

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

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

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or Date Reached TD Completion Date or Recompletion Date

API No.: _____

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 Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run:	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

Date of first Production/Injection or Resumed Production/Injection:	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____				
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
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Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
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Form	ACO1 - Well Completion
Operator	Abercrombie Energy, LLC
Well Name	GRIFFITH 1-24
Doc ID	1410817

All Electric Logs Run

DIL
MEL
POR
SON

Form	ACO1 - Well Completion
Operator	Abercrombie Energy, LLC
Well Name	GRIFFITH 1-24
Doc ID	1410817

Tops

Name	Top	Datum
ANHY	2312	+649
BANHY	2332	+629
HEEB	3878	-917
LANS	3918	-957
MUN CR	4094	-1133
STRK	4191	-1230
HUSH	4236	-1275
BKC	4273	-1312
MARM	4310	-1349
PAW	4405	-1444
FT SCT	4447	-1486
CHER	4477	-1516
MISS	4600	-1639

LITHOLOGY STRIP LOG

WellSight Systems

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

Well Name: Abercrombie Energy, LLC. Griffith #1-24
API: 15-171-21220
Location: Approx SE NW SE NW Section 24-T16S-R33W
License Number: 33575
Spud Date: March 17, 2018
Surface Coordinates: 1889' FNL & 1755' FWL Section 24-T16S-R33W
Region: Scott Co, KS
Drilling Completed: March 27, 2018

Bottom Hole
Coordinates:
Ground Elevation (ft): 2956
Logged Interval (ft): 3600
Formation: Mississippian. RTD 4750 (-1789). LTD 4750 (-1789)
Type of Drilling Fluid: Chemical. Displaced at 3440'

K.B. Elevation (ft): 2961

To: 4750 Total Depth (ft): 4750

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

OPERATOR

Company: Abercrombie Energy, LLC
Address: 10209 W. Central, Ste 2
Wichita, KS 67212

GEOLOGIST

Name: Mikeal K. Maune
Company: Consulting Petroleum Geologist - Kansas Licensed No. 210
Address: Wichita, Kansas
Office: 316-722-8173

COMMENTS

Surface Casing: 8 5/8" set @ 260' w/ 185 sks. Common 3% cc, 2% gel, cement did circulate. Plug down @ 7 am 3/18/2018.

Production Casing:

Deviation Surveys: 3/4' @ 260', 1 1/4' @ 4186',
Pipe Strap @ 4186' DST #1. Board 4212.11'. Strap 4213.50'. Strap was 1.39' long to the Board .

WW Rig #2 Bit Record:

#1 12 1/4" SM Tooth in @ GL, out @ 260'.
#2 7 7/8" Smith F27 in @ 260', out @

Mud System: Mud-CO/Service Mud
DSTs: Trilobite Testing Inc.
OH Logs: ELI

Correlation of the OH Log with the Drilling Time, indicates OH Log depths and the Drilling Time depths are approximately equal. The Gamma Ray curve was imported into this report without any depth adjustment.

OH Log Formation Tops: Anhydrite , Base Anhydrite , Heebner , Lansing , Stark , BKC , Pawnee , Fort Scott , Cherokee , Miss Ls, LTD .


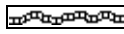
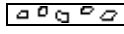

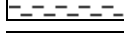

DSTs






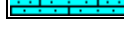
DST #1 4130-4186/30-60-45-90. 1st Op: Weak Blow Build to 2 1/2 inches. 2nd Op: Weak Blow build to 2 1/2 inches. Recover: 125' WCM with Oil spots (20% W, 90% M). IH 2066#, IFP 15-38#, ISIP 1130# building, FFP 41-70#, FSIP 1118# building, FH 2040#, BHT 112 F.
Note: Used Trilobites IPRO setup to monitor Blow on opens.


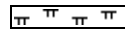
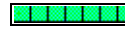
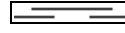


DST #2 4186-4204/30-60-45-90. 1st Op: Blow BOB/17 min (Build to 19 1/2 inches). 2nd Op: Blow BOB/18 min (build to 28"). Recover: 540' MCW oil spots on top (90% W, 10% M). IH 2097#, IFP 18-140#, ISIP 1143#, FFP 142-269#, FSIP 1140#, FH 2088#, BHT 118 F.
Note: Used Trilobites IPRO setup to monitor Blow on opens.






DST #3 4470-4468/30-60-45-90. 1st Op: Blow build to 7 1/2 inches. 2nd Op: Blow BOB/30 min (build to 18"). Recover: 170' GOCM (10% Gas 30% Oil 60% M). IH 2226#, IFP 18-59#, ISIP 1113# building, FFP 63-84#, FSIP 1099# building, FH 2056#, BHT 114 F.
Note: Used Trilobites IPRO setup to monitor Blow on opens.

ROCK TYPES

-  Anhy
-  Bent
-  Brec
-  Cht
-  Clyst
-  Coal




-  Congl
-  Sdy dolo
-  Shy dolo
-  Dol
-  Gyp
-  Sdy lmst





-  Lmst
-  Mrlst
-  Salt
-  Shale
-  Sltst
-  Ss

-  Black sh
-  Gry sh
-  Shale
-  Shslytst
-  Sltysht

















ACCESSORIES








MINERAL

-  Anhy
-  Arg
-  Bent
-  Bit
-  Brecfrag
-  Calc
-  Carb
-  Chtdk
-  Chtlt
-  Dol
-  Ferrpel
-  Ferr
-  Glau
-  Gyp
-  Marl
-  Nodule
-  Phos
-  Pyr
-  Salt
-  Sandy
-  Silt














-  Chlorite
-  Dol
-  Sand
-  Sltly

FOSSIL

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












-  Pelec
-  Pelloidal
-  Pisolite
-  Plant
-  Strom
-  Fuss
-  Oomoldic

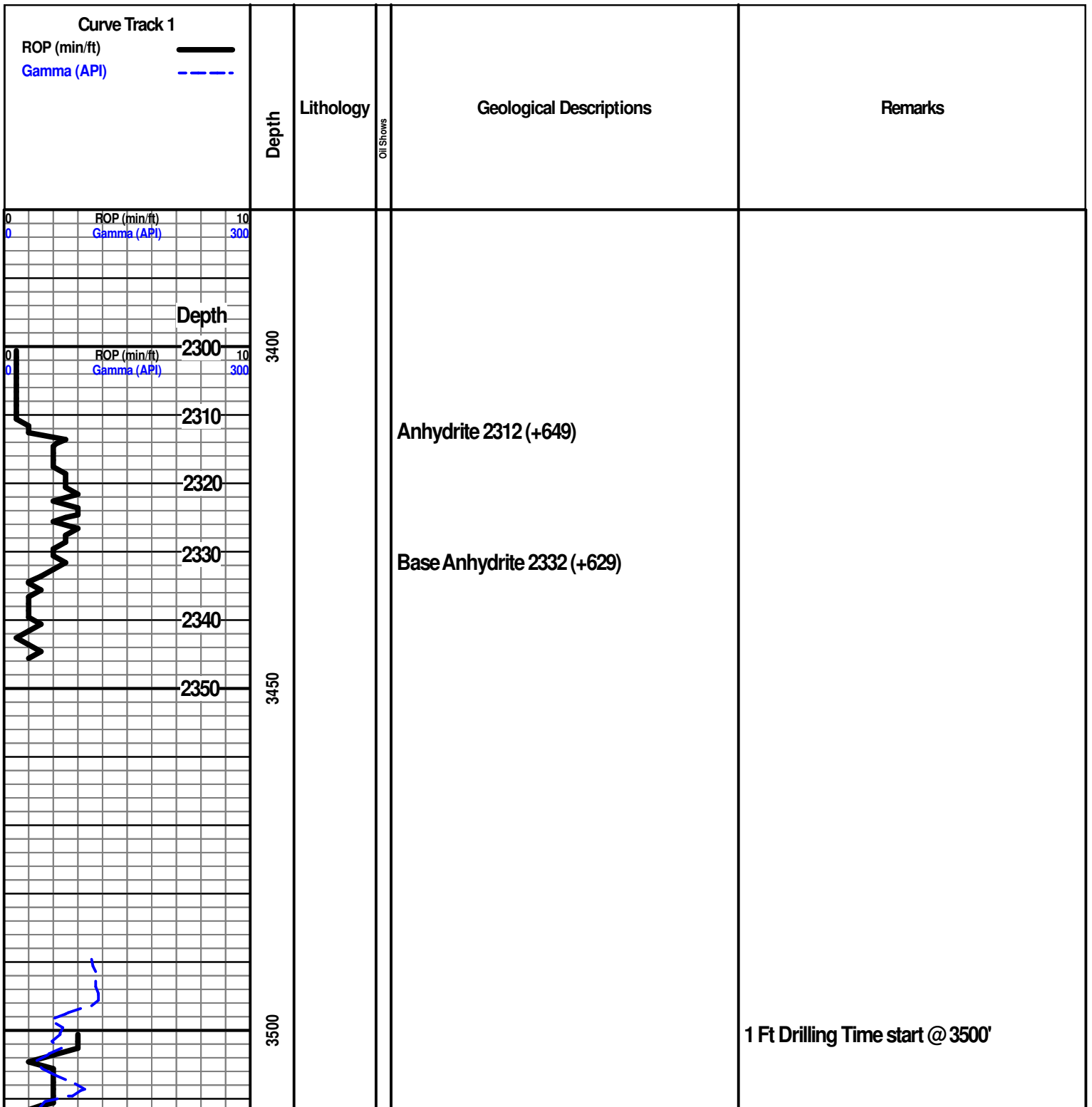
STRINGER

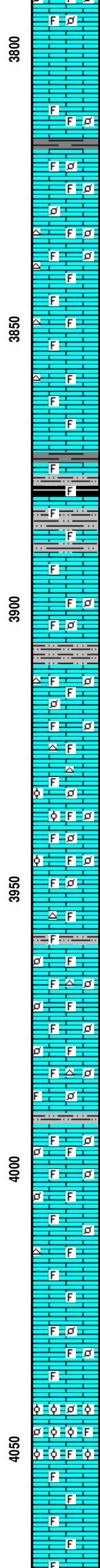
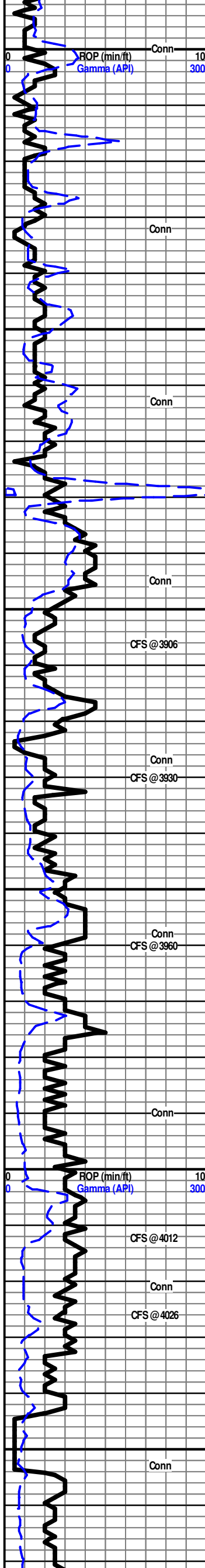
-  Anhy
-  Arg
-  Bent
-  Coal
-  Dol
-  Gyp
-  Ls
-  Mrst
-  Sltstrg
-  Ssstrg
-  Carbsh
-  Clystn
-  Dol

-  Grysh
-  Gryslt
-  Lms
-  Sandylms
-  Sh
-  Sltstn

TEXTURE

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





Ls, wh, tan, vfn xln, wkestrn, pkstrn, foss, ool, pell, clear 2nd calcite, PP por, spt foss moldic por, soft. Ls, wh, tan, mdstrn, wkestrn, foss, soft to hard.

Ls, wh, tan, vfn xln, wkestrn, pkstrn, foss, ool. Ls, tan, pkstrn, foss, pell, clear 2nd calcite, trace PP por & poor foss moldic por. Ls, crm, tan, vfn xln, wkestrn, foss, soft to hard.

Ls, tan, brn, vfn xln, wkestrn, pkstrn, foss, ool. Ls, tan, pkstrn, foss, pell, clear 2nd calcite, trace PP por & poor foss moldic por. Ls, crm, tan, vfn xln, wkestrn, foss, trace PP por.

Ls, wh, crm, vfn xln, mdstrn, wkestrn, foss, spt chky text. Ls, crm, tan, brn, wkestrn, pkstrn, foss, pell, trace PP por and poor foss moldic por.

Ls, wh, crm, tan, vfn xln, mdstrn, wkestrn, foss, spt chky text. Ls, crm, tan, mdstrn, sl foss. Ls, tan, vfn xln, wkestrn, pkstrn, foss, pell. Trace Cht, milky, lt gry, tan, foss, trace pyr, semi transl, sub op, ang.

Ls, wh, crm, mdstrn, wkestrn, foss, spt chky text. Ls, tan, brn, vfn xln, wkestrn, foss. Ls, tan, mott gry, vfn xln, wkestrn, foss. Trace Cht, milky, lt gry, foss, trace pyr, transl, sub op, ang.

Ls, crm, tan, lt gry, vfn xln, mdstrn, wkestrn, foss, soft to hard. Ls, tan, gry, vfn xln, foss, trace PP por & poor foss moldic por. Trace Cht AA.

Ls, tan, brn, mott gry, with dk brn-blk spks, wkestrn, foss, trace pyr. Ls, tan, vfn xln, mdstrn, wkestrn, soft.

Sh Blk, carb, pyr. Sh & Shy Slst, dk gry-blk, pyr. Ls, tan, brn, mott gry, w/dk brn, blk spks, wkestrn, foss, tr micro pyr.

Sh & Shy Slstn, gry, blk spks, trace pyr. Shy Ls, gry, vfn xl, mdstrn, sl foss, arg. Ls, tan, brn, mott gry, with dk brn-blk spks, wkestrn, foss, soft to hard. Ls, dk gry, wkestrn, foss, tr micro pyr.

Flood Ls, tan, brn, mott gry, vfn xln, mdstrn, sl foss, dns. Ls, tan, with dk brn spks, vfn xln, foss. Tr Cht, milky, gry, foss, sub op, transl, ang.

Ls, wh, tan, mott gry, vfn xln, mdstrn, wkestrn, foss. Ls, tan, brn, mott, trace dk brn spks. Ls, tan, gry, vfn xln, wkestrn, foss, micro pyr, 2nd Ls, tan, brn, mott gry, wkestrn, pkstrn, foss, pell, trace dk brn-blk spks (no cut), trace PP & spt inter xln por.

Shy Slstn, gry with dk gry-blk spks, micro pyr, soft.

Flood Ls, wh, crm, vfn xln, mdstrn, sl foss, spt chky text. Ls, wh, crm, wkestrn, pkstrn, foss, pell, soft to hard. Ls, wh, tan, vfn xln, mdstrn, 2nd calcite. Cht, milky, tan, transl, foss, trace micro pyr.

Ls, wh, tan, vfn xln, mdstrn, wkestrn, foss, soft chky text. Ls, tan, vfn xln, wkestrn, foss, pell, 2nd clear calcite, trace PP por, spt inter xln, por, soft to hard. Cht, wh, milky, tan, transl, foss, trace micro pyr, ang, sharp.

Ls, wh, tan, vfn xln, mdstrn, foss, spt chky text. Ls, wh, tan, vfn xln, wkestrn, pkstrn, foss, pell, 2nd calcite filled por. Ls, tan, pkstrn, foss, pell, ool, clear 2nd calcite, trace poor spt oom por.

Flood Ls, wh, crm, vfn xln, wkestrn, pkstrn, foss, pell, ool, clear 2nd calcite filled por, trace PP por & poor spt oom por. Ls, wh, crm, vfn xln, wkestrn, pkstrn, foss, pell, clear 2nd calcite.

Ls, wh, crm, vfn xln, wkestrn, pkstrn, foss, pell, soft. Ls, wh, tan, vfn xln, wkestrn, foss, soft to hard. Ls, tan, brn, vfn xln, mdstrn, sl foss, dns. Trace Cht, milky, tan, foss, transl, ang.

New Shy Ls, tan, brn, mott gry, wkestrn, foss, arg, pyr.

Ls, wh, tan, vfn xln, wkestrn, pkstrn, foss, pell, clear 2nd calcite, soft to hard. Ls, tan, brn, vfn xln, mdstrn, wkestrn, foss. Trace Cht, tan, milky, transl, foss, ang.

Ls, wh, tan, mdstrn, foss, soft. Ls, wh, tan, vfn xln, wkestrn, psktrn, foss, pell, soft to hard. Ls, tan, vfn xln, pkstrn, foss, pell, clear 2nd calcite filled por. Shy Ls, gry, brn, vfn xln, wkestrn, foss, arg.

Flood Ls, wh, mott tan, vfn xln, mdstrn, wkestrn, foss, soft. Ls, tan, vfn xln, wkestrn, pkstrn, foss, pell, clear 2nd calcite. Trace Cht, milky, tan, transl, foss, ang, sharp.

Ls, gry, brn, vfn xln, wkestrn, foss, trace pyr.

Ls, wh, tan, wkestrn, pkstrn, foss, pell, abndnt clear 2nd calcite filled por. Trace 2 pieces/tray Ls, tan, vfn xln, pkstrn, foss, pell, PP por & spt foss moldic por, 2nd calcite.

Ls, wh, tan, mott, vfn xln, mdstrn, wkestrn, foss, 2nd calcite, trace pyr. Ls, tan, vfn xln, wkestrn, pkstrn, foss, pell, clear 2nd calcite filled por, trace pyr.

Ls, wh, vfn xln, mdstrn, sl foss, soft chky text. Ls, tan, vfn xln, mdstrn, wkestrn, foss, clear 2nd calcite filled por. Ls, tan, brn, vfn xln, mdstrn, dns. Trace Cht, tan, transl, foss, ang, sharp.

Ls, wh, crm, vfn xln, mdstrn, wkestrn, foss, soft to hard. Ls, wh, tan, wkestrn, pkstrn, foss, pell, trace PP por. Ls, tan, mdstrn, wkestrn, foss, dns. Cht, tan, lt gry, milky, foss, ang, sharp.

Ls, wh, clear, pkstrn, grnstrn, ool, foss, excell oom & foss moldic por, clear 2nd calcite, soft, few large fragments, mostly small.

Ls, wh, mdstrn, sl foss, soft, chky text. Ls, wh, tan, mdstrn, sl foss, soft to hard. Ls, tan, vfn xl, mdstrn, wkestrn, foss, clear 2nd calcite, dns.

Ls, wh, mdstrn, soft, chky text. Ls, wh, tan, mdstrn, sl foss, soft. Ls,

Geologist on Location @ 3825'
3/21/2018 1:25pm

Oread 3828 (-867)

Heebner 3878 (-917)

Toronto 3897 (-936)

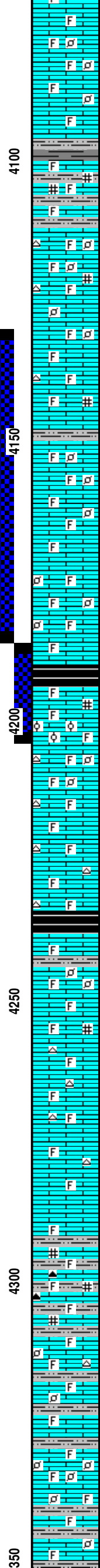
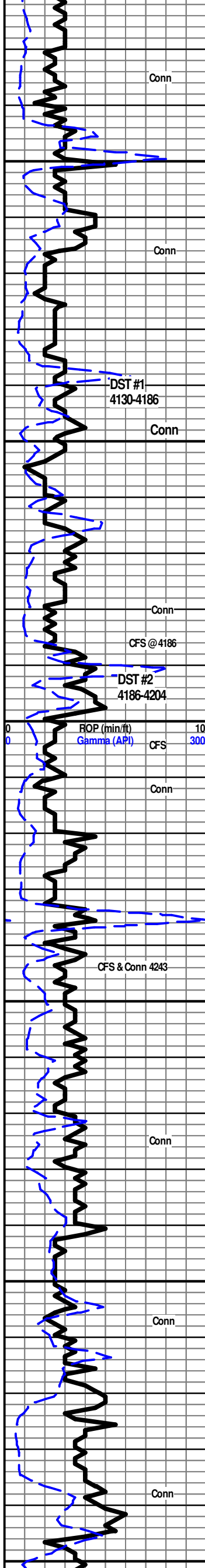
Lansing 3918 (-957)

B 3960 (-999)

E 4006 (-1045)

F 4026(-1065)

G 4043 (-1082)



wh, tan, mdstn, sl foss, soft to hard. Ls, tan, vln xl, mdstn, wkestrn, foss, dns.

Ls, wh, tan, mdstn, soft. Ls, tan, mdstn, wkestrn, foss, 2nd calcite, soft to hard. Ls, wh, tan, wkestrn, pkstn, foss, pell, clear 2nd calcite.

Ls, wh, tan, mdstn, soft to hard. Ls, wh, tan, mdstn, sl foss, clear 2nd calcite. Ls, tan, brn, wkestrn, foss, pell, clear 2nd calcite,

Trace Sh, blk, carb, pyr. Sh dk gry-blk, pyr. Shy Ls, tan, mott dk gry, foss, arg, micro pyr. Ls, tan, brn, gry, mdstn, sl foss, micro pyr, dns.

Shy Ls, tan, gry, mott, wkestrn, foss, pyr. Ls gry, with dk gry spks, mdstn, wkestrn, foss, trace micro pyr.

Flood Ls, wh, crm, wkestrn, pkstn, foss, pell, clear 2nd calcite filled por, trace PP por, soft to hard. Ls, wh, tan, mdstn, sl foss, trace micro pyr. Cht, tan, lt gry, transl, ang, sharp.

Ls, wh, mdstn, soft. Ls, wh, tan, mdstn, wkestrn, foss, clear 2nd calcite, soft to hard. Ls, wh, tan, wkestrn, pkstn, foss, pell, clear 2nd calcite.

Flood Ls, tan, brn, mdstn, dns. Ls, tan, brn, wkestrn, foss, trace micro pyr. Ls, tan, brn, mdstn, soft. Trace Cht, tan, brn, trace milky, foss, ang, sharp.

1-2 fragments/tray Ls, wh, lt gry, wkestrn, pkstn, foss, pell, w/SS dk brn FO in PP por, vug & foss moldic por. No flor. Ls, wh, mdstn, soft. Ls, wh, mott tan, wkestrn, foss, clear 2nd calcite.

34 frag/tray, Ls, wh, lt gry, pkstn, foss, pell, w/SS dk brn FO and trace blk tarry oil in PP por, vug por & foss moldic por. Ls, wh, tan, vln xln, mdstn, sl foss. Ls, wh, vln xln, wkestrn, pkstn, foss, pell, soft chky text. Ls, tan, brn, pkstn, clear 2nd calcite filled por,

Ls, wh, tan, mdstn, sl foss, soft to hard. Ls, tan, mdstn, dns. Ls, wh, tan, wkestrn, pkstn, clear 2nd calcite filled por. 1-2 frag/tray Ls, wh, pkstn, foss, trace tarry oil show. Ls, tan, brn, mdstn, sl foss, dns. Ls, dk brn, mdstn, tr micro pyr, dns.

Ls, wh, mdstn, soft. Ls, wh, tan, wkestrn, pkstn, foss, clear 2nd calcite, soft. Ls, tan, wkestrn, pkstn, foss, pell, 2nd calcite, tile.

Ls, wh, crm, tan, mdstn, sl foss, soft. Ls, crm, tan, wkestrn, foss, 2nd calcite. Sh, blk, carb, micro pyr. Ls, tan, brn, wkestrn, foss, 2nd calcite, hard. Ls, brn, vln xln, dns. Ls, tan, mott gry, w/dk gry foss frag, wkestrn, 2nd calcite filled por, trace micro pyr.

Ls, wh, tan, pkstn, in ool, foss, 2nd calcite, PP por, spot poor oom & foss moldic por, small frag, soft. Few larger fragments w/SS dk brn FO on break, 2-3 frag/tray w/SS spt brn stn in dry sample.

Flood Ls, wh, vln xln, mdstn, soft chky text. Ls, wh, tan, vln xln, mdstn, sl foss, trace pyr. Ls, tan, vln xln, wkestrn, foss, soft. Ls, wh, crm, pkstn, foss, pell, 2nd calcite, soft. Cht, wh, milky, foss, semi transl, ang, sharp.

Ls, wh, tan, vln xln, wkestrn, foss, 2nd calcite, hard. Cht, wh, milky, lt gry, semi transl, ang, sharp. Ls, wh, vln xln, soft chky text. Ls, wh, tan, mdstn, wkestrn, foss, 2nd calcite, soft. Cht, milky, lt gry, semi transl, ang, sharp.

Ls, wh, tan, vln xln, mdstn, sl foss, soft. Ls, wh, tan, vln xln, mdstn, wkestrn, foss, soft to hard. Ls, tan, vln xln, mdstn, dns. Trace Cht AA.

Sh, blk, carb, pyr. Flood Ls, wh, vln xln, mdstn, soft, chky text. Ls, wh, tan, vln xln, mdstn, wkestrn, foss, 2nd calcite, soft. Ls, wh, mott lt gry, vln xln, foss, soft to hard. Ls, wh, tan, mott, vln xln, wkestrn, foss, pell, clear 2nd calcite filled por, soft, chky text. Ls, wh, tan, vln xln, mdstn, soft.

Ls, wh, vln xln, mdstn, soft, spt chky text. Ls, wh, tan, vln xln, mdstn, foss. Ls, wh, tan, vln xln, wkestrn, foss, clear 2nd calcite, trace pyr.

Ls, wh, tan, vln xln, mdstn, spt chky text. Ls, wh, tan, vln xln, mdstn, dns. Ls, wh, vln xln, wkestrn, foss, soft. Trace Cht, milky, tan, semi transl, ang, sharp.

Ls, wh, vln xln, mdstn, dns with spt chky text. New Ls, tan, mott lt gry with tan-gry foss frag, vln xln, wkestrn, pkstn, foss, clear 2nd calcite, trace pyr. Trace Cht, milky, tan, semi transl, ang sharp.

Ls, wh, mott lt gry, vln xln, wkestrn, foss, clear 2nd calcite, trace pyr. Ls, wh, vln xln, mdstn, dns with spt chky text. Trace Cht milky, tan, semi transl, ang, sharp.

New Shy Ls, tan, vln xln, wkestrn, foss, with Shy Slstn, gry, micro pyr, soft. Shy Slstn, gry, dk gry, micro pyr, soft. Shy Ls, tan, brn, vln xln, wkestrn, foss, arg, trace pyr. Ls, tan, brn, vln xln, wkestrn, foss, clear 2nd calcite filled por. Cht, brn, tan, semi transl, ang, sharp.

Ls, wh, tan, mott, vln xln, mdstn, spt chky text. Ls, wh, tan, vln xln, wkestrn, foss, 2nd calcite filled por. Ls, tan, vln xln, wkestrn, foss, tr pell, clear 2nd calcite filled por, dns. Trace Cht, milky, wh, lt gry, semi transl, ang, sharp. Shy Slstn, gry, soft.

Ls, wh, tan, vln xln, mdstn, wkestrn, foss, spt chky text. Ls, wh, crm, vln xln, wkestrn, pkstn, foss, pell, clear 2nd calcite filled por. Ls, crm, tan, vln xln, wkestrn, foss, dns. Shy Slstn, gry, micro pyr, soft.

Flood Ls, wh, tan, mott, mdstn, wkestrn, foss, spt chky text. Ls, tan, vln xln, wkestrn, pkstn, foss, pell, clear 2nd calcite filled por, soft to hard. Ls, tan, lt gry, wkestrn, pkstn, foss, pell, 2nd calcite filled por, tr pyr, dns. Trace Shy Slstn, gry, pyr, soft.

Ls, wh, tan, vln xln, mdstn, wkestrn, foss, spt chky text. Ls, tan, vln xln, wkestrn, foss, clear 2nd xln filled por, soft to hard. Ls, tan, brn, vln xln, wkestrn, tr pkstn, foss, pell, clear 2nd calcite filled por, dns. Increase Sh & Shy Slstn, gry, dk gry-blk, pyr.

DST #1 4130-4186/30-60-45-90
 1st Op: WB Build to 2 1/2 inches
 2nd Op: WB build to 2 1/2 inches
 Recover: 125' WCM with Oil spots (20% W, 90% M)
 IH 2066#, IFP 15-38#, ISIP 1130# building, FFP 41-70#, FSIP 1118# building, FH 2040#, BHT 112 F
 Note: Used Trilobites IPRO setup to monitor Blow on opens.

H 4112 (-1151)

Mud-Co/Service Mud, Inc.
 10:20 am 3/22/2018
 Drilling @ 4148'
 Wt 9.1, Vis 55, WL 6.4
 pH 11, LCM 4#, Chl 3,200
 PV 14, YP 21, GeS 11/18

I 4148 (-1187)

J 4172 (-1211)
 Mud-Co/Service Mud, Inc.
 9:50 am 3/23/2018
 CFS for DST #2 @ 4204'
 Wt 9.1, Vis 54, WL 6.4
 pH 11, LCM 3#, Chl 5,300
 PV 16, YP 24, GeS 11/15
 Stark 4190 (-1229)

Swope 4198 (-1237)

DST #2 4186-4204/30-60-45-90
 1st Op: Blow BOB/17 min (Build to 19 1/2 inches).
 2nd Op: Blow BOB/18 min (build to 28').
 Recover: 540' MCW with oil spots on top (90% W, 10% M).
 IH 2097#, IFP 18-140#, ISIP 1143#, FFP 142-269#, FSIP 1140#, FH 2088#, BHT 118 F.
 Note: Used Trilobites IPRO setup to monitor Blow on opens.

Hushpuckney Sh 4234 (-1273)

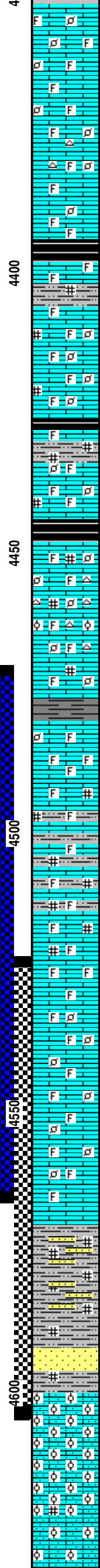
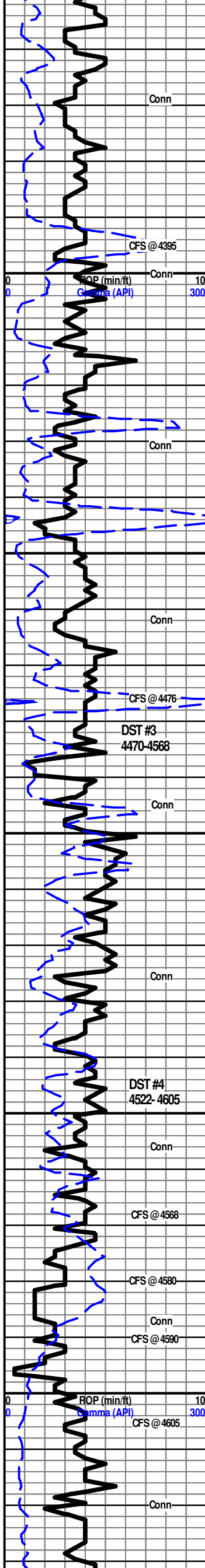
Hertha 4244 (-1283)

BKC 4272 (-1311)

Marmaton 4306 (-1345)

Altamont 4322 (-1361)

Mud-Co/Service Mud, Inc.
 10:30 am 3/24/2018
 Drilling @ 4377'



Ls, wh, tan, vln xln, mdstn, sl foss, spt chky text. Ls, tan, brn, wkestr, foss, clear 2nd calcite filled por. Ls, tan, brn, wkestr, pkstn, foss, pell, clear 2nd calcite filled por dns. Trace Cht, tan, transl, ang, sharp.

Ls, wh, vln xln, mdstn, sl foss, spt chky text. Ls, wh, tan, wkestr, pkstn, foss, pell, clear 2nd calcite filled por, soft to hard. Ls, tan, brn, wkestr, pkstn, foss, pell, clear 2nd calcite, dns. Trace Cht, tan, AA.

Ls, wh, mdstn, sl foss, chky text. Ls, wh, mott tan, vln xln, wkestr, trace pkstn, foss, pell, clear 2nd calcite, soft to hard, dns Tr Cht, tan, AA.

Ls, wh, mdstn, sl foss, soft chky text. Ls, wh, wkestr, trace pkstn, foss, pell, 2nd calcite, soft to hard. Ls, wh, tan, mdstn, wkestr, foss, 2nd calcite, dns. Tr Cht, AA.

CFS 30 min Lag above 4392: 1-2 pcs/tray Ls, crm, lt gry, wkestr, pkstn, foss, PP por, tr foss moldic por, SS brn FO on break and in spt por. 1 pc/tray Ls, wh mott tan, vln xln, mdstn, PP por, chky text, BYF, SS brn FO.

Flood Sh, blk, carb, pyr.

Shy Siltstn, dk gry-blk, pyr. Ls, brn, tan, gry, wkestr, pkstn, foss, trace pyr, dns.

Ls, crm, tan, vln xln, wkestr, pkstn, foss, pell, clear 2nd calcite, trace pyr, soft to hard.

Ls, wh, vln xln, mdstn, sl foss, soft chky text. Ls, wh, tan, vln xln, mdstn, sl foss, 2nd calcite, soft to hard. Ls, crm, tan, vln xln, wkestr, pkstn, foss, pell, clear 2nd calcite filled por, trace pyr, dns.

Ls, wh, vln xln, mdstn, sl foss, soft chky text. Ls, wh, vln xln, wkestr, foss, pell, 2nd calcite filled por, trace pyr, soft to hard. Ls, wh, pkstn, foss, pell, clear calcite filled por, trace pyr, dns.

Sh, blk, carb, pyr. Shy Siltstn, gry, pyr, soft. Ls, gry, brn, vln xln, wkestr, 2nd calcite, hard. Ls, tan, brn, wkestr, pkstn, foss, 2nd calcite, pyr, dns.

Ls, wh mott tan, wkestr, pkstn, foss, pell, clear 2nd calcite filled por, trace micro pyr, spt soft chky text. Ls, brn, gry, wkestr, pkstn, foss, pell, 2nd calcite, arg, pyr. Trace Cht, milky, wh, transl, ang, sharp. Sh, blk, carb, pyr, soft.

Flood Ls, tan, gry, mott, wkestr, foss, pell, pyr. Ls, tan, mdstn, sl foss, soft. Ls, tan, brn, wkestr, pkstn, foss, pell, 2nd calcite, micro pyr, soft-hard. Ls, tan, brn, pkstn, foss, pell, clear 2nd calcite, dns. Cht, milky, brn, foss, transl, ang, sharp.

Ls, tan, brn, pkstn, ool, pell, foss, pkstn, clear 2nd calcite filled por, pyr, soft to hard. Flood Cht, milky, brn, ool, foss, pell, transl, ang, sharp, trace pyr.

Ls, tan, mdstn, wkestr, foss, trace pyr, hard. Ls, tan, wkestr, pkstn, foss, pell, clear 2nd calcite filled por, micro pyr. Ls, tan, brn, mdstn, sl foss, micro pyr, dns. Ls, lt gry mott dk gry, mdstn, sl foss, micro pyr.

Sh, blk, carb, pyr. Shy Siltstn, dk gry-blk, pyr.

Shy Ls, gry, mott dk gry, vln xln, mdstn, wkestr, foss, arg, trace pyr.

Ls, tan, gry, wkestr, pkstn, foss, pell, 2nd calcite, micro pyr.

8+ pcs/tray Ls, tan, brn, gry, wkestr, pkstn, PP por, foss modic & vug por, spt brn stn & sat in part, SS dk brn FO, Few Gas bubbles. Dull yell flor.

Ls, tan, brn, gry, mdstn, wkestr, sl foss, soft to hard. Ls, tan, brn, mdstn, sl foss, w/spt wh chky text in part, trace pyr. Ls, tan, brn, vln xln, mdstn, 2nd calcite, dns. Ls SSFO AA.

Sh & Shy Siltstn, dk gry, blk, pyr. Shy Ls, gry, mdstn, arg, micro pyr. Ls, tan, brn, vln xln, mdstn, wkestr, foss, 2nd calcite, dns.

Sh & Shy Siltstn, dk gry-blk, pyr. Shy Ls, gry, wkestr, foss, arg, pyr. Ls, brn, pkstn, pell, 2nd calcite. Ls, tan, brn, wkestr, foss, clear 2nd calcite, dns.

Ls, tan, brn, mdstn, wkestr, foss, clear 2nd calcite filled por. Ls, wh, tan, mdstn, sl foss, soft chky text. Ls, tan, brn, gry, wkestr, foss, 2nd calcite, trace pyr.

4-6 pcs/tray Ls, tan, brn, wkestr, pkstn, foss, PP por, foss moldic & vug por, SS dk brn FO, trace gas bubbles. Dry Smpl spt brn stn.

Ls, wh, tan, mdstn, sl foss, spt chky text. Ls, tan, brn, wkestr, pkstn, foss, clear 2nd calcite. 4-6 pcs/tray Ls, tan, brn, pkstn, foss, pell, spt inter xln por, PP por & foss moldic por, SS dk brn FO & trace gas. Spt brn stn in dry smpl.

Ls, tan, brn, wkestr, pkstn, foss, pell, 2nd calcite, soft to hard. Ls, crm, tan, mdstn, wkestr, foss, dns. Ls, tan, brn, mdstn, wkestr, foss, dns. Carrying SSFO from above.

Flood Ls, wh, tan, mdstn, spt chky text. Ls, wh, tan, wkestr, foss, pell, soft to hard. Ls, tan, brn, mdstn, wkestr, foss, clear 2nd calcite, dns.

Ls, wh, tan, mdstn, wkestr, foss, soft to hard. Ls, tan, brn, wkestr, pkstn, foss, pell, 2nd calcite. Ls, gry, vln xln, mdstn, dns.

Flood Ls, tan, mott gry, mdstn, sl foss, dns. Ls, gry, wkestr, foss, soft to hard.

Sh & Shy Siltstn, gry, dk gry, grn, blk spks, micro pyr, soft. Shy Siltstn, gry, grn, brn, pyr, sl aren in part, VV fn clear qtz grains, soft gummy.

Sh & Shy Siltstn, gry, grn, blk spks, micro pyr, soft. Shy Siltstn, gry, grn, pyr. Trace Sdy Sh & Siltstn, gry, lt gry, aren in part, VV fn clear qtz grains, calcareous, soft gummy.

Sh & Shy Siltstn, AA.

Sst, wh, clear, tan, vln qtz gr, well sorted, calcareous, semi friable. Large amount qtz grains in sample. Fair inter gran por w/trace PP brn stain. SS Brn FO on break. Fast wh cut,

Sdy Ls, wh, pkstn, fn ool, pell, vln to fn clear rdd, sub rdd qtz gr, soft to hard. No show.

Sdy Ls, wh, pkstn, fn ool, aren, vln-fn clear sub ang, sub rdd qtz gr, trace pyr, soft chky matrix in part.

Sdy Ls, wh, pkstn, fn ool, aren, vln-fn clear sub ang, sub rdd qtz gr, trace pyr, soft chky matrix in part. Sdy Ls, wh, tan, pkstn, aren vln sub ang-rdd clear qtz gr, poor inter xln por, hard.

Decrease Sdy Ls, wh, pkstn, fn ool, aren, vln-fn clear sub ang, sub rdd qtz gr, trace pyr, soft chky matrix in part. Increase Sdy Ls, wh, tan, pkstn, aren vln sub ang-rdd clear qtz gr, trace pyr. poor inter xln por, hard, tile.

Flood Sdy Ls, pkstn, aren, vln clear qtz gr, trace micro pyr, trace sh

Wt 9.3, Vis 58, WL 6.8
pH 10.5, LCM 3#, Chl 5,500
PV 14, YP 27, GelS 1020

Lwr Marmaton 4364 (-1403)

4395 CFS 60 min: 1-2 pcs/tray: Ls, wh, mott tan, wkestr, foss, spt chky text, PP por, trace foss moldic por, SS brn FO, w/dull yellow flor. Dry Sample 23 pcs/tray w/spt brn stn, mostly barren. Flood Sh blk, carb, pyr.

Pawnee 4405 (-1444)

Fort Scott 4447 (-1486)

Cherokee 4474 (-1513)

DST #3 4470-4468/30-60-45-90
1st Op: Blow build to 7 1/2 inches
2nd Op: Blow BOB/30 min (build to 18").
Recover: 170' GOCM (10% Gas 30% Oil 60% M)
IH 2226#, IFP 18-59#, ISIP 1113# building, FFP 63-84#, FSIP 1099# building, FH 2056#, BHT 114 F.
Note: Used Trilobites IPRO setup to monitor Blow on opens.

Johnson 4518 (-1557)

DST #4 4522-4605/30-60-45-90
1st Op: Blow build to 9 inches
2nd Op: Blow BOB/10 min (build to 18.7 inches).
Recover: 340' GIP, 140' GMCO (15% Gas 55% Oil 30% M).
IH 2275#, IFP 18-42#, ISIP 1101# building, FFP 43-59#, FSIP 1096# building, FH 2260#, BHT 115 F.
Note: Used Trilobites IPRO setup to monitor Blow on opens.
Mud-Co/Service Mud, Inc. 11:15 am 3/25/2018
Depth 4568' OB w/DST #3
Wt 9.2, Vis 56, WL 6.4
pH 11.0, LCM 3#, Chl 5,500
PV 14, YP 21, GelS 11/16

Atoka 4569 (-1608)

Sst 4595 (-1634)

Miss 4600 (-1639)

Mud-Co/Service Mud, Inc. 10:40 am 3/26/2018
Depth 4605' OB w/DST #4
Wt 9.2, Vis 59, WL 6.4
pH 11.0, LCM 3#, Chl 5,900
PV 17, YP 26, GelS 14/25

clasts, poor inter xln por soft to hard, dns. Trace Ls, tan, brn, mdstn, trace of micro pyr, trace sl aren, dns. Decrease Ls, wh, pkstn, fn ool, aren, vfn-in clear qtz gr, trace pyr, soft to hard.

Sdy Ls, pkstn, aren, vfn clear qtz gr, trace micro pyr, trace sh clasts, poor inter xln por soft to hard, dns. Trace Ls, tan, brn, mdstn, trace of micro pyr, trace sl aren, dns. Ls, wh, tan, wkestn, pkstn, ool, aren in part, vfn clear qtz gr.

Ls, wh, tan, wkestn, pkstn, fn ool, soft to hard. Ls tan, brn, mdstn, micro pyr, hard. Ls, wh, tan, wkestn, pkstn, fn ool, aren in part, vfn qtz gr. Sdy Ls, pkstn, aren, vfn clear qtz gr, trace micro pyr, trace sh clasts, poor inter xln por soft to hard, dns.

Ls, wh, tan, mdstn, trace micro pyr. Ls, tan, mdstn, dns. Ls, wh, tan, wkestn, fn, ool, 2nd calcite. Ls, wh, tan, pkstn, fn ool, tr pyr, aren in part. Ls, wh, tan, wkestn, pkstn, fn ool, aren in part, vfn clear qtz gr.

Ls, wh, tan, wkstn, pkstn, fn ool, pell, 2nd calcite, soft to hard. Ls, wh, pkstn, fn ool, 2nd calcite, spt wh chky matrix. Ls, wh, tan, pkstn, fn ool, pell, aren, vfn clear qtz gr, trace micro pyr.

Flood Sdy Ls, wh, tan, pkstn, aren, vfn clear qtz gr, trace micro pyr. Ls, wh, tan, pkstn, fn ool and aren, vfn clear qtz gr, trace micro pyr.

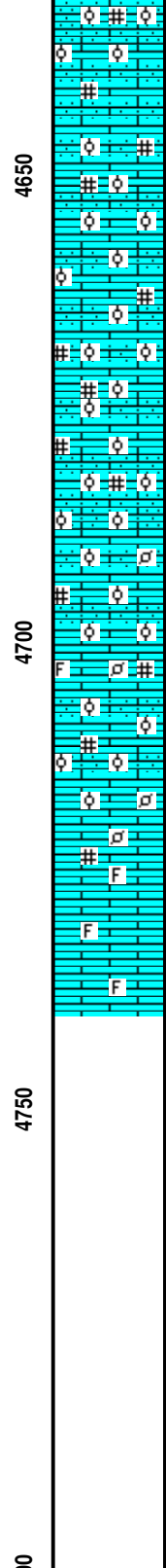
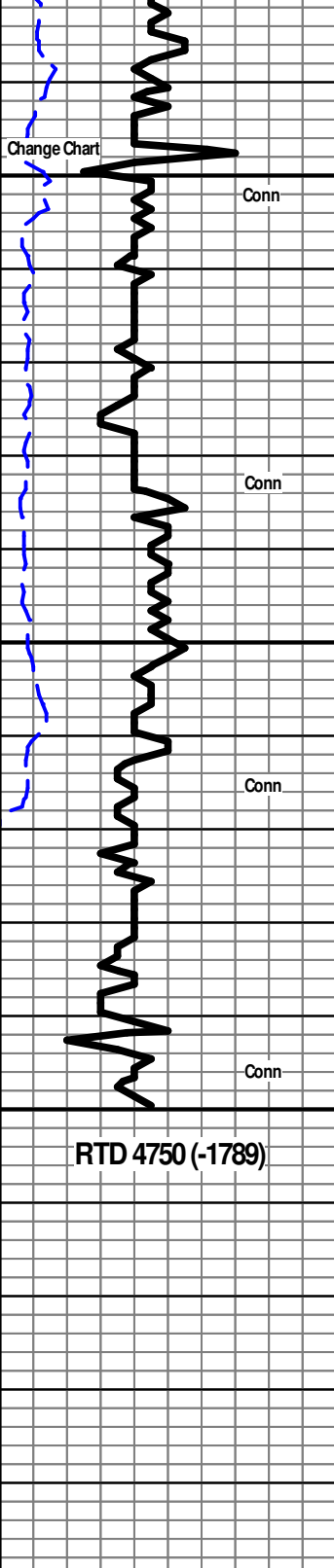
Ls, wh, tan, pkstn, foss, pell, clear 2nd calcite, trace pyr. Ls, wh, tan, pkstn, fn ool and aren, vfn clear qtz gr, trace micro pyr. Sdy Ls, wh, tan, pkstn, aren, vfn clear qtz gr, trace micro pyr.

Ls, wh, tan, pkstn, foss, pell, tr foss, clear 2nd calcite, trace pyr, sl chky text in part. Ls, wh, tan, pkstn, fn ool, pell, aren, vfn clear qtz gr, trace micro pyr. Ls, wh, tan, mdstn, tr pyr, hard. Sdy Ls, wh, tan, pkstn, aren, vfn clear qtz gr, trace micro pyr.

Ls, tan, mdstn, hard. Ls, wh, tan, wkestn, foss, pell, trace pyr. Ls, wh, tan, pkstn, foss, pell, foss, clear 2nd calcite, trace pyr, sl chky text in part. Ls, wh, tan, pkstn, fn ool, pell, aren, vfn clear qtz gr, trace pyr.

Ls, wh, tan, wkestn, pkstn, foss, pell, clear 2nd calcite, trace micro pyr, spt chky text in part, to hard. Ls, wh, tan, vfn xln, mdstn. New Ls, wh, lt gry, tan, vfn xln, mdstn, soft to hard.

Flood Ls, wh, lt gry, vfn xln, mdstn, soft to hard. Ls, wh, tan, vfn xln, mdstn, wkestn, foss.



clasts, poor inter xln por soft to hard, dns. Trace Ls, tan, brn, mdstn, trace of micro pyr, trace sl aren, dns. Decrease Ls, wh, pkstn, fn ool, aren, vfn-in clear qtz gr, trace pyr, soft to hard.

Sdy Ls, pkstn, aren, vfn clear qtz gr, trace micro pyr, trace sh clasts, poor inter xln por soft to hard, dns. Trace Ls, tan, brn, mdstn, trace of micro pyr, trace sl aren, dns. Ls, wh, tan, wkestn, pkstn, ool, aren in part, vfn clear qtz gr.

Ls, wh, tan, wkestn, pkstn, fn ool, soft to hard. Ls tan, brn, mdstn, micro pyr, hard. Ls, wh, tan, wkestn, pkstn, fn ool, aren in part, vfn qtz gr. Sdy Ls, pkstn, aren, vfn clear qtz gr, trace micro pyr, trace sh clasts, poor inter xln por soft to hard, dns.

Ls, wh, tan, mdstn, trace micro pyr. Ls, tan, mdstn, dns. Ls, wh, tan, wkestn, fn, ool, 2nd calcite. Ls, wh, tan, pkstn, fn ool, tr pyr, aren in part. Ls, wh, tan, wkestn, pkstn, fn ool, aren in part, vfn clear qtz gr.

Ls, wh, tan, wkstn, pkstn, fn ool, pell, 2nd calcite, soft to hard. Ls, wh, pkstn, fn ool, 2nd calcite, spt wh chky matrix. Ls, wh, tan, pkstn, fn ool, pell, aren, vfn clear qtz gr, trace micro pyr.

Flood Sdy Ls, wh, tan, pkstn, aren, vfn clear qtz gr, trace micro pyr. Ls, wh, tan, pkstn, fn ool and aren, vfn clear qtz gr, trace micro pyr.

Ls, wh, tan, pkstn, foss, pell, clear 2nd calcite, trace pyr. Ls, wh, tan, pkstn, fn ool and aren, vfn clear qtz gr, trace micro pyr. Sdy Ls, wh, tan, pkstn, aren, vfn clear qtz gr, trace micro pyr.

Ls, wh, tan, pkstn, foss, pell, tr foss, clear 2nd calcite, trace pyr, sl chky text in part. Ls, wh, tan, pkstn, fn ool, pell, aren, vfn clear qtz gr, trace micro pyr. Ls, wh, tan, mdstn, tr pyr, hard. Sdy Ls, wh, tan, pkstn, aren, vfn clear qtz gr, trace micro pyr.

Ls, tan, mdstn, hard. Ls, wh, tan, wkestn, foss, pell, trace pyr. Ls, wh, tan, pkstn, foss, pell, foss, clear 2nd calcite, trace pyr, sl chky text in part. Ls, wh, tan, pkstn, fn ool, pell, aren, vfn clear qtz gr, trace pyr.

Ls, wh, tan, wkestn, pkstn, foss, pell, clear 2nd calcite, trace micro pyr, spt chky text in part, to hard. Ls, wh, tan, vfn xln, mdstn. New Ls, wh, lt gry, tan, vfn xln, mdstn, soft to hard.

Flood Ls, wh, lt gry, vfn xln, mdstn, soft to hard. Ls, wh, tan, vfn xln, mdstn, wkestn, foss.

00



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central Ste #2
Wichita, KS 67212

ATTN: Mike Maune

Griffith #1-24

24-16s-33w Scott,KS

Start Date: 2018.03.22 @ 19:27:00

End Date: 2018.03.23 @ 03:56:00

Job Ticket #: 65294 DST #: 1

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.03.29 @ 08:38:17



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

24-16s-33w Scott,KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65294

DST#: 1

ATTN: Mike Maune

Test Start: 2018.03.22 @ 19:27:00

GENERAL INFORMATION:

Formation: **LKC I - J**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 21:48:45

Time Test Ended: 03:56:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 4130.00 ft (KB) To 4186.00 ft (KB) (TVD)

Reference Elevations: 2961.00 ft (KB)

Total Depth: 4186.00 ft (KB) (TVD)

2956.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8522

Inside

Press@RunDepth: 69.73 psig @ 4131.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.03.22

End Date:

2018.03.23

Last Calib.:

2018.03.23

Start Time: 19:27:05

End Time:

03:55:59

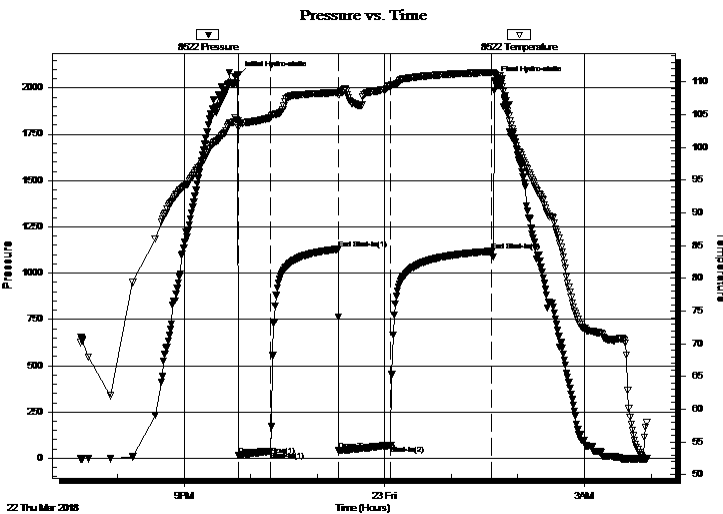
Time On Btm:

2018.03.22 @ 21:48:30

Time Off Btm:

2018.03.23 @ 01:39:00

TEST COMMENT: IF: Blow built to 2 1/2"
IS: No return.
FF: Blow built to 2 1/2"
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2066.32	104.04	Initial Hydro-static
1	15.42	103.05	Open To Flow (1)
30	38.48	104.57	Shut-In(1)
90	1129.50	108.42	End Shut-In(1)
91	41.07	108.11	Open To Flow (2)
137	69.73	109.39	Shut-In(2)
228	1118.18	111.48	End Shut-In(2)
231	2040.30	111.24	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
125.00	w cm 20w 80m (oil spots)	0.68

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

24-16s-33w Scott, KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65294

DST#: 1

ATTN: Mike Maune

Test Start: 2018.03.22 @ 19:27:00

Tool Information

Drill Pipe:	Length: 4007.00 ft	Diameter: 3.80 inches	Volume: 56.21 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 56.79 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	22.00 ft			String Weight: Initial 50000.00 lb
Depth to Top Packer:	4130.00 ft			Final 50000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	56.00 ft			
Tool Length:	83.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4104.00	
Shut In Tool	5.00			4109.00	
Hydraulic tool	5.00			4114.00	
Jars	5.00			4119.00	
Safety Joint	2.00			4121.00	
Packer	5.00			4126.00	27.00 Bottom Of Top Packer
Packer	4.00			4130.00	
Stubb	1.00			4131.00	
Recorder	0.00	8522	Inside	4131.00	
Recorder	0.00	8319	Outside	4131.00	
Perforations	19.00			4150.00	
Change Over Sub	1.00			4151.00	
Drill Pipe	31.00			4182.00	
Change Over Sub	1.00			4183.00	
Bullnose	3.00			4186.00	56.00 Bottom Packers & Anchor

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

24-16s-33w Scott, KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65294

DST#: 1

ATTN: Mike Maune

Test Start: 2018.03.22 @ 19:27:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
125.00	w cm 20w 80m (oil spots)	0.678

Total Length: 125.00 ft Total Volume: 0.678 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

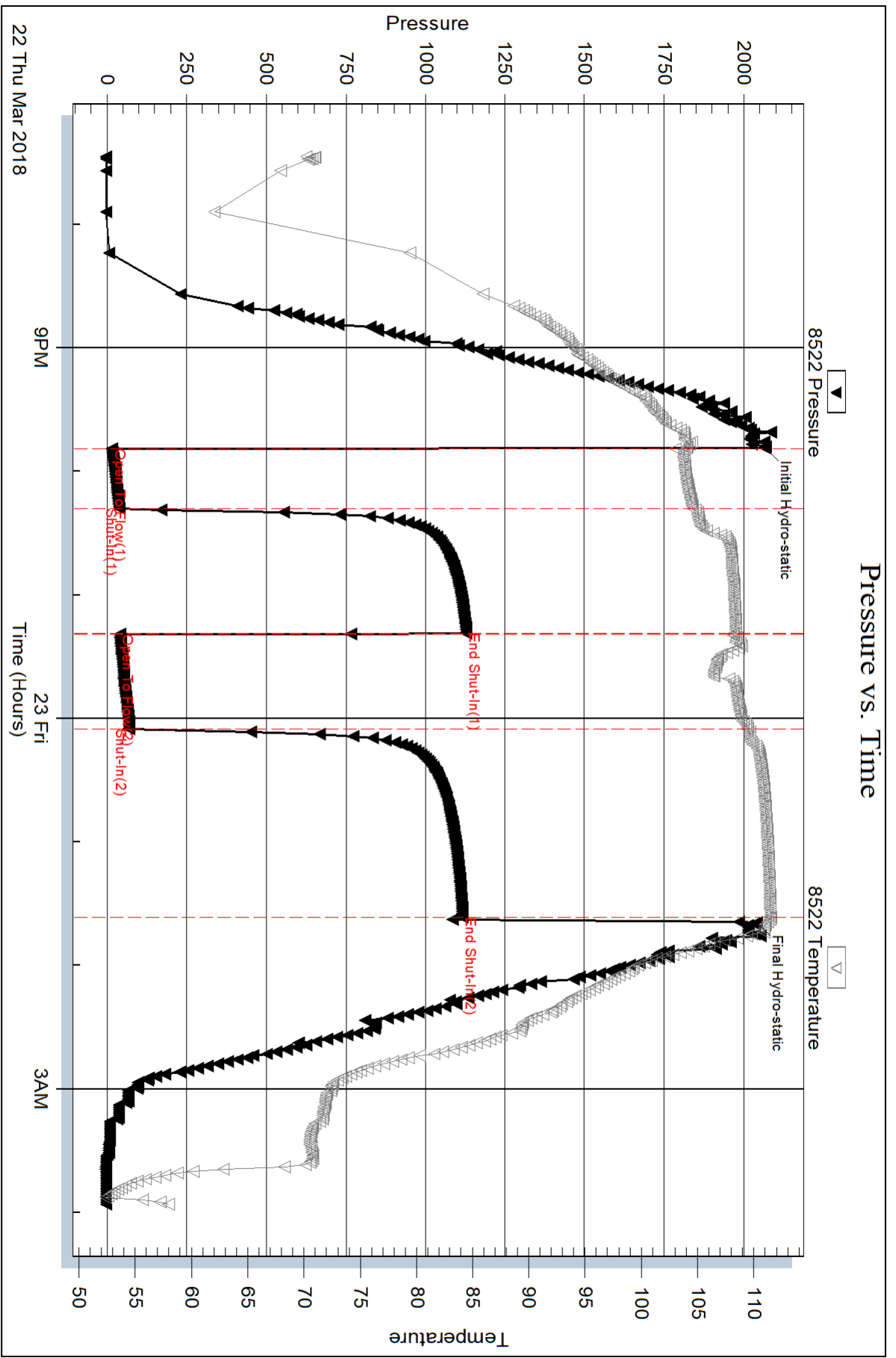
Serial #: 8522

Inside

Abercrombie Energy, LLC

Griffith #1-24

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 65294

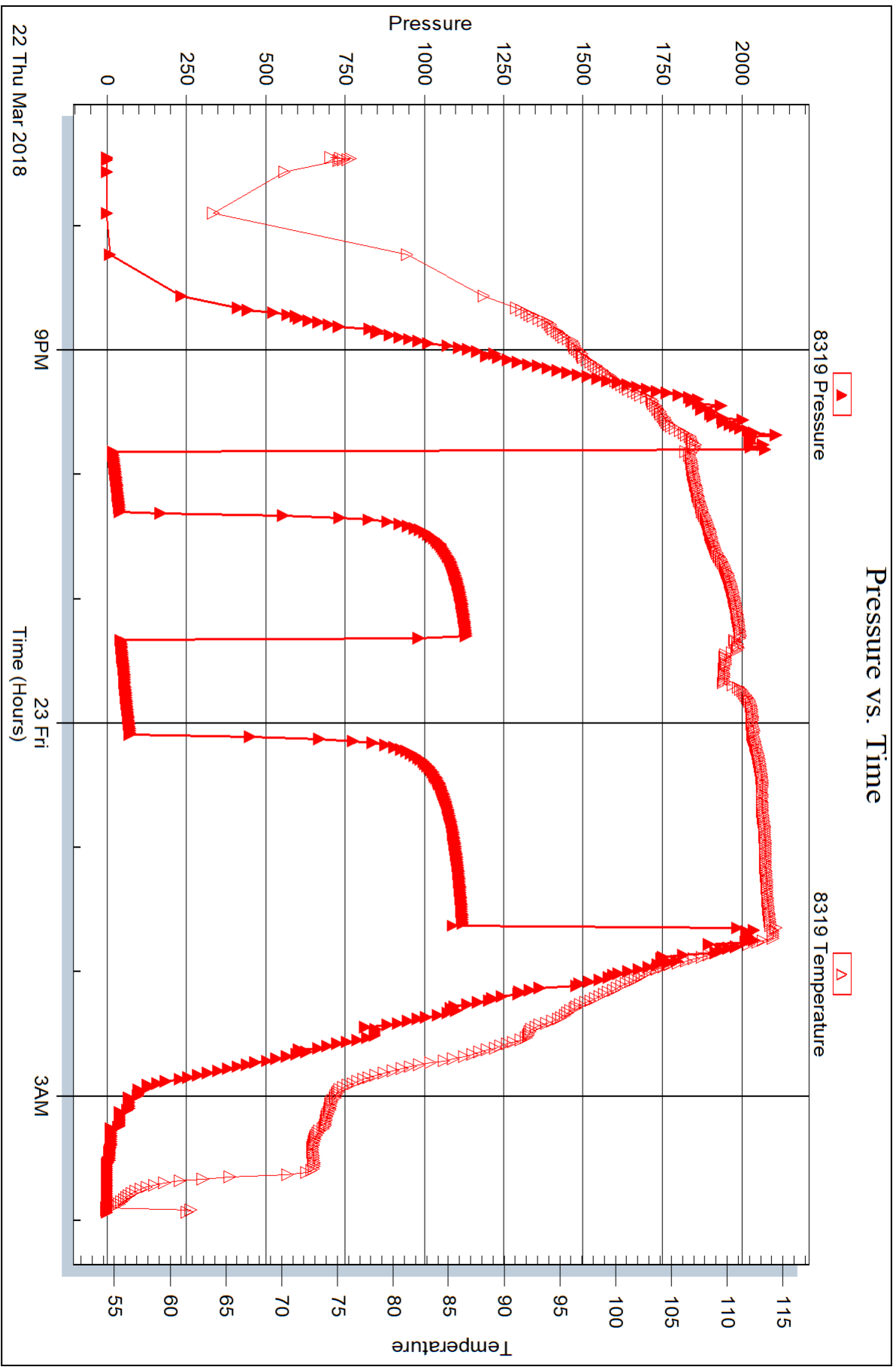
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Serial #: 8319

Outside Abercrombie Energy, LLC

Griffith #1-24

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 65294

Printed: 2018.03.29 @ 08:38:18



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central Ste #2
Wichita, KS 67212

ATTN: Mike Maune

Griffith #1-24

24-16s-33w Scott,KS

Start Date: 2018.03.23 @ 11:24:00

End Date: 2018.03.23 @ 19:24:45

Job Ticket #: 65295 DST #: 2

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.03.29 @ 08:37:50



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

24-16s-33w Scott, KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65295

DST#: 2

ATTN: Mike Maune

Test Start: 2018.03.23 @ 11:24:00

GENERAL INFORMATION:

Formation: **LKC K**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:33:30

Time Test Ended: 19:24:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4186.00 ft (KB) To 4204.00 ft (KB) (TVD)

Reference Elevations: 2961.00 ft (KB)

Total Depth: 4204.00 ft (KB) (TVD)

2956.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8522

Inside

Press@RunDepth: 269.43 psig @ 4187.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.03.23

End Date:

2018.03.23

Last Calib.:

2018.03.23

Start Time: 11:24:05

End Time:

19:24:44

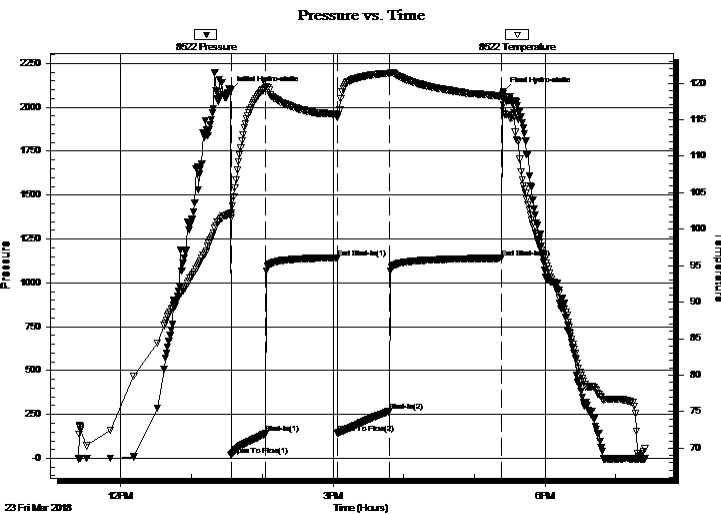
Time On Btm:

2018.03.23 @ 13:33:15

Time Off Btm:

2018.03.23 @ 17:25:00

TEST COMMENT: IF: Blow built to 19.5"
IS: No return.
FF: Blow built to 28"
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2097.43	102.22	Initial Hydro-static
1	17.92	101.58	Open To Flow (1)
30	140.42	119.36	Shut-In(1)
91	1143.07	115.70	End Shut-In(1)
91	142.15	115.28	Open To Flow (2)
135	269.43	121.37	Shut-In(2)
230	1140.35	118.21	End Shut-In(2)
232	2088.40	116.26	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
540.00	mcw 10m 90w (oil spots on top)	6.50

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

24-16s-33w Scott, KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65295

DST#: 2

ATTN: Mike Maune

Test Start: 2018.03.23 @ 11:24:00

Tool Information

Drill Pipe:	Length: 4066.00 ft	Diameter: 3.80 inches	Volume: 57.04 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 57.62 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4186.00 ft			Final 53000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	18.00 ft			
Tool Length:	45.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Change Over Sub	1.00			4160.00	
Shut In Tool	5.00			4165.00	
Hydraulic tool	5.00			4170.00	
Jars	5.00			4175.00	
Safety Joint	2.00			4177.00	
Packer	5.00			4182.00	27.00 Bottom Of Top Packer
Packer	4.00			4186.00	
Stubb	1.00			4187.00	
Recorder	0.00	8522	Inside	4187.00	
Recorder	0.00	8319	Outside	4187.00	
Perforations	14.00			4201.00	
Bullnose	3.00			4204.00	18.00 Bottom Packers & Anchor

Total Tool Length: 45.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

24-16s-33w Scott,KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65295

DST#: 2

ATTN: Mike Maune

Test Start: 2018.03.23 @ 11:24:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

48000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5300.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
540.00	mcw 10m 90w (oil spots on top)	6.500

Total Length: 540.00 ft Total Volume: 6.500 bbl

Num Fluid Samples: 0

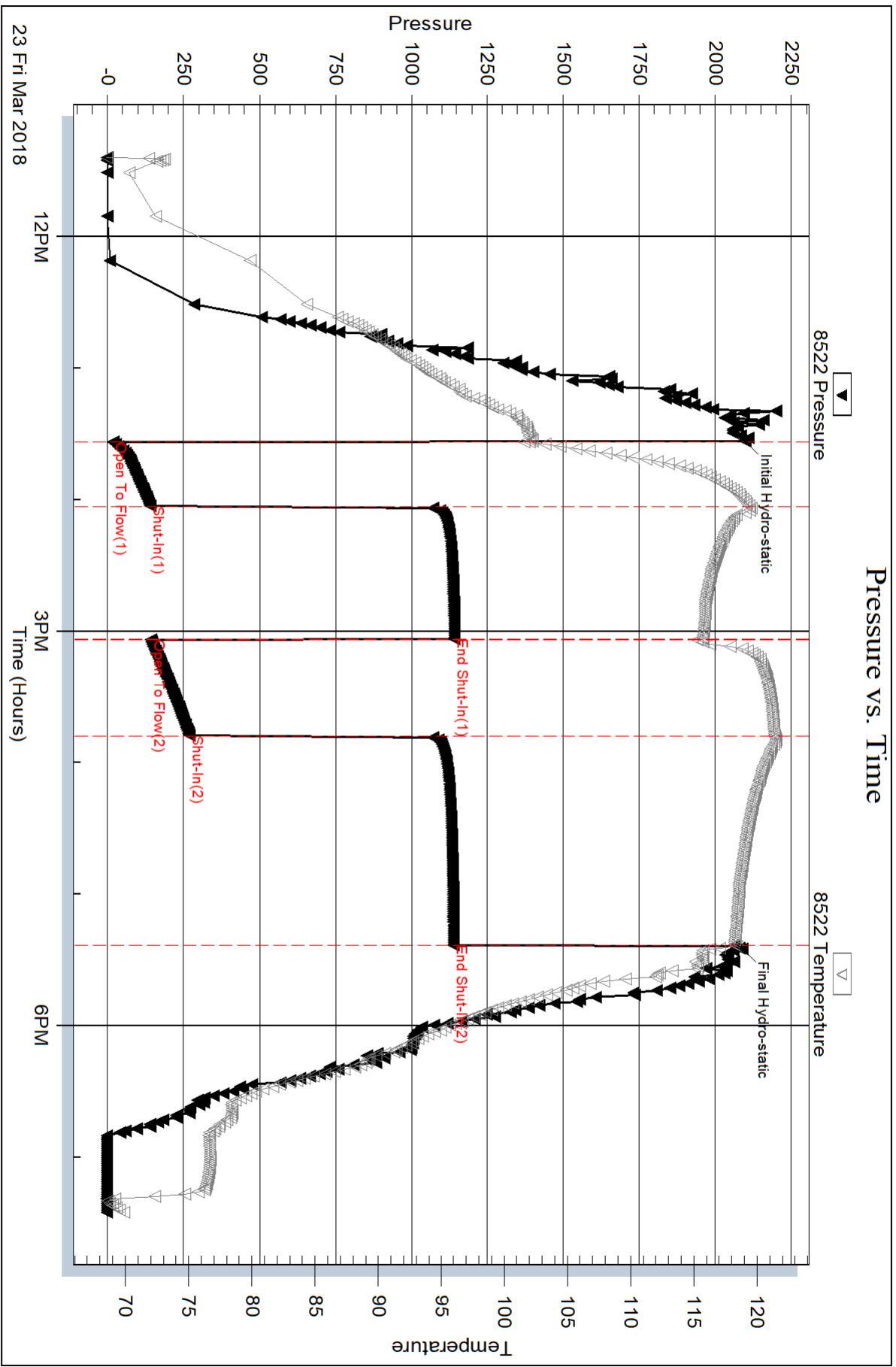
Num Gas Bombs: 0

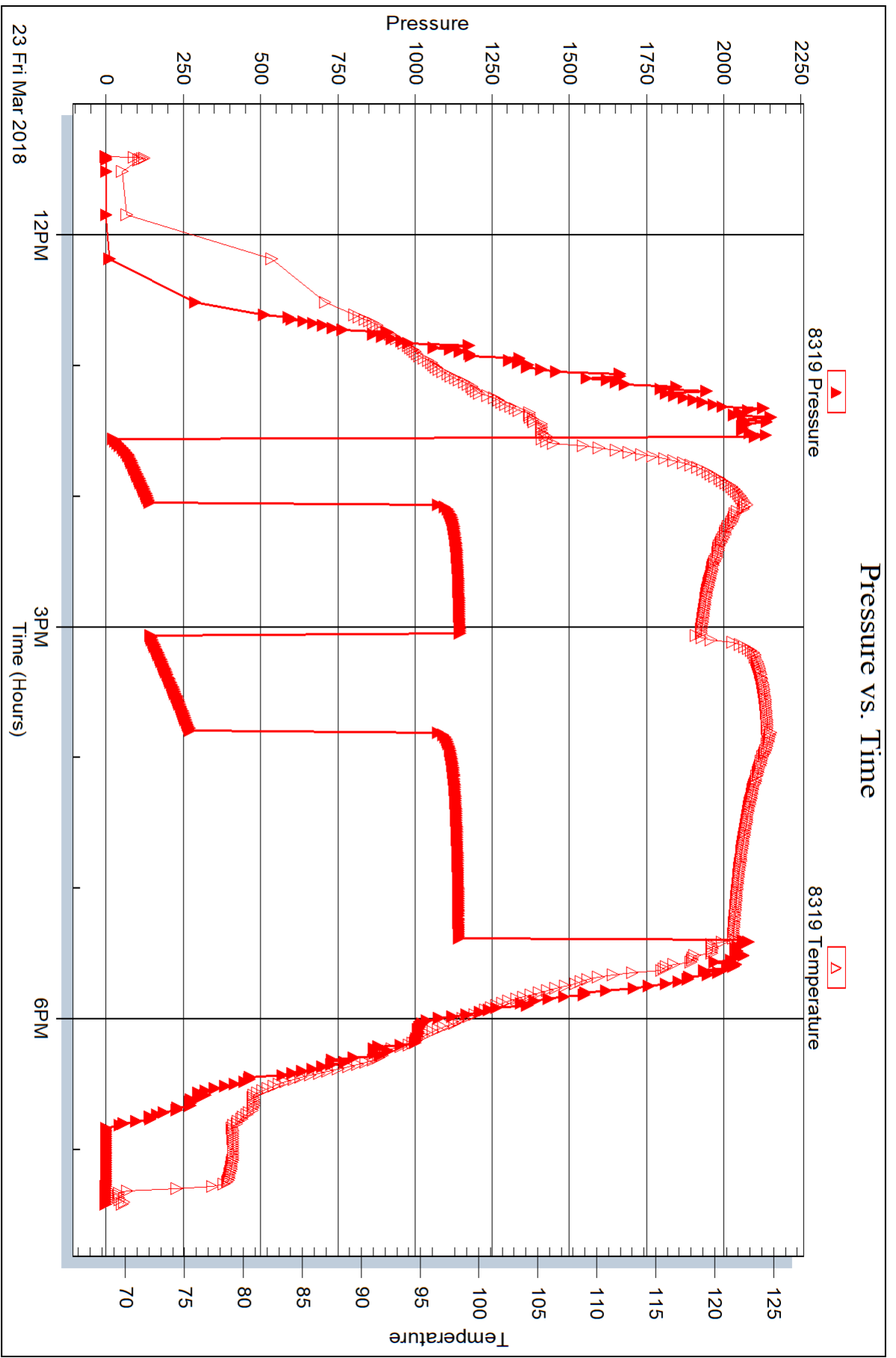
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: rw is .162 @ 67F = 48000ppm







DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central Ste #2
Wichita, KS 67212

ATTN: Mike Maune

Griffith #1-24

24-16s-33w Scott,KS

Start Date: 2018.03.25 @ 08:26:00

End Date: 2018.03.25 @ 16:43:45

Job Ticket #: 65296 DST #: 3

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.03.29 @ 08:37:16



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

24-16s-33w Scott,KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65296

DST#: 3

ATTN: Mike Maune

Test Start: 2018.03.25 @ 08:26:00

GENERAL INFORMATION:

Formation: **Cherokee**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 10:54:45

Time Test Ended: 16:43:45

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4470.00 ft (KB) To 4568.00 ft (KB) (TVD)

Reference Elevations: 2961.00 ft (KB)

Total Depth: 4568.00 ft (KB) (TVD)

2956.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8522 Inside

Press@RunDepth: 83.62 psig @ 4471.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.03.25 End Date: 2018.03.25

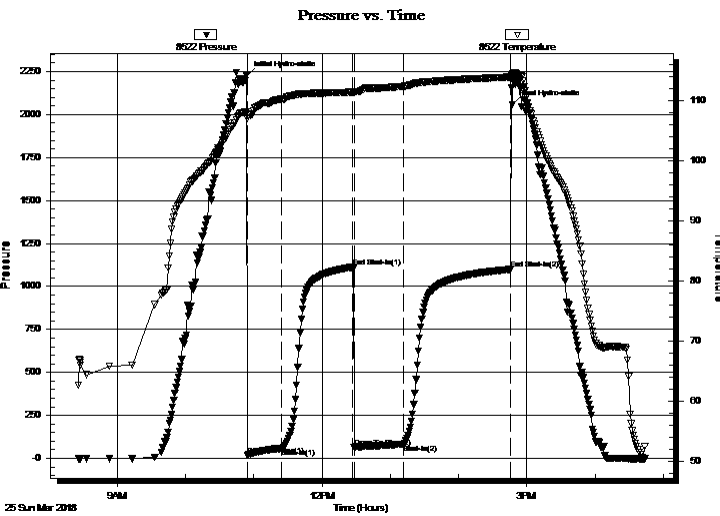
Last Calib.: 2018.03.25

Start Time: 08:26:05 End Time: 16:43:44

Time On Btm: 2018.03.25 @ 10:54:15

Time Off Btm: 2018.03.25 @ 14:47:15

TEST COMMENT: IF: Blow built to 7.7"
IS: No return.
FF: BOB @ 30 minutes, built to 18.5"
FS: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2225.94	108.10	Initial Hydro-static
1	18.21	106.90	Open To Flow (1)
30	58.82	110.20	Shut-In(1)
93	1112.64	111.37	End Shut-In(1)
94	63.07	111.23	Open To Flow (2)
138	83.62	112.32	Shut-In(2)
232	1099.11	113.87	End Shut-In(2)
233	2056.45	114.03	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
170.00	gocm 10g 30o 60m	1.31
0.00	70' Gassy odor	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

24-16s-33w Scott, KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65296

DST#: 3

ATTN: Mike Maune

Test Start: 2018.03.25 @ 08:26:00

Tool Information

Drill Pipe:	Length: 4350.00 ft	Diameter: 3.80 inches	Volume: 61.02 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 61.60 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4470.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	98.00 ft			
Tool Length:	125.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4444.00	
Shut In Tool	5.00			4449.00	
Hydraulic tool	5.00			4454.00	
Jars	5.00			4459.00	
Safety Joint	2.00			4461.00	
Packer	5.00			4466.00	27.00 Bottom Of Top Packer
Packer	4.00			4470.00	
Stubb	1.00			4471.00	
Recorder	0.00	8522	Inside	4471.00	
Recorder	0.00	8319	Outside	4471.00	
Perforations	30.00			4501.00	
Change Over Sub	1.00			4502.00	
Drill Pipe	62.00			4564.00	
Change Over Sub	1.00			4565.00	
Bullnose	3.00			4568.00	98.00 Bottom Packers & Anchor

Total Tool Length: 125.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

24-16s-33w Scott, KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65296

DST#: 3

ATTN: Mike Maune

Test Start: 2018.03.25 @ 08:26:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
170.00	gocm 10g 30o 60m	1.310
0.00	70' Gassy odor	0.000

Total Length: 170.00 ft

Total Volume: 1.310 bbl

Num Fluid Samples: 0

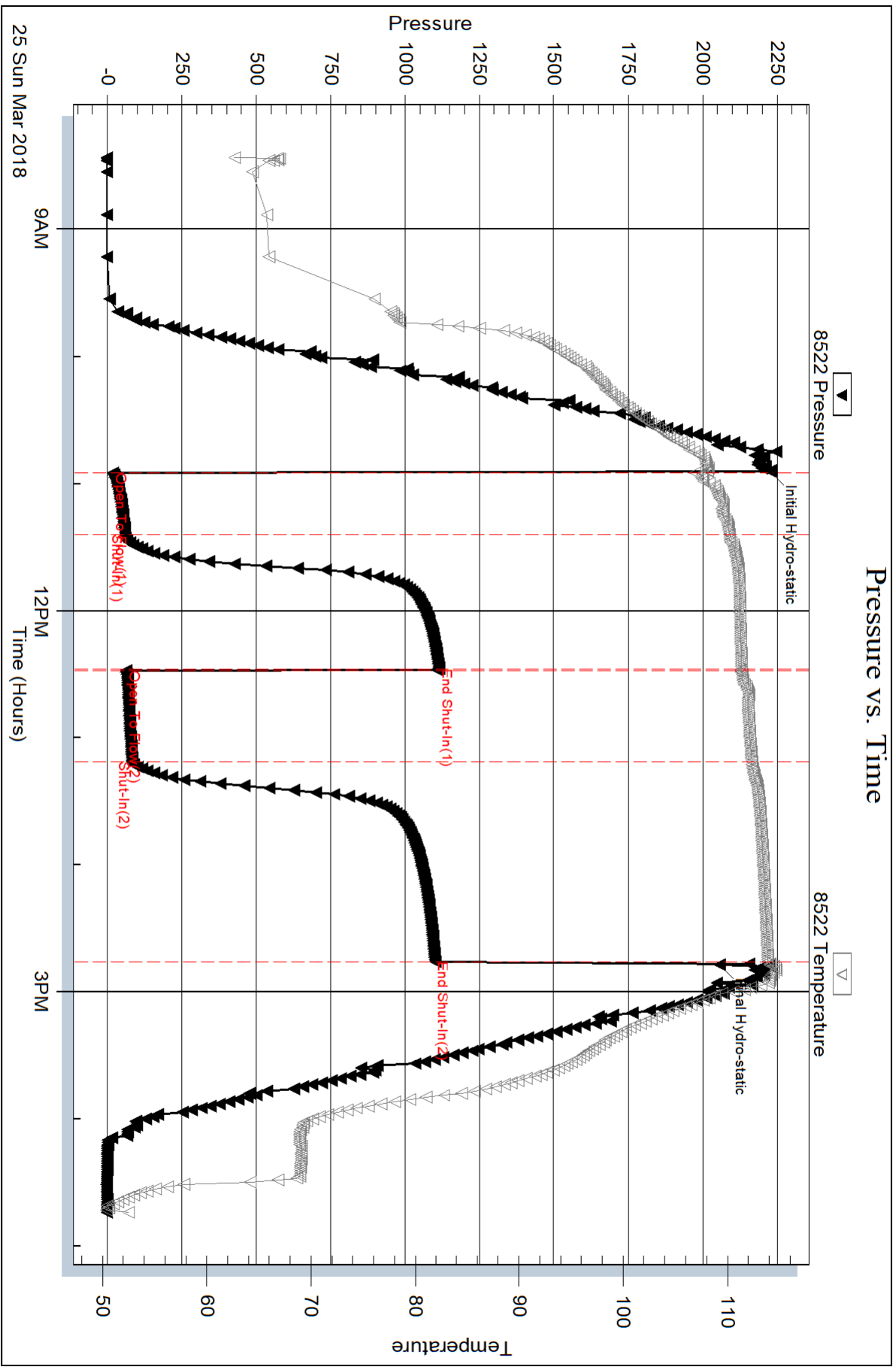
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

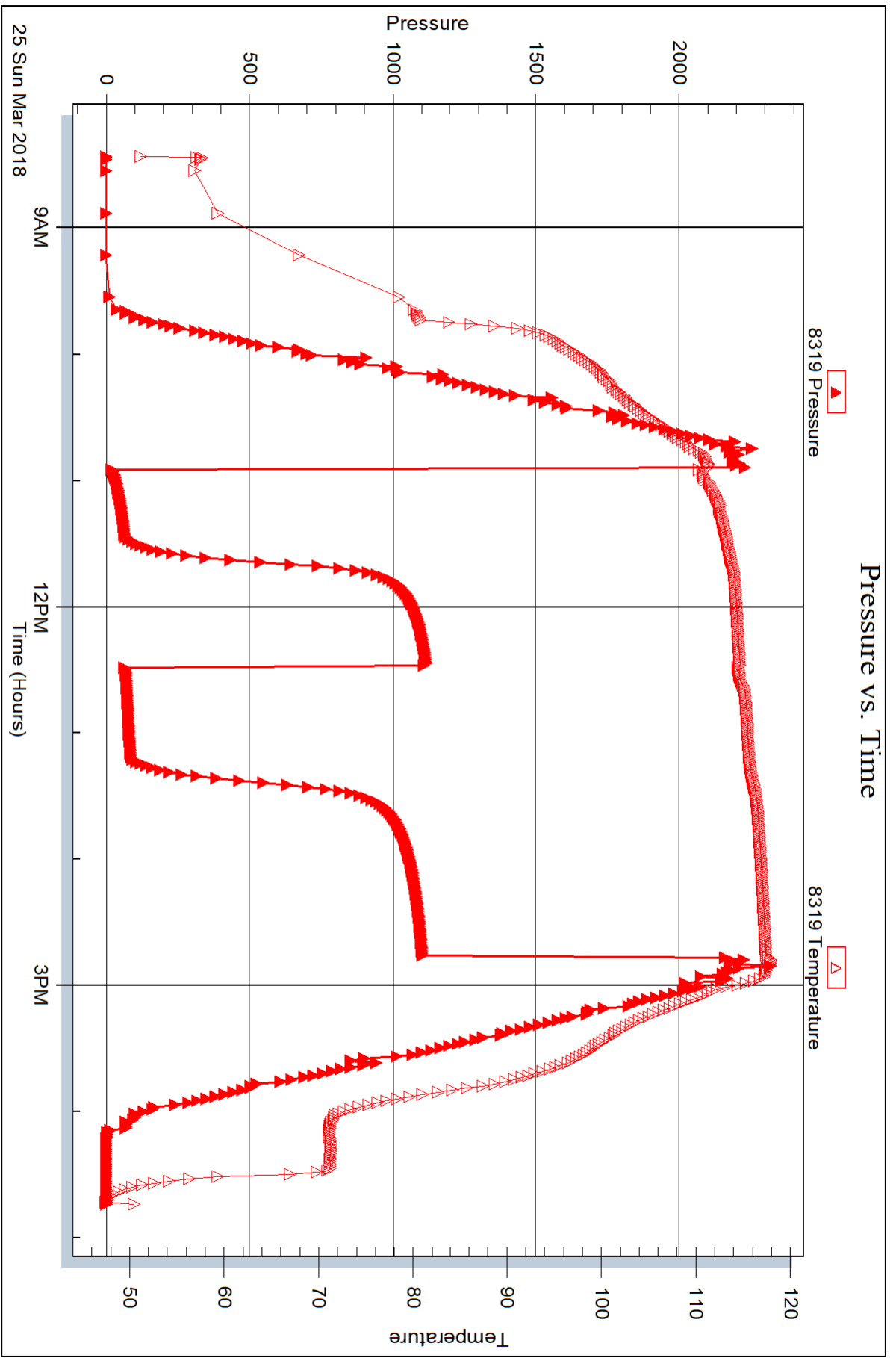


Serial #: 8319

Outside Abercrombie Energy, LLC

Griffith #1-24

DST Test Number: 3



Triobite Testing, Inc

Ref. No: 65296

Printed: 2018.03.29 @ 08:37:17



DRILL STEM TEST REPORT

Prepared For: **Abercrombie Energy, LLC**

10209 W Central Ste #2
Wichita, KS 67212

ATTN: Mike Maune

Griffith #1-24

24-16s-33w Scott,KS

Start Date: 2018.03.26 @ 04:10:00

End Date: 2018.03.26 @ 13:31:17

Job Ticket #: 65297 DST #: 4

Trilobite Testing, Inc
1515 Commerce Parkway Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2018.03.29 @ 08:36:44



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Abercrombie Energy, LLC

24-16s-33w Scott,KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

ATTN: Mike Maune

Job Ticket: 65297

DST#: 4

Test Start: 2018.03.26 @ 04:10:00

GENERAL INFORMATION:

Formation: **Morrow**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 07:41:18

Time Test Ended: 13:31:17

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4522.00 ft (KB) To 4605.00 ft (KB) (TVD)

Reference Elevations: 2961.00 ft (KB)

Total Depth: 4605.00 ft (KB) (TVD)

2956.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8522 Inside

Press@RunDepth: 58.85 psig @ 4523.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.03.26

End Date:

2018.03.26

Last Calib.:

2018.03.26

Start Time:

04:25:37

End Time:

13:46:50

Time On Btm:

2018.03.26 @ 07:56:35

Time Off Btm:

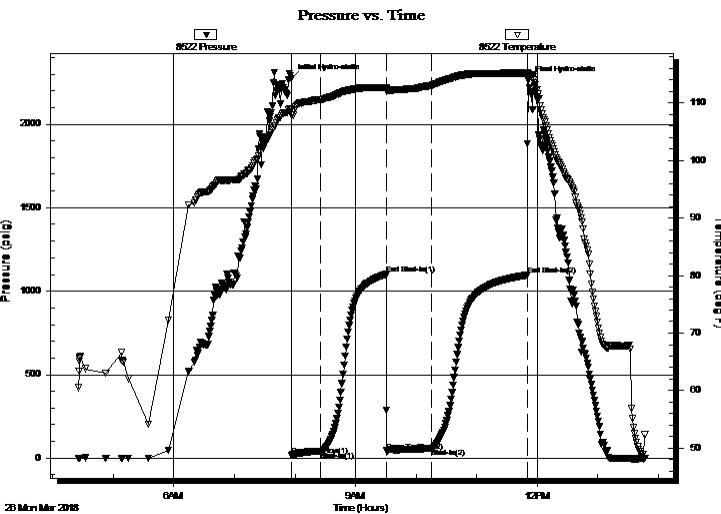
2018.03.26 @ 11:51:35

TEST COMMENT: IF: Blow built to 9"

IS: 1/2" return that died.

FF: BOB @ 10 min. Built to 18.7".

FS: 1" return, Died off



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2274.95	108.91	Initial Hydro-static
1	17.67	107.89	Open To Flow (1)
29	41.94	110.57	Shut-In(1)
94	1100.92	112.67	End Shut-In(1)
95	43.37	112.15	Open To Flow (2)
139	58.85	113.03	Shut-In(2)
234	1096.16	115.17	End Shut-In(2)
235	2259.57	115.09	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
140.00	gmco 15g 55o 30m	0.89
0.00	340' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Abercrombie Energy, LLC

24-16s-33w Scott, KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65297

DST#: 4

ATTN: Mike Maune

Test Start: 2018.03.26 @ 04:10:00

Tool Information

Drill Pipe:	Length: 4380.00 ft	Diameter: 3.80 inches	Volume: 61.44 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 118.00 ft	Diameter: 2.25 inches	Volume: 0.58 bbl	Weight to Pull Loose: 65000.00 lb
			<u>Total Volume: 62.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	3.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	4522.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	83.00 ft			
Tool Length:	110.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4496.00	
Shut In Tool	5.00			4501.00	
Hydraulic tool	5.00			4506.00	
Jars	5.00			4511.00	
Safety Joint	2.00			4513.00	
Packer	5.00			4518.00	27.00 Bottom Of Top Packer
Packer	4.00			4522.00	
Stubb	1.00			4523.00	
Recorder	0.00	8522	Inside	4523.00	
Recorder	0.00	8319	Outside	4523.00	
Perforations	15.00			4538.00	
Change Over Sub	1.00			4539.00	
Drill Pipe	62.00			4601.00	
Change Over Sub	1.00			4602.00	
Bullnose	3.00			4605.00	83.00 Bottom Packers & Anchor

Total Tool Length: 110.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Abercrombie Energy, LLC

24-16s-33w Scott, KS

10209 W Central Ste #2
Wichita, KS 67212

Griffith #1-24

Job Ticket: 65297

DST#: 4

ATTN: Mike Maune

Test Start: 2018.03.26 @ 04:10:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

0 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

0 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 5500.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
140.00	gmco 15g 55o 30m	0.889
0.00	340' GIP	0.000

Total Length: 140.00 ft Total Volume: 0.889 bbl

Num Fluid Samples: 0

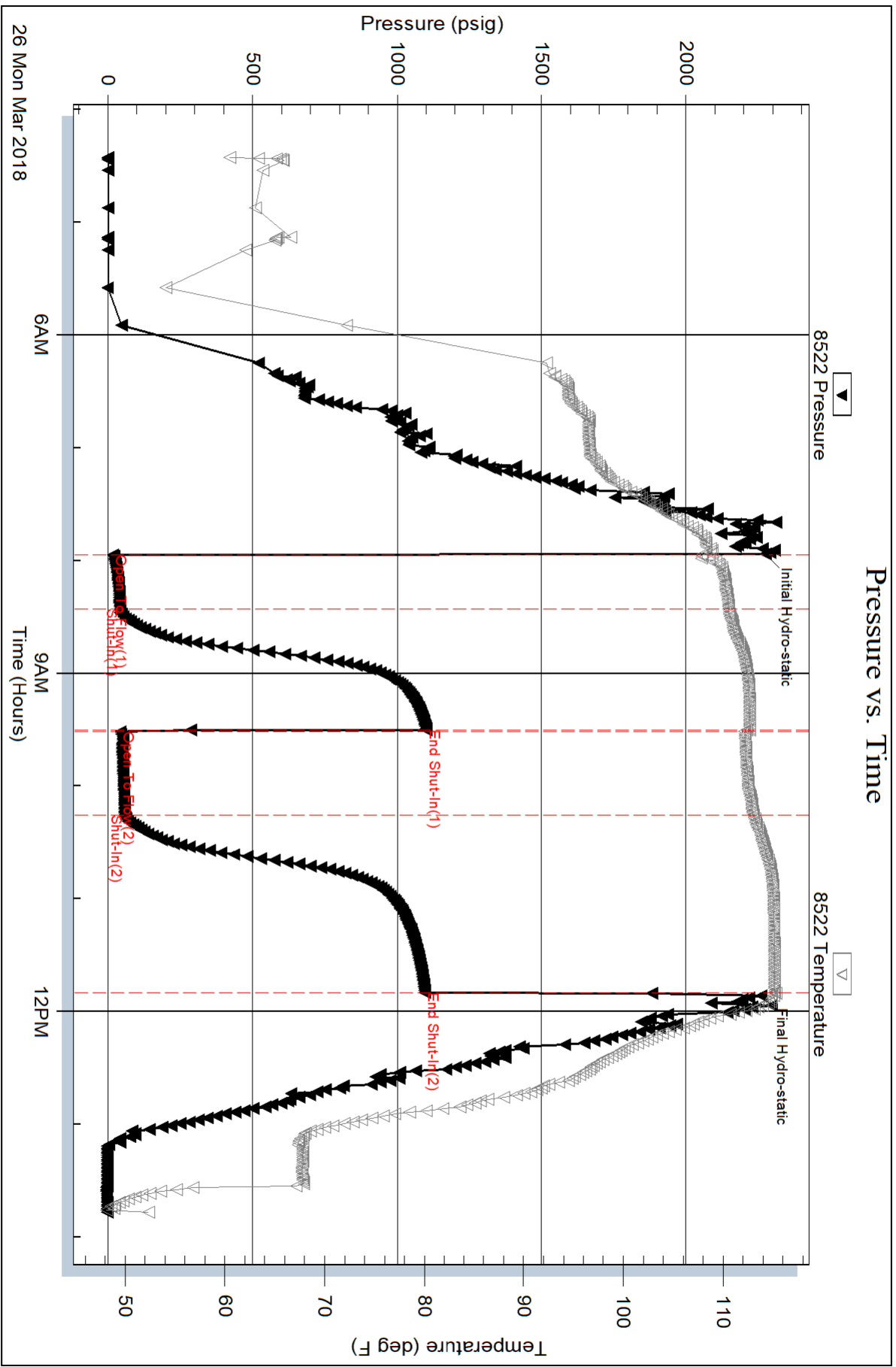
Num Gas Bombs: 0

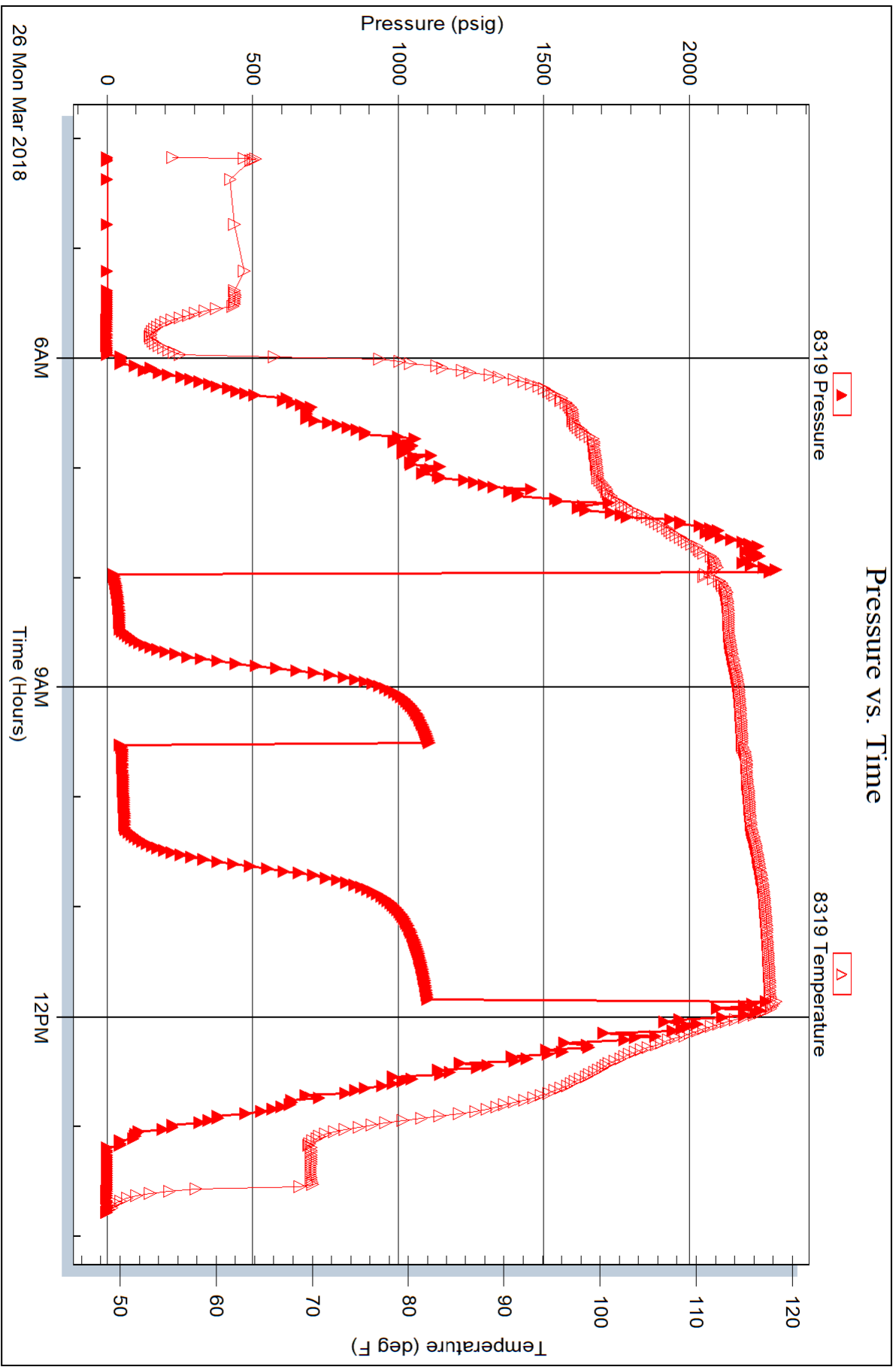
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **65294**

Well Name & No. Griffith #1-24 Test No. 1 Date 9/23/2018
 Company Abercrombie Energy, LLC Elevation 2961 KB 2956 GL
 Address 1020^a W Central Ste #2 Wichita, Ks 67212
 Co. Rep / Geo. Mike Maune Rig WW#2
 Location: Sec. 24 Twp. N65 Rge. 33W Co. Scott State Ks

Interval Tested 4130 - 4186 Zone Tested LKC I-J
 Anchor Length 56' Drill Pipe Run 4007 Mud Wt. 9.1
 Top Packer Depth 4125 Drill Collars Run 118 Vis 55
 Bottom Packer Depth 4130 Wt. Pipe Run Ø WL 6.4
 Total Depth 4186 Chlorides 3200 ppm System LCM 4#
 Blow Description IF: 2 1/2" blow
ISI: No return
FF: Boiled to 2 1/2" blow
FSI: No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>125</u>	<u>wcm</u>		<u>20</u>	<u>90</u>	
	<u>oil spots</u>				

Rec Total 125 BHT 112 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2066</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1915</u>
(B) First Initial Flow <u>65</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>1927</u>
(C) First Final Flow <u>38</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>2150</u>
(D) Initial Shut-In <u>1130</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>0135</u>
(E) Second Initial Flow <u>41</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0356</u>
(F) Second Final Flow <u>70</u>	<input checked="" type="checkbox"/> Mileage <u>23 RT</u> <u>23</u>	Comments
(G) Final Shut-In <u>1118</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2040</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1498</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1498</u>	

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **65295**

Well Name & No. Griffith # 1-24 Test No. 2 Date 3/23/2018
 Company Abercrombie Energy, LLC Elevation 2961 KB 2956 GL
 Address 10209 W Central Ste #2 Wichita, KS 67212
 Co. Rep / Geo. Mike Maune Rig WW #2
 Location: Sec. 24 Twp. 16S Rge. 33 W Co. Scott State Ks

Interval Tested 4186 - 4204 Zone Tested LKC K
 Anchor Length 18' Drill Pipe Run 4066 Mud Wt. 9.1
 Top Packer Depth 4181 Drill Collars Run 118 Vis 57
 Bottom Packer Depth 4204 Wt. Pipe Run 0 WL 6.4
 Total Depth 4204 Chlorides 5300 ppm System LCM 4#
 Blow Description IF: 19.5" blow.
IST: No return.
FF: 28" blow.
PST: No return.

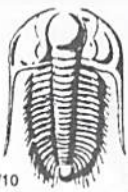
Rec	Feet of	%gas	%oil	%water	%mud
<u>540</u>	<u>mcw</u>		<u>90</u>	<u>10</u>	
	<u>oil spots on top</u>				

Rec Total 540 BHT 118 Gravity - API RW 162@ 67° F Chlorides 48000 ppm

(A) Initial Hydrostatic <u>2097</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1115</u>
(B) First Initial Flow <u>18</u>	<input type="checkbox"/> Jars	T-Started <u>1124</u>
(C) First Final Flow <u>140</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>1333</u>
(D) Initial Shut-In <u>1143</u>	<input checked="" type="checkbox"/> Circ Sub <u>4k</u>	T-Pulled <u>1718</u>
(E) Second Initial Flow <u>142</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1924</u>
(F) Second Final Flow <u>269</u>	<input checked="" type="checkbox"/> Mileage <u>33 RT 23</u>	Comments
(G) Final Shut-In <u>1140</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>2088</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1248</u>
Final Shut-In <u>40</u>	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1248</u>	

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **65296**

Well Name & No. Griffith #1-24 Test No. 3 Date 3/25/2018
 Company Abercrombie Energy, LLC Elevation 2961 KB 2956 GL
 Address 10209 W Central Ste #2 Wichita, KS 67212
 Co. Rep / Geo. Mike Maune Rig WW#2
 Location: Sec. 24 Twp. 16S Rge. 33W Co. Scott State KS

Interval Tested 4470-4568 Zone Tested Cherokee
 Anchor Length 98' Drill Pipe Run 4350 Mud Wt. 9.2
 Top Packer Depth 4465 Drill Collars Run 118 Vis 56
 Bottom Packer Depth 4470 Wt. Pipe Run 0 WL 6.4
 Total Depth 4568 Chlorides 5500 ppm System LCM 3#
 Blow Description JF 7.7" blow,
ISJ No return.
FF BOB@ 30 min Bolt to 18.5"
BT No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>170</u>	<u>60cm</u>	<u>10</u>	<u>30</u>	<u>60</u>	<u>0</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 170 BHT 114 Gravity ~ API RW ~ @ ~ °F Chlorides ~ ppm

(A) Initial Hydrostatic	<u>2226</u>	<input checked="" type="checkbox"/> Test	<u>1150</u>	T-On Location	<u>0800</u>
(B) First Initial Flow	<u>18</u>	<input type="checkbox"/> Jars		T-Started	<u>0826</u>
(C) First Final Flow	<u>59</u>	<input checked="" type="checkbox"/> Safety Joint	<u>75</u>	T-Open	<u>1053</u>
(D) Initial Shut-In	<u>1113</u>	<input checked="" type="checkbox"/> Circ Sub <u>1/4</u>		T-Pulled	<u>1440</u>
(E) Second Initial Flow	<u>63</u>	<input type="checkbox"/> Hourly Standby		T-Out	<u>1644</u>
(F) Second Final Flow	<u>84</u>	<input checked="" type="checkbox"/> Mileage <u>33RT</u>	<u>23</u>	Comments	
(G) Final Shut-In	<u>1099</u>	<input type="checkbox"/> Sampler			
(H) Final Hydrostatic	<u>2056</u>	<input type="checkbox"/> Straddle		<input type="checkbox"/> Ruined Shale Packer	
Initial Open	<u>30</u>	<input type="checkbox"/> Shale Packer		<input type="checkbox"/> Ruined Packer	
Initial Shut-In	<u>60</u>	<input type="checkbox"/> Extra Packer		<input type="checkbox"/> Extra Copies	
Final Flow	<u>45</u>	<input type="checkbox"/> Extra Recorder		Sub Total	<u>0</u>
Final Shut-In	<u>90</u>	<input type="checkbox"/> Day Standby		Total	<u>1248</u>
		<input type="checkbox"/> Accessibility		MP/DST Disc't	
		Sub Total	<u>1248</u>		

Approved By _____ Our Representative 

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. **65297**

Well Name & No. Griffith #1-24 Test No. 4 Date 3/26/2018
 Company Abercrombie Energy, LLC Elevation 2961 KB 2956 GL
 Address 10209 W Central Ste #2 Wichita, KS 67212
 Co. Rep / Geo. Mike Maune Rig WW #2
 Location: Sec. 24 Twp. 16s Rge. 33w Co. Scott State KS

Interval Tested 4522-4605 Zone Tested Morrow
 Anchor Length 63 Drill Pipe Run 4480 Mud Wt. 9.2
 Top Packer Depth 4517 Drill Collars Run 118 Vis 52
 Bottom Packer Depth 4522 Wt. Pipe Run 0 WL 4.4
 Total Depth 4605 Chlorides 5500 ppm System LCM 3#

Blow Description IF 9" blow
ISI 1/2" return, - died off
FF BOB @ 10 min. Built to 18.7"
FST 1" return, - died off

Rec	Feet of	%gas	%oil	%water	%mud
<u>140</u>	<u>GACO</u>	<u>15</u>	<u>55</u>	<u>30</u>	
	<u>340' CIP</u>				

Rec Total 140 BHT 115 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2275</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>0330</u>
(B) First Initial Flow <u>18</u>	<input type="checkbox"/> Jars	T-Started <u>0410</u>
(C) First Final Flow <u>42</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>0758</u>
(D) Initial Shut-In <u>1101</u>	<input checked="" type="checkbox"/> Circ Sub <u>N/C</u>	T-Pulled <u>1145</u>
(E) Second Initial Flow <u>43</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1347</u>
(F) Second Final Flow <u>59</u>	<input checked="" type="checkbox"/> Mileage <u>33 x2 23+23</u>	Comments <u>0/0 Tools</u>
(G) Final Shut-In <u>1096</u>	<input type="checkbox"/> Sampler	<u>1530 3/27</u>
(H) Final Hydrostatic <u>2260</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>60</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>90</u>	<input type="checkbox"/> Day Standby	Total <u>1271</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1271</u>	

Approved By _____ Our Representative [Signature]

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REMIT P.O. Box 3423
TO Wichita, KS 67201-3423

~~Handwritten scribbles~~

INVOICE

Invoice Number: 634170
Invoice Date: 3/14/2018
Page: 1

RECEIVED
MAR 13 2018
WICHITA

RECEIVED
MAR 13 2018
GREAT BEND

SOLD ABERCROMBIE ENERGY LLC
TO 5510 OIL CENTER ROAD SOUTH
GREAT BEND, KS 67530

SHIP GRIFFITH 1-24
TO SCOTT CO, KS

ORDER DATE:	3/14/2018	TERMS:	Net 30 Days	SHIP DATE:	3/14/2018
ORDER NUMBER:	0070792	DUE DATE:	4/13/2018	SHIP VIA:	Delivered
PO NUMBER:		BUYER:	WW DRLG	SHIP TO ID:	SCOT-NC
CUSTOMER ID:	10200	KEYED BY:	SAB_TC1-005		

ITEM	QTY	UOM	DESCRIPTION	LIST	DISC %	NET	AMOUNT	TAX
21277	255.20	FT	CSG LS 8-5/8 23 STC R3 <i>(LONG STRINGS)</i>	12.50		12.50	3,190.00	Y
Notes:		6 JTS						

VENDOR NUMBER _____
 WELLS NUMBER _____
 DATE OF RECEIPT _____ *AK* _____
 WELL NUMBER _____ *1353097* _____
 _____ *GRIFFITH 1-24* _____
 _____ *NEW WELL SURFACE CSG* _____
 APPROVAL _____
 VERIFIED ACCURACY _____

TAXABLE	NONTAXABLE	FREIGHT	SALES TAX	MISC	TOTAL
3,190.00	0.00	0.00	271.15	0.00	3,461.15
NET DUE					3,461.15

PIPE



TALLY

DATE 3/21 2003

PAGE 1 OF 1

CUSTOMER Am... LEASE & WELL NO. Gr...

USED/NEW NEW COND 2 SIZE 8 WT 23 GRD AS THD 51 R-

MFG ORDER BY ... SHIP VIA ...

#	FT.	IN.	#	FT.	IN.	#	FT.	IN.	#	FT.	IN.	#	FT.	IN.	#	FT.	IN.			
1			26			51			76			101			126			151		
2			27			52			77			102			127			152		
3			28			53			78			103			128			153		
4			29			54			79			104			129			154		
5			30			55			80			105			130			155		
6			31			56			81			106			131			156		
7			32			57			82			107			132			157		
8			33			58			83			108			133			158		
9			34			59			84			109			134			159		
10			35			60			85			110			135			160		
11			36			61			86			111			136			161		
12			37			62			87			112			137			162		
13			38			63			88			113			138			163		
14			39			64			89			114			139			164		
15			40			65			90			115			140			165		
16			41			66			91			116			141			166		
17			42			67			92			117			142			167		
18			43			68			93			118			143			168		
19			44			69			94			119			144			169		
20			45			70			95			120			145			170		
21			46			71			96			121			146			171		
22			47			72			97			122			147			172		
23			48			73			98			123			148			173		
24			49			74			99			124			149			174		
25			50			75			100			125			150			175		
T	255	20	T			T			T			T			T			T		

TALLIED BY ... TOTAL JTS 6 TOTAL FOOTAGE 255.20

SPECIAL INSTRUCTIONS

ORIGINAL TO REMAIN IN BOOK - DUPLICATE TO BE ATTACHED TO CUSTOMER'S INVOICE - TRIPLICATE TO BE GIVEN TO CUSTOMER'S REPRESENTATIVE AT TIME OF DELIVERY.



PRESSURE PUMPING LLC

REMIT TO

QES Pressure Pumping LLC
Dept:970
P.O.Box 4346
Houston,TX 77210-4346

1057
Well File

MAIN OFFICE

P.O.Box884
Chanute,KS 66720
620/431-9210,1-800/467-8676
Fax 620/431-0012

Invoice

Invoice# 812692

Invoice Date: 03/20/18

Terms: Net 30

Page 1

ABERCROMBIE ENERGY
5510 OIL CENTER ROAD SOUTH
GREAT BEND KS 67530
USA
6207938186



GRIFFITH 1-24



Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0471	Cement Pump Charge 301' - 500' (Coalbed/Methane)	1.000	1,150.0000	30.000	805.00
CE0002	Equipment Mileage Charge - Heavy Equipment	35.000	7.1500	30.000	175.18
CE0711	Minimum Cement Delivery Charge	1.000	660.0000	30.000	462.00
CC5871	Surface Blend II, 2% Gel/3% CaCl	185.000	24.0000	30.000	3,108.00
CC5326	Sodium Chloride, Salt	100.000	0.0000	0.000	0.00

Subtotal 6,500.25
Discounted Amount 1,950.08
SubTotal After Discount 4,550.17

Amount Due 6,877.65 If paid after 04/19/18

Tax: 264.18
Total: 4,814.36

VENDOR NUMBER _____
 COMPANY NAME _____
 ACCOUNT NUMBER _____
 1352062 _____
 GRIFFITH 1-24 _____
 CEMENT SURFACE CSG _____
 APPROVAL _____
 VERIFIED SIGNATURE _____



WALTON, KS
 PRESSURE PUMPING LLC
 PO Box 884, Chanute, KS 66720
 620-431-9210 or 800-467-8676

10254/10146

TICKET NUMBER 55082
 LOCATION Oakley KS
 FOREMAN Mrs Shew

FIELD TICKET & TREATMENT REPORT
 CEMENT

Invoice # 812692 KS

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
3/17/16	1112	Griffith 1-24	24	16S	33W	Scott
CUSTOMER <u>Abercrombie Energy</u>			TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS <u>5510 Oilcenter Road South</u>			<u>753</u>	<u>Travis W</u>		
CITY <u>Grant Bend</u>			<u>772/T127</u>	<u>Paul W</u>		
STATE <u>Ks</u>						
ZIP CODE <u>67530</u>						
JOB TYPE <u>Surface</u>	HOLE SIZE <u>12 1/4</u>	HOLE DEPTH <u>260'</u>	CASING SIZE & WEIGHT <u>85/8 23 Lbs.</u>			
CASING DEPTH <u>260'</u>	DRILL PIPE	TUBING	OTHER			
SLURRY WEIGHT <u>14.8</u>	SLURRY VOL <u>1.36</u>	WATER gal/sk	CEMENT LEFT in CASING <u>20'</u>			
DISPLACEMENT <u>15 bls</u>	DISPLACEMENT PSI	MIX PSI	RATE			

REMARKS:

Safety meeting and rig up on WW Drilling rig #2, circulate casing, mix 185 SKS surface blend 2, class 1 room with 3% calcium chloride and 2% gel, displace 15 bls of water and shut in, cement did circulate.
 Celler only

Thanks Mrs Shew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0471	1	PUMP CHARGE	1150.00	1150.00
CE0002	35	MILEAGE	7.15	250.25
CE0711	8.7	Ton Mileage Delivery	680.00	660.00
CC5871	185 Sx	Surface blend 2	24.00	4,440.00
CC5326	100 Lbs	Set	N/C	N/C
			Sub Total	6500.25
			Less 30%	1950.08
			New total	4550.18
			SALES TAX	264.18
			ESTIMATED TOTAL	4814.36

Ravin 3737

AUTHORIZATION:

TITLE

DATE

Received Time Mar 19 2018 3:42 AM No. 2207
 fully amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form