KOLAR Document ID: 1280766

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 # 7311
Name: Shakespeare Oil Co., Inc.
Address 1: 202 W MAIN ST
Address 2:
City: SALEM State: IL Zip: 62881 + 1519
Contact Person: Don Williams
Phone: (618) 548-1585
CONTRACTOR: License # 33935
Name: H. D. Drilling, LLC
Wellsite Geologist: Tim Priest
Purchaser: N/C

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 #:

01/05/2016	01/15/2016	01/16/2016
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No.: 15-171-21165-00-00
Spot Description:
SW - SE - NE - SE Sec. 15 Twp. 17 S. R. 34 ☐ East ☑ West
1350 Feet from ☐ North / ☑ South Line of Section
640 Feet from ☑ East / ☐ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☑ SE ☐ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Scott
Lease Name: Nightengale Well #: 1-15
Field Name: Wildcat
Producing Formation: N/A
Elevation: Ground: 3079 Kelly Bushing: 3088
Total Vertical Depth: 4965 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 264 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: 6500 ppm Fluid volume: 2500 bbls
Dewatering method used: Evaporated
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: 01/27/2016
☑ **Confidential Release Date:** 01/26/2018
☑ **Wireline Log Received** ☐ **Drill Stem Tests Received**
☑ **Geologist Report / Mud Logs Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 01/27/2016

Operator Name: Shakespeare Oil Co., Inc. Lease Name: Nightengale Well #: 1-15

Sec. 15 Twp. 17 S. R. 34 ☐ East ☑ West County: Scott

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 *(Attach Additional Sheets)*	☑ Yes	☐ No	
Samples Sent to Geological Survey	☑ Yes	☐ No	
Cores Taken	☐ Yes	☑ No	
Electric Log Run	☑ Yes	☐ No	
Geologist Report / Mud Logs	☐ Yes	☐ No	

List All E. Logs Run: Attached

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name	Top	Datum
Attached	Attached	Attached

CASING RECORD ☑ New ☐ 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
Surface	12.25	8.625	23	264	Class A	185	3% CaCl2, 2% gel

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
☐ Perforate ☐ Protect Casing ☐ Plug Back TD ☐ 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: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)*

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS:	METHOD OF COMPLETION:	PRODUCTION INTERVAL:
☐ Vented ☐ Sold ☐ Used on Lease *(If vented, Submit ACO-18.)*	☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*	Top / Bottom

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record *(Amount and Kind of Material Used)*

TUBING RECORD: Size: Set At: Packer At:

Mail to: KCC - Conservation Division, 266 N. Main, Suite 220, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	Nightengale 1-15
Doc ID	1280766

All Electric Logs Run

Array Induction
Photo Density
Comp Neutron
Microlog

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	Nightengale 1-15
Doc ID	1280766

Tops

Name	Top	Datum
Base Anhydrite	2416	+672
Heebner	3982	-894
Lansing	4028	-940
Muncie Creek	4228	-1140
Stark Shale	4326	-1238
Hushpuckney	4375	-1287
Marmaton	4475	-1387
Pawnee	4561	-1473
L. Cherokee Shale	4640	-1552
Johnson	4689	-1601
Mississippian	4884	-1796

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	Nightengale 1-15
Doc ID	1280766

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	264	Class A	185	3% CaCl2, 2% gel

DRILL STEM TEST REPORT

Shakespeare Oil Co

202 West Main St
Salem , Il
62881-1519
ATTN: Tim Priest

15-17-34 Scott, Ks

Nightengale #1-15

Job Ticket: 48274 **DST#: 1**

Test Start: 2016.01.13 @ 11:05:20

GENERAL INFORMATION:

Formation: **Marmaton A**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 13:25:35
Time Test Ended: 17:25:35

Test Type: Conventional Bottom Hole (Initial)
Tester: Shane McBride
Unit No: 84

Interval: 4448.00 ft (KB) To 4500.00 ft (KB) (TVD)
Total Depth: 4500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

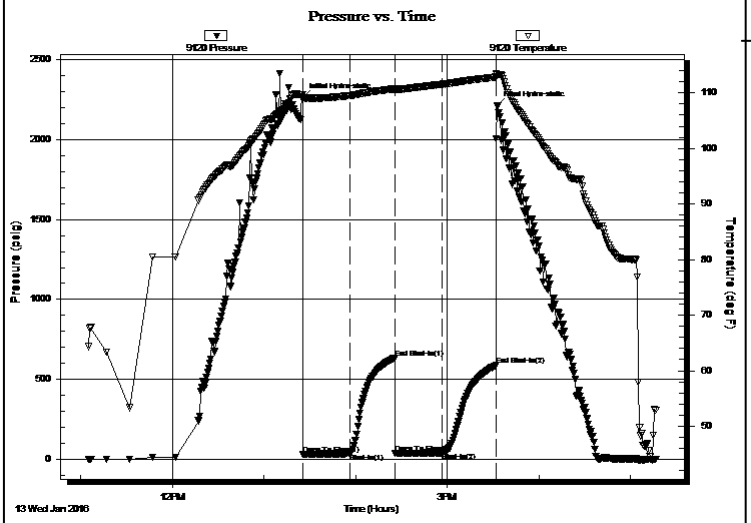
Reference Elevations: 3092.00 ft (KB)
3083.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 9120 **Outside**

Press@RunDepth: 40.68 psig @ 4449.00 ft (KB)
Start Date: 2016.01.13 End Date: 2016.01.13
Start Time: 11:05:20 End Time: 17:16:35

Capacity: 8000.00 psig
Last Calib.: 2016.01.13
Time On Btm: 2016.01.13 @ 13:25:20
Time Off Btm: 2016.01.13 @ 15:32:50

TEST COMMENT: 1/4 "in @ open died back to w eak surface blow
No return
No blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2261.04	109.72	Initial Hydro-static
1	28.83	108.88	Open To Flow (1)
31	36.28	109.52	Shut-In(1)
61	635.02	110.77	End Shut-In(1)
61	36.70	110.47	Open To Flow (2)
92	40.68	111.57	Shut-In(2)
127	587.12	112.84	End Shut-In(2)
128	2211.39	113.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w /oil spots 100%m	0.02
0.00	show of free oil on top 2"in	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Shakespeare Oil Co

202 West Main St
Salem , Il
62881-1519
ATTN: Tim Priest

15-17-34 Scott, Ks

Nightengale #1-15

Job Ticket: 48274 **DST#: 1**

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Total Depth: 4500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

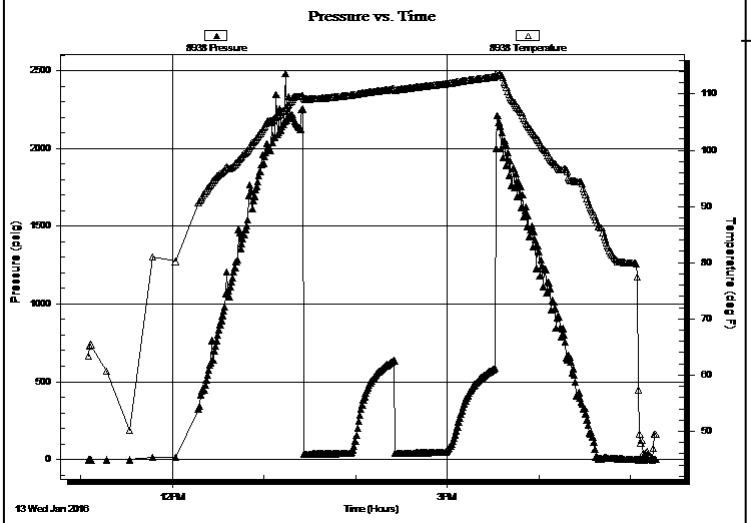
Reference Elevations: 3092.00 ft (KB)
3083.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8938 **Inside**

Press@RunDepth: psig @ 4449.00 ft (KB)
Start Date: 2016.01.13 End Date: 2016.01.13
Start Time: 11:05:18 End Time: 17:16:33

Capacity: 8000.00 psig
Last Calib.: 2016.01.13
Time On Btm:
Time Off Btm:

TEST COMMENT: 1/4 "in @ open died back to w eak surface blow
No return
No blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w /oil spots 100%m	0.02
0.00	show of free oil on top 2"in	0.00

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co

202 West Main St
Salem , Il
62881-1519
ATTN: Tim Priest

15-17-34 Scott, Ks

Nightengale #1-15

Job Ticket: 48274 **DST#: 1**

Test Start: 2016.01.13 @ 11:05:20

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

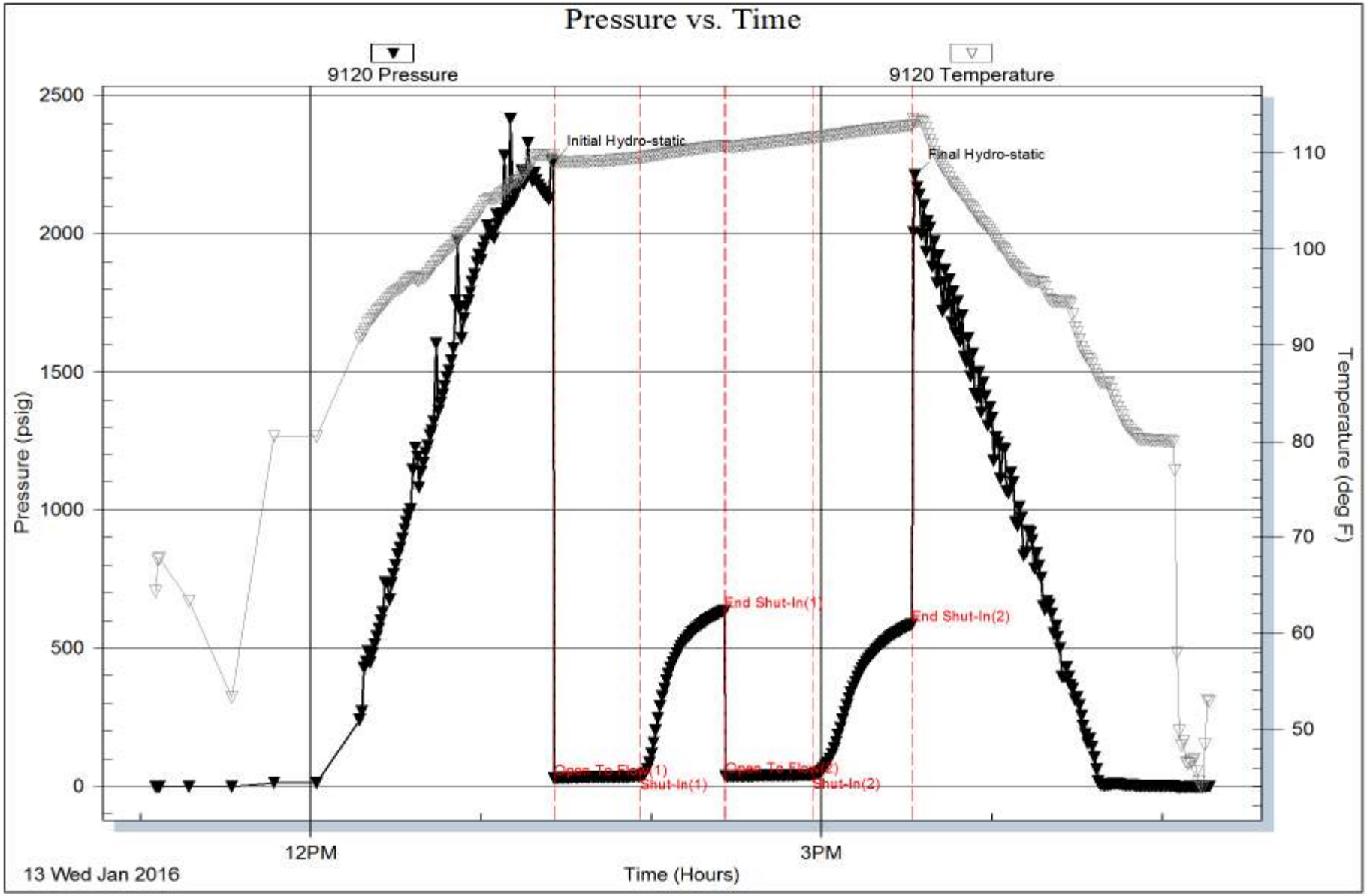
Recovery Table

Length ft	Description	Volume bbl
5.00	mud w /oil spots 100%m	0.025
0.00	show of free oil on top 2"in	0.000

Total Length: 5.00 ft Total Volume: 0.025 bbl

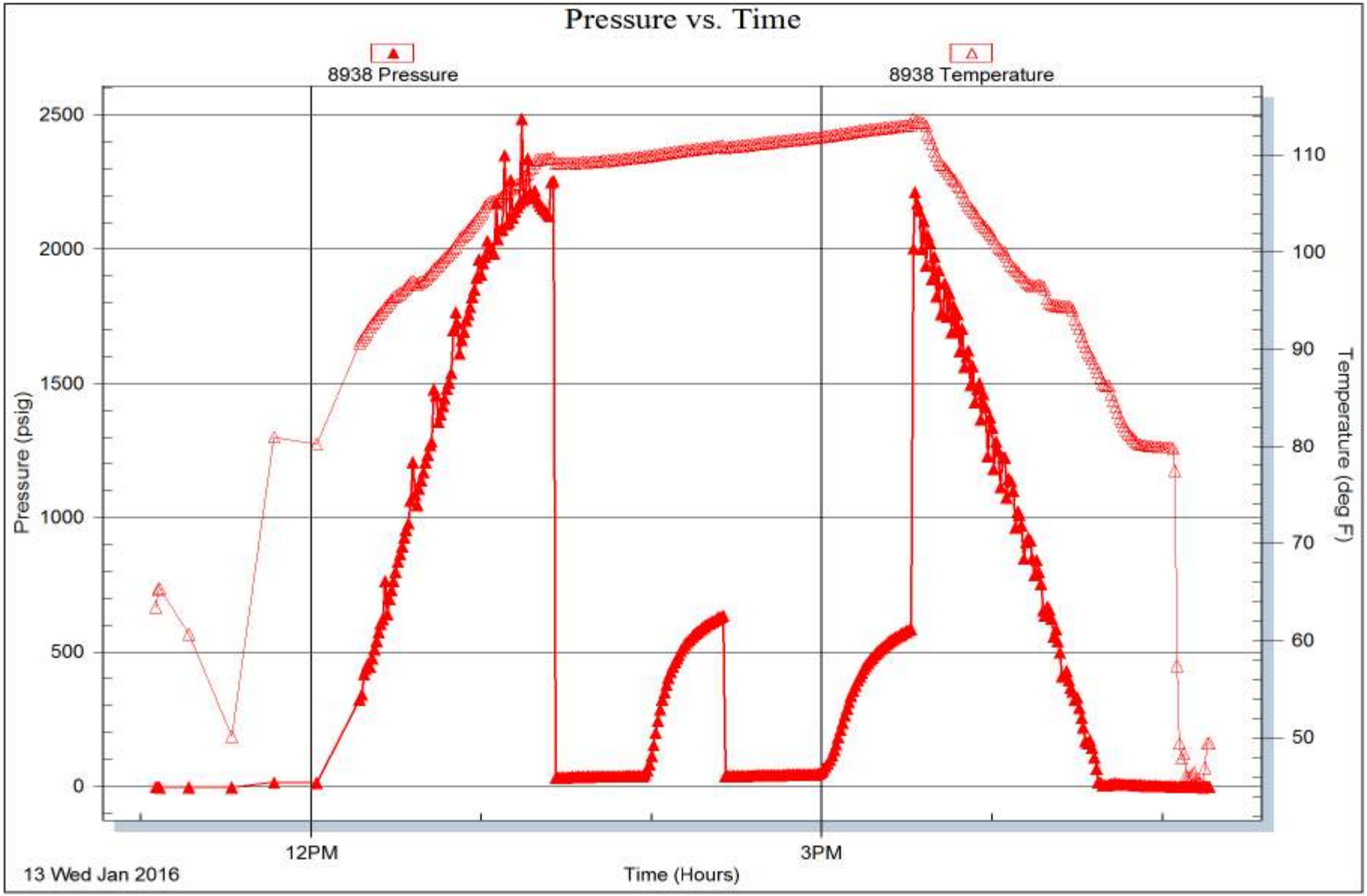
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 9120 **Outside** Shakespeare Oil Co Nightengale #1-15 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 48274 Printed: 2016.01.13 @ 19:16:19

Serial #: 8938 **Inside** Shakespeare Oil Co Nightengale #1-15 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 48274 Printed: 2016.01.13 @ 19:16:19

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Shakespeare Oil Co**

202 West Main St
Salem , IL 62881-1519

ATTN: Tim Priest

Nightengale #1-15

15-17s-34w Scott, KS

Start Date: 2016.01.13 @ 11:05:20
End Date: 2016.01.13 @ 17:25:35
Job Ticket #: 48274 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2016.01.18 @ 09:32:46

DRILL STEM TEST REPORT

Shakespeare Oil Co

202 West Main St
Salem , IL 62881-1519

ATTN: Tim Priest

15-17s-34w Scott, KS

Nightengale #1-15

Job Ticket: 48274 **DST#: 1**

Test Start: 2016.01.13 @ 11:05:20

GENERAL INFORMATION:

Formation: **Marmaton A**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:25:35
Time Test Ended: 17:25:35

Test Type: Conventional Bottom Hole (Initial)
Tester: Shane McBride
Unit No: 84

Interval: 4448.00 ft (KB) To 4500.00 ft (KB) (TVD)
Total Depth: 4500.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

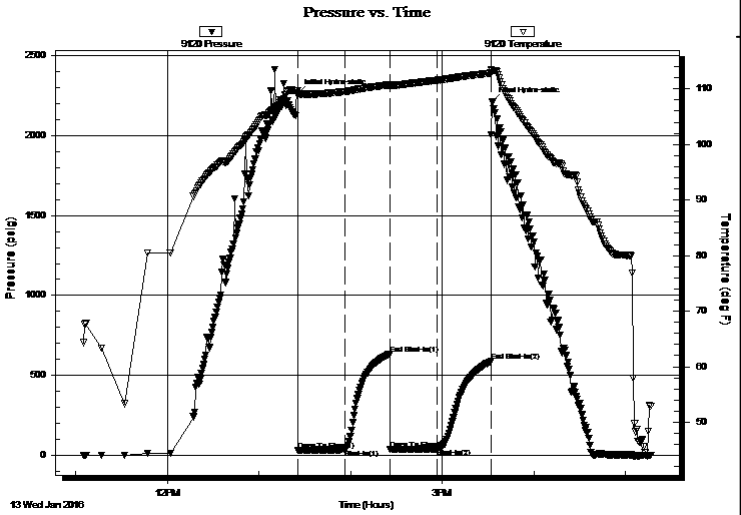
Reference Elevations: 3092.00 ft (KB)
3083.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 9120 **Outside**

Press@RunDepth: 40.68 psig @ 4449.00 ft (KB)
Start Date: 2016.01.13 End Date: 2016.01.13
Start Time: 11:05:20 End Time: 17:16:35

Capacity: 8000.00 psig
Last Calib.: 2016.01.13
Time On Btm: 2016.01.13 @ 13:25:20
Time Off Btm: 2016.01.13 @ 15:32:50

TEST COMMENT: 1/4 " @ open died back to w eak surface blow
No return
No blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2261.04	109.72	Initial Hydro-static
1	28.83	108.88	Open To Flow (1)
31	36.28	109.52	Shut-In(1)
61	635.02	110.77	End Shut-In(1)
61	36.70	110.47	Open To Flow (2)
92	40.68	111.57	Shut-In(2)
127	587.12	112.84	End Shut-In(2)
128	2211.39	113.23	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w /oil spots 100%m	0.02
0.00	show of free oil on top 2"	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Shakespeare Oil Co

202 West Main St
Salem , IL 62881-1519

ATTN: Tim Priest

15-17s-34w Scott, KS

Nightengale #1-15

Job Ticket: 48274 **DST#: 1**

Test Start: 2016.01.13 @ 11:05:20

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Hole Diameter: 7.88 inches Hole Condition: Fair

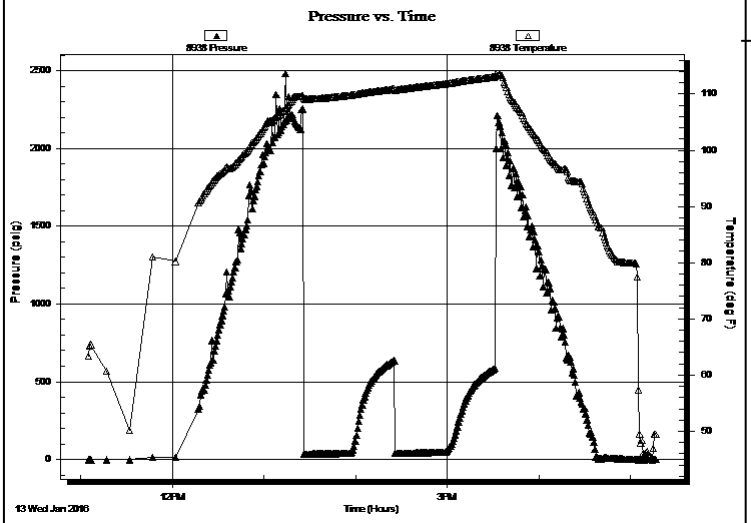
Reference Elevations: 3092.00 ft (KB)
3083.00 ft (CF)
KB to GR/CF: 9.00 ft

Serial #: 8938 **Inside**

Press@RunDepth: psig @ 4449.00 ft (KB)
Start Date: 2016.01.13 End Date: 2016.01.13
Start Time: 11:05:18 End Time: 17:16:33

Capacity: 8000.00 psig
Last Calib.: 2016.01.13
Time On Btm:
Time Off Btm:

TEST COMMENT: 1/4 " @ open died back to w eak surface blow
No return
No blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud w /oil spots 100%m	0.02
0.00	show of free oil on top 2"	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Shakespeare Oil Co

202 West Main St
Salem , IL 62881-1519

ATTN: Tim Priest

15-17s-34w Scott, KS

Nightengale #1-15

Job Ticket: 48274 **DST#: 1**

Test Start: 2016.01.13 @ 11:05:20

Tool Information

Drill Pipe:	Length:	4328.00 ft	Diameter:	3.80 inches	Volume:	60.71 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:	124.00 ft	Diameter:	2.25 inches	Volume:	0.61 bbl	Weight to Pull Loose:	78000.00 lb
					Total Volume:	61.32 bbl	Tool Chased	0.00 ft
Drill Pipe Above KB:		32.00 ft					String Weight: Initial	64000.00 lb
Depth to Top Packer:		4448.00 ft					Final	64000.00 lb
Depth to Bottom Packer:		ft						
Interval betw een Packers:		52.00 ft						
Tool Length:		80.00 ft						
Number of Packers:		2	Diameter:	6.75 inches				

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			4421.00		
Shut In Tool	5.00			4426.00		
Hydraulic tool	5.00			4431.00		
Jars	5.00			4436.00		
Safety Joint	3.00			4439.00		
Packer	5.00			4444.00	28.00	Bottom Of Top Packer
Packer	4.00			4448.00		
Stubb	1.00			4449.00		
Recorder	0.00	9120	Outside	4449.00		
Recorder	0.00	8938	Inside	4449.00		
Perforations	13.00			4462.00		
Change Over Sub	1.00			4463.00		
Drill Pipe	31.00			4494.00		
Change Over Sub	1.00			4495.00		
Bullnose	5.00			4500.00	52.00	Bottom Packers & Anchor
Total Tool Length:	**80.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil Co

202 West Main St
Salem , IL 62881-1519

ATTN: Tim Priest

15-17s-34w Scott, KS

Nightengale #1-15

Job Ticket: 48274 **DST#: 1**

Test Start: 2016.01.13 @ 11:05:20

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	0 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	0 ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.98 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	6000.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

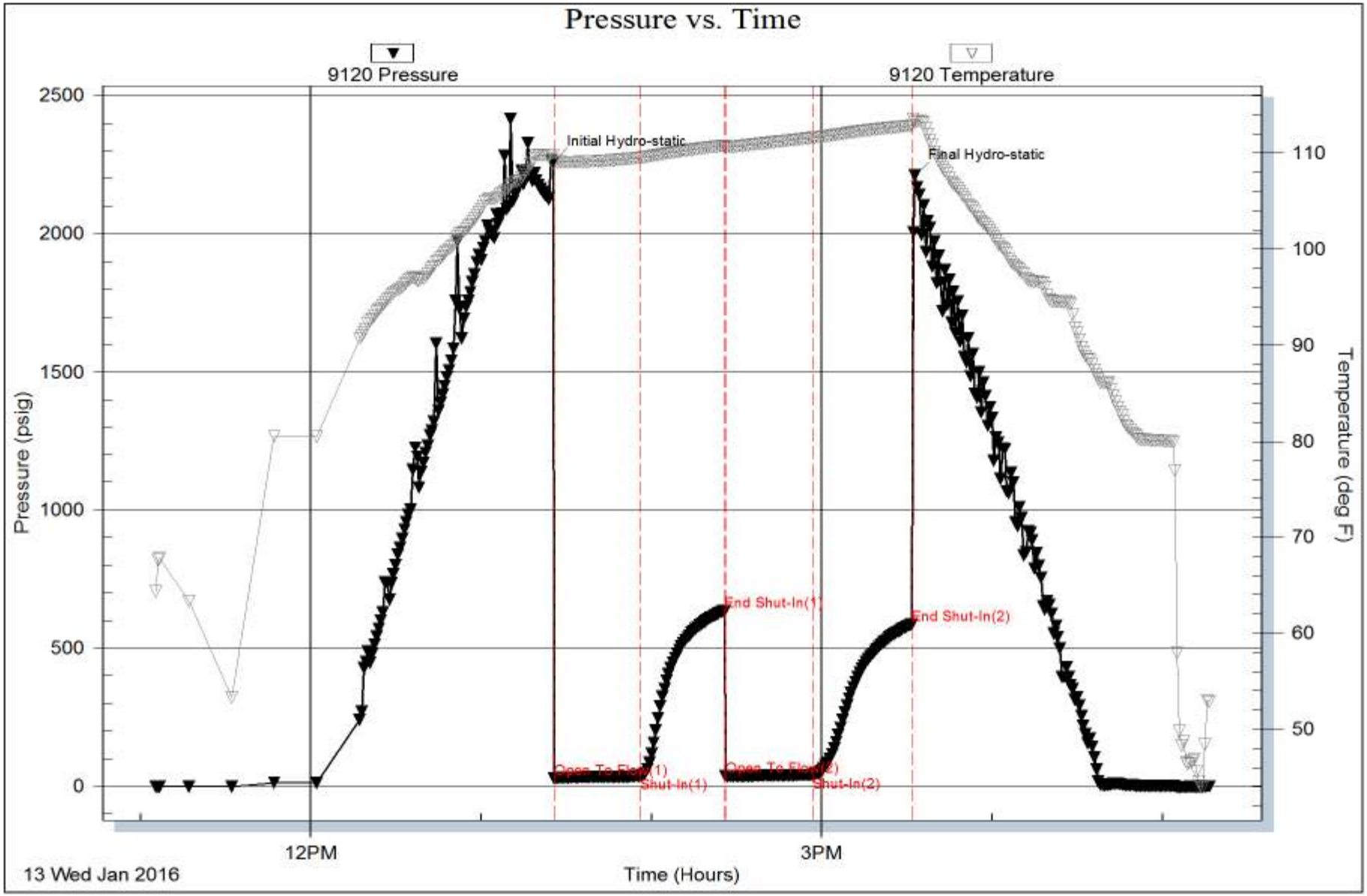
Recovery Table

Length ft	Description	Volume bbl
5.00	mud w /oil spots 100%m	0.025
0.00	show of free oil on top 2"	0.000

Total Length: 5.00 ft Total Volume: 0.025 bbl

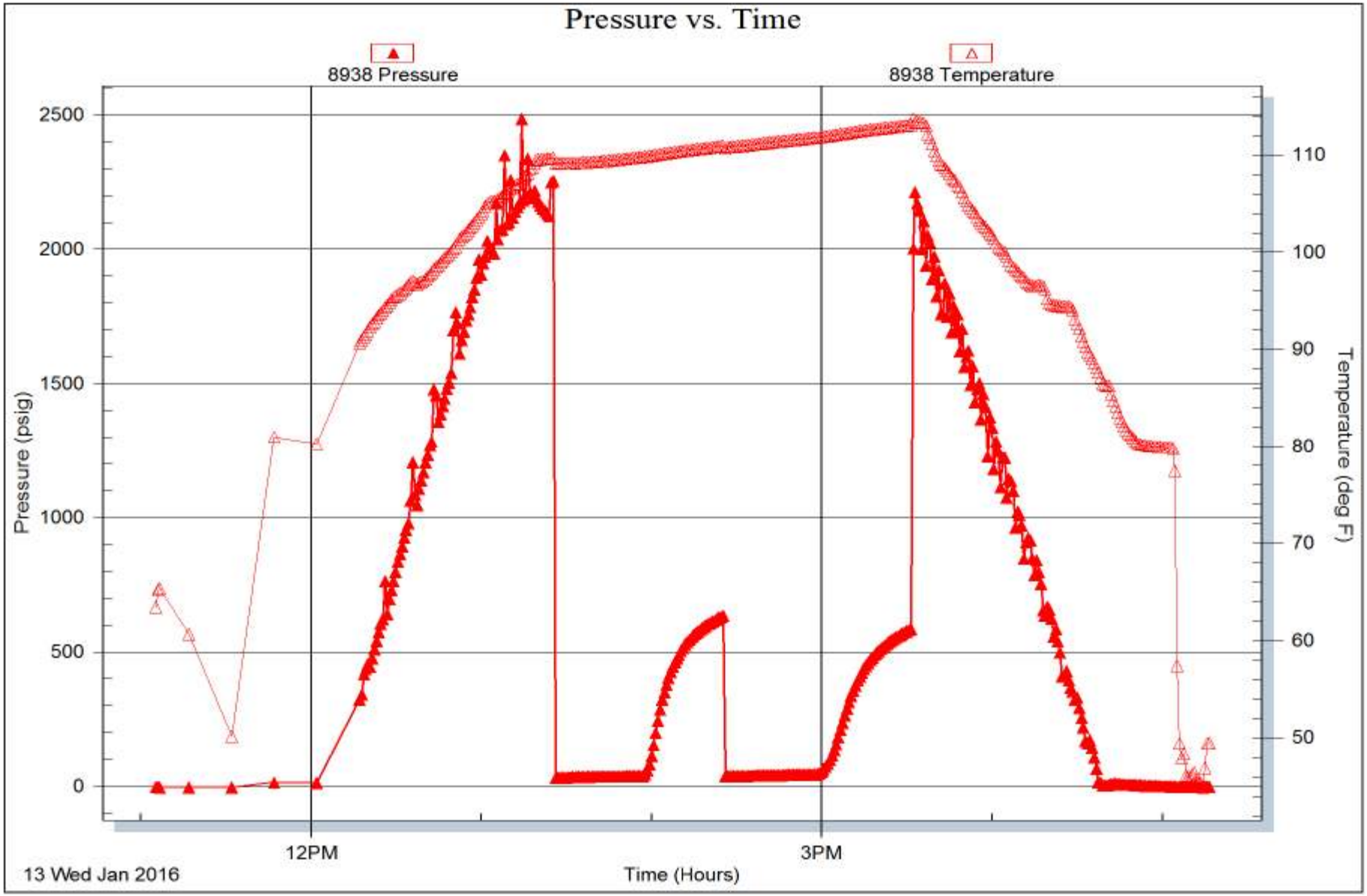
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 9120 **Outside** Shakespeare Oil Co Nightengale #1-15 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 48274 Printed: 2016.01.18 @ 09:32:49

Serial #: 8938 **Inside** Shakespeare Oil Co Nightengale #1-15 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 48274 Printed: 2016.01.18 @ 09:32:49

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 48274

Well Name & No. Nightengale # 1-15 Test No. #1 Date 1/13/16

Company Shakespeare O.I. Elevation 3092 KB 3083 GL

Address 202 West Main St Salem, IL 62881-1519

Co. Rep / Geo. Lance Priest Rig H.D. #3

Location: Sec. 15 Twp. 17 Rge. 3E Co. Scott State KS

Interval Tested 4448 4500 Zone Tested Mississippian A

Anchor Length 52 Drill Pipe Run 4328 Mud Wt. 7.3

Top Packer Depth 4443 Drill Collars Run 124 Vis 56

Bottom Packer Depth 4448 Wt. Pipe Run — WL 8.0

Total Depth 4500 Chlorides 6000 ppm System LCM #2

Blow Description 1/4" in @ open Died back to a weak surface blow
No return
No blow
No return

Rec 5'	Feet of Mud w/oil spots	%gas Spots	%oil	%water 100	%mud
Rec	Feet of Show of free oil on top 2" in.	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5' BHT 113° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic	2261	☑ Test	1150	T-On Location	09:50
(B) First Initial Flow	28	☑ Jars	250	T-Started	11:05
(C) First Final Flow	36	☑ Safety Joint	75	T-Open	13:26
(D) Initial Shut-In	635	☑ Circ Sub	N/C	T-Pulled	15:26
(E) Second Initial Flow	36	☐ Hourly Standby		T-Out	17:25
(F) Second Final Flow	40	☑ Mileage	32rt	Comments	Released & Stranded
(G) Final Shut-In	587	☐ Sampler			on 1/15/2016 @ 19:00
(H) Final Hydrostatic	2211	☐ Straddle		☐ Ruined Shale Packer	
		☑ Shale Packer	250	☐ Ruined Packer	
Initial Open	30	☐ Extra Packer		☐ Extra Copies	
Initial Shut-In	30	☐ Extra Recorder		Sub Total	800
Final Flow	30	☐ Day Standby	2d 1.5h	Total	2557
Final Shut-In	30	☐ Accessibility		MP/DST Disc't	
		Sub Total	1757		

Approved By _____ Our Representative _____

TIM PRIEST
Petroleum Geologist
(316)-213-6115

GEOLOGIST'S REPORT
DRILLING TIME AND SAMPLE LOG

COMPANY	SHAKESPEARE OIL CO.
LEASE	Nightengale 1-15
FIELD	Wildcat
LOCATION	1350' FSL, 640' FEL
SEC	15 TWSP 17S RGE 34W
COUNTY	Scott STATE Kansas
CONTRACTOR	HD Rig #3
SPUD	1-5-16 COMP 1-16-16
RTD	4965' LTD 4963'
MUD UP	3600' TYPE MUD Chemical
SAMPLES SAVED FROM	3800' to RTD
DRILLING TIME KEPT FROM	3800' to RTD
SAMPLES EXAMINED FROM	3800' to RTD
GEOLOGICAL SUPERVISION FROM	3900' to RTD
GEOLOGIST ON WELL	Tim Priest

ELEVATIONS
KB 3088'
DF
GL 3079'
Measurements Are All From KB

CASING
CONDUCTOR N/A
SURFACE 8-5/8" @ 264'
PRODUCTION None

ELECTRICAL SURVEYS
CND;D/SP;P.E.
Micro
By: Weatherford

FORMATION TOPS	ELECTRIC LOG	SAMPLE
Anhydrite	2398 (+690)	2400 (+688)
Heebner Shale	3982 (-894)	3984 (-896)
Lansing	4028 (-940)	4027 (-939)
Stark	4326 (-1238)	4330 (-1242)
BKC	4425 (-1337)	4427 (-1339)
Fort Scott	4614 (-1526)	4616 (-1528)
Cherokee Shale	4640 (-1552)	4642 (-1554)
Mississippian	4884 (-1796)	4886 (-1798)

15

REMARKS Due to the lack of shows and negative drillstem test, it was decided to plug and abandon the well.

Respectfully Submitted,

Tim Priest
Petroleum Geologist

API #15-171-21165-00-00

LEGEND
Anhydrite, Sandstone, Limestone, Shale, Carb Sh, Cherty LS, Chert, Dolomite

LITHOLOGY | DEPTH | DRILLING TIME IN MINUTES PER FOOT (Rate of Penetration Decreases) | SAMPLE DESCRIPTION | REMARKS

Anhydrite 2400(+688)

Base/ Anhydrite 2420(+668)

Ls crm-tan, fn xtl, fos, chky, f-gd int xtl & int frag por, NS
Sh gry
Ls crm-tan, fn xtl, sli fos, chky, arg in prt
Sh blk, carb
SS lt gry, vfn grn, fiable, w/gry Sh
Ls crm-tan, fn xtl, sli fos, chky, arg in prt
Ls crm-tan-gry, fn xtl, fos, chky, p-f int xtl-pp por, NS
Ls crm-lt gry, vfn xtl, dnse
Sh gry-blk
Ls crm-tan, fn xtl, fos, chky, f-gd int xtl-pp por, NS
Ls crm-lt gry, vfn xtl, sli chty, dnse
Ls crm-lt gry, fn xtl, fos, chky, f int xtl por, NS
Ls crm-lt gry, fn xtl, dnse
Ls crm-lt gry, fn xtl, fos, p-f int xtl-pp por, NS

Heebner 3984 (-896)

Sh blk, carb
Sh gry-dk gry, calc

Toronto 4000 (-912)

Ls crm-lt gry, fn xtl, fos, chky, p-f int xtl-pp por, NS
Ls crm, fn xtl, fos, v chky, p-f int xtl-pp por, NS
Sh grn-gry

Lansing 4027 (-939)

Ls crm-lt gry, fos, chky, p-f int xtl por, NS
Ls crm, fn xtl, ool, v chky, p-f int xtl & int ool por, NS
Sh red-gry
Ls crm-lt gry, fn xtl, fos, p-f int xtl-pp por, NS
Sh gry
Ls crm-lt gry, vfn xtl, sli chty, dnse
Ls crm-lt gry, fn xtl, chky, p int xtl por, NS
Ls crm-lt gry, fn xtl, chky, p int xtl por, NS
Sh grn-gry
Ls crm-lt gry, vfn xtl, fos, chky, dnse
Sh gry-dk gry
Ls crm-lt gry, fn xtl, fos, chky, p-f int xtl-pp por, NS
Sh gry-dk gry
Ls crm-lt gry, fn xtl, fos, sli chky, p-f int xtl-pp por w/scat vugs, NS
Ls crm-tan, fn xtl, ool, chky, f int xtl & ooc por, NS
Ls crm-lt gry, fn xtl, sli chty, chky, dnse
Ls crm-lt gry, fn xtl, fos, chky, p int xtl-pp por, NS
Ls crm-lt gry, vfn xtl, chty, dnse
Ls crm-lt gry, fn xtl, fos, chky, p-f int xtl-pp por, NS
Ls lt gry-gry, vfn xtl, chty, dnse

Muncie Creek 4230 (-1142)

Sh blk, carb
Ls lt gry, vfn xtl, dnse
Ls crm-tan, fn xtl, ool, p-f int ool-ooc por, NS
Ls crm-lt gry, vfn xtl, sli chty, dnse
Ls crm-lt gry, fn xtl, fos, chky, p int xtl-pp por, NS
Ls tan-gry, vfn xtl, sli chty, dnse
Ls crm-lt gry, fn xtl, fos, chky, arg in prt, p int xtl-pp por, NS
Ls crm-lt gry, vfn xtl, sli chty, dnse
Ls crm, fn xtl, fos, chky, p-int xtl-pp por, NS
Ls crm-lt gry, vfn xtl, sli chty, dnse
Ls crm-lt gry, fn xtl, ool, chky, f-gd int xtl & ooc por, NS
Ls gry, vfn xtl, sli chty, dnse

Stark Shale 4330 (-1242)

Sh blk, carb
Ls crm-lt gry, fn xtl, arg in prt, most dnse
Ls gry, vfn xtl, sli chty, dnse
Ls tan-gry, fn xtl, ool, chky, f int xtl & int ool por, scat ooc por, NS
Ls crm-gry, fn xtl, fos, chky, p-f int xtl-pp por, NS

Hushpuckney Shale 4377 (-1289)

Sh blk, carb
Ls tan-gry, vfn xtl, dnse
Sh gry
Ls crm-lt gry, fn xtl, chky, arg in prt
Ls lt gry-gry, vfn xtl, dnse
Ls crm-lt gry, fn xtl, fos, chky, p int xtl-pp por w/scat vugs, NS
Sh blk, carb

B/K.C. 4427 (-1339)

Sh dk gry
Ls crm-lt gry, fn xtl, ool, chky, p-f int xtl-int ool por, NS
Sh dk gry-blk
Sh var col, silty, sandy
Ls crm-lt gry, vfn xtl, sli chky, dnse

Marmaton 4477 (-1389)

Ls crm-tan, fn xtl, sli fos, p int xtl-pp por, sptd-sli sat stn, SSFO, sli odor, dull fluor
Ls crm-lt gry, fn-vfn xtl, fos-ool, p int ool por, p-f pp-vug por, sptd-sli sat stn, SSFO, sli odor, v sli dull fluor

DST # 1
(4448'-4500')
30"-30"-30"-30"
IF: Surface blow, no return
FF: No blow, no return
Rec: 5' OSM w/fio on top
Fps: 28-36#/36-40#
SIPs: 635#/587#
HSPs: 2261#/2211#
BHT: 113 deg F

Ls crm-lt gry, fn xtl, mic xtl, dnse
Sh dk gry-maroon
Ls crm-lt gry, fn xtl, mic xtl, dnse
Ls crm-lt gry, fn-vfn xtl, fos-ool, p int ool & pp por, sptd-sli sat stn on few pcs, VSSFO, v sli odor, dull fluor
Sh gry-dk gry
Ls crm-lt gry, vfn xtl, dnse
Ls crm-tan-gry motld, fn xtl, ool, p-f int ool por, NS
Sh blk, carb

Pawnee 4564 (-1476)

Ls lt gry-gry, vfn xtl, arg in prt
Ls crm-tan, fn xtl, chky, arg in prt, no vis por
Ls crm-tan, vfn xtl, sli chty, dnse
Sh blk, carb

Myric Station 4601 (-1513)

Ls lt gry-gry, vfn xtl, sli ool, dnse
Sh blk, carb

Fort Scott 4616 (-1528)

Ls tan-gry mtld, fn xtl, ool, dnse
Sh grn-gry-dk gry
Ls crm-gry, fn xtl, fos, sli chty, mostly dnse

Cherokee Shale 4642 (-1554)

Sh blk, carb
Ls crm-tan-gry motld, fn xtl, fos, chky, p-f int frag por, NS
Sh grn-gry
Ls crm-lt gry, vfn xtl, dnse
Ls tan-gry, vfn xtl, w/int bed blk carb Sh
Sh gry-dk gry
Ls crm-lt gry, vfn xtl, dnse
Sh grn-gry

Johnson Zone 4690 (-1602)

Ls crm-lt gry, vfn xtl, dnse
Ls crm-gry, fn xtl, sli fos, sli chty, dnse
Ls crm-tan, fn xtl, qrtz, p-f int xtl por, NS
Sh blk
Ls crm-gry, vfn xtl, sli fos, sli chty, dnse
Ls crm-tan-gry, fn xtl, sli fos, sli chky, no vis por
Ls crm-tan-gry, fn xtl, sli fos, sli chky, no vis por
? Sh var col
Ls tan-gry, mic xtl, dnse
SS clear-grn, fn-coarse grn, friable, NS, w/grn Sh
Sh var col
Sh gry-dk gry
Sh var col, w/lt gry fn grn SS
SS clear-lt gry, fn grn, fria, NS
Sh var col, silty
Sh gry-dk gry, silty
Ls crm-tan, fn xtl, sli chky, sandy, dnse
SS clear, med-coarse-loose large grns, sub ang, NS

Mississippian 4886 (-1798)

Ls crm-lt gry, sandy, sli chky, dnse
Ls crm-tan, vfn xtl, sli sandy, dnse
Ls crm-lt gry, vfn xtl, sli sandy, sli chky, dnse
Ls tan, mic xtl, dnse
Ls crm-lt gry, vfn xtl, dnse
Ls crm-lt gry, vfn xtl, chky, dnse

Total Depth 4965' (-1877)

ALLIED
OIL & GAS SERVICES, LLC

P.O. Box 205803
Dallas, TX 75320-5803

Voice: (832) 482-3742
Fax: (832) 482-3738

INVOICE

Invoice Number: 151591
Invoice Date: Jan 16, 2016
Page: 1

Federal Tax I.D.#: 20-8651475

Bill To:

Shakespeare Oil Co., Inc.
202 West Main St.
Salem, IL 62881

RECEIVED
JAN 26 2016

Customer ID	Field Ticket #	Payment Terms	
Shak	67719	Net 30 Days	
Job Location	**Camp Location**	**Service Date**	**Due Date**
KS1-03	Oakley	Jan 16, 2016	2/15/16

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Nightengale #1-15		
270.00	CEMENT MATERIALS	60/40/4% Gel Blend	18.92	5,108.40
68.00	CEMENT MATERIALS	Flo Seal	2.97	201.96
289.98	CEMENT SERVICE	Cubic Feet Charge	2.48	719.15
1,055.00	CEMENT SERVICE	Ton Mileage Charge	2.75	2,901.25
1.00	CEMENT SERVICE	Plug to Abandon ✓	2,483.59	2,483.59
50.00	CEMENT SERVICE	Pump Truck Mileage	7.70	385.00
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Material	2,655.18	-2,655.18
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Cement Service	3,354.50	-3,354.50
1.00	CEMENT SUPERVISOR	Alan Ryan		
1.00	EQUIPMENT OPERATOR	Kevin Ryan		
1.00	OPERATOR ASSISTANT	Cory Brown		

INT

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. ONLY IF PAID ON OR BEFORE

Feb 15, 2016

1 1/2% CHARGED THEREAFTER.

Subtotal	6,009.67
Sales Tax	510.82
Total Invoice Amount	6,520.49
Payment/Credit Applied	
TOTAL	**6,520.49**

DW

ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. #20-5975804

23200 929

067719

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Oakley KS

DATE 11/12/16	SEC. 15	TWP. 17	RANGE 34	CALLED OUT	ON LOCATION	JOB START 3:00 pm	JOB FINISH 4:00 pm
LEASE Mattengall	WELL # 1-15		LOCATION Penoe 5 to 2nd E & N-E-in			COUNTY Scott	STATE KS
OLD OR NEW (Circle one)							

CONTRACTOR HD
TYPE OF JOB PTA
HOLE SIZE 7 7/8 T.D.
CASING SIZE 8 5/8 DEPTH 265'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG.
PERFS.
DISPLACEMENT

OWNER Same

CEMENT
AMOUNT ORDERED 270 Alw 1/4 Flo

EQUIPMENT

PUMP TRUCK CEMENTER Allen Ryan
516628 HELPER Kevin Ryan
BULK TRUCK
391 DRIVER Cory Brown
BULK TRUCK
DRIVER

COMMON	270	@ 18.90	5103.00
POZMIX		@	
GEL		@	
CHLORIDE		@	
ASC		@	
Flo Seal 68lb		@ 2.92	201.36
		@	
		@	
		@	
		@	
		@	
		@	
TOTAL			5310.36
DISCOUNT 50%			2,655.18

REMARKS:

50sk @ 2450 ft
50sk @ 1430 ft
50sk @ 290 ft
40sk @ 295 ft
20sk @ 60 ft
30sk RH

SERVICE

HANDLING	289	@ 2.40	219.15
MILEAGE 25 mile 12.1 ton			2901.25
DEPTH OF JOB			2450'
PUMP TRUCK CHARGE			2483.59
EXTRA FOOTAGE		@	
HV MILEAGE	50	@ 2.20	385.00
LV MILEAGE	50	@ 4.00	200.00
		@	
		@	
TOTAL			6708.99
DISCOUNT 50%			3354.49

CHARGE TO: Shakespeare
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

	@	
	@	
	@	
	@	
	@	
TOTAL		
DISCOUNT %		

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Lewayne Treseler

SIGNATURE Lewayne Treseler

SALES TAX (If Any)
TOTAL CHARGES 12,019.35
DISCOUNT 6,009.67 (50%) IF PAID IN 30 DAYS
NET TOTAL 6,009.67 IF PAID IN 30 DAYS

ALLIED
OIL & GAS SERVICES, LLC

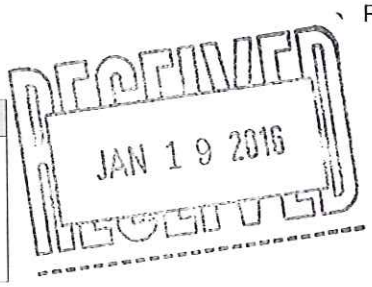
P.O. Box 205803
Dallas, TX 75320-5803

Voice: (832) 482-3742
Fax: (832) 482-3738

INVOICE

Invoice Number: 151537
Invoice Date: Jan 5, 2016
Page: 1

Federal Tax I.D.#: 20-8651475



Bill To:

Shakespeare Oil Co., Inc.
202 West Main St.
Salem, IL 62881

Customer ID	Field Ticket #	Payment Terms	
Shak	67509	Net 30 Days	
Job Location	**Camp Location**	**Service Date**	**Due Date**
KS1-01	Oakley	Jan 5, 2016	2/4/16

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Nightengale #1-15		
185.00	CEMENT MATERIALS	Class A Common	17.90	3,311.50
348.00	CEMENT MATERIALS	Gel	0.50	174.00
522.00	CEMENT MATERIALS	Chloride	1.10	574.20
200.06	CEMENT SERVICE	Cubic Feet Charge	2.48	496.15
456.51	CEMENT SERVICE	Ton Mileage Charge	2.75	1,255.40
1.00	CEMENT SERVICE	Surface	1,512.25	1,512.25
50.00	CEMENT SERVICE	Pump Truck Mileage	7.70	385.00
50.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	220.00
1.00	CEMENT SERVICE	Swedge Rental	275.00	275.00
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Material	2,029.85	-2,029.85
1.00	JOB DISCOUNT	Job Discount if paid within terms -- Cement Service	2,071.91	-2,071.91
1.00	CEMENT SUPERVISOR	Paul Beaver		
1.00	EQUIPMENT OPERATOR	Wayne McGhghy		
1.00	EQUIPMENT OPERATOR	Monty Phillips		

INT

10502-5
KW

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. ONLY IF PAID ON OR BEFORE

Feb 4, 2016

1 1/2% CHARGED THEREAFTER.

Subtotal	4,101.74
Sales Tax	172.54
Total Invoice Amount	4,274.28
Payment/Credit Applied	
TOTAL	**4,274.28**

DW

ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. #20-5975804

067509

REMIT TO P.O. BOX 93999
SOUTHLAKE, TEXAS 76092

SERVICE POINT: Oakley KS

DATE 1-5-16	SEC. 15	TWP. 17	RANGE 34	CALLED OUT	ON LOCATION 8:30p.m.	JOB START 9:30p.m	JOB FINISH 10:00p.m
LEASE Nightengale	WELL # 1-15		LOCATION Prince Cherokee Rd 65, 1E, N+E into			COUNTY Scott	STATE KS
OLD OR NEW (Circle one)							

CONTRACTOR HD
TYPE OF JOB Surface
HOLE SIZE 12 1/4 T.D. 267
CASING SIZE 8 5/8 DEPTH 265'
TUBING SIZE DEPTH
DRILL PIPE DEPTH
TOOL DEPTH
PRES. MAX MINIMUM
MEAS. LINE SHOE JOINT
CEMENT LEFT IN CSG. 15
PERFS.
DISPLACEMENT 15.5 bbl H20

OWNER Same

EQUIPMENT

PUMP TRUCK # 428 CEMENTER Paul Beaver
HELPER Wayne Meighly
BULK TRUCK # 373 DRIVER Monty Phillips
BULK TRUCK # DRIVER

CEMENT

AMOUNT ORDERED 185 sks Com 3%CC 2% gel

COMMON	185 sks	@ 17.90	3311.50
POZMIX		@	
GEL	348 #	@ .50	174.00
CHLORIDE	522 #	@ 1.10	574.20
ASC		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
		@	
		TOTAL	4059.70
		DISCOUNT 50%	2029.85

REMARKS:

mix 185 sks
Displace w/ water
cement did circ.

Thank You!
Paul & Crew

SERVICE

HANDLING	200.06 ft³	@ 2.48	496.15
MILEAGE	9.13 tons x 50mi x 2.75		1255.38
DEPTH OF JOB	265'		
PUMP TRUCK CHARGE			1512.25
EXTRA FOOTAGE		@	
HV MILEAGE	50	@ 7.70	385.00
LV MILEAGE	50	@ 4.40	220.00
Swedge		@	275.00
		@	
		TOTAL	4,143.78
		DISCOUNT 50%	2071.89

CHARGE TO: Shakespeare
STREET
CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

		@	
		@	
		@	
		@	
		@	
		TOTAL	
		DISCOUNT %	

To: Allied Oil & Gas Services, LLC.
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

SALES TAX (If Any)
TOTAL CHARGES 8,203.48
DISCOUNT 4,101.74 (50%) IF PAID IN 30 DAYS
NET TOTAL 4101.74 IF PAID IN 30 DAYS

PRINTED NAME LEWAYNE TRESNER

SIGNATURE LeWayne Tresner