



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1237876  
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: \_\_\_\_\_



1237876

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

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <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> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Hess Oil Company
Well Name	Pike 1
Doc ID	1237876

Tops

Name	Top	Datum
Anhydrite	741	+1004
Base Anhydrite	773	+972
Topeka	2643	-898
Heebner	2898	-1153
Toronto	2923	-1178
Lansing	2954	-1209
Base Kansas City	3301	-1556
Marmaton	3335	-1590
Mississippi	3573	-1828
Viola	3798	-2053
Simpson Sand	4036	-2291
Arbuckle	4098	-2353
RTD	4115	-2370



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

Well Name: PIKE #1  
 API: 15-141-20471-00-00  
 Location: SW NE SW SW  
 License Number: 5663  
 Spud Date: 9/16/2014  
 Surface Coordinates: 934' FROM SOUTH LINE OF SECTION  
 970' FROM WEST LINE OF SECTION  
 Bottom Hole Coordinates: 934' FROM SOUTH LINE OF SECTION  
 970' FROM WEST LINE OF SECTION  
 Ground Elevation (ft): 1740' K.B. Elevation (ft): 1745'  
 Logged Interval (ft): 1500' To: 4115 Total Depth (ft): 4115  
 Formation: ARB  
 Type of Drilling Fluid: CHEMICAL, MUD-CO  
 Region: OSBORNE CO. KS.  
 Drilling Completed: 9/23/2014

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: HESS OIL COMPANY  
 Address: PO BOX 1009  
 MCPHERSON, KANSAS 67460-1009  
 (620) 241-4640

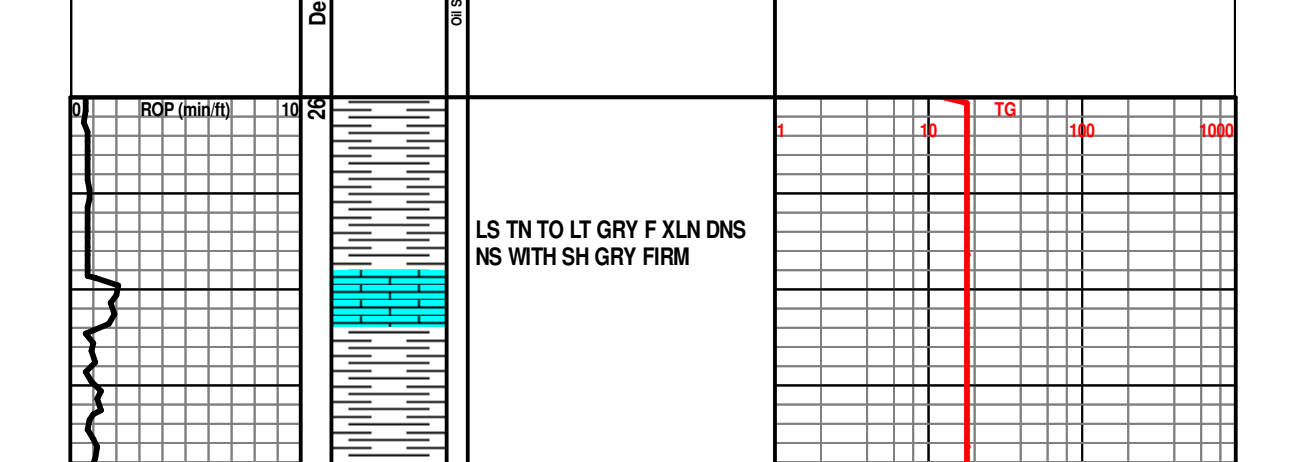
GEOLOGIST

Name: DAVID GOULD (LOGGER)  
 Company: DMT COMPANY  
 Address: 532 SUNRISE  
 PRATT, KANSAS 67124  
 (620) 388-2847

Comments

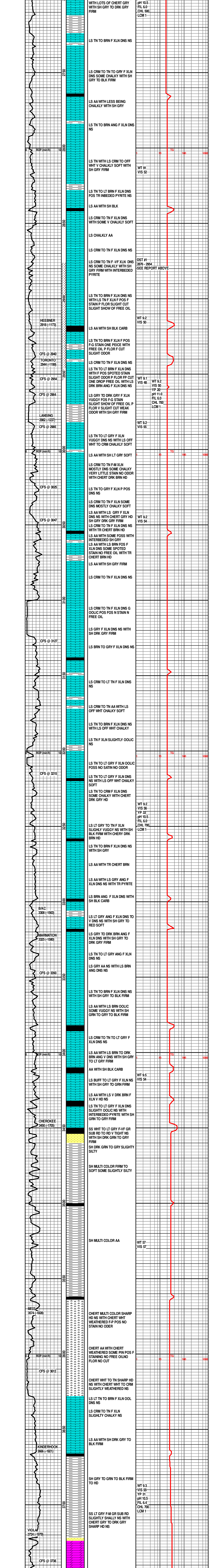
CONTRACTOR: MALLARD DRILLING  
 BIT RECORD:  
 #A, 12 1/4, RR, RT, 0-217  
 #1, 7 7/8, F27, RD 1788, 217-4115  
 SURVEYS:  
 217 MISRUN  
 2954 3/4 DEGREE  
 DAILY STATUS: (7:00 AM)  
 9/16/2014, MOVE RIG IN, SPUD @ 4:40 PM, DRILLED TO 217', SET 8 5/8  
 9/17/2014, DRILLING @ 280'  
 9/18/2014, DRILLING @ 1698'  
 9/19/2014, DRILLING @ 2550'  
 9/20/2014, 2954, TEST #1  
 9/21/2014, DRILLING @ 3246  
 9/22/2014, DRILLING @ 3692  
 9/23/2014, CFS @ 4115' FOR LOGS

Well Name & No.: Pike #1 Company: Hess Oil Co. Test No.: 1 Interval Tested: 2876 - 2954  
 Zone Tested: Toronto Times: 30-45-30-45  
 Blow Description: IFP: BOB in 9 Min. ISI: No blow back FFP: BOB in 20 Min. FSI: No blow back  
 Rec: 248 Feet of VSMCW 98% Water 2% Mud, 120 Feet of MCW 70% Water 30% Mud, 100 Feet of Mud with Oil Spots 100% Mud, Rec. Total: 468', BHT: 101 Gravity: N/A  
 Initial Hydrostatic: 1423 First Initial Flow: 52 First Final Flow: 175 Initial Shut-In: 1113  
 Second Initial Flow: 190 Second Final Flow: 244 Final Shut-In: 1096 Final Hydrostatic: 1479

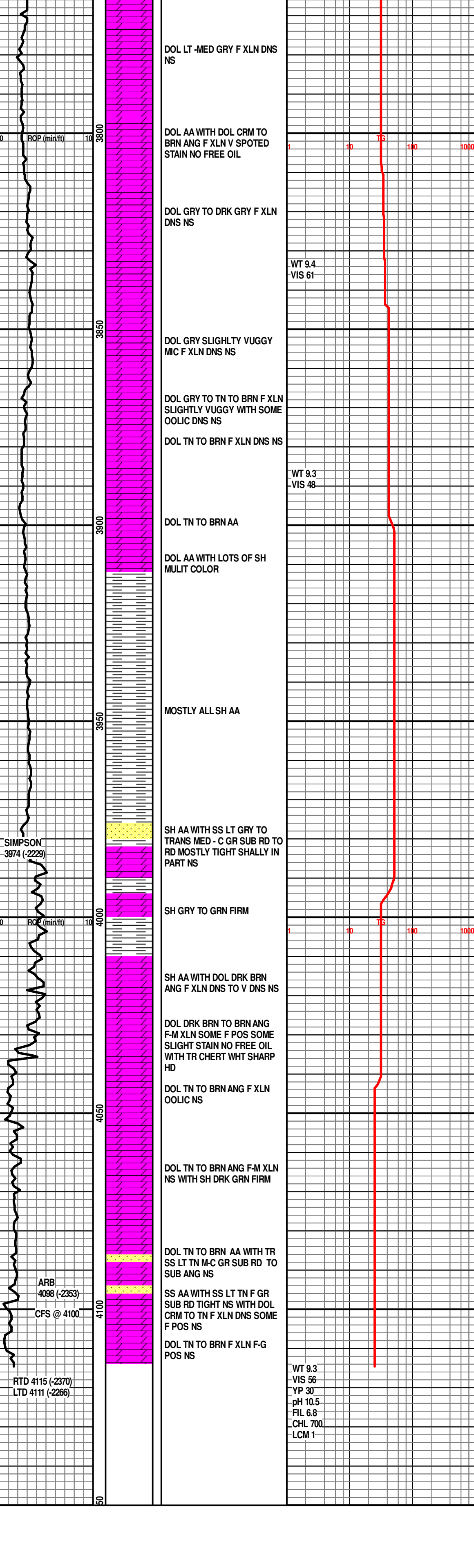


Pressure (psig) vs. Time (Hours) vs. Temperature (deg F). Gauge 8897: Displaying every 4 points.

ROCK TYPES				
Anhy	Bent	Cht	Clyst	Coal
Brec	Cht	Cht	Congl	Dol
Gyp	Igne	Lmst	Meta	Mrlst
Mrlst	Salt	Shale	Shcol	Shyt
Siltst	Ss	Till		



ROP (min/ft) vs. Depth (ft) vs. Geological Descriptions vs. TG (Units)



ROP (min/ft)

WT 9.4  
VIS 61

DOL LT -MED GRY F XLN DNS NS

DOL AA WITH DOL CRM TO BRN ANG F XLN V SPOTED STAIN NO FREE OIL

DOL GRY TO DRK GRY F XLN DNS NS

DOL GRY SLIGHTLY VUGGY MC F XLN DNS NS

DOL GRY TO TN TO BRN F XLN SLIGHTLY VUGGY WITH SOME OOLIC DNS NS

DOL TN TO BRN F XLN DNS NS

DOL TN TO BRN AA

DOL AA WITH LOTS OF SH MULT COLOR

MOSTLY ALL SH AA

SH AA WITH SS LT GRY TO TRANS MED - C GR SUB RD TO RD MOSTLY TIGHT SHALLY IN PART NS

SH GRY TO GRN FIRM

SH AA WITH DOL DRK BRN ANG F XLN DNS TO V DNS NS

DOL DRK BRN TO BRN ANG F-M XLN SOME F POS SOME SLIGHT STAIN NO FREE OIL WITH TR CHERT WHT SHARP HD

DOL TN TO BRN ANG F XLN OOLIC NS

DOL TN TO BRN ANG F-M XLN NS WITH SH DRK GRN FIRM

DOL TN TO BRN AA WITH TR SS LT TN MC GR SUB RD TO SUB ANG NS

SS AA WITH SS LT TN F GR SUB RD TIGHT NS WITH DOL CRM TO TN F XLN DNS SOME F POS NS

DOL TN TO BRN F XLN F-G POS NS

WT 9.3  
VIS 56  
YP 30  
pH 10.5  
FIL 6.8  
CHL 700  
LCM 1

SIMPSON 3974 (2229)

ARB 4088 (2353)  
CFS @ 4100

RTD 4115 (2370)  
LTD 4111 (2269)

3850

3950

4000

4050

4100

50



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Hess Oil Company  
PO Box 1009  
McPherson KS 67460  
ATTN: David Gould

**18-10s-11w-Osborne Co.**

**Pike #1**

Job Ticket: 60516

**DST#: 1**

Test Start: 2014.09.20 @ 03:43:02

## GENERAL INFORMATION:

Formation: **Toronto**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 05:15:22  
 Time Test Ended: 09:47:52  
 Interval: **2876.00 ft (KB) To 2954.00 ft (KB) (TVD)**  
 Total Depth: 2954.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Tate Lang  
 Unit No: 77  
 Reference Elevations: 1745.00 ft (KB)  
 1740.00 ft (CF)  
 KB to GR/CF: 5.00 ft

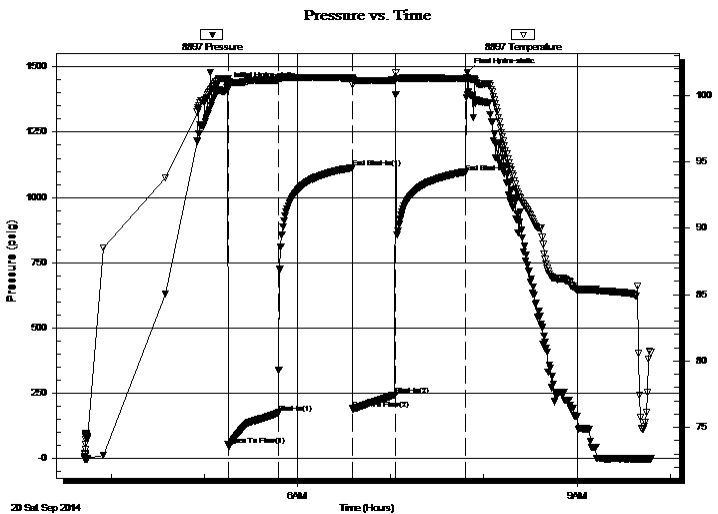
**Serial #: 8897**

**Inside**

Press @ Run Depth: 243.92 psig @ 2887.00 ft (KB)  
 Start Date: 2014.09.20 End Date: 2014.09.20  
 Start Time: 03:43:03 End Time: 09:47:52  
 Capacity: 8000.00 psig  
 Last Calib.: 2014.09.20  
 Time On Btm: 2014.09.20 @ 05:15:12  
 Time Off Btm: 2014.09.20 @ 07:49:32

**TEST COMMENT:** 30-B.O.B. in 9 mins  
 45-Dead no blow back  
 30-B.O.B. in 20 mins  
 45-Dead no blow back

## PRESSURE SUMMARY



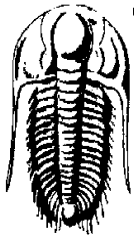
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1422.62	101.22	Initial Hydro-static
1	51.99	100.52	Open To Flow (1)
33	174.90	101.15	Shut-In(1)
81	1113.16	101.28	End Shut-In(1)
81	190.09	100.76	Open To Flow (2)
108	243.92	101.12	Shut-In(2)
153	1096.35	101.25	End Shut-In(2)
155	1478.66	101.33	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
248.00	VSMCW 2%M 98%W	1.22
120.00	MCW 30%M 70%W	1.68
100.00	Mud 100%M w ith oil spots	1.40

## Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Hess Oil Company  
PO Box 1009  
McPherson KS 67460  
ATTN: David Gould

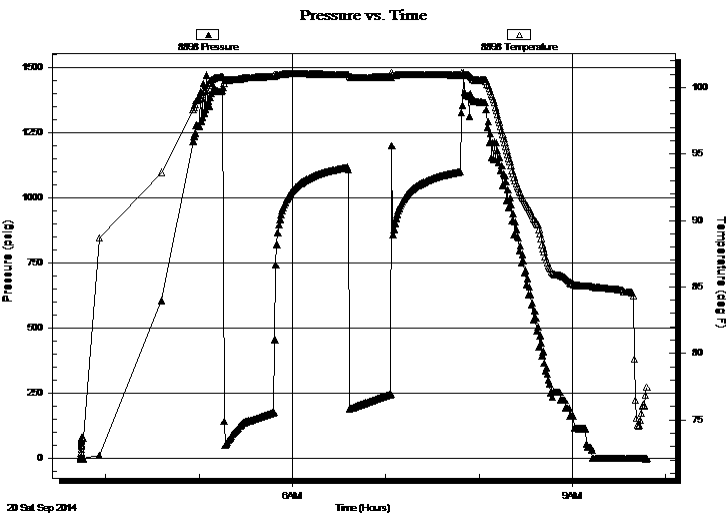
**18-10s-11w-Osborne Co.**  
**Pike #1**  
Job Ticket: 60516      **DST#: 1**  
Test Start: 2014.09.20 @ 03:43:02

**GENERAL INFORMATION:**

Formation: **Toronto**  
Deviated: No Whipstock:                              ft (KB)  
Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 05:15:22                              Tester: Tate Lang  
Time Test Ended: 09:47:52                              Unit No: 77  
Interval: **2876.00 ft (KB) To 2954.00 ft (KB) (TVD)**                              Reference Elevations: 1745.00 ft (KB)  
Total Depth: 2954.00 ft (KB) (TVD)                              1740.00 ft (CF)  
Hole Diameter: 7.88 inches      Hole Condition: Good                              KB to GR/CF: 5.00 ft

**Serial #: 8898      Outside**  
Press @ Run Depth:                              psig @      2887.00 ft (KB)                              Capacity: 8000.00 psig  
Start Date: 2014.09.20                              End Date: 2014.09.20                              Last Calib.: 2014.09.20  
Start Time: 03:43:39                              End Time: 09:48:18                              Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30-B.O.B. in 9 mins  
45-Dead no blow back  
30-B.O.B. in 20 mins  
45-Dead no blow back



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

Recovery		
Length (ft)	Description	Volume (bbl)
248.00	VSMCW 2%M 98%W	1.22
120.00	MCW 30%M 70%W	1.68
100.00	Mud 100%M w ith oil spots	1.40

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Hess Oil Company  
PO Box 1009  
McPherson KS 67460  
ATTN: David Gould

**18-10s-11w-Osborne Co.**  
**Pike #1**  
Job Ticket: 60516      **DST#: 1**  
Test Start: 2014.09.20 @ 03:43:02

## 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:	1250 ppm
Viscosity: 43.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.00 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 500.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
248.00	VSMCW 2%M 98%W	1.220
120.00	MCW 30%M 70%W	1.683
100.00	Mud 100%M with oil spots	1.403

Total Length: 468.00 ft      Total Volume: 4.306 bbl

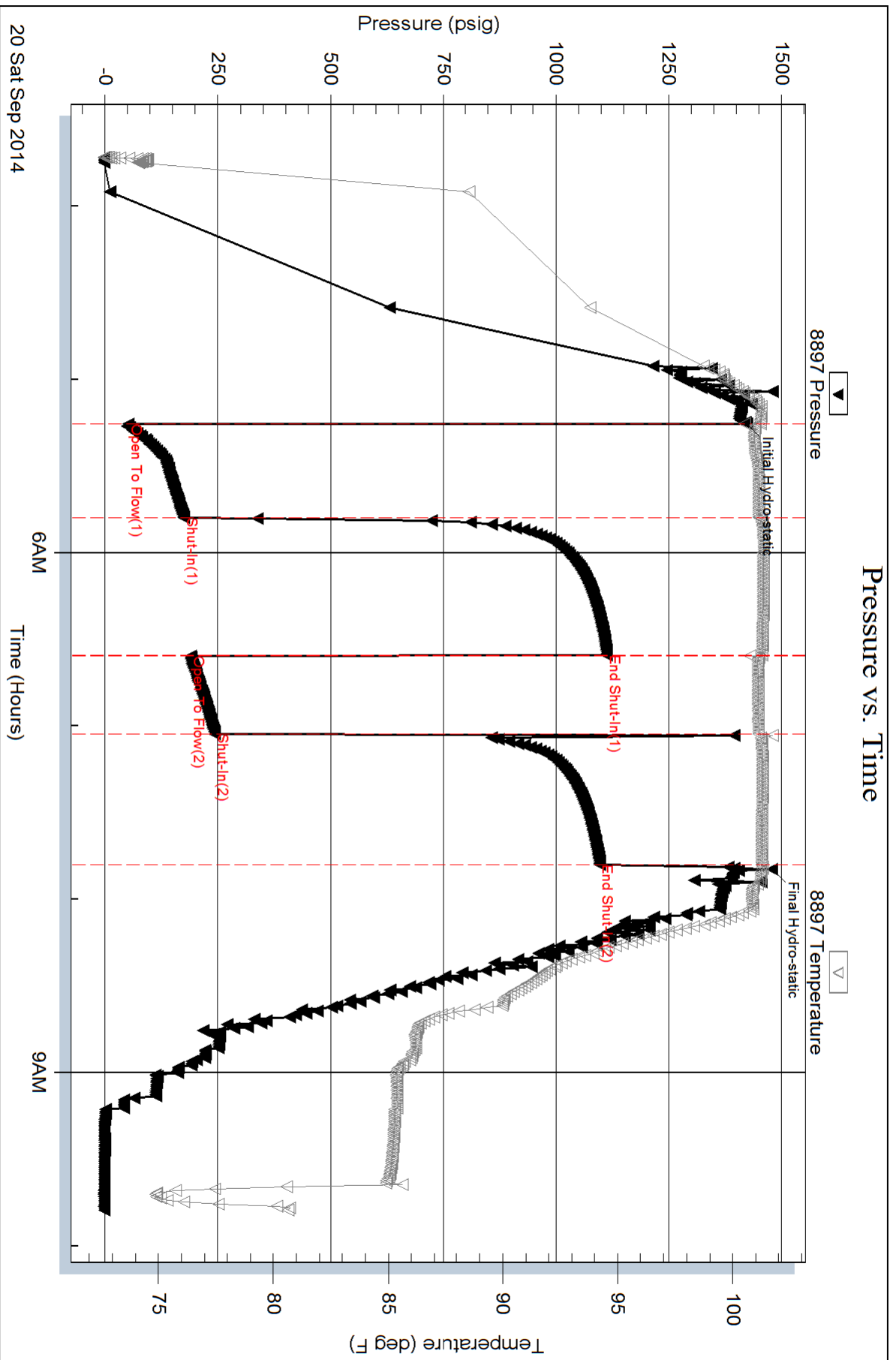
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:

Laboratory Name:      Laboratory Location:

Recovery Comments: .476 @ 67 F = 1250



### Pressure vs. Time

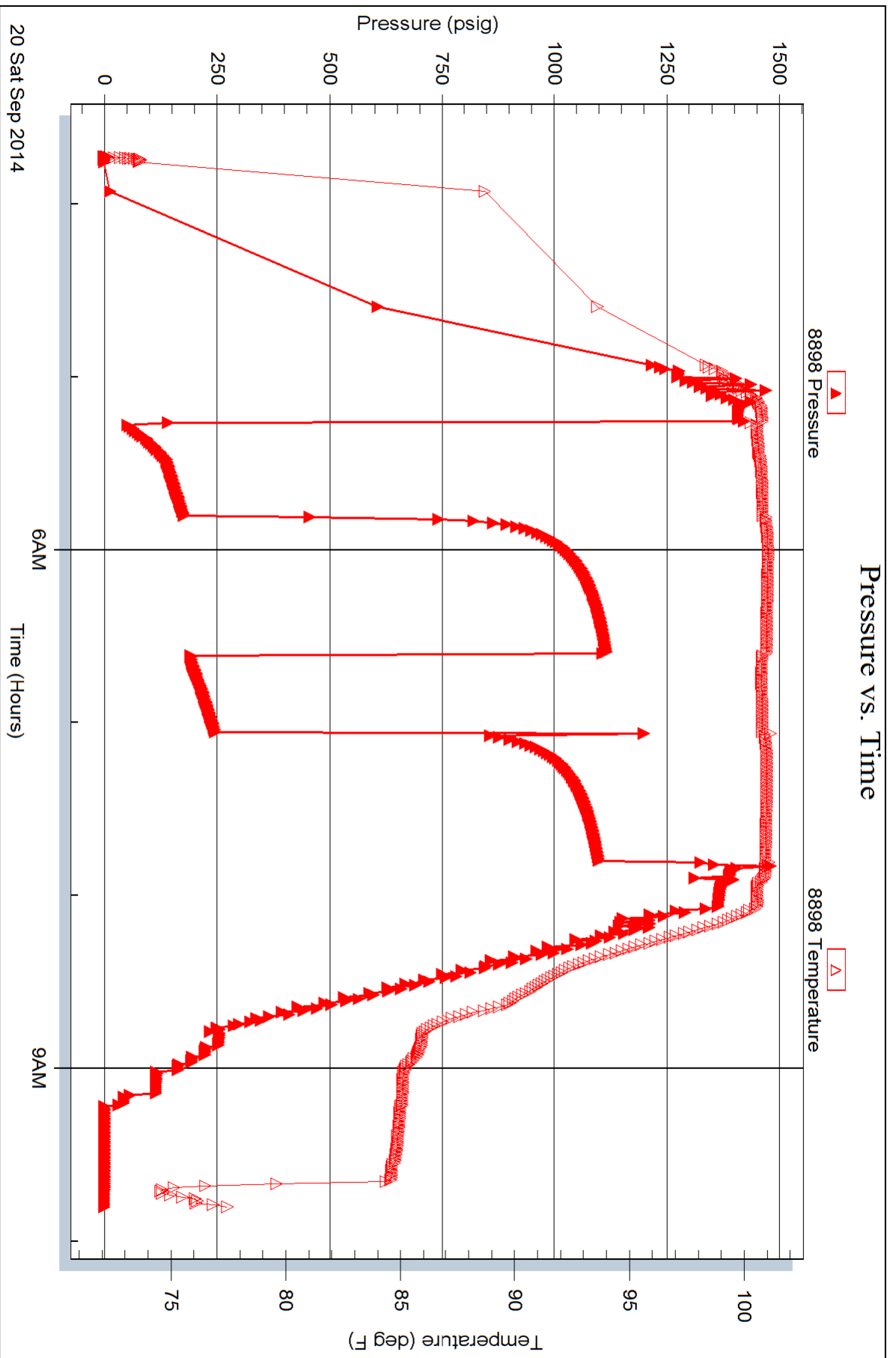


Serial #: 8898

Outside Hess Oil Company

Pike #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 60516

Printed: 2014.09.20 @ 11:01:44

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 755

Cell 785-324-1041

Date	9-23-14	Sec.	18	Twp.	10	Range	11	County	Osborne	State	KS	On Location	8:00pm	Finish	2:45 AM
------	---------	------	----	------	----	-------	----	--------	---------	-------	----	-------------	--------	--------	---------

Location Lucas N to CL 3W

Lease Pike Well No. 1 Owner J & N

Contractor Mallard  
 Type Job plug job  
 Hole Size 7 7/8 T.D. 4115  
 Csg. Drill pipe Depth  
 Tbg. Size Depth  
 Tool Depth  
 Cement Left in Csg. Shoe Joint

To Quality Oilwell Cementing, Inc.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Ch. To Hess oil

Street City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 305 60/40

Meas Line Displace 490 gal Yu flow

**EQUIPMENT**

Pumptrk	20	No.	Cementor	<u>Mitt</u>
			Helper	
Bulktrk	13	No.	Driver	<u>Mich</u>
			Driver	
Bulktrk	pu	No.	Driver	<u>Jason Ney</u>
			Driver	

Common 183  
 Poz. Mix 122  
 Gel. 11  
 Calcium  
 Hulls

**JOB SERVICES & REMARKS**

Remarks:

Rat Hole 305H

Salt  
 Flowseal 76#

Mouse Hole 155H

Kol-Seal

Centralizers

Mud CLR 48

Baskets

CFL-117 or CD110 CAF 38

D/V or Port Collar

Sand

1st 4090ft 509H

Handling 316

2nd 750ft 505H

Mileage 85/8 **FLOAT EQUIPMENT**

3rd 590ft 1003H

Guide Shoe

4th 270ft 505H

Centralizer

5th 40ft 105H

Baskets

AFU Inserts

Float Shoe

Latch Down

Wood Plug

Pumptrk Charge plug

Mileage 41

X Signature Donna L. [Signature]

Tax	
Discount	
Total Charge	

# QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025  
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 653

Date	Sec.	Twp.	Range	County	State	On Location	Finish
9-16-14	18	10	11	Osborne	KS		9:15PM

Location Lucas N to CL., 4W, 1N

Lease Pike	Well No. 1	Owner
Contractor Mallard		To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.
Type Job surface		
Hole Size 12 1/4	T.D. 217	Charge To HeBS Oil Company
Csg. 8 5/8	Depth 217	Street
Tbg. Size	Depth	City State
Tool	Depth	The above was done to satisfaction and supervision of owner agent or contractor.
Cement Left in Csg. 20	Shoe Joint 20	Cement Amount Ordered 150 sx Com, 3% cc, 2% gel
Meas Line	Displace 12 1/2 bbl	

**EQUIPMENT**

Pumptrk 17	No.	Cementer Helper Lounie W.	Common 150
Bulktrk 3	No.	Driver Clifton	Poz. Mix
Bulktrk P4	No.	Driver Travis	Gel. 3
			Calcium 5

**JOB SERVICES & REMARKS**

Remarks: cement did circulate	Hulls
Rat Hole	Salt
Mouse Hole	Flowseal
Centralizers	Kol-Seal
Baskets	Mud CLR 48
D/V or Port Collar	CFL-117 or CD110 CAF 38
	Sand
	Handling 158
	Mileage

**FLOAT EQUIPMENT**

	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down
	Pumptrk Charge Surface
	Mileage 41

X Signature <i>Frank L. [unclear]</i>	Tax
	Discount
	Total Charge

