



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1083445  
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
-----------------------------------	-----------------	---

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: \_\_\_\_\_

1083445

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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:  Yes  No

Date of First, Resumed Production, SWD or ENHR: \_\_\_\_\_ Producing Method:  
 Flowing  Pumping  Gas Lift  Other *(Explain)* \_\_\_\_\_

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> _____ _____
--	--	---

Conservation Division  
Finney State Office Building  
130 S. Market, Rm. 2078  
Wichita, KS 67202-3802



Phone: 316-337-6200  
Fax: 316-337-6211  
<http://kcc.ks.gov/>

Mark Sievers, Chairman  
Ward Loyd, Commissioner  
Thomas E. Wright, Commissioner

Sam Brownback, Governor

June 06, 2012

Leon Rodak  
Murfin Drilling Co., Inc.  
250 N WATER STE 300  
WICHITA, KS 67202-1216

Re: ACO1  
API 15-051-26296-00-00  
Philip Unit 1-19  
NE/4 Sec.19-14S-16W  
Ellis County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,  
Leon Rodak

Philip Unit #1-19 2520 FNL 1740 FEL Sec. 19-T14S-R16W 1932' KB							Philip #1-18 1950 FSL 330 FEL Sec. 18-T14S-R16W 1891' KB	
Formations	Sample Tops	Datum	Ref	Log tops	Datum	Ref	Log Tops	Datum
Anhydrite	1070	+862	-8	1062	+870	Flat	1021	+870
B/Anhydrite	1105	+827	-1	1106	+826	-2	1063	+828
Topeka	2896	-964	-5	2892	-960	-1	2850	-959
Heebner	3146	-1214	-2	3148	-1216	-4	3103	-1212
Toronto	3167	-1235	-4	3166	-1234	-3	3122	-1231
Lansing	3194	-1262	-2	3196	-1264	-4	3151	-1260
BKC				3429	-1497	-6	3382	-1491
Arbuckle	3441	-1509	-5	3447	-1515	-11	3396	-1504
RTD	3550						3500	-1609
LTD				3551			3504	-1613

# ROBERT STOLZLE

## CONSULTING PETROLEUM GEOLOGIST

APPG Cert. 53244

2211 O. 231st St., Oklahoma, MO 67022 - 0240

(316) 724-2400

### DRILLING TIME AND SAMPLE LOG

OPERATOR: **Murfin Drilling Co., Inc.**

LEASE: **Phillips Unit** WELL NO.: **1-19**

FIELD:

LOCATION: **2520' ENL, 1740' FEL (SWSE SWNE)**

SEC.: **19** TWP: **14S** RANGE: **16W**

COUNTY: **Ellis** STATE: **KS**

API NO.: **15-051-26296**

CONTRACTOR: **Murfin Drilling Co., Rig # 21**

CONCEDED: **10:15 AM 4/11/12** COMPLETED: **4/18/12**

ROTARY TOTAL DEPTH: **3550'** LOG TOTAL DEPTH: **3551'**

LOG-UP DEPTH: **2610'** LOG TYPE: **Chemical Polymer**

GEOLOGICAL SUPERVISOR NAME: **2790'** LOG: **T.D.**

FORMATION: **Stone Corral Anhy. 1075 (+857) 1068 (+864) -6'**  
**Base of Anhydrite 1115 (+817) 1106 (+826) -2'**

**Topoka Fm. 2896 (-964) 2898 (-966) -7'**  
**Heabner-Shale 3146 (-1214) 3148 (-1216) -4'**  
**Toronto L.S. 3167 (-1235) 3166 (-1234) -3'**

**Lansing Group 3194 (-1262) 3196 (-1264) -4'**  
**Star-K Shale 3391 (-1459) 3391 (-1459) -5'**  
**Base K.S. City Gp. 3427 (-1495) 3429 (-1497) -6'**

**Abucicle Fm. 3447 (-1515) 3448 (-1516) -12'**

**Total Depth 3550 3551**

### ELEVATIONS

KB **1932**

GL **1921**

Measurements are all from KB

### CASING RECORD

SURFACE: **8 5/8", 23#**

@ **270' WILLIAMS AIR**

PREDICTION: **None - P.A.**

### WIRELINE SURVEYS

**Log-Tech**  
**Dual Compensated**  
**Forosity, Dual**  
**Induction, BHC**  
**Sonic and**  
**Microradiosity**  
**logs were run.**

LOCATION NO.	LOG DATE
	LOG DATE: <b>PH 11/1905</b>
	<b>190 1-19</b>

Reference Well for Structural Comparison: **Murfin Phillips ut. 1-18 SE 1/4 18**  
 Comments and Recommendations: **Recommended well be plugged and abandoned**

DST # **1** ZONE: **Lansing 'A' - 'D' Zones**  
 INTERVAL: **3175' - 3255'**

DST # **1** **8372** Chert  
 Interval: **3175-3255** Depth: **3178'**

Pressures:	Time	Press.	RECOVERY
1. Initial Hydrostatic		1565 psi	200' Total Recovery
2. Initial Flow: Start	0	21 psi	20' Heavy Oil + Gas Cut Mud
3. Initial Flow: End	30	70 psi	(10% Gas, 30% Oil)
4. Initial Shut-in: End	60	650 psi	60' Oil Cut Mud
5. Final Flow: Start	0	76 psi	(10% Oil)
6. Final Flow: End	60	123 psi	120' Oil cut watery Mud
7. Final Shut-in: End	90	647 psi	(10% Oil, 20% Water)
8. Final Hydrostatic		1507 psi	Deviation 3/4°
BHT: <b>99°F</b>		Blow Desc.	STRAP .01 short
Rv: <b>N.A.</b>		I.E. - 1 1/2"	
		IST - No blow	
		F.E. - 1"	
		FSI - No blow	



DST # **2** ZONE: **Lansing 'E', 'F' & 'G' Zones**  
 INTERVAL: **3256' - 3300'**

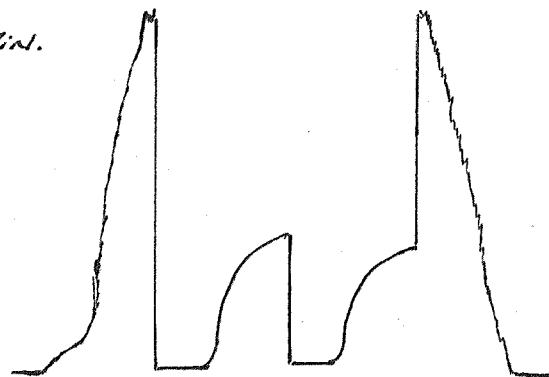
DST # **2** **8372** Chert  
 Interval: **3256'-3300'** Depth: **3260'**

Pressures: Time Press. RECOVERY

Pressures:	Time	Press.	RECOVERY
1. Initial Hydrostatic		1611 psi	65' Drilling Mud
2. Initial Flow: Start	0	20 psi	
3. Initial Flow: End	30	33 psi	I.F. - 1" blow died in 18 min.
4. Initial Shut-in: End	60	614 psi	I.S.I. - No blow
5. Final Flow: Start	0	39 psi	F.F. - No blow
6. Final Flow: End	30	45 psi	F.S.I. - No blow
7. Final Shut-in: End	60	568 psi	
8. Final Hydrostatic		1591 psi	

BHT: 97°  
Rv: \_\_\_\_\_

Note: I.F. 37 min.  
Rotary Chain  
Broke

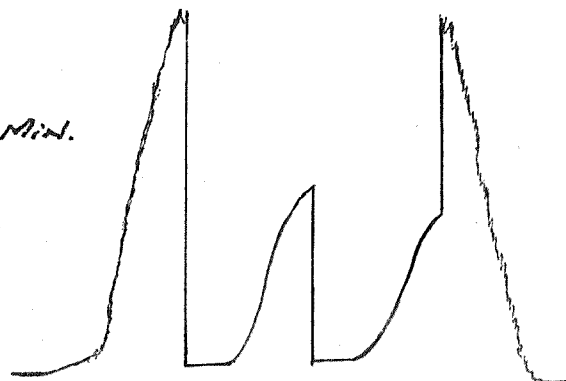


DST # 3 ZONE: LKC 'H', 'I', 'J' & 'K' Zones  
INTERVAL: 3315'-3420'

DST # 3 8372 Chart  
Interval: 3315'-3420' Depth: 3319'

Pressures:	Time	Press.	RECOVERY
1. Initial Hydrostatic		1695 psi	80' slightly Oil + Gas Cut Mud
2. Initial Flow: Start	0	31 psi	(5% gas, 5% oil)
3. Initial Flow: End	30	53 psi	
4. Initial Shut-in: End	60	877 psi	
5. Final Flow: Start	0	55 psi	I.F. - Blow died in 20 min.
6. Final Flow: End	30	67 psi	I.S.I. - No blow
7. Final Shut-in: End	60	753 psi	F.F. - Surface blow
8. Final Hydrostatic		1614 psi	F.S.I. - No blow

BHT: 97°F  
Rv: \_\_\_\_\_

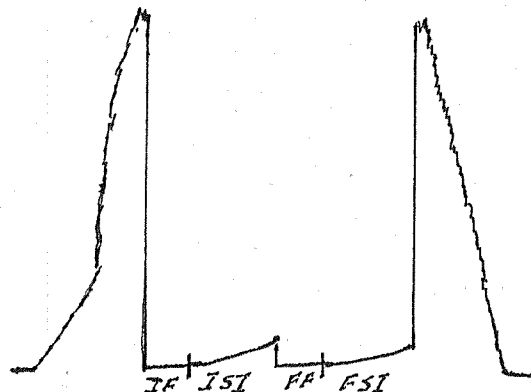


DST # 4 ZONE: Arbuckle Fm.  
INTERVAL: 3406'-3450'

DST # 4 8372 Chart  
Interval: 3406'-3450' Depth: 3410'

Pressures:	Time	Press.	RECOVERY
1. Initial Hydrostatic		1741 psi	20' Drilling Mud
2. Initial Flow: Start	0	24 psi	
3. Initial Flow: End	30	28 psi	
4. Initial Shut-in: End	60	147 psi	
5. Final Flow: Start	0	33 psi	I.F. - Died in 6 min.
6. Final Flow: End	30	36 psi	I.S.I. - No blow
7. Final Shut-in: End	60	92 psi	F.F. - No blow
8. Final Hydrostatic		1677 psi	F.S.I. - No blow

BHT: 97°F  
Rv: \_\_\_\_\_



DST # 5 ZONE: Arbuckle Fm.  
INTERVAL: 3447'-3460'

DST # 5 8372 Chart  
Interval: 3447'-3460' Depth: 3448'

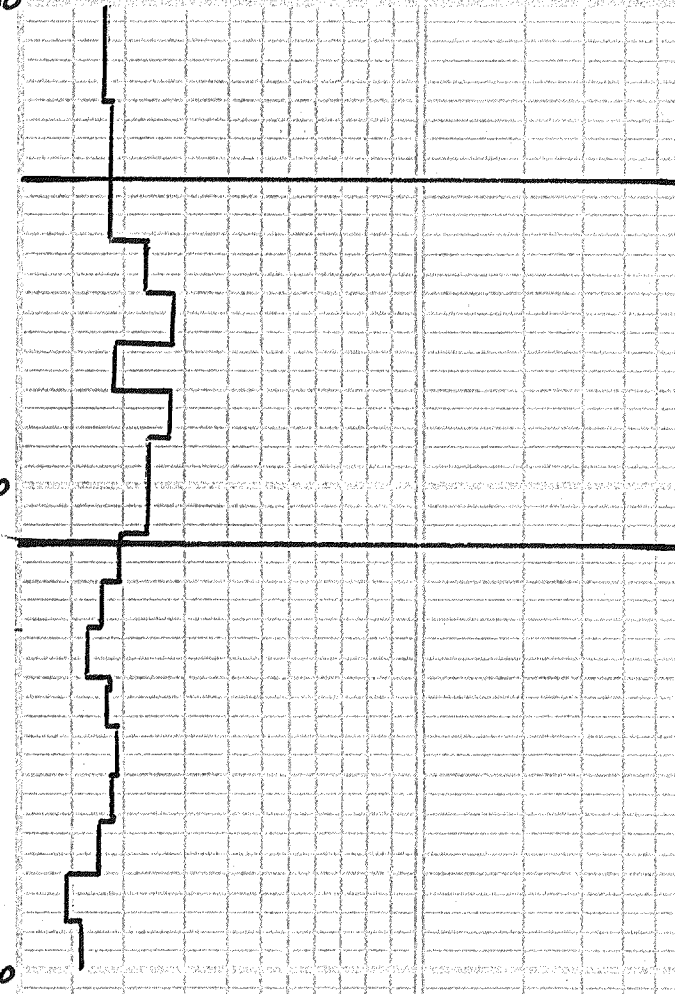


1050

1100

1150

2750



5' Drilling Time

Stone Coral  
Anhydrite  
(+864')  
(log top)

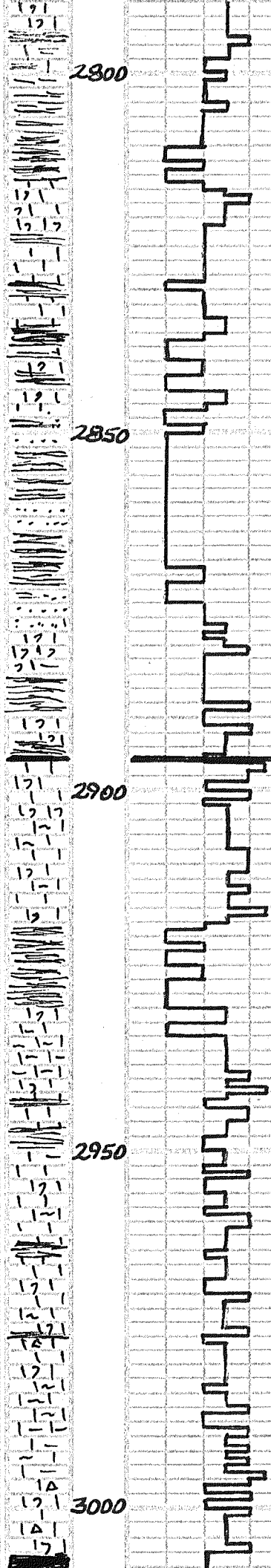
Base of  
Anhydrite  
(+826')  
(log top)

Displace Mud  
System at  
2610'

WE. ON BIT 35,000#  
R.P.M. 80  
PUMP. PRESS. 750 PSI.

start 10' samples and  
1' drilling time at 2790'





2800

2850

2900

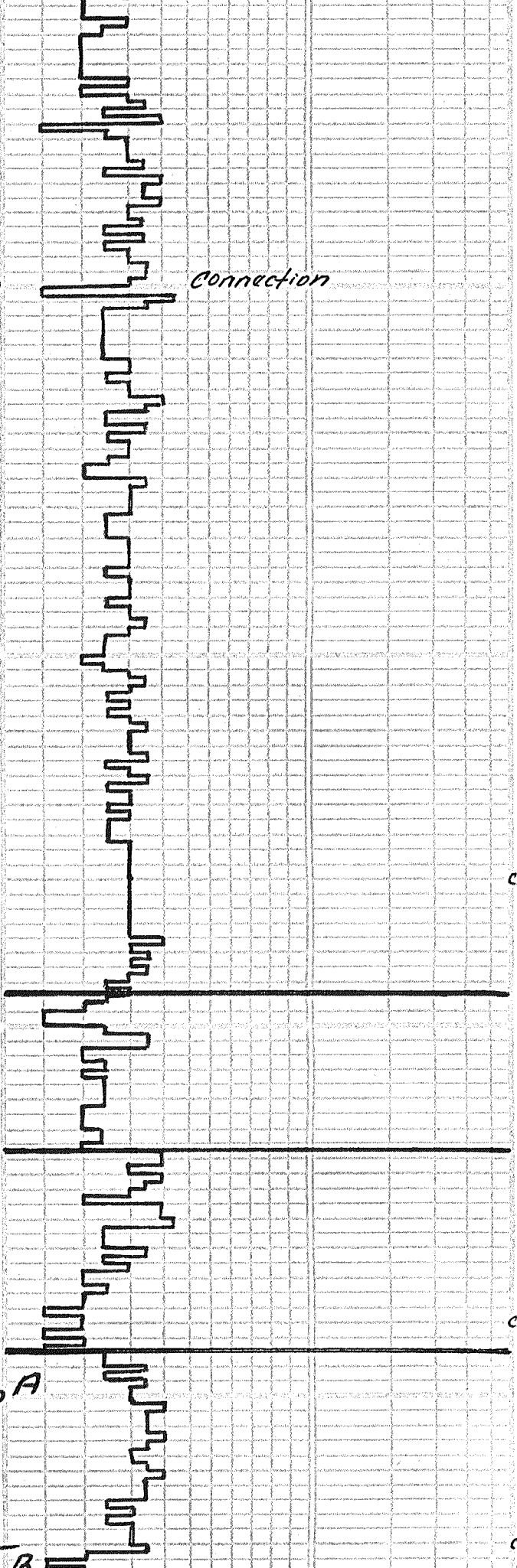
2950

3000

Sh. gry. 1st. , sly, mica, earthy  
 Occ. Ls. crm-brn, m. hrd, dns. ,  
 fn. xln, foss, tr. glauc. NØ NSFOC  
 Sh. lt.-dk. gry. sft. - v. sft. clay.  
 Occ. sly-sndy, earthy  
 Ls. crm-brn, m. hrd-hrd, dns. ,  
 xln, occ. foss. NØ NSFOC  
 Sh. gry-dk. gry. , v. sft. - m. sft. ,  
 sly-clayey, earthy  
 Ls. crm-brn, hrd-mist, dns. ,  
 fn. xln-mxln, foss. NØ NSFOC  
 Sh. A.A.  
 Ls. crm-tan-lt. gry. m. sft-hrd,  
 dns. , fn. xln-mxln, tr. mic, foss.  
 tr. chky. NØ NSFOC  
 Ls. crm-gry, m. hrd-m. sft, dns.  
 fn. vfg xln, foss. NØ NSFOC  
 Sh. lt.-dk. gry. , v. sft. clayey -  
 m. sft. dns. earthy, sly.  
 tr. ss, gry, m. sft, vfg, tr. A, pr-  
 No vis. Ø sly. NSFOC  
 Sh. A.A.  
 Ls. A.A.  
 tr. ss. A.A. ? Ø NSFOC  
 tr. Ls. crm-gry, m. hrd, dns. ,  
 vfg, foss. NØ NSFOC  
 Sh. gry-gry-dk. gry, sly, earthy  
 tr. Ls. A.A. ? cavings. NØ NSFOC  
 Sh. gry-dk. gry, sft, sly-sndy -  
 m. hrd, earthy, pyr.  
 Sh. A.A. tr. sly-sndy  
 Ls. crm-gry, m. sft-hrd, dns, vfg  
 -mxln, foss-v. foss. NØ NSFOC  
 Occ. Sh. A.A. , Pyr.  
 Ls. crm-tan-prn-gry, m. hrd-  
 hrd, dns. , fn. xln-mic, occ. foss.  
 tr. sh. stnd. NØ NSFOC  
 Occ. Sh. gry-dk. gry, m. sft, dns.  
 earthy  
 Ls. crm-gry, m. hrd, dns, occ.  
 foss. NØ NSFOC  
 Occ. Sh. A.A.  
 Ls. crm-tan, tr. gry, m. hrd,  
 dns-m. sft, chky, occ. foss.  
 tr. sh. stnd. NØ NSFOC  
 Ls. crm, m. hrd-m. sft, dns. ,  
 vfg-mxln, occ. foss. NØ NSFOC  
 Sh. lt.-dk. gry, m. sft-sft, sly -  
 sly, earthy  
 Sh. A.A. , less sly-sndy  
 Ls. crm-gry, m. sft, tr. chky  
 tr. foss, sh. stnd. NØ NSFOC  
 tr. Sh. A.A.  
 Ls. crm-tan-gry, m. sft, chky -  
 hrd, dns, vfg-mxln, foss.  
 tr. sh. stnd. NØ NSFOC  
 Ls. crm-tan, hrd, dns-sft, chky  
 Abun. sh. stnd, vfg-mxln, occ.  
 foss. NØ NSFOC  
 tr. Sh. dk. gry, m. sft, earthy  
 Sh. lt.-dk. gry, sft-m. hrd, clayey  
 earthy  
 Ls. crm-tan-gry, sft, chky-hrd, dns  
 vfg-mxln, occ. foss, sh. sh. NØ NSFOC  
 Ls. crm-tan, hrd, dns, occ. sft  
 tr. chky, occ. foss, tr. sh. stnd, vfg  
 -mxln, tr. mic. NØ NSFOC  
 Sh. dk. gry, m. sft-m. hrd, earthy  
 Ls. crm-tan-lt. gry, hrd, dns.  
 fn. xln-mxln, mic, occ. foss  
 sh. stnd. NØ NSFOC  
 Sh. A.A.  
 Ls. crm-brn-gry, hrd, dns,  
 fn. xln-mxln, mic, tr. chky,  
 foss, Abun. sh. stnd, tr. chky  
 NØ NSFOC  
 Ls. A.A. 1-2 pc. vfg pp. Ø, dk. oil  
 sly, tr. cut + fl., v. perm.  
 No odor, No F.O.  
 Very weak show

Topeka Fm.  
 (-964)

Ls. crm-brn-gry, hrd, dns,  
 occ. sft, chky, fn. xln-mxln,  
 Abun. sh. stnd, foss. NØ NSFOC



Connection

Ls: A. A. NΦ NSFOC  
sh. dk. gry. - blk., m. sft. - m. hrd.,  
dns., earthy. - hackly, tr. carb.  
sh. A. A., less carb.

Ls: crm. - tan - lt. gry. m. hrd., dns  
VFG - mxln., foss. + sh. stnd. NΦ NSFOC  
Ls: A. A., less foss. + sh. stnd.  
tr. mic, tr. chf. NΦ NSFOC  
tr. s. gry., m. sft. - sft., tr. A. VFG  
sft., No Vis. Φ NSFOC  
sh. gry. - dk. gry., sft. - m. hrd., dns.  
earthy - hackly

Ls: crm. - tan, hrd., dns., VFG - mxln.  
occ. foss., tr. sh. stnd. NΦ NSFOC  
Sh: gry. - dk. gry., m. sft., dns.,  
earthy - hackly

Ls: A. A., occ. sh. stnd., foss.  
NΦ NSFOC  
Sh: gry. - blk. - blk., m. hrd., dns.,  
earthy - fissile, tr. carb.

Ls: crm., hrd. - m. sft., dns., VFG -  
mxln., occ. foss. NΦ NSFOC  
Ls: A. A. NΦ NSFOC

Sh: dk. gry. - blk., m. hrd., dns.,  
hack. tr. carb.  
Ls: crm. - gry., m. sft. - hrd., dns.,  
VFG - mxln., foss., occ. sh. stnd.  
tr. chiky. NΦ NSFOC

Mud Check @ 3151'  
M.W. 9.1 lb/gal  
Vis. 51 sec. 1qt  
W.L. 8.0 ml. / 30 min.  
CHT. 6,800 ppm  
Solids 5.7%  
L.C.M. 3 lbs. / bbl.

Ls: crm. - tan, occ. gry., m. sft. - hrd.  
dns., VFG - mxln., mic, tr. chf.  
occ. foss., tr. sh. stnd. NΦ NSFOC

Sh: gry. - blk., m. sft., dns., earthy -  
hack., tr. carb.  
Ls: crm. - tan, sft. + chiky. - hrd., dns.  
VFG - mxln., occ. foss. NΦ NSFOC  
Sh: A. A.

Ls: crm. - lt. gry., sft. - hrd., VFG -  
mxln., occ. foss. + sh. stnd.  
tr. chiky. NΦ NSFOC  
Ls: crm. - tan - lt. gry., hrd. - m. sft.  
dns., VFG - mxln., tr. mic., occ.  
foss., tr. sh. stnd., tr. rexed.  
NΦ NSFOC

DST # 1 3175-3255'  
30-60-60-90  
REL. 200' OC WM  
Dev. 3/4"  
STRAP .01' short

<sup>CFS</sup> Ls: crm. - gry., hrd. - m. sft., dns.,  
VFG - mxln., tr. mic., tr. pyr. +  
sh. stnd., tr. ool. tr. pyr.  
NΦ NSFOC  
Ls: A. A. NΦ NSFOC

Sh: gry. - blk., m. hrd. - m. sft., dns.  
earthy - hackly, occ. carb.  
Sh: A. A., mod. blk., carb.

Heebner Shale  
(-1214')

sh. gry. - lt. gry., m. sft., dns.,  
clayey - earthy  
Sh: A. A.  
Ls: crm. - tr. gry., hrd. - m. hrd., dns.  
VFG - mxln., mic., tr. sh. stnd.,  
tr. foss., tr. pyr. NΦ NSFOC

Toronto Ls.  
(-1235')

Ls: crm., hrd. - sft. + chiky., VFG  
- mxln., occ. foss. + sh. stnd.  
some looks like oil, NΦ NSFOC

Ls: A. A. tr. blk. chf. NΦ NSFOC  
Sh: gry. - blk. - dk. gry. - m. sft. -  
m. hrd., dns., earthy - hack.

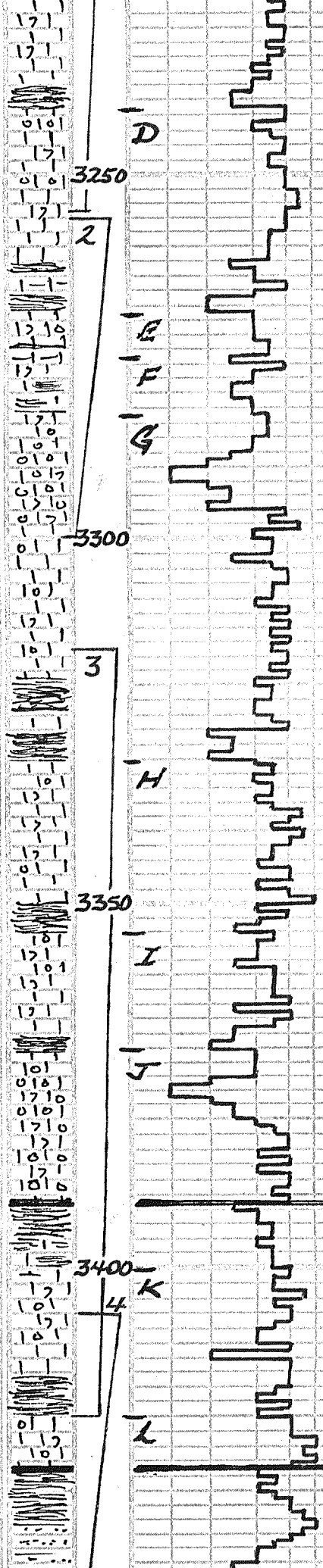
<sup>CFS</sup> Sh: dk. gry. - blk., m. sft. - m. hrd., dns.  
hackly, tr. carb.  
Ls: crm., hrd., dns., VFG - mxln.,  
tr. foss., tr. sh. stnd. NΦ NSFOC

Lansing  
Group  
(-1262')

Ls: crm., hrd., dns., VFG - mxln., mic.  
tr. foss. 1/3-4 pc. VFG pp. Φ w/  
dk. tan. stn. V. wk. ool., wk. cut  
+ fl., No F. O. ? and very weak show  
Ls: crm., hrd., dns., tr. mxln. - mxln.  
tr. sft. + chiky., occ. foss., occ.  
sh. stnd., tr. dk. gry. ool.  
NΦ NSFOC

<sup>CFS</sup> Ls: crm. - wh. sft. + chiky. - hrd., dns.  
mic., tr. VFG. mod. chf. w/ dk.  
tan. stn. tr. cut fl. wk. ool.

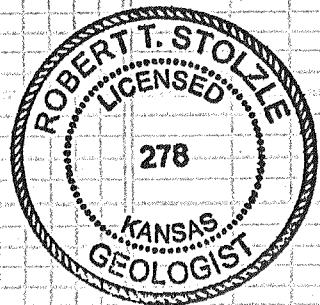
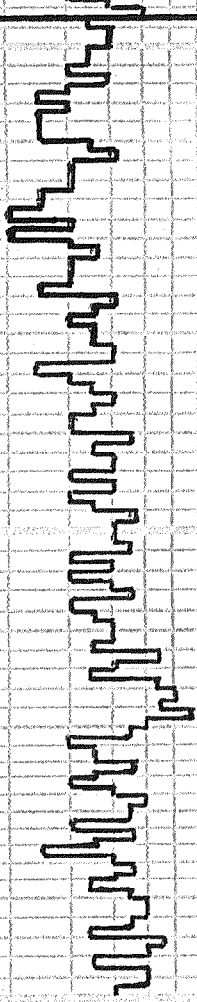
Weak Show



No F.O. v. ? perm.  
 Ls: A.A., 1 pc. w/  $\phi$  + show A.A.  
 1-2 pc. barren oom.  $\phi$   
 CFS Ls: crm, hrd., dns., VFG - mxln, mic.  
 fr. chiky, itr. foss. N $\phi$  NSFOC  
 Ls: crm., hrd.: m. stf., dns., VFG -  
 mxln, 13-4 pc. Vug. moldic  $\phi$   
 w/ lt. brn. stn., tr. odor, No F.O.  
 wk. cut + fl., some barren  $\phi$   
 Ls: A.A., N $\phi$  NSFOC  
 CFS sh: dk. gry. - blk., earthy, carb.  
 Ls: crm, hrd., dns., VFG - mxln, mic.  
 occ. foss. N $\phi$  NSFOC  
 Ls: crm - gry., hrd. - m. stf., mxln -  
 mxln, occ. mic., 2-3 pc. w/ fr.  
 pr. stn. Vug. moldic  $\phi$ , lt. brn.  
 stn., wk. cut + fl., v. ? perm.  
 Ls: A.A., occ. foss. N $\phi$  NSFOC  
 CFS sh: dk. gry. - blk., m. hrd., occ. carb.  
 Sh: A.A., Ls: A.A. N $\phi$ , occ. chiky  
 Sh: gry. grn. - gry. m. stf., earthy  
 Ls: crm - tan, hrd - m. stf., dns.,  
 VFG - mxln, itr. foss., 1-2 pc.  
 ool., fr. chiky N $\phi$  NSFOC  
 Ls: crm., hrd. - stf., chiky, VFG mxln,  
 occ. foss. + ool., itr. barren oom.  $\phi$   
 occ. pr. Vug. moldic  $\phi$  w/ lt. dk. brn.  
 stn., fr. cut + fl., No odor, No F.O.  
 CFS Ls: crm., hrd., dns., VFG - mxln.  
 mic., rare foss. N $\phi$  NSFOC  
 Abundant red dk. sh. cavings  
 Ls: A.A., 1-2 pc. w/ pr. Vug.  $\phi$ ,  
 dk. stn., fr. cut + fl., No odor  
 No F.O. v. ? perm.  
 Very weak show DST#3  
 Ls: crm., hrd., dns., VFG - mxln, mic.  
 fr. foss. N $\phi$  NSFOC  
 Sh: gry. grn. - dk. gry., m. stf., dns.  
 earthy - hackly  
 Ls: crm - wh. hrd., dns., VFG - mxln.  
 fr. foss. w/ 3-4 pc. Vug.  $\phi$   
 Around foss. grns., brn. stn., wk  
 cut + fl., No odor, No F.O.  
 Ls: crm - tan, hrd., dns., VFG -  
 mxln, mic., itr. foss. + ool. 1-2  
 pc. w/ barren Vug.  $\phi$   
 CFS sh: gry. - dk. gry., m. stf. - m. hrd., dns.  
 hackly, occ. stn. - sandy mic.  
 Ls: crm., hrd., dns., VFG - mxln, itr.  
 hex. ool., itr. foss. + ool., 5-6 pc. w/  
 pr. Vug.  $\phi$ , lt. brn. stn., wk odor  
 CFS wk. cut + fl., No F.O.  
 sh: gry. grn. - dk. gry., m. stf. - m. hrd.  
 dns., earthy - hackly  
 Ls: crm - wh., hrd. - m. stf., VFG mxln.  
 occ. foss. + ool., occ. pr. - fr.  
 Vug. moldic  $\phi$ , 1 pc. gd. int. ool.  $\phi$   
 brn. - blk. stn., wk. odor, gd. cut + fl.  
 Ls: wh - crm., hrd., dns., VFG -  
 mxln, mic., 3-4 pc. w/ pr. - fr.  
 fr. grn. Vug. moldic  $\phi$ , A.A.  
 CFS wk. odor, wk. cut + fl., No F.O.  
 Sh: gry. - blk., m. hrd., dns., earthy  
 Ls: crm - wh., hrd., dns., VFG mxln, 1-2  
 occ. foss. + ool. w/ fr. pr. - fr.  
 Vug.  $\phi$  around foss. grns., brn. - blk.  
 stn., fr. - wk. cut + fl., No odor, No F.O.  
 Ls: crm., hrd., dns., VFG - mxln, mic.  
 fr. foss. + ool. w/ 1-2 pc. int.  
 part.  $\phi$  + shows A.A.  
 CFS Ls: crm., hrd. - stf. + chiky, occ.  
 foss. + ool., VFG - mxln, fr. pr.  
 Vug.  $\phi$  1-2 pc. w/ dk. stn., wk.  
 cut + fl. - from above v. wk. show  
 Ls: A.A., ool. N $\phi$  NSFOC  
 Sh: brn. - rd. brn., dk. gry., stf. +  
 clayey - m. hrd., dns., earthy  
 fr. brn. ss. - fr. stn. N $\phi$   
 Dol: tan - brn., hrd., dns., mxln.  
 fr. Vug. moldic  $\phi$ , poss. VFG,  
 oil SPERKS IN  
 TOOL

reworked Arbuckle

3550  
3450  
3500  
3550



INTXIN  $\Phi$ , 14.5% stn, tr. yd. cut  
 + fl., fr. odor, No F.O., ? perm  
 CFS Dol: A.A., occ. m. st. + fr. in. tr.  
 med. tan. grnd xln w/ pr. INTXIN  
 $\Phi$ , wk. odor, tr. cut + fl., No F.O.  
 O Abul. Cong. sh. - cavings?  
 CFS Dol: A.A. Abul. sh., occ. wh.  
 ch. - tr. ool., occ. wh. ch. xk  
 sp. ls. Dol: tr. tr. pr. Vug  $\Phi$   
 No odor, No F.O., wk. cut + fl.  
 CFS Dol: wh. - tan, med. tan. in. tr.  
 st. wh. ch. k. A.A. occ. tr.  
 INTXIN  $\Phi$  + tr. qd. Vug  $\Phi$ , tr.  
 wk. stn, wk. cut + fl., No odor  
 CFS Dol: crm. - tan, hrd. dns, INXIN,  
 tr. fr. Vug.  $\Phi$ , tr. pr. INTXIN  $\Phi$   
 occ. ch. k., tr. wh. ch. tr.  
 Sndy Dol. NSFOC  
 Dol: wh. - crm. - tan, hrd., dns.,  
 INXIN - mxIN, tr. pr. VEG Vug  $\Phi$   
 No INTXIN  $\Phi$ , occ. wh. ch.  
 N  $\Phi$  NSFOC  
 Dol: crm. - tan, hrd., dns, INXIN -  
 mxIN, occ. wh. ch. tr., tr.  
 pr. INTXIN  $\Phi$ , rare pr. Vug  $\Phi$   
 NSFOC  
 Dol: crm. - tan, fr. pink, hrd., dns.  
 INXIN - mxIN, tr. pr. INTXIN  $\Phi$   
 1-2 pc. fr. Vug.  $\Phi$ , tr. ch.  
 NSFOC  
 Dol: crm. - tan, hrd., dns., tan - VEG  
 xIN, tr. wh. ch. tr., occ. tr. pr.  
 Vug.  $\Phi$  11-2 pc. in qd. ool. stn,  
 qd. cut + fl., No odor, No F.O.  
 Very WEAK Show  
 Dol: wh. - tan, hrd., dns, INXIN  
 - mxIN, tr. ool. ch. tr. pr.  
 INTXIN  $\Phi$ , 1 tr. pr. Vug.  $\Phi$  1-2  
 pc. w/ brn. stn. A.A. cavings  
 Very WEAK Show  
 Dol: tan - crm, hrd., dns, INXIN - mxIN  
 tr. VEG INTXIN  $\Phi$  w/ brn. bk  
 stn. 2-3 pc. qd. cut + fl., No odor  
 No F.O., 11% perm. V. WEAK Show  
 CFS

Weak Show  
 An buckle Frm.  
 (-1515')  
 Weak Show

Very Weak Show

Very Weak Show

Mud Check @ 3460  
 M.W. 9.3  
 V.S. 47  
 V.L. 11.2  
 Chl. 18,300  
 Solids 7.1%  
 LCM. 1#

Very WEAK Show

Very WEAK Show

D.T.D. 3550'  
 L.T.D. 3551'

Robert Stolze  
 4/18/12



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling. Co.**

250 N. Water  
STE 300  
Wichita KS 67202+1216

ATTN: Robert Stolzle

### **Phillip Unit #1-19**

### **19-14s-16w Ellis,KS**

Start Date: 2012.04.15 @ 02:24:05

End Date: 2012.04.15 @ 10:04:50

Job Ticket #: 47258                      DST #: 1

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

Printed: 2012.04.19 @ 09:30:23



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling. Co.  
 250 N. Water  
 STE 300  
 Wichita KS 67202+1216  
 ATTN: Robert Stolze

**19-14s-16w Ellis, KS**  
**Phillip Unit #1-19**  
 Job Ticket: 47258 **DST#: 1**  
 Test Start: 2012.04.15 @ 02:24:05

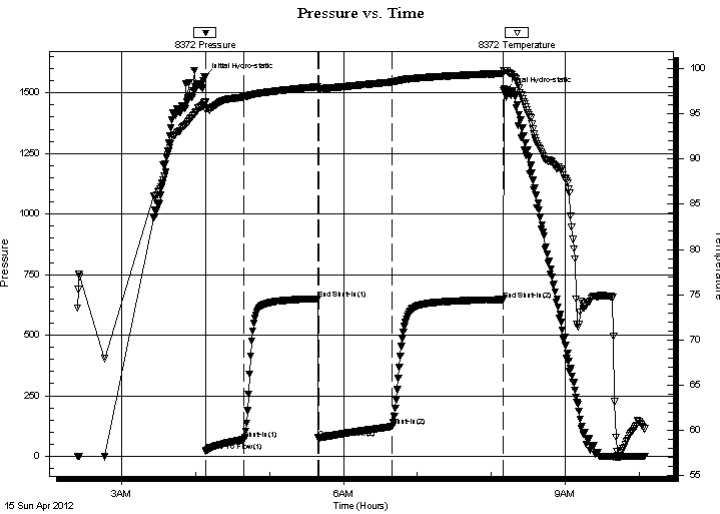
## GENERAL INFORMATION:

Formation: **LKC"A-D"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 04:08:00  
 Time Test Ended: 10:04:50  
 Interval: **3175.00 ft (KB) To 3255.00 ft (KB) (TVD)**  
 Total Depth: 3255.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Andy Carreira  
 Unit No: 39  
 Reference Elevations: 1932.00 ft (KB)  
 1921.00 ft (CF)  
 KB to GR/CF: 11.00 ft

## Serial #: 8372 Outside

Press @ Run Depth: 123.21 psig @ 3178.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.04.15 End Date: 2012.04.15 Last Calib.: 2012.04.15  
 Start Time: 02:24:05 End Time: 10:04:50 Time On Btm: 2012.04.15 @ 04:06:50  
 Time Off Btm: 2012.04.15 @ 08:10:09

TEST COMMENT: IF:(30min) 1.5" blow  
 IS:(60min) No Return  
 FF:(60min) 1" blow  
 FS:(90min) No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1564.87	96.18	Initial Hydro-static
2	20.84	95.40	Open To Flow (1)
33	69.95	96.83	Shut-In(1)
93	650.15	97.98	End Shut-In(1)
93	75.96	97.78	Open To Flow (2)
153	123.21	98.50	Shut-In(2)
243	646.95	99.44	End Shut-In(2)
244	1506.85	99.72	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
120.00	OCWM o=10% w=20% m=70%	0.59
60.00	OCM o=10% m=90%	0.30
20.00	HOCGM g=10% o=30% m=60%	0.10

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

## DRILL STEM TEST REPORT

Murfin Drilling, Co.  
250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**19-14s-16w Ellis,KS**  
**Phillip Unit #1-19**  
Job Ticket: 47258 **DST#: 1**  
Test Start: 2012.04.15 @ 02:24:05

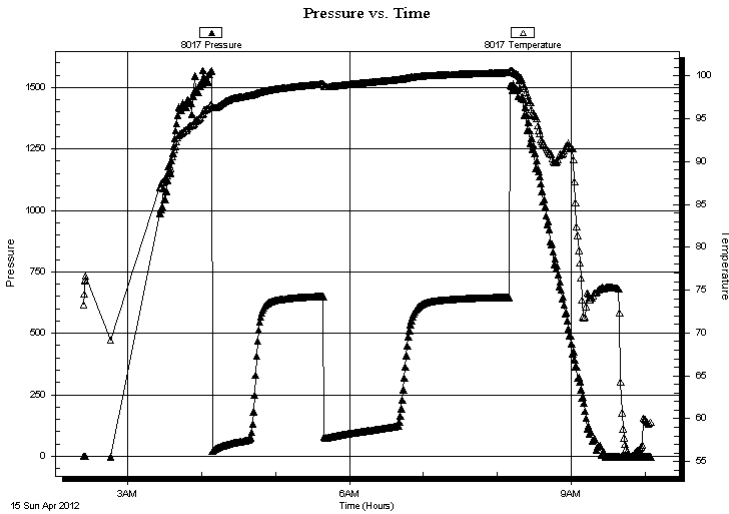
### GENERAL INFORMATION:

Formation: **LKC"A-D"**  
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)  
Time Tool Opened: 04:08:00 Tester: Andy Carreira  
Time Test Ended: 10:04:50 Unit No: 39  
**Interval: 3175.00 ft (KB) To 3255.00 ft (KB) (TVD)** Reference Elevations: 1932.00 ft (KB)  
Total Depth: 3255.00 ft (KB) (TVD) 1921.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

### Serial #: 8017 Inside

Press@RunDepth: psig @ 3178.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.04.15 End Date: 2012.04.15 Last Calib.: 2012.04.15  
Start Time: 02:24:05 End Time: 10:04:50 Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF:(30min) 1.5" blow  
IS:(60min) No Return  
FF:(60min) 1" blow  
FS:(90min) No Return



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
120.00	OCWM o=10% w=20% m=70%	0.59
60.00	OCM o=10% m=90%	0.30
20.00	HOCGM g=10% o=30% m=60%	0.10

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling. Co.

**19-14s-16w Ellis,KS**

250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**Phillip Unit #1-19**

Job Ticket: 47258

**DST#: 1**

Test Start: 2012.04.15 @ 02:24:05

## Tool Information

Drill Pipe:	Length: 2890.00 ft	Diameter: 3.80 inches	Volume: 40.54 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	24000.00 lb
Drill Collar:	Length: 264.54 ft	Diameter: 2.25 inches	Volume: 1.30 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 41.84 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	7.54 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	3175.00 ft			Final	63000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	80.00 ft				
Tool Length:	108.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3148.00	
Shut In Tool	5.00			3153.00	
Hydraulic tool	5.00			3158.00	
Jars	5.00			3163.00	
Safety Joint	3.00			3166.00	
Packer	5.00			3171.00	28.00 Bottom Of Top Packer
Packer	4.00			3175.00	
Stubb	1.00			3176.00	
Perforations	1.00			3177.00	
Change Over Sub	1.00			3178.00	
Recorder	0.00	8017	Inside	3178.00	
Recorder	0.00	8372	Outside	3178.00	
Drill Pipe	63.00			3241.00	
Change Over Sub	1.00			3242.00	
Perforations	10.00			3252.00	
Bullnose	3.00			3255.00	80.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>108.00</b>				





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling, Co.

**19-14s-16w Ellis,KS**

250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**Phillip Unit #1-19**

Job Ticket: 47258      **DST#: 1**  
Test Start: 2012.04.15 @ 02:24:05

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.93 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6800.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	OCWM o=10% w =20% m=70%	0.590
60.00	OCM o=10% m=90%	0.295
20.00	HOCGM g=10% o=30% m=60%	0.098

Total Length: 200.00 ft      Total Volume: 0.983 bbl

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

Laboratory Name:      Laboratory Location:

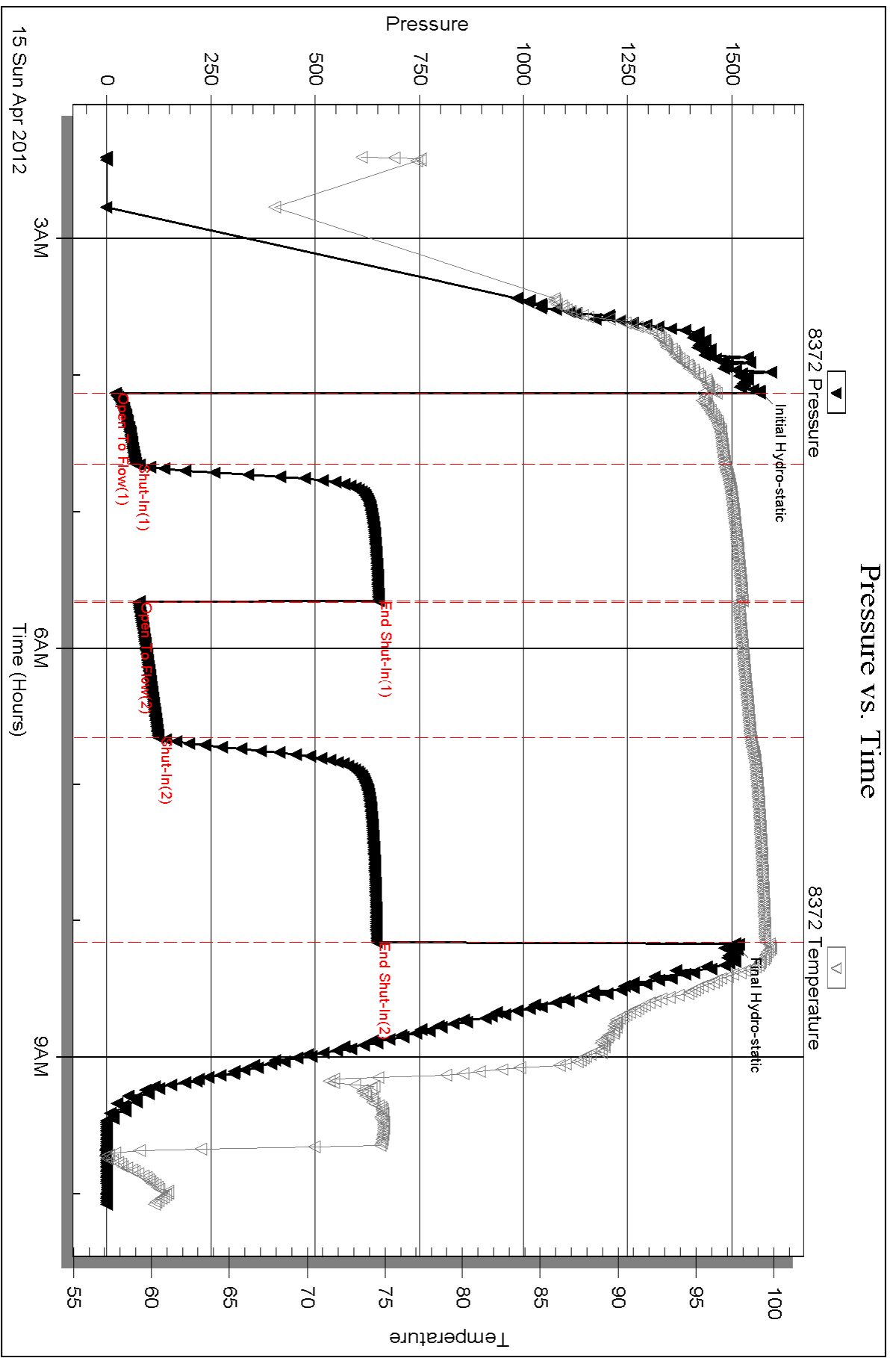
Recovery Comments:

Serial #: 8372

Outside Murfin Drilling Co.

Phillip Unit #1-19

DST Test Number: 1



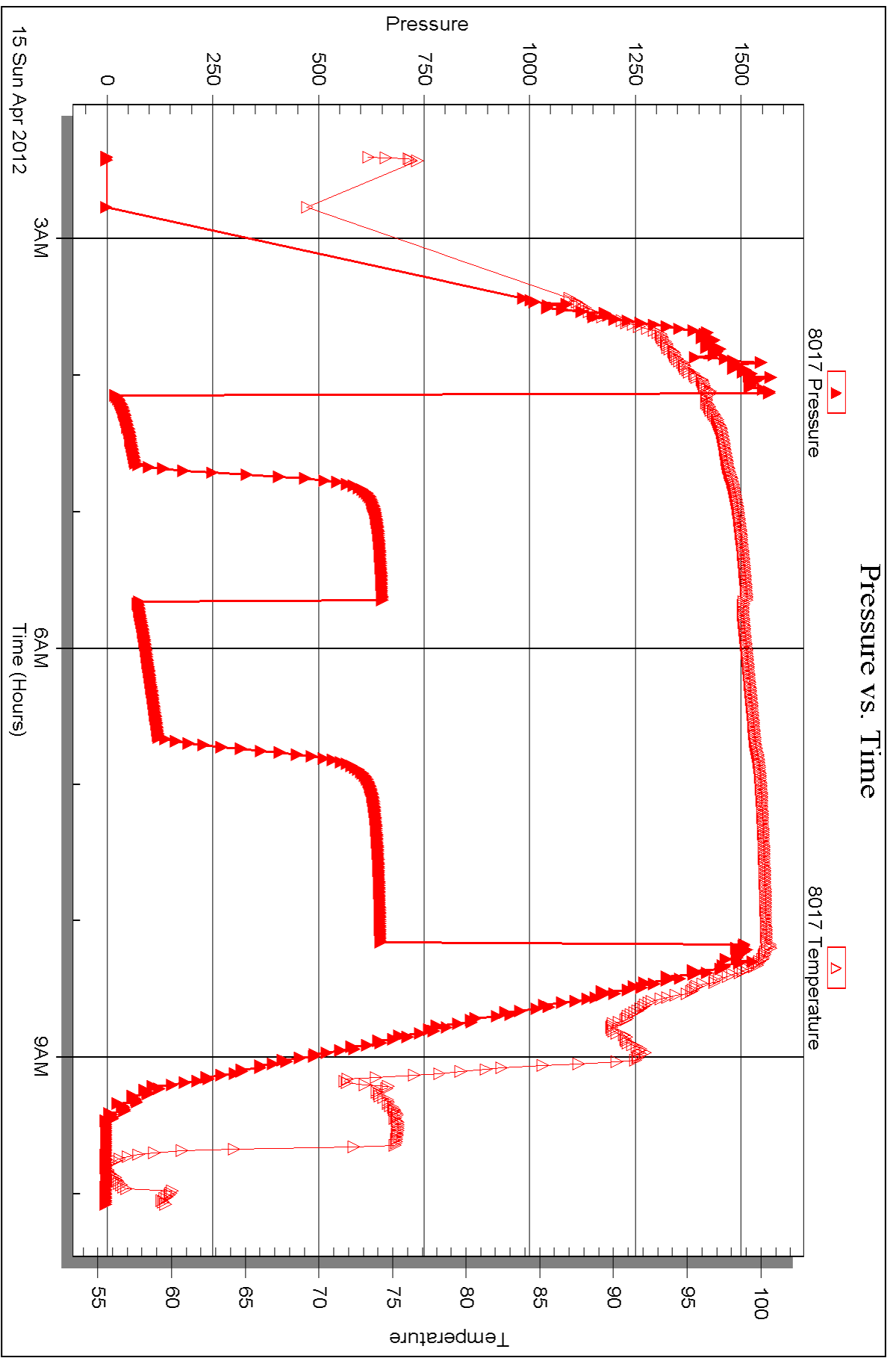
Serial #: 8017

Inside

Murfin Drilling Co.

Phillip Unit #1-19

DST Test Number: 1





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling. Co.**

250 N. Water  
STE 300  
Wichita KS 67202+1216

ATTN: Robert Stolzle

### **Phillip Unit #1-19**

### **19-14s-16w Ellis,KS**

Start Date: 2012.04.15 @ 16:37:05

End Date: 2012.04.15 @ 23:02:09

Job Ticket #: 47259                      DST #: 2

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

Printed: 2012.04.19 @ 09:29:35



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling. Co.  
 250 N. Water  
 STE 300  
 Wichita KS 67202+1216  
 ATTN: Robert Stolzle

**19-14s-16w Ellis,KS**  
**Phillip Unit #1-19**  
 Job Ticket: 47259 **DST#: 2**  
 Test Start: 2012.04.15 @ 16:37:05

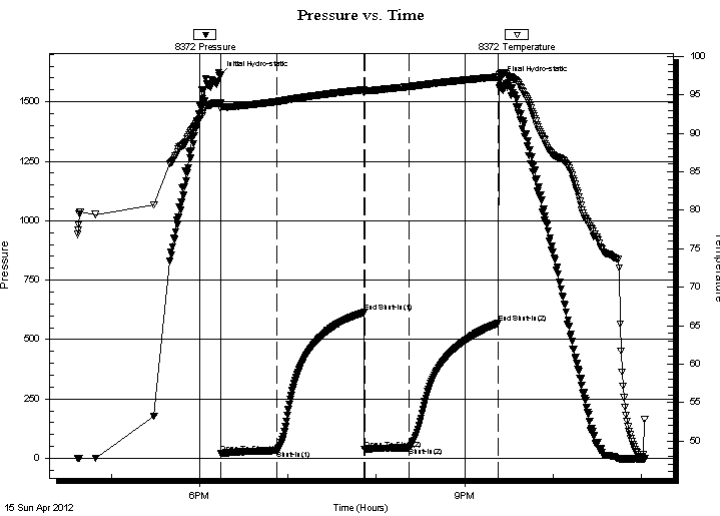
## GENERAL INFORMATION:

Formation: **LKC"E-G"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:14:20  
 Time Test Ended: 23:02:09  
 Interval: **3256.00 ft (KB) To 3300.00 ft (KB) (TVD)**  
 Total Depth: 3300.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Andy Carreira  
 Unit No: 39  
 Reference Elevations: 1932.00 ft (KB)  
 1921.00 ft (CF)  
 KB to GR/CF: 11.00 ft

## Serial #: 8372 Outside

Press @ Run Depth: 45.16 psig @ 3260.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2012.04.15 End Date: 2012.04.15 Last Calib.: 2012.04.15  
 Start Time: 16:37:05 End Time: 23:02:10 Time On Btm: 2012.04.15 @ 18:13:20  
 Time Off Btm: 2012.04.15 @ 21:23:50

**TEST COMMENT:** IF:(37min) Blow died in 18 min. 37min instead of 30min. Rotary Chain Broke.  
 ISl:(60min) No Return  
 FF:(30min) No Blow  
 FSl:(60min) No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1610.82	93.93	Initial Hydro-static
1	19.89	93.19	Open To Flow (1)
40	32.81	94.16	Shut-In(1)
99	614.11	95.69	End Shut-In(1)
99	38.62	95.33	Open To Flow (2)
129	45.16	96.08	Shut-In(2)
190	567.99	97.37	End Shut-In(2)
191	1590.77	97.64	Final Hydro-static

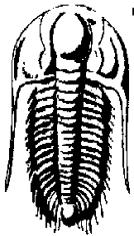
## Recovery

Length (ft)	Description	Volume (bbl)
65.00	Mud	0.32

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
TESTING, INC.

# DRILL STEM TEST REPORT

Murfin Drilling, Co.  
250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**19-14s-16w Ellis,KS**

**Phillip Unit #1-19**

Job Ticket: 47259      **DST#: 2**  
Test Start: 2012.04.15 @ 16:37:05

## GENERAL INFORMATION:

Formation: **LKC"E-G"**

Deviated: No Whipstock:                          ft (KB)

Time Tool Opened: 18:14:20

Time Test Ended: 23:02:09

Test Type: Conventional Bottom Hole (Reset)

Tester: Andy Carreira

Unit No: 39

**Interval: 3256.00 ft (KB) To 3300.00 ft (KB) (TVD)**

Reference Elevations: 1932.00 ft (KB)

Total Depth: 3300.00 ft (KB) (TVD)

1921.00 ft (CF)

Hole Diameter: 7.88 inches      Hole Condition: Fair

KB to GR/CF: 11.00 ft

## Serial #: 8017

### Inside

Press @ Run Depth:                          psig @ 3260.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2012.04.15                          End Date: 2012.04.15

Last Calib.: 2012.04.15

Start Time: 16:37:05                          End Time: 23:02:10

Time On Btm:

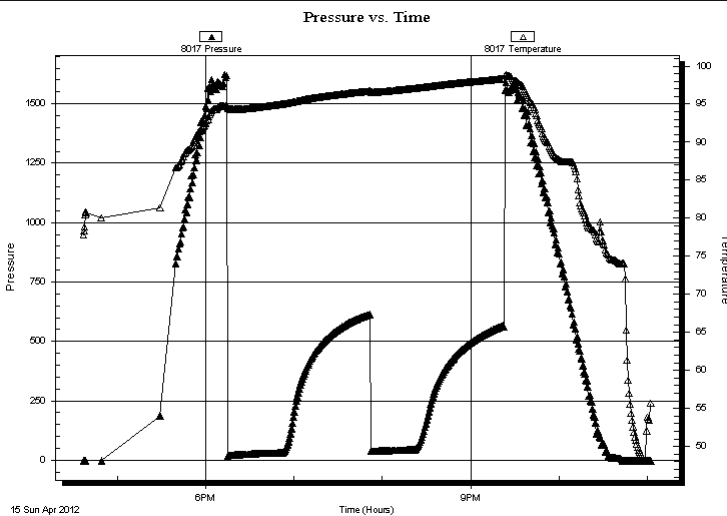
Time Off Btm:

**TEST COMMENT:** IF:(37min) Blow died in 18 min. 37min instead of 30min. Rotary Chain Broke.

ISl:(60min) No Return

FF:(30min) No Blow

FSl:(60min) No Return



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	Mud	0.32

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling. Co.

**19-14s-16w Ellis,KS**

250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**Phillip Unit #1-19**

Job Ticket: 47259

**DST#: 2**

Test Start: 2012.04.15 @ 16:37:05

## Tool Information

Drill Pipe:	Length: 2984.00 ft	Diameter: 3.80 inches	Volume: 41.86 bbl	Tool Weight:	2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer:	24000.00 lb
Drill Collar:	Length: 264.54 ft	Diameter: 2.25 inches	Volume: 1.30 bbl	Weight to Pull Loose:	68000.00 lb
			<u>Total Volume: 43.16 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.54 ft			String Weight: Initial	62000.00 lb
Depth to Top Packer:	3256.00 ft			Final	62000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	44.00 ft				
Tool Length:	72.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			
Tool Comments:					

## Tool Description

**Length (ft) Serial No. Position Depth (ft) Accum. Lengths**

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3229.00	
Shut In Tool	5.00			3234.00	
Hydraulic tool	5.00			3239.00	
Jars	5.00			3244.00	
Safety Joint	3.00			3247.00	
Packer	5.00			3252.00	28.00 Bottom Of Top Packer
Packer	4.00			3256.00	
Stubb	1.00			3257.00	
Perforations	2.00			3259.00	
Change Over Sub	1.00			3260.00	
Recorder	0.00	8017	Inside	3260.00	
Recorder	0.00	8372	Outside	3260.00	
Drill Pipe	32.00			3292.00	
Change Over Sub	1.00			3293.00	
Perforations	4.00			3297.00	
Bullnose	3.00			3300.00	44.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>72.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling, Co.

**19-14s-16w Ellis,KS**

250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**Phillip Unit #1-19**

Job Ticket: 47259      **DST#: 2**  
Test Start: 2012.04.15 @ 16:37:05

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.92 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 6800.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
65.00	Mud	0.320

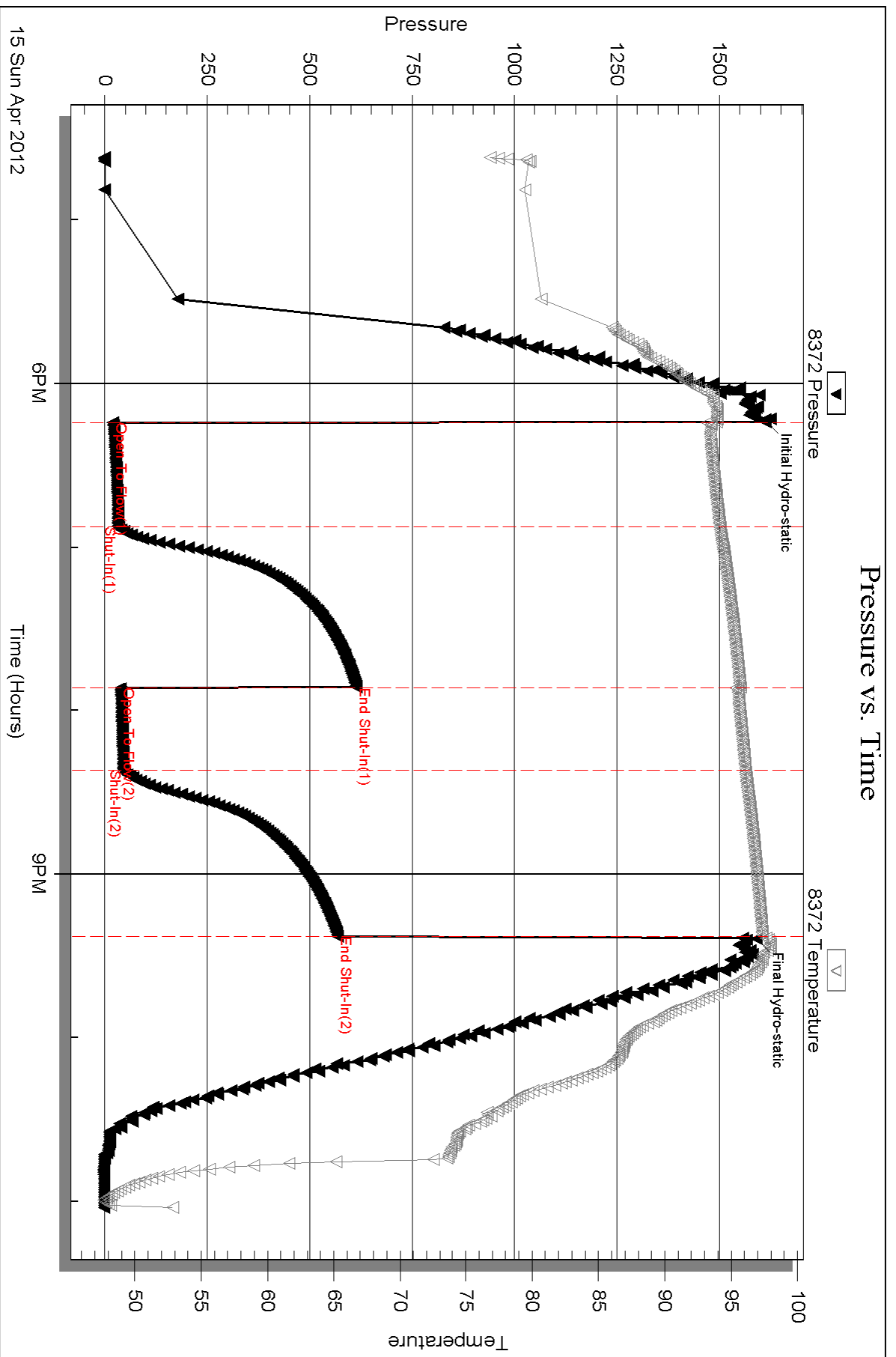
Total Length: 65.00 ft      Total Volume: 0.320 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:





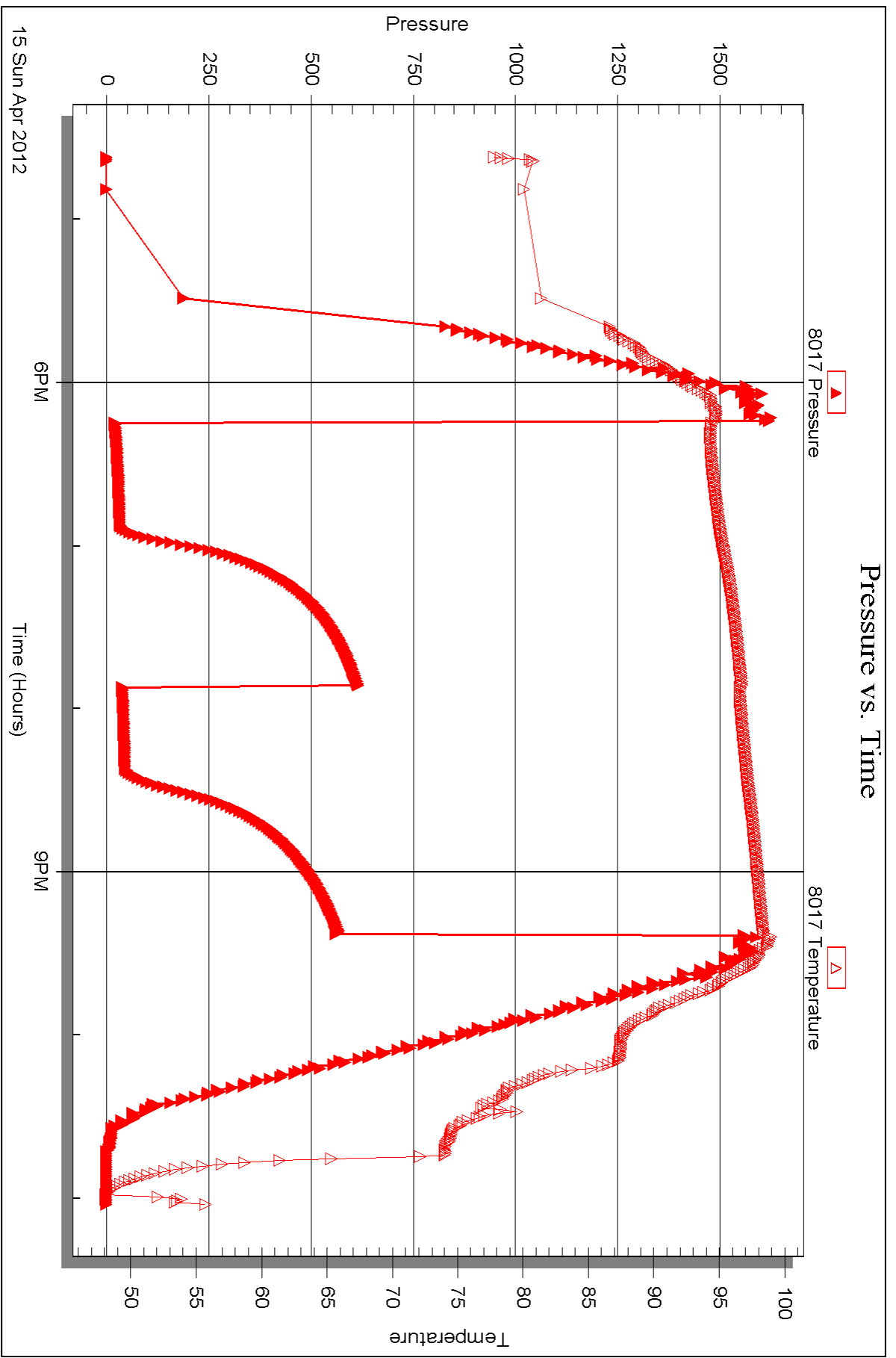
Serial #: 8017

Inside

Murfin Drilling Co.

Phillip Unit #1-19

DST Test Number: 2



Triobite Testing, Inc

Ref. No: 47259

Printed: 2012.04.19 @ 09:29:38



## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling. Co.**

250 N. Water  
STE 300  
Wichita KS 67202+1216

ATTN: Robert Stolzle

### **Phillip Unit #1-19**

### **19-14s-16w Ellis,KS**

Start Date: 2012.04.16 @ 11:02:05

End Date: 2012.04.16 @ 17:22:29

Job Ticket #: 47260                      DST #: 3

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

Printed: 2012.04.19 @ 09:28:59



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling. Co.  
250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolze

**19-14s-16w Ellis,KS**  
**Phillip Unit #1-19**  
Job Ticket: 47260 **DST#: 3**  
Test Start: 2012.04.16 @ 11:02:05

## GENERAL INFORMATION:

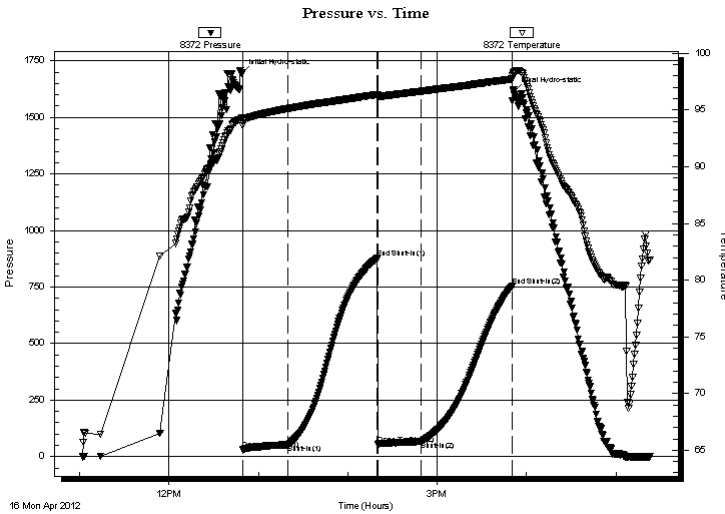
Formation: **LKC"H-K"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 12:49:40  
Time Test Ended: 17:22:29  
Interval: **3315.00 ft (KB) To 3420.00 ft (KB) (TVD)**  
Total Depth: 3420.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Andy Carreira  
Unit No: 39  
Reference Elevations: 1932.00 ft (KB)  
1921.00 ft (CF)  
KB to GR/CF: 11.00 ft

## Serial #: 8372 Outside

Press @ Run Depth: 66.99 psig @ 3319.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2012.04.16 End Date: 2012.04.16 Last Calib.: 2012.04.16  
Start Time: 11:02:05 End Time: 17:22:29 Time On Btm: 2012.04.16 @ 12:48:50  
Time Off Btm: 2012.04.16 @ 15:51:20

TEST COMMENT: IF:(30min) Blow Died in 20 min.  
ISl:(60min) No Return  
FF:(30min) Surface Blow  
FSl:(60min) No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1694.30	94.26	Initial Hydro-static
1	31.43	93.60	Open To Flow (1)
31	52.64	95.13	Shut-In(1)
91	876.90	96.37	End Shut-In(1)
92	55.26	96.13	Open To Flow (2)
121	66.99	96.66	Shut-In(2)
182	752.68	97.73	End Shut-In(2)
183	1614.23	98.27	Final Hydro-static

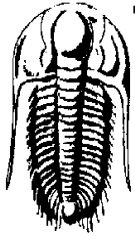
## Recovery

Length (ft)	Description	Volume (bbl)
80.00	SOCGM g=5% o=5% 90%	0.39

\* Recovery from multiple tests

## Gas Rates

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



**TRILOBITE**  
**TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling. Co.  
250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolze

**19-14s-16w Ellis, KS**  
**Phillip Unit #1-19**  
Job Ticket: 47260     **DST#: 3**  
Test Start: 2012.04.16 @ 11:02:05

## GENERAL INFORMATION:

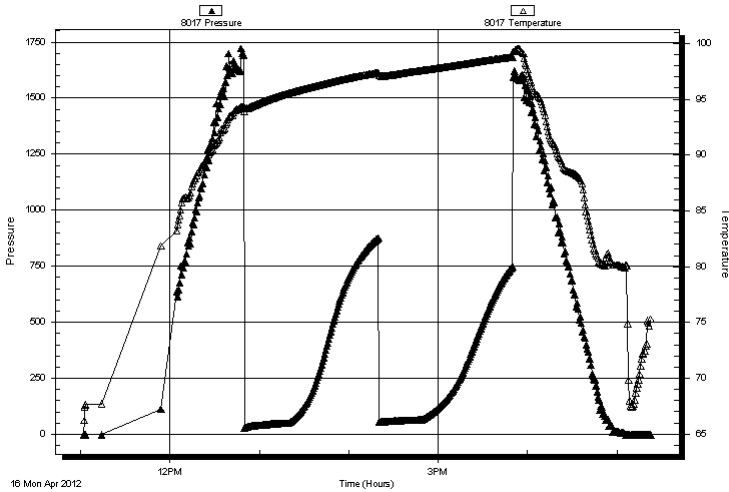
Formation: **LKC"H-K"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 12:49:40  
Time Test Ended: 17:22:29  
**Interval: 3315.00 ft (KB) To 3420.00 ft (KB) (TVD)**  
Total Depth: 3420.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair

Test Type: Conventional Bottom Hole (Reset)  
Tester: Andy Carreira  
Unit No: 39  
Reference Elevations: 1932.00 ft (KB)  
1921.00 ft (CF)  
KB to GR/CF: 11.00 ft

**Serial #: 8017**     **Inside**  
Press @RunDepth:     psig @     3319.00 ft (KB)     Capacity:     8000.00 psig  
Start Date:     2012.04.16     End Date:     2012.04.16     Last Calib.:     2012.04.16  
Start Time:     11:02:05     End Time:     17:22:40     Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF:(30min) Blow Died in 20 min.  
IS:(60min) No Return  
FF:(30min) Surface Blow  
FS:(60min) No Return

Pressure vs. Time



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
80.00	SOCGM g=5% o=5% 90%	0.39

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling. Co.

**19-14s-16w Ellis,KS**

250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**Phillip Unit #1-19**

Job Ticket: 47260

**DST#: 3**

Test Start: 2012.04.16 @ 11:02:05

## Tool Information

Drill Pipe:	Length: 3043.00 ft	Diameter: 3.80 inches	Volume: 42.69 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 264.54 ft	Diameter: 2.25 inches	Volume: 1.30 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 43.99 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	20.54 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3315.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	105.00 ft			
Tool Length:	133.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3288.00	
Shut In Tool	5.00			3293.00	
Hydraulic tool	5.00			3298.00	
Jars	5.00			3303.00	
Safety Joint	3.00			3306.00	
Packer	5.00			3311.00	28.00 Bottom Of Top Packer
Packer	4.00			3315.00	
Stubb	1.00			3316.00	
Perforations	2.00			3318.00	
Change Over Sub	1.00			3319.00	
Recorder	0.00	8017	Inside	3319.00	
Recorder	0.00	8372	Outside	3319.00	
Drill Pipe	94.00			3413.00	
Change Over Sub	1.00			3414.00	
Perforations	3.00			3417.00	
Bullnose	3.00			3420.00	105.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>133.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling. Co.

**19-14s-16w Ellis,KS**

250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**Phillip Unit #1-19**

Job Ticket: 47260      **DST#: 3**  
Test Start: 2012.04.16 @ 11:02:05

## Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 9.15 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 15000.00 ppm			
Filter Cake: inches			

## Recovery Information

Recovery Table

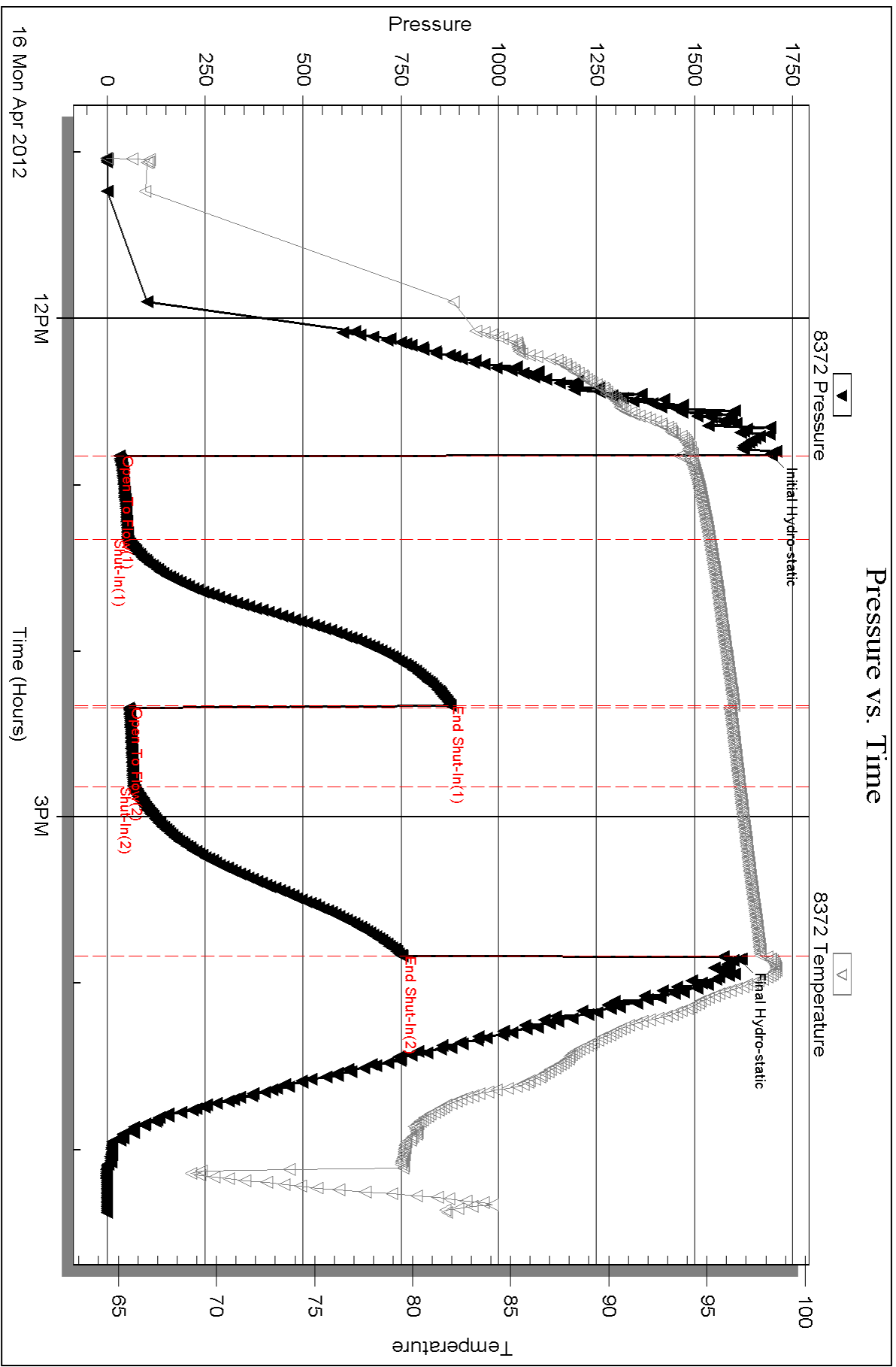
Length ft	Description	Volume bbl
80.00	SOCGM g=5% o=5% 90%	0.393

Total Length: 80.00 ft      Total Volume: 0.393 bbl

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

Laboratory Name:      Laboratory Location:

Recovery Comments:





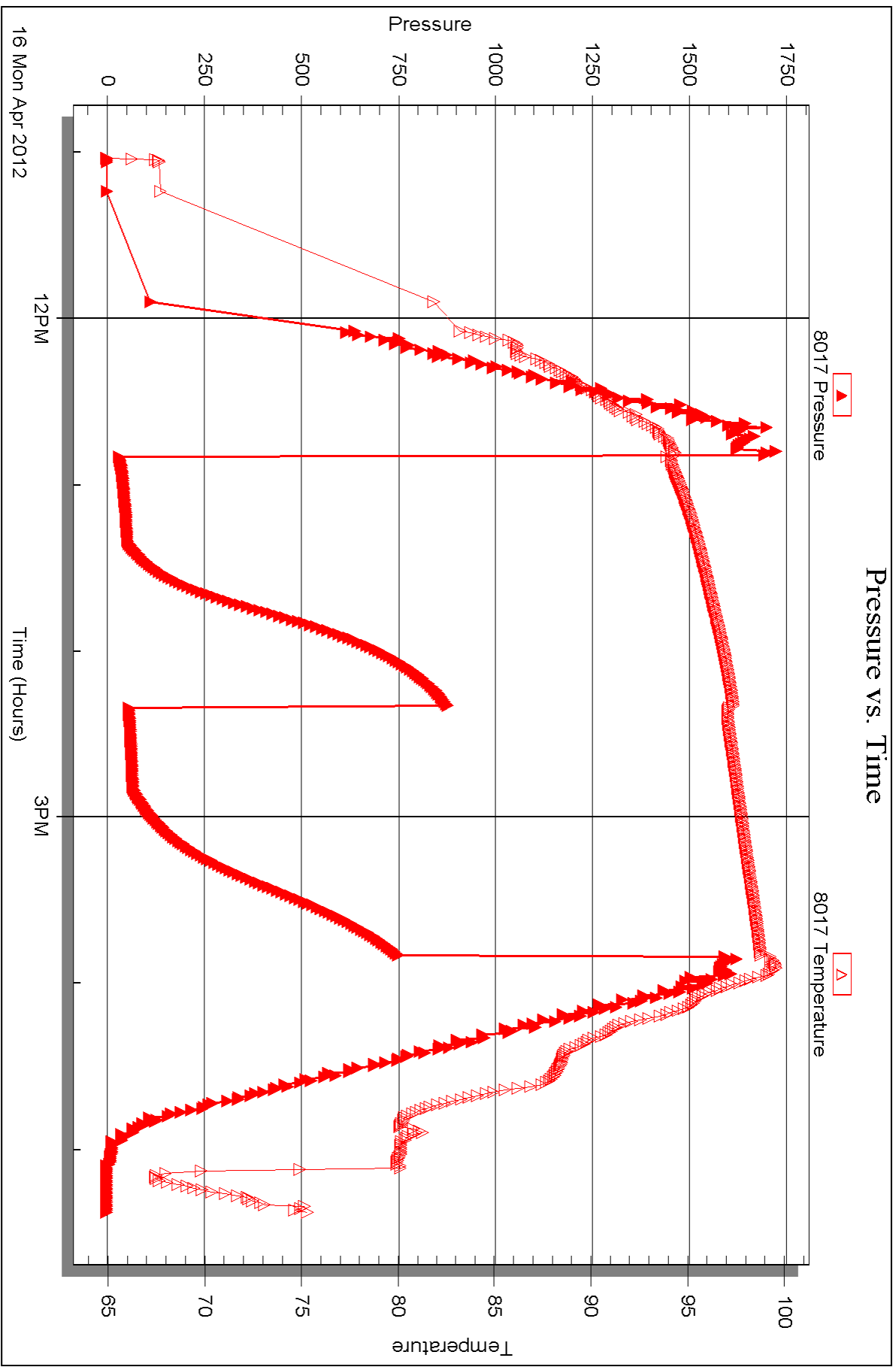
Serial #: 8017

Inside

Murfin Drilling Co.

Phillip Unit #1-19

DST Test Number: 3





## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling. Co.**

250 N. Water  
STE 300  
Wichita KS 67202+1216

ATTN: Robert Stolzle

### **Phillip Unit #1-19**

### **19-14s-16w Ellis,KS**

Start Date: 2012.04.16 @ 23:50:05

End Date: 2012.04.17 @ 05:48:20

Job Ticket #: 47261                      DST #: 4

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.04.19 @ 09:28:18



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling, Co.  
 250 N. Water  
 STE 300  
 Wichita KS 67202+1216  
 ATTN: Robert Stolze

**19-14s-16w Ellis,KS**  
**Phillip Unit #1-19**  
 Job Ticket: 47261 **DST#: 4**  
 Test Start: 2012.04.16 @ 23:50:05

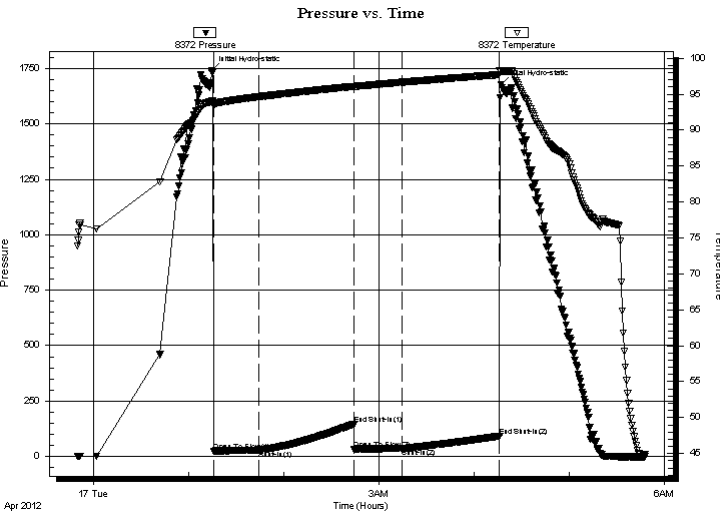
## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 01:15:50  
 Time Test Ended: 05:48:20  
 Interval: **3406.00 ft (KB) To 3450.00 ft (KB) (TVD)**  
 Total Depth: 3450.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Andy Carreira  
 Unit No: 39  
 Reference Elevations: 1932.00 ft (KB)  
 1921.00 ft (CF)  
 KB to GR/CF: 11.00 ft

## Serial #: 8372 Outside

Press @ Run Depth: 36.05 psig @ 3410.00 ft (KB)  
 Start Date: 2012.04.16 End Date: 2012.04.17  
 Start Time: 23:50:05 End Time: 05:48:20  
 Capacity: 8000.00 psig  
 Last Calib.: 2012.04.17  
 Time On Btm: 2012.04.17 @ 01:14:40  
 Time Off Btm: 2012.04.17 @ 04:17:09

TEST COMMENT: IF:(30min) Blow Died in 6 min.  
 ISl:(60min) No Return  
 FF:(30min) No Blow  
 FSl:(60min) No Return



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1741.18	94.02	Initial Hydro-static
2	23.85	93.32	Open To Flow (1)
30	28.12	94.65	Shut-In(1)
90	146.64	96.09	End Shut-In(1)
90	32.88	96.03	Open To Flow (2)
120	36.05	96.66	Shut-In(2)
182	92.02	97.72	End Shut-In(2)
183	1677.26	98.18	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
20.00	Mud m=100%	0.10

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling. Co.  
 250 N. Water  
 STE 300  
 Wichita KS 67202+1216  
 ATTN: Robert Stolzle

**19-14s-16w Ellis, KS**  
**Phillip Unit #1-19**  
 Job Ticket: 47261      **DST#: 4**  
 Test Start: 2012.04.16 @ 23:50:05

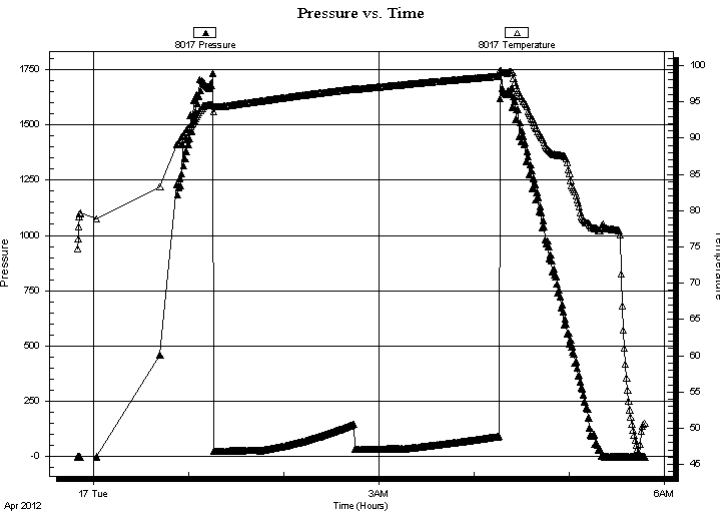
**GENERAL INFORMATION:**

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 01:15:50  
 Time Test Ended: 05:48:20  
 Interval: **3406.00 ft (KB) To 3450.00 ft (KB) (TVD)**  
 Total Depth: 3450.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Andy Carreira  
 Unit No: 39  
 Reference Elevations: 1932.00 ft (KB)  
 1921.00 ft (CF)  
 KB to GR/CF: 11.00 ft

**Serial #: 8017 Inside**

Press @ Run Depth: psig @ 3410.00 ft (KB)  
 Start Date: 2012.04.16 End Date: 2012.04.17  
 Start Time: 23:50:05 End Time: 05:48:20  
 Capacity: 8000.00 psig  
 Last Calib.: 2012.04.17  
 Time On Btm:  
 Time Off Btm:

**TEST COMMENT:** IF:(30min) Blow Died in 6 min.  
 ISl:(60min) No Return  
 FF:(30min) No Blow  
 FSl:(60min) No Return



**PRESSURE SUMMARY**

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

**Recovery**

Length (ft)	Description	Volume (bbl)
20.00	Mud m=100%	0.10

\* Recovery from multiple tests

**Gas Rates**

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling. Co.

**19-14s-16w Ellis,KS**

250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**Phillip Unit #1-19**

Job Ticket: 47261

**DST#: 4**

Test Start: 2012.04.16 @ 23:50:05

## Tool Information

Drill Pipe:	Length: 3140.00 ft	Diameter: 3.80 inches	Volume: 44.05 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 264.54 ft	Diameter: 2.25 inches	Volume: 1.30 bbl	Weight to Pull Loose: 68000.00 lb
			<u>Total Volume: 45.35 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	26.54 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3406.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	44.00 ft			
Tool Length:	72.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

## Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3379.00	
Shut In Tool	5.00			3384.00	
Hydraulic tool	5.00			3389.00	
Jars	5.00			3394.00	
Safety Joint	3.00			3397.00	
Packer	5.00			3402.00	28.00 Bottom Of Top Packer
Packer	4.00			3406.00	
Stubb	1.00			3407.00	
Perforations	2.00			3409.00	
Change Over Sub	1.00			3410.00	
Recorder	0.00	8017	Inside	3410.00	
Recorder	0.00	8372	Outside	3410.00	
Drill Pipe	31.00			3441.00	
Change Over Sub	1.00			3442.00	
Perforations	5.00			3447.00	
Bullnose	3.00			3450.00	44.00 Bottom Packers & Anchor
<b>Total Tool Length:</b>	<b>72.00</b>				



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Murfin Drilling, Co.

**19-14s-16w Ellis,KS**

250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**Phillip Unit #1-19**

Job Ticket: 47261

**DST#: 4**

Test Start: 2012.04.16 @ 23:50:05

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.17 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 15000.00 ppm

Filter Cake: inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	Mud m=100%	0.098

Total Length: 20.00 ft      Total Volume: 0.098 bbl

Num Fluid Samples: 0

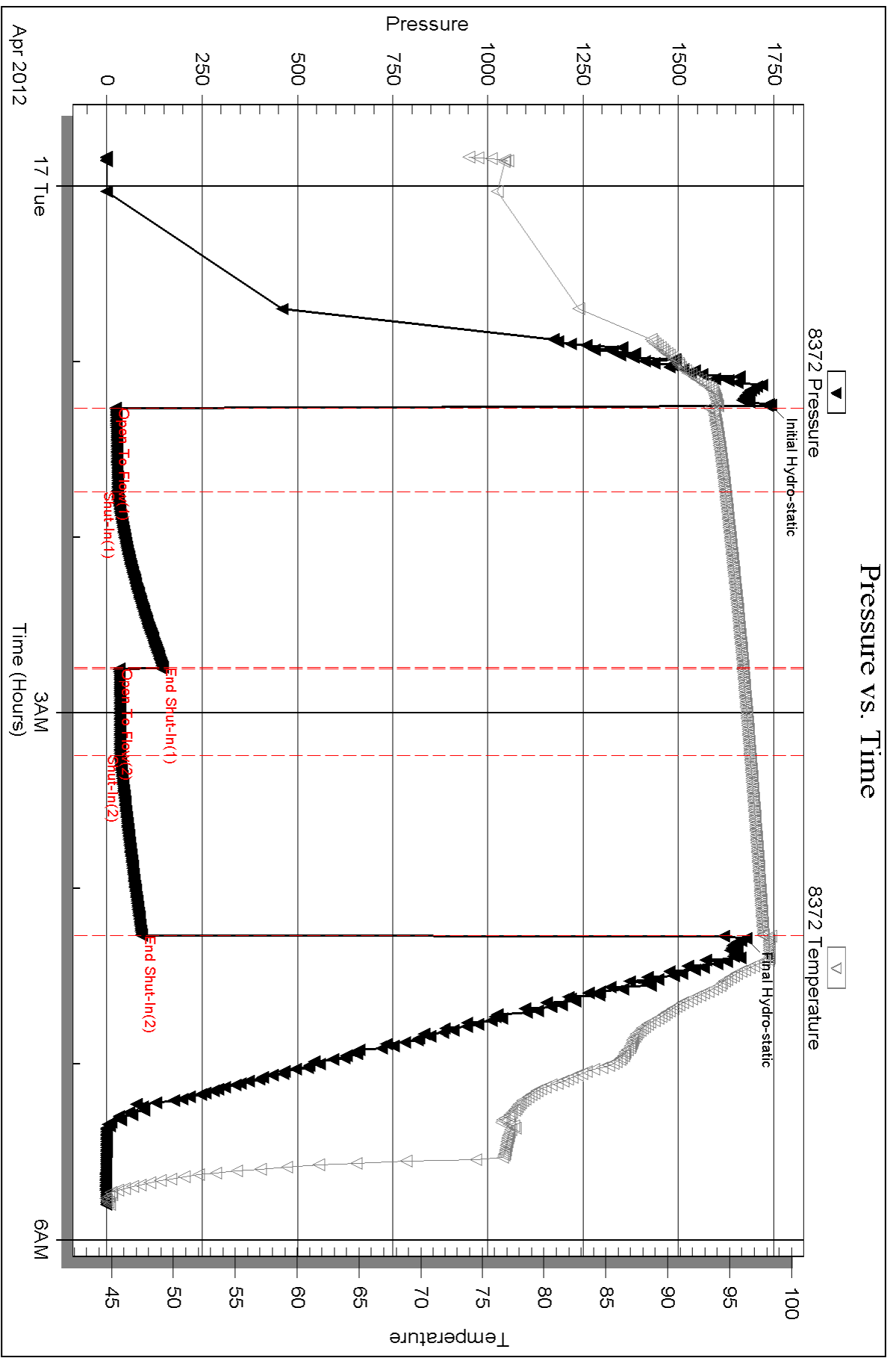
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



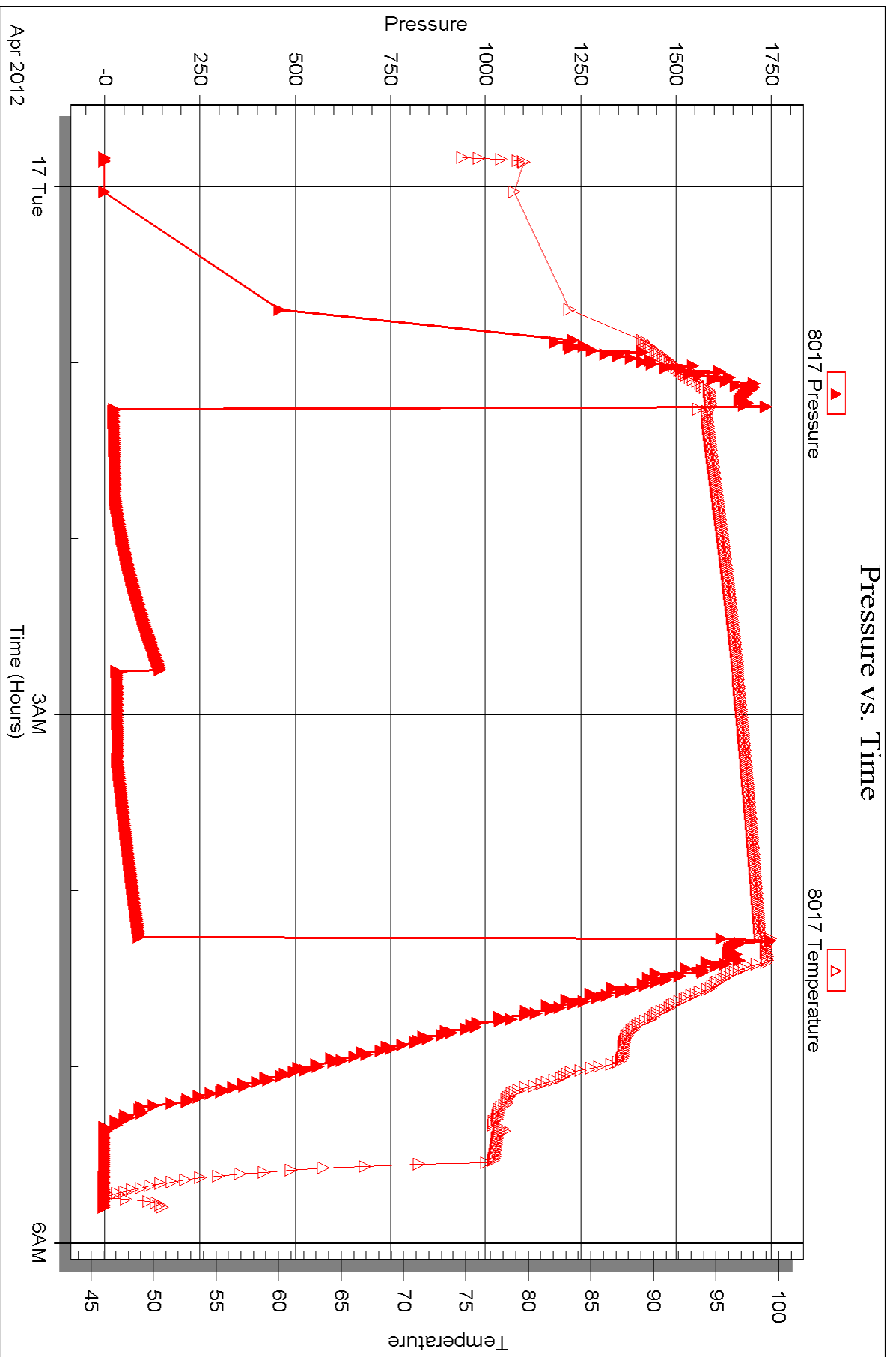
Serial #: 8017

Inside

Murfin Drilling Co.

Phillip Unit #1-19

DST Test Number: 4







## DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling. Co.**

250 N. Water  
STE 300  
Wichita KS 67202+1216

ATTN: Robert Stolze

### **Phillip Unit #1-19**

### **19-14s-16w Ellis,KS**

Start Date: 2012.04.17 @ 11:02:05

End Date: 2012.04.17 @ 17:29:09

Job Ticket #: 47262                      DST #: 5

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2012.04.19 @ 09:27:32



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Murfin Drilling, Co.  
250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolze

**19-14s-16w Ellis,KS**

**Phillip Unit #1-19**

Job Ticket: 47262      **DST#: 5**  
Test Start: 2012.04.17 @ 11:02:05

## GENERAL INFORMATION:

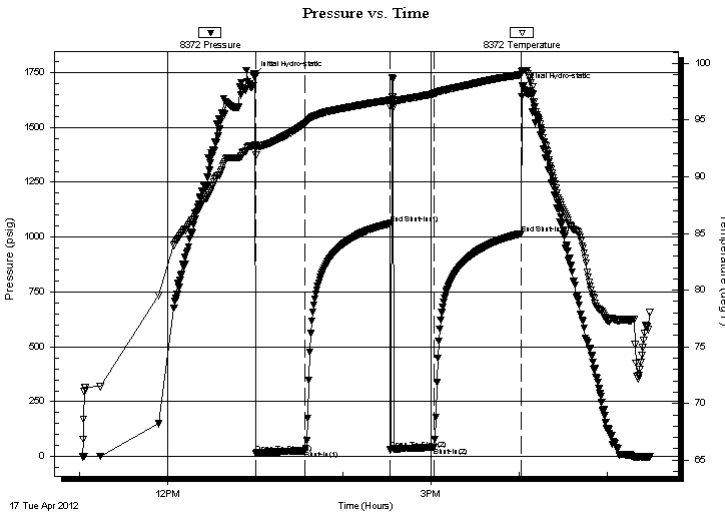
Formation: **Arbuckle**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 13:00:30  
Time Test Ended: 17:29:09  
Interval: **3447.00 ft (KB) To 3460.00 ft (KB) (TVD)**  
Total Depth: 3460.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Reset)  
Tester: Andy Carreira  
Unit No: 39  
Reference Elevations: 1932.00 ft (KB)  
1921.00 ft (CF)  
KB to GR/CF: 11.00 ft

## Serial #: 8372      Outside

Press @ Run Depth: 42.34 psig @ 3448.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.04.17      End Date: 2012.04.17      Last Calib.: 2012.04.17  
Start Time: 11:02:05      End Time: 17:29:10      Time On Btm: 2012.04.17 @ 12:58:40  
Time Off Btm: 2012.04.17 @ 16:02:39

TEST COMMENT: IF:(30min) Intermittent Blow Died in 15 min.  
ISl:(60min) No Return  
FF:(30min) No Blow , Flushed Tool, Surge, No Blow .  
FSl:(60min) No Return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1736.64	92.74	Initial Hydro-static
2	15.23	91.89	Open To Flow (1)
36	26.73	94.73	Shut-In(1)
94	1062.13	96.77	End Shut-In(1)
94	32.51	96.21	Open To Flow (2)
124	42.34	97.32	Shut-In(2)
183	1016.15	99.01	End Shut-In(2)
184	1683.55	99.33	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
65.00	Mud w / oil spcks in tool	0.32

\* Recovery from multiple tests

## Gas Rates

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



# TRILOBITE TESTING, INC.

## DRILL STEM TEST REPORT

Murfin Drilling. Co.  
250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**19-14s-16w Ellis, KS**  
**Phillip Unit #1-19**  
Job Ticket: 47262      **DST#: 5**  
Test Start: 2012.04.17 @ 11:02:05

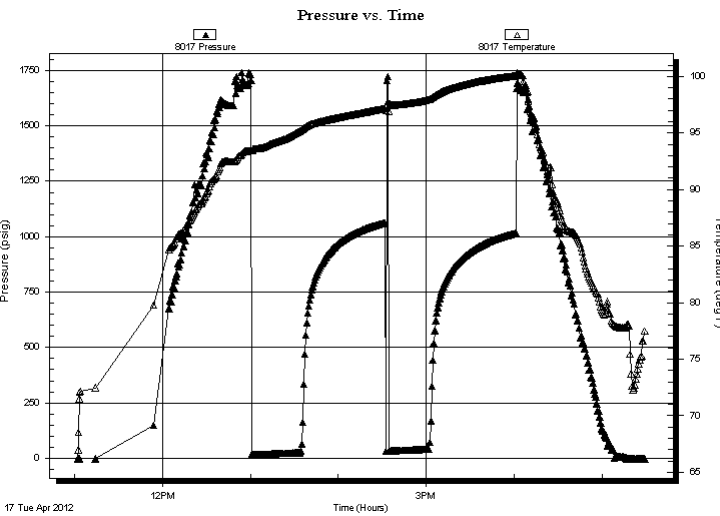
### GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: No      Whipstock:                      ft (KB)      Test Type: Conventional Bottom Hole (Reset)  
Time Tool Opened: 13:00:30      Tester: Andy Carreira  
Time Test Ended: 17:29:09      Unit No: 39  
**Interval: 3447.00 ft (KB) To 3460.00 ft (KB) (TVD)**      Reference Elevations: 1932.00 ft (KB)  
Total Depth: 3460.00 ft (KB) (TVD)      1921.00 ft (CF)  
Hole Diameter: 7.88 inches      Hole Condition: Fair      KB to GR/CF: 11.00 ft

### Serial #: 8017      Inside

Press @ Run Depth:                      psig @      3448.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2012.04.17      End Date: 2012.04.17      Last Calib.: 2012.04.17  
Start Time: 11:02:05      End Time: 17:29:10      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** IF:(30min) Intermittent Blow Died in 15 min.  
IS:(60min) No Return  
FF:(30min) No Blow , Flushed Tool, Surge, No Blow .  
FS:(60min) No Return



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
65.00	Mud w / oil spcks in tool	0.32

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Murfin Drilling. Co.

**19-14s-16w Ellis,KS**

250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**Phillip Unit #1-19**

Job Ticket: 47262

**DST#: 5**

Test Start: 2012.04.17 @ 11:02:05

## Tool Information

Drill Pipe:	Length: 3174.00 ft	Diameter: 3.80 inches	Volume: 44.52 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.70 inches	Volume: 0.00 bbl	Weight set on Packer: 24000.00 lb
Drill Collar:	Length: 264.54 ft	Diameter: 2.25 inches	Volume: 1.30 bbl	Weight to Pull Loose: 74000.00 lb
			<u>Total Volume: 45.82 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.54 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3447.00 ft			Final 60000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	13.00 ft			
Tool Length:	41.00 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			3420.00	
Shut In Tool	5.00			3425.00	
Hydraulic tool	5.00			3430.00	
Jars	5.00			3435.00	
Safety Joint	3.00			3438.00	
Packer	5.00			3443.00	28.00 Bottom Of Top Packer
Packer	4.00			3447.00	
Stubb	1.00			3448.00	
Recorder	0.00	8017	Inside	3448.00	
Recorder	0.00	8372	Outside	3448.00	
Perforations	9.00			3457.00	
Bullnose	3.00			3460.00	13.00 Bottom Packers & Anchor

**Total Tool Length: 41.00**



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Murfin Drilling, Co.

**19-14s-16w Ellis,KS**

250 N. Water  
STE 300  
Wichita KS 67202+1216  
ATTN: Robert Stolzle

**Phillip Unit #1-19**

Job Ticket: 47262      **DST#: 5**  
Test Start: 2012.04.17 @ 11:02:05

**Mud and Cushion Information**

Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 50.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.77 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 18000.00 ppm			
Filter Cake: inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
65.00	Mud w / oil spcks in tool	0.320

Total Length: 65.00 ft      Total Volume: 0.320 bbl

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

Laboratory Name:      Laboratory Location:

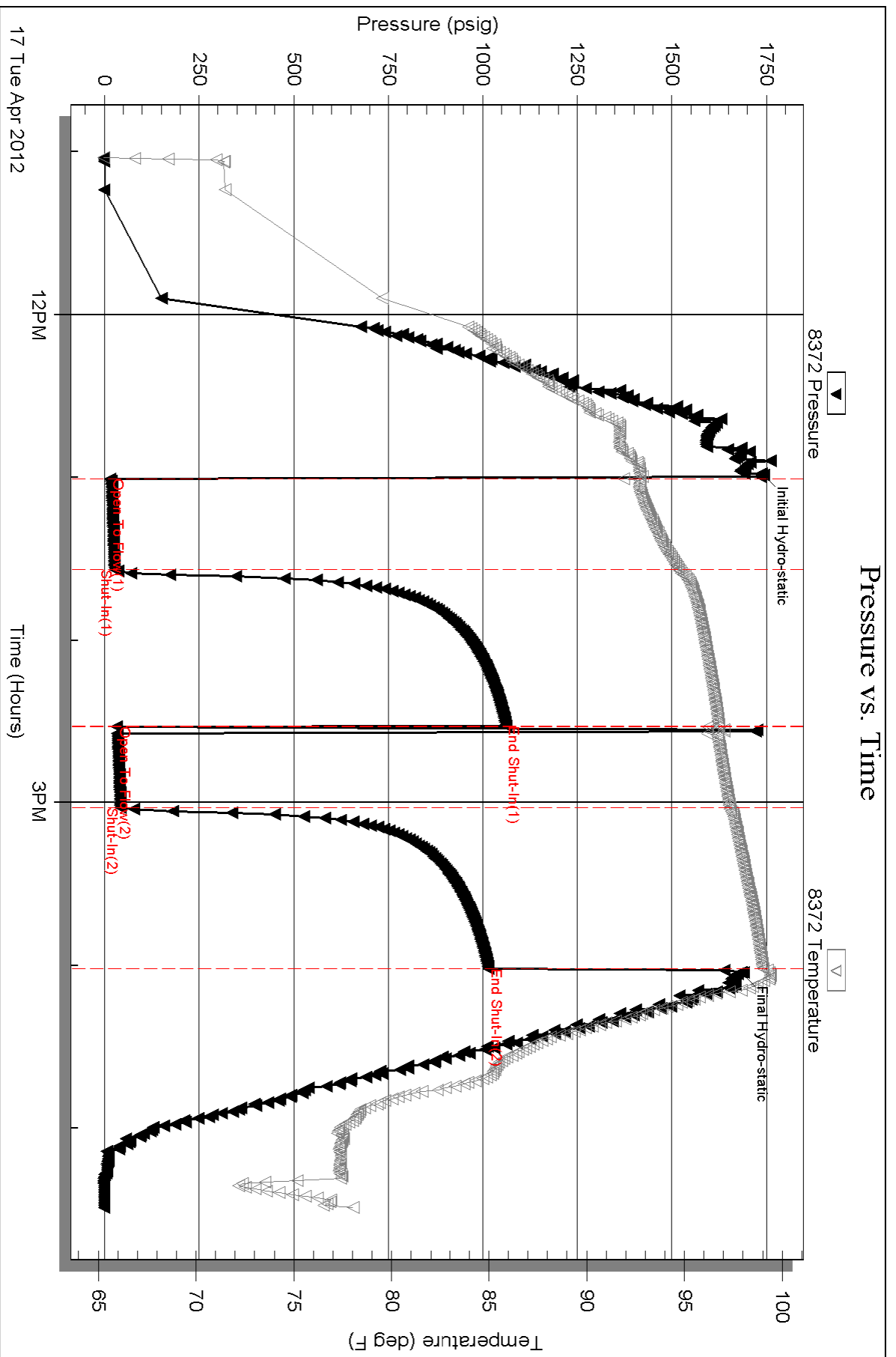
Recovery Comments:

Serial #: 8372

Outside Murfin Drilling Co.

Phillip Unit #1-19

DST Test Number: 5



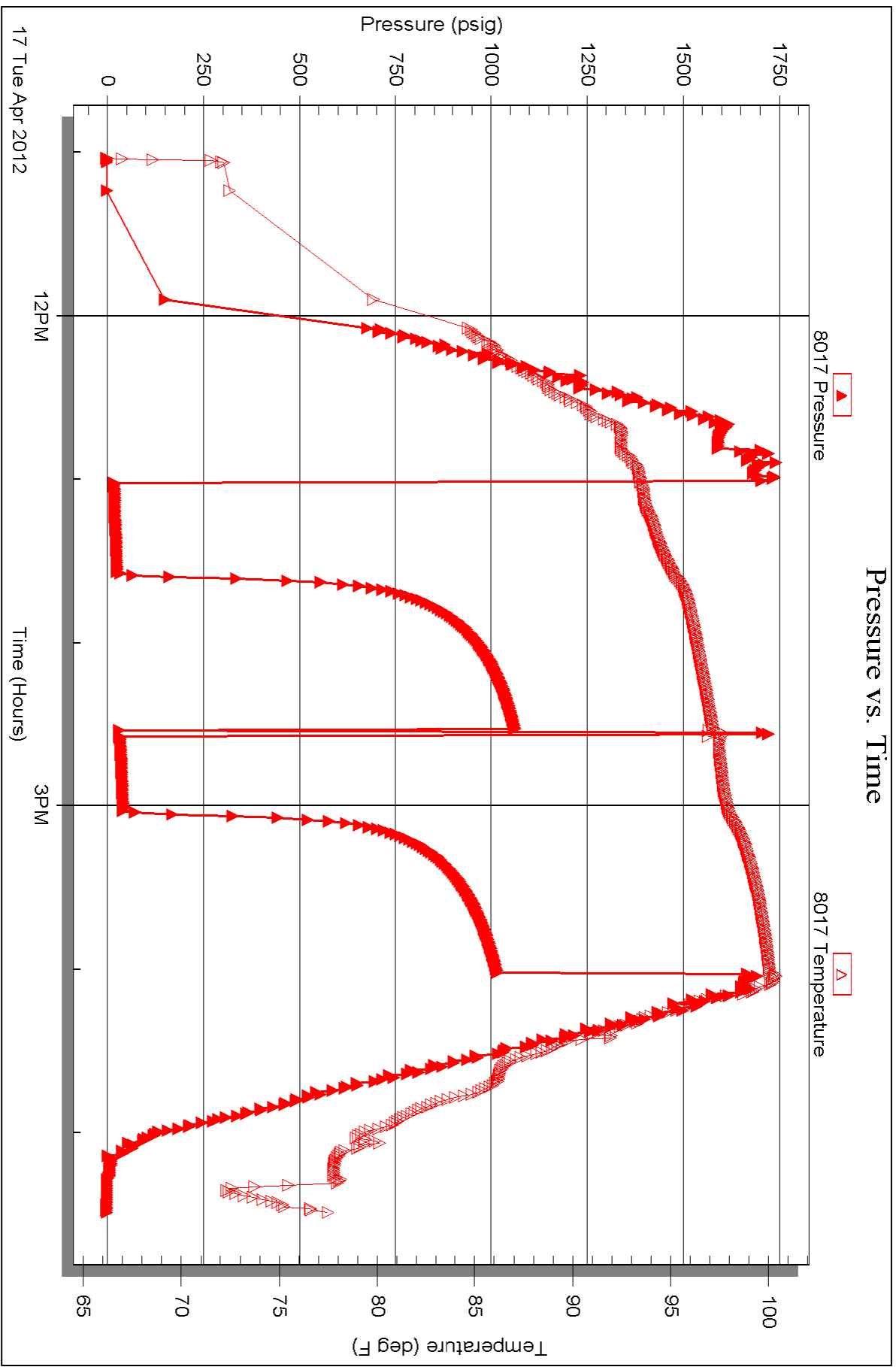
Serial #: 8017

Inside

Murfin Drilling Co.

Phillip Unit #1-19

DST Test Number: 5





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
APR 19 2012

## Test Ticket

NO. 47258

Well Name & No. Phillip Unit 1-19 Test No. 1 Date 4-15-12  
 Company MurFin DeLg. Co Elevation 1932 KB 1921 GL  
 Address 250 N. Water STE 300 Wichita Ks 67202+1216  
 Co. Rep / Geo. Robert Stolze Rig MurFin 21  
 Location: Sec. 19 Twp. 14s Rge. 16W Co. Ellis State Ks

Interval Tested 3175-3255 Zone Tested LKC "A-D"  
 Anchor Length 80 Drill Pipe Run 2890 Mud Wt. 9.1  
 Top Packer Depth 3170 Drill Collars Run 264.54 Vis 51  
 Bottom Packer Depth 3175 Wt. Pipe Run — WL 8.0  
 Total Depth 3255 Chlorides 6800 ppm System LCM 3#

Blow Description FF: 1.5" blow  
6ST: NO RETURN  
FF: 1" blow  
7ST: NO RETURN

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Feet of HOCBM</u>	<u>10</u>	<u>30</u>	<u>60</u>	<u>60</u>
<u>60</u>	<u>Feet of OCM</u>	<u>10</u>	<u>10</u>	<u>90</u>	<u>90</u>
<u>120</u>	<u>Feet of OCWM</u>	<u>10</u>	<u>20</u>	<u>70</u>	<u>70</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 200' BHT 99° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1564  Test 1150' T-On Location 01:49  
 (B) First Initial Flow 20  Jars 250' T-Started 02:24  
 (C) First Final Flow 69  Safety Joint 75' T-Open 04:10  
 (D) Initial Shut-In 650  Circ Sub — T-Pulled 08:10  
 (E) Second Initial Flow 75  Hourly Standby — T-Out 10:06  
 (F) Second Final Flow 123  Mileage 30 RT 46.00 Comments Got stuck 1 mile  
 (G) Final Shut-In 646  Sampler — From rig at 23:23  
 (H) Final Hydrostatic 1506  Straddle — Wait on Cat

Initial Open 30  Shale Packer —  Ruined Shale Packer —  
 Initial Shut-In 60  Shale Packer —  Ruined Packer —  
 Final Flow 60  Extra Packer —  Extra Copies —  
 Final Shut-In 90  Extra Recorder — Sub Total 0  
 Day Standby — Total 1521.50  
 Accessibility — MP/DST Disc't —  
 Sub Total 1521.50

Approved By \_\_\_\_\_

Our Representative

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.





# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
APR 19 2012  
BY: \_\_\_\_\_

## Test Ticket

NO. 47259

Well Name & No. Phillips Unit 1-19 Test No. 2 Date 4-15-12  
 Company Murfin Drilling Co Inc Elevation 1932 KB 1921 GL  
 Address 250 N. Water STE 300 Wichita Ks. 67202+1216  
 Co. Rep / Geo. Robert Stoltz Rig Murfin 21  
 Location: Sec. 19 Twp. 14s Rge. 16w Co. Ellis State Ks.

Interval Tested 3256-3300 Zone Tested LKC "E, F + G"  
 Anchor Length 44' Drill Pipe Run 2984 Mud Wt. 9.1  
 Top Packer Depth 3251 Drill Collars Run 264.54 Vis 5  
 Bottom Packer Depth 3256 Wt. Pipe Run 0 WL 8.0  
 Total Depth 3300 Chlorides 6800 ppm System LCM 3#

Blow Description IF: Blow died in 18 min  
ISI: No Return  
FF: No Blow  
FSL: No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>Mud</u>				<u>100</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 65 BHT 97° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1610  Test ← 1150 T-On Location 16:14  
 (B) First Initial Flow 19  Jars ← 250 T-Started 16:37  
 (C) First Final Flow 32  Safety Joint ← 75' T-Open 18:13  
 (D) Initial Shut-In 614  Circ Sub \_\_\_\_\_ T-Pulled 21:22  
 (E) Second Initial Flow 38  Hourly Standby \_\_\_\_\_ T-Out 23:02  
 (F) Second Final Flow 45  Mileage ← 30 RT 416.50 Comments IF: = 37 min instead  
 (G) Final Shut-In 567  Sampler \_\_\_\_\_ of 30 min. Rotary chain  
 (H) Final Hydrostatic 1590  Straddle \_\_\_\_\_ Broke.  
 Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_  
 Day Standby \_\_\_\_\_  
 Accessibility \_\_\_\_\_

Initial Open 37 Sub Total 0  
 Initial Shut-In 60 Total 1521.50  
 Final Flow 30 MP/DST Disc't \_\_\_\_\_  
 Final Shut-In 60 Sub Total 1521.50

Approved By \_\_\_\_\_ Our Representative [Signature]  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
APR 19 2012

## Test Ticket

NO. 47260

Well Name & No. Phillips Unit #1-19 Test No. 3 Date 4-16-12  
 Company Muefin Delg. Co. inc Elevation 1932 KB 1921 GL  
 Address 250 N Water STE 300 Wichita Ks. 67202+1216  
 Co. Rep / Geo. Robert Stojzic Rig Muefin 21  
 Location: Sec. 19 Twp. 14s Rge. 16w Co. Ellis State Ks

Interval Tested 3315-3420 Zone Tested LKC "H-K"  
 Anchor Length 105' Drill Pipe Run 3043 Mud Wt. 9.2  
 Top Packer Depth 3310 Drill Collars Run 264.54 Vis 50  
 Bottom Packer Depth 3315 Wt. Pipe Run — WL 9.2  
 Total Depth 3420 Chlorides 15000 ppm System LCM 1#

Blow Description IF: Blow died in 20min.  
ISI: NO Return  
FP: ~~10~~ ~~10~~ Surface blow  
FSI: NO Return

Rec	Feet of	%gas	%oil	%water	%mud
80	SOCBM	5	5		90
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 80 BHT 97° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1694  Test ← 1150' T-On Location 10:32  
 (B) First Initial Flow 31  Jars ← 280' T-Started 11:02  
 (C) First Final Flow 52  Safety Joint ← 75' T-Open 12:50  
 (D) Initial Shut-In 876  Circ Sub T-Pulled 15:50  
 (E) Second Initial Flow 53  Hourly Standby T-Out 17:23  
 (F) Second Final Flow 60  Mileage ← 30 RT 46.50 Comments —  
 (G) Final Shut-In 752  Sampler —  
 (H) Final Hydrostatic 1614  Straddle —  
 Shale Packer —  Ruined Shale Packer —  
 Extra Packer —  Ruined Packer ← 320'  
 Extra Recorder —  Extra Copies —  
 Initial Open 30  Day Standby — Sub Total 320  
 Initial Shut-In 60  Accessibility — Total 1841.50  
 Final Flow 30  Sub Total 1521.50 MP/DST Disc't —  
 Final Shut-In 60

Approved By \_\_\_\_\_ Our Representative Andy Carr

TriLOBite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
APR 19 2012  
BY: \_\_\_\_\_

## Test Ticket

NO. 47261

Well Name & No. Phillip Unit #1-19 Test No. 4 Date 4-16-12  
 Company Murfin Drilling Co Inc. Elevation 1932 KB 1921 GL  
 Address 250 N Water STE 300 Wichita Ks. 67202+1216  
 Co. Rep / Geo. Robert Stolze Rig Murfin 21  
 Location: Sec. 19 Twp. 14s Rge. 16w Co. Ellis State Ks.

Interval Tested 3406 - 3450 Zone Tested Arbuckle  
 Anchor Length 44' Drill Pipe Run 3140 Mud Wt. 9.2  
 Top Packer Depth 3401 Drill Collars Run 264.54 Vis 50  
 Bottom Packer Depth 3406 Wt. Pipe Run — WL 9.2  
 Total Depth 3450 Chlorides 15000 ppm System LCM 1#

Blow Description IF: Blow died in 6min.  
ISI: No Return  
FF: No Blow  
FSL: No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>Mud</u>				<u>100%</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20' BHT 97° Gravity API RW @ °F Chlorides ppm

(A) Initial Hydrostatic <u>1741</u>	<input checked="" type="checkbox"/> Test @ <u>1150'</u>	T-On Location <u>23:32</u>
(B) First Initial Flow <u>23</u>	<input checked="" type="checkbox"/> Jars @ <u>250'</u>	T-Started <u>23:50</u>
(C) First Final Flow <u>28</u>	<input checked="" type="checkbox"/> Safety Joint @ <u>75'</u>	T-Open <u>01:15</u>
(D) Initial Shut-In <u>146</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>04:15</u>
(E) Second Initial Flow <u>32</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>05:48</u>
(F) Second Final Flow <u>46</u>	<input checked="" type="checkbox"/> Mileage @ <u>30RT 4650</u>	Comments _____
(G) Final Shut-In <u>92</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1677</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer

Initial Open 30  Shale Packer  
 Initial Shut-In 60  Extra Packer  
 Final Flow 30  Extra Recorder  
 Final Shut-In 60  Day Standby  
 Accessibility  
 Sub Total 1521.50

Approved By \_\_\_\_\_ Our Representative [Signature]  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



# TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

RECEIVED  
APR 19 2012  
BY: \_\_\_\_\_

## Test Ticket

NO. 47262

Well Name & No. Phillip Unit #1-19 Test No. 5 Date 4-17-12  
 Company Murfin Drilling Co. Inc. Elevation 1932 KB 1921 GL  
 Address 250 N Water St E 300 Wichita, Ks. 67202+1216  
 Co. Rep / Geo. Robert Stolze Rig Murfin 21  
 Location: Sec. 19 Twp. 14s Rge. 16w Co. Ellis State Ks.

Interval Tested 3447-3460 Zone Tested Arbuckle 1/2  
 Anchor Length 13' Drill Pipe Run 3174 Mud Wt. 9.0  
 Top Packer Depth 3442 Drill Collars Run 264.54 Vis 50  
 Bottom Packer Depth 3447 Wt. Pipe Run — WL 10.8  
 Total Depth 3460 Chlorides 18000 ppm System LCM 1#

Blow Description IF: Intermittent blow died in 15 min.  
ISL: No Return  
FP: No blow, Flushed tool, surge, No blow  
FSL: No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>65</u>	<u>Mud w/oil speck in tool</u>				
Rec	Feet of	%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 65 BHT 99° Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1736  Test ← 1150 T-On Location 10:38  
 (B) First Initial Flow 15  Jars ← 250 T-Started 11:02  
 (C) First Final Flow 26  Safety Joint ← 75 T-Open 13:02  
 (D) Initial Shut-In 1062  Circ Sub T-Pulled 16:02  
 (E) Second Initial Flow 32  Hourly Standby T-Out 17:30  
 (F) Second Final Flow 42  Mileage ← 30.5 46.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 1016  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1683  Straddle \_\_\_\_\_  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_

Initial Open 30  Extra Packer \_\_\_\_\_  
 Initial Shut-In 60  Extra Recorder \_\_\_\_\_  
 Final Flow 30  Day Standby \_\_\_\_\_  
 Final Shut-In 60  Accessibility \_\_\_\_\_  
 Sub Total 1521.50

Approved By \_\_\_\_\_ Our Representative [Signature]  
 Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.



acct.  
Siz H.

# INVOICE

PO Box 93999  
Southlake, TX 76092

PROD COPY

Invoice Number: 130806  
Invoice Date: Apr 11, 2012  
Page: 1

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

OPERATOR PAY MDC  
LEASE: Philip  
Unit 119  
013



**Bill To:**  
Murfin Drlg. Co., Inc.  
PO BOX 661  
Colby, KS 67701

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Murfin	Philips #1-19	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-01	Russell	Apr 11, 2012	5/11/12

Quantity	Item	Description	Unit Price	Amount
170.00	MAT	Class A Common	16.25	2,762.50
4.00	MAT	Gel	21.25	85.00
6.00	MAT	Chloride	58.20	349.20
180.00	SER	Handling	2.25	405.00
20.00	SER	Ton Miles	19.80	396.00
1.00	SER	Surface	1,125.00	1,125.00
20.00	SER	Heavy Vehicle Mileage	7.00	140.00
20.00	SER	Light Vehicle Mileage	4.00	80.00
1.00	CEMENTER	Glenn Ginther		
1.00	EQUIP OPER	Woody O'Neil		
1.00	OPER ASSIST	Robert Yakubovich		

Account	Unit Rin	w L	No.	Amount	Description
ID203				3694.15	Cement S.C. #1-19
				3,622.00	

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

**\$ 1869.94**

ONLY IF PAID ON OR BEFORE  
**May 6, 2012**

Subtotal	5,342.70
Sales Tax	201.39
Total Invoice Amount	5,544.09
Payment/Credit Applied	
<b>TOTAL</b>	<b>5,544.09</b>

Deduct (1869.94)  
3694.15

# ALLIED OIL & GAS SERVICES, LLC 056384

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT:

Russell Ks.

DATE <u>4-11-12</u>	SEC <u>19</u>	TWP. <u>14 S</u>	RANGE <u>16 W</u>	CALLED OUT	ON LOCATION	JOB START <u>2:00 PM</u>	JOB FINISH <u>2:30 PM</u>
LEASE <u>Phillips</u>	UNIT WELL# <u>1-19</u>	LOCATION <u>VICTORIA Ks. AS 1E TO RD 350</u>			COUNTY <u>Ellis</u>	STATE <u>KANSAS</u>	
OLD OR (NEW) Circle one	<u>1 1/2 S 1/4 W T110</u>						

CONTRACTOR MURFIN Drilling Rig # 21  
TYPE OF JOB Cement Surface  
HOLE SIZE 1 1/2 1/4 T.D. 270'  
CASING SIZE 5/8 DEPTH 268'  
TUBING SIZE DEPTH  
DRILL PIPE DEPTH  
TOOL DEPTH  
PRES. MAX MINIMUM  
MEAS. LINE SHOE JOINT  
CEMENT LEFT IN CSG. 15'  
PERFS.  
DISPLACEMENT 1 BBL

OWNER  
CEMENT  
AMOUNT ORDERED 170 sx Comm, 3 %cc, 2 % Gel  
COMMON 170 sx @ 16.25 2762.50  
POZMIX @  
GEL 4 sx @ 21.25 85.00  
CHLORIDE 6 sx @ 58.20 349.20  
ASC @  
HANDLING 180 Total SX @ 2.25 405.00  
MILEAGE 20 Tax Mile @ 11¢ 396.00  
TOTAL 3997.70

REMARKS:

Run 10 new joints of E 23 # 8 5/8 csg.  
Set @ 268', Reviewed Circulation  
+ Cement w/ 170 sx Comm 3 %cc & 2 % gel  
Displace 1 1/4 BBL / Hr & Shut in  
@ 250 #  
Cement did circulate  
to surface.

SERVICE

DEPTH OF JOB 268'  
PUMP TRUCK CHARGE 1125.00  
EXTRA FOOTAGE @  
MILEAGE 20 Hr MT @ 7.00 140.00  
MANIFOLD @  
20 1 x MT @ 4.00 80.00  
TOTAL 1345.00

CHARGE TO: MURFIN Drilling Company  
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 Juan Tinoco  
SIGNATURE Juan Tinoco

SALES TAX (if Any) 206.39  
TOTAL CHARGES 5342.70  
DISCOUNT 35% 1869.94 IF PAID IN 30 DAYS



PO Box 93999  
Southlake, TX 76092

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

# INVOICE

Invoice Number: 130864  
Invoice Date: Apr 18, 2012  
Page: 1

*acct. sig H.*

**OPERATOR PAY MDC  
LEASE:**



**Bill To:**  
Murfin Drlg. Co., Inc.  
*PO BOX 661  
Cody, KS 67701*

Customer ID	Well Name# or Customer P.O.	Payment Terms	
Murfin	<u>Philip Unit 1-19</u>	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS2-03	Russell	Apr 18, 2012	5/18/12

Quantity	Item	Description	Unit Price	Amount
123.00	MAT	Class A Common	16.25	1,998.75
82.00	MAT	Pozmix	8.50	697.00
7.00	MAT	Gel	21.25	148.75
50.00	MAT	FloSeal	2.70	135.00
212.00	SER	Handling	2.25	477.00
20.00	SER	Ton Miles	23.32	466.40
1.00	SER	<u>Plug To Abandon</u>	1,250.00	1,250.00
20.00	SER	Heavy Vehicle Mileage	7.00	140.00
20.00	SER	Light Vehicle Mileage	4.00	80.00
1.00	EQP	8 5/8 Wooden Plug	64.00	64.00
1.00	CEMENTER	Glenn Ginther		
1.00	EQUIP OPER	Woody O'Neil		
1.00	OPER ASSIST	Robert Yakubovich		

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

**\$1909.91**

ONLY IF PAID ON OR BEFORE  
**May 13, 2012**

Subtotal	5,456.90
Sales Tax	343.78
Total Invoice Amount	5,800.68
Payment/Credit Applied	
<b>TOTAL</b>	<b>5,800.68</b>

*OKAD*  
*RKH*

# ALLIED OIL & GAS SERVICES, LLC 056388

Federal Tax I.D.# 20-5975804

REMIT TO P.O. BOX 31  
RUSSELL, KANSAS 67665

SERVICE POINT

*Russell*

DATE <u>4-18-12</u>	SEC. <u>19</u>	TWP. <u>14</u>	RANGE <u>16</u>	CALLED OUT	ON LOCATION	JOB START <u>7:30PM</u>	JOB FINISH <u>8:00PM</u>
LEASE <u>HLZIP</u>	UNIT WELL# <u>1-19</u>	LOCATION <u>VICTORIA KS. E 2S 14W</u>			COUNTY <u>ELLIS</u>	STATE <u>KS.</u>	
OLD OR NEW (Circle one)							

CONTRACTOR MURFIN DRILLING RIG #21

OWNER

TYPE OF JOB PTA

HOLE SIZE 7 7/8 T.D. 3550'

CASING SIZE Drill Pipe @ DEPTH 3421'

TUBING SIZE DEPTH

DRILL PIPE 8 5/8 Metaco DEPTH 268'

TOOL DEPTH

PRES. MAX 300# MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG.

PERFS.

DISPLACEMENT

CEMENT 60

AMOUNT ORDERED 205 5X 40 4% GEL

1/4" # F10 - SEAL PER 5X

EQUIPMENT

PUMP TRUCK CEMENTER GLEN G

# 417 HELPER WOODY O

BULK TRUCK

# 423 DRIVER ROBERT Y

BULK TRUCK

# DRIVER

COMMON	<u>123 5X</u>	@ <u>16.25</u>	<u>1998.75</u>
POZMIX	<u>82 5X</u>	@ <u>8.50</u>	<u>697.00</u>
GEL	<u>7 5X</u>	@ <u>21.25</u>	<u>148.75</u>
CHLORIDE		@	
ASC		@	
F10-SEAL	<u>50</u>	@ <u>2.70</u>	<u>135.00</u>
		@	
		@	
		@	
		@	
		@	
		@	
HANDLING	<u>212</u>	@ <u>2.25</u>	<u>477.00</u>
MILEAGE	<u>2121.11 x 20</u>		<u>466.40</u>
TOTAL			<u>3922.90</u>

REMARKS:

25 SX @ 3421

25 SX @ 1080

100 SX @ 450

10 SX @ 40 # wiper plug

30 SX @ RATTLE

15 SX @ Mousehole

HANKS

SERVICE

DEPTH OF JOB			
PUMP TRUCK CHARGE			<u>1250.00</u>
EXTRA FOOTAGE	@		
MILEAGE	<u>20</u>	@ <u>7.00</u>	<u>140.00</u>
MANIFOLD	@		
	<u>20</u>	@ <u>4.00</u>	<u>80.00</u>
	@		
TOTAL			<u>1470.00</u>

CHARGE TO: MURFIN DRILLING CO. INC.

STREET \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

PLUG & FLOAT EQUIPMENT

<u>8 5/8 WOODEN PLUG</u>	@		<u>64.00</u>
	@		
	@		
	@		
TOTAL			<u>64.00</u>

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)	<u>191.74</u>	
TOTAL CHARGES	<u>5456.90</u>	
DISCOUNT <u>35</u>	<u>1909.91</u>	IF PAID IN 30 DAYS

PRINTED NAME Juan Tinoco

SIGNATURE Juan Tinoco