



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1205343
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- 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 ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

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
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1205343

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 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				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	Janzen 6-36
Doc ID	1205343

All Electric Logs Run

Array Induction
Photo Density
Comp Neutron
Microlog
Sonic

Form	ACO1 - Well Completion
Operator	Shakespeare Oil Co., Inc.
Well Name	Janzen 6-36
Doc ID	1205343

Tops

Name	Top	Datum
Base Anhydrite	2453	+663
Heebner	3977	-861
Lansing	4020	-904
Muncie Creek	4206	-1090
Stark Shale	4301	-1185
Hushpuckney	4351	-1235
Pawnee	4526	-1410
L. Cherokee Shale	4603	-1487
Johnson	4646	-1530
Mississippian	4768	-1652



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Shakespeare Oil
 202 West Main St.
 Salem, IL
 62881
 ATTN: Mark Herndon

36-16s-34w Scott, Ks
Janzen #6-36
 Job Ticket: 56332 **DST#: 1**
 Test Start: 2014.04.05 @ 05:56:05

GENERAL INFORMATION:

Formation: **Marmaton A**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 08:26:05
 Time Test Ended: 14:10:05
 Interval: **4400.00 ft (KB) To 4460.00 ft (KB) (TVD)**
 Total Depth: 4460.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Shane McBride
 Unit No: 55
 Reference Elevations: 3116.00 ft (KB)
 3104.00 ft (CF)
 KB to GR/CF: 12.00 ft

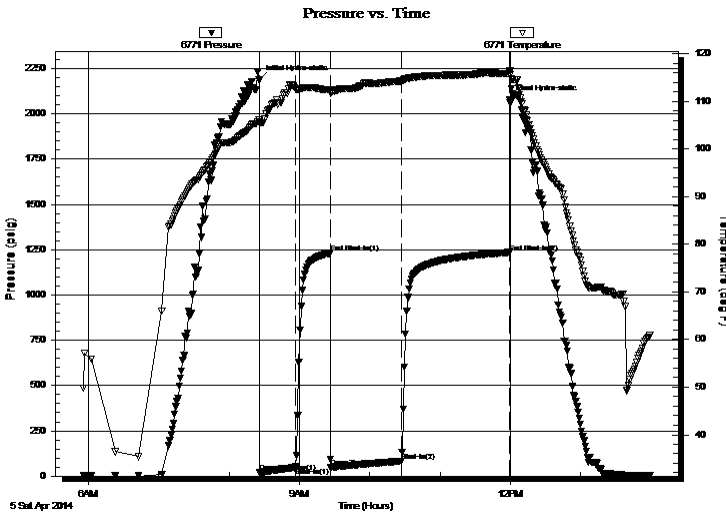
Serial #: 6771

Inside

Press @ Run Depth: 83.23 psig @ 4401.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.05 End Date: 2014.04.05 Last Calib.: 2014.04.05
 Start Time: 05:56:05 End Time: 13:59:05 Time On Btm: 2014.04.05 @ 08:25:50
 Time Off Btm: 2014.04.05 @ 11:59:20

TEST COMMENT: 9" in blow
 No return
 11" in blow
 Return blow in 9 min., built to 1/4" in, died in 52 min.

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2186.42	106.15	Initial Hydro-static
1	20.67	105.47	Open To Flow (1)
31	46.73	112.68	Shut-In(1)
61	1231.37	112.51	End Shut-In(1)
61	48.69	112.08	Open To Flow (2)
122	83.23	114.26	Shut-In(2)
214	1234.70	115.90	End Shut-In(2)
214	2079.60	116.49	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	c g o 15%g 85%o	0.28
60.00	g m c o 20%g 30%m 50%o	0.84
60.00	g o & w c m 10%g 5%o 25%w 60%m	0.84
0.00	280' gas in pipe	0.00

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Shakespeare Oil

36-16s-34w Scott, Ks

202 West Main St.
Salem, IL
62881
ATTN: Mark Herndon

Janzen #6-36

Job Ticket: 56332

DST#: 1

Test Start: 2014.04.05 @ 05:56:05

GENERAL INFORMATION:

Formation: **Marmaton A**

Deviated: No Whipstock: 0.00 ft (KB)

Time Tool Opened: 08:26:05

Time Test Ended: 14:10:05

Test Type: Conventional Bottom Hole (Initial)

Tester: Shane McBride

Unit No: 55

Interval: **4400.00 ft (KB) To 4460.00 ft (KB) (TVD)**

Reference Elevations: 3116.00 ft (KB)

Total Depth: 4460.00 ft (KB) (TVD)

3104.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 12.00 ft

Serial #: **8844**

Outside

Press @ Run Depth: psig @ 4401.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2014.04.05 End Date: 2014.04.05

Last Calib.: 2014.04.05

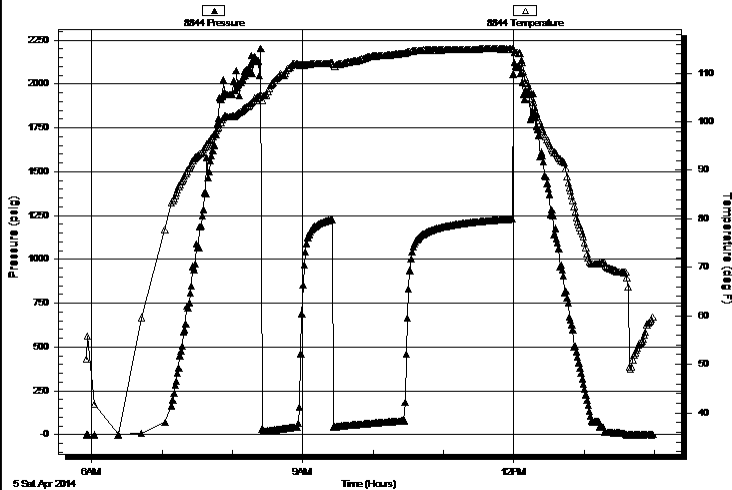
Start Time: 05:55:47 End Time: 13:58:32

Time On Btm:

Time Off Btm:

TEST COMMENT: 9" in blow
No return
11" in blow
Return blow in 9 min., built to 1/4" in, died in 52 min.

Pressure vs. Time



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	c g o 15%g 85%o	0.28
60.00	g m c o 20%g 30%m 50%o	0.84
60.00	g o & w c m 10%g 5%o 25%w 60%m	0.84
0.00	280' gas in pipe	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil

36-16s-34w Scott, Ks

202 West Main St.
Salem, IL
62881

Janzen #6-36

Job Ticket: 56332

DST#: 1

ATTN: Mark Herndon

Test Start: 2014.04.05 @ 05:56:05

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

27000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.78 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
20.00	c g o 15%g 85%o	0.281
60.00	g m c o 20%g 30%m 50%o	0.842
60.00	g o & w c m 10%g 5%o 25%w 60%m	0.842
0.00	280' gas in pipe	0.000

Total Length: 140.00 ft Total Volume: 1.965 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw .301 @ 60*f= 27,000 chlor

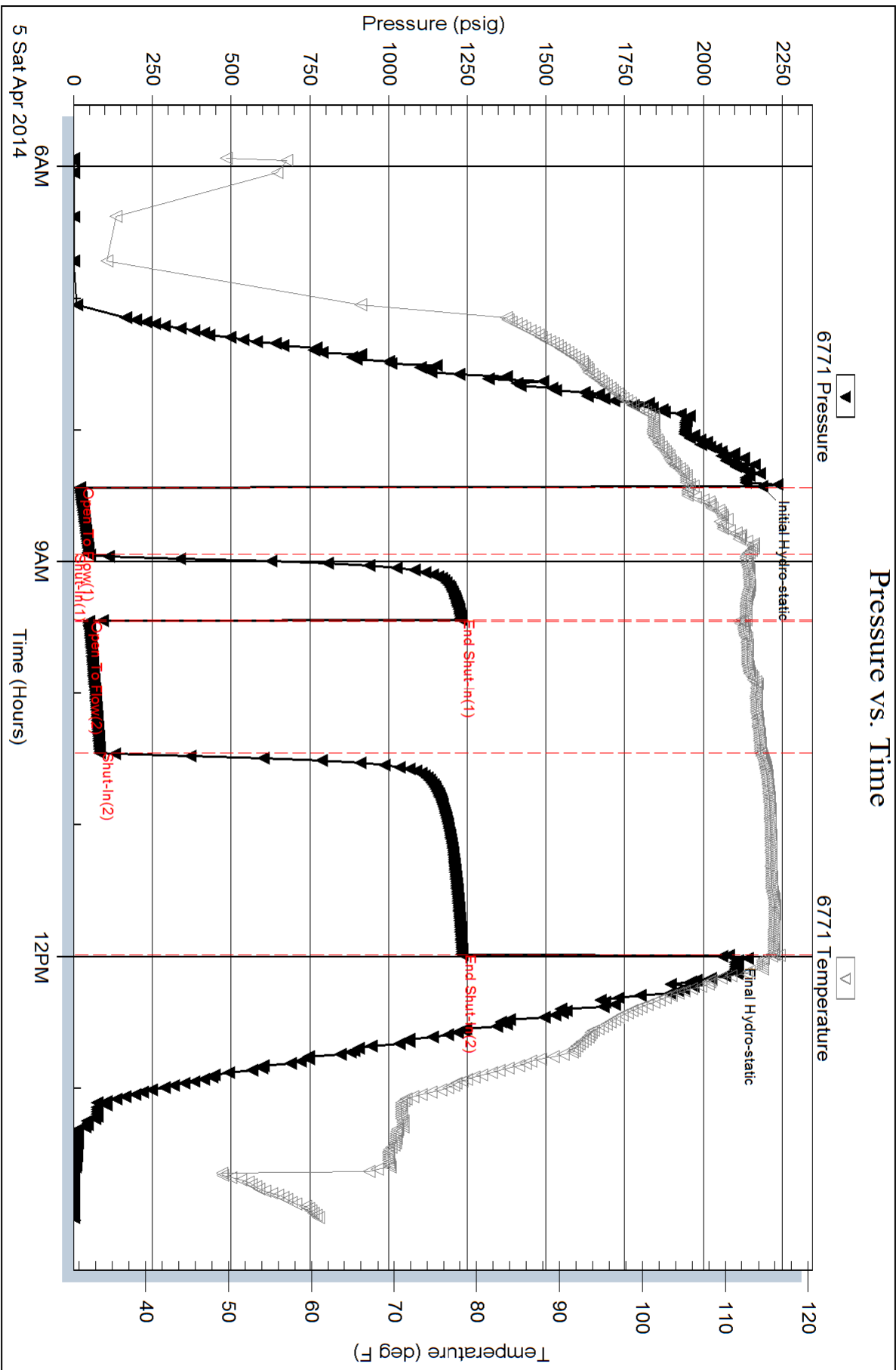
Serial #: 6771

Inside

Shakespeare Oil

Janzen #6-36

DST Test Number: 1

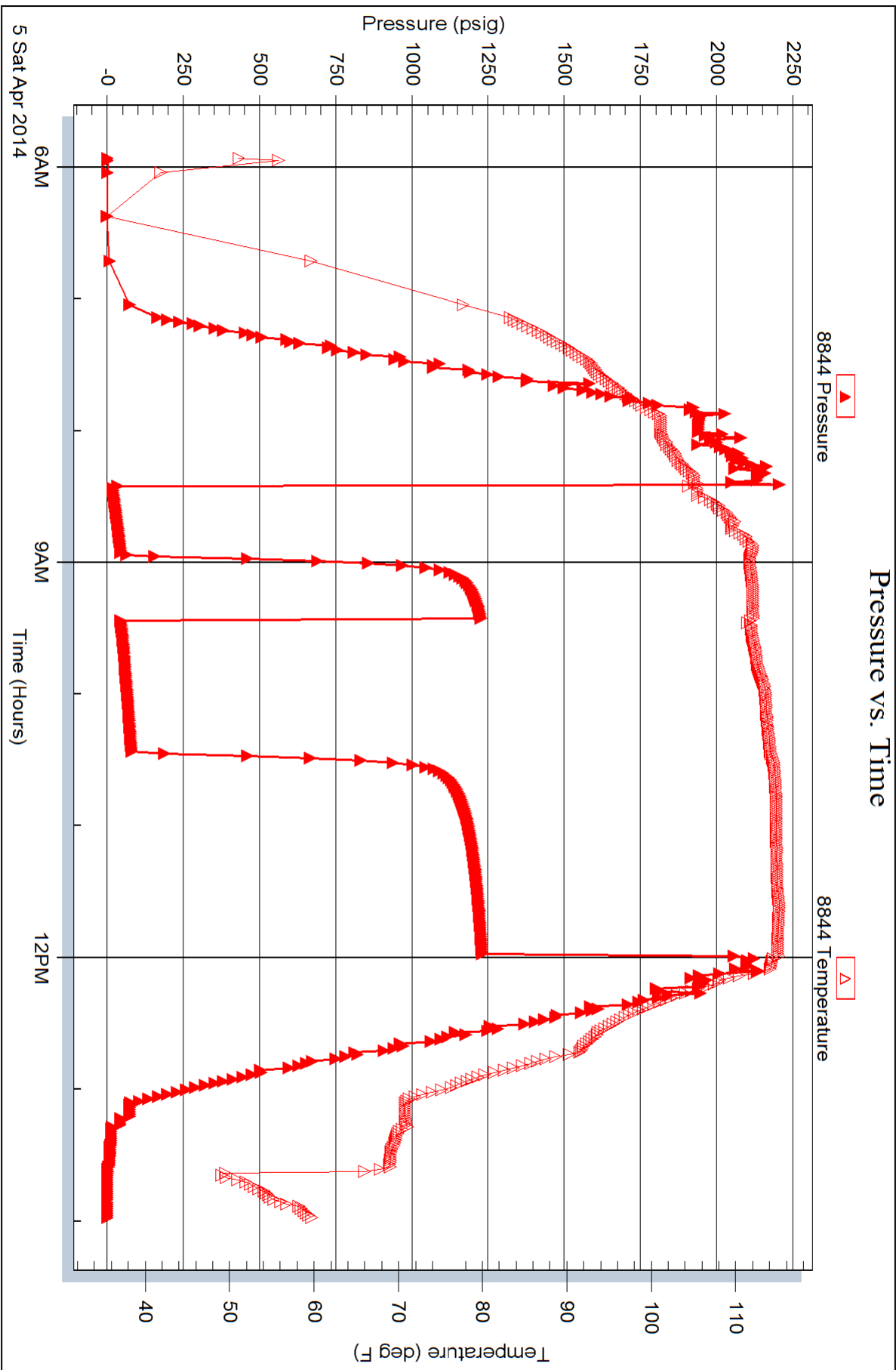


Serial #: 8844

Outside Shakespeare Oil

Janzen #6-36

DST Test Number: 1





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Shakespeare Oil
202 West Main St.
Salem, IL
62881
ATTN: Mark Herndon

36-16s-34w Scott, Ks
Janzen #6-36
Job Ticket: 56333 **DST#: 2**
Test Start: 2014.04.06 @ 03:15:27

GENERAL INFORMATION:

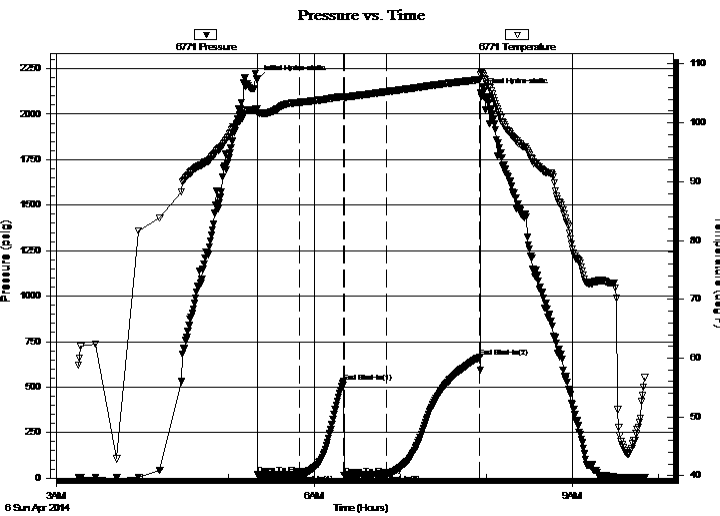
Formation: **Marmaton B-C**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 05:20:27
Time Test Ended: 09:50:27
Interval: **4460.00 ft (KB) To 4515.00 ft (KB) (TVD)**
Total Depth: 4515.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Shane McBride
Unit No: 55
Reference Elevations: 3116.00 ft (KB)
3104.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 6771

Inside

Press @ Run Depth: 20.95 psig @ 4461.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.04.06 End Date: 2014.04.06 Last Calib.: 2014.04.06
Start Time: 03:15:27 End Time: 09:50:27 Time On Btm: 2014.04.06 @ 05:20:12
Time Off Btm: 2014.04.06 @ 07:55:57

TEST COMMENT: 1 1/2" in blow
No return
1" in blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2192.02	102.44	Initial Hydro-static
1	18.80	101.63	Open To Flow (1)
30	18.35	103.46	Shut-In(1)
60	529.30	104.49	End Shut-In(1)
61	15.98	104.34	Open To Flow (2)
90	20.95	105.26	Shut-In(2)
156	665.99	107.33	End Shut-In(2)
156	2116.14	108.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
3.00	free oil	0.04
37.00	o c m 30% o 70% m	0.52

* Recovery from multiple tests

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Shakespeare Oil
202 West Main St.
Salem, IL
62881
ATTN: Mark Herndon

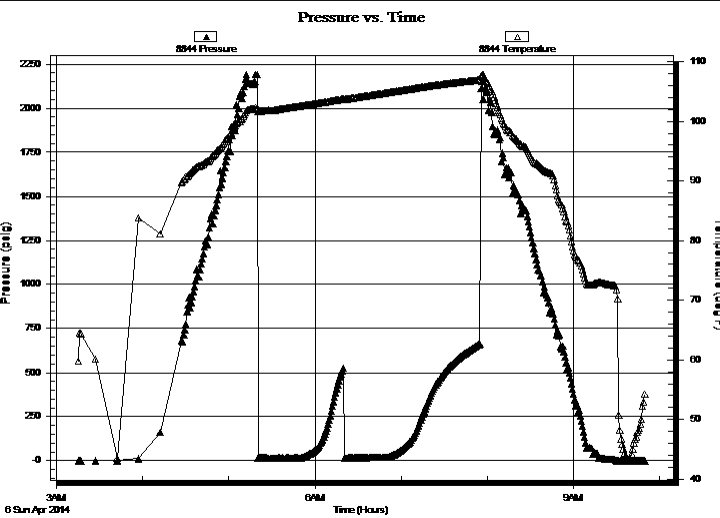
36-16s-34w Scott, Ks
Janzen #6-36
Job Ticket: 56333 **DST#: 2**
Test Start: 2014.04.06 @ 03:15:27

GENERAL INFORMATION:

Formation: Marmaton B-C		
Deviated: No Whipstock: 0.00 ft (KB)	Test Type: Conventional Bottom Hole (Reset)	
Time Tool Opened: 05:20:27	Tester: Shane McBride	
Time Test Ended: 09:50:27	Unit No: 55	
Interval: 4460.00 ft (KB) To 4515.00 ft (KB) (TVD)	Reference Elevations: 3116.00 ft (KB)	
Total Depth: 4515.00 ft (KB) (TVD)	3104.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 12.00 ft

Serial #: 8844	Outside		
Press @ Run Depth: psig @ 4461.00 ft (KB)	Capacity: 8000.00 psig		
Start Date: 2014.04.06	End Date: 2014.04.06	Last Calib.: 2014.04.06	
Start Time: 03:15:22	End Time: 09:49:52	Time On Btm:	
		Time Off Btm:	

TEST COMMENT: 1 1/2" in blow
No return
1" in blow
No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
3.00	free oil	0.04
37.00	o c m 30% o 70% m	0.52

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil

36-16s-34w Scott, Ks

202 West Main St.
Salem, IL
62881

Janzen #6-36

Job Ticket: 56333

DST#: 2

ATTN: Mark Herndon

Test Start: 2014.04.06 @ 03:15:27

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.75 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
3.00	free oil	0.042
37.00	o c m 30%o 70%m	0.519

Total Length: 40.00 ft Total Volume: 0.561 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

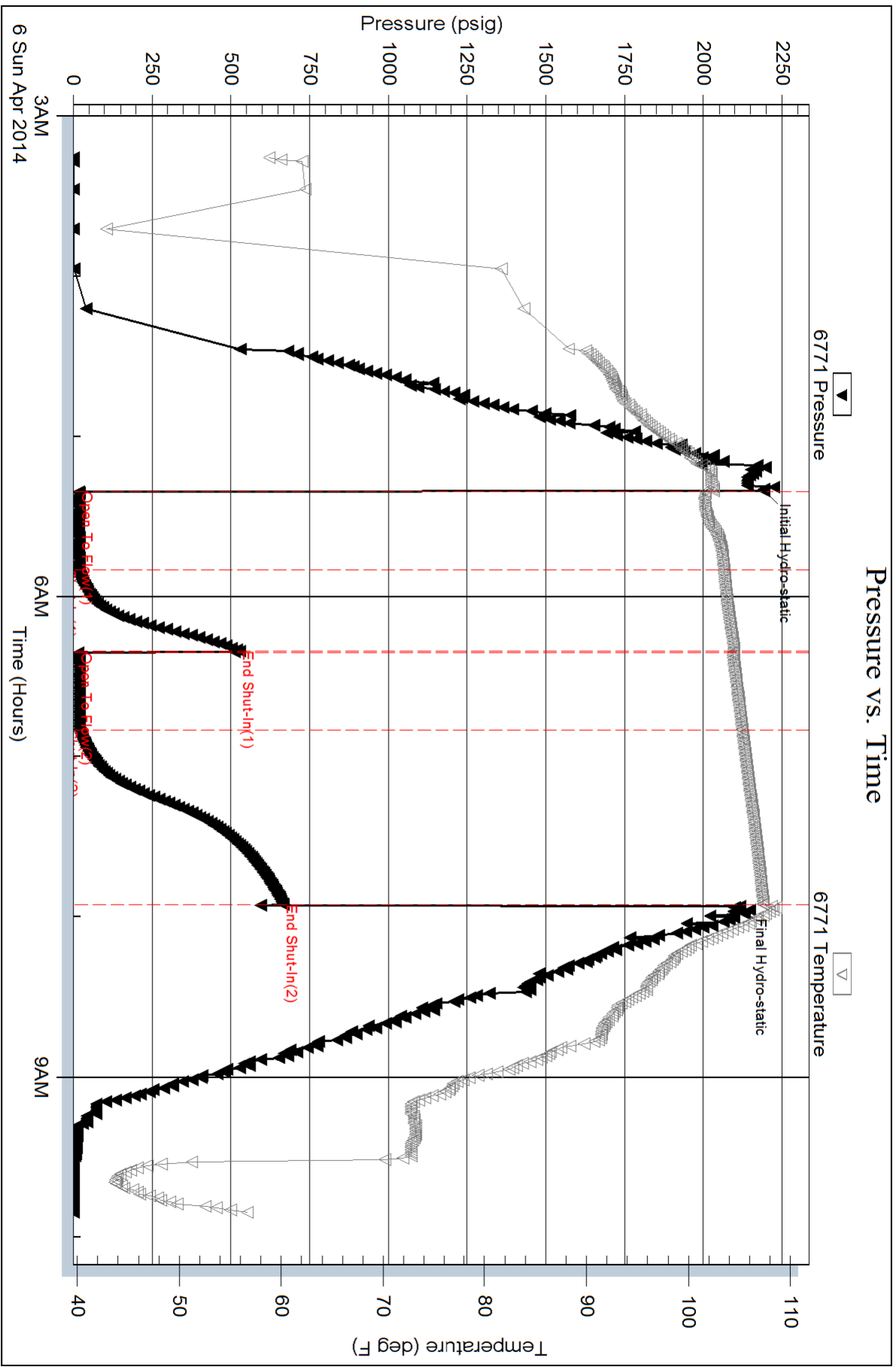
Recovery Comments:

Serial #: 6771

Inside Shakespeare Oil

Janzen #6-36

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56333

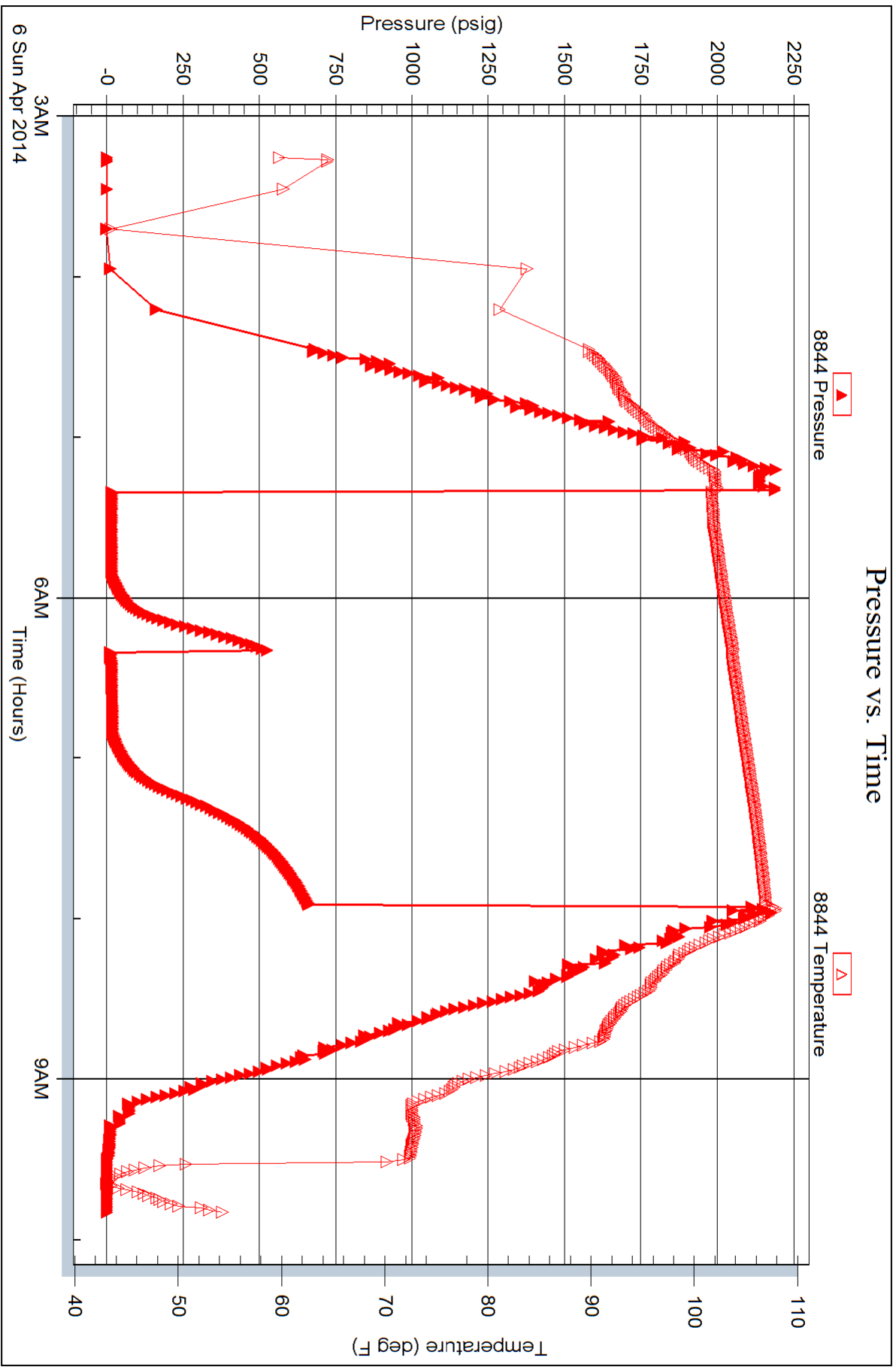
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Serial #: 8844

Outside Shakespeare Oil

Janzen #6-36

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56333

Printed: 2014.04.06 @ 16:19:10



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Shakespeare Oil
202 West Main St.
Salem, IL
62881
ATTN: Mark Herndon

36-16s-34w Scott, Ks
Janzen #6-36
Job Ticket: 56334 **DST#: 3**
Test Start: 2014.04.07 @ 00:00:47

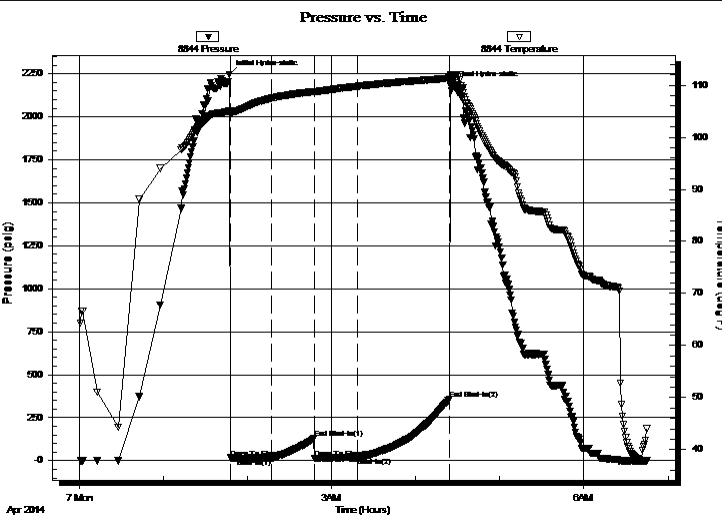
GENERAL INFORMATION:

Formation: **Myrick St , Ft Scott**
Deviated: No Whipstock: 0.00 ft (KB)
Time Tool Opened: 01:47:47
Time Test Ended: 06:55:47
Interval: **4540.00 ft (KB) To 4626.00 ft (KB) (TVD)**
Total Depth: 4626.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Shane McBride
Unit No: 55
Reference Elevations: 3116.00 ft (KB)
3104.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8844 Outside

Press @ Run Depth: 18.83 psig @ 4541.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.04.07 End Date: 2014.04.07 Last Calib.: 2014.04.07
Start Time: 00:00:47 End Time: 06:44:47 Time On Btm: 2014.04.07 @ 01:47:17
Time Off Btm: 2014.04.07 @ 04:24:32

TEST COMMENT: 1 1/2" in blow
No return
1 1/2" in blow
No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2246.03	105.08	Initial Hydro-static
1	16.85	104.47	Open To Flow (1)
30	16.55	107.50	Shut-In(1)
60	129.28	108.77	End Shut-In(1)
61	14.12	108.75	Open To Flow (2)
91	18.83	109.79	Shut-In(2)
157	358.74	111.34	End Shut-In(2)
158	2181.42	111.96	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
15.00	mud w/oil spots 100%m	0.21
0.00	45' gas in pipe	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil

36-16s-34w Scott, Ks

202 West Main St.
Salem, IL
62881

Janzen #6-36

Job Ticket: 56334

DST#: 3

ATTN: Mark Herndon

Test Start: 2014.04.07 @ 00:00:47

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: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 5800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
15.00	mud w /oil spots 100%m	0.210
0.00	45' gas in pipe	0.000

Total Length: 15.00 ft Total Volume: 0.210 bbl

Num Fluid Samples: 0

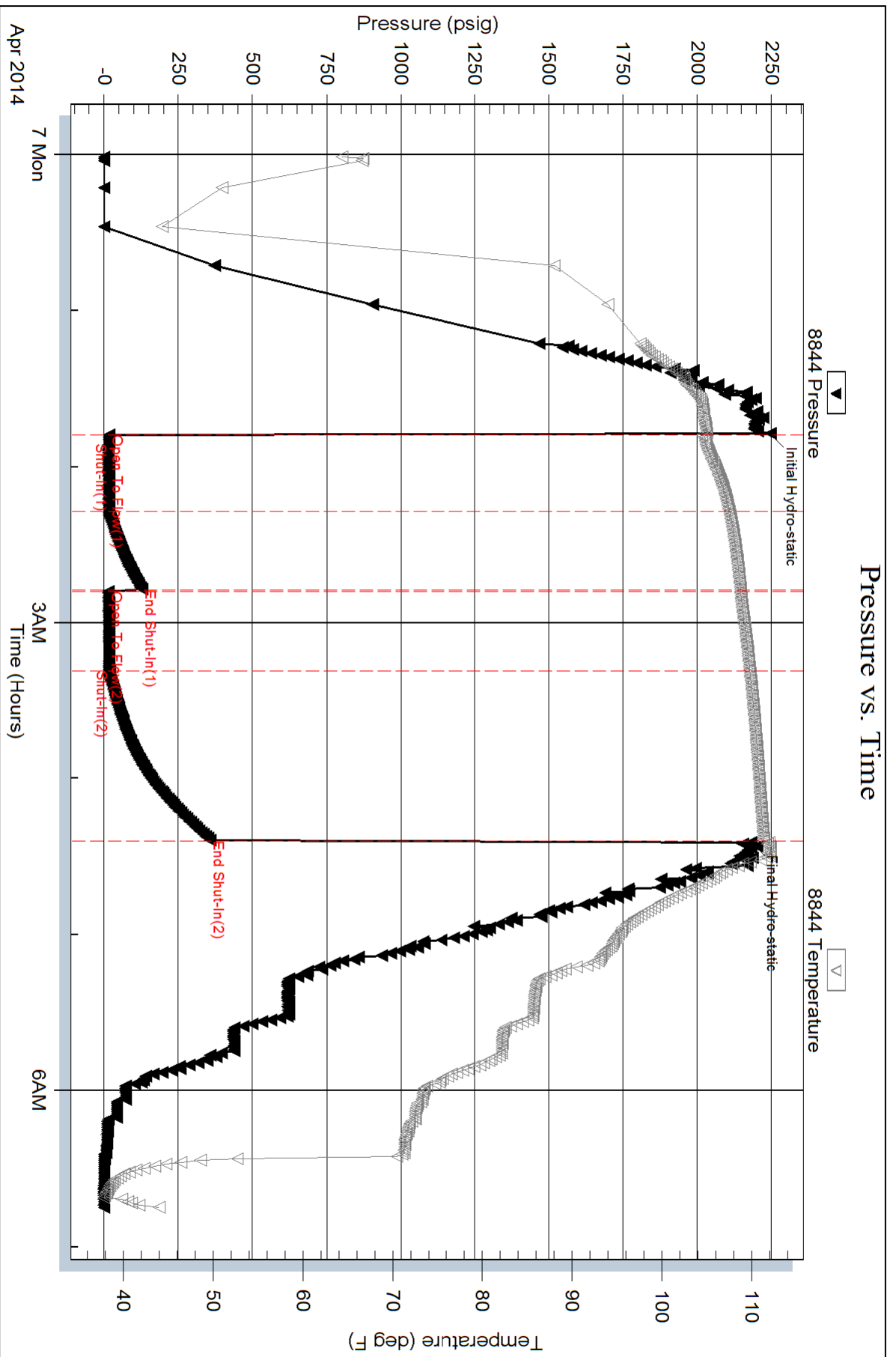
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Shakespeare Oil
 202 West Main St.
 Salem, IL
 62881
 ATTN: Mark Herndon

36-16s-34w Scott, Ks
Janzen #6-36
 Job Ticket: 56335 **DST#: 4**
 Test Start: 2014.04.08 @ 00:10:17

GENERAL INFORMATION:

Formation: **Johnson**
 Deviated: No Whipstock: 0.00 ft (KB)
 Time Tool Opened: 02:37:32
 Time Test Ended: 08:10:47
 Interval: **4668.00 ft (KB) To 4725.00 ft (KB) (TVD)**
 Total Depth: 4725.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Shane McBride
 Unit No: 55
 Reference Elevations: 3116.00 ft (KB)
 3104.00 ft (CF)
 KB to GR/CF: 12.00 ft

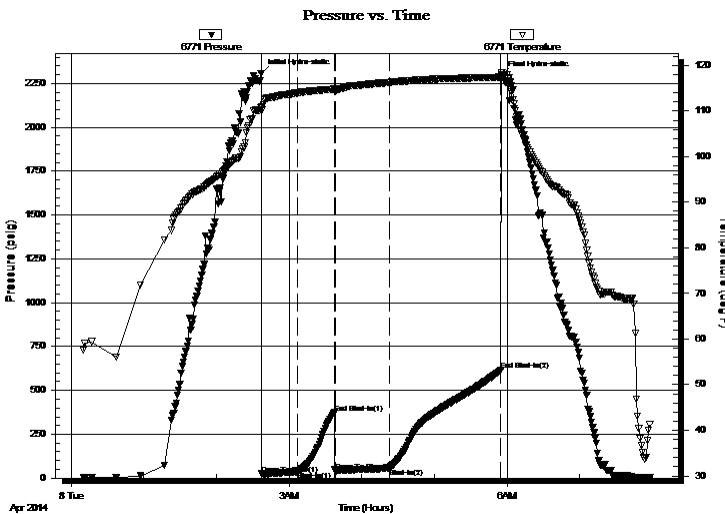
Serial #: 6771

Inside

Press @ Run Depth: 55.65 psig @ 4669.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.04.08 End Date: 2014.04.08 Last Calib.: 2014.04.08
 Start Time: 00:10:17 End Time: 07:57:47 Time On Btm: 2014.04.08 @ 02:37:17
 Time Off Btm: 2014.04.08 @ 05:55:32

TEST COMMENT: B.O.B. in 24 min.
 Surface return in 7 min
 B.O.B. in 20 min.
 Surface return in 6 min, died in 27 min

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2307.28	110.93	Initial Hydro-static
1	24.46	110.25	Open To Flow (1)
30	36.26	113.97	Shut-In(1)
60	372.75	114.79	End Shut-In(1)
61	38.51	114.64	Open To Flow (2)
106	55.65	116.22	Shut-In(2)
198	615.87	117.43	End Shut-In(2)
199	2295.10	118.47	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	g o c m 5%g 40%o 55%m	0.42
60.00	g o c m 10%g 30%o 60%m	0.84
0.00	390' weak gas in pipe	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Shakespeare Oil

36-16s-34w Scott, Ks

202 West Main St.
Salem, IL
62881

Janzen #6-36

Job Ticket: 56335

DST#: 4

ATTN: Mark Herndon

Test Start: 2014.04.08 @ 00:10:17

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: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.72 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 7000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
30.00	g o c m 5%g 40%o 55%m	0.421
60.00	g o c m 10%g 30%o 60%m	0.842
0.00	390' weak gas in pipe	0.000

Total Length: 90.00 ft Total Volume: 1.263 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

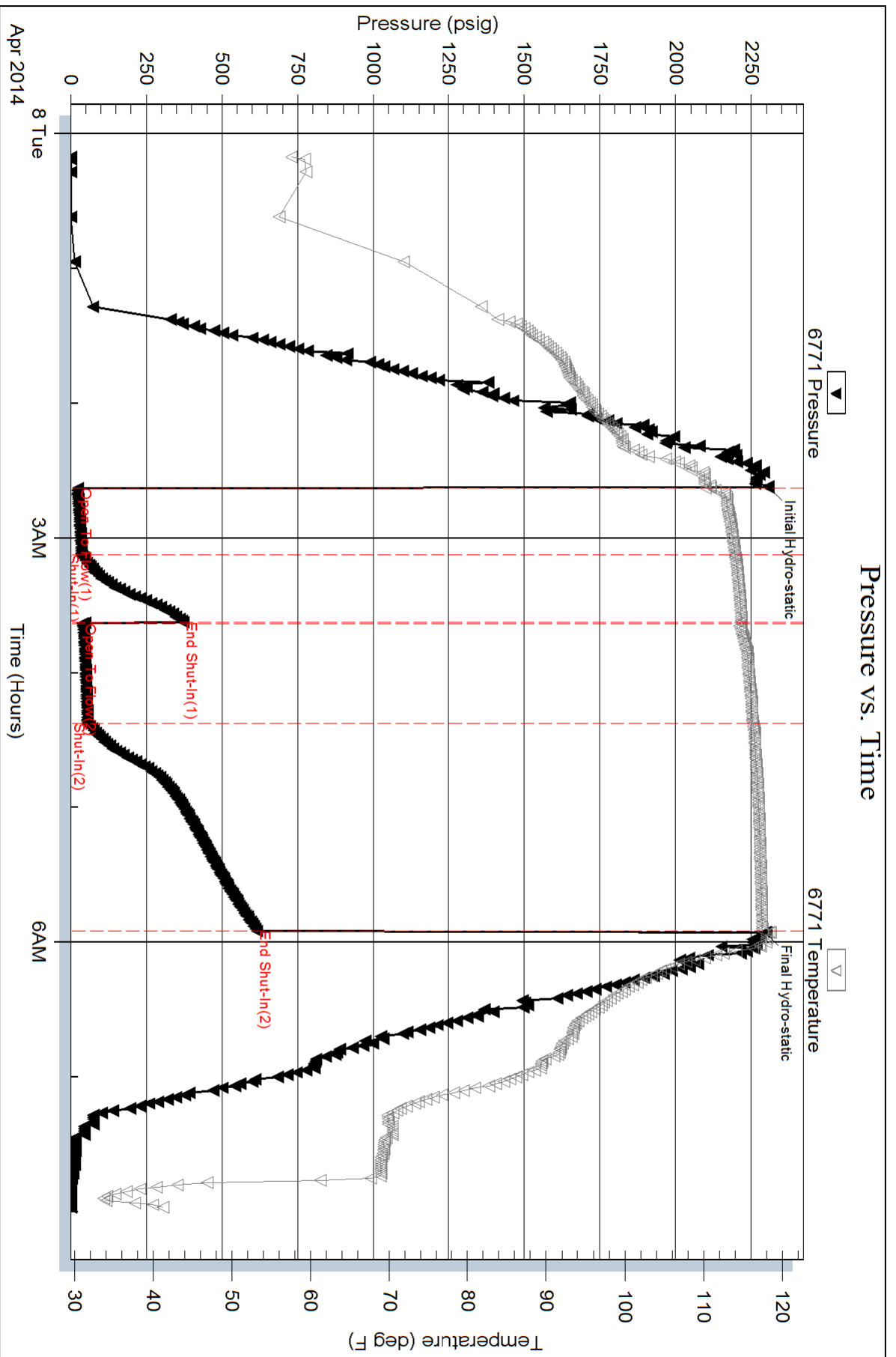
Serial #: 6771

Inside

Shakespeare Oil

Janzen #6-36

DST Test Number: 4





PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

INVOICE

Invoice Number: 142222

Invoice Date: Mar 30, 2014

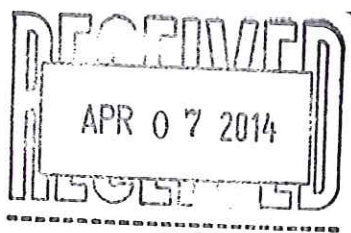
Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Shak	61998	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Oakley	Mar 30, 2014	4/29/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Jantzen #6-36		
190.00	CEMENT MATERIALS	Class A Common	17.90	3,401.00
3.00	CEMENT MATERIALS	Gel	23.40	70.20
7.00	CEMENT MATERIALS	Chloride	64.00	448.00
205.45	CEMENT SERVICE	Cubic Feet Charge	2.48	509.52
446.50	CEMENT SERVICE	Ton Mileage Charge	2.60	1,160.90
1.00	CEMENT SERVICE	Surface ✓	1,512.25	1,512.25
45.00	CEMENT SERVICE	Pump Truck Mileage	7.70	346.50
45.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	198.00
1.00	CEMENT SUPERVISOR	Kelly Gabel		
1.00	EQUIPMENT OPERATOR	Wayne McGhghy		
1.00	OPERATOR ASSISTANT	Adam Flipse		

INT



10502-5
KW
g

Subtotal	7,646.37
Sales Tax	319.41
Total Invoice Amount	7,965.78
Payment/Credit Applied	
TOTAL	7,965.78

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ 1,911.59 ✓

ONLY IF PAID ON OR BEFORE
Apr 24, 2014

DW

ALLIED OIL & GAS SERVICES, LLC 061998

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Oakley KS

DATE <u>3-30-14</u>	SEC. <u>36</u>	TWP. <u>16S</u>	RANGE <u>34W</u>	CALLED OUT	ON LOCATION	JOB START <u>1:30 PM</u>	JOB FINISH <u>5:00 PM</u>
LEASE <u>Jantzen</u>		WELL # <u>6-36</u>		LOCATION <u>Pense E + Deagle Rd 35</u>		COUNTY <u>Scott</u>	STATE <u>KS</u>
OLD OR NEW (Circle one) <u>NEW</u>				E into			

CONTRACTOR Soldwind #70
 TYPE OF JOB surface
 HOLE SIZE 12 1/4 T.D. 267
 CASING SIZE 8 5/8 DEPTH 267
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 15'
 PERFS.
 DISPLACEMENT 16bbf
 EQUIPMENT

OWNER SEME
 CEMENT AMOUNT ORDERED
 COMMON 190 cks @ 17.90 = 3401.00
 POZMIX @
 GEL 325 @ 23.90 = 7762.50
 CHLORIDE 7 @ 64.00 = 448.00
 ASC @
 HANDLING 205.45 cwt @ 2.98 = 612.23
 MILEAGE 87.93 ton x 4.5 x 2.62 = 1060.90
 TOTAL 5589.63

PUMP TRUCK CEMENTER Kelly O'Neil
 # 431 HELPER Wayne McGibby
 BULK TRUCK
 # 396 & 300 DRIVER Adam E. Lipse
 BULK TRUCK
 # DRIVER

REMARKS:
nigged up
mixed cement
displaced with water
shut in.
Cement did circulate
Thank You
Kelly & crew

SERVICE
 DEPTH OF JOB 267
 PUMP TRUCK CHARGE 1512.35
 EXTRA FOOTAGE @
 MILEAGE M:HV 45 @ 7.70 = 346.50
 MANIFOLD @
M:LV 45 @ 4.30 = 193.50
 TOTAL 2056.75

CHARGE TO: Shakerpere
 STREET
 CITY STATE ZIP

PLUG & FLOAT EQUIPMENT
 @
 @
 @
 @
 @
 TOTAL

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 SAM STARKS SR
 SIGNATURE [Signature]

SALES TAX (if Any)
 TOTAL CHARGES 7,646.87
 DISCOUNT 1,911.59 IF PAID IN 30 DAYS
5,734.77 Net.



PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

INVOICE

Invoice Number: 142513

Invoice Date: Apr 9, 2014

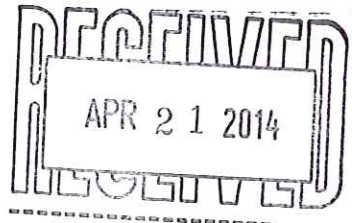
Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Shak	62089	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Oakley	Apr 9, 2014	5/9/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Jantzen #3-36	23.40	70.20
3.00	CEMENT MATERIALS	Gel	20.90	2,926.00
140.00	CEMENT MATERIALS	ASC	26.35	368.90
14.00	CEMENT MATERIALS	Salt	0.98	686.00
700.00	CEMENT MATERIALS	Gilsonite	10.30	1,019.70
99.00	CEMENT MATERIALS	CD-31	58.70	704.40
12.00	CEMENT MATERIALS	Super Flush	2.48	449.77
181.36	CEMENT SERVICE	Cubic Feet Charge	2.60	919.62
353.70	CEMENT SERVICE	Ton Mileage Charge	2,765.75	2,765.75
1.00	CEMENT SERVICE	Production Casing ✓	7.70	346.50
45.00	CEMENT SERVICE	Pump Truck Mileage	275.00	275.00
1.00	CEMENT SERVICE	Manifold Head Rental	4.40	198.00
45.00	CEMENT SERVICE	Light Vehicle Mileage		
1.00	CEMENT SUPERVISOR	LaRene Wentz		
1.00	CEMENT SUPERVISOR	Andrew Forslund		
1.00	OPERATOR ASSISTANT	Brandon Wilkinson		

INT



10502-5
2

Subtotal	10,729.84
Sales Tax	470.68
Total Invoice Amount	11,200.52
Payment/Credit Applied	
TOTAL	11,200.52

ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ 2,682.46

ONLY IF PAID ON OR BEFORE
May 4, 2014

DW

ALLIED OIL & GAS SERVICES, LLC 062089

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Dakota, KS

DATE <i>4-9-14</i>	SEC. <i>36</i>	TWP. <i>14</i>	RANGE <i>34</i>	CALLED OUT	ON LOCATION <i>2:30pm</i>	JOB START <i>4:30p</i>	JOB FINISH <i>5:30pm</i>
LEASE <i>Taustran</i>	WELL# <i>3-36</i>	LOCATION <i>Pence 2E, 39, 2 into</i>		COUNTY <i>Scott</i>	STATE <i>Ks</i>		

CONTRACTOR *Southern 90* OWNER *same*

TYPE OF JOB *Production*

HOLE SIZE <i>7 7/8</i>	T.D. <i>4830'</i>	CEMENT	
CASING SIZE <i>5 1/2</i>	DEPTH <i>4849.52'</i>	AMOUNT ORDERED	<i>1405# ASC 10% salt</i>
TUBING SIZE	DEPTH		<i>2 1/2 gal 5 # gilsonite - 25% CD-31</i>
DRILL PIPE	DEPTH		<i>12 1/2 gal Superflush</i>
TOOL <i>Rot Collar</i>	DEPTH <i>2453.36'</i>		
PRES. MAX	MINIMUM	COMMON	_____ @ _____
MEAS. LINE	SHOE JOINT <i>4244'</i>	POZMIX	_____ @ _____
CEMENT LEFT IN CSG. <i>4244'</i>		GEL	<i>3 1/2 @ 23.40 70.20</i>
PERFS.		CHLORIDE	_____ @ _____
DISPLACEMENT <i>114.41 661</i>		ASC	<i>1405# @ 20.90 2926.00</i>
EQUIPMENT		<i>Salt 149# @ 26.35 368.90</i>	

PUMP TRUCK CEMENTER *Lakene E. Wank*

437 HELPER *Andrew Forstaud*

BULK TRUCK

878/287 DRIVER *Brandon Wilkinson*

BULK TRUCK

_____ DRIVER _____

<i>gilsonite 700#</i>	@ .98	<i>686.00</i>
<i>CD-31 99#</i>	@ 10.30	<i>1019.70</i>
<i>Superflush 12 1/2 gal</i>	@ 58.70	<i>704.40</i>
<i>HANDLING 181.36 SF</i>	@ 2.98	<i>449.77</i>
<i>MILEAGE 2.86 ton X 43 X 2.60</i>		<i>918.62</i>
<i>(1786.15 / 25%)</i>	TOTAL	<i>2144.59</i>

REMARKS:

Pump ball through 400#

with Superflush, Plug R.H. 305#

with 110 sks down tubing

Displace with water

Land plug 1000 ft float held

SERVICE

DEPTH OF JOB <i>4849.52'</i>	
PUMP TRUCK CHARGE	<i>2765.75</i>
EXTRA FOOTAGE	@ _____
MILEAGE <i>MDR 45</i>	@ 7.90 <i>346.50</i>
MANIFOLD <i>head</i>	@ _____ <i>273.00</i>
<i>MTU 45</i>	@ 4.40 <i>198.00</i>
<i>(896.31 / 25%)</i>	TOTAL <i>3583.25</i>

CHARGE TO: *Shakespeare*

STREET _____

CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

_____	@ _____	
_____	@ _____	
_____	@ _____	
_____	@ _____	
_____	@ _____	
TOTAL	_____	

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 *Doug Roberts*

SIGNATURE *Doug Roberts*

SALES TAX (if Any) _____

TOTAL CHARGES *10,129.84*

DISCOUNT *2,682.46 (25%)* IF PAID IN 30 DAYS

8,047.38 Net.



PO Box 93999
Southlake, TX 76092

Voice: (817) 546-7282
Fax: (817) 246-3361

INVOICE

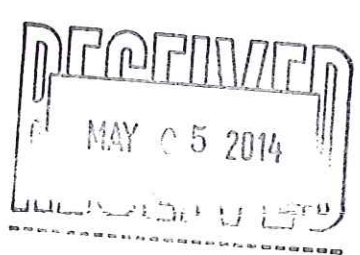
Invoice Number: 142797
Invoice Date: Apr 22, 2014
Page: 1

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

Customer ID	Field Ticket #	Payment Terms	
Shak	62042	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-04	Oakley	Apr 22, 2014	5/22/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Janzen #6-36		
179.00	CEMENT MATERIALS	<u>Class A Common</u>	17.90	3,204.10
96.00	CEMENT MATERIALS	Pozmix	9.35	897.60
19.00	CEMENT MATERIALS	Gel	23.40	444.60
69.00	CEMENT MATERIALS	Flo Seal	2.97	204.93
11.00	CEMENT MATERIALS	Cottonseed Hulls	35.00	385.00
586.33	CEMENT SERVICE	Cubic Feet Charge	2.48	1,454.10
1,082.83	CEMENT SERVICE	Ton Mileage Charge	2.60	2,815.36
1.00	CEMENT SERVICE	Port Collar ✓	2,483.59	2,483.59
45.00	CEMENT SERVICE	Pump Truck Mileage	7.70	346.50
45.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	198.00
1.00	CEMENT SUPERVISOR	Kelly Gabel		
1.00	EQUIPMENT OPERATOR	Wayne McGhghy		

INT



ALL PRICES ARE NET, PAYABLE 30 DAYS FOLLOWING DATE OF INVOICE. 1 1/2% CHARGED THEREAFTER. IF ACCOUNT IS CURRENT, TAKE DISCOUNT OF

\$ 3,108.45

ONLY IF PAID ON OR BEFORE

May 17, 2014

Subtotal	12,433.78
Sales Tax	418.60
Total Invoice Amount	12,852.38
Payment/Credit Applied	
TOTAL	12,852.38

DW
10502-58

ALLIED OIL & GAS SERVICES, LLC 062042

Federal Tax I.D. # 20-8651475

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

SERVICE POINT
Oakley, K.S.

DATE <u>4-22-14</u>	SEC <u>36</u>	TWP. <u>16S</u>	RANGE <u>34W</u>	CALLED OUT	ON LOCATION	JOB START <u>12:30PM</u>	JOB FINISH <u>11:00PM</u>
LEASE <u>Janzen</u>	WELL# <u>6-36</u>	LOCATION <u>Pence E to Eagle Rd 35</u>			COUNTY <u>Scott</u>	STATE <u>K.S.</u>	
OLD OR (NEW) (Circle one)		<u>NEW</u>					

CONTRACTOR Wil West Well Serv. OWNER Same

TYPE OF JOB <u>Portcollar</u>	CEMENT
HOLE SIZE <u>T.D.</u>	AMOUNT ORDERED <u>582 SKS 65/35 8 1/2</u>
CASING SIZE <u>5 1/2</u> DEPTH	<u>gel 1/4 # flo-seal</u>
TUBING SIZE <u>2 3/8</u> DEPTH <u>2362</u>	
DRILL PIPE DEPTH	
TOOL <u>Portcollar</u> DEPTH <u>2362</u>	
PREL. MAX MINIMUM	COMMON <u>179 SKS @ 17.90 = 3201.10</u>
MEAS. LINE SHOE JOINT	POZMIX <u>96 SKS @ 9.35 = 897.60</u>
CEMENT LEFT IN CSG. <u>16bl</u>	GEL <u>19 SKS @ 23.70 = 444.30</u>
PERFS.	CHLORIDE @
DISPLACEMENT <u>8 hbl</u>	ASC @

EQUIPMENT

PUMP TRUCK CEMENTER <u>Kelly Cabel</u>
<u>431</u> HELPER <u>Wayne McGloughy</u>
BULK TRUCK
<u>2815</u> DRIVER <u>Ramiro (TOS)</u>
BULK TRUCK
DRIVER

<u>#10-seal 69# @ 2.92 = 204.93</u>
<u>Cottonseed hulls 16SKS @ 35.00 = 560.00</u>
<u>Material Total @ 2.25 = 713.63</u>
<u>(4207.06 / 2.25)</u>
<u>Service</u>
HANDLING <u>586.333 cu.ft. @ 2.48 = 1454.10</u>
MILEAGE <u>24.063 x 45 x 2.00 = 2315.37</u>

REMARKS:

Rigged up, pressured tool to 120#, opened tool & checked for blow, pumped 80 hbl mud, mixed 275 SKS 65/35 8 1/2 flo-seal with 500# bulk & used tool, pressured to 120#, reversed out, job done.
Thank you Kelly Cabel

DEPTH OF JOB <u>2362'</u>
PUMP TRUCK CHARGE <u>2483.59</u>
EXTRA FOOTAGE @
MILEAGE <u>M:HV 45 @ 7.70 = 346.50</u>
MANIFOLD @
<u>M:LV 45 @ 4.40 = 198.00</u>
<u>(1,821.39 / 2.5%)</u>
TOTAL <u>7297.57</u>

CHARGE TO: Sinkespe
STREET _____
CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

_____ @ _____
_____ @ _____
_____ @ _____
_____ @ _____
_____ @ _____
<u>0.70</u>
TOTAL _____

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 _____
SIGNATURE [Signature]

SALES TAX (If Any) _____
TOTAL CHARGES 12,433.80
DISCOUNT 3,108.45 (25%) IF PAID IN 30 DAYS
9,325.35 Net.

GEOLOGIST'S REPORT

WellSight Systems

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: JANZEN #6-36
API: 15-171-21043-00-00
Location: 950' FNL & 450' FWL OF SECTION 36 T16S R34W
License Number: KCC #7311
Spud Date:
Surface Coordinates: 950 FNL & 450 FWL OF SECTION
Region: SCOTT COUNTY
Drilling Completed: 4/8/2014

Bottom Hole VERTICAL TEST
Coordinates:
Ground Elevation (ft): 3104
Logged Interval (ft): 3700 To: TD
Formation: MISSISSIPPIAN
Type of Drilling Fluid: GEL
K.B. Elevation (ft): 3116
Total Depth (ft): 4850

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: SHAKESPEARE OIL COMPANY, INC.
Address: 202 WEST MAIN STREET
SALEM, IL
62881

GEOLOGIST


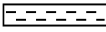

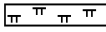
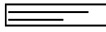
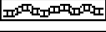




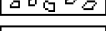


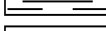

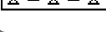
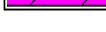

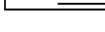
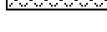
Name: MARK W. HERNDON
Company: TRC
Address: P.O. BOX 5958
NORMAN, OK
73070

Cores

DSTs

Comments

ROCK TYPES

	Anhy		Clyst		Gyp		Mrlst		Shgy
	Bent		Coal		Igne		Salt		Sltst
	Brec		Congl		Lmst		Shale		Ss
	Cht		Dol		Meta		Shcol		Till

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau

- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite

- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst

- Sltstrg
- Ssstrg

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint

- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

- Spotted
- Ques
- Dead

INTERVAL

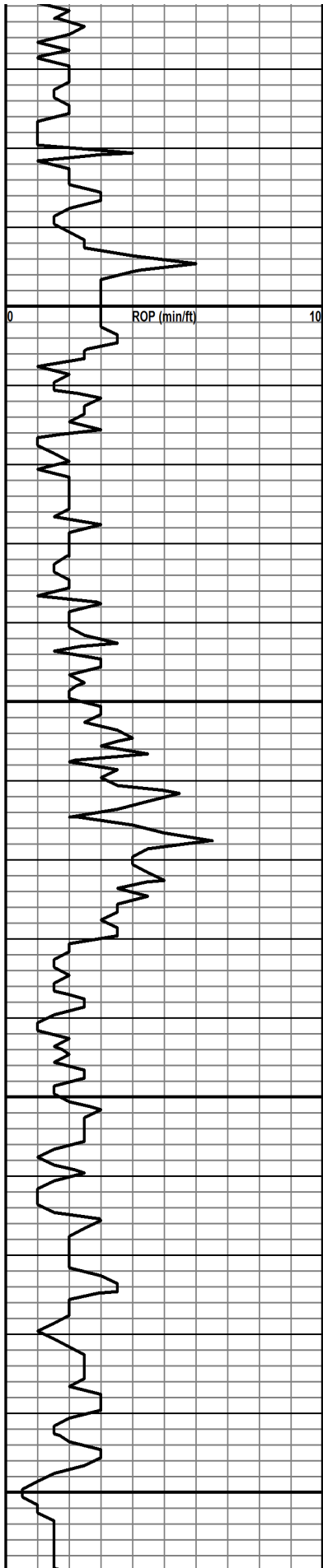
- Core
- Dst

EVENT

- Rft
- Sidewall

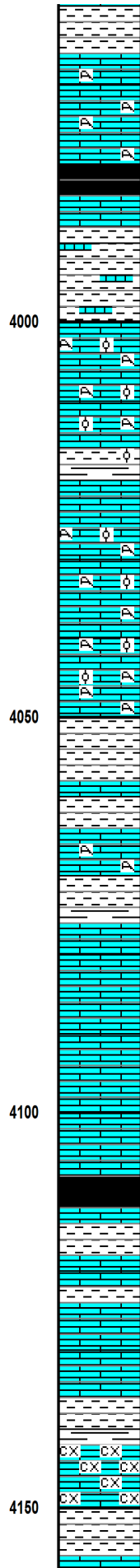
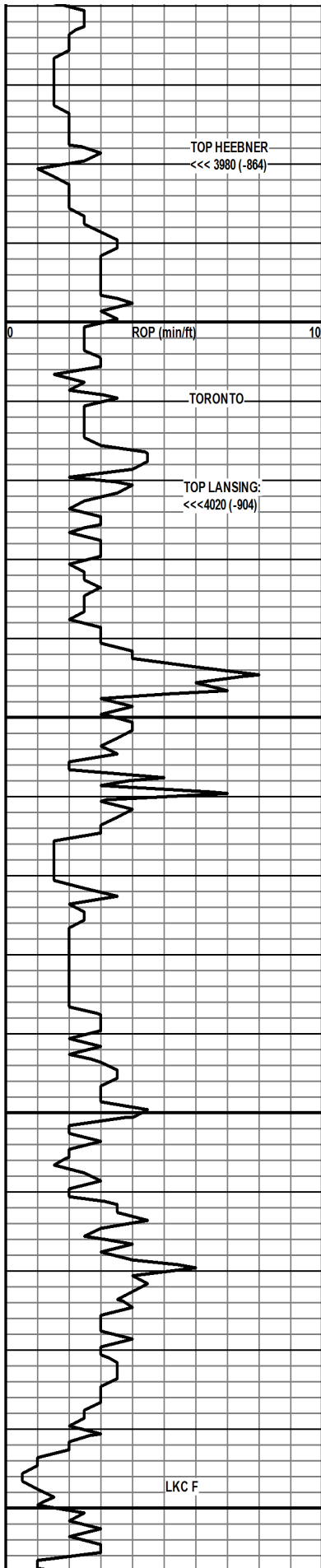
- OIL SHOW
- Even

Curve Track 1 ROP (min/ft)		Depth	Lithology	Oil Shows	Geological Descriptions	REMARKS
0	ROP (min/ft)	10				
3750						



LS: CHLKY TO LT GRY, FOS, WL CMNTD, NS

LS: CHLKY TO LT GRY, FOS, WL CMNTD, NS



LS: CHLKY TO LT GRY, FOS, WL CMNTD, NS

SHALE: BLACK, CARB

LS: CHLKY TO LT TAN, OCC FOS, DNSE, NVP, NS

SHALE: GRY TO DK GRY, FISSILE

LS: WH TO LT TAN, MED XTLN, FOS (CORAL), OCC OOIDS, PR VIS POR, NS

LS: WH TO LT TAN, MD XTLN, FOS (CORAL) OCC OOIDS, WL CMNTD, PR VIS POR, NS

LS: CRMY TO LT TAN, NUM FOS (CORAL), OCC DK GRY OOIDS, WL CMNTD, NVP, NS

LS: CRMY TO LT TAN, FOS, OOL, WL CMNTD, NVP, NS

LS: CRMY TO LT TAN, FOS, WL CMNTD, NVP, NS

SHALE: GRY TO DRK GRY, FISSILE

LS: CRMY TO LT TAN, FOS, WL CMNTD, NVP, NS

LS: CRMY TO LT TAN, DNSE, NVP, NS

LS: CRMY TO LT TAN, DNSE, NVP, NS

LS: CRMY TO LT TAN, DNSE, NVP, NS

SHALE: BLACK, CARB

LS: CRMY TO LT TAN, DNSE, NVP, NS

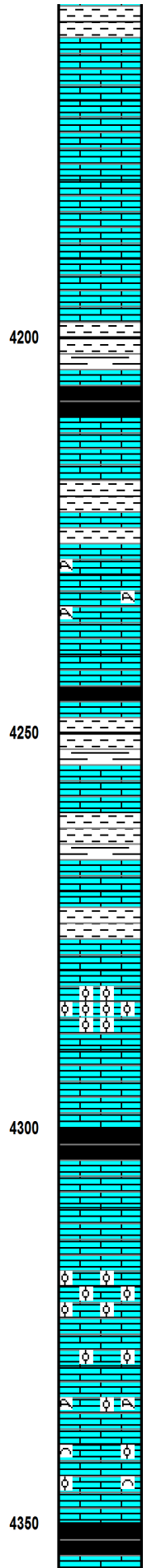
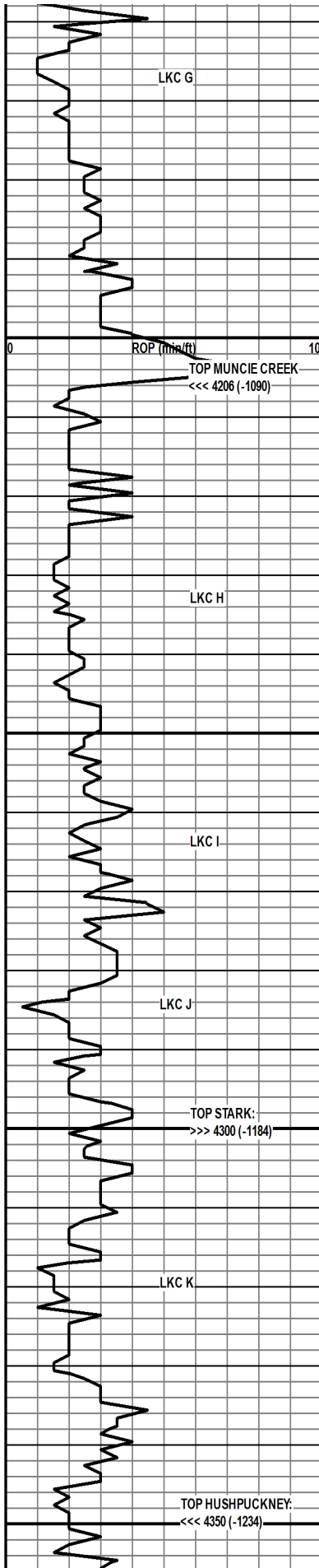
SHALE: DRK GRY, FISSILE

LS: CRMY TO LT TAN, V FN XTLN, FR VRY FN XTLN POR, NS

SHALE: DRK GRY, FISSILE

NOTE: HIGH ROP DUE TO AUTOMATIC DRILLER OUT

AUTOMATIC DRILLER OUT



LS: CRMY TO LT TAN, V FN XTLN POR, NS

LS: CRMY TO LT TAN, NVP, NS

LS: CRMY TO LT TAN, NVP, NS

4200

SHALE: BLACK, CARB

LS: WH TO LT TAN, PR FN XTLN PP POR, NS

LS: CRMY TO LT GRY, OCC FOS, PR XTLN POR, NS

LS: CRMY TO GRY, DNSE, NVP, NS

4250

SHALE: DRK GRY, FISSILE

LS: CRMY TO LT TAN, DNSE, NVP, NS

SHALE: DRK GRY, FISSILE

LS: CRMY TO LT TAN, DNSE, NVP, NS

SHALE: DRK GRY, FISSILE

LS: WH TO LT TAN, FN XTLN, EXC WH, BARREN, OOLICASTIC POR W VUGS LINED W V FN SPARRY CALCITE. ONE TITE PIECE W SPTD DK BRN STN, REST NS

LS: WH TO LT TAN, DNSE, NVP, NS

4300

SHALE: BLACK, CARB

LS: LT TAN, DNSE, NVP, NS

LS: LT TAN, DNSE, NVP, NS

LS: WH TO LT TAN, FOS, EXC WH, BARREN, OOLICASTIC POR, W VRY FN SUGARY CALCITE LINING VUGS, NS

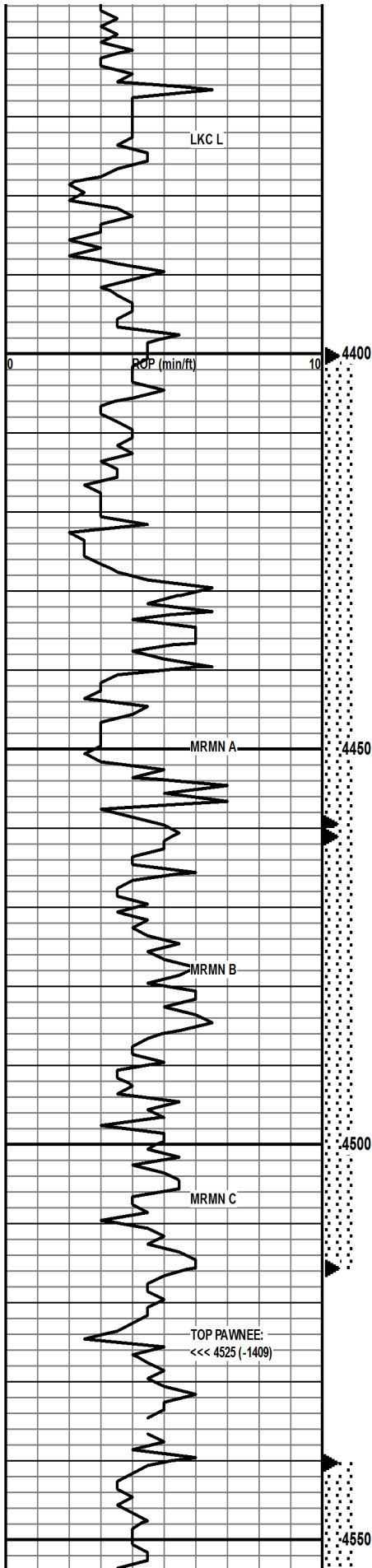
LS: WH TO LT TAN, OCC OOID IN WL CMNTD LS MTRX, NVP, NS

LS: LT TAN TO GRY, DNSE, OCC FOS & DK GRY OOID IN WL CMNTD LS MTRX, NVP, NS

4350

SHALE: BLACK, CARB

VIS: 49 WT: 9.3



LS: CRMY TO LT TAN, DNSE, NVP, NS

LS: CRMY TO LT TAN, DNSE, NVP, NS

LS: CRMY TO LT TAN, DNSE, NVP, NS

LS: CRMY TO LT TAN, MSTLY DNSE, NVP, NS W
ABNDT EXC WH CRSE OOLICASTIC POR, NS

SHALE: BLACK, CARB

LS: LT TAN, DNSE, NVP, NS

SH: DRK GRY, OCC GREEN, FRAMNT OF LT TAN
DNSE LS, NVP, NS

LS: LT TAN, DNSE, NVP, NO OOIDS OR FOS
FRAGS

LS: LT TAN, DNSE, NVP, NS. NO OOIDS OR FOS
FRAGS

LS LT TAN, DNSE, NVP, NS, WDRK GRY FISSILE
SHALE

LS: LT TAN TO GRY, MSTLY DNSE W NO VIS POR.
SOME OOL AND FOS FRAG GRNSTN IN WL
CMNTD MTRX, SM PCS W FN TO MED XTLN VGY
POR, BRT YLW FLOUR, INST STRMNG CUT. POOR
VIS POR

LS: LT TAN TO GRY, OCC OOID, OCC FOS, WL
CMNTD, NVP, NS

LS: TAN, MED TO CRSE SPARRY XTLN, SOME
SCATTERD SM VGY & XTLN POR, NICE LT BRN
SAT LOS, BRT YLW FLOUR, INST STRMNG CUT.

LS: LT TAN, MSTLY DNSE, NVP. FEW PCS W
SCTRD OOIDS AND FOS FRAGS IN WL CMNTD
MTRX. FEW PCS W FN TO CRSE SPARRY
CALCITE, OCC SM VUG, FEW OOIDS & NICE LT
BRN LOS. YLW FLOUR, SLW STRMNG CUT.

LS: LT TAN TO GRY, DNSE, ABNDT OOIDS AND
DRK GRY FOS FRAGS IN WL CMNTD LS MTRX.
MOTTLED APPEARANCE, NVP, NS. ABND BRT
YLW MIN FLOUR. NO CUT. ONE PC W SPTY LOS

SHALE: BLACK, CARB

LS: LT TAN TO GRY, DNSE, NVP, NS

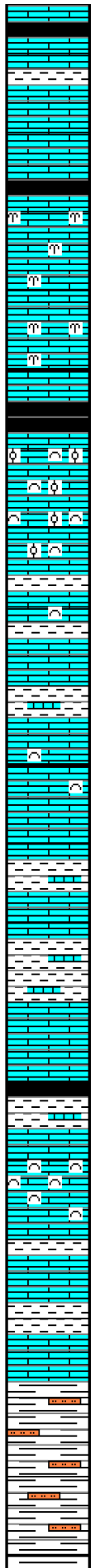
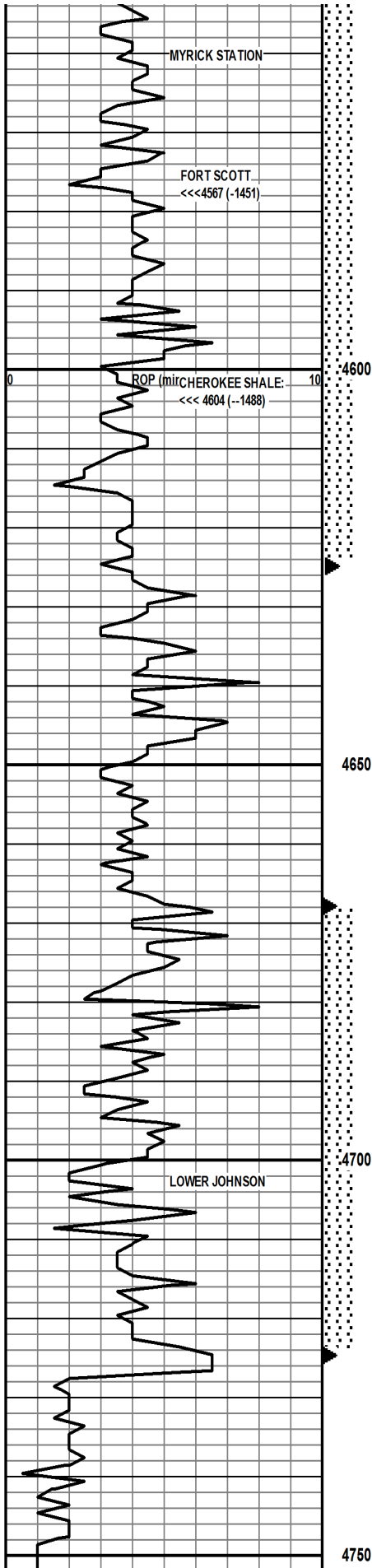
LS: LT TAN TO GRY, DNSE NVP, NS

VIS: 57 WT: 9.3

DST #1
4400-4460
MARMATON "A"
30-30-60-90
IF: 9" BLOW
NO RETURN BLOW
FF: 11" BLOW
RETURN BLOW: 1/4" IN 9 MIN,
DIED
RECOVERY:
280' GIP
20' CGO
60' GMCO
60' GO&WCM
IFP: 21-47; FFP: 49-83
ISIP: 1231-1234
HP: 2186-2080
BHT: 116

STRAP: 1.8' SHORT TO
BOARD
SURVEY 1 DEGREE

DST #2
4460-4515
MARMATON "B" & "C"
30-30-30-60
IF: 1.5", NO RETURN BLOW
FF: 1", NO RETURN BLOW
RECOVERY: 3' OIL, 37' OCM
IFP: 18-18, FFP: 16-20
SIP: 529-666
HP: 2192-2116
BHT: 108



SHALE: BLACK, CARB

LS: LT TAN TO LT GRY, DNSE, NVP, NS

LS: LT TAN TO LT GRY, DNSE, NVP, NS

SHALE: BLACK, CARB

LS: LT TAN TO GRY, OCC FOS, DNSE, NVP, NS

LS: LT TAN TO GRY, OCC FOS, DNSE, NVP, NS

SHALE: BLACK, CARB

LS: CRMY TO GRY, MSTLY DNSE, OOL, FOS, IN WL CMNTD LS MTRX, SM PCS OOL W FR VIS POR, NICE LT BRN LOS, BRT YLW FLOUR, INST STRMNG CUT

LS: AAB, FEW PCS W WL SRTD MED OOL, FR VIS POR, BRT YLW FLOUR, INST STRM CUT

SHALE: DK GRY, FISSILE

LS: TAN TO DRK GRY, OCC FOS, WL CMNTD, NVP, NS

SHALE: DRK GRY, FISSILE

LS: TAN TO GRY, DNSE, NVP, NS

SHALE: DRK GRY, FISSILE

LS: WH TO GRY, DNSE, NVP, NS

SHALE: BLACK

LS: WH TO GRY, FN XTLN, FOS, SCTRD SMALL VGY POR, VUGS BLDNG OIL, GSFO, SPTY DRK BRN LOS, SCTRD YLW FLOUR, STRMNG CUT

LS: WH TO GRY, DNSE, NVP, NS

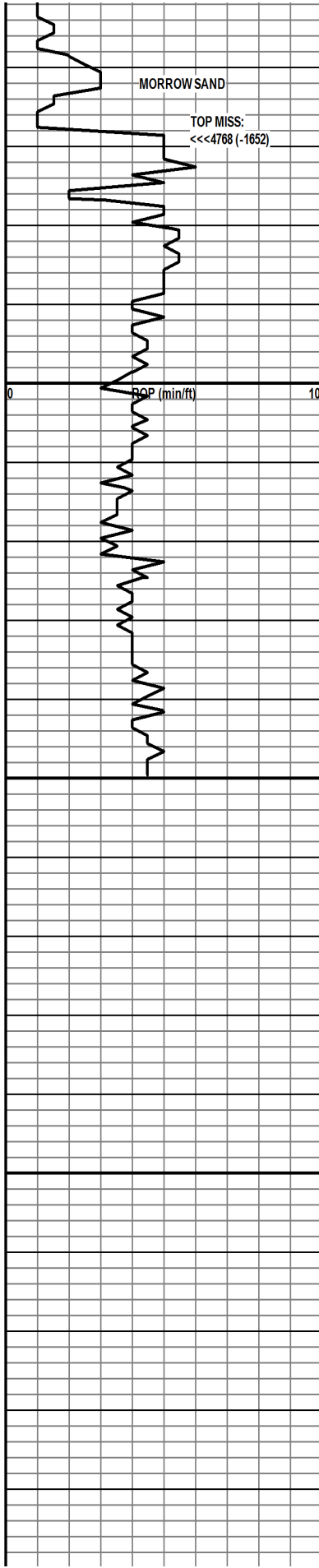
LS: WH TO GRY, DNSE, NVP, NS

SHALE: GREEN, MAROON, YELLOW, W OCC DRK BRN TITE SILTSTONE

SHALE: VARI COLORED AAB

DST #3
 4540-4626
 MS, FT SCOTT, CHEROKEE
 30-30-30-60
 IF: 1 1/2" BLOW, NO RETURN
 FF: 1 1/2" BLOW, NO RETURN
 RECOVERY:
 45' GIP
 15' MUD W OIL SPTS
 IFP: 16-16 FFP: 14-18
 SIP: 129-358
 HP: 2246-2181
 BHT: 112

DST #4
 4668-4725
 JOHNSON ZONE
 30-30-45-90
 IF: BOB IN 24 MIN
 RETURN: WK SURF IN 7 MIN
 FF: BOB IN 20 MIN
 RETURN: WK SURF BLOW IN
 6 MIN, DIED IN 27 MIN
 RECOVERY:
 390' GIP
 90' GOCM
 IFP: 24-36 FF: 38-55
 SIP: 373-616
 HP: 2307-2295
 BHT: 118



SANDSTONE: WH, MSTLY FN GRN, WL SRTD, ROUNDED, W CALCITE CMNT. OCC PYR, OCC GLAUC, GD VIS POR, NS

LS: TAN, DNSE, NVP, NS

LS: TAN, DNSE, NVP, NS

LS: TAN, DNSE, NVP, NS

LS: TAN, DNSE, NVP, NS

LS: TAN, DNSE, NVP, NS

LS: TAN, DNSE, NVP, NS

RTD 4850

LTD:4849

