



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1221484
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: _____

1221484

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Younger Energy Company
Well Name	Morrison-Luther Unit 1
Doc ID	1221484

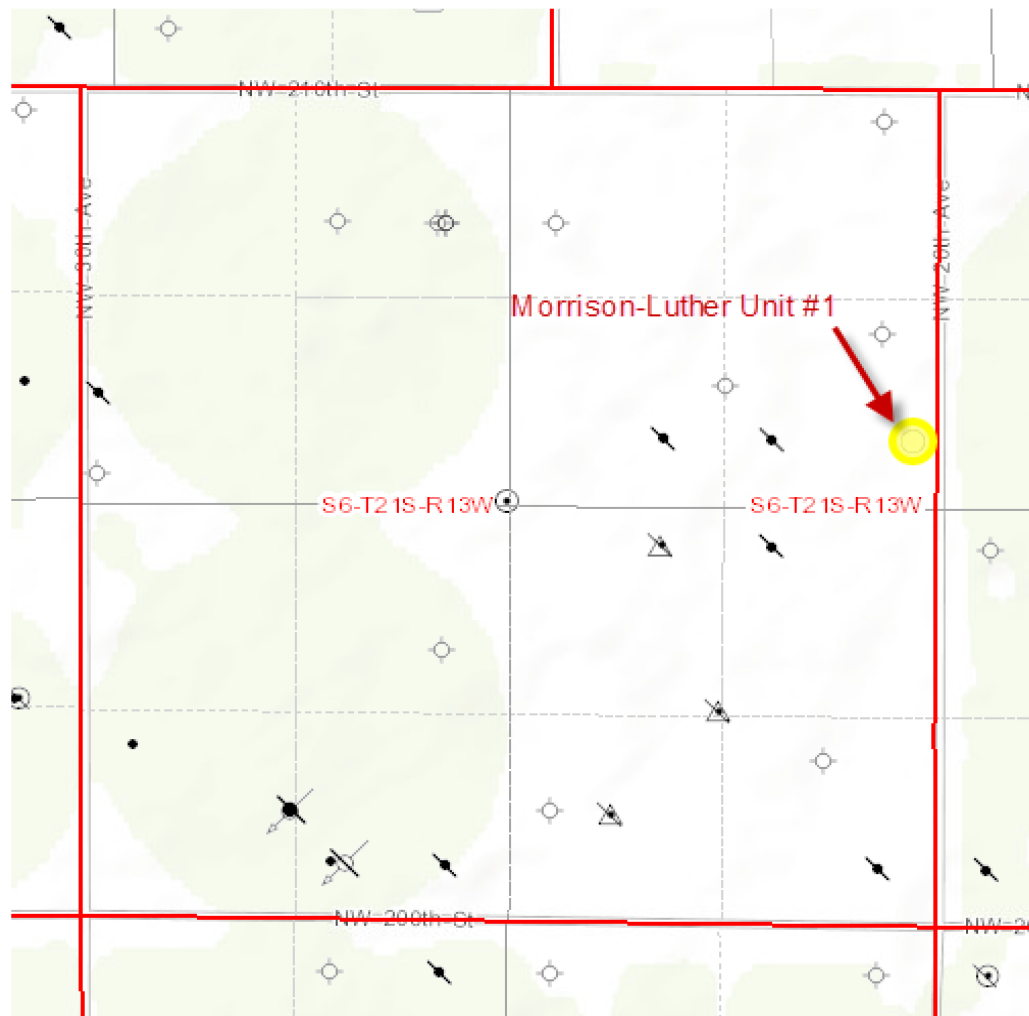
All Electric Logs Run

Dual Induction Log
Dual Compensated Porosity Log
Microresistivity Log
Borehole Compensated Sonic Log
Computer Processed Interpretation
Fracfinder
Cement Bond Log
Mud Log / Geologist Report
LAS

Form	ACO1 - Well Completion
Operator	Younger Energy Company
Well Name	Morrison-Luther Unit 1
Doc ID	1221484

Tops

Name	Top	Datum
Topeka	2829	-921
Queen Hill	3089	-1181
Heebner Shale	3186	-1278
Toronto	3204	-1296
Douglas Shale	3222	-1314
Brown LS	3301	-1393
Lansing	3313	-1405
Muncie Creek Shale	3432	-1524
Stark Shale	3490	-1582
Base KC	3524	-1616
Arbuckle	3591	-1683



COMMENTS

Prospect/Consulting Geologist: Debra FitzGerald, 316-619-7008.

Drilling Contractor: Duke Drilling Company Rig #2.

Tool Pusher: Dion Vasquez, 620-793-0840.

Surface Casing: 8 5/8" set at 810' (KB) w/225 sx cement.

Production Casing: Based on field observations of drill cuttings, DST results and electric log review, production casing (5.5") was installed to further evaluate potential oil production.

Mud by: Andy's Mud.

DST's by: Superior Testers Enterprises - Jared Scheck.

Logs by: Pioneer Energy Services (DIL w/SP, CN-CD, Sonic, Micro, Fracfinder).

RTD= 3730', -1822'.

LTD= 3730', -1822'.

FORMATION TOPS

FORMATION	SAMPLE TOPS		LOG TOPS	
	Depth	Datum	Depth	Datum
Topeka	2828'	-920	2829'	-921
Queen Hill	3089'	-1181	3089'	-1181
Heebner Shale	3186'	-1278	3186'	-1278
Toronto	3204'	-1296	3204'	-1296
Douglas Shale	3222'	-1314	3222'	-1314
Brown LS	3301'	-1393	3301'	-1393
Lansing	3314'	-1406	3313'	-1405
Muncie Creek Shale	3432'	-1524	3432'	-1524
Stark Shale	3490'	-1582	3490'	-1582
Base KC	3525'	-1617	3524'	-1616
Arbuckle	3591'	-1683	3591'	-1683
RTD	3730'	-1822		
LTD			3730'	-1822

ROCK TYPES

LITHOLOGY

	Anhy
	Cht
	Coal
	Congl
	Dol
	Gyp
	Lmst
	Salt
	Shale
	Shcol
	Shgy
	Sltst

	Ss
	Carb sh
	Dol
	Dtd
	Gry sh
	Sandylms
	Shale
	Sltstn
	Shlyslts
	Sitysh
	Sdy dolo
	Silty dolo
	Shy dolo

Shaly ls

FOSSIL

	Algae
	Amph
	Belm
	Bioclst
	Brach
	Bryozoa
	Cephal
	Coral
	Crin
	Echin

	Fish
	Foram
	Fossil
	Gastro
	Oolite
	Ostra
	Pelec
	Pellet
	Pisolite
	Plant
	Strom
	Fuss
	Oomold

rop	ROP (min/ft)	Total Gas	Depth	Lithology	CFS Point	Oil Shows	Geological Descriptions	Remarks
	—	—	26				Morning Report Depth/Activity	
							06/17/2014, Spud	Andy's Mud Check #1 @ 810' 06/18/14; pre-displacement recommendations.
							06/18, drill @ 810'	
							06/19, drill @ 1665'	
							06/20, drill @ 2480'	
							06/21, drill @ 3117'	
							06/22, DST #1 @ 3348'	
							06/23, drill @ 3421'	

06/24, DST #4 @ 3450'
06/25, DST #6 @ 3490'
06/26, drill @ 3580'
06/27, DST #9 @ 3660', TD @3730'.

Anhydrite: Top @ 795', Bottom @ 807'

Andy's Mud Check #2 @
2675' 06/20/14 01:20pm
wt vis pH chl
8.6 65 11 3000
Filt LCM
7.6 2

ROP Data begins @ 2700' on 06/20/2014

Drill cutting
samples at 20'
intervals start at
2700'.

LS: crm/lt brn/lt-med gry, micro-med xtal, foss frags, some vry silty/sndy, some ppt in-xtal por, no odor, ns.

LS: crm/lt-dk brn/lt-med gry, micro-med xtal, foss frags, some vry silty/sndy, min frac por, no odor, ns.

LS: lt-med brn/lt-med gry, micro-med xtal, foss frags/fusln, some vry silty/sndy, some pyritic, min ppt/frac in-xtal por, no odor, ns.

LS: lt-med brn/gry, micro-med xtal, foss frags/fusln, some vry silty/sndy, no vis por, no odor, ns. Some SH: med-dk gry, vry silty, some carb, soft-firm, fissile.

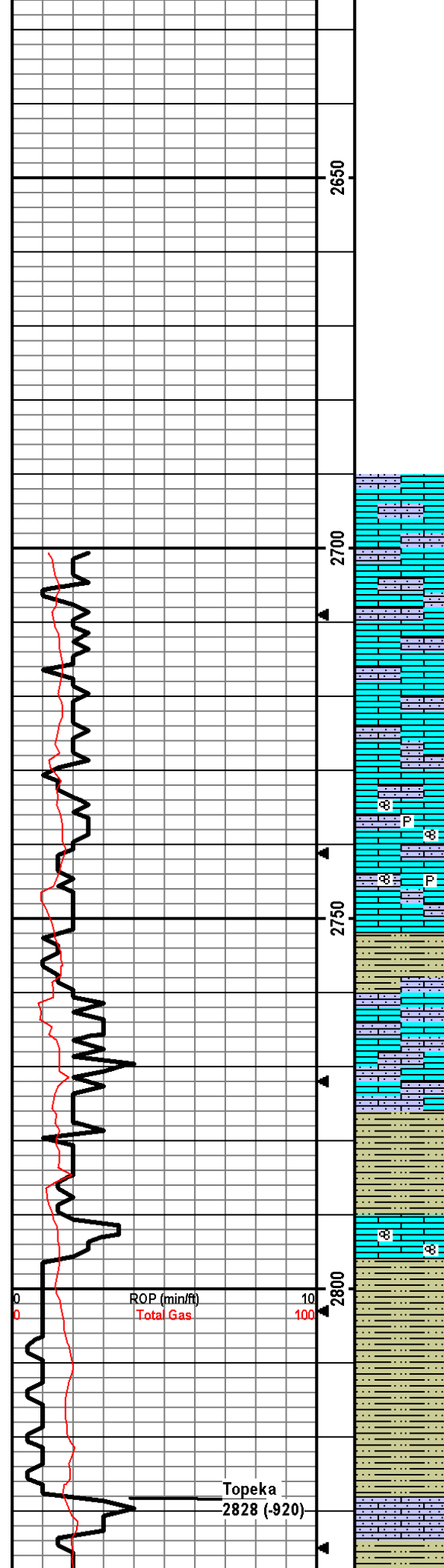
LS: crm/lt brn/lt-med gry, micro-med xtal, foss frags, some vry silty/sndy, min frac por, no odor, ns. SH: med-dk gry, silty, some carb, soft-firm, fissile.

LS: crm/lt brn/gry, micro-med xtal, foss frags/fusln, silty/sndy, min frac por, no odor, ns. SH: lt-med gry, vry silty, some carb, soft, firm, fissile.

SH: med-dk gry/dk red brn, silty, some carb, firm, fissile.

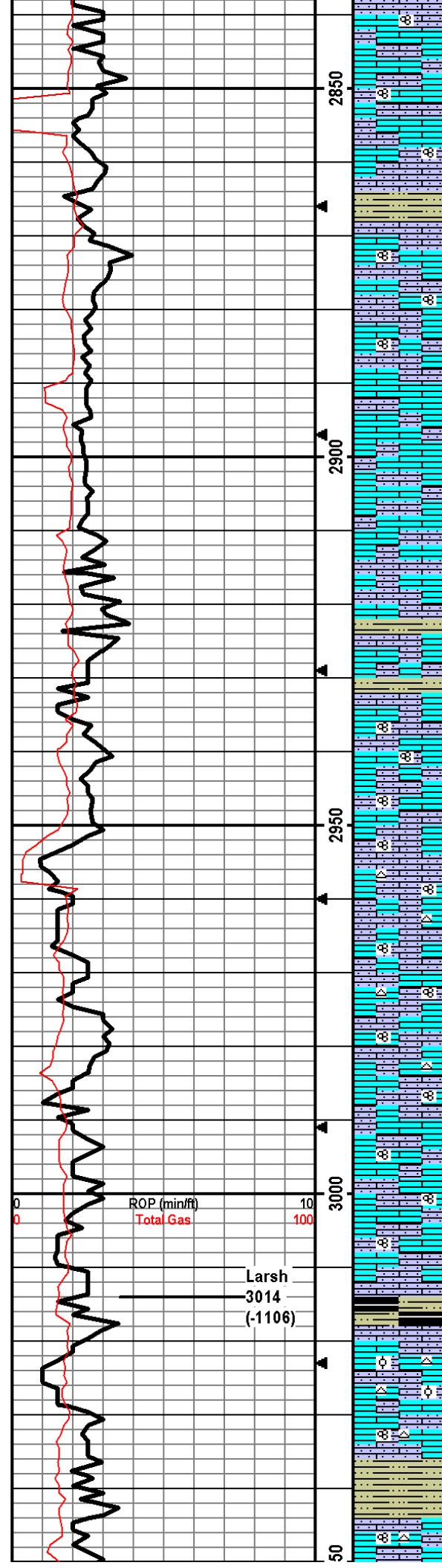
LS: lt-dk brn/lt-med gry, micro-fn xtal, min foss frags, vry silty/sndy, no vis por, no odor, ns.

SH: lt-med arv. silty. slt carb. soft. fissile.



ROP (min/ft)
Total Gas

Topeka
2828 (-920)



LS: lt-med brn/lt-med gry, micro-fn xtal w/some 2ndry xtal, foss frags/fusln, some vry silty/sndy, min frac por, no odor, ns.

SH: med gry, vry silty/sndy, firm, fissile.

LS: lt brn/lt-med gry, micro-med xtal, foss frags/fusln, vry silty/sndy, some chalky, min frac por, no odor, ns.

LS: crm/lt-med brn/gry, micro-med xtal, foss frags, vry silty/sndy, some frac por, no odor, ns. Some SH: lt-med gry, silty, soft-firm, fissile.

LS: lt-med brn/lt-med gry, micro-fn xtal, min foss frags, vry silty, some chalky, some frac por, no odor, ns. Some SH: med gry/red brn, vry silty, carb, soft-firm, fissile.

LS: crm/lt brn/lt-med gry, micro-med xtal, foss frags/fusln, vry silty/sndy, some frac por, no odor, ns.

LS: crm/lt-med brn/lt-med gry, micro-med xtal, foss frags/fusln, vry silty/sndy, some chalky, some lt brn chert, min frac por, no odor, ns.

LS: crm/lt brn/gry, micro-med xtal, foss frags/fusln, some vry silty/sndy, some chalky, some lt brn chert, some ppt-fn in-xtal por, no odor, ns.

LS: lt brn/lt gry, micro-fn xtal, foss frags/fusln, vry silty/sndy, min ppt in-xtal/frac por, no odor ns.

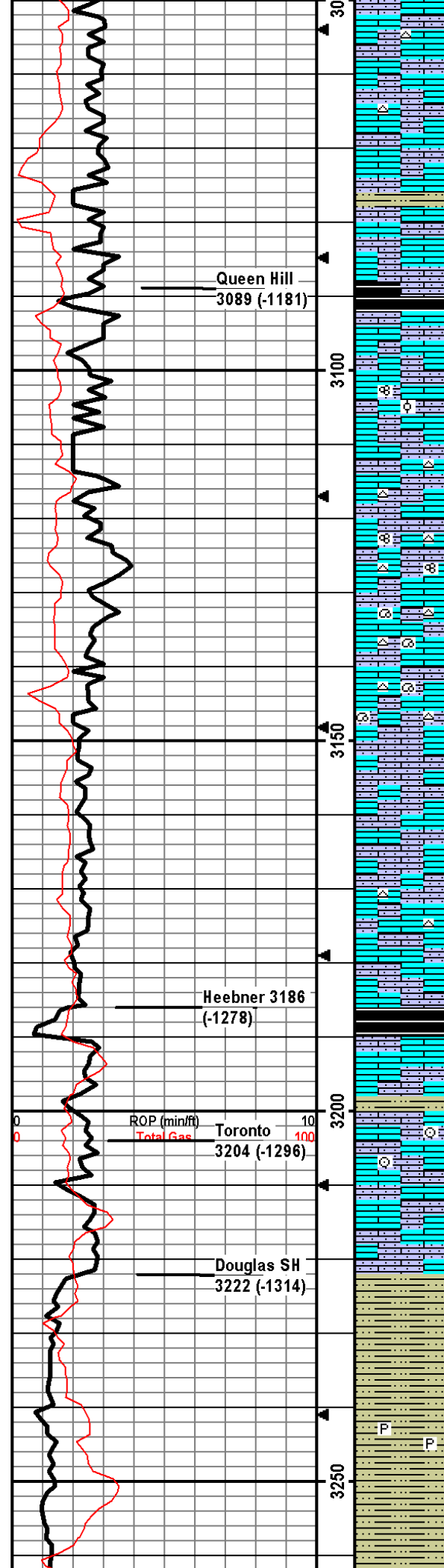
SH: med-dk gry, some silty, some slt carb, firm, fissile.

LS: lt brn/lt-med gry, micro-med xtal, foss frags/dense ool, vry silty/sndy, some chalky, some gry/lt brn chert, min ppt in-xtal/frac por, no odor, ns.

LS: crm/lt brn/lt gry, micro-med xtal, foss frags/fusln, some silty/sndy, some chalky, some lt brn/gry chert, min frac por, no odor, ns. SH lt-med gry, silty, carb, soft-firm, fissile.

ROP (min/ft)
Total Gas

Larsh
3014
(-1106)



LS: crm/lt brn/lt gry, micro-fn xtal, vry silty/sndy, foss frags, some chalky, some brn chert, some frac por, no odor, ns.

LS: lt-med brn/lt-med gry, micro-med xtal, foss frags, some vry silty/sndy, some ppt in-xtal por, no odor, ns. Some SH: med gry, silty, firm, fissile.

SH: med-dk gry/blk, silty, slt carb, firm, fissile.

LS: lt-med brn/gry, micro-med xtal, foss frags, some silty/sndy, some chalky, min frac por, no odor, ns.

LS: crm/lt brn/lt gry, micro-fn xtal, foss frags/fusln/min dense ool, grainy, some silty/sndy, some chalky, min frac por, no odor, ns.

LS: lt-med brn/some lt gry, micro-fn xtal, min foss frags, some vry silty, some lt brn/lt gry chert, min frac por, no odor, ns.

LS: crm/lt brn/lt gry, micro-med xtal w/some crs, foss frags/fusln, some silty/sndy, some lt gry chert, min frac por, no odor, ns.

LS: lt brn/lt gry, micro-med xtal, foss frags/gastro, some silty/sndy, min wht chert, min frac por, no odor, ns.

LS: lt-med brn/gry, micro-med xtal, foss frags/fusln, some silty/sndy, wht/lt gry chert, min frac por, no odor, ns.

LS: crm/lt-med brn/gry, micro-med xtal, foss frags, vry silty/sndy, some micaceous, some chalky, min ppt in-xtal por, no odor, ns.

LS: crm/lt-med brn/gry, micro-fn xtal, foss frags, vry silty/sndy, min frac por, no odor, ns.

LS: lt-med brn, micro-fn xtal, some foss frags, some silty/sndy, some lt brn chert, min frac por, no odor, ns.

LS: crm/lt brn, micro-fn xtal, some foss frags, silty, some chalky, min frac por, no odor, ns.

SH: med-dk gry/blk, silty, slt carb, firm, fissile.

LS: lt-med brn/gry, micro-med xtal, foss frags, some silty, some chalky, min frac por, no odor, ns.

LS: crm/lt brn, micro-med xtal, foss frags/crin, some silty, min frac por, no odor, ns. Some SH: med-dk gry, silty, carb, soft-firm, fissile.

LS: crm/lt brn/lt brnsh gry, micro-fn xtal, min foss frags, silty, some chalky, min frac por, no odor, ns.

SH: lt-med gry/dk bry/red brn, silty, some carb, soft-firm, fissile.

SH: same as above.

SH: med-dk gry/dk red brn, vry silty, carb, pyritic, firm, fissile

SH: med-dk gry/red brn/green-gry, some vry silty, soft-firm, fissile.

Drill cutting samples at 10' intervals start at 3100'.

DST1) 3327-3348 Lansing B-zone

3045/6090
1st) strg blow built to BOB in 40 sec and gas to surface in 15 min, BB to BOB.
2nd) strg blow built to BOB in 20 sec, BB.
IFP 49-54#
ISIP 1091#
FFP 47-55#
FSIP 1088#
HP 1639-1609#
Recvd: 50' mud; 3262' GIP.

DST2) 3385-3410 Lansing E&F-zones

3045/6090
1st) strg blow built to BOB in 3.5 min, BB to w/in 3 inches from BOB.
2nd) strg blow built to BOB in 2 min, BB to BOB.
IFP 56-88#
ISIP 911#
FSIP 903#

HP 1667-1629#
Recvd: 540' oil; 300' GIP.

Andy's Mud Check #3 @
3291' 06/21/14 01:20pm
wt vis pH chl
9.1 45 10 4000
Filt LCM
9.2 2

DST3) 3412-3430
Lansing G-zone
3045/3030
1st) weak surface blow steady thru-out, no BB.
2nd) vry weak surge did not build, no BB.
IFP 35-34#
ISIP 35#
FFP 35-34#
FSIP 36#
HP 1677-1650#
Recvd: no fluid.

CFS @ 3330'
30"60"

CFS @ 3348'
30"60"

Andy's Mud Check #4 @
3348' 06/22/14 08:00am
wt vis pH chl
9.2 48 9.5 4000
Filt LCM
7.2 2.5

CFS @ 3370'
30"60"

CFS @ 3390'
30"60"

CFS @ 3410'
30"60"

Andy's Mud Check #5 @
3430' 06/23/14 08:30am
wt vis pH chl
9.0 48 9.5 5000
Filt LCM
8 2

CFS @ 3430'
30"60"

DST4) 3428-3450
Lansing H-zone
3045/6090
1st) strg blow built to BOB in 3.5 min, had BB.
2nd) strg blow built to BOB in 2 min, BB to w/in 4 inches from BOB.
IFP 50-63#
ISIP 650#
FFP 73-98#
FSIP 727#
HP 1694-1616#
Recvd: 160' water cut oil (10% water, 90% Oil); 600' GIP.
CFS @ 3465'
30"60"

SH: same as above.

SH: same as above.

SH: same as above w/some lt gry SStn, vf-f, pred qtz, hard, friable, no odor, ns.

SH/SStn mix as above, no odor, ns.

LS: crm/lt brn/gry, micro-fn xtal, foss frags, silty, min frac por, no odor, ns.

LS: crm/lt-med brn/gry, micro-fn xtal, foss frags/fusln, some silty, min frac por, no odor, ns.

LS: crm/lt-med brn, micro-fn xtal, foss frags, some silty, some chalky, min frac por, no odor, ns.

LS: crm/lt brn, micro-fn xtal, foss frags/crin, some silty, 2 pcs w/ppt-fn in-xtal por w/lt brn staining, yel flor/crush cut, no odor, slt show.

LS: crm/lt brn, micro-med xtal, foss frags/few ool pcs, some silty, 15 pcs in 30 min and 8 pcs in 60 min smpls w/ppt-med in-xtal/in-ool por, yel flor/cut, cup odor, gsfo.

SH: med-dk gry/blk, silty, carb, soft-firm.

LS: crm/lt-med brn, micro-med xtal, foss frags/fusln, some silty/sndy, min lt brn chert, 1 pcs w/ppt-fn in-xtal por w/sfo, yel flor/cut, no odor, ssfo.

LS: crm/lt brn/some gry mottling, micro-med xtal, foss frags/fusln/crim, some silty/sndy, some chalky, min lt brn/wht chert, 1 pce in 30 min and 1 pce in 60 min smpls w/ppt-fn in-xtal por w/sfo, yel flor/cut, no odor, ssfo.

LS: crm/lt brn/lt gry, micro-med xtal, foss frags/fusln/crin/brac/dense ool, some silty/sndy, 8 pcs w/ppt-med in-xtal/ool por w/sfo, dull yel flor/cut, cup odor, sfo.

SH: med-dk gry, silty, slt carb, soft-firm, fissile.

LS: crm/lt-med brn, micro-med xtal, foss frags/fusln/crin/some dense ool, some silty/sndy, 7 pcs in 30 min and none in 60 min smpls w/ppt-fn in-xtal por w/sfo, dul yel flor/cut, crush odor, sfo.

LS: crm/lt-med brn, micro-med xtal, foss frags/fusln/crin/ool, some silty-sndy, 27 pcs w/ppt-med in-xtal/in-ool/min oo-castic por w/sfo, yel flor/cut, gd odor, gsfo.

LS: crm/lt-med brn/gry, micro-med xtal, foss frags/crin/ool, some silty/sndy, 36 pcs in 30 min and 26 pcs in 60 min smpls w/ppt-med in-xtal/in-ool/min oo-castic por w/sfo, yel flor/cut, gd cup odor, gsfo.

LS: crm/lt brn w/some dk brn frac fill, micro-med xtal, some foss frags/ool, some silty/sndy, min wht/lt brn chert, 7 pcs w/ppt-med in-xtal/oo-castic por w/sfo, dul yel flor/cut, cup odor, sfo.

LS: crm/lt brn/lt gry, micro-med xtal, some foss frags/min ool, silty/sndy, some wht/lt brn chert, 3 pcs in 30 min and 1 pcs in 60 min smpls w/ppt-crs in-xtal/oo-castic por w/sfo, dul yel flor/cut, slt odor, sfo.

SH: lt-med gry, some silty, slt carb, slt pyritic, soft-firm, fissile, 3 pcs LS w/sfo assume from above.

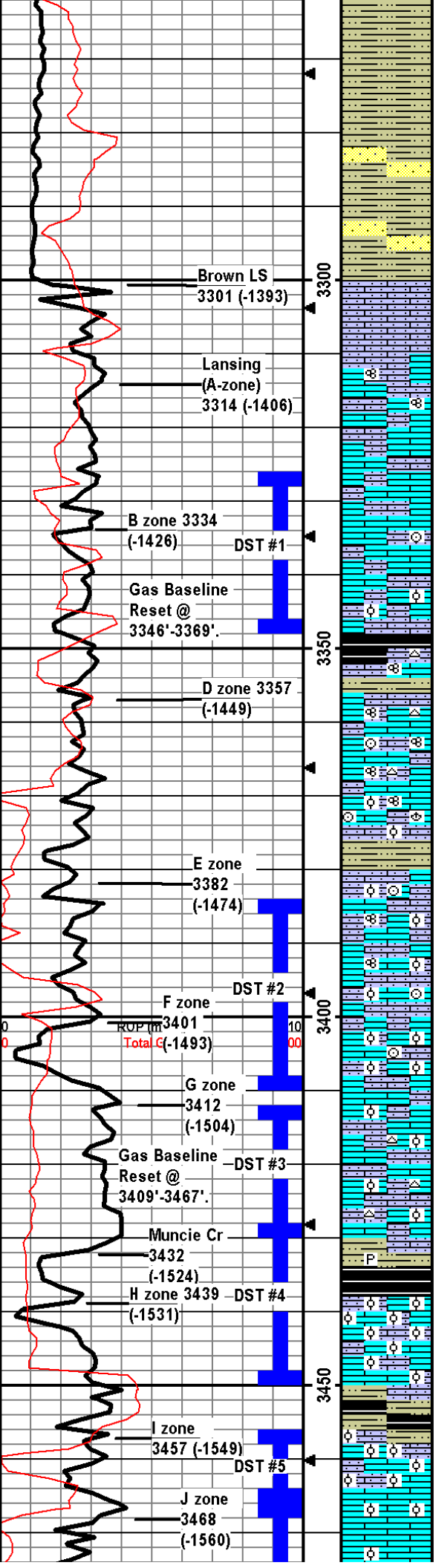
SH: dk gry/blk, some silty, carb, firm, fissile.

LS: crm/lt brn w/min med-dk brn, micro-med xtal, foss frags/abund ool, some silty/sndy, some chalky, 29 pcs in 30 min and 18 pcs in 60 min smpls w/fn-crs/vug in-xtal/oo-castic por w/sfo, dul yel flor/cut, strg odor, gsfo.

SH: med-dk gry/greenish gry, some silty, carb, firm, fissile.

LS: crm/lt brn, micro-med xtal, foss frags/abund ool, some silty/sndy, 31 pcs in 30 min and 19 pcs in 60 min smpls w/fn-med in-xtal/in-ool/oo-castic por w/sfo, yel flor/cut, cup odor, gsfo.

LS: crm/lt-dk brn, micro-fn xtal, foss frags/some ool pcs, min brn



Gas Baseline
Reset @ DST #6
3489'-3597'.

Stark
3490
(-1582)

K zone
3497
(-1589)

L zone
(Hertha)
3512
(-1604)

B/KC
3525
(-1617)

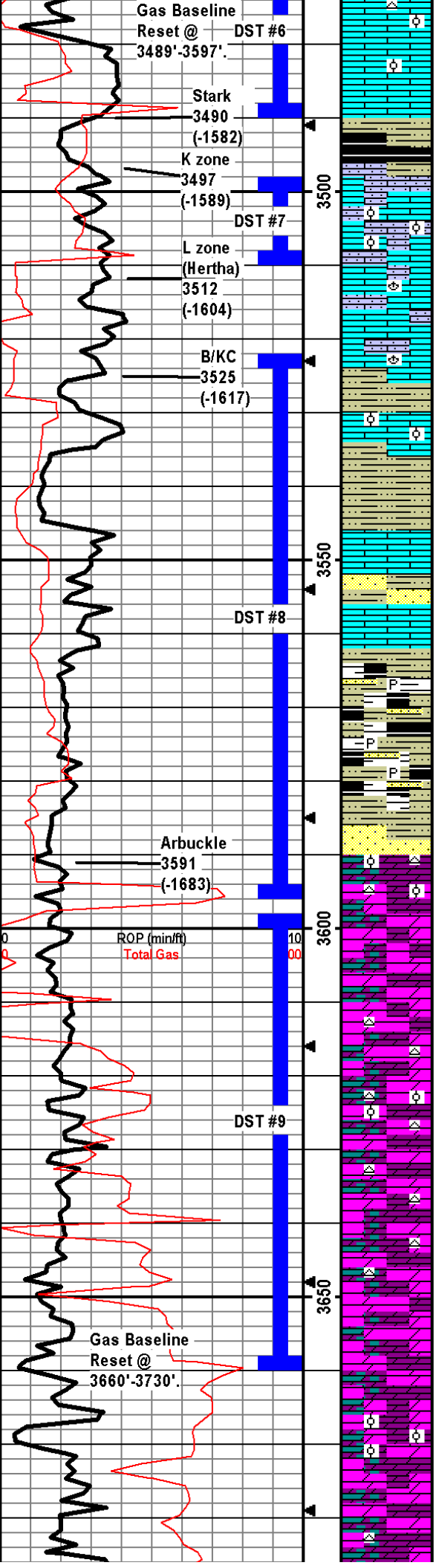
DST #8

Arbuckle
3591
(-1683)

ROP (min/ft)
Total Gas

DST #9

Gas Baseline
Reset @
3660'-3730'.



chert, 21 pcs w/fn-med in-xtal/in-ool/some oo-castic por w/sfo, yel flor/cut, odor, gsfo.

LS: crm/lt gryish crm, micro xtal w/some fn xtal, no foss frags w/min dense ool pcs, 8 pcs in 30 min w/lt-dk brn some ool w/sfo, slt odor, 8 pcs in 60 min w/fn-med in-xtal/in-ool/oo-castic por w/s dk brn oil.

SH: med-dk gry/blk/greenish gry/min red brn/brn, silty, some carb, firm, fissile.

LS: crm/lt brn/lt gry, micro-med xtal, min foss frags w/some abund ool pcs, some silty/sndy, 11 pcs in 30 min and 6 pcs in 60 min smpls w/fn-med in-xtal/in-ool por w/sfo, slt cup odor, yel flor/cut, sfo.

LS: crm/lt brn/lt gry, micro-med, some foss frags/brac, min silty/sndy pcs, some chalky, min frac por, no odor, ns.

SH: med-dk gry, dk red brn, silty, slt carb, firm, fissile.

LS: crm/lt brn, micro-med xtal, min foss frags w/few dense abund ool pcs, some silty/sndy, some chalky, mostly dense w/2 pcs w/ppt-fn por w/sfo, yel flor/cut, no odor, ssfo.

SH: med-dk gry/dk red brn, silty, carb, firm, fissile.

LS: crm, micro-med xtal, min foss frags, 8 pcs w/ppt-med por w/sfo, yel flor/cut, slt odor, sfo.

SH/SS mix: SH is lt-dk gry/green-gry/dk red brn, some silty, carb, firm, fissile; SS is gry-dk gry, qtz, vf-m, sr-wr, friable, 7 SS clusters w/sfo, yel flor, slt odor, sfo.

LS: crm-lt brn, micro-med xtal, min foss frags, 16 pcs w/fn-crs in-xtal por w/sfo, yel flor/cut, slt odor, gsfo.

SH: lt-dk gry/green-gry/dk red brn/min mustard yel, silty-sndy, some carb, some pyritic, soft-firm, fissile; few SS cluster, wht/lt gry/dk gry, f-crs, sr-wr, clay matrix, friable; few SS pcs w/sfo assumed from above, slt odor.

SS: gry/med-dk brn, f-crs, sr-wr, hard, friable, 10-15% of tray w/sfo, yel flor/cut, strg odor, vgsfo.

DOLO: crm, micro-med xtal, some ool, grainy/sndy, wht chert, approx 10-15% of tray w/fn-med in-xtal por w/sfo, yel flor/cut, strg cup odor, vgsfo.

DOLO: crm/lt brn, micro-fn xtal, grainy/sndy, 10-15% of tray w/f-med w/some crs in-xtal por w/sfo, yel flor, strg odor, vgsfo.

DOLO: crm/lt brn, micro-med xtal, grainy/sndy, opaque lt gry/dk brn chert, appr 20-25% of tray w/fn-med in-xtal por w/sfo, yel flor/cut, strg cup odor, vgsfo.

DOLO: wht/crm/lt brn, micro-crs xtal, grainy/sndy, some ool, wht/lt gry opaque chert, appr 20-25% of tray w/fn-med in-xtal por w/sfo, yel flor/cut, strg cup odor, vgsfo.

DOLO: same as above, minus ool, w/approx 20-25% of tray w/sfo; some oil is thick blk tar texture.

DOLO: same as above w/increase in blk tar oil, 20-25% of tray w/sfo.

DOLO: wht/crm/lt brn, micro-med w/some crs xtal, grainy/sndy, appr 30-40% of tray w/sfo, oil dk brn and blk, dul yel flor, strg odor, vgsfo.

DOLO: crm/lt-med brn, micro-med xtal, grainy/sndy, some ool, appr 30-40% of tray w/sfo, oil dk brn w/some blk tar, fn-med in-xtal por w/some oo-castic por, strg odor, vgsfo.

DOLO: wht/crm/lt brn, micro-med xtal, grainy/sndy, some ool, appr 20-25% of try w/sfo, oil dk brn w/some blk tar, fn-med in-xtal por w/some oo-castic por, strg odor, vgsfo.

DOLO: crm/lt brn, micro-med xtal, grainy/sndy, some wht chert, nnt,fn-in-xtal por 8 pcs w/sfo w/dk brn oil w/blk tar yel flor, slt

Andy's Mud Check #0 @ 3450' 06/24/14 09:00am
wt vis pH chl
9.0 46 9.5 5000
Filt LCM
8.2 1.5
CFS @ 3490'
30"60"
Andy's Mud Check #7 @ 3490' 06/25/14 07:30am
wt vis pH chl
9.1 51 9.5 5000
Filt LCM
8 1.5
CFS @ 3510'
30"60"

**DST5) 3457-3465
Lansing I-zone**
30/45/60/90
1st) weak blow built to 9 inches, vry weak surface BB.
2nd) fair blow built to BOB in 13 min, 1 inch BB.
IFP 31-33#
ISIP 622#
FFP 32-39#
FSIP 697#
HP 1690-1660#
Recvd: 40' mud cut oil (40% mud, 60% Oil); 380' GIP.

**DST6) 3467-3490
Lansing J-zone**
30/45/60/90
1st) strg blow built to BOB in 45 sec, BOB BB.
2nd) strg blow built to BOB in 3 min, had BB.
IFP 67-163#
ISIP 679#
FFP 179-321#
FSIP 639#
HP 1709-1687#
Recvd: 1140' gassy oil (30% gas, 70% oil); 2327' GIP.

CFS @ 3580', 3595', 3610';
30"60"

**DST7) 3499-3510
Lansing K-zone**
30/45/30/30
1st) vry weak surface blow steady thru-out, no BB.
2nd) vry weak surge did not build, no BB.
IFP 32-37#
ISIP 1042#
FFP 36-37#
FSIP 1026#
HP 1722-1652#
Recvd: 4' mud.

CFS @ 3640'
30"60"

Andy's Mud Check #8 @ 3585' 06/26/14 07:30am
wt vis pH chl
9.1 53 9.5 4800
Filt LCM
7.2 1.5
CFS @ 3660'
30"60"

Andy's Mud Check #9 @ 3660' 06/27/14 07:30am
wt vis pH chl
9.1 51 9 5000
Filt LCM
8 1

**DST8) 3523-3595
Arbuckle**
30/45/60/90

ppt in in xtal por, a few w/lt brn or whlt tan, yet no, slt odor, sfo.

DOLO: same as above w/3 pcs sfo, slt odor, sfo.

DOLO: wht/crm/lt brn, micro-med xtal, grainy/sndy, wht chert, ppt-fn in-xtal por, few pcs w/sfo assume from above, slt crush odor also from above.

DOLO: as above, no odor, ns.

DOLO: crm/lt brn, micro-med xtal, grainy/sndy, wht chert, ppt-fn w/min med in-xtal por, no odor, ns.

TD @ 3730'.

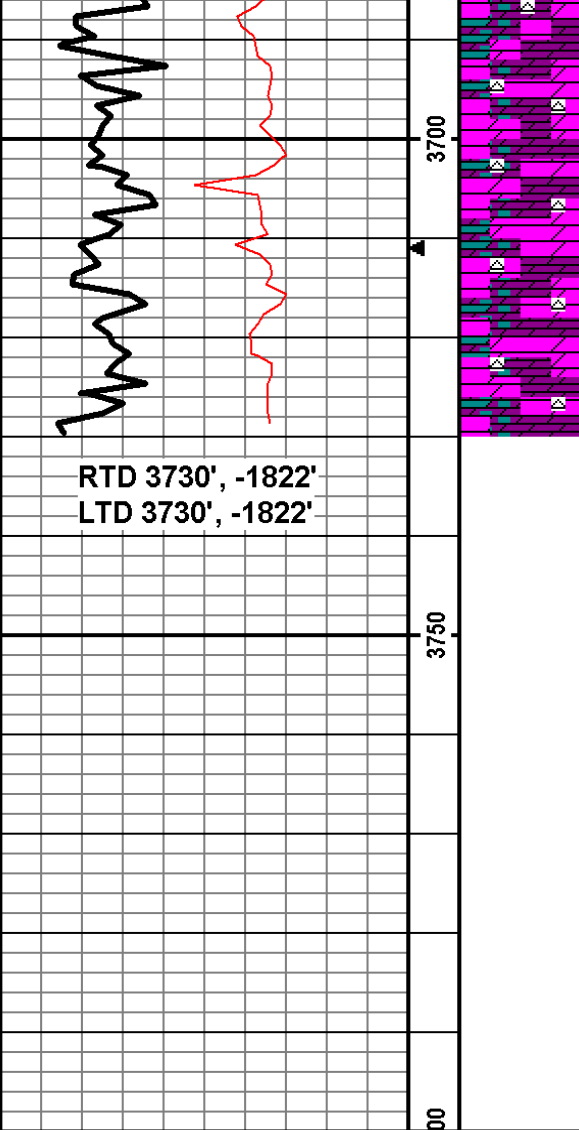
1st) fair blow built to 7", vry weak BB.
2nd) fair blow build to BOB in 45 min, vry weak BB.
IFP 67-76#
ISIP 1115#
FFP 79-95#
FSIP 1147#
HP 1779-1676#
Recvd: 60' OM (50% O), 30' GOM (15% G, 25% O), 180' GIP.

DST9) 3598-3660

Arbuckle

30456090
1st) strg blow built to BOB in 1.5 min, no BB.
2nd) strg blow build to BOB in 1.5 min, no BB.
IFP 693-1116#
ISIP 1243#
FFP 1155-1247#
FSIP 1254#
HP 1815-1747#
Recvd: 2460' Oil spotted MW (1% O, 10% mud, 89% water).

CFS @ 3730'
30" / 60"
Cir 1.5 hrs total to clean hole.



RTD 3730', -1822'
LTD 3730', -1822'



DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

Start Date: 2014.06.22 @ 00:17:00

End Date: 2014.06.22 @ 07:28:00

Job Ticket #: 18583 DST #: 1

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2014.06.22 @ 08:53:56

Younger Energy Company

06-21s-13w Stafford

MorrisonLutherUnit#1

DST # 1

Lansing B zone

2014.06.22



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18583

DST#: 1

ATTN: Kent Matson

Test Start: 2014.06.22 @ 00:17:00

GENERAL INFORMATION:

Formation: **Lansing Bzone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:09:00

Time Test Ended: 07:28:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33 -Great Bend-20

Interval: **3327.00 ft (KB) To 3348.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3348.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 55.70 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.22

End Date:

2014.06.22

Last Calib.:

2014.06.22

Start Time: 00:17:00

End Time:

07:28:00

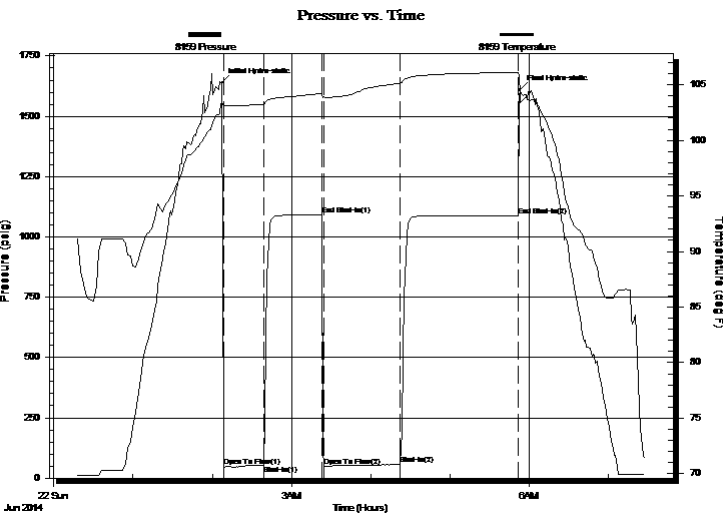
Time On Btm:

2014.06.22 @ 02:07:30

Time Off Btm:

2014.06.22 @ 05:53:00

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 40 sec gas to surface 15 minutes see gas report
1st Shut-in 45 Minutes-Blow back bottom of bucket
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 20 sec
2nd Shut-in 90 Minutes-Yes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1639.28	103.44	Initial Hydro-static
2	49.36	103.12	Open To Flow (1)
32	54.60	103.26	Shut-In(1)
76	1091.25	104.22	End Shut-In(1)
77	47.94	103.89	Open To Flow (2)
135	55.70	105.16	Shut-In(2)
225	1088.63	106.12	End Shut-In(2)
226	1609.49	104.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	mud	0.70
0.00	3262 feet gas in pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	19.50	53.78
Last Gas Rate	0.25	19.50	53.78
Max. Gas Rate	0.25	19.50	53.78



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18583

DST#: 1

ATTN: Kent Matson

Test Start: 2014.06.22 @ 00:17:00

GENERAL INFORMATION:

Formation: **Lansing Bzone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 02:09:00

Time Test Ended: 07:28:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33 -Great Bend-20

Interval: **3327.00 ft (KB) To 3348.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3348.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 1088.40 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.22

End Date:

2014.06.22

Last Calib.:

2014.06.22

Start Time: 00:17:00

End Time:

07:27:30

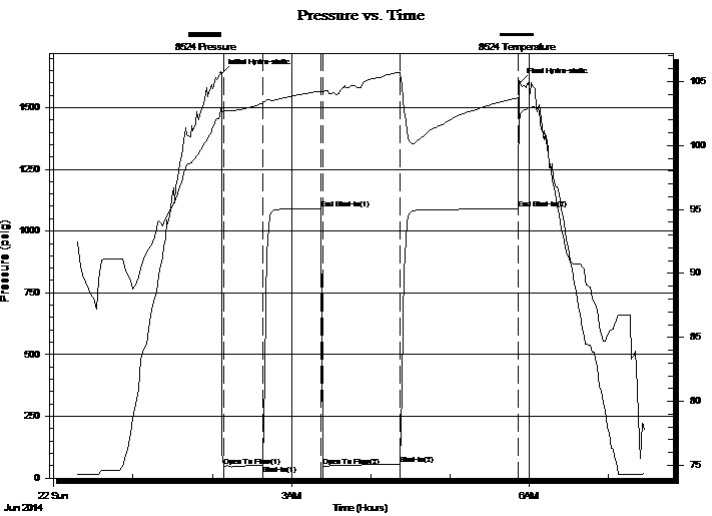
Time On Btm:

2014.06.22 @ 02:07:00

Time Off Btm:

2014.06.22 @ 05:53:00

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 40 sec gas to surface 15 minutes see gas report
1st Shut-in 45 Minutes-Blow back bottom of bucket
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 20 sec
2nd Shut-in 90 Minutes-Yes



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1639.07	102.95	Initial Hydro-static
2	48.99	102.75	Open To Flow (1)
32	53.56	103.31	Shut-In(1)
76	1090.51	104.26	End Shut-In(1)
77	47.59	104.18	Open To Flow (2)
136	55.67	105.69	Shut-In(2)
225	1088.40	103.72	End Shut-In(2)
226	1602.12	102.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
50.00	mud	0.70
0.00	3262 feet gas in pipe	0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.25	19.50	53.78
Last Gas Rate	0.25	19.50	53.78
Max. Gas Rate	0.25	19.50	53.78



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18583

DST#: 1

ATTN: Kent Matson

Test Start: 2014.06.22 @ 00:17:00

Tool Information

Drill Pipe:	Length: 3312.00 ft	Diameter: 3.80 inches	Volume: 46.46 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 46.46 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	13.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3327.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	21.00 ft			
Tool Length:	49.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut-In Tool	5.00			3304.00	
Hydraulic tool	5.00			3309.00	
Jars	6.00			3315.00	
Safety Joint	2.00			3317.00	
Top Packer	5.00			3322.00	
Packer	5.00			3327.00	28.00 Bottom Of Top Packer
Anchor	16.00			3343.00	
Recorder	1.00		Inside	3344.00	
Recorder	1.00		Outside	3345.00	
Bull Plug	3.00			3348.00	21.00 Anchor Tool
Total Tool Length:	49.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18583

DST#: 1

ATTN: Kent Matson

Test Start: 2014.06.22 @ 00:17:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 45.00 sec/qt
Water Loss: 9.19 in³
Resistivity: ohm.m
Salinity: 4000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
50.00	mud	0.701
0.00	3262 feet gas in pipe	0.000

Total Length: 50.00 ft Total Volume: 0.701 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



DRILL STEM TEST REPORT

GAS RATES

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18583

DST#: 1

ATTN: Kent Matson

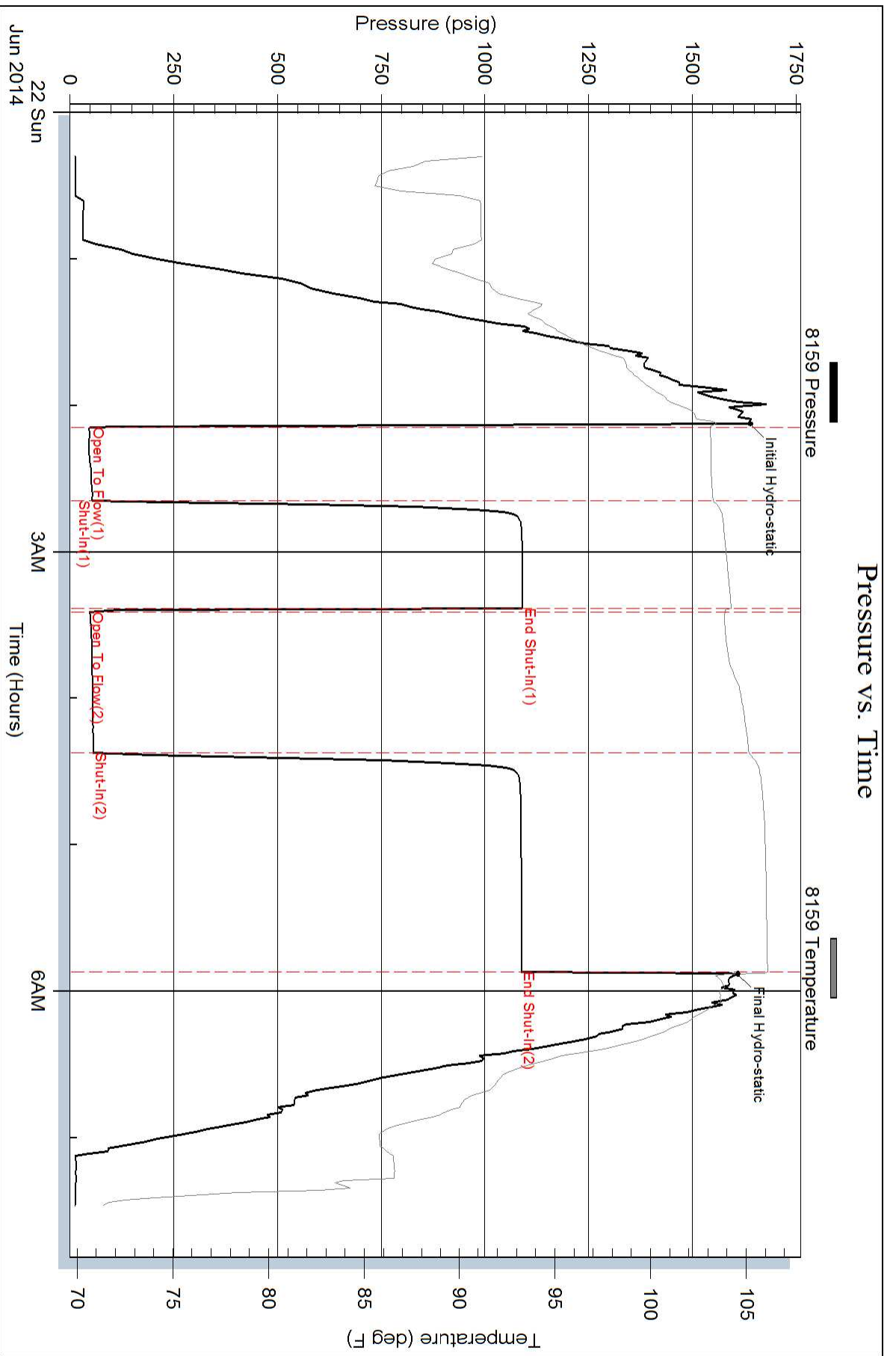
Test Start: 2014.06.22 @ 00:17:00

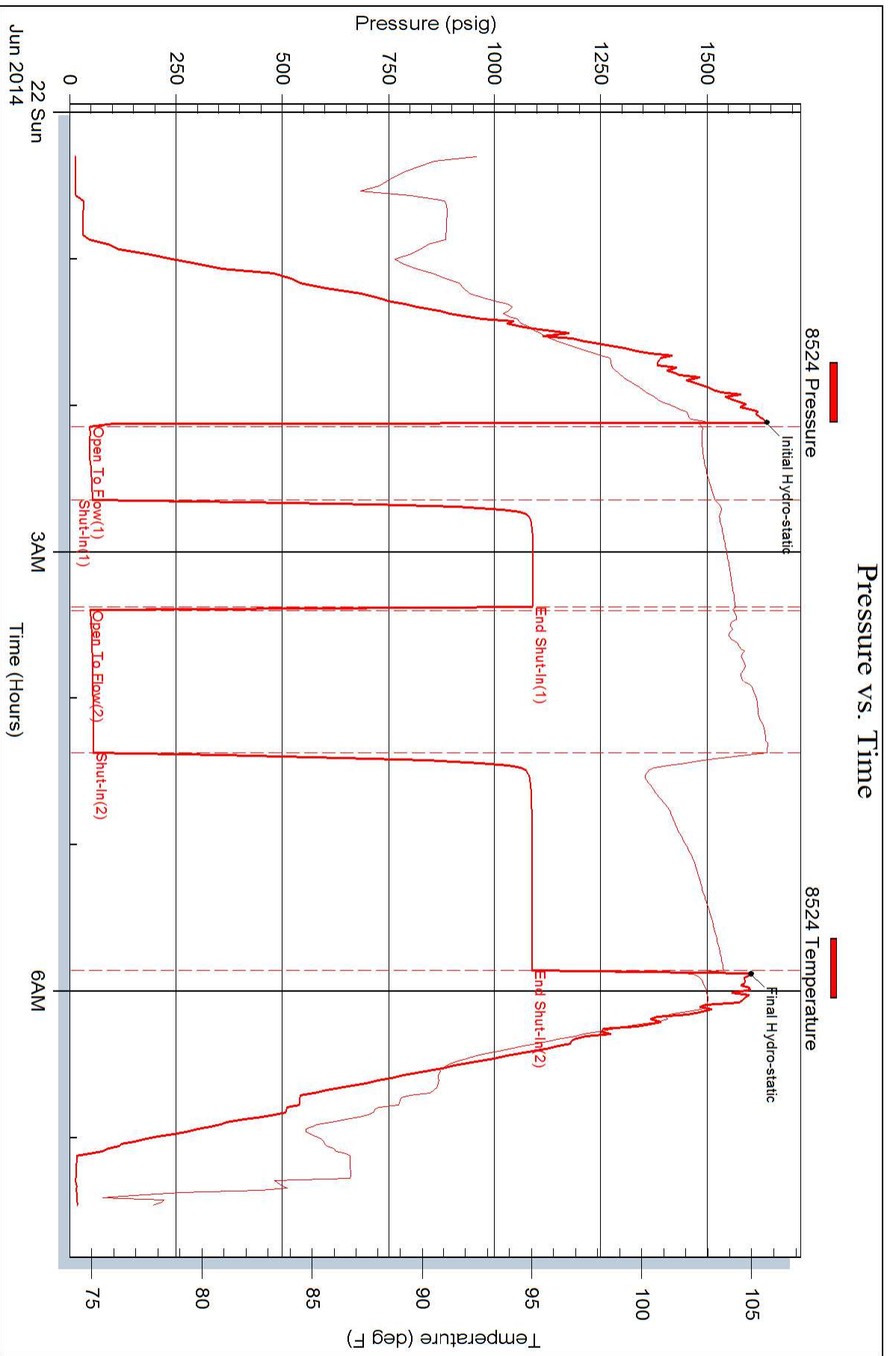
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
1	25	0.25	19.50	53.78
2	10	0.25	19.50	53.78
2	20	0.25	19.50	53.78
2	30	0.25	19.50	53.78
2	40	0.25	19.50	53.78
2	50	0.25	19.50	53.78
2	60	0.25	19.50	53.78







DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

Start Date: 2014.06.22 @ 19:40:00

End Date: 2014.06.23 @ 06:39:30

Job Ticket #: 18584 DST #: 2

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2014.06.23 @ 04:05:01



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

ATTN: Kent Matson

Job Ticket: 18584

DST#: 2

Test Start: 2014.06.22 @ 19:40:00

GENERAL INFORMATION:

Formation: **Lansing E-F zones**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:03:30

Time Test Ended: 06:39:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33 Great Bend-20

Interval: **3385.00 ft (KB) To 3410.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3410.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 167.70 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.22

End Date: 2014.06.23

Last Calib.: 2014.06.23

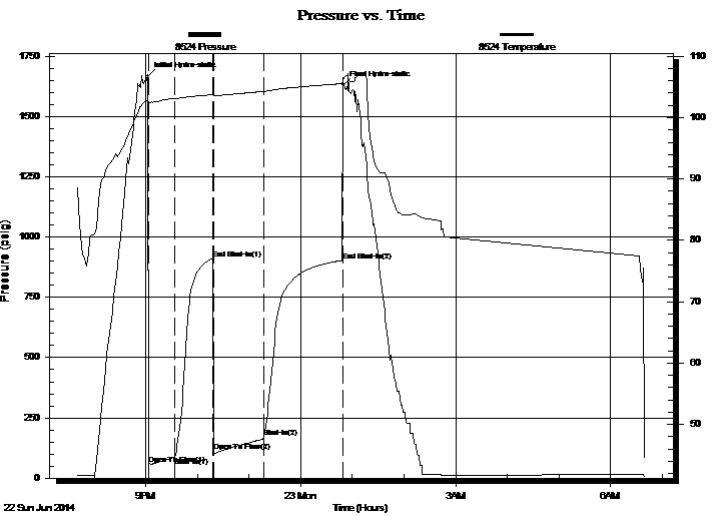
Start Time: 19:40:00

End Time: 06:39:30

Time On Btm: 2014.06.22 @ 21:02:30

Time Off Btm: 2014.06.23 @ 00:49:30

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 3 1/2 minutes
1st Shut-in 45 Minutes-3 inches from bottom
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 2 minutes
2nd Shut-in 90 Minutes-Bottom of bucket



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1667.29	102.67	Initial Hydro-static
1	56.63	102.33	Open To Flow (1)
32	88.14	103.11	Shut-In(1)
75	911.48	103.75	End Shut-In(1)
77	110.90	103.60	Open To Flow (2)
135	167.70	104.28	Shut-In(2)
226	903.47	105.56	End Shut-In(2)
227	1629.42	106.06	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
540.00	oil 100%	7.57
0.00	300 feet gas in pipe	0.00
0.00	gravity oil 48	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

ATTN: Kent Matson

Job Ticket: 18584

DST#: 2

Test Start: 2014.06.22 @ 19:40:00

GENERAL INFORMATION:

Formation: **Lansing E-F zones**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:03:30

Time Test Ended: 06:39:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33 Great Bend-20

Interval: **3385.00 ft (KB) To 3410.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3410.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 902.63 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.22

End Date: 2014.06.23

Last Calib.: 2014.06.23

Start Time: 19:40:00

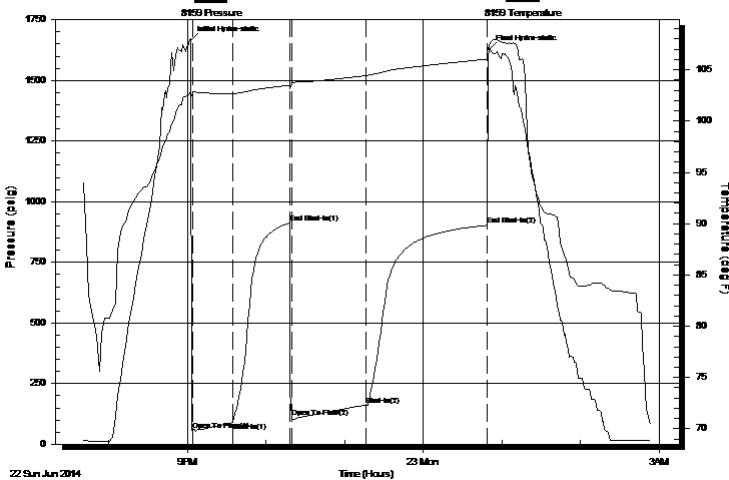
End Time: 02:53:30

Time On Btm: 2014.06.22 @ 21:03:00

Time Off Btm: 2014.06.23 @ 00:50:00

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 3 1/2 minutes
1st Shut-in 45 Minutes-3 inches from bottom
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 2 minutes
2nd Shut-in 90 Minutes-Bottom of bucket

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1666.26	102.88	Initial Hydro-static
1	55.28	102.57	Open To Flow (1)
32	88.34	102.69	Shut-In(1)
75	911.61	103.50	End Shut-In(1)
77	109.54	103.67	Open To Flow (2)
133	160.64	104.44	Shut-In(2)
226	902.63	106.04	End Shut-In(2)
227	1628.97	107.12	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
540.00	oil 100%	7.57
0.00	300 feet gas in pipe	0.00
0.00	gravity oil 48	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18584

DST#: 2

ATTN: Kent Matson

Test Start: 2014.06.22 @ 19:40:00

Tool Information

Drill Pipe:	Length: 3374.00 ft	Diameter: 3.80 inches	Volume: 47.33 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 47.33 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3385.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	25.00 ft			
Tool Length:	53.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3362.00	
Hydraulic tool	5.00			3367.00	
Jars	6.00			3373.00	
Safety Joint	2.00			3375.00	
Top Packer	5.00			3380.00	
Packer	5.00			3385.00	28.00 Bottom Of Top Packer
Anchor	20.00			3405.00	
Recorder	1.00		Inside	3406.00	
Recorder	1.00		Outside	3407.00	
Bull Plug	3.00			3410.00	25.00 Anchor Tool
Total Tool Length:	53.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18584

DST#: 2

ATTN: Kent Matson

Test Start: 2014.06.22 @ 19:40:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 45.00 sec/qt
Water Loss: 9.20 in³
Resistivity: ohm.m
Salinity: 4000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
540.00	oil 100%	7.575
0.00	300 feet gas in pipe	0.000
0.00	gravity oil 48	0.000

Total Length: 540.00 ft Total Volume: 7.575 bbl

Num Fluid Samples: 0

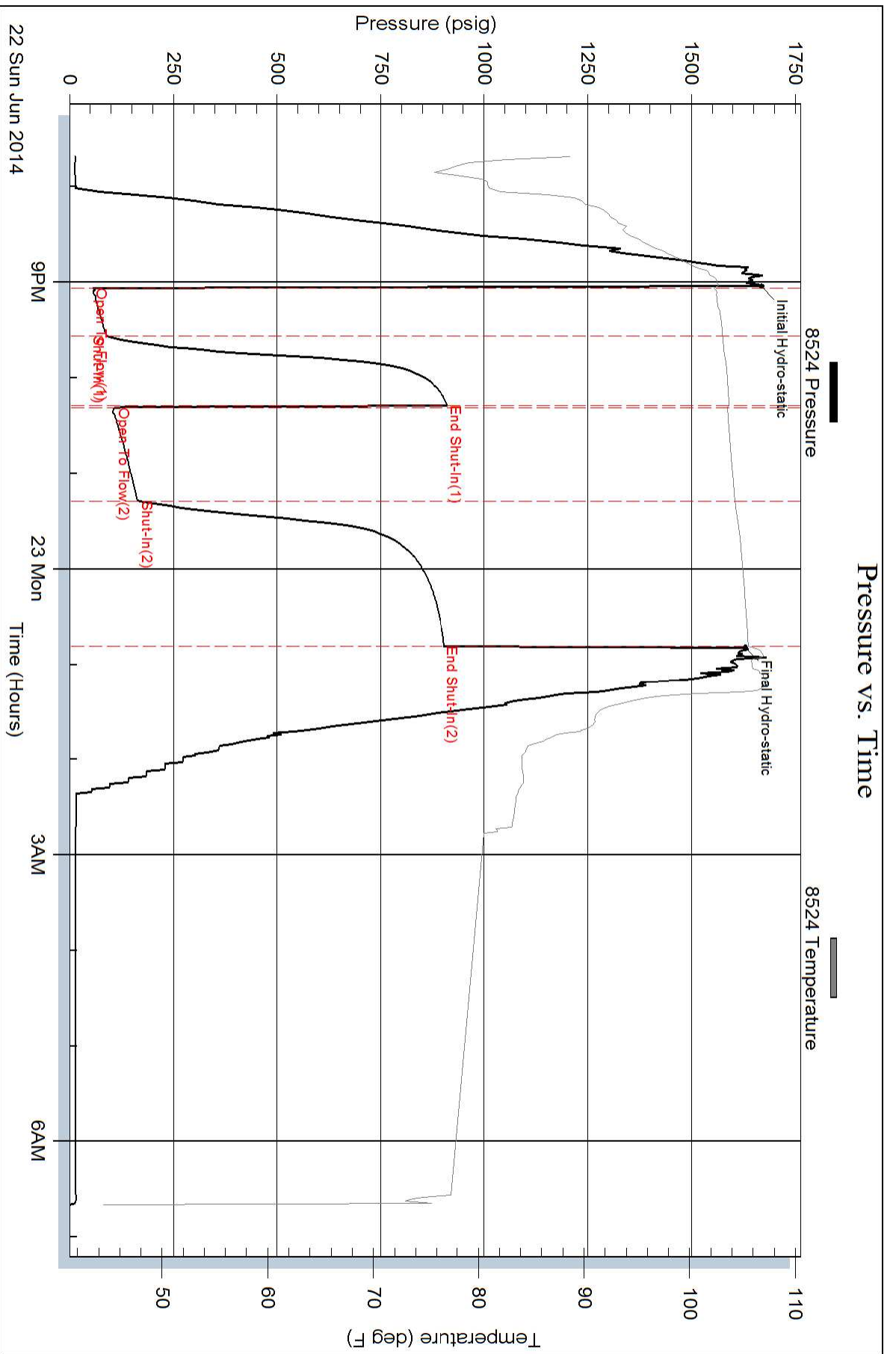
Num Gas Bombs: 0

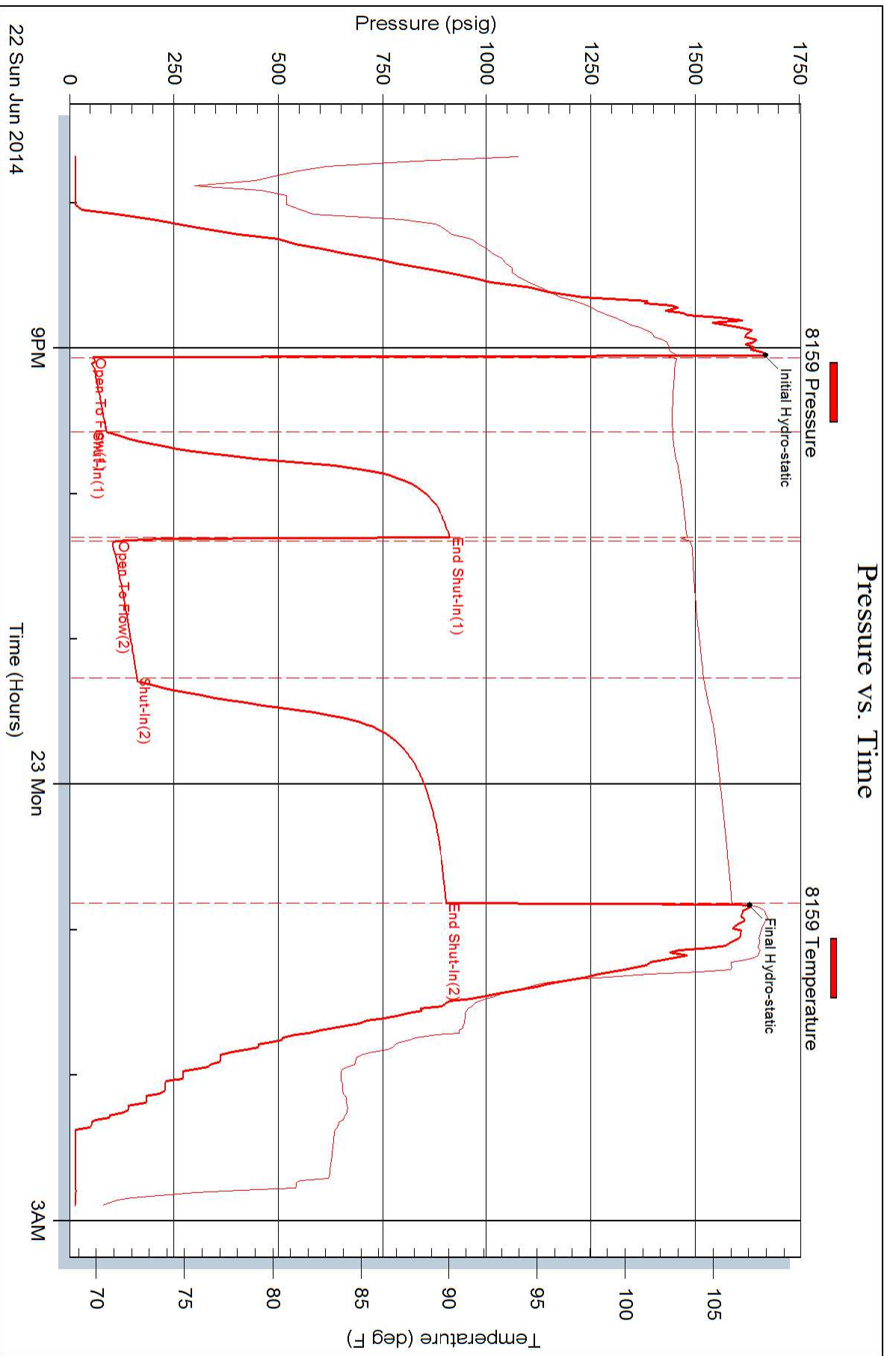
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

Start Date: 2014.06.23 @ 10:35:00

End Date: 2014.06.23 @ 15:15:30

Job Ticket #: 18585 DST #: 3

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2014.06.23 @ 16:19:59



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18585

DST#: 3

ATTN: Kent Matson

Test Start: 2014.06.23 @ 10:35:00

GENERAL INFORMATION:

Formation: **Lansing G zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:44:00

Time Test Ended: 15:15:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33 -Great Bend-20

Interval: **3412.00 ft (KB) To 3430.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3430.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 34.92 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.23

End Date: 2014.06.23

Last Calib.: 2014.06.23

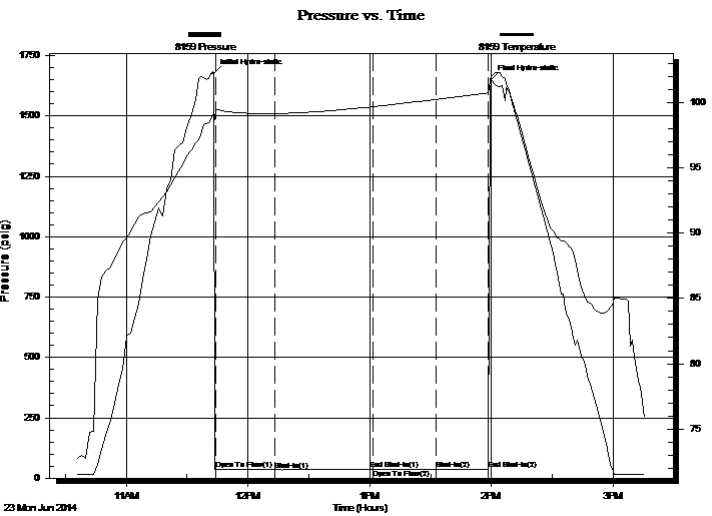
Start Time: 10:35:00

End Time: 15:15:30

Time On Btm: 2014.06.23 @ 11:43:00

Time Off Btm: 2014.06.23 @ 14:00:00

TEST COMMENT: 1st Opening 30 Minutes-Weak surface blow stayed steady throughout open
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Very weak surge did not build
2nd Shut-in 30 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1677.29	99.16	Initial Hydro-static
1	35.28	99.42	Open To Flow (1)
30	34.59	99.15	Shut-In(1)
77	35.20	99.65	End Shut-In(1)
79	35.24	99.67	Open To Flow (2)
110	34.92	100.22	Shut-In(2)
136	36.63	100.72	End Shut-In(2)
137	1650.93	101.94	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00		0.00

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18585

DST#: 3

ATTN: Kent Matson

Test Start: 2014.06.23 @ 10:35:00

GENERAL INFORMATION:

Formation: **Lansing G zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 11:44:00

Time Test Ended: 15:15:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33 -Great Bend-20

Interval: **3412.00 ft (KB) To 3430.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3430.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 35.86 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.23

End Date: 2014.06.23

Last Calib.: 2014.06.23

Start Time: 10:35:00

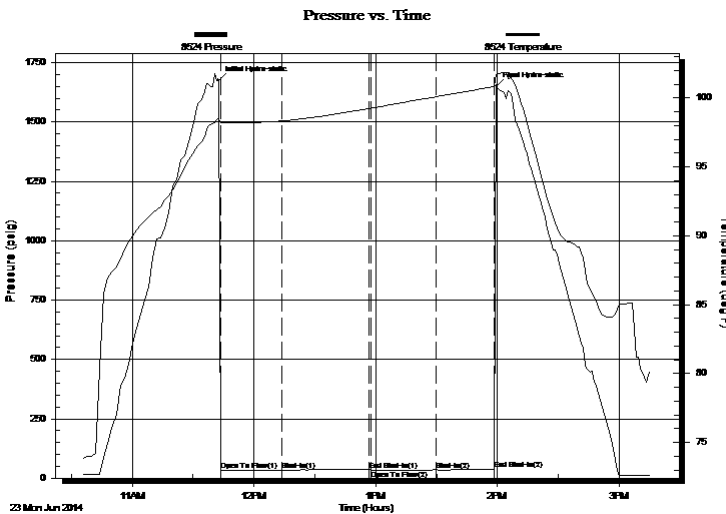
End Time: 15:15:30

Time On Btm: 2014.06.23 @ 11:42:30

Time Off Btm: 2014.06.23 @ 13:59:30

TEST COMMENT: 1st Opening 30 Minutes-Weak surface blow stayed steady throughout open
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Very weak surge did not build
2nd Shut-in 30 Minutes-No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1675.59	98.46	Initial Hydro-static
1	33.63	98.20	Open To Flow (1)
31	34.01	98.33	Shut-In(1)
74	35.20	99.22	End Shut-In(1)
75	34.34	99.25	Open To Flow (2)
107	34.88	100.08	Shut-In(2)
136	35.86	100.81	End Shut-In(2)
137	1650.87	101.68	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00		0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18585

DST#: 3

ATTN: Kent Matson

Test Start: 2014.06.23 @ 10:35:00

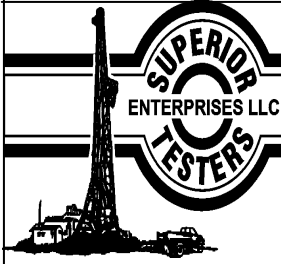
Tool Information

Drill Pipe:	Length: 3403.00 ft	Diameter: 3.80 inches	Volume: 47.74 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 75000.00 lb
			<u>Total Volume: 47.74 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3412.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	46.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut-In Tool	5.00			3389.00	
Hydraulic tool	5.00			3394.00	
Jars	6.00			3400.00	
Safety Joint	2.00			3402.00	
Top Packer	5.00			3407.00	
Packer	5.00			3412.00	28.00 Bottom Of Top Packer
Anchor	13.00			3425.00	
Recorder	1.00	8159	Inside	3426.00	
Recorder	1.00	8524	Outside	3427.00	
Bull Plug	3.00			3430.00	18.00 Anchor Tool
Total Tool Length:	46.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18585

DST#: 3

ATTN: Kent Matson

Test Start: 2014.06.23 @ 10:35:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 48.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.00 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5000.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00		0.000

Total Length:

ft

Total Volume:

bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

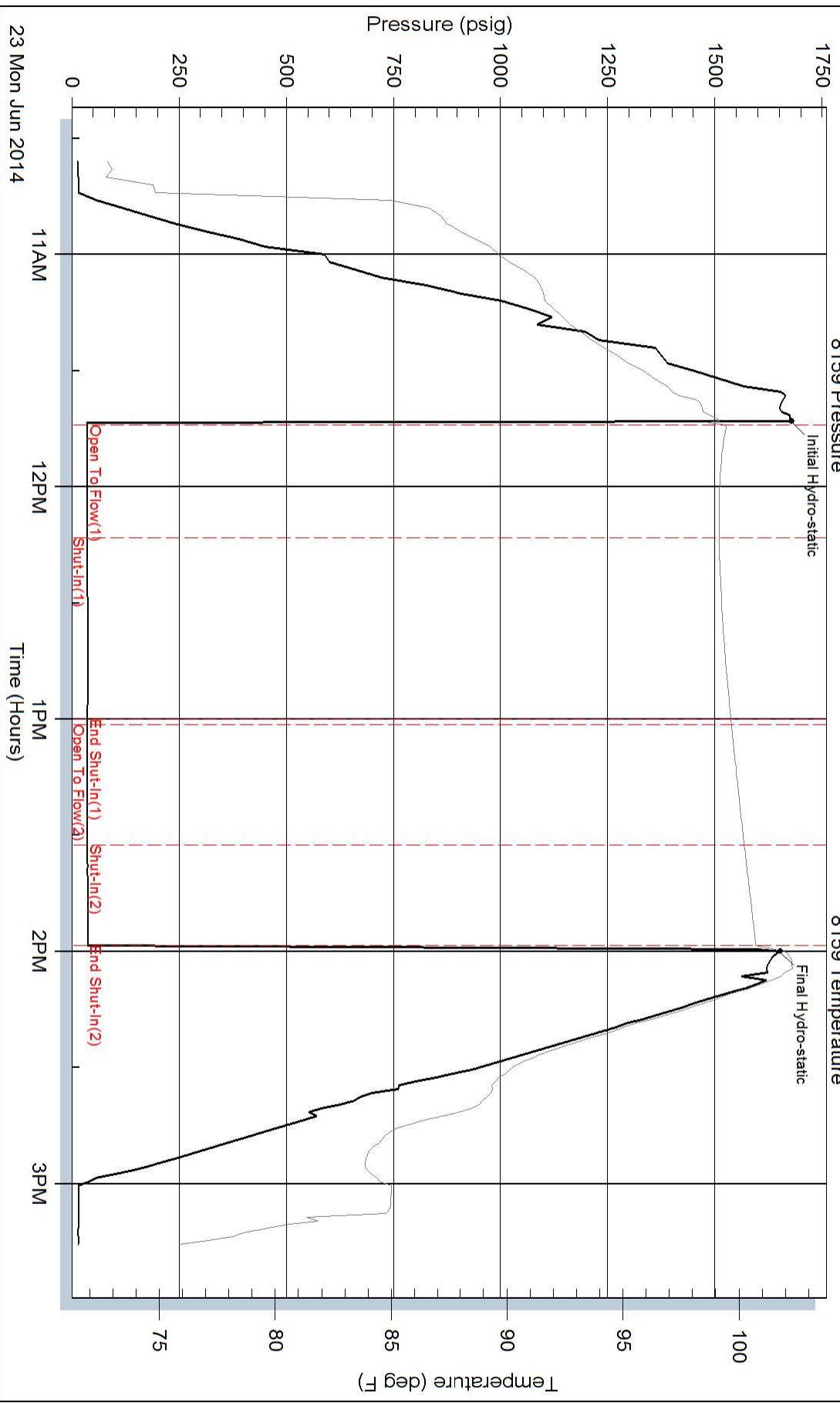
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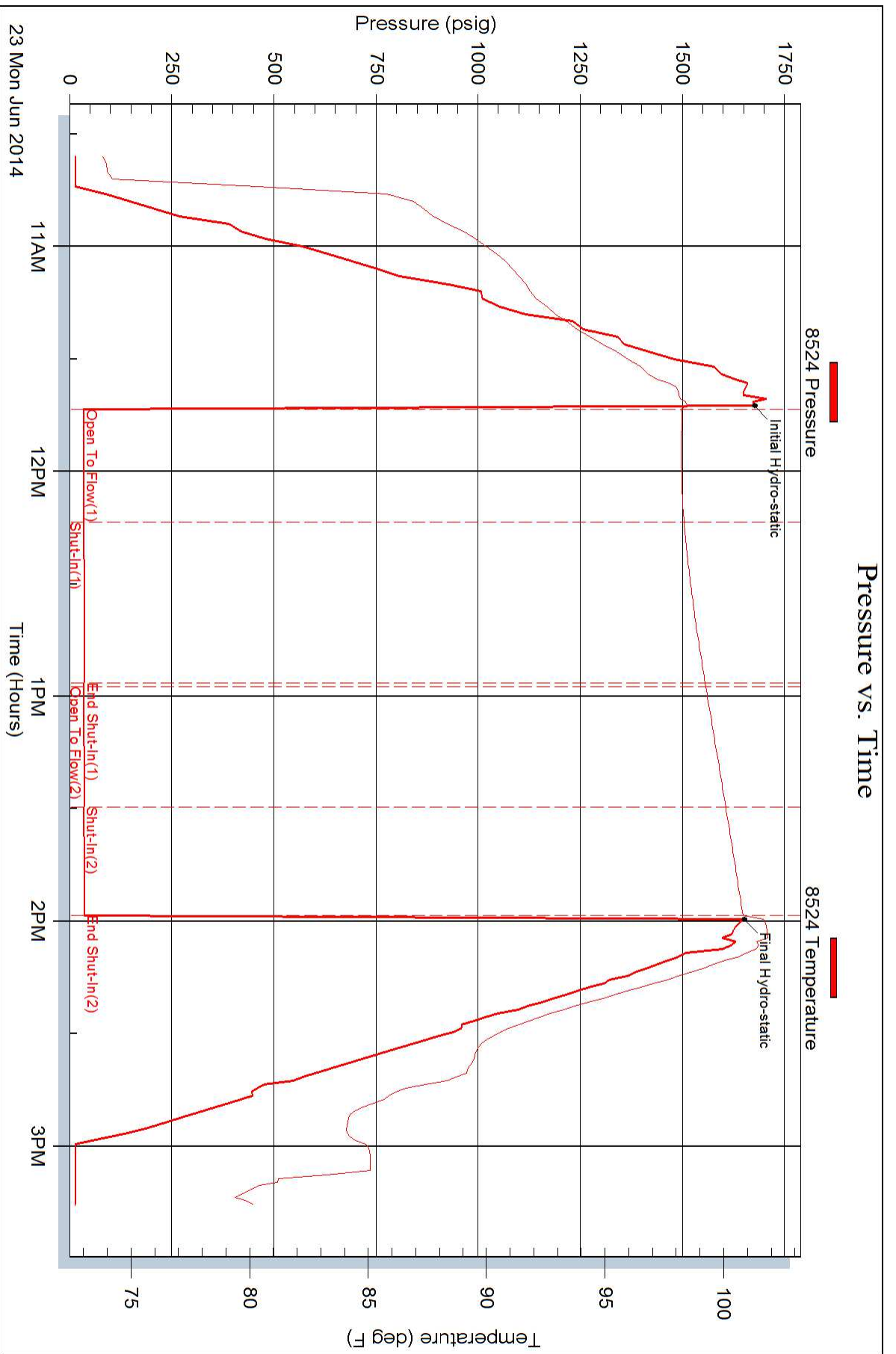
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

Start Date: 2014.06.23 @ 22:00:00

End Date: 2014.06.24 @ 05:36:30

Job Ticket #: 18586 DST #: 4

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2014.06.24 @ 07:01:44



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18586

DST#: 4

ATTN: Kent Matson

Test Start: 2014.06.23 @ 22:00:00

GENERAL INFORMATION:

Formation: **Lansing Hzone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:33:00

Time Test Ended: 05:36:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33-Great Bend -20

Interval: **3428.00 ft (KB) To 3450.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3450.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 98.47 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.23

End Date:

2014.06.24

Last Calib.:

2014.06.24

Start Time: 22:00:00

End Time:

05:36:30

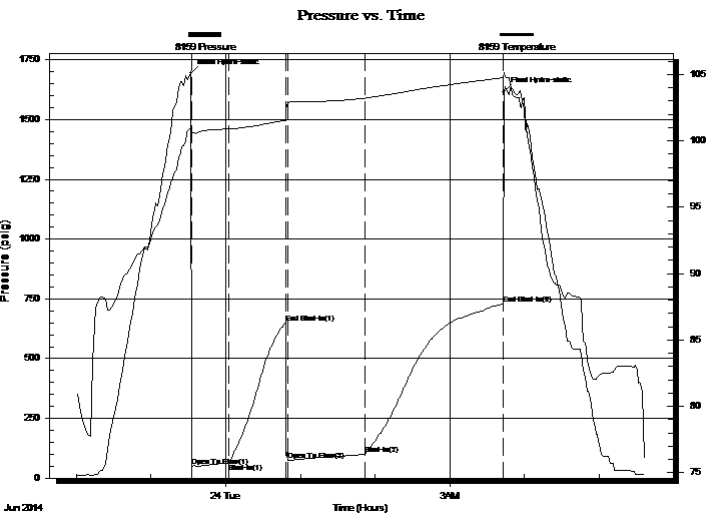
Time On Btm:

2014.06.23 @ 23:32:00

Time Off Btm:

2014.06.24 @ 03:43:30

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 3 1/2 minutes
1st Shut-in 45 Minutes-Yes blow back
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 2 minutes
2nd Shut-in 90 Minutes-4 inches from bottom



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1694.01	100.91	Initial Hydro-static
1	50.57	100.66	Open To Flow (1)
31	63.96	100.89	Shut-In(1)
76	650.18	101.54	End Shut-In(1)
78	73.86	102.86	Open To Flow (2)
140	98.47	103.21	Shut-In(2)
251	727.69	104.75	End Shut-In(2)
252	1616.74	105.15	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
160.00	w ater oil 10%w ater 90%oil	2.24
0.00	600 feet gas in pipe	0.00
0.00	chlorides 40,000	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18586

DST#: 4

ATTN: Kent Matson

Test Start: 2014.06.23 @ 22:00:00

GENERAL INFORMATION:

Formation: **Lansing Hzone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 23:33:00

Time Test Ended: 05:36:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33-Great Bend -20

Interval: **3428.00 ft (KB) To 3450.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3450.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 726.77 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.23

End Date:

2014.06.24

Last Calib.:

2014.06.24

Start Time: 22:00:00

End Time:

05:36:30

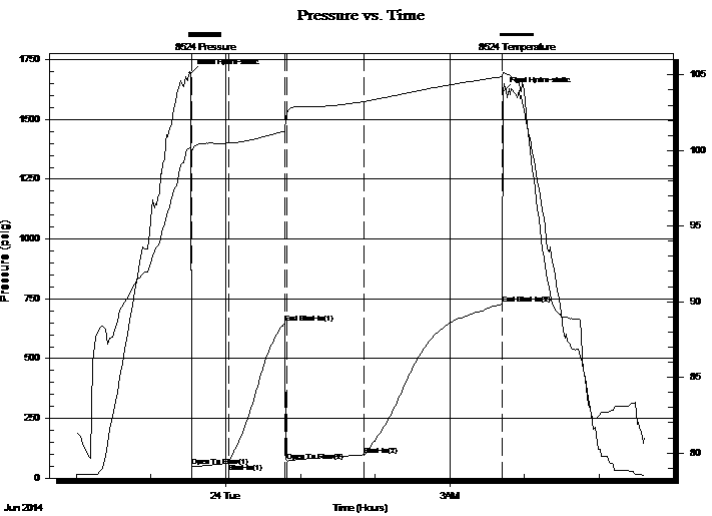
Time On Btm:

2014.06.23 @ 23:31:30

Time Off Btm:

2014.06.24 @ 03:43:00

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 3 1/2 minutes
1st Shut-in 45 Minutes-Yes blow back
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 2 minutes
2nd Shut-in 90 Minutes-4 inches from bottom



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1693.51	100.18	Initial Hydro-static
1	48.55	99.95	Open To Flow (1)
31	62.69	100.49	Shut-In(1)
76	649.49	101.28	End Shut-In(1)
78	72.55	102.42	Open To Flow (2)
140	97.45	103.24	Shut-In(2)
251	726.77	104.88	End Shut-In(2)
252	1616.86	105.13	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
160.00	w ater oil 10%w ater 90%oil	2.24
0.00	600 feet gas in pipe	0.00
0.00	chlorides 40,000	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18586

DST#: 4

ATTN: Kent Matson

Test Start: 2014.06.23 @ 22:00:00

Tool Information

Drill Pipe:	Length: 3404.00 ft	Diameter: 3.80 inches	Volume: 47.75 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 47.75 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3428.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	22.00 ft			
Tool Length:	50.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3405.00	
Hydraulic tool	5.00			3410.00	
Jars	6.00			3416.00	
Safety Joint	2.00			3418.00	
Top Packer	5.00			3423.00	
Packer	5.00			3428.00	28.00 Bottom Of Top Packer
Anchor	17.00			3445.00	
Recorder	1.00	8159	Inside	3446.00	
Recorder	1.00	8524	Outside	3447.00	
Bull Plug	3.00			3450.00	22.00 Anchor Tool
Total Tool Length:	50.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18586

DST#: 4

ATTN: Kent Matson

Test Start: 2014.06.23 @ 22:00:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 48.00 sec/qt
Water Loss: 8.00 in³
Resistivity: ohm.m
Salinity: 5000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
160.00	water oil 10%water 90%oil	2.244
0.00	600 feet gas in pipe	0.000
0.00	chlorides 40,000	0.000

Total Length: 160.00 ft Total Volume: 2.244 bbl

Num Fluid Samples: 0

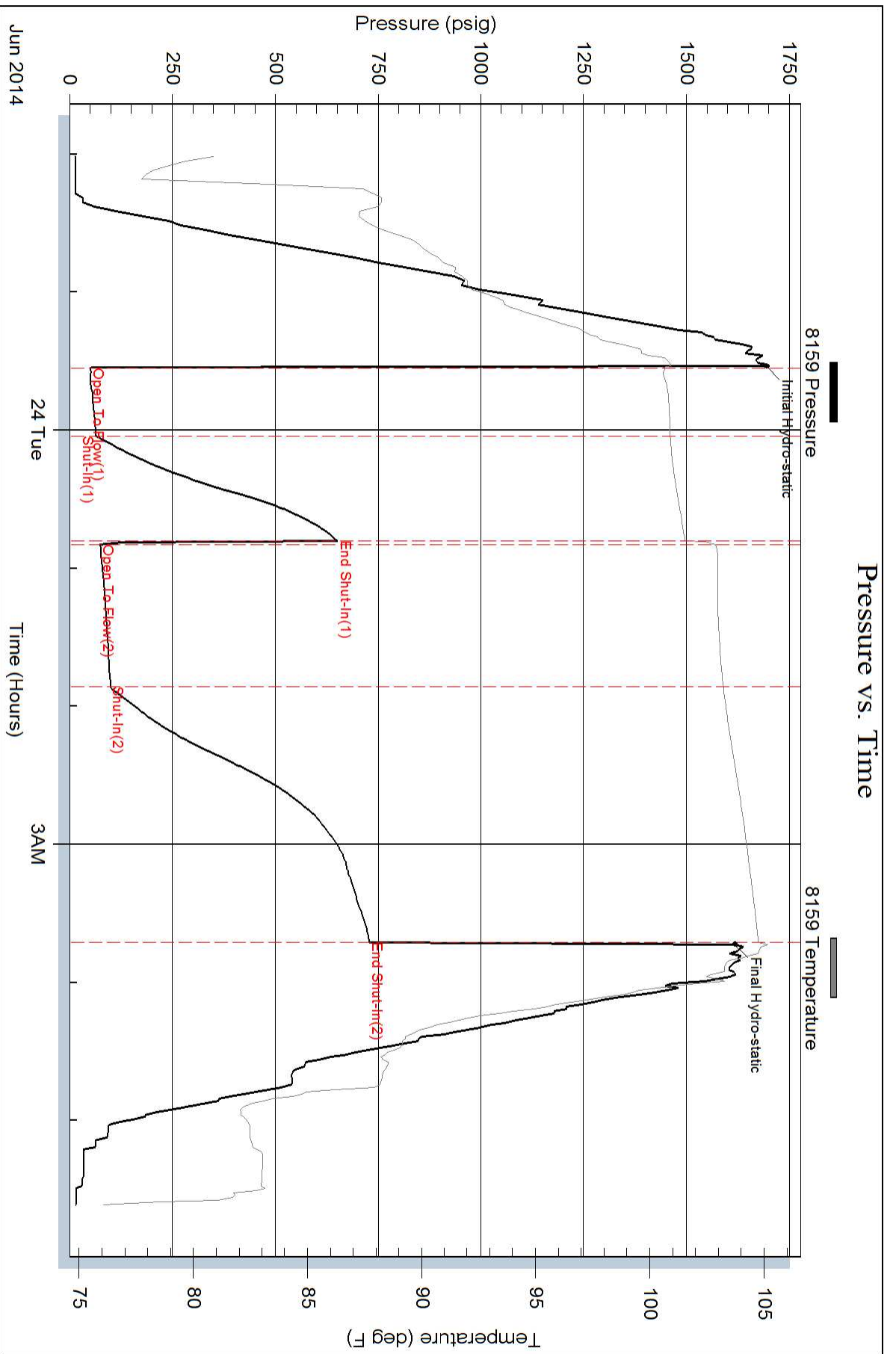
Num Gas Bombs: 0

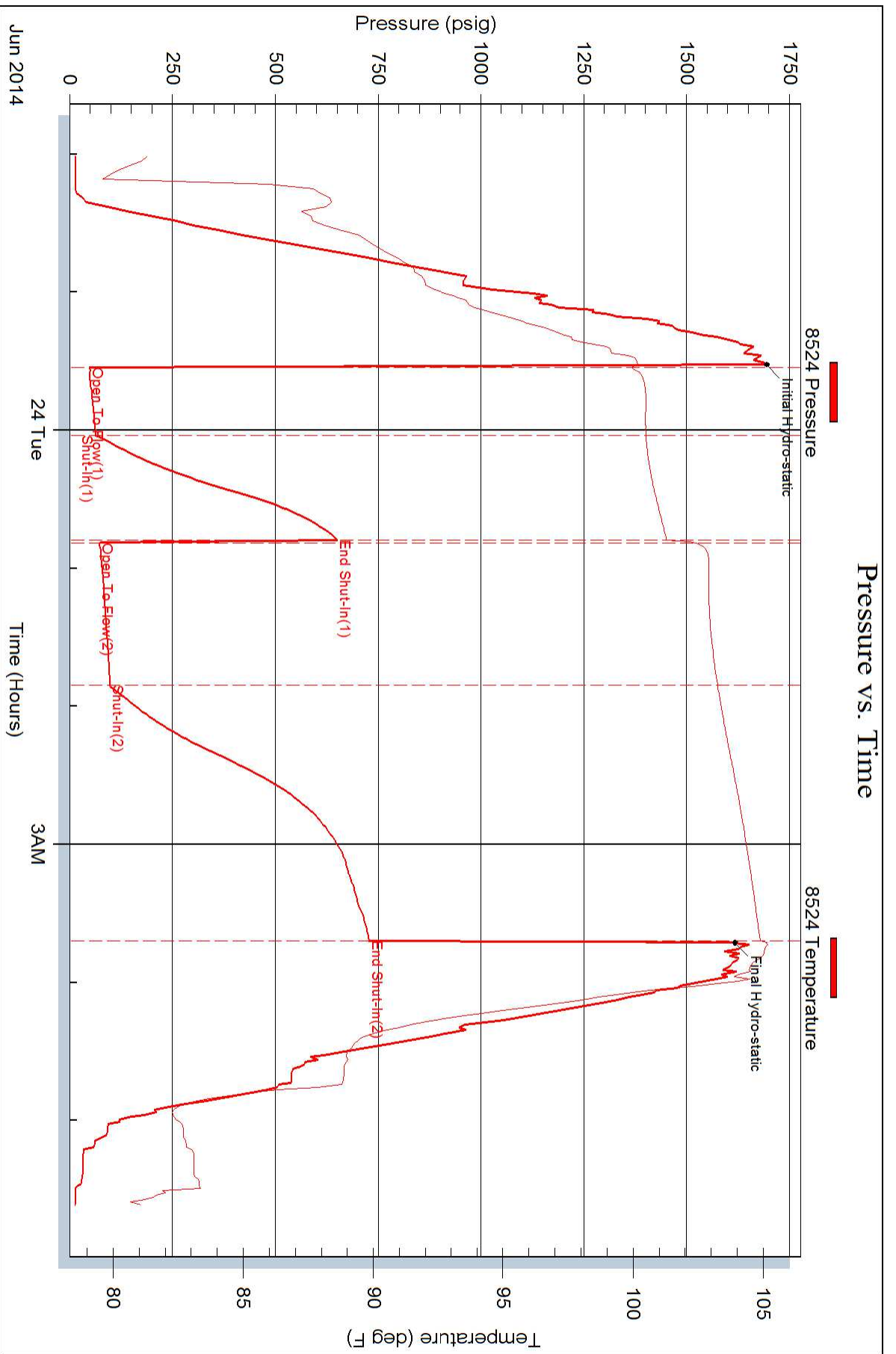
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

Start Date: 2014.06.24 @ 13:03:00

End Date: 2014.06.24 @ 19:33:30

Job Ticket #: 18587 DST #: 5

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2014.06.24 @ 20:46:56



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

ATTN: Kent Matson

Job Ticket: 18587

DST#: 5

Test Start: 2014.06.24 @ 13:03:00

GENERAL INFORMATION:

Formation: **Lansing I zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:19:30

Time Test Ended: 19:33:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33-Great Bend-20

Interval: **3457.00 ft (KB) To 3465.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3465.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 39.93 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.24

End Date:

2014.06.24

Last Calib.:

2014.06.24

Start Time: 13:03:00

End Time:

19:33:30

Time On Btm:

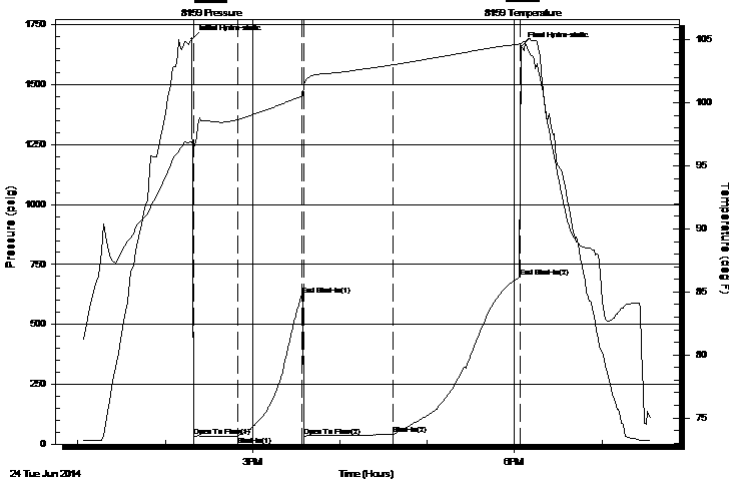
2014.06.24 @ 14:18:30

Time Off Btm:

2014.06.24 @ 18:04:30

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 3 inches into bucket w water in 30 minutes 9 inches into w ater
1st Shut-in 45 Minutes-Very weak surface blow
2nd Opening 60 Minutes-Fair blow built bottom of bucket in 13 minutes
2nd Shut-in 90 Minutes-1 inch blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1690.67	96.89	Initial Hydro-static
1	31.88	96.49	Open To Flow (1)
31	33.73	98.66	Shut-In(1)
76	622.77	100.54	End Shut-In(1)
77	32.96	101.44	Open To Flow (2)
138	39.93	103.03	Shut-In(2)
225	697.06	104.67	End Shut-In(2)
226	1660.96	104.74	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	mud oil 40% mud 60% oil	0.56
0.00	380 feet gas in pipe	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18587

DST#: 5

ATTN: Kent Matson

Test Start: 2014.06.24 @ 13:03:00

GENERAL INFORMATION:

Formation: **Lansing I zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:19:30

Time Test Ended: 19:33:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33-Great Bend-20

Interval: **3457.00 ft (KB) To 3465.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3465.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 697.66 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.24

End Date:

2014.06.24

Last Calib.:

2014.06.24

Start Time: 13:03:00

End Time:

19:33:30

Time On Btm:

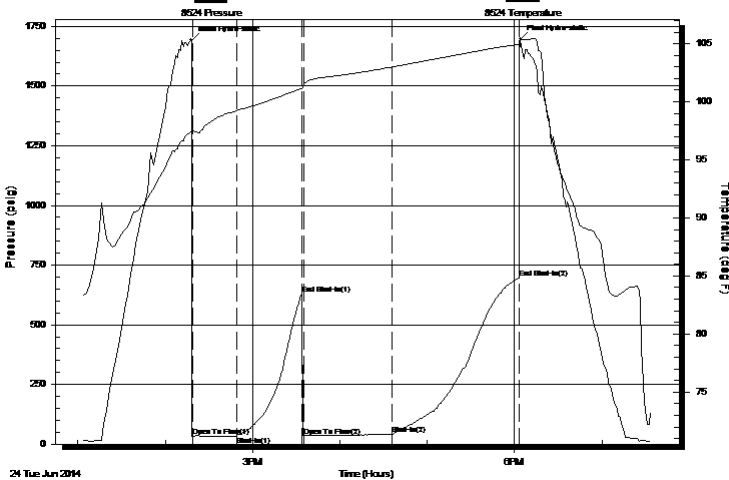
2014.06.24 @ 14:18:00

Time Off Btm:

2014.06.24 @ 18:04:00

TEST COMMENT: 1st Opening 30 Minutes-Weak blow built 3 inches into bucket w water in 30 minutes 9 inches into w ater
1st Shut-in 45 Minutes-Very weak surface blow
2nd Opening 60 Minutes-Fair blow built bottom of bucket in 13 minutes
2nd Shut-in 90 Minutes-1 inch blow

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1691.66	97.44	Initial Hydro-static
1	31.88	97.48	Open To Flow (1)
31	34.45	99.24	Shut-In(1)
76	630.60	101.17	End Shut-In(1)
77	33.04	101.50	Open To Flow (2)
138	40.73	103.00	Shut-In(2)
225	697.66	104.95	End Shut-In(2)
226	1696.63	105.34	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	mud oil 40% mud 60% oil	0.56
0.00	380 feet gas in pipe	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18587

DST#: 5

ATTN: Kent Matson

Test Start: 2014.06.24 @ 13:03:00

Tool Information

Drill Pipe:	Length: 3434.00 ft	Diameter: 3.80 inches	Volume: 48.17 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 48.17 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	5.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3457.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	8.00 ft			
Tool Length:	36.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut-In Tool	5.00			3434.00	
Hydraulic tool	5.00			3439.00	
Jars	6.00			3445.00	
Safety Joint	2.00			3447.00	
Top Packer	5.00			3452.00	
Packer	5.00			3457.00	28.00 Bottom Of Top Packer
Anchor	3.00			3460.00	
Recorder	1.00	8159	Inside	3461.00	
Recorder	1.00	8524	Outside	3462.00	
Bull Plug	3.00			3465.00	8.00 Anchor Tool
Total Tool Length:	36.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18587

DST#: 5

ATTN: Kent Matson

Test Start: 2014.06.24 @ 13:03:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 46.00 sec/qt
Water Loss: 8.20 in³
Resistivity: ohm.m
Salinity: 5000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	mud oil 40% mud 60% oil	0.561
0.00	380 feet gas in pipe	0.000

Total Length: 40.00 ft Total Volume: 0.561 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

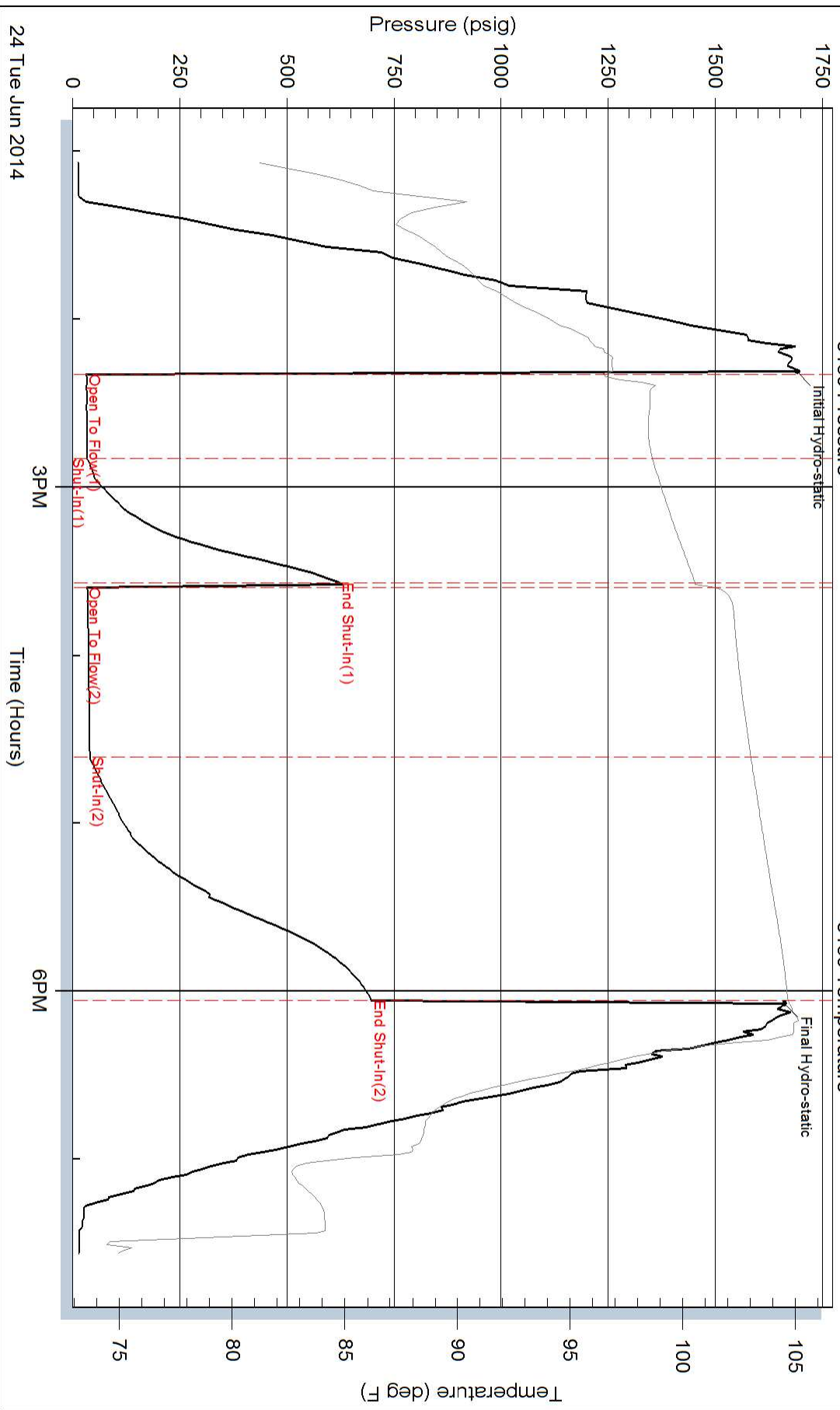
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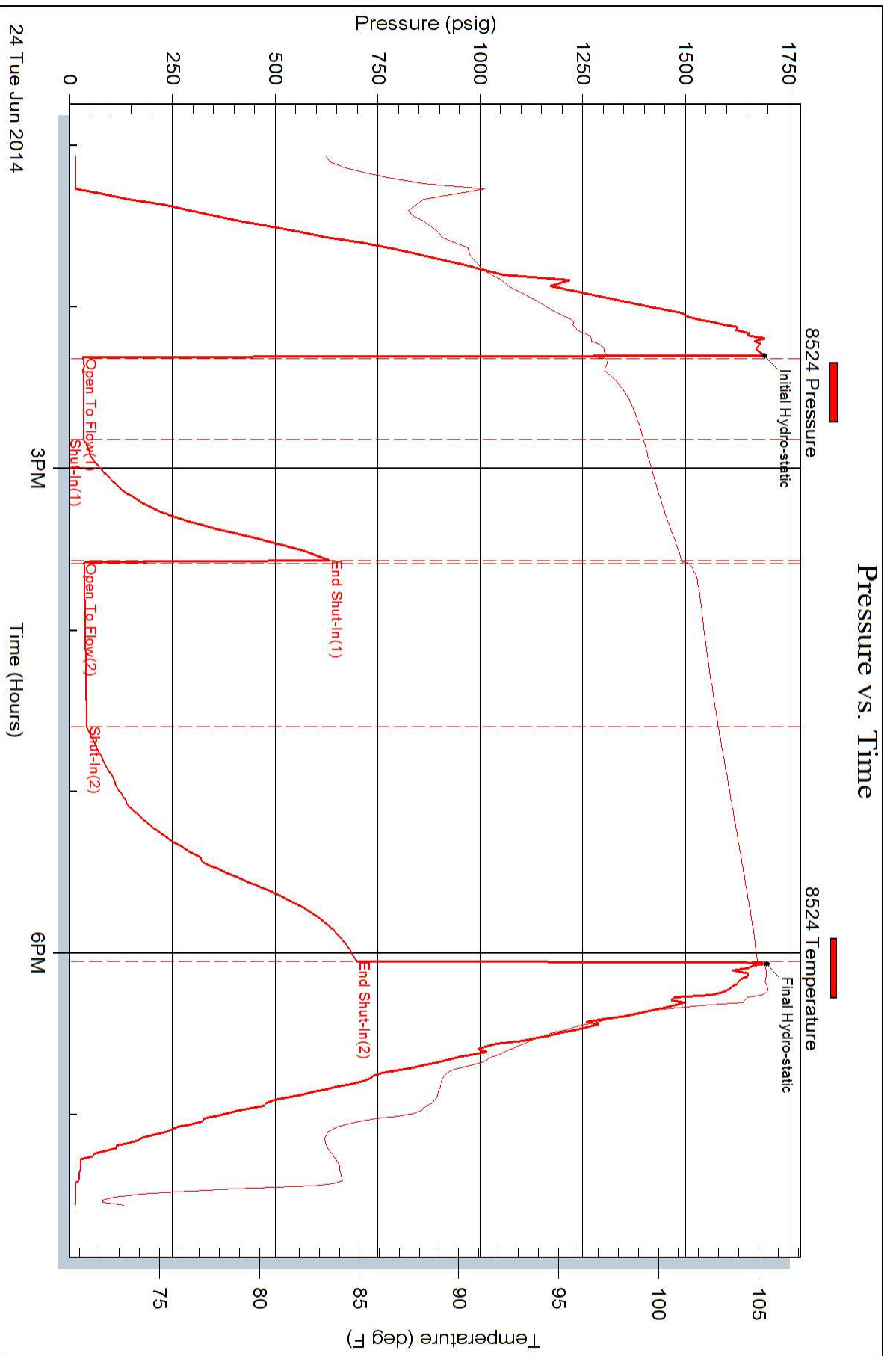
Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

Start Date: 2014.06.25 @ 02:50:00

End Date: 2014.06.25 @ 10:31:00

Job Ticket #: 18588 DST #: 6

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2014.06.25 @ 11:55:52



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18588

DST#: 6

ATTN: Kent Matson

Test Start: 2014.06.25 @ 02:50:00

GENERAL INFORMATION:

Formation: **Lansing J zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:32:30

Time Test Ended: 10:31:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33-Great Bend -20

Interval: **3467.00 ft (KB) To 3490.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3490.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 321.95 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.25

End Date: 2014.06.25

Last Calib.: 2014.06.25

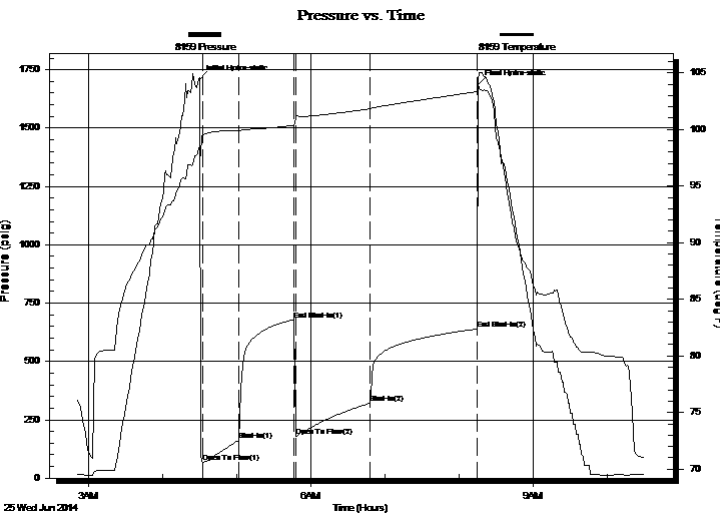
Start Time: 02:50:00

End Time: 10:31:00

Time On Btm: 2014.06.25 @ 04:30:00

Time Off Btm: 2014.06.25 @ 08:15:30

TEST COMMENT: 1st Opening 30 Minutes- Strong blow built bottom of bucket in 45 sec
1st Shut-in 45 Minutes-Bottom of bucket
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 3 minutes Gas to surface see gas report
2nd Shut-in 90 Minutes-Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1709.96	98.45	Initial Hydro-static
3	67.48	99.42	Open To Flow (1)
32	163.32	99.86	Shut-In(1)
76	679.33	100.37	End Shut-In(1)
78	179.48	101.17	Open To Flow (2)
138	321.95	101.82	Shut-In(2)
225	639.59	103.34	End Shut-In(2)
226	1687.93	104.31	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1140.00	gas oil 30%gas 90%oil	15.99
0.00	2327 gas in pipe	0.00
0.00		0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	-8.00	2.40
Last Gas Rate	0.13	-8.00	2.40
Max. Gas Rate	0.13	-8.00	2.40



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18588

DST#: 6

ATTN: Kent Matson

Test Start: 2014.06.25 @ 02:50:00

GENERAL INFORMATION:

Formation: **Lansing J zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:32:30

Time Test Ended: 10:31:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 33-Great Bend -20

Interval: **3467.00 ft (KB) To 3490.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3490.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 638.50 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.25

End Date:

2014.06.25

Last Calib.:

2014.06.25

Start Time: 02:50:00

End Time:

10:30:30

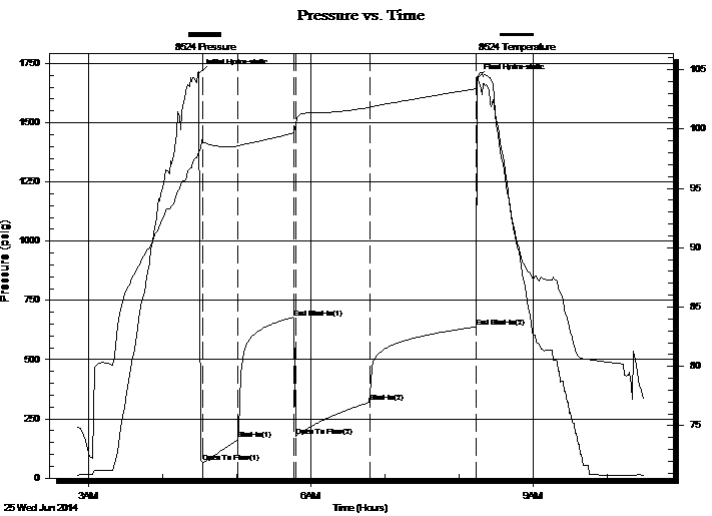
Time On Btm:

2014.06.25 @ 04:29:30

Time Off Btm:

2014.06.25 @ 08:15:00

TEST COMMENT: 1st Opening 30 Minutes- Strong blow built bottom of bucket in 45 sec
1st Shut-in 45 Minutes-Bottom of bucket
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 3 minutes Gas to surface see gas report
2nd Shut-in 90 Minutes-Blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1709.07	98.10	Initial Hydro-static
3	65.65	99.02	Open To Flow (1)
32	162.86	98.56	Shut-In(1)
77	676.80	99.69	End Shut-In(1)
78	177.73	100.48	Open To Flow (2)
138	320.73	101.81	Shut-In(2)
225	638.50	103.40	End Shut-In(2)
226	1687.42	103.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1140.00	gas oil 30%gas 90%oil	15.99
0.00	2327 gas in pipe	0.00
0.00		0.00

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
First Gas Rate	0.13	-8.00	2.40
Last Gas Rate	0.13	-8.00	2.40
Max. Gas Rate	0.13	-8.00	2.40



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18588

DST#: 6

ATTN: Kent Matson

Test Start: 2014.06.25 @ 02:50:00

Tool Information

Drill Pipe:	Length: 3467.00 ft	Diameter: 3.80 inches	Volume: 48.63 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 48.63 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 53000.00 lb
Depth to Top Packer:	3467.00 ft			Final 55000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	23.00 ft			
Tool Length:	51.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3444.00	
Hydraulic tool	5.00			3449.00	
Jars	6.00			3455.00	
Safety Joint	2.00			3457.00	
Top Packer	5.00			3462.00	
Packer	5.00			3467.00	28.00 Bottom Of Top Packer
Anchor	18.00			3485.00	
Recorder	1.00		Inside	3486.00	
Recorder	1.00		Outside	3487.00	
Bull Plug	3.00			3490.00	23.00 Anchor Tool
Total Tool Length:	51.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18588

DST#: 6

ATTN: Kent Matson

Test Start: 2014.06.25 @ 02:50:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 46.00 sec/qt
Water Loss: 8.20 in³
Resistivity: ohm.m
Salinity: 5000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1140.00	gas oil 30%gas 90%oil	15.991
0.00	2327 gas in pipe	0.000
0.00		0.000

Total Length: 1140.00 ft Total Volume: 15.991 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



DRILL STEM TEST REPORT

GAS RATES

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18588

DST#: 6

ATTN: Kent Matson

Test Start: 2014.06.25 @ 02:50:00

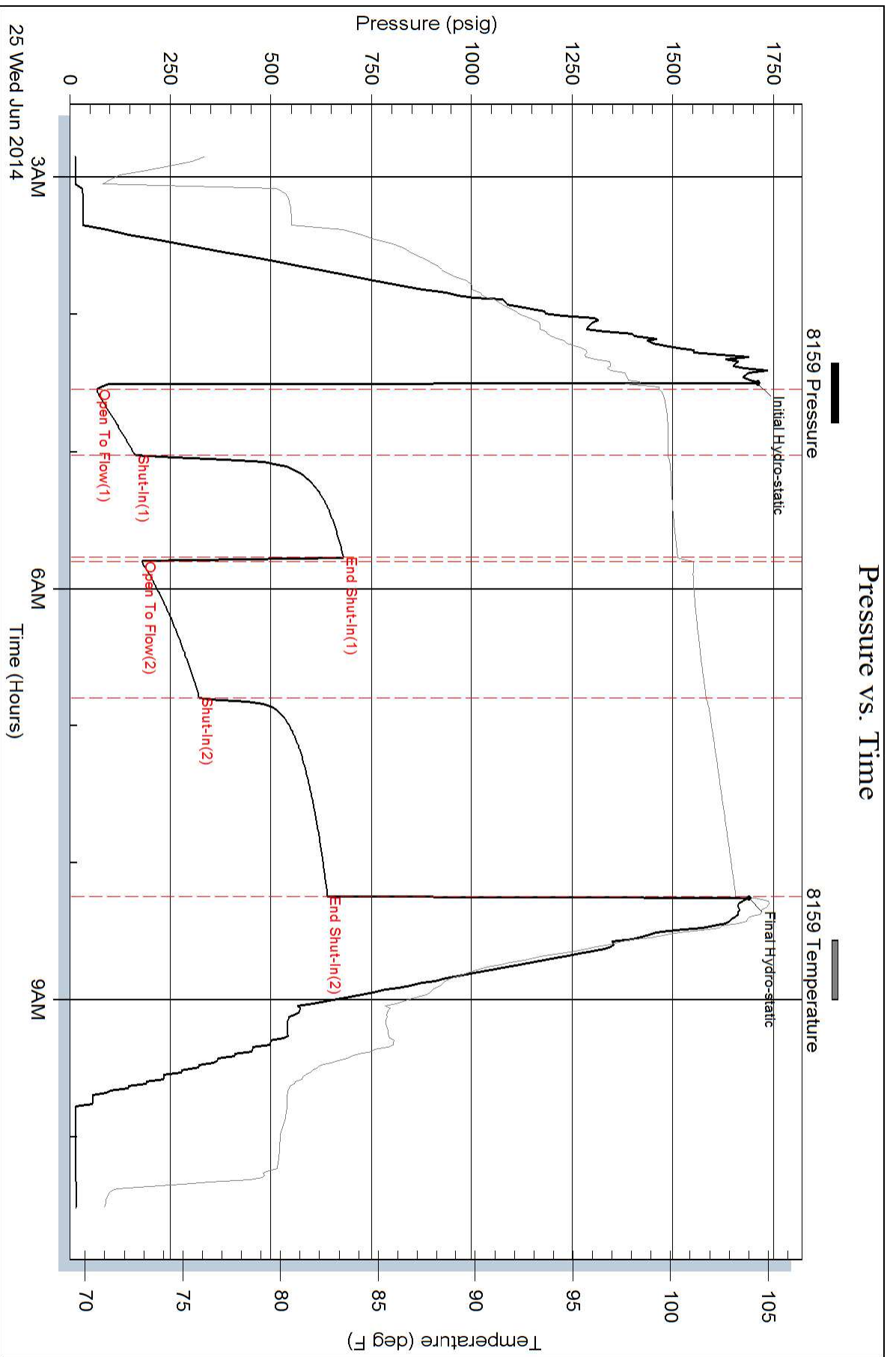
Gas Rates Information

Temperature: 59 (deg F)
Relative Density: 0.65
Z Factor: 0.8

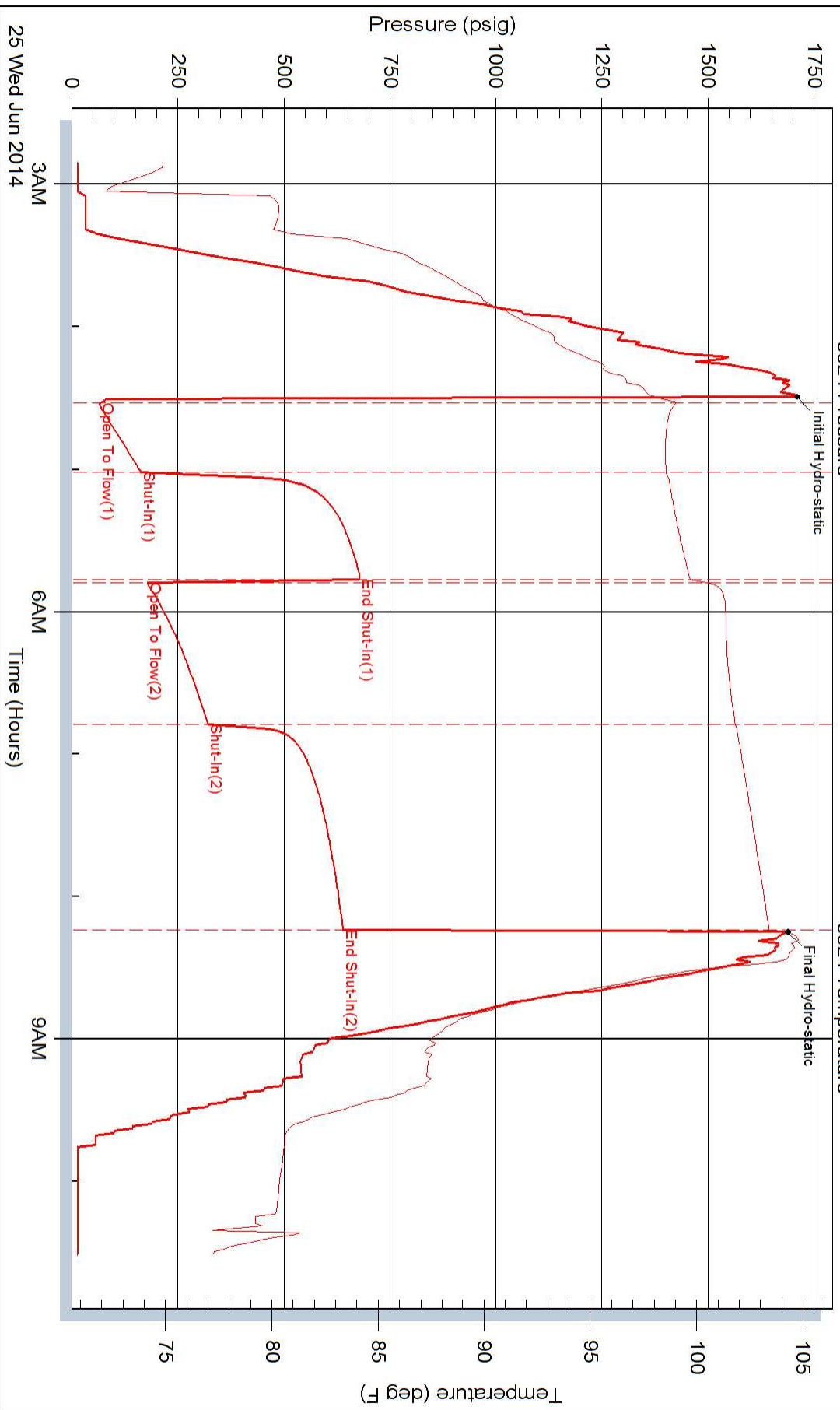
Gas Rates Table

Flow Period	Elapsed Time	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
2	10	0.13	-8.00	2.40
2	20	0.13	-8.00	2.40
2	30	0.13	-8.00	2.40
2	40	0.13	-8.00	2.40
2	50	0.13	-8.00	2.40
2	60	0.13	-8.00	2.40

Pressure vs. Time



Pressure vs. Time





DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

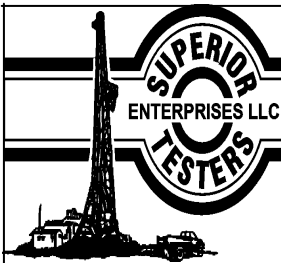
Start Date: 2014.06.25 @ 17:25:00

End Date: 2014.06.25 @ 22:56:30

Job Ticket #: 18589 DST #: 7

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2014.06.26 @ 00:06:00



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

ATTN: Kent Matson

Job Ticket: 18589

DST#: 7

Test Start: 2014.06.25 @ 17:25:00

GENERAL INFORMATION:

Formation: **Lansing K zone**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:04:30

Time Test Ended: 22:56:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3330-Great Bend -20

Interval: 3499.00 ft (KB) To 3510.00 ft (KB) (TVD)

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3510.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 37.26 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.25

End Date: 2014.06.25

Last Calib.: 2014.06.25

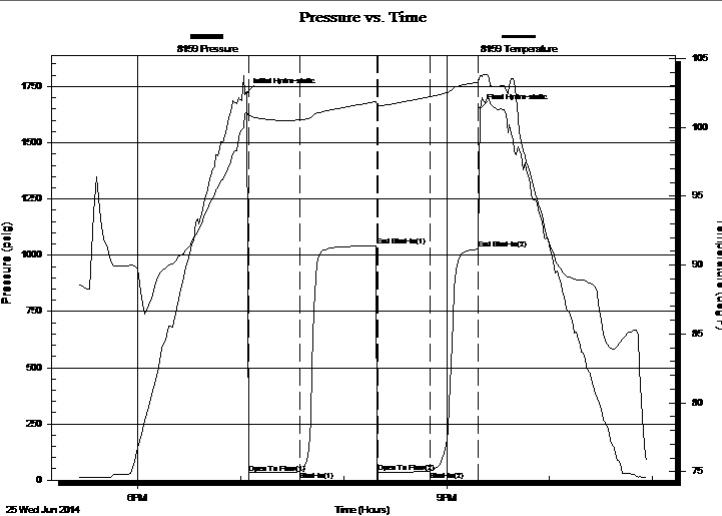
Start Time: 17:25:00

End Time: 22:56:30

Time On Btm: 2014.06.25 @ 19:03:30

Time Off Btm: 2014.06.25 @ 21:19:30

TEST COMMENT: 1st Opening 30 Minutes-Very weak surface blow stayed steady throughout opening
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Very weak surge did not build
2nd Shut-in 30 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1722.50	101.15	Initial Hydro-static
1	32.35	100.86	Open To Flow (1)
31	37.97	100.54	Shut-In(1)
76	1042.52	101.89	End Shut-In(1)
77	36.48	101.59	Open To Flow (2)
107	37.26	102.21	Shut-In(2)
135	1026.86	103.31	End Shut-In(2)
136	1652.99	103.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
4.00	mud	0.06

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company
9415 E Harry Street Suite 403 Wichita KS
67207+5083
ATTN: Kent Matson

06-21s-13w Stafford
MorrisonLutherUnit#1
Job Ticket: 18589 **DST#: 7**
Test Start: 2014.06.25 @ 17:25:00

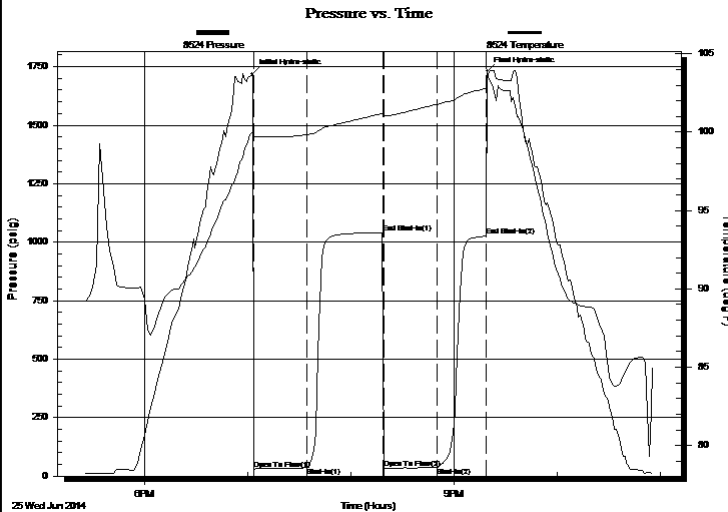
GENERAL INFORMATION:

Formation: **Lansing Kzone**
Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Initial)
Time Tool Opened: 19:04:30 Tester: Jared Scheck
Time Test Ended: 22:56:30 Unit No: 3330-Great Bend -20
Interval: 3499.00 ft (KB) To 3510.00 ft (KB) (TVD) Reference Elevations: 1908.00 ft (KB)
Total Depth: 3510.00 ft (KB) (TVD) 1900.00 ft (CF)
Hole Diameter: 7.88 inchesHole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 1026.02 psig @ ft (KB) Capacity: 5000.00 psig
Start Date: 2014.06.25 End Date: 2014.06.25 Last Calib.: 2014.06.26
Start Time: 17:25:00 End Time: 22:56:00 Time On Btm: 2014.06.25 @ 19:03:00
Time Off Btm: 2014.06.25 @ 21:19:30

TEST COMMENT: 1st Opening 30 Minutes-Very w eak surface blow stayed steady throughout opening
1st Shut-in 45 Minutes-No blow back
2nd Opening 30 Minutes-Very w eak surge did not build
2nd Shut-in 30 Minutes-No blow back



PRESSURE SUMMARY

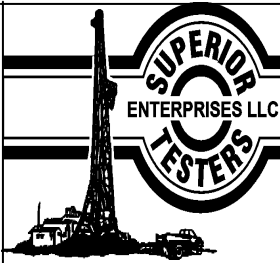
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1720.24	100.03	Initial Hydro-static
1	30.77	99.72	Open To Flow (1)
32	37.41	99.85	Shut-In(1)
76	1041.31	101.19	End Shut-In(1)
77	34.89	101.03	Open To Flow (2)
107	37.60	101.77	Shut-In(2)
136	1026.02	102.77	End Shut-In(2)
137	1730.90	103.44	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
4.00	mud	0.06

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18589

DST#: 7

ATTN: Kent Matson

Test Start: 2014.06.25 @ 17:25:00

Tool Information

Drill Pipe:	Length: 3496.00 ft	Diameter: 3.80 inches	Volume: 49.04 bbl	Tool Weight:	1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	70000.00 lb
			<u>Total Volume: 49.04 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	53000.00 lb
Depth to Top Packer:	3499.00 ft			Final	53000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	11.00 ft				
Tool Length:	39.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Shut-In Tool	5.00			3476.00	
Hydraulic tool	5.00			3481.00	
Jars	6.00			3487.00	
Safety Joint	2.00			3489.00	
Top Packer	5.00			3494.00	
Packer	5.00			3499.00	28.00 Bottom Of Top Packer
Anchor	6.00			3505.00	
Recorder	1.00	8159	Inside	3506.00	
Recorder	1.00	8524	Outside	3507.00	
Bull Plug	3.00			3510.00	11.00 Anchor Tool
Total Tool Length:	39.00				



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company
 9415 E Harry Street Suite 403 Wichita KS
 67207+5083
 ATTN: Kent Matson

06-21s-13w Stafford
MorrisonLutherUnit#1
 Job Ticket: 18589 **DST#: 7**
 Test Start: 2014.06.25 @ 17:25:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	51.00 sec/qt	Cushion Volume:	bbbl		
Water Loss:	8.00 in ³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	5000.00 ppm				
Filter Cake:	1.00 inches				

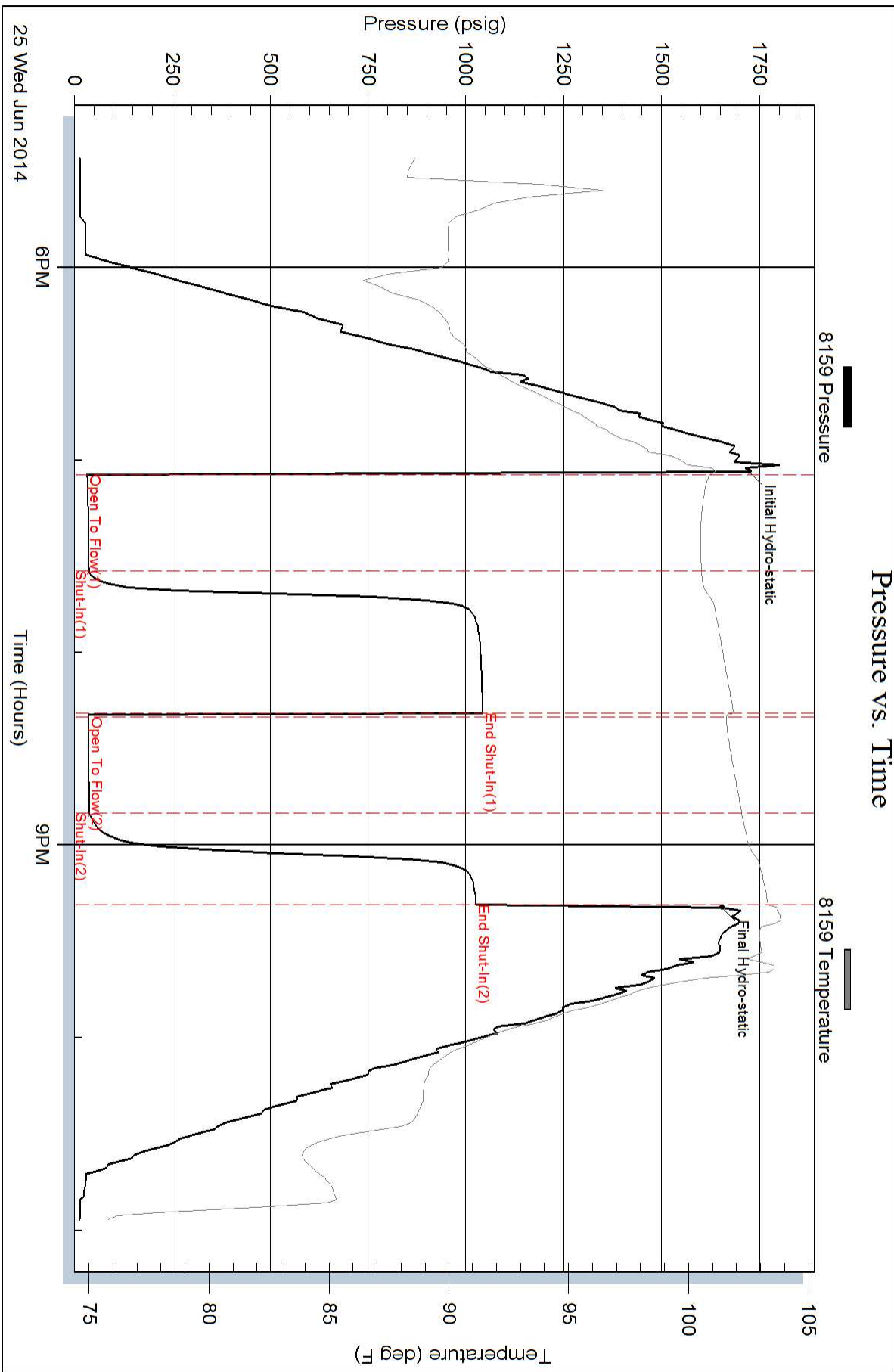
Recovery Information

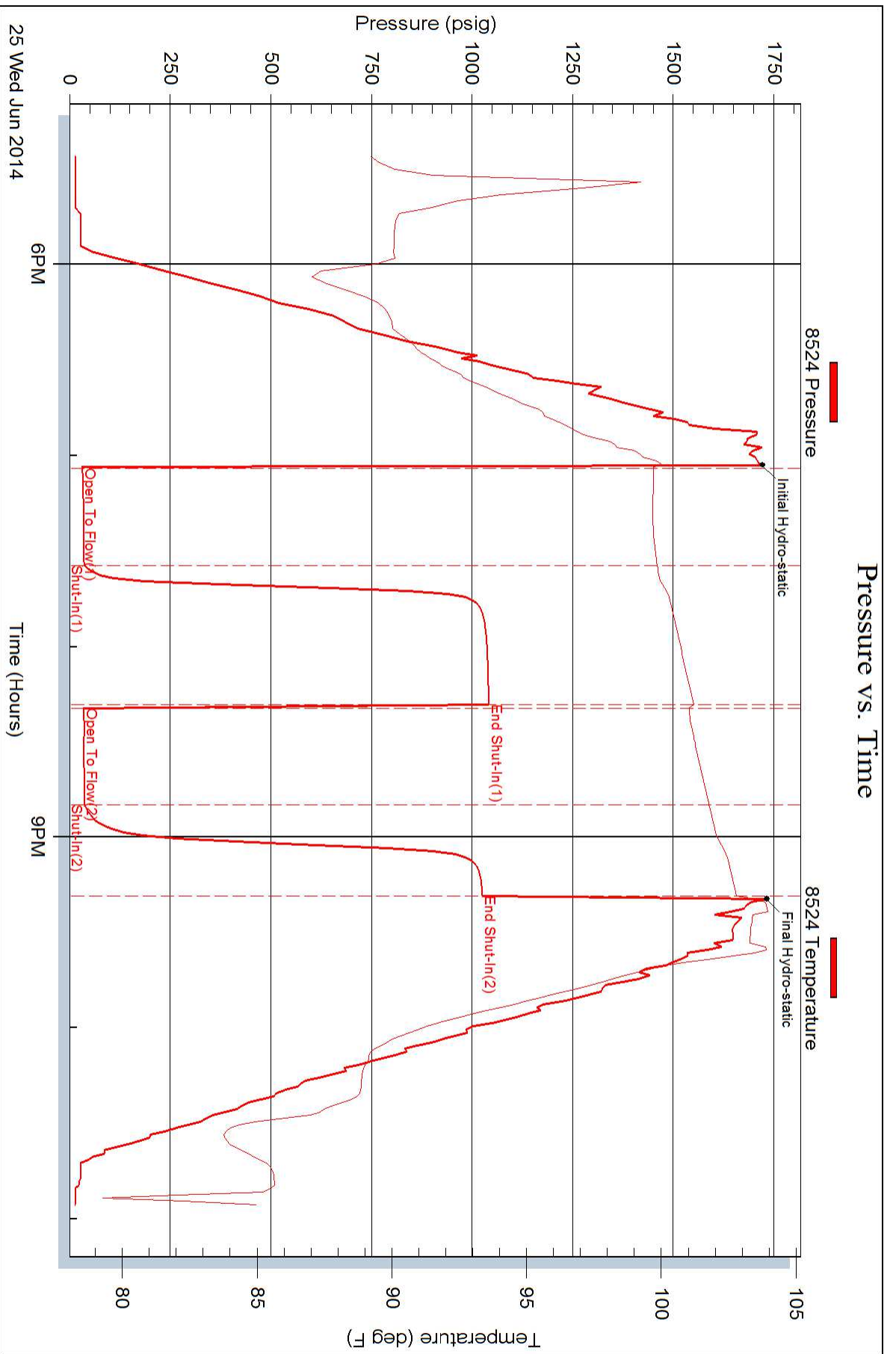
Recovery Table

Length ft	Description	Volume bbl
4.00	mud	0.056

Total Length: 4.00 ft Total Volume: 0.056 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time







DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

Start Date: 2014.06.26 @ 11:15:00

End Date: 2014.06.26 @ 17:52:30

Job Ticket #: 18590 DST #: 8

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2014.06.26 @ 19:13:04



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

ATTN: Kent Matson

Job Ticket: 18590

DST#: 8

Test Start: 2014.06.26 @ 11:15:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:32:30

Time Test Ended: 17:52:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3330-Great Bend-20

Interval: **3523.00 ft (KB) To 3595.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3595.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 95.22 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.26

End Date: 2014.06.26

Last Calib.: 2014.06.26

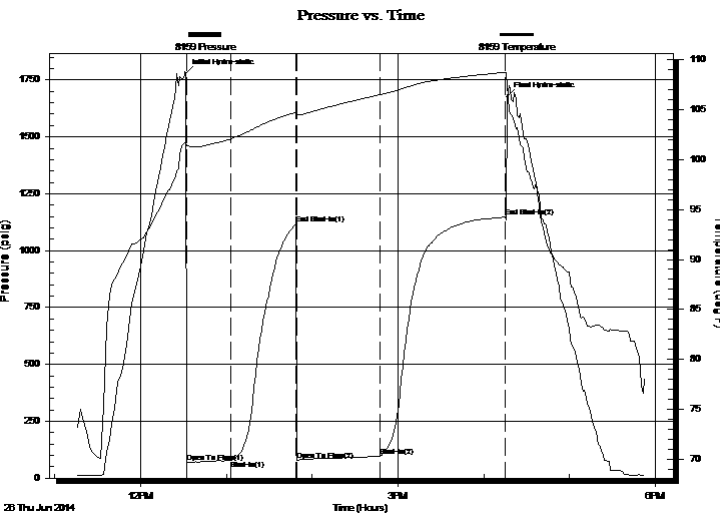
Start Time: 11:15:00

End Time: 17:52:30

Time On Btm: 2014.06.26 @ 12:31:30

Time Off Btm: 2014.06.26 @ 16:16:30

TEST COMMENT: 1st Opening 30 Minutes-Fair blow built 7 inches into bucket w water in 30 Minutes
1st Shut-in 45 Minutes-Very weak
2nd Opening 60 Minutes-Fair blow built bottom of bucket in 45 minutes
2nd Shut-in 90 Minutes-1 inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1779.92	101.81	Initial Hydro-static
1	67.98	101.36	Open To Flow (1)
32	76.38	102.04	Shut-In(1)
77	1115.90	104.69	End Shut-In(1)
78	79.91	104.45	Open To Flow (2)
136	95.22	106.47	Shut-In(2)
224	1147.49	108.70	End Shut-In(2)
225	1676.25	107.53	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	gas oil mud 15%gas 25%oil 55%mud	0.42
60.00	oil mud 50% oil 50% mud	0.84
0.00	180 feet gas in pipe	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18590

DST#: 8

ATTN: Kent Matson

Test Start: 2014.06.26 @ 11:15:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:32:30

Time Test Ended: 17:52:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3330-Great Bend-20

Interval: **3523.00 ft (KB) To 3595.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3595.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 1148.01 psig @ ft (KB)

Capacity: 5000.00 psig

Start Date: 2014.06.26

End Date: 2014.06.26

Last Calib.: 2014.06.26

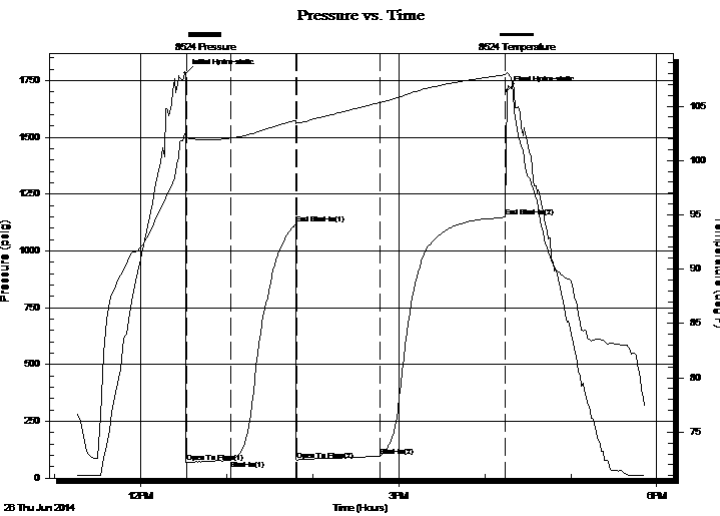
Start Time: 11:15:00

End Time: 17:52:00

Time On Btm: 2014.06.26 @ 12:31:00

Time Off Btm: 2014.06.26 @ 16:15:30

TEST COMMENT: 1st Opening 30 Minutes-Fair blow built 7 inches into bucket w water in 30 Minutes
1st Shut-in 45 Minutes-Very weak
2nd Opening 60 Minutes-Fair blow built bottom of bucket in 45 minutes
2nd Shut-in 90 Minutes-1 inch blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1781.79	102.52	Initial Hydro-static
1	67.97	102.07	Open To Flow (1)
32	79.55	102.06	Shut-In(1)
77	1117.43	103.69	End Shut-In(1)
78	79.36	103.47	Open To Flow (2)
136	95.88	105.33	Shut-In(2)
224	1148.01	107.88	End Shut-In(2)
225	1704.97	108.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
30.00	gas oil mud 15%gas 25%oil 55%mud	0.42
60.00	oil mud 50% oil 50% mud	0.84
0.00	180 feet gas in pipe	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18590

DST#: 8

ATTN: Kent Matson

Test Start: 2014.06.26 @ 11:15:00

Tool Information

Drill Pipe:	Length: 3497.00 ft	Diameter: 3.80 inches	Volume: 49.05 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 67000.00 lb
			<u>Total Volume: 49.05 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	2.00 ft			String Weight: Initial 55000.00 lb
Depth to Top Packer:	3523.00 ft			Final 56000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	72.00 ft			
Tool Length:	100.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut-In Tool	5.00			3500.00	
Hydraulic tool	5.00			3505.00	
Jars	6.00			3511.00	
Safety Joint	2.00			3513.00	
Packer	5.00			3518.00	28.00 Bottom Of Top Packer
Packer	5.00			3523.00	
Anchor	4.00			3527.00	
Change Over Sub	0.75			3527.75	
Drill Pipe	31.50			3559.25	
Change Over Sub	0.75			3560.00	
Anchor	30.00			3590.00	
Recorder	1.00	8159	Inside	3591.00	
Recorder	1.00	8524	Outside	3592.00	
Bull Plug	3.00			3595.00	72.00 Bottom Packers & Anchor

Total Tool Length: 100.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18590

DST#: 8

ATTN: Kent Matson

Test Start: 2014.06.26 @ 11:15:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 53.00 sec/qt
Water Loss: 7.20 in³
Resistivity: ohm.m
Salinity: 4800.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
30.00	gas oil mud 15%gas 25%oil 55%mud	0.421
60.00	oil mud 50% oil 50% mud	0.842
0.00	180 feet gas in pipe	0.000

Total Length: 90.00 ft Total Volume: 1.263 bbl

Num Fluid Samples: 0

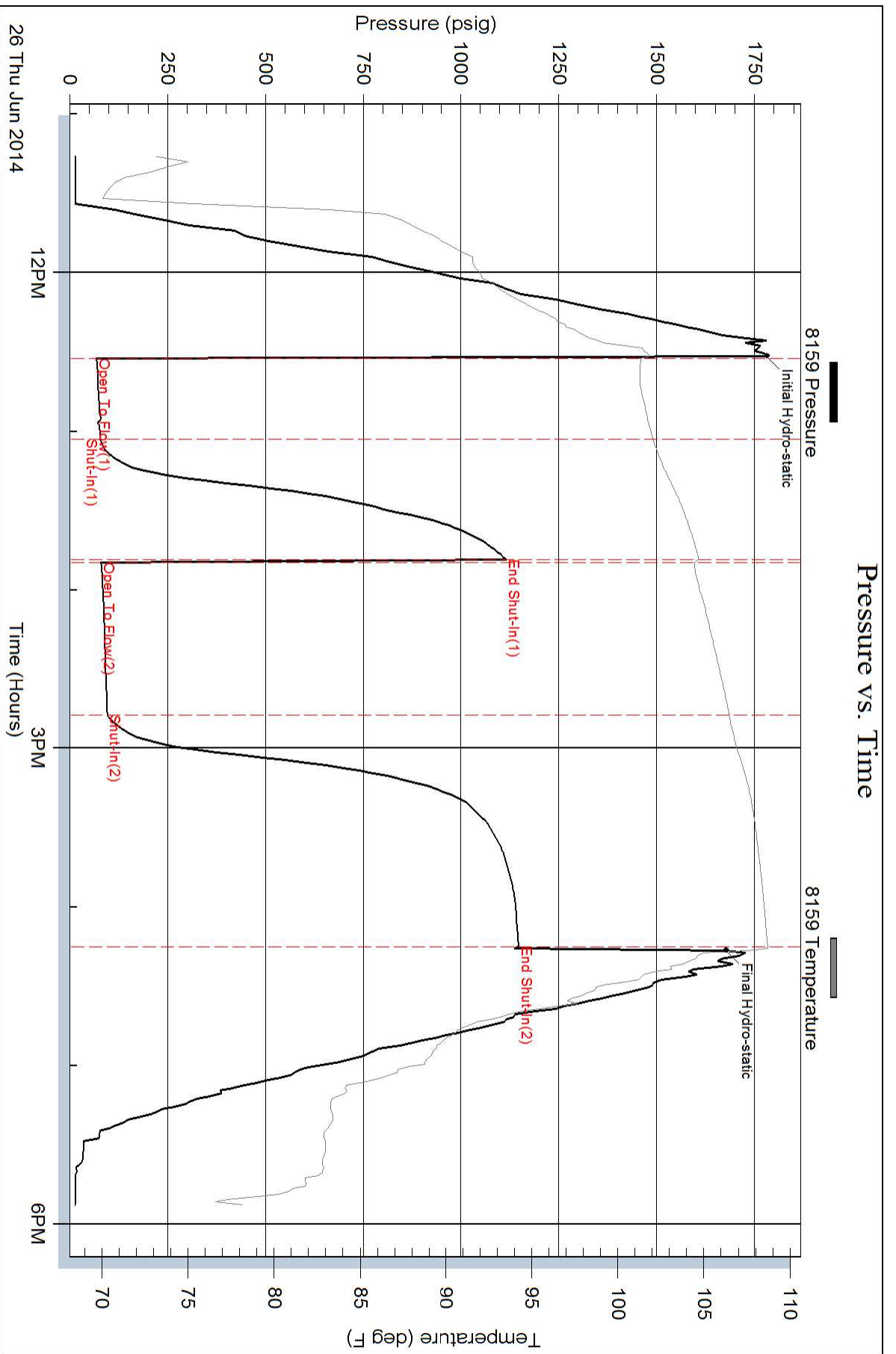
Num Gas Bombs: 0

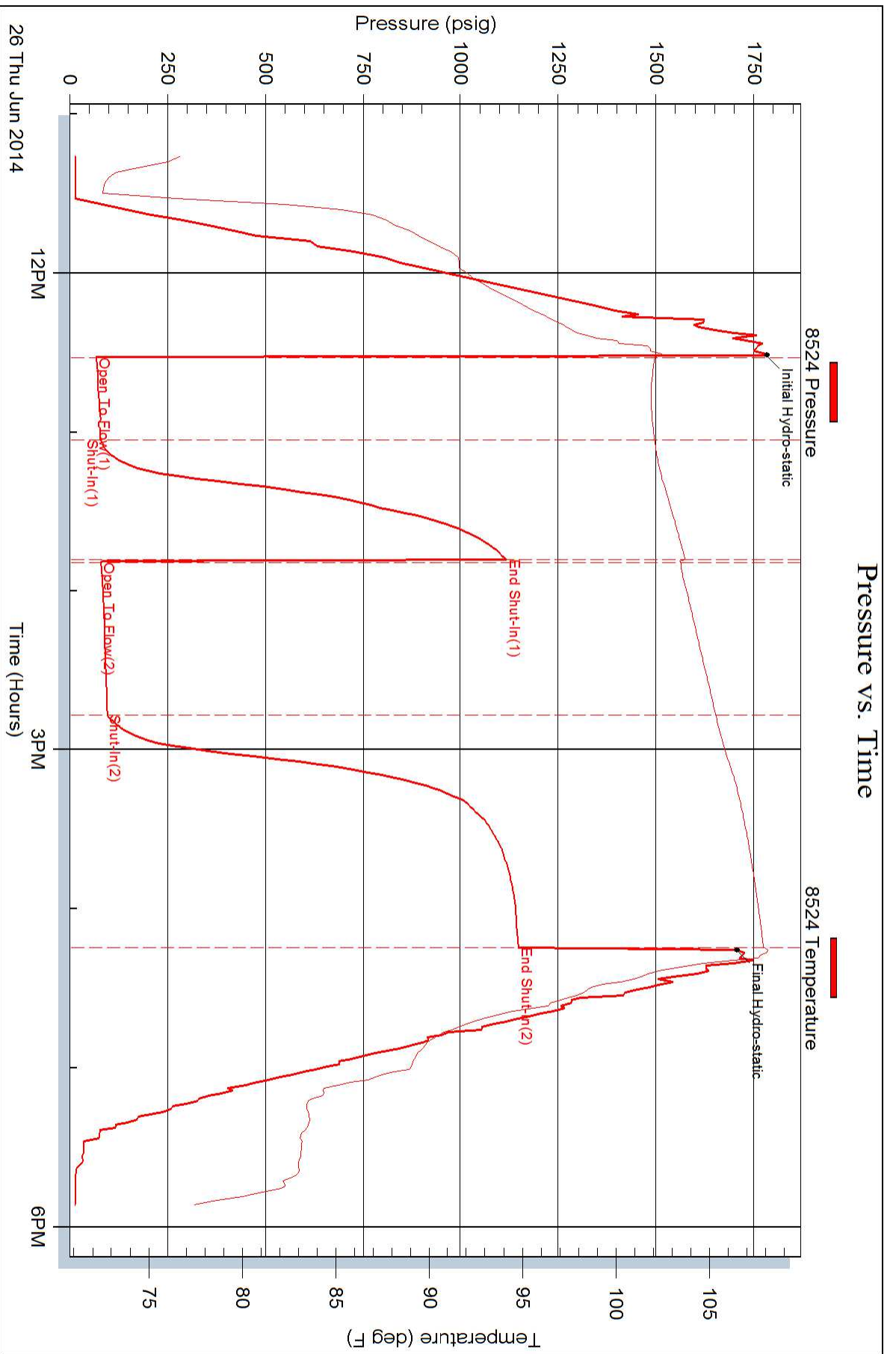
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







DRILL STEM TEST REPORT

Prepared For: **Younger Energy Company**

9415 E Harry Street Suite 403 Wichita KS
67207+5083

ATTN: Kent Matson

MorrisonLutherUnit#1

06-21s-13w Stafford

Start Date: 2014.06.27 @ 06:11:00

End Date: 2014.06.27 @ 14:22:00

Job Ticket #: 18591 DST #: 9

Superior Testers Enterprises LLC
PO Box 138 Great Bend KS 67530
1-800-792-6902

Printed: 2014.06.27 @ 15:41:51



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18591

DST#: 9

ATTN: Kent Matson

Test Start: 2014.06.27 @ 06:11:00

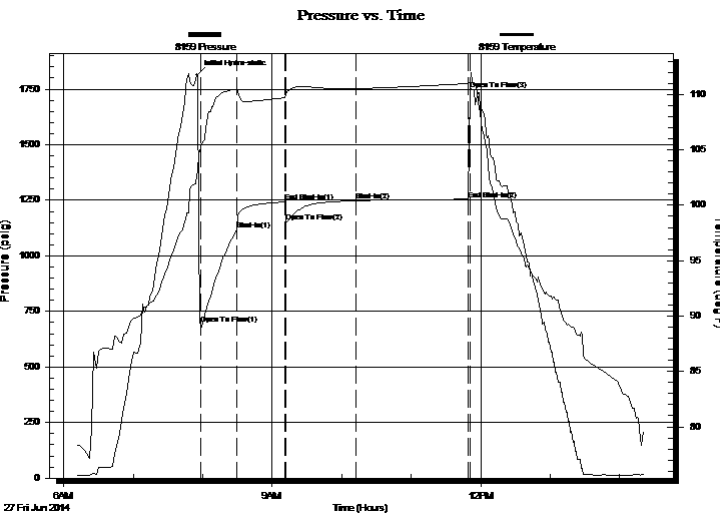
GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:58:00
 Time Test Ended: 14:22:00
 Interval: **3598.00 ft (KB) To 3660.00 ft (KB) (TVD)**
 Total Depth: 3360.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Jared Scheck
 Unit No: 3330-Great Bend-20
 Reference Elevations: 1908.00 ft (KB)
 1900.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8159

Press@RunDepth: 1247.72 psig @ ft (KB) Capacity: psig
 Start Date: 2014.06.27 End Date: 2014.06.27 Last Calib.: 1899.12.30
 Start Time: 06:11:00 End Time: 14:22:00 Time On Btm: 2014.06.27 @ 07:55:30
 Time Off Btm:

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 1 1/2 minutes
 1st Shut-in 45 Minutes-No blow back
 2nd Opening 60 Minutes-Strong blow built bottom of bucket in 1 /2 minutes
 2nd Shut-in 90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1815.51	103.04	Initial Hydro-static
3	693.18	105.17	Open To Flow (1)
34	1116.93	110.47	Shut-In(1)
76	1243.18	109.69	End Shut-In(1)
77	1155.45	109.96	Open To Flow (2)
137	1247.72	110.53	Shut-In(2)
234	1254.69	110.98	End Shut-In(2)
235	1747.15	111.12	Open To Flow (3)

Recovery

Length (ft)	Description	Volume (bbl)
2460.00	spot oil mud w ater / 1%oil10%mud89%w	34.51
0.00	chlorides 23,000	0.00

Gas Rates

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



DRILL STEM TEST REPORT

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18591

DST#: 9

ATTN: Kent Matson

Test Start: 2014.06.27 @ 06:11:00

GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:58:00

Time Test Ended: 14:22:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Jared Scheck

Unit No: 3330-Great Bend-20

Interval: **3598.00 ft (KB) To 3660.00 ft (KB) (TVD)**

Reference Elevations: 1908.00 ft (KB)

Total Depth: 3360.00 ft (KB) (TVD)

1900.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 8.00 ft

Serial #: 8524

Press@RunDepth: 1255.19 psig @ ft (KB)

Capacity: psig

Start Date: 2014.06.27

End Date: 2014.06.27

Last Calib.: 1899.12.30

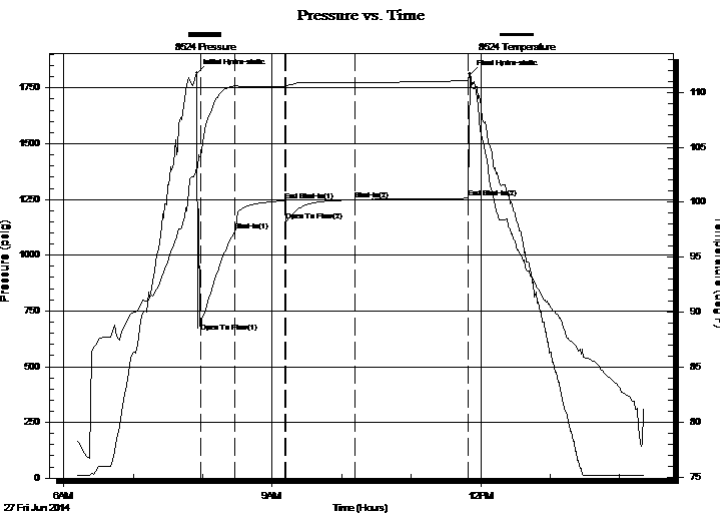
Start Time: 06:11:00

End Time: 14:21:30

Time On Btm: 2014.06.27 @ 07:55:00

Time Off Btm: 2014.06.27 @ 11:50:30

TEST COMMENT: 1st Opening 30 Minutes-Strong blow built bottom of bucket in 1 1/2 minutes
1st Shut-in 45 Minutes-No blow back
2nd Opening 60 Minutes-Strong blow built bottom of bucket in 1 /2 minutes
2nd Shut-in 90 Minutes-No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1816.32	103.39	Initial Hydro-static
3	656.21	104.08	Open To Flow (1)
33	1109.20	110.59	Shut-In(1)
76	1243.31	110.53	End Shut-In(1)
77	1154.61	110.51	Open To Flow (2)
136	1247.97	110.90	Shut-In(2)
235	1255.19	111.07	End Shut-In(2)
236	1810.35	111.81	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2460.00	spot oil mud w ater / 1%oil10%mud89%w	34.51
0.00	chlorides 23,000	0.00

Gas Rates

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



DRILL STEM TEST REPORT

TOOL DIAGRAM

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18591

DST#: 9

ATTN: Kent Matson

Test Start: 2014.06.27 @ 06:11:00

Tool Information

Drill Pipe:	Length: 3589.00 ft	Diameter: 3.80 inches	Volume: 50.34 bbl	Tool Weight: 1000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 50.34 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 60000.00 lb
Depth to Top Packer:	3598.00 ft			Final 70000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	62.00 ft			
Tool Length:	90.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
------------------	-------------	------------	----------	------------	----------------

Shut-In Tool	5.00			3575.00	
Hydraulic tool	5.00			3580.00	
Jars	6.00			3586.00	
Safety Joint	2.00			3588.00	
Packer	5.00			3593.00	28.00 Bottom Of Top Packer
Packer	5.00			3598.00	
Anchor	4.00			3602.00	
Change Over Sub	0.75			3602.75	
Drill Pipe	31.50			3634.25	
Change Over Sub	0.75			3635.00	
Anchor	20.00			3655.00	
Recorder	1.00		Inside	3656.00	
Recorder	1.00		Outside	3657.00	
Bull Plug	3.00			3660.00	62.00 Bottom Packers & Anchor

Total Tool Length: 90.00



DRILL STEM TEST REPORT

FLUID SUMMARY

Younger Energy Company

06-21s-13w Stafford

9415 E Harry Street Suite 403 Wichita KS
67207+5083

MorrisonLutherUnit#1

Job Ticket: 18591

DST#: 9

ATTN: Kent Matson

Test Start: 2014.06.27 @ 06:11:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 53.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 4800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2460.00	spot oil mud w ater / 1%oil10%mud89%w ater	34.507
0.00	chlorides 23,000	0.000

Total Length: 2460.00 ft Total Volume: 34.507 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

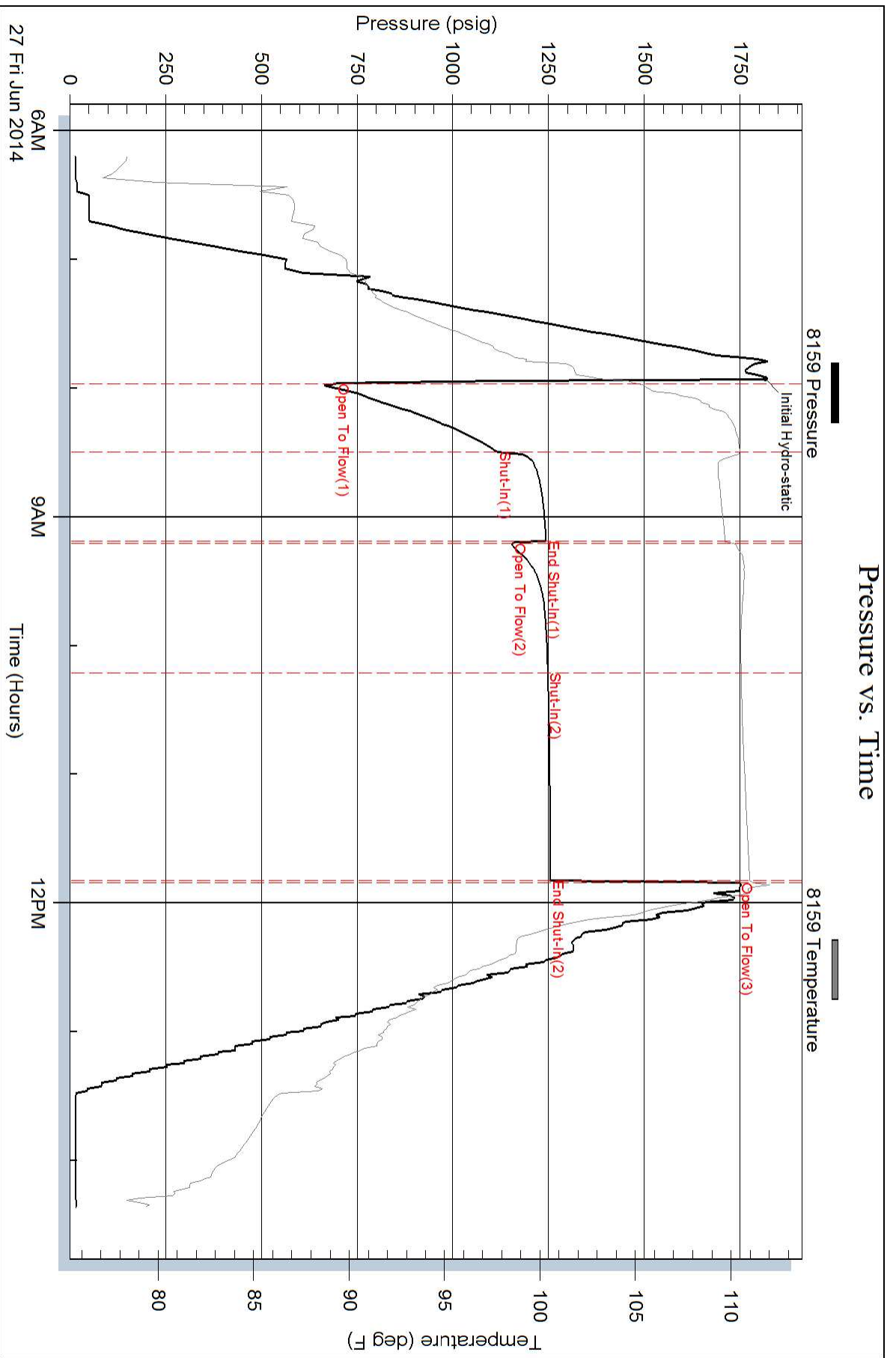
Serial #:

Laboratory Name:

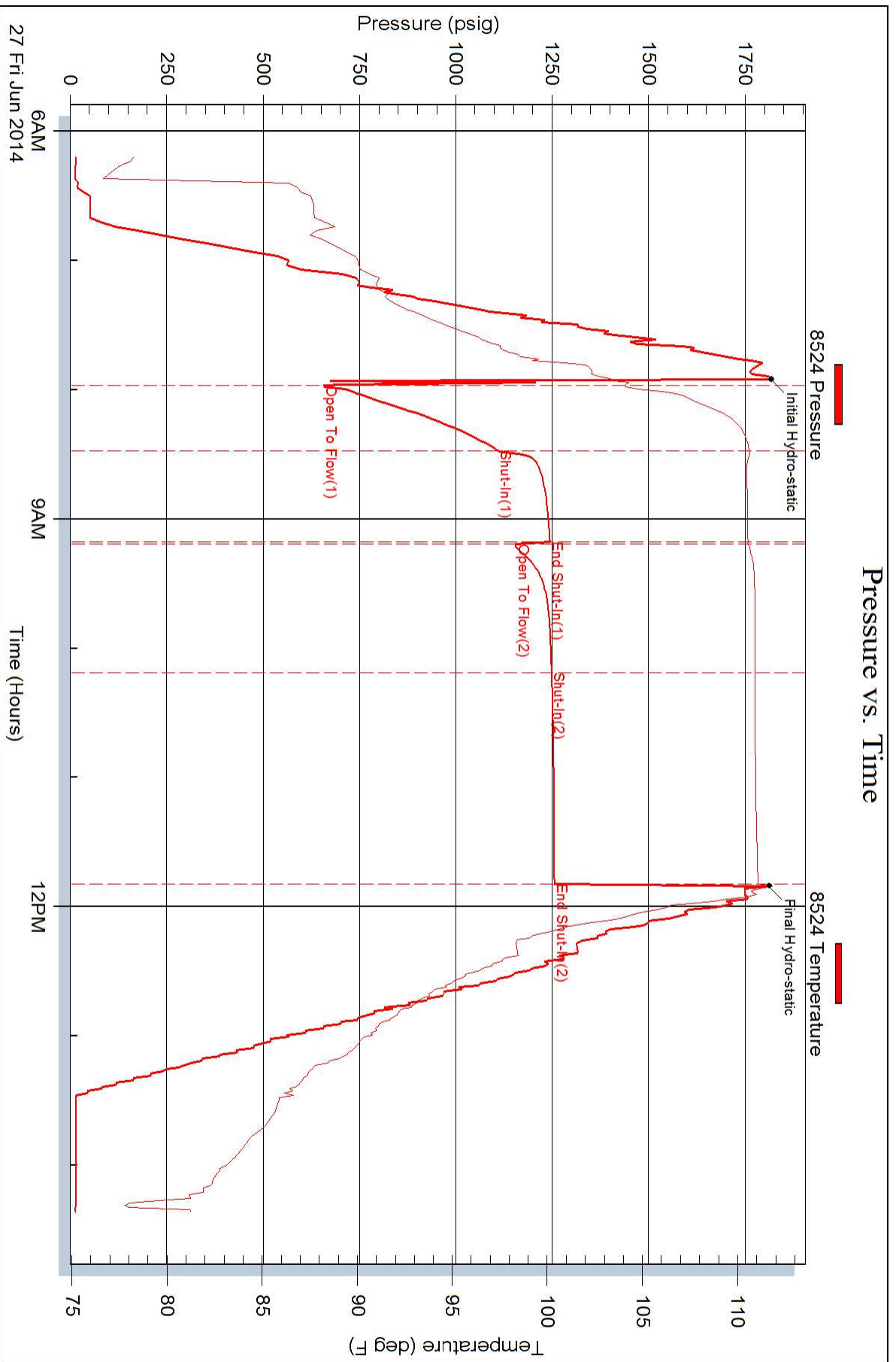
Laboratory Location:

Recovery Comments:

Pressure vs. Time



Pressure vs. Time





PO Box 93999
Southlake, TX 76092

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

INVOICE

Invoice Number: 143926
Invoice Date: Jun 18, 2014
Page: 1

RECEIVED JUN 30 2014

Bill To:
Younger Energy Co. 9415 E. Harry St. STE #403 Wichita, KS 67207-5083

Customer ID	Field Ticket #	Payment Terms	
Youn	63527	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-01	Great Bend	Jun 18, 2014	7/18/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Morrison Luther Unit #1		
150.00	CEMENT MATERIALS	Class A Common	17.90	2,685.00
1,044.00	CEMENT MATERIALS	Chloride	1.10	1,148.40
225.00	CEMENT MATERIALS	65/35/6% Gel	19.88	4,473.00
56.00	CEMENT MATERIALS	Flo Seal	2.97	166.32
417.96	CEMENT SERVICE	Cubic Feet Charge	2.48	1,036.54
222.84	CEMENT SERVICE	Ton Mileage Charge	2.75	612.81
1.00	CEMENT SERVICE	Surface	2,058.50	2,058.50
12.00	CEMENT SERVICE	Pump Truck Mileage	7.70	92.40
1.00	CEMENT SERVICE	Manifold Head Rental	275.00	275.00
12.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	52.80
1.00	EQUIPMENT SALES	8-5/8 Baffle Plate	320.00	320.00
3.00	EQUIPMENT SALES	8-5/8 Centralizer	75.00	225.00
1.00	EQUIPMENT SALES	8-5/8 Basket	560.00	560.00
1.00	EQUIPMENT SALES	8-5/8 Rubber Plug	131.00	131.00
1.00	CEMENT SUPERVISOR	Joshua Isaac		
1.00	EQUIPMENT OPERATOR	Ben Newell		
1.00	OPERATOR ASSISTANT	Marlyn Spangenberg		

DA

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

\$ 4,704.50

ONLY IF PAID ON OR BEFORE
Jul 18, 2014

Subtotal	13,836.77
Sales Tax	694.17
Total Invoice Amount	14,530.94
Payment/Credit Applied	
TOTAL	14,530.94

9826.44
Morrison Luther
JIB

ALLIED OIL & GAS SERVICE, LLC 063527

Federal Tax I.D. # 20-8651475

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

SERVICE POINT: Crutcher

DATE <u>6-18-14</u>	SEC. <u>6</u>	TWP. <u>21</u>	RANGE <u>13</u>	CALLED OUT	ON LOCATION <u>1:30 AM</u>	JOB START <u>1:30 AM</u>	JOB FINISH <u>8 AM</u>
LEASE <u>Morris Laker</u> WELL # <u>1</u>			LOCATION <u>Crutcher Sp. Col. line, 1/2 W,</u>		COUNTY <u>Stafford</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)			<u>3/8" wire</u>				

CONTRACTOR <u>Duke Z</u>		OWNER
TYPE OF JOB <u>Surface</u>		
HOLE SIZE <u>12 1/4</u>	T.D.	
CASING SIZE <u>8 3/4</u>	DEPTH <u>880.84</u>	
TUBING SIZE	DEPTH	
DRILL PIPE	DEPTH	
TOOL	DEPTH	
PRES. MAX	MINIMUM	
MEAS. LINE	SHOE JOINT <u>27.56</u>	
CEMENT LEFT IN CSG. <u>38.58 ft</u>		
PERFS. <u>49.89</u>		
DISPLACEMENT 5000 <u>5 bbl fresh water</u>		

EQUIPMENT

PUMP TRUCK # <u>366</u>	CEMENTER <u>Josh Isaac</u>	HELPER <u>Ben Maxwell</u>
BULK TRUCK # <u>609-239</u>	DRIVER <u>Marlynn Spangenberg</u>	
BULK TRUCK #	DRIVER	

REMARKS:

On location - Rig up - had safety meeting
Run 880 using Brook circulation
Pump 5 bbl fresh water
Mix 225 sks 65/35 6 1/2 gal 3/4 flt
Mix 150 sks Class A 3/4 cc
Drop plug
Displaced 49.89 bbl fresh water
Shutin Cement did circulation
Rig down

CHARGE TO: Younger Energy
STREET _____
CITY _____ STATE _____ ZIP _____

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 X Dion Vasquez

SIGNATURE X Dion Vasquez
Thank you!!

CEMENT		
AMOUNT ORDERED	<u>225 sks 65/35 6 1/2 gal</u>	
	<u>3/4 cc 1/4 flt</u>	
	<u>150 sks Class A 3/4 cc</u>	
COMMON	<u>150</u>	@ <u>17.90</u> <u>2,685.00</u>
POZMIX		@ _____
GEL		@ _____
CHLORIDE	<u>1044</u>	@ <u>1.10</u> <u>1,148.40</u>
ASC		@ _____
	<u>225 sk 65/35/46</u>	@ <u>19.88</u> <u>4,473.00</u>
	<u>flt seal 56</u>	@ <u>2.97</u> <u>164.32</u>
		@ _____
	<u>Material Total</u>	@ _____ <u>8,472.72</u>
	<u>Disc.</u>	@ <u>34%</u> <u>2,880.72</u>
		@ _____
	<u>Service</u>	@ _____
		@ _____
HANDLING	<u>417.96</u>	@ <u>2.48</u> <u>1,036.54</u>
MILEAGE	<u>18.57 x 12 x</u>	@ <u>2.75</u> <u>612.81</u>

DEPTH OF JOB	<u>810</u>	
PUMP TRUCK CHARGE	<u>2058.55</u>	
EXTRA FOOTAGE		@ _____
MILEAGE	<u>Num 12</u>	@ <u>7.70</u> <u>92.40</u>
MANIFOLD	<u>Head</u>	@ <u>275.00</u> <u>275.00</u>
	<u>Num 12</u>	@ <u>4.40</u> <u>52.80</u>
		@ _____

TOTAL 4,128.05
34% 1,403.54

PLUG & FLOAT EQUIPMENT

		@ _____
<u>Baffle Plate</u>		@ <u>320.00</u> <u>320.00</u>
<u>3 centrize</u>		@ <u>75.00</u> <u>225.00</u>
<u>1 Booklet</u>		@ <u>560.00</u> <u>560.00</u>
<u>Rubber Plug</u>		@ <u>131.00</u> <u>131.00</u>

34% TOTAL 1,236.00
420.24

SALES TAX (If Any) _____
TOTAL CHARGES 13,836.77
34% 4,704.50 (34/34/34)
DISCOUNT _____ IF PAID IN 30 DAYS
9,132.27



PO Box 93999
Southlake, TX 76092

RECEIVED JUL 1 0 2014

INVOICE

Invoice Number: 144103

Invoice Date: Jun 28, 2014

Page: 1

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

Bill To:
Younger Energy Co. 9415 E. Harry St. STE #403 Wichita, KS 67207-5083

Customer ID	Field Ticket #	Payment Terms	
Youn	63583	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Great Bend	Jun 28, 2014	7/28/14

Quantity	Item	Description	Unit Price	Amount
1.00	WELL NAME	Morrison Luther Unit #1		
150.00	CEMENT MATERIALS	ASC	23.50	3,525.00
50.00	CEMENT MATERIALS	60/40/4% Blend	18.92	946.00
750.00	CEMENT MATERIALS	Kol Seal	0.98	735.00
42.00	CEMENT MATERIALS	FL-160	18.90	793.80
19.00	CEMENT MATERIALS	Defoamer	9.80	186.20
500.00	CEMENT MATERIALS	DV-1100	1.27	635.00
248.17	CEMENT SERVICE	Cubic Feet Charge	2.48	615.46
128.04	CEMENT SERVICE	Ton Mileage Charge	2.75	352.11
1.00	CEMENT SERVICE	Production Casing	2,558.75	2,558.75
12.00	CEMENT SERVICE	Pump Truck Mileage	7.70	92.40
1.00	CEMENT SERVICE	Manifold Rental	275.00	275.00
12.00	CEMENT SERVICE	Light Vehicle Mileage	4.40	52.80
1.00	EQUIPMENT SALES	5-1/2 Guide Shoe	281.00	281.00
1.00	EQUIPMENT SALES	5-1/2 AFU Insert	360.00	360.00
1.00	EQUIPMENT SALES	5-1/2 Basket	395.00	395.00
10.00	EQUIPMENT SALES	5-1/2 Turbolizer	95.00	950.00
1.00	EQUIPMENT SALES	5-1/2 Rubber Plug	85.00	85.00
1.00	CEMENT SUPERVISOR	Charles Kinyon		
1.00	EQUIPMENT OPERATOR	Kevin Eddy		
1.00	OPERATOR ASSISTANT	Brian Lang		

DP

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

\$ 3,594.79

ONLY IF PAID ON OR BEFORE
Jul 28, 2014

Subtotal	Continued
Sales Tax	Continued
Total Invoice Amount	Continued
Payment/Credit Applied	
TOTAL	Continued

M. L. L. L.
3 10



PO Box 93999
Southlake, TX 76092

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

INVOICE

Invoice Number: 144103

Invoice Date: Jun 28, 2014

Page: 2

Bill To:
Younger Energy Co. 9415 E. Harry St. STE #403 Wichita, KS 67207-5083

Customer ID	Field Ticket #	Payment Terms	
Youn	63583	Net 30 Days	
Job Location	Camp Location	Service Date	Due Date
KS1-02	Great Bend	Jun 28, 2014	7/28/14

Quantity	Item	Description	Unit Price	Amount
1.00	OPERATOR ASSISTANT	Andrew Engles		

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

\$ 3,594.79

ONLY IF PAID ON OR BEFORE
Jul 28, 2014

Subtotal	12,838.52
Sales Tax	635.78
Total Invoice Amount	13,474.30
Payment/Credit Applied	
TOTAL	13,474.30

9879.51

ALLIED OIL & GAS SERVICES, LLC 063583

Federal Tax I.D. # 20-8651475

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

SERVICE POINT:
Great Bend

DATE <i>6-28-14</i>	SEC <i>6</i>	TWP. <i>21</i>	RANGE <i>13</i>	CALLED OUT <i>8:00am</i>	ON LOCATION <i>11:30am</i>	JOB START <i>3:00pm</i>	JOB FINISH <i>4:00pm</i>
LEASE <i>Autheer</i>		WELL # <i>1</i>		LOCATION <i>Stafford Co Line 2 W</i>		COUNTY <i>Stafford</i>	STATE <i>Ks</i>
OLD OR <input checked="" type="radio"/> NEW (Circle one)				<i>45 W clots</i>			

CONTRACTOR <i>Duke 2</i>	OWNER <i>Name</i>
TYPE OF JOB <i>production</i>	
HOLE SIZE <i>7 7/8</i>	T.D. <i>3730</i>
CASING SIZE <i>5 1/2 15.5</i>	DEPTH <i>3707</i>
TUBING SIZE	DEPTH
DRILL PIPE	DEPTH
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT <i>15</i>
CEMENT LEFT IN CSG.	<i>15</i>
PERFS.	
DISPLACEMENT <i>H2O 87.75 BBI</i>	

CEMENT	
AMOUNT ORDERED <i>50 x 60140 47 gal 1/2 lb</i>	
<i>150 x ASC 10' unit 67 gal 21 gal</i>	
<i>.35 x F1160 .14 x DP</i>	

EQUIPMENT	
PUMP TRUCK # <i>366</i>	CEMENTER <i>Charles King</i>
BULK TRUCK # <i>609-209</i>	HELPER <i>Keron eddy</i>
BULK TRUCK #	DRIVER <i>Brian King</i>
BULK TRUCK #	DRIVER <i>andrew engler</i> <small>(yukon)</small>

COMMON	@	
POZMIX	@	
GEL	@	
CHLORIDE	@	
ASC <i>150 SX</i>	@	<i>23.50 3,525.00</i>
<i>SD SX 60/40+40</i>	@	<i>18.92 946.00</i>
<i>Kal 500</i>	<i>750</i>	@ <i>.98 735.00</i>
<i>R1-160</i>	<i>42</i>	@ <i>18.90 793.80</i>
<i>DF</i>	<i>19</i>	@ <i>9.80 186.20</i>
	@	
<i>DV1100</i>	<i>500</i>	@ <i>1.27 635.00</i>
<i>Materials Total</i>		<i>16,821.00</i>
	<i>28% Disc</i>	<i>1909.88</i>
HANDLING <i>248.17</i>	@ <i>2.48</i>	<i>615.46</i>
MILEAGE <i>18.67 x 12-X</i>	<i>2.75</i>	<i>352.11</i>

REMARKS:

*Rig Ran 3702' 5 1/2" cas broke circ
21 Rag mud 2-top Ball pump
thought 2600 psi hook to head
5 BBI H2O 10 BBI DV1100 5 BBI H2O plug
Rat hole 30' x mouse hole 20' x
hook to head mix 150' x shut down
wash pump at Rig displac 87.75
BBI H2O plug did hand float
did hold*

CHARGE TO: *Younger Energy*
STREET _____
CITY _____ STATE _____ ZIP _____

Thank you!
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 *K Don Browning*
SIGNATURE *K Don Browning*

TOTAL		
SERVICE		
DEPTH OF JOB <i>3702</i>		
PUMP TRUCK CHARGE	<i>2558.75</i>	
EXTRA FOOTAGE	@	
MILEAGE <i>Hum 12</i>	@ <i>7.70</i>	<i>92.40</i>
MANIFOLD	@ <i>275.00</i>	<i>275.00</i>
	<i>Hum 12</i>	@ <i>4.40 52.80</i>
	@	

TOTAL *3,946.52*
Disc 28% *1105.03*

PLUG & FLOAT EQUIPMENT	
<i>guideshoe</i>	<i>281.00</i>
<i>KFu direct</i>	@ <i>360.00</i>
<i>1-Basket</i>	@ <i>395.00</i>
<i>10-Inch centerline</i>	@ <i>95.00 950.00</i>
<i>Rubber plug</i>	@ <i>95.00 85.00</i>
	@

TOTAL *2,071.00*
28% *579.88*

SALES TAX (if Any) _____
TOTAL CHARGES *12,838.52*
28% *3,594.29* *(28/28/28)*
DISCOUNT _____ IF PAID IN 30 DAYS
9,243.73

Date Recorded: 4/29/2013 8:52:23 AM

LL88-1

Form 88 (Producers) Rev. 1-83 (Patch-up)

Kans. - Okla. - Colo.

OIL AND GAS LEASE

THIS AGREEMENT, Entered into this 9th day of April, 2013, between, Clayton S. Morrison Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966 and the Sally M. Scheideman Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966, hereinafter called lessor, and Younger Energy Company, 9415 E. Harry Street, Suite 403, Building 400, Wichita, KS 67207, hereinafter called lessee, does witness:

1. That lessor, for and in consideration of the sum of Ten and More Dollars (\$10.00) in hand paid and of the covenants and agreements hereinafter contained to be performed by the lessee, has this day granted, leased, and let and by these presents does hereby grant, lease, and let exclusively unto the lessee the hereinafter described land, with any reversionary rights therein, and with the right to unitize this lease or any part thereof with other oil and gas leases as to all or any part of the lands covered thereby as hereinafter provided, for the purpose of carrying on geological, geophysical and other exploratory work thereon, including core drilling and the drilling, mining, and operating for, producing and saving all of the oil, gas, gas condensate, gas distillate, casinghead gasoline and their respective constituent vapors, and all other gases, found thereon, the exclusive right of injecting water, brine, and other fluids and substances into the subsurface strata, and for constructing roads, laying pipe lines, building tanks, storing oil, building power stations, electrical lines and other structures thereon necessary or convenient for the economical operation of said land, to produce, save, take care of, and manufacture all of such substances, and the injection of water, brine, and other substances into the subsurface strata, said tract of land being situated in the County of Stafford, State of Kansas, and described as follows:

The Northeast Quarter (NE4) of Section Six (6), Township Twenty-one (21) South, Range Thirteen (13) West

containing 160.00 acres, more or less.

2. This lease shall remain in force for a term of three (3) years (called "primary term") and as long thereafter as oil, gas, casinghead gas, casinghead gasoline or any of the products covered by this lease is produced.
3. The lessee shall deliver to lessor as royalty, free of cost, on the lease, or into the pipe line to which lessee may connect its wells the equal three-sixteenth part of all oil produced and saved from the leased premises, or at the lessee's option may pay to the lessor for such three-sixteenth royalty the market price at the wellhead for oil of like grade and gravity prevailing on the day such oil is run into the pipe line or into storage tanks.
4. The lessee shall pay to the lessor, as a royalty, three-sixteenth (3/16th) of the proceeds received by the lessee from the sale of gas, gas condensate, gas distillate, casinghead gas, gas used for the manufacture of gasoline or any other product, and all other gases, including their constituent parts, produced from the land herein leased. ~~Lessee shall also pay to lessor annually at or before the end of each year period during which such gas is not sold, as a shut-in royalty, whether or not a well is being produced, an amount equal to one dollar per net mineral acre, and while an oil royalty is so paid or tendered, it will be considered under all provisions of this lease that gas is being produced in paying operations. The first yearly period during which such gas is not sold shall begin on the date the first well is completed for production of gas.~~

5. This lease is a paid-up lease and may be maintaining during primary term without further payments or drilling operations.
6. In the event said lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein then the royalties herein provided for shall be paid to said lessor only in the proportion which his interest bears to the whole and undivided fee; however, in the event the title to any interest in said land should revert to lessor, or his heirs, or his or their grantees, this lease shall cover such reversion.

7. The lessee shall have the right to use, free of cost, gas oil and water found on said land for its operations thereon, including water from existing wells or ponds of the lessor, lessee agrees to obtain permission from surface owner prior to any water withdrawn from leased premises. Lessee shall bury its pipe lines below plow depth and shall pay for damage caused by its operations to growing crops on said land. No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of the lessor. Lessee shall have the right at any time during, or after the expiration of the lease to remove all machinery fixtures, houses, buildings and other structures placed on said premises, including the right to draw and remove all casing.

8. If the estate of either party hereto is assigned (and the privilege of assigning in whole or in part is expressly allowed), the covenants hereof shall extend to the heirs, devisees, executors, administrators, successors, and assigns, but no change or division in ownership of the land, or royalties, however accomplished, shall operate to enlarge the obligations or diminish the rights of lessee, and no change of ownership in the land or in the royalties or any sum due under this lease shall be binding on the lessee until it has been furnished with either the original recorded instrument of conveyance or a duly certified copy thereof, or a certified copy of the will of any deceased owner and of the probate thereof, or certified copy of the proceedings showing appointment of an administrator of the estate of any deceased owner, whichever is appropriate together with all original recorded instruments of conveyance or duly certified copies thereof necessary in showing a complete chain of title back to lessor of the full interest claimed, and all advance payments of rentals made hereunder before receipt of said documents shall be binding on any direct or indirect assignee, grantee, devisee, or administrator, executor, or heir of lessor.

9. Lessor does not warrant or defend title.
10. If after the expiration of the primary term, production of oil or gas should cease from any cause, this lease shall not terminate if lessee commences additional drilling or well reworking operations within one hundred-twenty (120) days thereafter, or if as the expiration of the primary term, oil or gas is not being produced on said land, but lessee is then engaged in drilling or well reworking operations thereon, then in either event, this lease shall remain in force so long as operations are prosecuted either on the same well or any other well thereafter commenced with no cessation of more than one hundred-twenty(120) consecutive days, and if they result in production of oil or gas, this lease shall remain in effect so long thereafter as there is production of oil or gas under any provision of this lease.

11. Lessee may at any time surrender or cancel this lease in whole or in part by delivering or mailing such release to the lessor, or by placing same of record in the proper county. In case said lease is surrendered and canceled as to only a portion of the acreage covered thereby, then all payments and liabilities thereafter accruing under the terms of said lease as to the portion canceled shall cease and terminate, but as to the portion of the acreage not released the terms and provisions of this lease shall continue and remain in full force and effect for all purposes.
12. All provisions hereof, express or implied, shall be subject to all federal and state laws and the orders, rules, or regulations (and interpretations thereof) of all governmental agencies administering the same, and this lease shall not be in any way terminated wholly or partially nor shall the lessee be liable in damages for failure to comply with any of the express or implied provisions hereof if such failure accords with any such laws, orders, rules or regulations (or interpretations thereof). If lessee should be prevented during the last six months of the primary term hereof from drilling a well hereunder by the order of any constituted authority having jurisdiction thereover, the primary term of this lease shall continue until six months after said order is suspended.

13. Lessee, at its option, is hereby given the right and power to pool or combine into one or more units the land covered by this lease, or any portion thereof, with other land covered by another lease, or leases when, in lessee's judgment, it is necessary or advisable to do so in order to properly develop and operate said lease premises so as to promote the conservation of such minerals in and under said land, such pooling to be in a unit or units not exceeding 40 acres each in the event of an oil well, or into a unit or units not exceeding 640 acres each in the event of a gas and/or condensate or distillate well, plus a tolerance of ten percent (10%) to conform to Governmental Survey quarter sections. Lessee shall execute in writing and file for record in the county in which the land is situated an instrument identifying and describing the pooled acreage. The entire acreage so pooled into a unit or units shall be treated for all purposes, except the payments of royalties on production from the pooled unit, as if it were included in this lease. If production is found on any part of the pooled acreage it shall be treated as if production is had from this lease whether any well is located on the land covered by this lease or not. Any well drilled on any such unit shall be and constitute a well hereunder. In lieu of the royalties elsewhere herein specified lessor shall receive on production from the unit so pooled only such portion of the royalty stipulated herein as the amount of his net royalty interest therein on an acreage basis bears to the total mineral acreage so pooled in the particular unit involved.

14. This lease and all its terms, conditions, and stipulations shall extend to and be binding on all successors of said lessor and lessee.

See Exhibit A Attached hereto and made a part hereof.

IN WITNESS WHEREOF, we sign the day and year first above written.

Glenn Opie, Co-Trustee

Clayton S. Morrison Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966 and the Sally M. Scheideman Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966

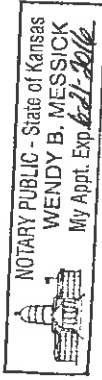
Dan C. Peare, Co-Trustee
Clayton S. Morrison Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966 and the Sally M. Scheideman Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966

ACKNOWLEDGEMENT FOR INDIVIDUAL

STATE OF KANSAS)
COUNTY OF BARTON) ss.

Before me, the undersigned, a Notary Public, within and for said county and state on this 9th day of April, 2013, personally appeared Glenn Opie, Co-Trustee of the Clayton S. Morrison Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966 and the Sally M. Scheiderman Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966, to me personally known to be the identical person(s) whom executed the within and foregoing instrument and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purpose therein set forth.
IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year last above written.

My commission expires 6-21-2016



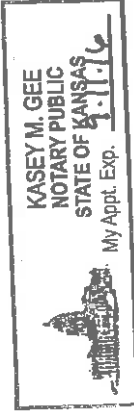
Wendy B. Messick
Wendy B. Messick
Notary Public

ACKNOWLEDGEMENT FOR INDIVIDUAL

STATE OF KANSAS)
COUNTY OF SEDGWICK) ss.

Before me, the undersigned, a Notary Public, within and for said county and state on this 11th day of April, 2013, personally appeared Dan C. Peare, Co-Trustee of the Clayton S. Morrison Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966 and the Sally M. Scheiderman Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966, to me personally known to be the identical person(s) whom executed the within and foregoing instrument and acknowledged to me that he executed the same as his free and voluntary act and deed for the uses and purpose therein set forth.
IN WITNESS WHEREOF, I have hereunto set my hand and official seal the day and year last above written.

My commission expires 9-11-16



Kasey M. Gee
Notary Public

EXHIBIT "A"

Attached to and made a part of that certain Oil and Gas Lease dated April 9, 2013, by and between the Clayton S. Morrison Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966 and the Sally M. Scheideman Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966, as Lessor to Younger Energy Company, as Lessee, covering the Northeast Quarter (NE4) of Section 6, Township 21 South, Range 6 West, Stafford County, Kansas.

1. The undersigned hereby gives permission to Younger Energy Company, and/or its assigns to enter the above described property with the necessary seismograph equipment for the purpose of conducting a seismic survey. Younger Energy Company and/or its assigns shall conduct all operations in a careful, diligent, workmanlike manner. Necessary line clearance and tree trimming is authorized. Younger Energy Company will not conduct seismic surveying on leased property at a time when rain or moisture has rendered the surface of the ground susceptible to deep tire tracks or ruts. Younger Energy Company will use its best efforts to protect the integrity of the surface of said lease in as near as reasonably possible to its current condition.
2. Lessee is hereby granted the option, but not the obligation, at any time prior to the expiration of the primary term of this lease, to extend the primary term of this lease for two (2) years for the same land owned by Lessor in the lands covered by this lease. This option may be exercised by Lessee by tender of twenty-five dollars (\$25) per acre leased by check or draft payable to Lessor, delivered to Lessor or deposited in the United States mail, postage prepaid, addressed to Lessor. Upon the clearance of such check or draft and the receipt of good funds by Lessor, such tender, the primary term of this lease shall be automatically extended by said years, to the tenor and effect as if said extended term had been originally expressed in this lease; subject, however, in all other respects, to the provisions and conditions of this lease.
3. In the event of drilling activities on said lease, Lessee will consult with Lessor to determine the best path for ingress and egress to best protect the lands and to cause as little interference as reasonably possible to landowners and or tenants operations and use for living, farming and ranching.
4. This lease allows for vertical drilling only.
5. In granting permission to Younger Energy Company and/or its assigns, Younger Energy Company and/or its assigns agrees to protect and hold harmless Lessor from any claims and damages that may result from this work. Younger Energy Company and/or its assigns shall pay to Lessor and/or its Fee Tenant, crop damage fees commensurate with current crop values at time of said damage; total fee to be paid by check or draft within 10 days following conclusion of said survey.
6. Where gas is produced in paying quantities from any well, but said gas is not sold or used by Lessee within ninety (90) days from the date commercial gas production is available, Lessee shall pay or tender to Lessor \$200.00 per month (or the fractional part of any month during which gas production shall be available, but not sold or used), and this \$200.00 monthly payment shall be in lieu of said gas royalty, provided further, however, when payment of gas royalty commences, payment of said \$200.00 per month shall cease.
7. Lessee acknowledges that surface owner and lessor are two separate owners of land defined by this lease and that ~~lessee~~ will provide best efforts to accommodate both ownership land use requests. In the event that surface owner requests provisions specific to his/her land use operations that also may have an impact upon ~~lessee~~ exploration efforts, lessee agrees to hold lessor harmless of any costs associated due to those specific surface owner requests.

Signed for Identification:



Glenn Opie, Co-Trustee
Clayton S. Morrison Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No.1, under agreement dated September 20, 1966 and the Sally M. Scheideman Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966



Dan C. Peare, Co-Trustee
Clayton S. Morrison Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966 and the Sally M. Scheideman Trust Share of the Wayne L. Morrison Trust B of the Wayne L. Morrison Trust No. 1, under agreement dated September 20, 1966

OIL AND GAS LEASE

AGREEMENT, Made and entered into this 12th day of March 2012
by and between Sheila Wagner and Rick Luther as Co-Trustees of
The L.O.Luther Revocable Trust, Dated 5/19/1994.

whose mailing address is 1918 E. 33rd, Wichita, Ks 67219 hereinafter called Lessor (whether one or more),
and Younger Energy Company
453 S. Webb RD. #100, Wichita, Ks 67207 hereinafter called Lessee:

Lessor, in consideration of Ten and more Dollars (\$ 10.00) in hand paid, receipt of which is here acknowledged and of the royalties herein provided and of the agreements of the lessee herein contained, hereby grants, leases and lets exclusively unto lessee for the purpose of investigating, exploring by geophysical and other means, prospecting drilling, mining and operating for and producing oil, liquid hydrocarbons, all gases, and their respective constituent products, injecting gas, water, other fluids, and air into subsurface strata, laying pipe lines, storing oil, building tanks, power stations, telephone lines, and other structures and things thereon to produce, save, take care of, treat, manufacture, process, store and transport said oil, liquid hydrocarbons, gases and their respective constituent products and other products manufactured therefrom, and housing and otherwise caring for its employees, the following described land, together with any reversionary rights and after-acquired interest, therein situated in County of Stafford State of Kansas described as follows to-wit:

See Exhibit B for description.

In Section 5 Township 21 Range 13W and containing 620 acres, more or less, and all accretions thereto.

Subject to the provisions herein contained, this lease shall remain in force for a term of Three years from this date (called "primary term"), and as long thereafter as oil, liquid hydrocarbons, gas or other respective constituent products, or any of them, is produced from said land or land with which said land is pooled.

In consideration of the premises the said lessee covenants and agrees:

1st. To deliver to the credit of lessor, free of cost, in the pipe line to which lessee may connect wells on said land, the equal ~~one-eighth (1/8)~~ ^{15%} part of all oil produced and saved from the leased premises.

2nd. To pay lessor for gas of whatsoever nature or kind produced and sold, or used on the premises, or used in the manufacture of any products therefrom, ~~one-eighth (1/8)~~ ^{15%} of the proceeds received by lessee from such sales, for the gas sold, used off the premises, or in the manufacture of products therefrom, said payments to be made monthly. Where gas from a well producing gas only is not sold or used, lessee may pay or tender as royalty ~~one-eighth (1/8)~~ ^{15%} per year per net mineral acre retained hereunder, and if such payment or tender is made it will be considered that gas is being produced within the meaning of the preceding paragraph. ^{15%} ~~one-eighth (1/8)~~ ^{15%}

This lease may be maintained during the primary term hereof without further payment or drilling operations. If the lessee shall commence to drill a well within the term of this lease or any extension thereof, the lessee shall have the right to drill such well to completion with reasonable diligence and dispatch, and if oil or gas, or either of them, be found in paying quantities, this lease shall continue and be in force with like effect as if such well had been completed within the term of years first mentioned.

If said lessor owns a less interest in the above described land than the entire and undivided fee simple estate therein, then the royalties herein provided for shall be paid the said lessor only in the proportion which lessor's interest bears to the whole and undivided fee.

Lessee shall have the right to use, free of cost, gas, oil and water produced on said land for lessee's operation thereon, except water from the wells of lessor.

When requested by lessor, lessee shall bury lessee's pipe lines below plow depth.

No well shall be drilled nearer than 200 feet to the house or barn now on said premises without written consent of lessor.

Lessee shall pay for damages caused by lessee's operations to growing crops on said land.

Lessee shall have the right at any time to remove all machinery and fixtures placed on said premises, including the right to draw and remove casing.

If the estate of either party hereto is assigned, and the privilege of assigning in whole or in part is expressly allowed, the covenants hereof shall extend to their heirs, executors, administrators, successors or assigns, but no change in the ownership of the land or assignment of rentals or royalties shall be binding on the lessee until after the lessee has been furnished with a written transfer or assignment or a true copy thereof. In case lessee assigns this lease, in whole or in part, lessee shall be relieved of all obligations with respect to the assigned portion or portions arising subsequent to the date of assignment.

Lessee may at any time execute and deliver to lessor or place of record a release or release covering any portion or portions of the above described premises and thereby surrender this lease as to such portion or portions and be relieved of all obligations as to the acreage surrendered.

All express or implied covenants of this lease shall be subject to all Federal and State Laws, Executive Orders, Rules or Regulations, and this lease shall not be terminated, in whole or in part, nor lessee held liable in damages, for failure to comply therewith, if compliance is prevented by, or if such failure is the result of, any such Law, Order, Rule or Regulation.

~~Lessee hereby warrants and agrees to defend the title to the lands herein described, and agrees that the title to any title to be sold hereunder shall be the responsibility of the holder thereof, and the undersigned lessors, for themselves and their heirs, successors and assigns, hereby affirmatively and irrevocably warrant and agree to defend all title of lessor and homestead in the premises described herein, in so far as such title and interest may in any way affect the purposes for which this lease is made, to-wit:~~

Lessee, at its option, is hereby given the right and power to pool or combine the acreage covered by this lease or any portion thereof with other land, lease or leases in the immediate vicinity thereof, when in lessee's judgment it is necessary or advisable to do so in order to properly develop and operate said lease premises so as to promote the conservation of oil, gas or other minerals in and under and that may be produced from said premises, such pooling to be of tracts contiguous to one another and to be into a unit or units not exceeding 40 acres each in the event of an oil well, or into a unit or units not exceeding 640 acres each in the event of a gas well. Lessee shall execute in writing and record in the conveyance records of the county in which the land herein leased is situated an instrument identifying and describing the pooled acreage. The entire acreage so pooled into a tract or unit shall be treated, for all purposes except the payment of royalties on production from the pooled unit, as if it were included in this lease. If production is found on the pooled acreage, it shall be treated as if production is had from this lease, whether the well or wells be located on the premises covered by this lease or not. In lieu of the royalties elsewhere herein specified, lessor shall receive on production from a unit so pooled only such portion of the royalty stipulated herein as the amount of his acreage placed in the unit or his royalty interest therein on an acreage basis bears to the total acreage so pooled in the particular unit involved.

See Exhibit A attached hereto and a part hereof.

Lu Ann Brister
Register of Deeds
Stafford County, KS

Book #: 229 Page: 154
Pages Recorded: 8
Total Fees: \$36.00

Date Recorded: 3/28/2012 9:14:09 AM

IN WITNESS WHEREOF, the undersigned execute this instrument as of the day and year first above written.

The L.O.Luther Revocable Trust, Dated 5/19/1994.

Sheila Wagner Trustee

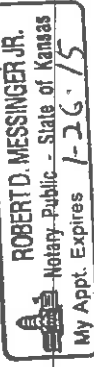
Sheila Wagner Trustee

Rick Luther Trustee

Rick Luther Trustee

STATE OF Kansas
COUNTY OF Sedgwick
The foregoing instrument was acknowledged before me this 12th day of March, 2012
by Shelia Wagner and Rick Luther and Co-Trustees of
The L.O. Luther Revocable Trust, Dated 5-19-1994.

ACKNOWLEDGMENT FOR INDIVIDUAL (KsOkCoNe)



Robert D. Messinger Jr.
Notary Public

My commission expires _____

STATE OF _____
COUNTY OF _____
The foregoing instrument was acknowledged before me this _____ day of _____
by _____ and _____

ACKNOWLEDGMENT FOR INDIVIDUAL (KsOkCoNe)

My commission expires _____
Notary Public

STATE OF _____
COUNTY OF _____
The foregoing instrument was acknowledged before me this _____ day of _____
by _____ and _____

ACKNOWLEDGMENT FOR INDIVIDUAL (KsOkCoNe)

My commission expires _____
Notary Public

STATE OF _____
COUNTY OF _____
The foregoing instrument was acknowledged before me this _____ day of _____
by _____ and _____

ACKNOWLEDGMENT FOR INDIVIDUAL (KsOkCoNe)

My commission expires _____
Notary Public

OIL AND GAS LEASE

No. _____ FROM _____ TO _____
Date _____ Section _____ Twp. _____ Rge. _____
No. of Acres _____ Term _____ County _____
STATE OF _____ County _____
This instrument was filed for record on the _____ day of _____
at _____ o'clock _____ M., and duly recorded
in Book _____ Page _____ of _____
the records of this office.
By _____
When recorded, return to _____
Register of Deeds.

STATE OF _____
COUNTY OF _____
The foregoing instrument was acknowledged before me this _____ day of _____
by _____ a _____
corporation, on behalf of the corporation.
My commission expires _____
Notary Public

ACKNOWLEDGMENT FOR CORPORATION (KsOkCoNe)

EXHIBIT A

1. Lessee shall consult with Lessor and mutually agree regarding the route of ingress and egress in the event of drilling operations on above described lands.
2. Lessee shall consult with Lessor as to the placement of any roads and tank batteries.
3. Any and all salt water and or oil spills shall be promptly cleaned and removed and shall be considered as an item of damage for which Lessor is entitled payment.
4. All electrical lines shall be buried and shall be below plow depth.
5. All production equipment, including but not limited to pump jacks, hydraulic lifting equipment, or any other equipment necessary to produce any oil or gas from wells on subject property, shall be so located or recessed to such depth as to permit the use by Lessor of a circular irrigation sprinkler system. If flood irrigation shall be employed by Lessor, and land leveling operations shall reasonably require it, Lessee will at its expense relocate or lower any or all of his lines to permit such land leveling.
6. If the land covered herby are irrigated by the use of a self propelled overhead sprinkler system, presently in operation or installed hereafter, the Lessee, prior to conducting operations hereon, shall consult with Lessor in regard to said drilling operations. Said drilling operations shall be conducted in such a manner as will least disturb or interfere with Lessor's irrigation system, or the surface contours of the leased premises. Should any alteration to the surface contours be caused by its operations, Lessee, or his assigns, shall promptly restore said surface contours to their former condition as nearly as practicable. In the event of production and continued use of surface, Lessee, or his assigns, will restore or prepare the surface and situate and install all equipment needed in connection therewith, so that Lessee's use thereof will not interfere with the passage of said overhead sprinkler irrigation system.
7. Lessee acknowledges that Lessor's land and farm operation is subject to a water permit issued by the State of Kansas controlling capacity of water use. Lessee's right to use water, free of cost, produced by the Lessee's operations on Lessor's land shall be qualified, conditioned or restricted if Lessee's use negatively impacts or reduces Lessor's water permit authority or volume of water capable of being used by the Lessor for irrigation and its farming operations.
8. All pipelines shall be buried and maintained below three feet of depth.
9. Lessee shall pay for all actual permanent damages caused by Lessee in its operations hereunder to any buildings, fences, road, culverts, merchantable timber, growing crops, or any other improvements, or to livestock on the lease premises. If Lessor is the surface owner, then Lessee agrees to pay to Lessor \$ 1,000.00 per well location prior to spudding the well as a minimum payment but not limited to \$1,000.00 for any and all damages caused or created by reason of the reasonable and customary ingress, egress, drilling, completion, production and maintenance operations associated with the well and facilities.
10. In the event of production, Lessee shall restrict the production site to as small a dimension as is reasonably practicable for its operations, but under no circumstances shall the production site exceed five (5) acres and the Lessee shall provide Lessor a description of the location of the production site.

EXHIBIT A

11. Lessee agrees to consult with the surface owner as to the placement of any tanks, location and route of any pipeline or road taking into account surface owner's existing use of the property, and, to the extent reasonably practicable, will select locations and routes that will cause the least interference with such existing use and still serve the needs of Lessee's operations. Such development shall require a site drawing showing the locations of such tanks, pipelines, and roads and Lessee shall agree to enter into a right-of-way agreement if requested and required by Lessor.
12. Lessee shall maintain production site in a clean and uncluttered condition and shall remove excess piping, scrap metal, and debris within thirty (30) days after notice by Lessor.
13. Unless Lessor and Lessee have entered into an agreement with regards to revenue sharing, duties, and obligations with respect to salt water disposal wells, Lessee shall not use wells on the leased premises for disposal of salt water produced off of the leased premises or lands pooled therewith without the written consent (not to be unreasonably withheld or delayed) of Lessor.
14. The following provisions shall apply with respect to unitization or pooling of this lease:
(A) In case of a vertical well, unitization for gas production shall be limited to 320 acres and oil pooling limited to 40 acres. (B) In case of a horizontal well, any unit which includes this lease shall be limited to 960 acres.
15. **Best Price Available:** In selling any gas produced from the lease premises, or any lands with which the lease premises may be pooled or unitized, the Lessee shall exercise good faith and use due diligence and prudence to market such gas at the best price and upon the most favorable terms then prevailing in the same field (or if there is no such price then prevailing in the same field, then in the nearest field in which there is such a prevailing price) for production of similar quality and quantity that may be obtainable by Lessee at the time or times such gas is contracted for sale, but in no event less than the price obtained by Lessee, through arms length negotiations.

EXHIBIT A

16. **Shut-In Royalty:** Notwithstanding anything to the contrary herein, it is understood and agreed that this lease may not be maintained in force for any one continuous period of time longer than one (1) consecutive year after the expiration of the primary term hereof solely by the provisions of the shut-in royalty clause.

17. **Pugh Clause:** Following the expiration of the primary term of this lease or the expiration of any extension or renewal of the primary term, whichever occurs last, in the event a portion or portions of the lease premises is pooled with other land so as to form a pooled unit or units, operations on such unit or units will not maintain this lease in force as to the land not included in such unit or units. This lease may be maintained in force as to any land covered hereby and not included in such unit or units in any manner provided for herein. Upon the occurrence of any partial termination of this lease, Lessee shall have and expressly reserves, an easement, on, over, through and under all released tracts as shall be reasonably necessary for rights of ingress and egress, in order to enable the exploration and/or production of oil, gas and/or other minerals in and from any depths and lands retained by Lessee under this lease and Lessee shall not be required to relocate any pipelines or equipment used in connection with production of oil and gas from the leased premises.

18. **Offset Well Requirements:** In the event a well or wells producing oil or gas in paying quantities should be completed on adjacent land and draining the lease premises, Lessee shall notify Lessor of such an event and Lessee may drill such offset well or wells as a reasonably prudent operator would drill under the same or similar circumstances. Notwithstanding anything to contrary contained herein, Lessee shall within 120 days of the first production of the offset well file in the appropriate public records and deliver to Lessor a release of that portion of the leased premises which is presumably being drained by said offset well(s), and Lessee shall thereupon be relieved of all liability in connection therewith. The amount of the leased premises so released, as determined by Lessee, shall be of a size sufficient to allow for a full allowable as prescribed by the appropriate regulatory or governmental agency of competent jurisdiction and shall be limited to the zone or zones of such offset well. Provided Lessee has acted promptly and prudently according to industry standards to drill or minimize the liability for drainage, the recording of such release shall relieve Lessee from any and all further obligations to drill any such offset well or wells under the terms of this Lease. In no event, however, shall Lessee be required to offset production from adjacent wells existing as of the effective date of this Lease.

19. Oil & Gas Only/Excluded Minerals: Notwithstanding anything herein to the contrary, this lease covers only oil and gas of whatsoever nature or kind, including coalbed methane gas and other liquid and gaseous hydrocarbons, and sulfur, as well as such other minerals or substances as may be produced incidental to and as a part of or mixed with oil, gas and other liquid or gaseous hydrocarbons, but this lease does not cover gravel, uranium, fissionable material, coal, lignite or any hard minerals or substances of any type which shall be produced from the leased premises separate and apart from, or independently of, oil, gas, sulphur, coalbed methane gas or other liquid and gaseous hydrocarbons.
20. Lessee will not use water from lease premises without prior written consent from Lessor.
21. If at the end of the primary term, this lease is not otherwise continued in force under the provisions hereof, this lease shall expire, unless Lessee on or before the end of the primary term shall pay or tender to Lessor, the sum of \$30.00 multiplied by the number of net mineral acres owned by Lessor in the land above described and then subject to this lease; and subject to the other provisions of this lease, the primary term shall be extended for an additional term of one (1) year from the end of the primary term hereof.
22. Lessee shall plug any well drilled on the leased premises within six (6) months after abandonment, and shall return the well site and road site to its original condition as nearly as possible.
23. Damages to crops will be paid as market value.

EXHIBIT B

Lots Three (3) and Four (4) and the South Half of the Northwest Quarter (S/2 NW/4) of Section Five (5), Township Twenty-one (21) South, Range Thirteen (13) West of the 6th P.M., Stafford County, Kansas, except a tract of land in the Northwest Quarter (NW/4) of Section Five (5), described as follows: Beginning at the Northwest corner (NW/c) of said Northwest Quarter (NW/4) of Section Five (5), being a closing corner on the fourth standard parallel, thence south along the west line of Section Five (5) at a bearing of south $0^{\circ}01'43''$ west five hundred, twenty-two feet (522.00'). thence south $89^{\circ}57'33''$ east four hundred eighteen feet (418), thence north $45^{\circ}02'33''$ east one hundred forty-seven and six, hundredths feet (147.06'), thence north $0^{\circ}01'43''$ east four hundred eighteen and fourteen hundredths feet (418.14') to a point on the fourth standard parallel, thence south $90^{\circ}00'00''$ west one hundred ninety-six and seven hundredths feet (196.07) along said fourth standard parallel to a standard corner on said parallel, thence north $89^{\circ}57'33''$ west three hundred twenty-five and ninety-three hundredths feet (325.93) to the point of beginning containing six and one hundred thirty-two thousandths (6.132) acres, more or less, and except:

A tract commencing at the Northwest corner (NW/c) of the Northwest Quarter (NW/4) of Section Five (5), Township Twenty-one (21) South, Range thirteen (13) West, thence east along the fourth standard parallel, one thousand seven hundred four and sixty-nine hundredths feet (1,704.69) to the point of beginning; thence continuing east along the fourth standard parallel ,

EXHIBIT B

west parallel with the fourth standard parallel six hundred eighty-nine and twenty-four hundredths feet (689.24'), thence north two hundred thirty-seven feet (237') to the point of beginning, containing three and seventy-five hundredths (3.750) acres, more or less;

Lots One (1) and Two (2) and the South Half of the Northeast Quarter (S/2 NE/4) of Section Five (5), Township Twenty-one (21) South, Range Thirteen (13) West of the 6th P.M., Stafford County, Kansas;

The Southwest Quarter (SW/4) of Section Five (5), Township Twenty-one (21) South, Range Thirteen (13) West of the 6th P.M., Stafford County, Kansas; and

The Southeast Quarter (SE/4) of Section Five (5), Township Twenty-one (21) South, Range Thirteen (13) West of the 6th P.M., Stafford County, Kansas.

DECLARATION OF UNITIZATION

KNOW ALL MEN BY THESE PRESENTS:

That YOUNGER ENERGY COMPANY is the Owner and Lessee of the following described oil and gas leases, including any extensions or amendments thereto:

LESSOR: Sheila Wagner and Rick Luther as Co-Trustees of THE L.O. LUTHER REVOCABLE TRUST, dated 5/19/1994.
LESSEE: Younger Energy Company
LEASE DATED: March 12, 2012
RECORDED: Book 229, Page 154
DESCRIPTION: \ Section 5, Township 21 South, Range 13 West, Stafford County, Kansas

LESSOR: CLAYTON S. MORRISON TRUST SHARE of the WAYNE L. MORRISON TRUST B of the WAYNE L. MORRISON TRUST NO. 1, under agreement dated September 20, 1966 and the SALLY M. SCHEIDEMAN TRUST SHARE of the WAYNE L. MORRISON TRUST B of the WAYNE L. MORRISON TRUST NO. 1, under agreement dated September 20, 1966
LESSEE: Younger Energy Company
LEASE DATED: April 9, 2013
RECORDED: Book 238, Page 66
DESCRIPTION: \ Northeast Quarter (NE/4)
Section 6, Township 21 South, Range 13 West, Stafford County, Kansas

WHEREAS, under the terms of the above described oil and gas leases, the Lessee is granted the right and power to pool or combine the acreage covered by the lease or any portion thereof with other land, lease, or leases in the immediate vicinity thereof, when in Lessee's judgment it is necessary or advisable to do so in order to properly develop and operate said leased premises so as to promote the conservation of oil, gas, or other minerals in and under and that may be produced from said premises.

THEREFORE, by virtue of the authority granted by the terms of such leases, Younger Energy Company does hereby unitize, combine, pool, and consolidate a portion of the above described land and the oil and gas leasehold estate thereunder into one consolidated oil leasehold estate or operating unit to be referred to as the MORRISON-LUTHER UNIT and consisting of approximately 40 acres described as follows, to wit:

A certain 20 acres located in Section 5, Township 21 South, Range 13 West as follows:
Southwest Southwest Northwest (SW SW NW)
West Half West Half Southeast Southwest Northwest (W/2 W/2 SE SW NW)
South Half Northwest Southwest Northwest (S/2 NW SW NW)
Southwest Northeast Southwest Northwest (SW NE SW NW)

A certain 20 acres located in Section 6, Township 21 South, Range 13 West as follows:
Southeast Southeast Northeast (SE SE NE)
South Half Northeast Southeast Northeast (S/2 NE SE NE)
East Half East Half Southwest Southeast Northeast (E/2 E/2 SW SE NE)
Southeast Northwest Southeast Northeast (SE NW SE NE)

The royalties accruing from any well drilled on said Unit shall be prorated and paid to the Lessors on the various tracts included in the consolidated estate in the same proportion that the acreage of each Lessor bears to the total acreage of the consolidated estate.

The designation, pooling, and unitization shall not exhaust the pooling and unitization rights and powers of the Lessee under the leases above described, and the right to amend this designation or to make such other designations as they may deem necessary or advisable is reserved.

EXECUTED TO BE EFFECTIVE as of the date of first production.

LESSEE: YOUNGER ENERGY COMPANY

By: Diane Rebstock
Diane Rebstock, Executive Vice President

ACKNOWLEDGEMENTS

STATE OF KANSAS)
) ss:
COUNTY OF SEDGWICK)

The foregoing instrument was acknowledged before me this 3rd day of September, 2014 by Diane Rebstock, Executive Vice President of YOUNGER ENERGY COMPANY.

My appointment expires: _____
Stacey L. Williamson
Notary Public

