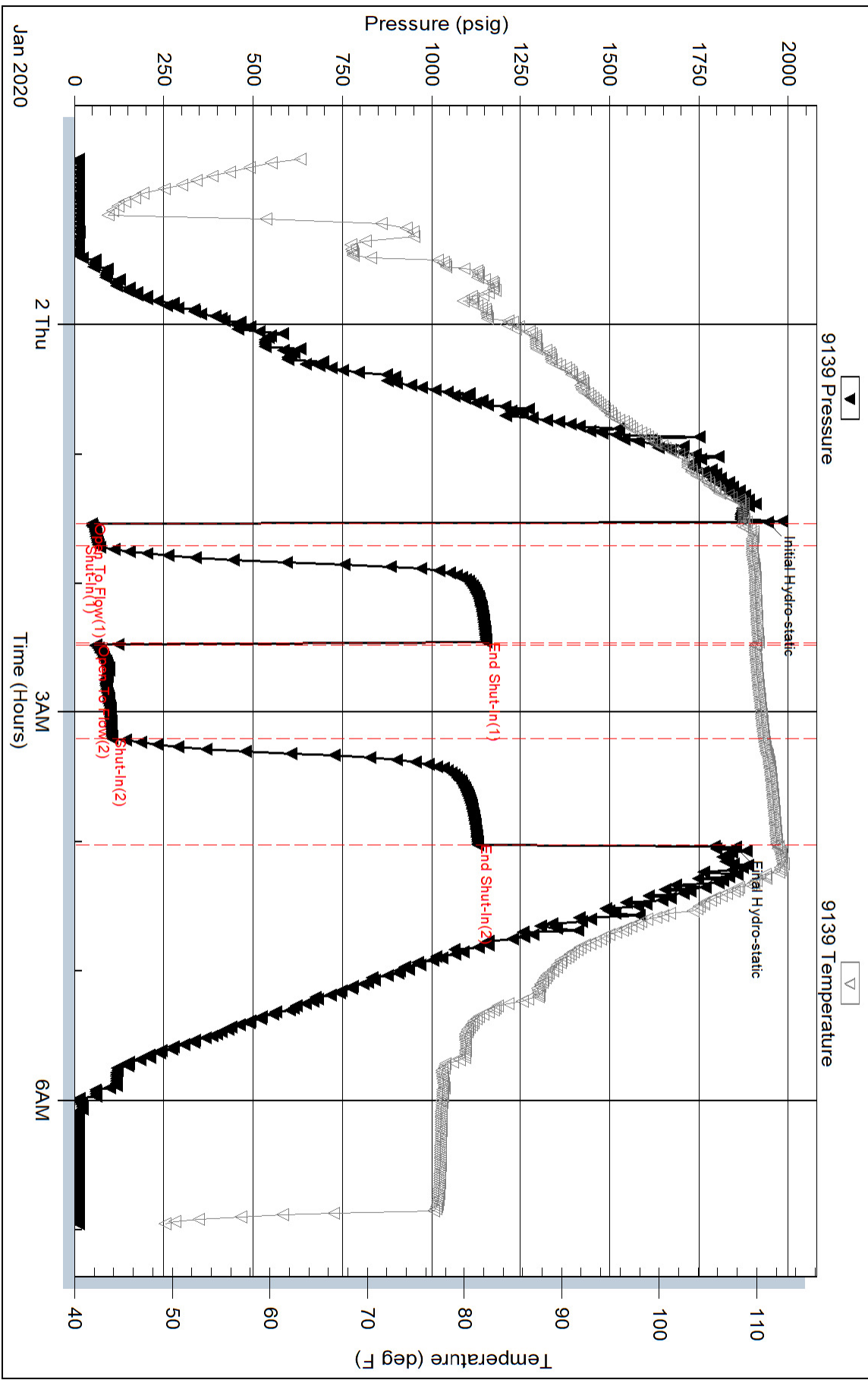
Serial #:

Laboratory Name:

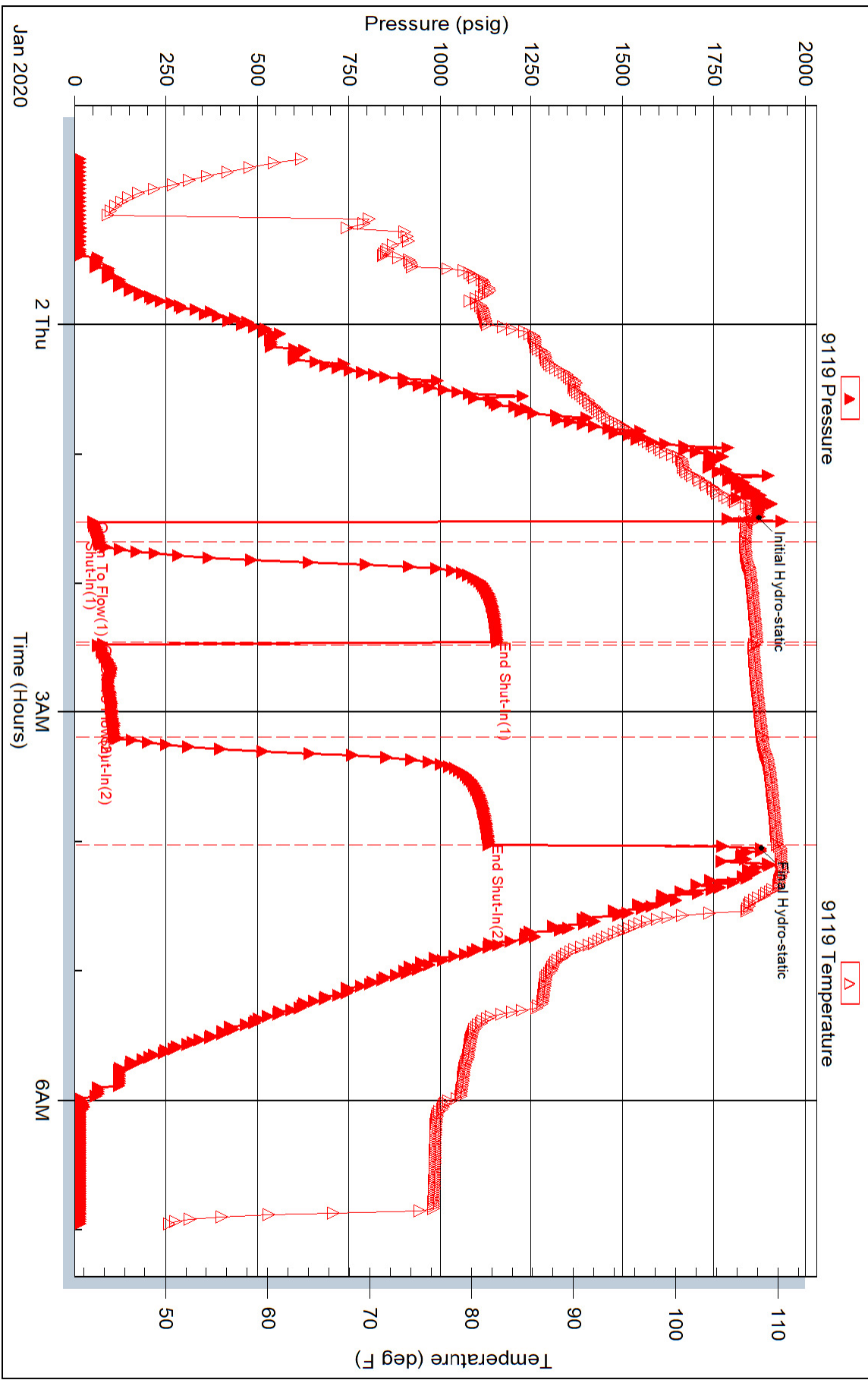
Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Southwind Production LLC**

1400 West 14th Street North
wichita, Kansas 67203-2901

ATTN: Bob Williams

CDK Holdings LLC

16-24s-14w

Start Date: 2020.01.04 @ 11:00:00

End Date: 2020.01.04 @ 20:22:00

Job Ticket #: 01394 DST #: 2

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

Printed: 2020.01.04 @ 23:33:32



DRILL STEM TEST REPORT

Southwind Production LLC

16-24s-14w

1400 West 14th Street North
Wichita, Kansas 67203-2901

CDK Holdings LLC

Job Ticket: 01394

DST#: 2

ATTN: Bob Williams

Test Start: 2020.01.04 @ 11:00:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:56:00

Time Test Ended: 20:22:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Gene Budig

Unit No: 1

Interval: **4242.00 ft (KB) To 4280.00 ft (KB) (TVD)**

Reference Elevations: 1807.00 ft (KB)

Total Depth: 4280.00 ft (KB) (TVD)

1796.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: **9139** Outside

Press@RunDepth: 1527.28 psig @ 4275.00 ft (KB)

Capacity: 5000.00 psig

Start Date: 2020.01.04

End Date:

2020.01.04

Last Calib.:

2020.01.04

Start Time: 11:00:00

End Time:

20:22:30

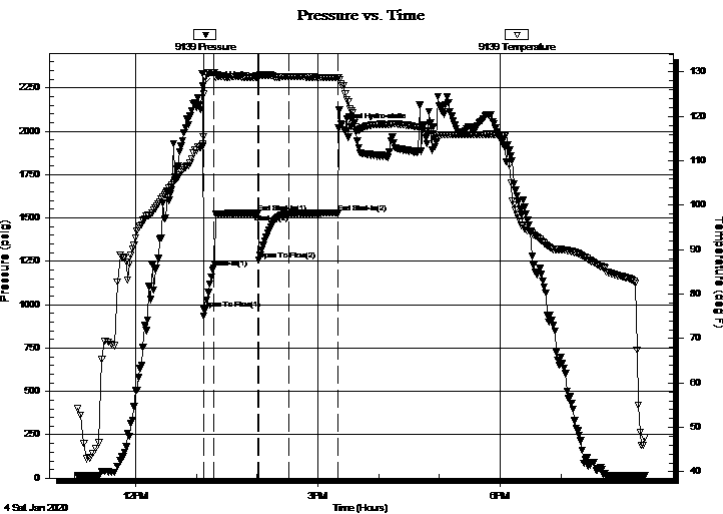
Time On Btm:

2020.01.04 @ 13:06:30

Time Off Btm:

2020.01.04 @ 15:20:30

TEST COMMENT: 1st Opening 10 Minutes strong blow built to the bottom of the bucket in less than 1 minutes
 1st Shut-In 45 Minutes no blow back
 2nd Opening 30 Minutes strong blow built to the bottom of the bucket in 1 1/2 minutes
 2nd Shut-In 45 Minutes no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2261.00	113.73	Initial Hydro-static
1	976.99	115.37	Open To Flow (1)
11	1213.10	129.90	Shut-In(1)
55	1527.31	128.76	End Shut-In(1)
55	1256.19	128.71	Open To Flow (2)
85	1525.02	128.99	Shut-In(2)
133	1527.28	128.69	End Shut-In(2)
134	2017.40	128.75	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3880.00	Clean Gassy Oil Gravity 34 CORRECTED	52.75
30.00	Slightly Oil and Mud cut Water	0.42
0.00	10% Oil 15% Mud 75% Water	0.00
60.00	Slightly Oil and Mud Cut Water	0.84
0.00	10% Oil 10% Mud 80% Water	0.00
60.00	Slightly Oil & Mud Cut Water	0.84

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Southwind Production LLC

16-24s-14w

1400 West 14th Street North
Wichita, Kansas 67203-2901

CDK Holdings LLC

Job Ticket: 01394

DST#: 2

ATTN: Bob Williams

Test Start: 2020.01.04 @ 11:00:00

Tool Information

Drill Pipe:	Length: 4038.00 ft	Diameter: 3.80 inches	Volume: 56.64 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: 184.00 ft	Diameter: 2.25 inches	Volume: 0.90 bbl	Weight to Pull Loose: 82.00 lb
			<u>Total Volume: 57.54 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	10.00 ft			String Weight: Initial 62000.00 lb
Depth to Top Packer:	4242.00 ft			Final 73000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	38.00 ft			
Tool Length:	68.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		
Tool Comments:				

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut In Tool	5.00			4217.00	
Hydraulic tool	5.00			4222.00	
Jars	5.00			4227.00	
Safety Joint	5.00			4232.00	
Packer	5.00			4237.00	30.00 Bottom Of Top Packer
Packer	5.00		Fluid	4242.00	
Anchor	33.00			4275.00	
Recorder	0.00	9119	Inside	4275.00	
Recorder	0.00	9139	Outside	4275.00	
Bullnose	5.00			4280.00	38.00 Bottom Packers & Anchor
Total Tool Length:	68.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Southwind Production LLC

16-24s-14w

1400 West 14th Street North
Wichita, Kansas 67203-2901

CDK Holdings LLC

Job Ticket: 01394

DST#: 2

ATTN: Bob Williams

Test Start: 2020.01.04 @ 11:00:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 10.00 lb/gal
Viscosity: 56.00 sec/qt
Water Loss: 10.40 in³
Resistivity: ohm.m
Salinity: 6800.00 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
3880.00	Clean Gassy Oil Gravity 34 CORRECTED	52.750
30.00	Slightly Oil and Mud cut Water	0.421
0.00	10% Oil 15% Mud 75% Water	0.000
60.00	Slightly Oil and Mud Cut Water	0.842
0.00	10% Oil 10% Mud 80% Water	0.000
60.00	Slightly Oil & Mud Cut Water	0.842
0.00	5% Oil 10% Mud 85% Water	0.000
0.00	Chlorides 18000	0.000
120.00	Gas in the pipe	1.683

Total Length: 4150.00 ft Total Volume: 56.538 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time

