

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)</i> <i>(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	BEREXCO LLC
Well Name	POCHOP 1-8
Doc ID	1405582

All Electric Logs Run

Dual Induction Log
Microresistivity Log
Sonic Log
Dual Compensated Porosity

Form	ACO1 - Well Completion
Operator	BEREXCO LLC
Well Name	POCHOP 1-8
Doc ID	1405582

Tops

Name	Top	Datum
Anhydrite (top)	3028	222
Anhydrite (base)	3070	180
Foraker	3692	-442
Topeka	3947	-697
Oread	4070	-820
LKC A	4150	-900
LKC B	4204	-954
LKC C	4250	-1000
LKC D	4304	-1054
LKC E	4348	-1098
LKC F	4380	-1130
Pawnee	4498	-1248
Ft. Scott	4538	-1288
Cherokee	4610	-1360
LTD	4864	-1614
RTD	4870	-1620



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Berexco, LLC
 2020 N. Bramblewood
 Wichita, KS 67206
 ATTN: Bryan Bynog

8/3s/35w Rawlins KS
Pochop #1-8
 Job Ticket: 63325 **DST#: 1**
 Test Start: 2017.11.12 @ 17:32:00

GENERAL INFORMATION:

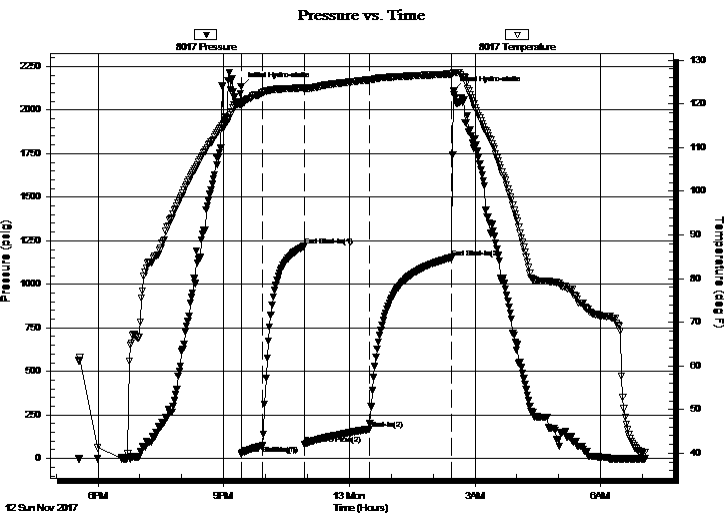
Formation: **Lans. "A"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 21:25:00 Tester: James Winder
 Time Test Ended: 07:03:30 Unit No: 83
 Interval: **4090.00 ft (KB) To 4190.00 ft (KB) (TVD)** Reference Elevations: 3250.00 ft (KB)
 Total Depth: 4190.00 ft (KB) (TVD) 3242.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8017

Outside

Press@RunDepth: 168.98 psig @ 4091.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.11.12 End Date: 2017.11.13 Last Calib.: 2017.11.13
 Start Time: 17:32:05 End Time: 07:03:30 Time On Btm: 2017.11.12 @ 21:24:45
 Time Off Btm: 2017.11.13 @ 02:29:30

TEST COMMENT: 30 - IF: 1" Blow at open, built to 4"
 60 - IS: No blow back
 90 - FF: Blow built to 4", died back to 2 1/2" at close
 120 - FS: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2134.00	120.44	Initial Hydro-static
1	24.94	119.54	Open To Flow (1)
31	73.94	122.69	Shut-In(1)
91	1218.58	123.76	End Shut-In(1)
92	81.56	123.28	Open To Flow (2)
184	168.98	125.49	Shut-In(2)
302	1153.45	126.85	End Shut-In(2)
305	2109.18	127.18	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
116.00	GOWCM 60% _m , 22% _w , 11% _g , 7% _o	0.57
154.00	OCM 71% _m , 23% _o , 6% _g	0.76
50.00	MCO 67% _o , 25% _m , 8% _g	0.25
0.00	GIP = 90'	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC

8/3s/35w Rawlins KS

2020 N. Bramblewood
Wichita, KS 67206

Pochop #1-8

Job Ticket: 63325

DST#: 1

ATTN: Bryan Bynog

Test Start: 2017.11.12 @ 17:32:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

31.8 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

36000 ppm

Viscosity: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2400.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
116.00	GOWCM 60% <i>m</i> , 22% <i>w</i> , 11% <i>g</i> , 7% <i>o</i>	0.570
154.00	OCM 71% <i>m</i> , 23% <i>o</i> , 6% <i>g</i>	0.757
50.00	MCO 67% <i>o</i> , 25% <i>m</i> , 8% <i>g</i>	0.246
0.00	GIP = 90'	0.000

Total Length: 320.00 ft

Total Volume: 1.573 bbl

Num Fluid Samples: 0

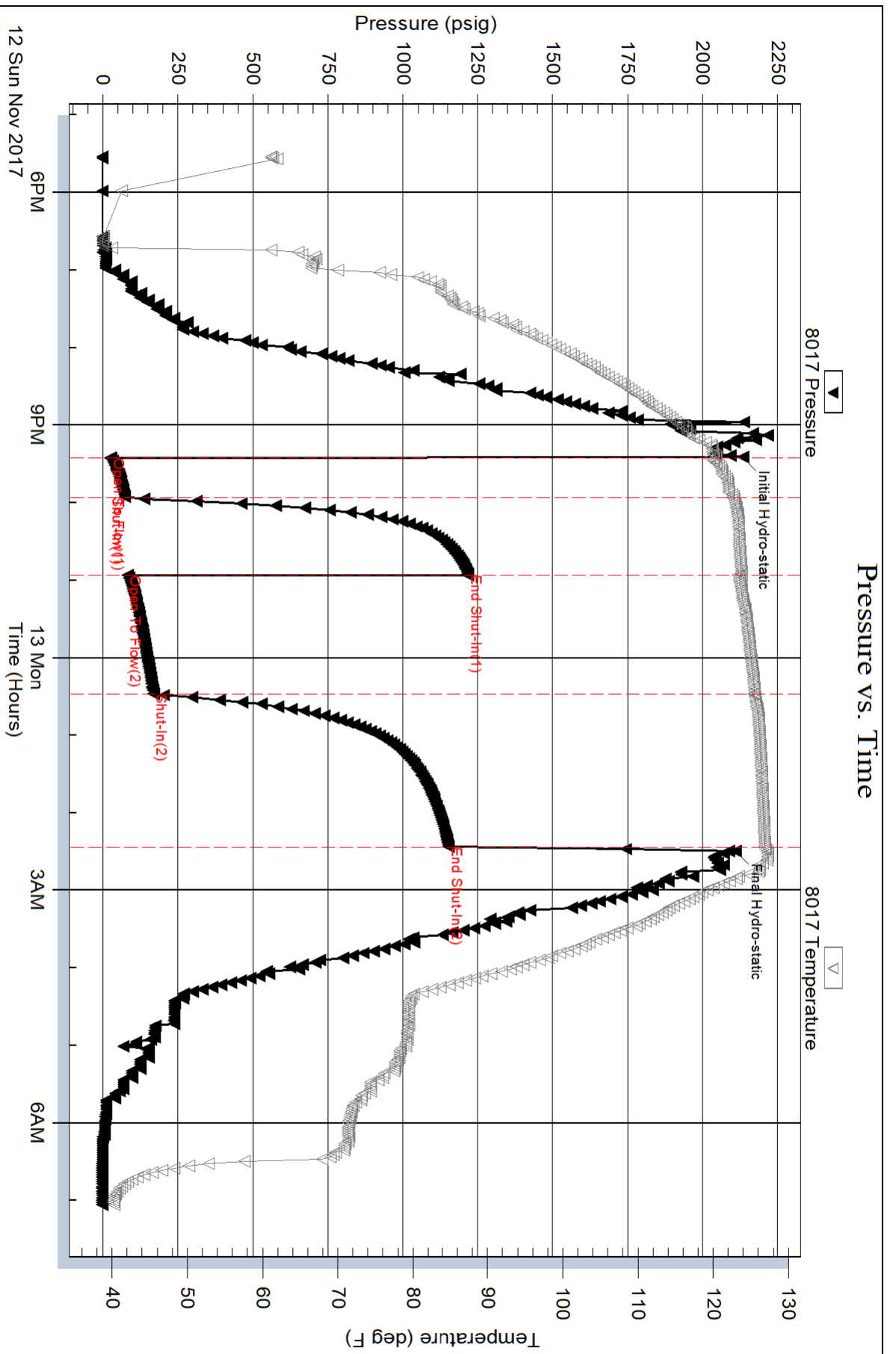
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity = 30.2 api @ 44 deg F Corrected Gravity = 31.8 api
RW = .442 ohms @ 41.8 deg F Chlorides = 36,000 ppm



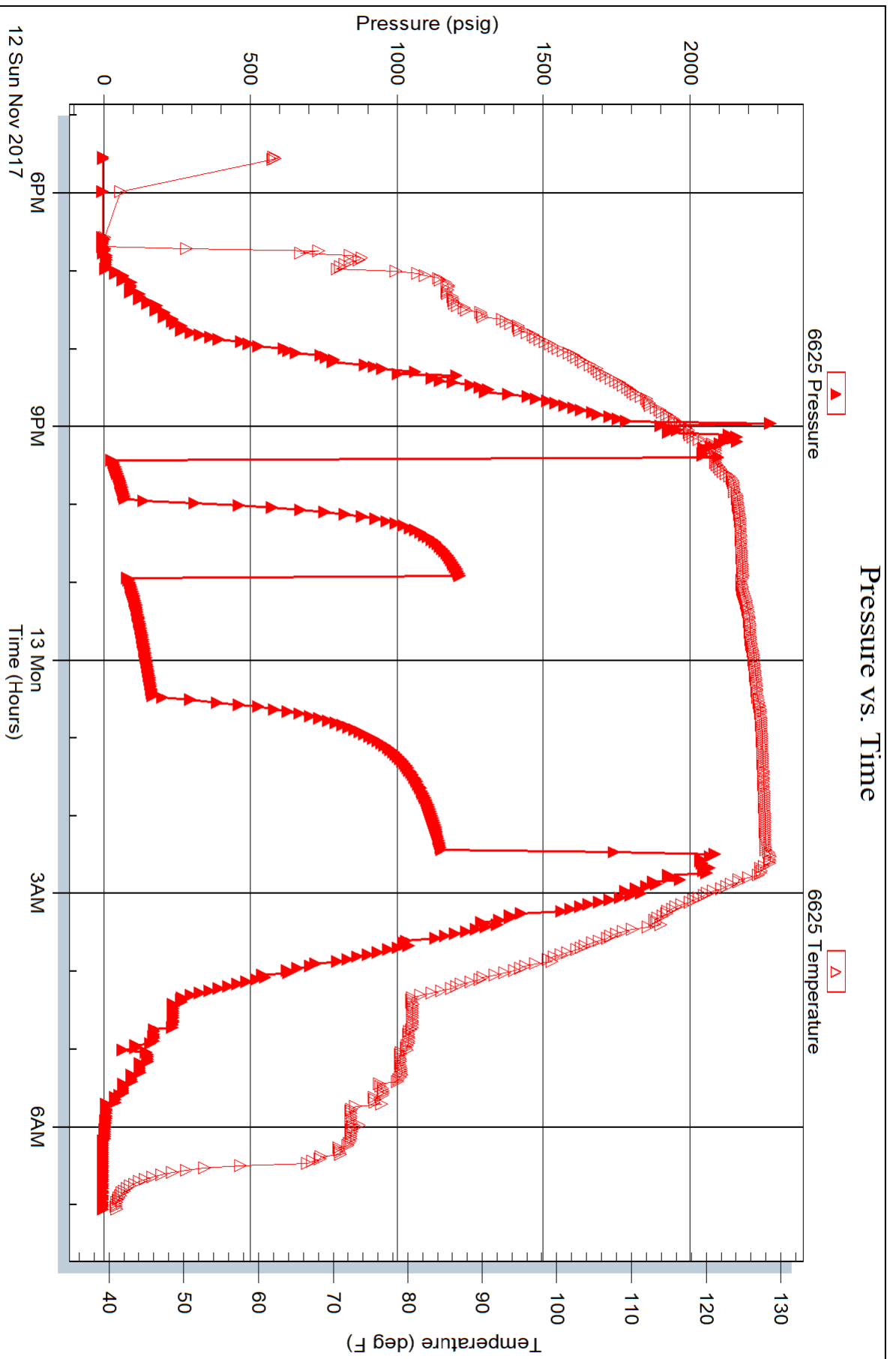
Serial #: 6625

Inside

Berexco, LLC

Pochop #1-8

DST Test Number: 1





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Berexco, LLC
 2020 N. Bramblewood
 Wichita, KS 67206
 ATTN: Bryan Bynog

8-3s-35w Rawlins,KS
Pochop #1-8
 Job Ticket: 63426 **DST#: 2**
 Test Start: 2017.11.14 @ 00:09:00

GENERAL INFORMATION:

Formation: **Lans. "C"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 03:55:30
 Time Test Ended: 10:20:45
 Interval: **4218.00 ft (KB) To 4288.00 ft (KB) (TVD)**
 Total Depth: 4288.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3250.00 ft (KB)
 3242.00 ft (CF)
 KB to GR/CF: 8.00 ft

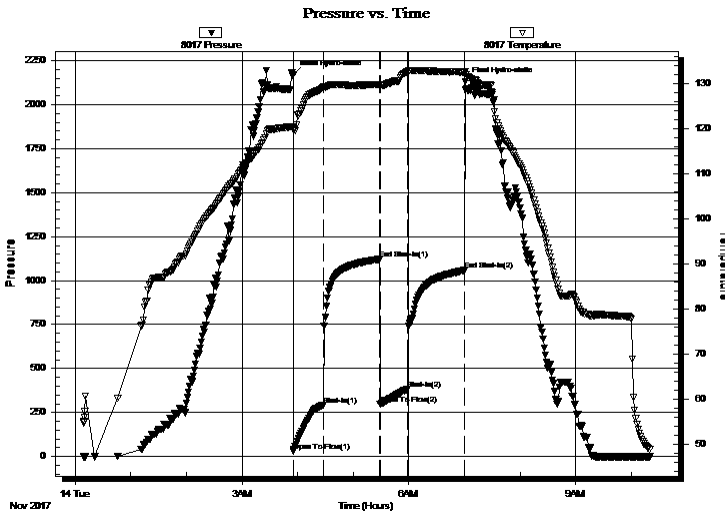
Serial #: 8017

Outside

Press@RunDepth: 384.26 psig @ 4219.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.11.14 End Date: 2017.11.14 Last Calib.: 2017.11.14
 Start Time: 00:09:05 End Time: 10:20:45 Time On Btm: 2017.11.14 @ 03:55:15
 Time Off Btm: 2017.11.14 @ 07:01:15

TEST COMMENT: 30 - IF: Blow built to BOB (11") at 10 3/4 min.
 60 - IS: No blow back
 30 - FF: Blow built to BOB at 16 min.
 60 - FS: No blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2172.08	120.46	Initial Hydro-static
1	28.72	119.81	Open To Flow (1)
32	292.90	129.03	Shut-In(1)
93	1121.05	129.70	End Shut-In(1)
94	295.91	129.39	Open To Flow (2)
124	384.26	132.60	Shut-In(2)
185	1058.38	132.46	End Shut-In(2)
186	2132.98	132.60	Final Hydro-static

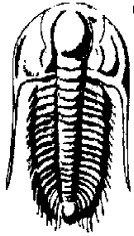
Recovery

Length (ft)	Description	Volume (bbl)
395.00	MCW w/trace oil 90%w , 10%m	1.94
125.00	MCW w/oil spots 73%w , 26%m, 1%o	0.61
125.00	WCM w/oil spots 56%m, 32%w , 10%g,	21.74
60.00	SO/WCM 64%m, 27%w , 3%o, 2%g	0.84
100.00	SOCM 92%m, 4%o, 4%g	1.40

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC

8-3s-35w Rawlins,KS

2020 N. Bramblewood
Wichita, KS 67206

Pochop #1-8

Job Ticket: 63426

DST#: 2

ATTN: Bryan Bynog

Test Start: 2017.11.14 @ 00:09:00

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:

37000 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
395.00	MCW w/trace oil 90%w , 10%m	1.943
125.00	MCW w/oil spots 73%w , 26%m, 1%o	0.615
125.00	WCM w/oil spots 56%m, 32%w , 10%g, 2%o	1.735
60.00	SO/WCM 64%m, 27%w , 3%o, 2%g	0.842
100.00	SOCM 92%m, 4%o, 4%g	1.403

Total Length: 805.00 ft Total Volume: 6.538 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

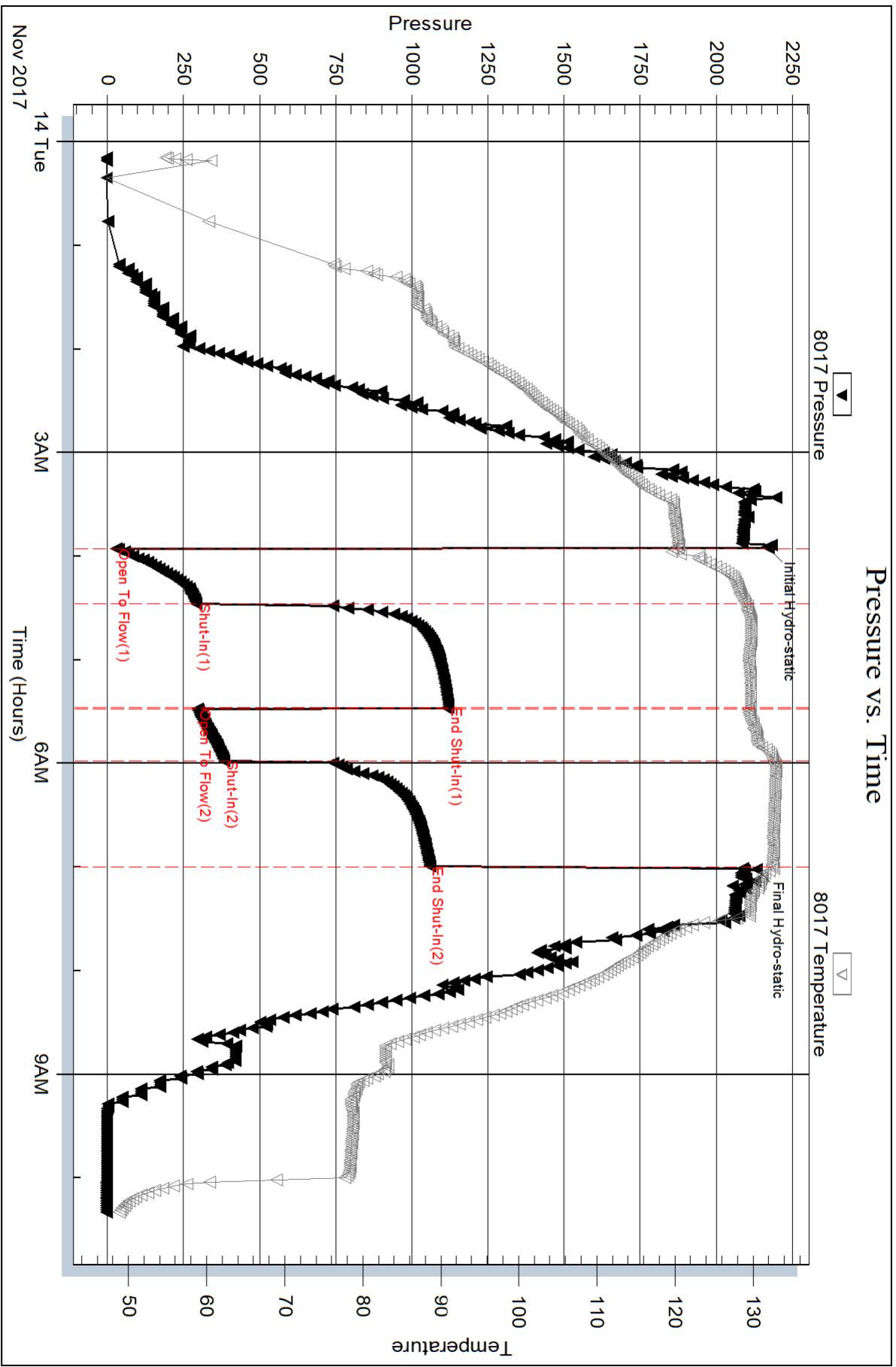
Serial #:

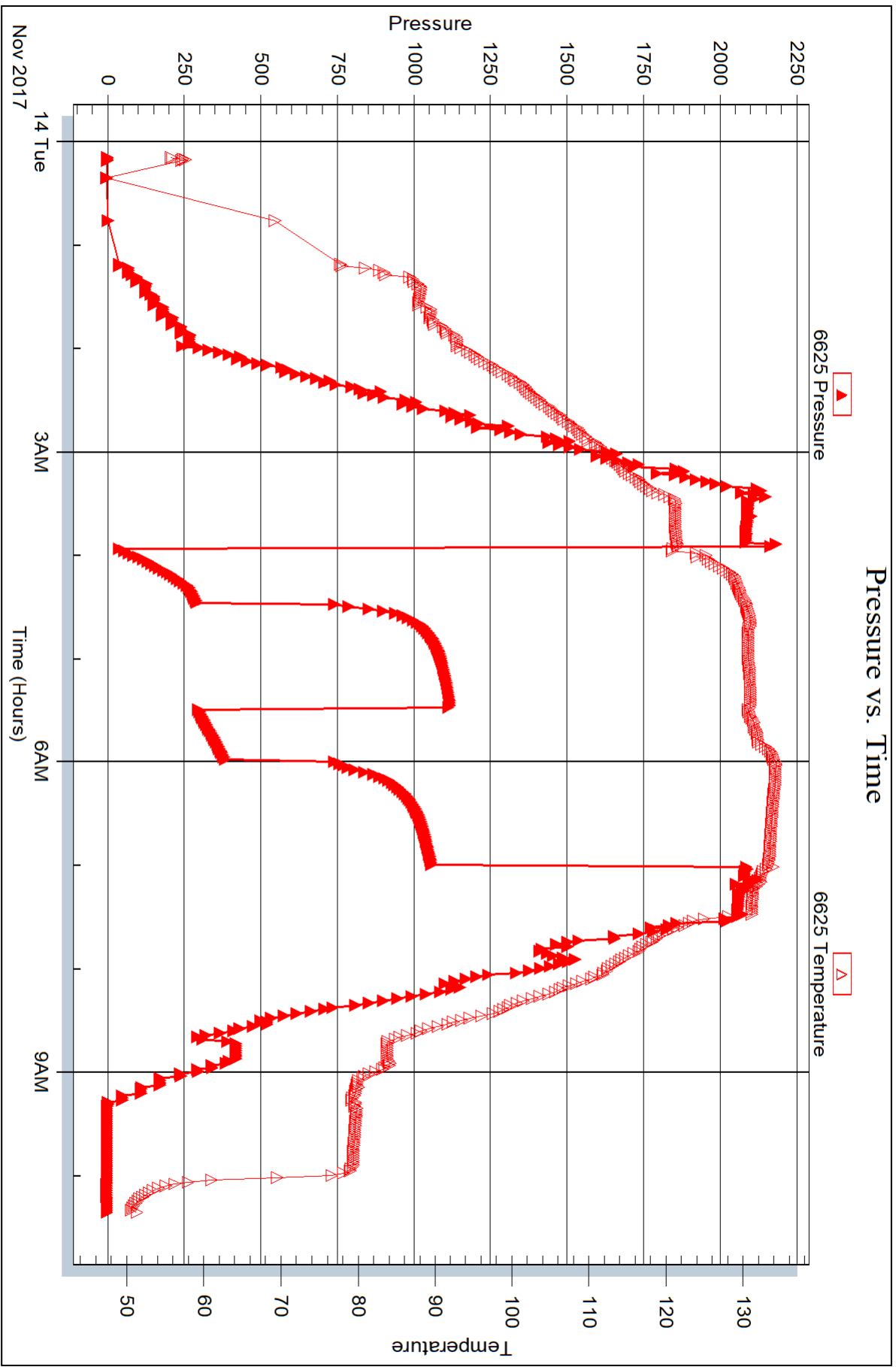
Laboratory Name:

Laboratory Location:

Recovery Comments: RW = .250 ohms @ 45.4 deg F

Chlorides = 37,000 ppm







TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Berexco, LLC
 2020 N. Bramblewood
 Wichita, KS 67206
 ATTN: Bryan Bynog

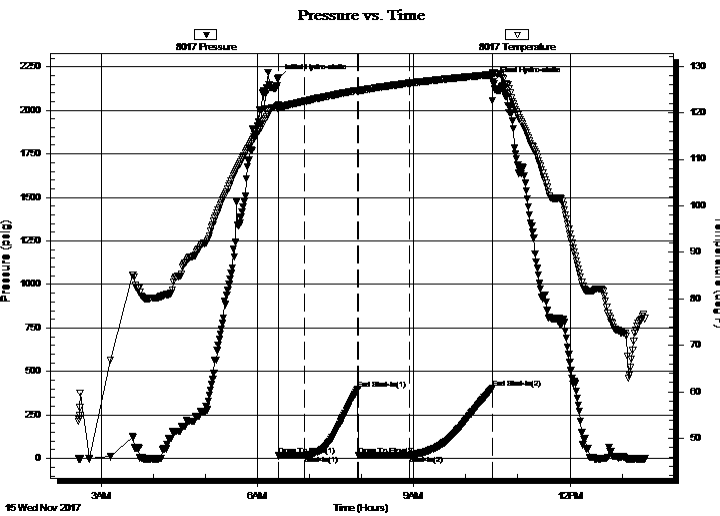
8/3s/35w Rawlins KS
Pochop #1-8
 Job Ticket: 63427 **DST#: 3**
 Test Start: 2017.11.15 @ 02:34:00

GENERAL INFORMATION:

Formation: **Lans. "E"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 06:24:15 Tester: James Winder
 Time Test Ended: 13:26:45 Unit No: 83
 Interval: **4318.00 ft (KB) To 4375.00 ft (KB) (TVD)** Reference Elevations: 3250.00 ft (KB)
 Total Depth: 4375.00 ft (KB) (TVD) 3242.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 8.00 ft

Serial #: 8017 Outside
 Press@RunDepth: 20.33 psig @ 4319.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.11.15 End Date: 2017.11.15 Last Calib.: 2017.11.15
 Start Time: 02:34:05 End Time: 13:26:45 Time On Btm: 2017.11.15 @ 06:24:00
 Time Off Btm: 2017.11.15 @ 10:31:30

TEST COMMENT: 30 - IF: Blow built to 1/4", died back, dead at 20 min.
 60 - IS: No blow
 60 - FF: No blow
 90 - FS: No blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2184.54	121.60	Initial Hydro-static
1	16.12	120.66	Open To Flow (1)
31	18.02	122.46	Shut-In(1)
92	399.56	124.79	End Shut-In(1)
92	18.45	124.65	Open To Flow (2)
151	20.33	126.34	Shut-In(2)
247	403.33	128.19	End Shut-In(2)
248	2164.95	128.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud w /trace oil 100%m	0.05

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC

8/3s/35w Rawlins KS

2020 N. Bramblewood
Wichita, KS 67206

Pochop #1-8

Job Ticket: 63427

DST#: 3

ATTN: Bryan Bynog

Test Start: 2017.11.15 @ 02:34:00

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: 61.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.59 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud w /trace oil 100% _m	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

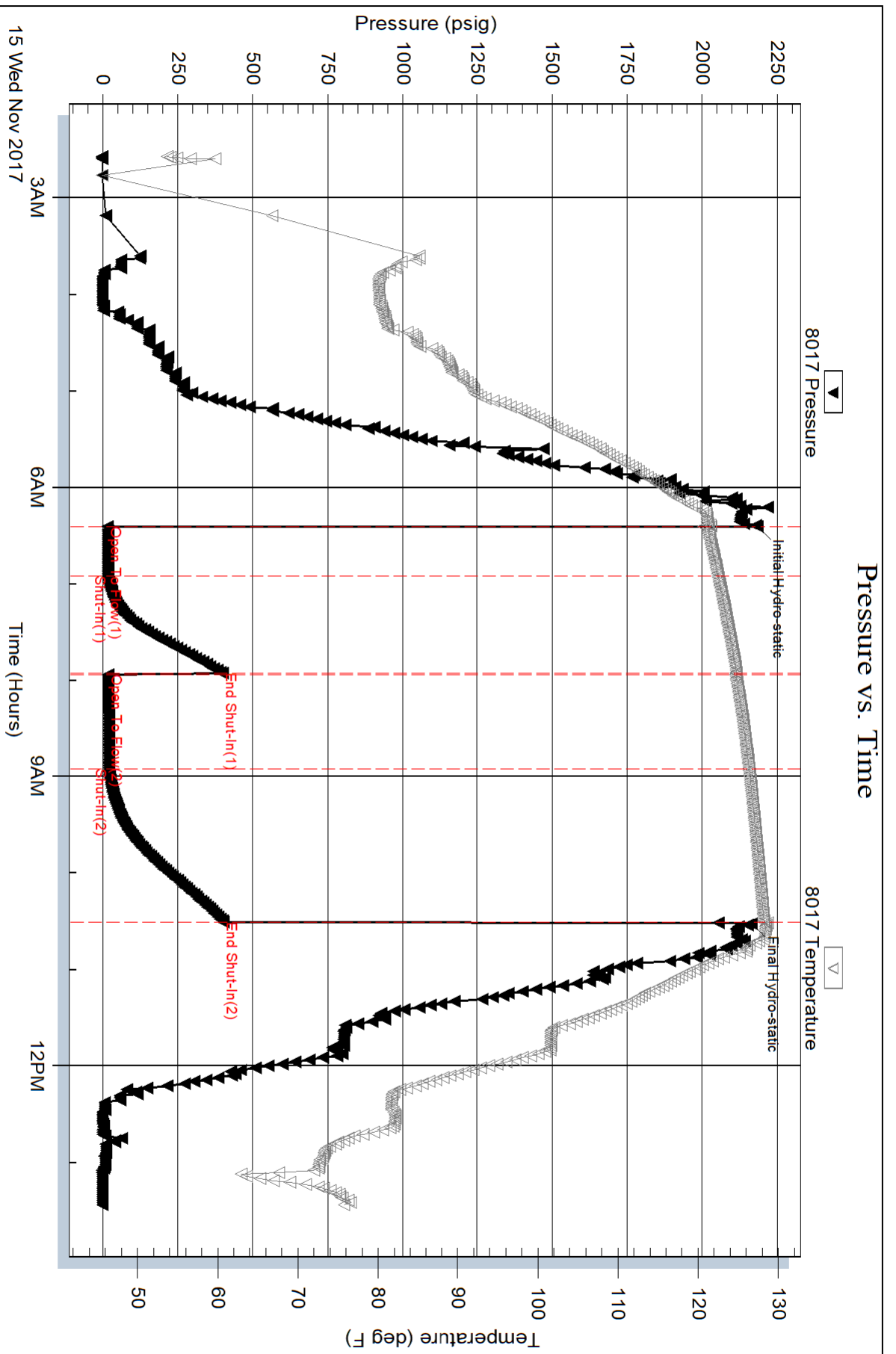
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



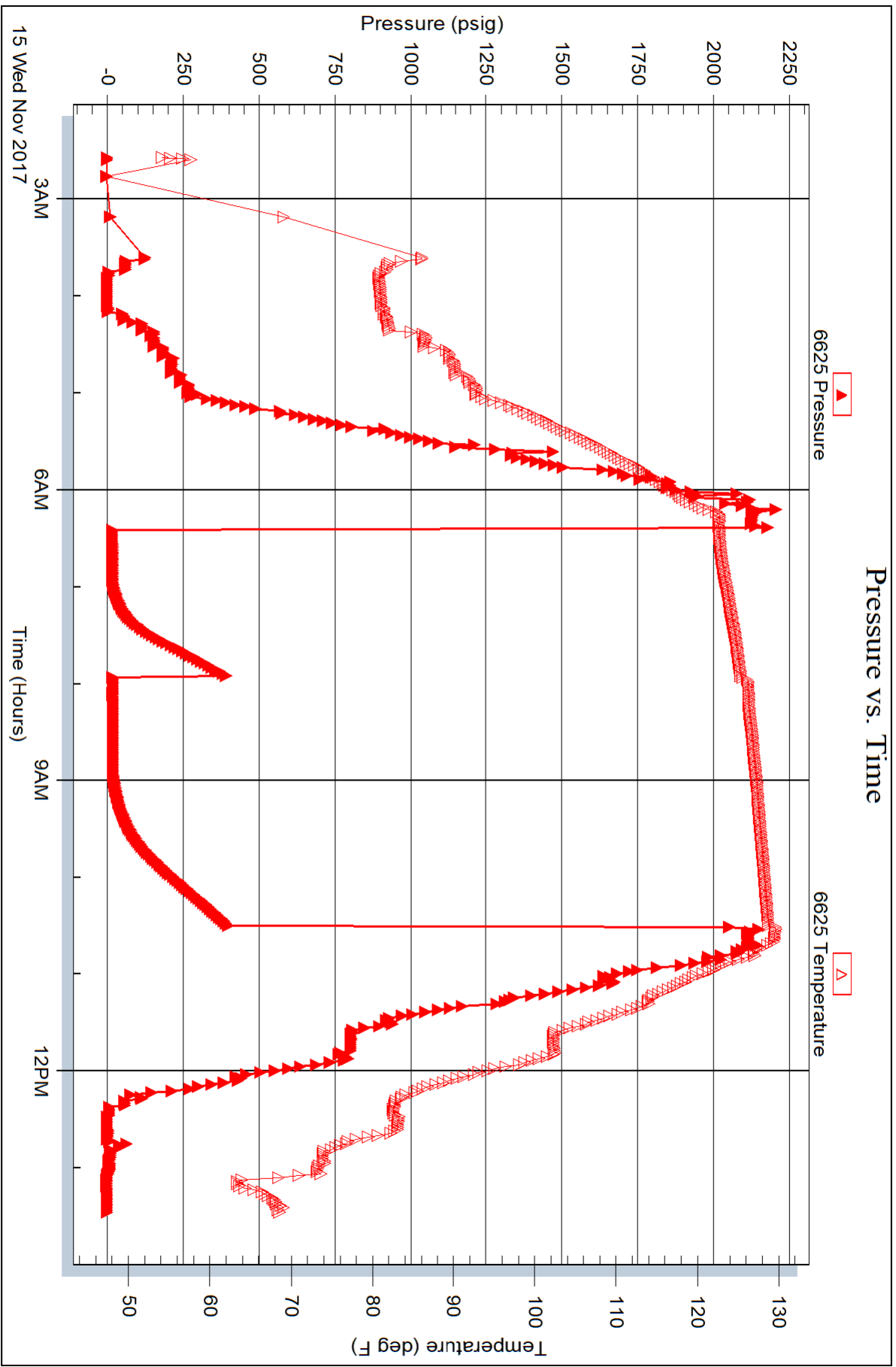
Serial #: 6625

Inside

Berexco, LLC

Pochop #1-8

DST Test Number: 3





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Berexco, LLC
 2020 N. Bramblewood
 Wichita, KS 67206
 ATTN: Bryan Bynog

8/3s/35w Rawlins KS
Pochop #1-8
 Job Ticket: 63428 **DST#: 4**
 Test Start: 2017.11.16 @ 16:55:00

GENERAL INFORMATION:

Formation: **Ft. Scott**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:49:45
 Time Test Ended: 02:49:45
 Interval: **4520.00 ft (KB) To 4571.00 ft (KB) (TVD)**
 Total Depth: 4571.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: James Winder
 Unit No: 83
 Reference Elevations: 3250.00 ft (KB)
 3242.00 ft (CF)
 KB to GR/CF: 8.00 ft

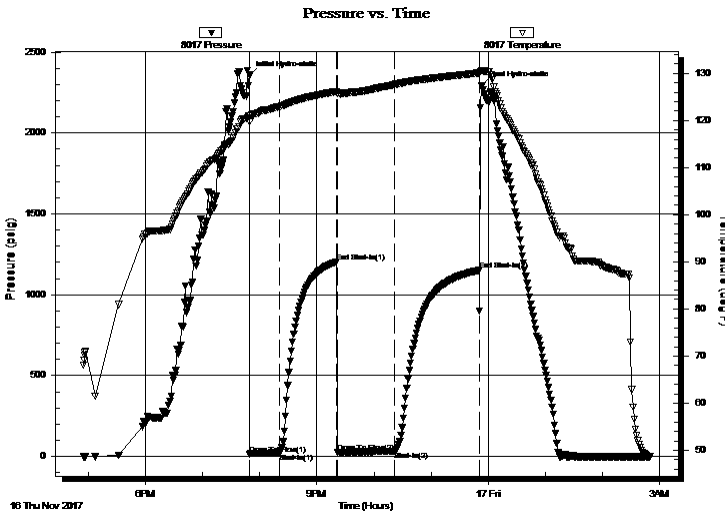
Serial #: 8017

Outside

Press@RunDepth: 31.28 psig @ 4521.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2017.11.16 End Date: 2017.11.17 Last Calib.: 2017.11.17
 Start Time: 16:55:05 End Time: 02:49:45 Time On Btm: 2017.11.16 @ 19:49:30
 Time Off Btm: 2017.11.16 @ 23:53:15

TEST COMMENT: 30 - IF: 1/4" Blow at open, built to 1"
 60 - IS: No blow back
 60 - FF: No blow
 90 - FS: No blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2356.97	121.06	Initial Hydro-static
1	13.76	119.78	Open To Flow (1)
31	22.12	122.91	Shut-In(1)
92	1203.99	126.16	End Shut-In(1)
92	25.23	125.74	Open To Flow (2)
152	31.28	127.62	Shut-In(2)
241	1151.19	130.07	End Shut-In(2)
244	2294.20	130.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
45.00	Mud 100%	0.22

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco, LLC

8/3s/35w Rawlins KS

2020 N. Bramblewood
Wichita, KS 67206

Pochop #1-8

Job Ticket: 63428

DST#: 4

ATTN: Bryan Bynog

Test Start: 2017.11.16 @ 16:55:00

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: 63.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.98 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
45.00	Mud 100%	0.221

Total Length: 45.00 ft Total Volume: 0.221 bbl

Num Fluid Samples: 0

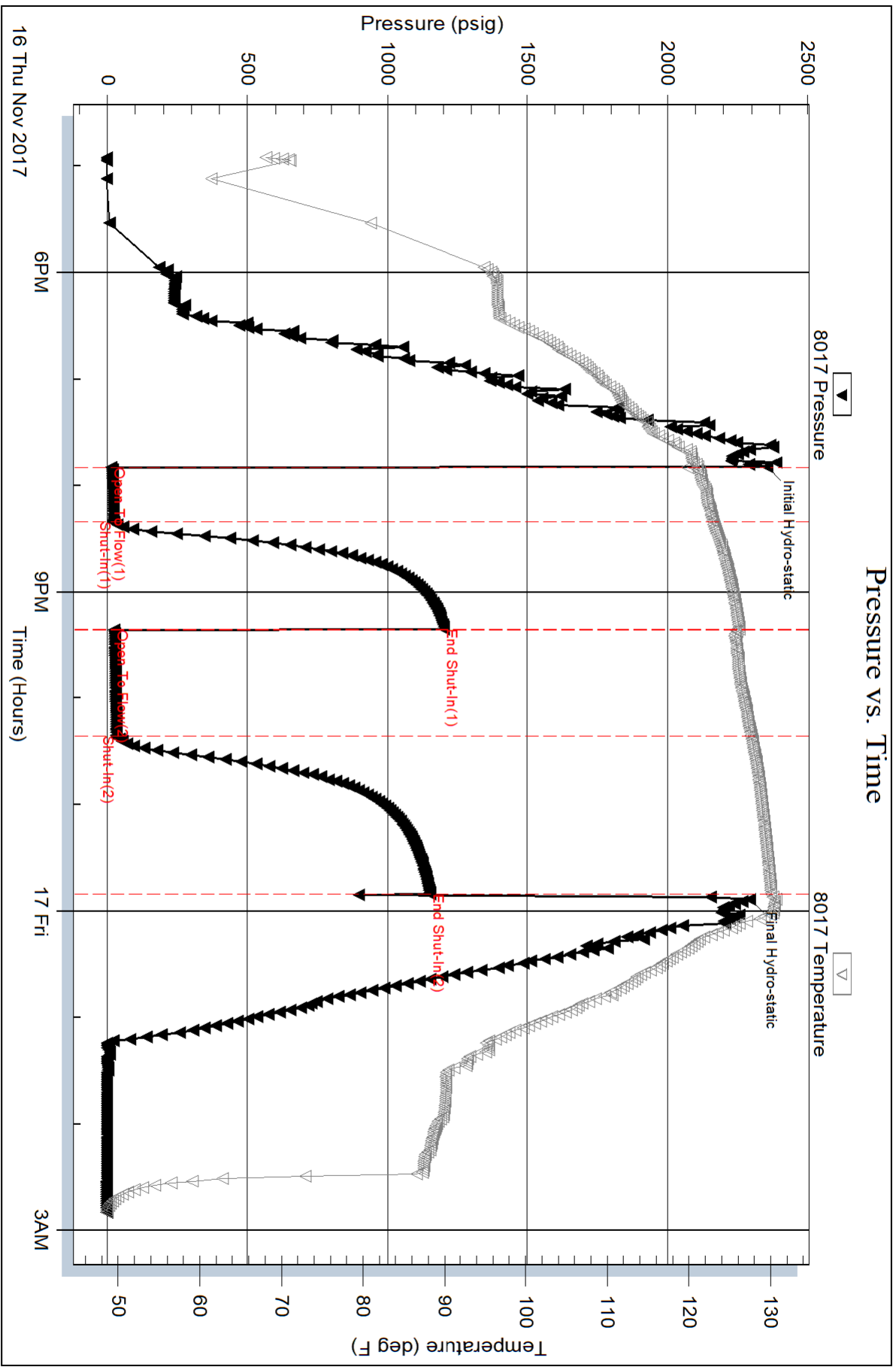
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



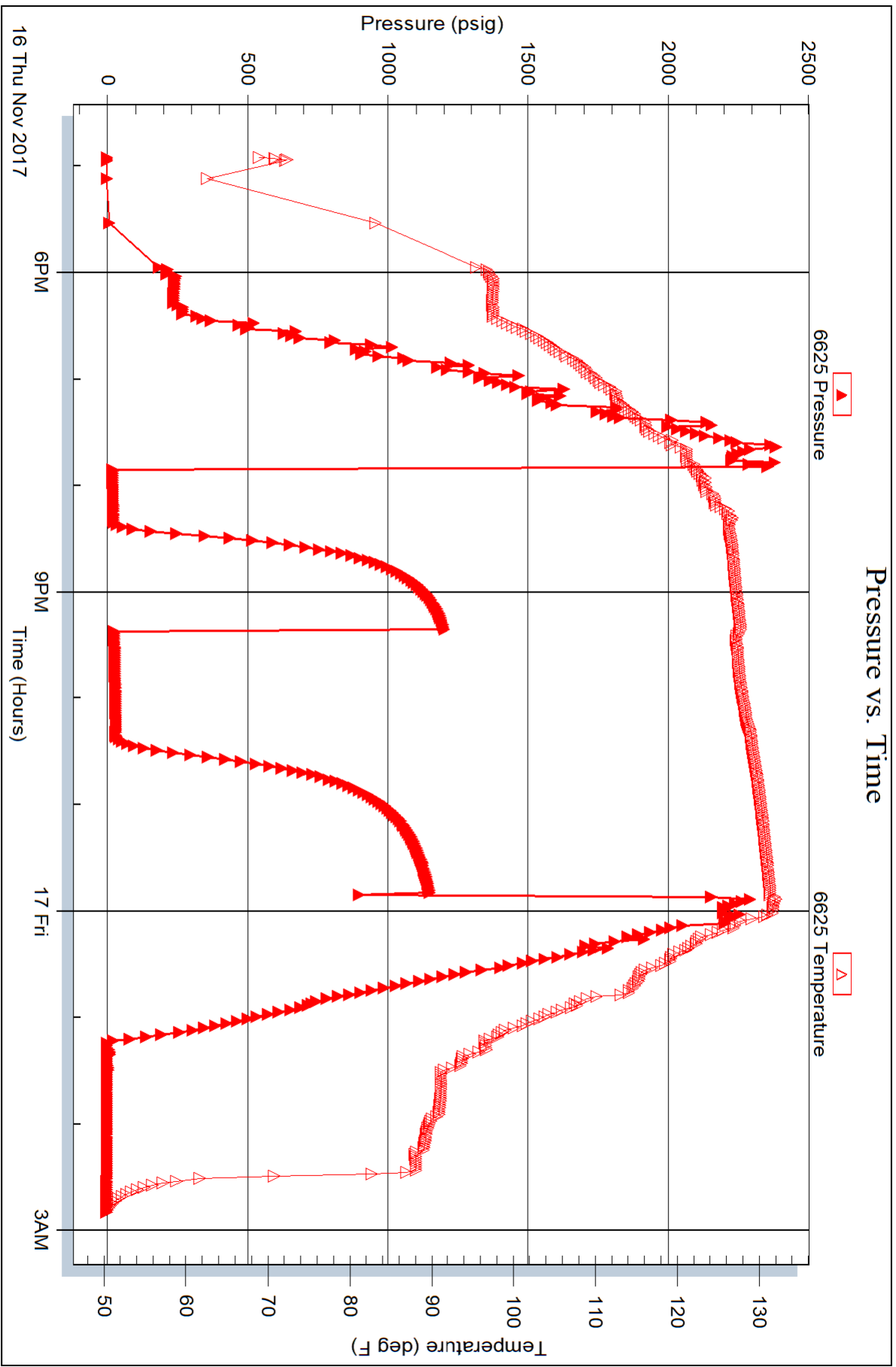
Serial #: 6625

Inside

Berexco, LLC

Pochop #1-8

DST Test Number: 4



LITHOLOGY STRIP LOG

WellSight Systems

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

Measured Depth Log

Well Name: Pochop#1-8

Well Id:

Location: SWSE Section 8 3S-35W Rawlins County, Kansas

License Number: 15-153-21204

Region: Midcontinent

Spud Date: 11-5-2017

Drilling Completed: 11-18-2017

Surface Coordinates: 680' FSL & 1930' FEL

Bottom Hole

Coordinates:

Ground Elevation (ft): 3242

K.B. Elevation (ft): 3250

Logged Interval (ft): 3500

To: 4870

Total Depth (ft): 4870

Formation: LKC, Pawnee, Cherokee, & mississippian

Type of Drilling Fluid: WBM

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

OPERATOR

Company: Berexco, LLC.

Address: 2020 N. Bramblewood
Wichita, Kansas 67206

GEOLOGIST

Name: William B. Bynog

Company:

Address: P.O.Box 687
Pinecliffe, Co. 80471

LOG TOPS

LOG TOTAL DEPTH IS 6 FEET SHALLOW TO RIG TOTAL DEPTH, SO THE SAMPLE LOG TOPS ARE APPROXIMATELY 6 FEET DEEPER. SLIDE SAMPLE LOG UP OR DOWN TO FIT LOG DEPTH.


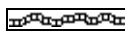
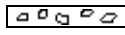
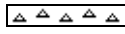

DSTs






DST#1 4090-4190, DST#2 4218-4288, DST#3 4318-4375, DST#4 4520-71



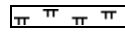
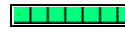
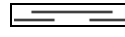
Comments

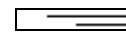




RAN 4 1/2 " PRODUCTION CASING

ROCK TYPES

 Anhy
 Bent
 Brec
 Cht
 Clyst

 Coal
 Congl
 Dol
 Gyp
 Igne

 Lmst
 Meta
 Mrlst
 Salt
 Shale

 Shcol
 Shgy
 Sltst
 Ss
 Till

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Breclfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl

- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral

- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

STRINGER

- Anhy
- Arg
- Bent
- Coal
- Dol

- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

TEXTURE

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

OTHER SYMBOLS

POROSITY

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

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang

- Angular

OIL SHOW

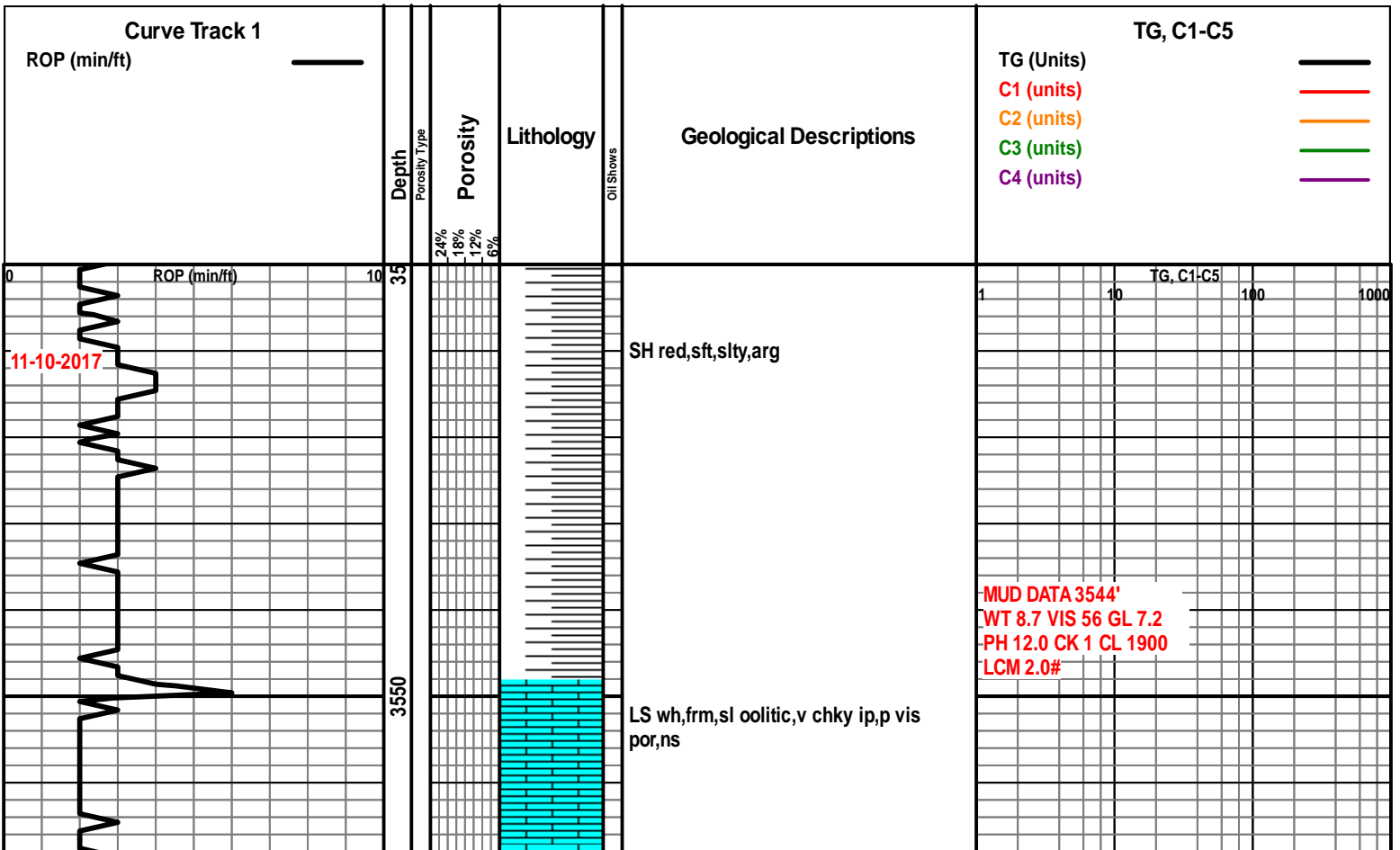
- Even
- Spotted
- Ques
- Dead

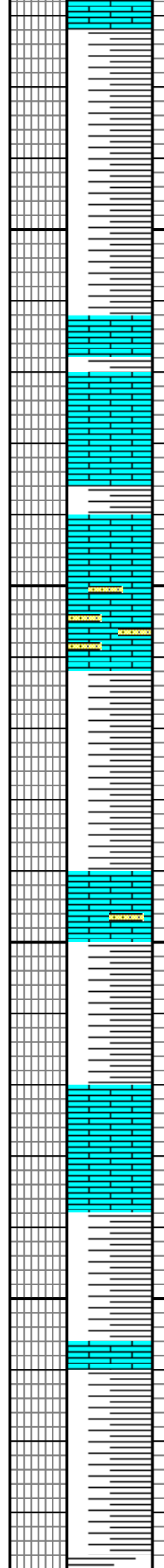
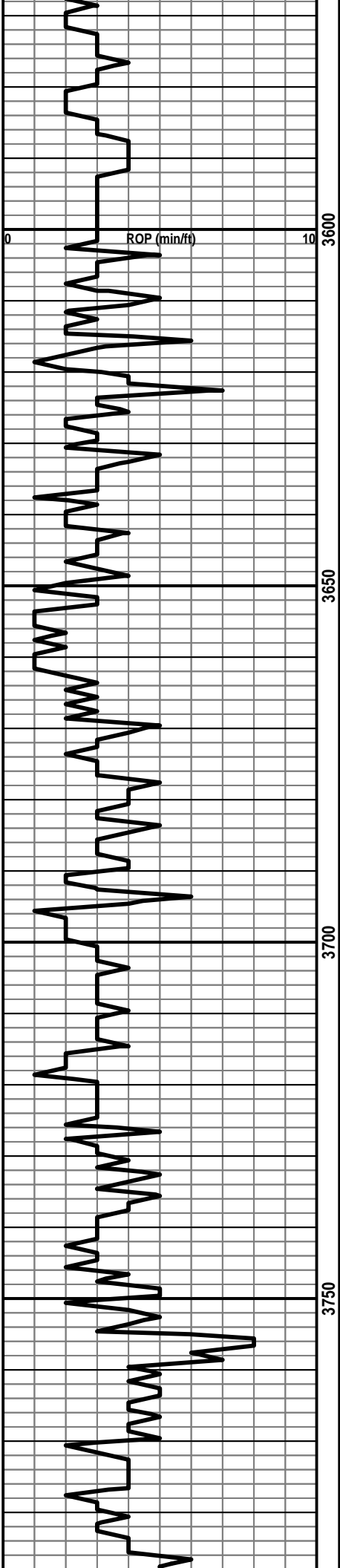
INTERVAL

- Dst
- Dst

EVENT

- Rft
- Sidewall





SH aa bcmg v arg,gummy ip

LS wh-crm,frm-sl hdsi foss,chky ip,with thin strings SH aa

LS crm,frm,sl hd,bcmg very sdy,arg,p por,ns

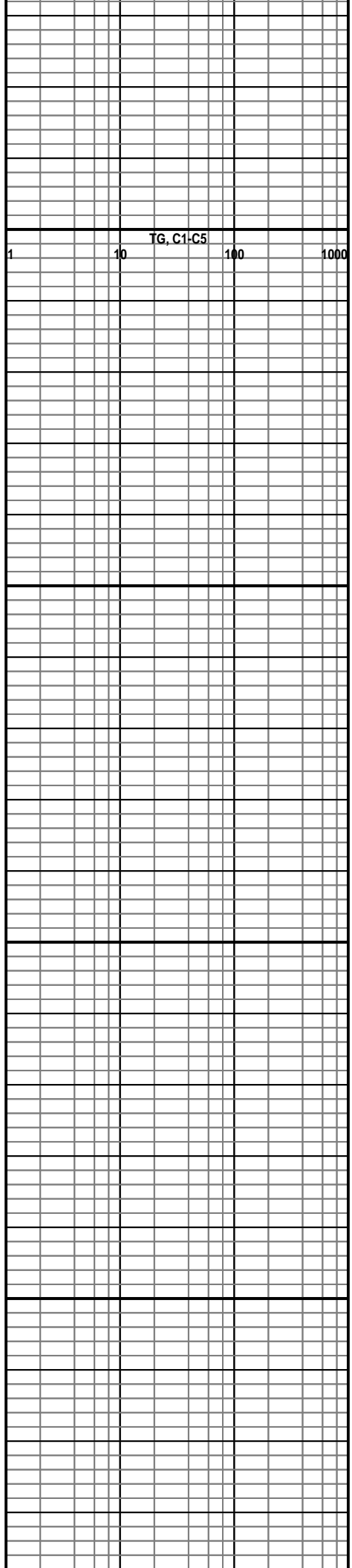
SH red,v sft,v arg

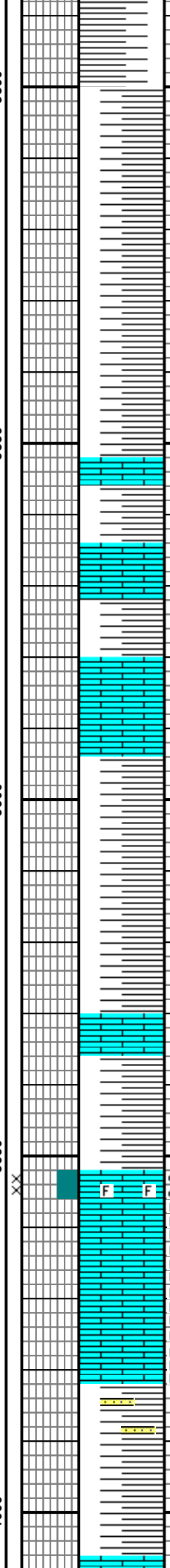
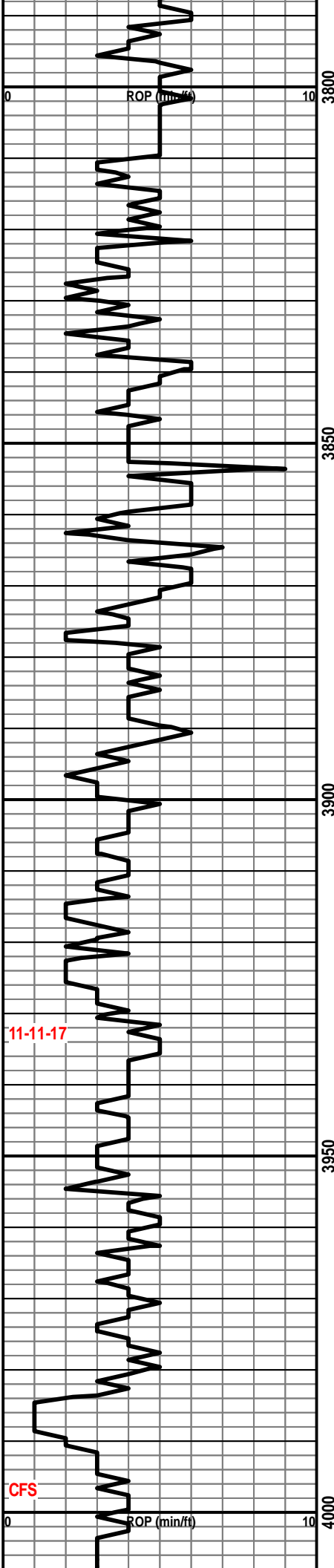
LS aa sdy

SH red,v sft,v arg,gummy

LS crm-pale gy,frm,sbchky,p vis por,ns

SH aa with thin LS pale gy,frm,dns,ns





SH gy,gy gn,frm,sbwxy

SH red,v sft,v arg,gummy with thin LS pale gy,hd,blky,dns,arg,ns

LS pale gy-frm,v hd,dns,blky,sl foss,crptoxln

LS aa

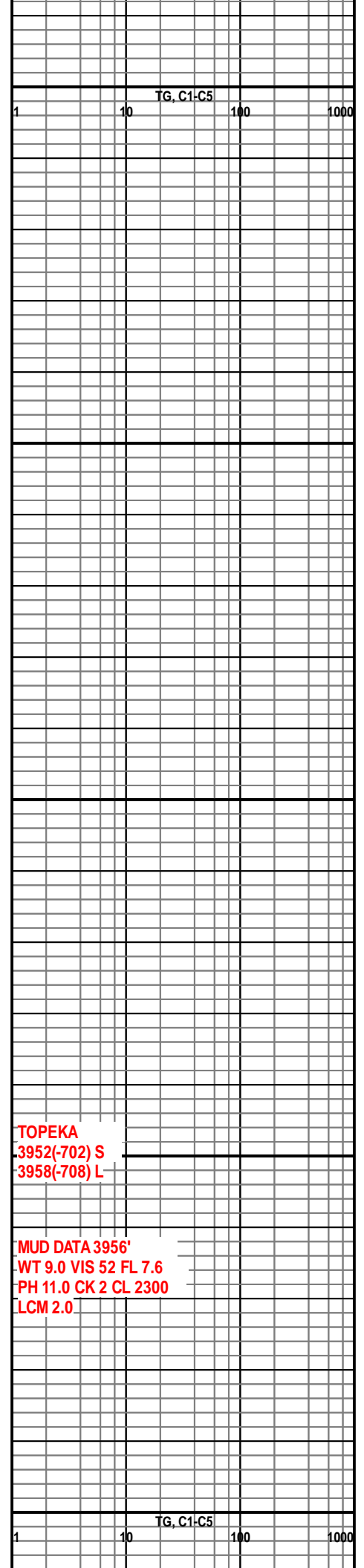
SH red,gn,sft,v arg

LS pale crm-pale gy,hd,blky,dns,dirty,arg,p por,ns with thin SH aa

LS wh,frm,sbchky-chky,sl foss,p intg por,v spty blk asph stn,g cut,no free oil

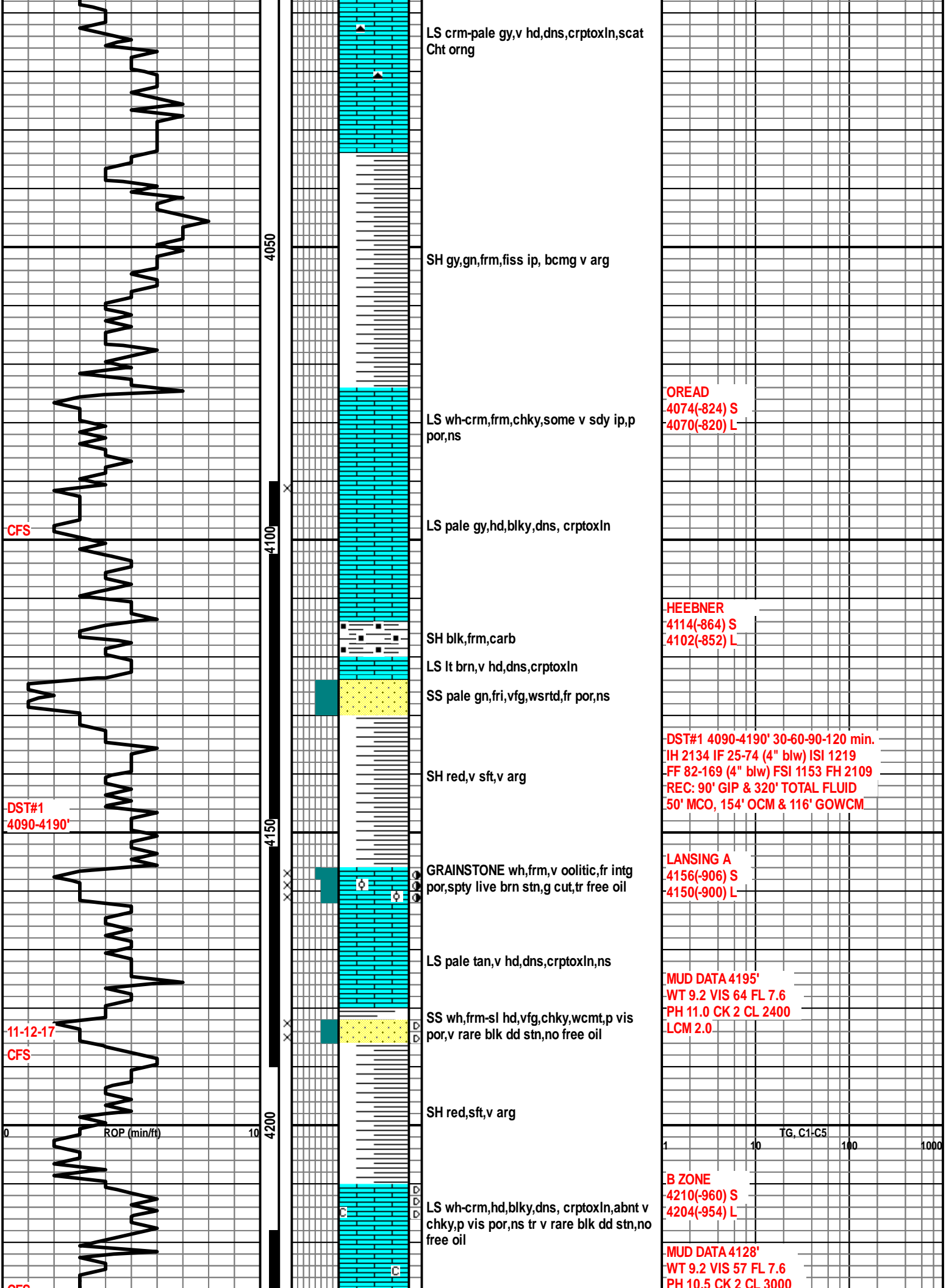
LS wh,frm,chky,p vis por,v spty blk dd stn

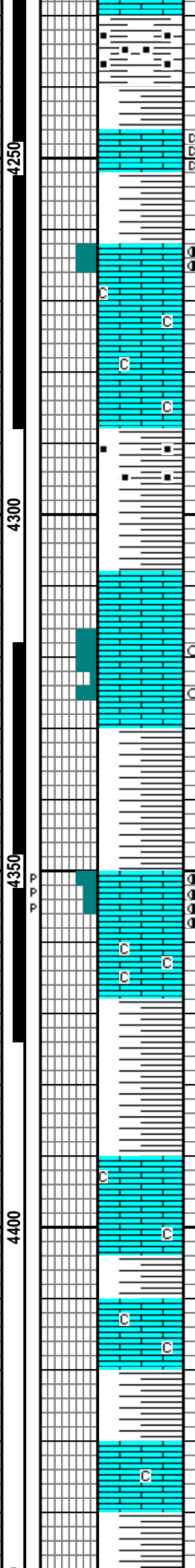
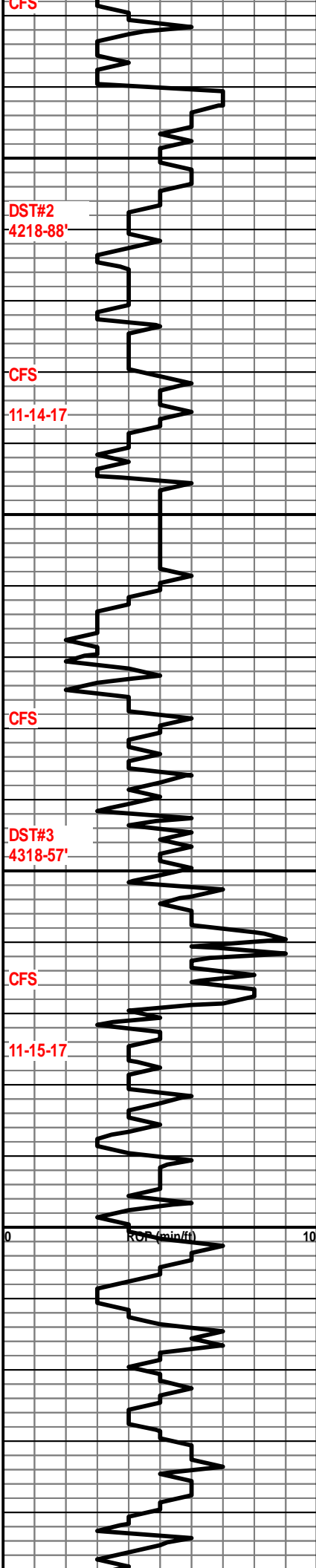
SH red,v sft,v arg,some v sdy ip



TOPEKA
3952(-702) S
3958(-708) L

MUD DATA 3956'
WT 9.0 VIS 52 FL 7.6
PH 11.0 CK 2 CL 2300
LCM 2.0





SH blk,frm,fiss ip,v carb

SH red,sft,v arg

LS crm,v hd,dns,blky, some v rare blk asph stn

SH aa

GRAINSTONE wh,frm,oolitic, p intg por,spty-even blk stn,g cut,p show free oil

LS wh-crm,hd,blky,dns,ns v abnt chky,p vis por,ns

SH gn, blk carb

SH red,gn,v sft,v arg

LS crm,hd,crptoxln,p por,ns

LS wh-crm,frm,microxln, foss ip,sbchky,p intxln por,v rare spty pp stn,p cut

SH red,gn,sft,v arg

LS crm,sl hd,blky,v fnly microxln,p pp vuggy por with spty live brn stn,g cut,no free oil

LS wh,v chky,p vis por,ns

SH gy gn,v sft,v arg

SH red brn,frm,chnky

LS crm,hd,dns,crptoxln,p por,ns, abnt chky

SH red brn,sft,v arg

LS wh,frm,chky,p vis por,ns

SH aa gn,red brn,sft,v arg

LS aa,ns

LCM 2.0

C ZONE
4262(-1012) S
4258(-1008) L

DST#2 4218-88' 30-60-30-60 min.
IH 2172 IF 29-293 (BOB 11 m)
ISI 1121 FF 296-384 (BOB 16 m)
FSI 1058 FH 2133
REC: 805' TOTAL FLUID
100' COCM, 60' SOWCM, 250' MCW OIL
SPOTS & 395' MCW TR OIL

MUD DATA 4289'
WR 9.2 VIS 61 FL 7.6
PH 10.5 CK 2 CL 3300
LCM 2.0

D ZONE
4308(-1058) S
4304(-1054) L

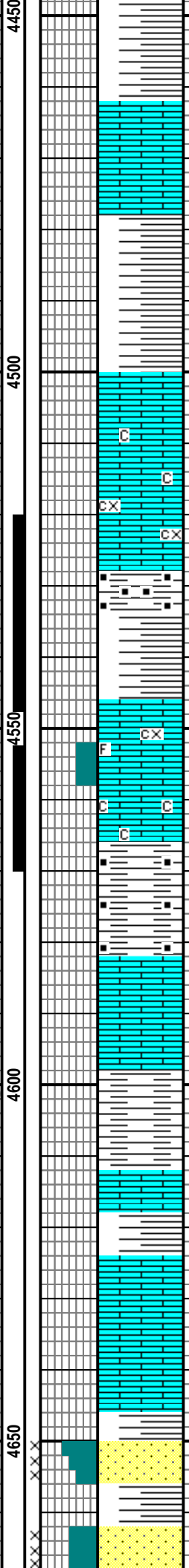
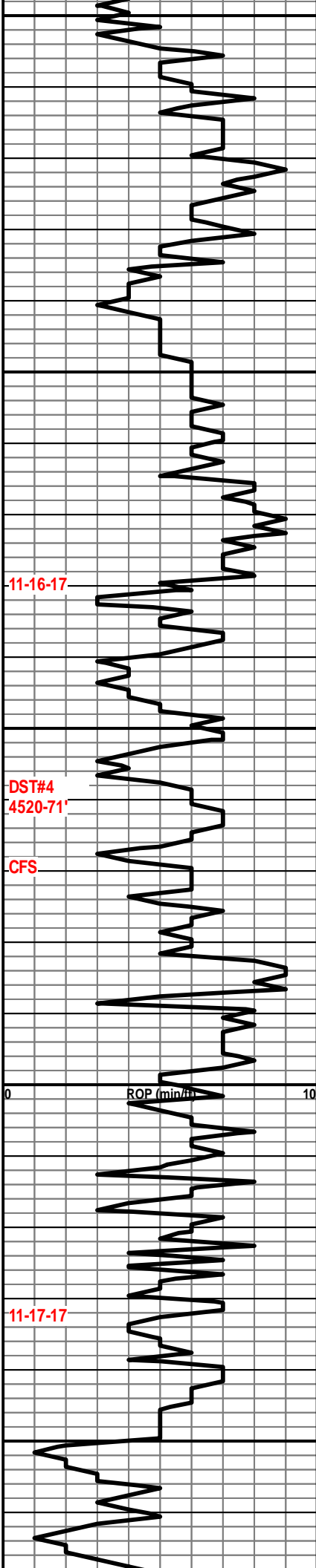
DST#3 4318-4375 30-60-60-90 min.
IH 2185 IF 16-18 (1/4 BLW) ISI 400
FF 18-20 FSI 403 FH 2165
REC: 10' MUD/ TRACE OIL

E ZONE
3450(-1100) S
4348(-1098) L

MUD DATA 4375'
WT 9.2 VIS 59 FL 7.6
PH 10.5 CK 2 CL 3000
LCM 2.0

F ZONE
4390(-1140) S
4382(-1132) L

TG, C1-C5



SH & LS aa dirty, v arg, ns

LS crm, pale gy, hd, blk, crptoxIn, ns abnt chky

11-16-17

SH blk, frm, fiss, carb

SH aa gn, red brn

PAWNEE
4504(-1258) S
4498(-1252) L

FT SCOTT
4546(-1296) S
4538(-1288) L

DST#4
4520-71'

LS gy brn, hd, blk, crptoxIn, foss ip, abnt chky

LS crm, hd, blk, dns, abnt chky, ns

CFS

SH blk, gn frm, fiss, carb

4582-98 LS crm, v hd, dns, crptoxIn

DST#4 4520-71' 30-60-60-90 min.
IH 2357 IF 14-22 ISI 1204 FF 25-31
FSI 1151 FH 2294
REC: 45' DRILLING MUD

MUD DATA 4571'
WT 9.1 VIS 63 FL 8.0
PH 10.0 CK 2 CL 2900
LCM 1.5

0 10

SH gn, blk, frm, fiss, carb

1 10 100 1000 TG, C1-C5

11-17-17

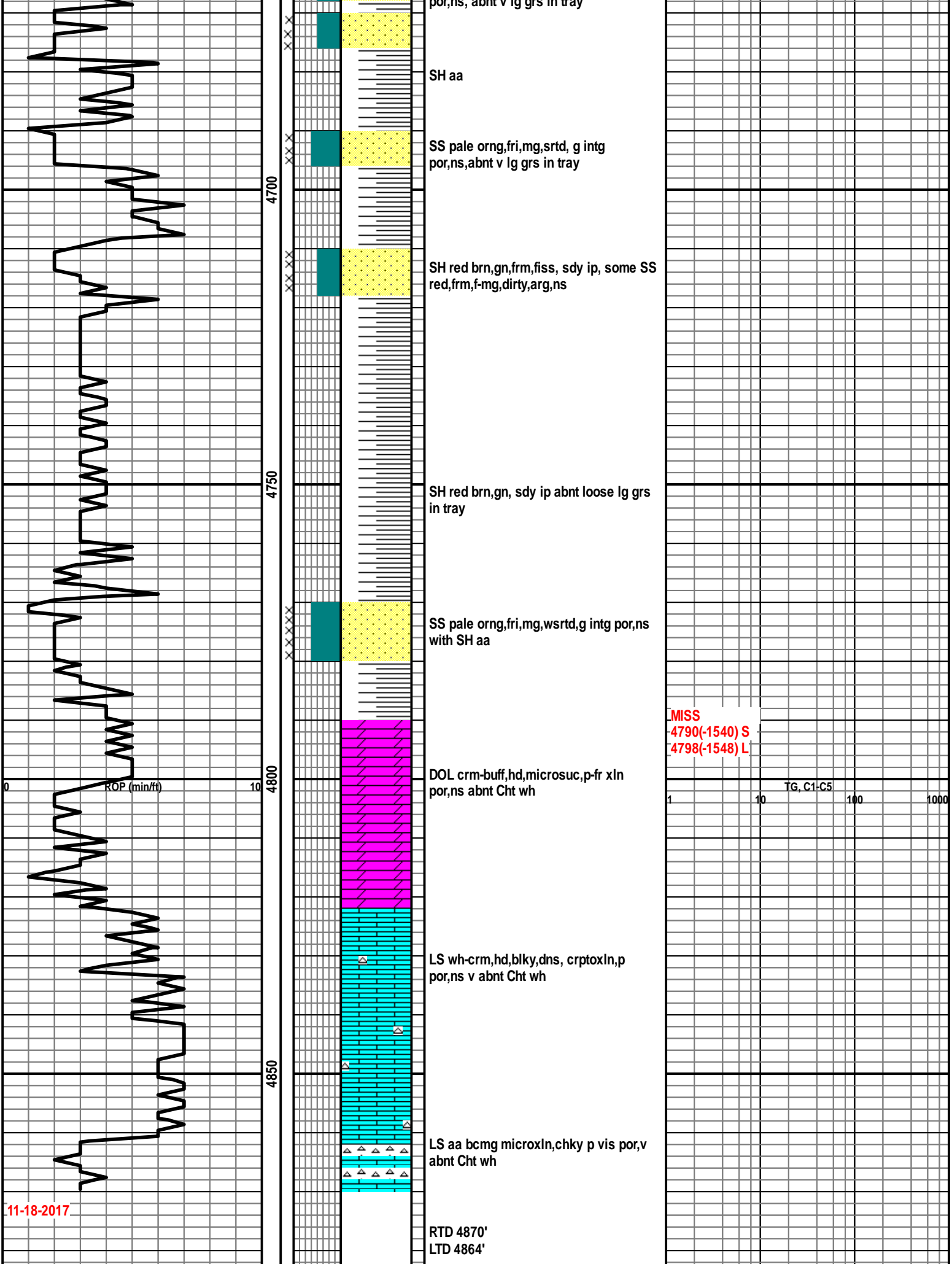
LS crm, tan, v hd, dns, crptoxIn, ns with thin SH gn, red, arg

MUD DATA 4614'
WT 9.4 VIS 50 FL 8.4
PH 10.0 CK 2 CL 3600
LCM 1.0

SS pale gn, fri, vfg, rnd, wsrted glau, fr intg por, ns

SH red, sft, v arg

SS trnsI, fri, f-m gr, sbrnd, msrted, fr-gd intg por, ns, abnt v lg grs in tray





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

NOV 30 2017 MAIN OFFICE

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

Invoice

Invoice# 811804

Invoice Date: 11/27/17

Terms: Net 30

Page 1

BEREXCO, LLC

2020 N. Bramblewood Street
 Wichita KS 67206
 USA
 3162653311

V-13005

Pochop 1-8

Subtotal 27,113.50

Discounted Amount 9,489.73

SubTotal After Discount 17,623.77

Amount Due 28,659.93 If paid after 12/27/17

Tax: 1,005.17

Total: 18,628.95

ACP

3105-1000

U99 (2356-1000)

RRR



Nov. 19. 2017 4:47PM
 PRESSURE PUMPING LLC
 PO Box 884, Chanute, KS 66720
 620-431-9210 or 800-467-8676

9492/9384

No. 0460 P. 2
 TICKET NUMBER 54924
 LOCATION Oakley Ks
 FOREMAN Jerry G
Walt D
 Invoice # 811804

FIELD TICKET & TREATMENT REPORT
 CEMENT:

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY																
11-19-17	1707	Aochap 1-8	8	35	350	Rawlins																
CUSTOMER			<table border="1"> <thead> <tr> <th>TRUCK #</th> <th>DRIVER</th> <th>TRUCK #</th> <th>DRIVER</th> </tr> </thead> <tbody> <tr> <td>753</td> <td>Travis W</td> <td></td> <td></td> </tr> <tr> <td>566</td> <td>P.D. W.</td> <td></td> <td></td> </tr> <tr> <td>772-T127</td> <td>Seth O.</td> <td></td> <td></td> </tr> </tbody> </table>				TRUCK #	DRIVER	TRUCK #	DRIVER	753	Travis W			566	P.D. W.			772-T127	Seth O.		
TRUCK #	DRIVER	TRUCK #	DRIVER																			
753	Travis W																					
566	P.D. W.																					
772-T127	Seth O.																					
MAILING ADDRESS			Boardsly 34 N. into																			
CITY			Berexco 2020 N. Bramblewood Street Wichita, KS 67206																			

JOB TYPE long string HOLE SIZE 7 7/8 HOLE DEPTH 4870 CASING SIZE & WEIGHT 4 1/2" 11.6 #
 CASING DEPTH 48.80 DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 12.5/14.2 SLURRY VOL 1.89/1.42 WATER gal/sk _____ CEMENT LEFT in CASING 44'
 DISPLACEMENT 70 1/4 bbl DISPLACEMENT PSI 1700 ¹⁹⁰⁰ ~~1700~~ PSI 2500 ~~2500~~ ¹⁹⁰⁰ ~~2500~~ -RATE _____

REMARKS: Safety meeting on 10/19 upon Berexco 2 ran float equip section 1,2,3,4,5,6,7,8,9, 10,11,12,13,15,16 scratches & per long jh 1-15 basket on 38 run casing to bottom pump ball thru & circulate 1 hour m-x 500 gal mud flash with 5 bbl spacer mix 400 sks lite blend VII and bail in with 250 sks thick blend r5* Kolseal. Shut down release plug clean pump & line displace 70 1/4 bbl lost circulation @ 3066' out but never lost 0 lost psi. plug landed @ 2500' released back & float held.

Thank you
 Jerry & crew

30 sks Rattle 20 mouse hole

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0453	1	PUMP CHARGE	2800.00	2800.00
CE0002	60	MILEAGE	7.15	429.00
CE0710	31.1	ton mileage delivery	1.75	3265.50
-CC5831	1470 450 sks	lite blend VII	17.50	78750.00
-CC5862	1470 250 sks	Thixoblend III	26.00	65000.00
CC6075	3.38 #	flaseal	3.00	1014.00
CC6077	1250 #	Kolseal	.50	625.00
-CC6125	1470 500 gal	mud flash	.65	325.00
CP8253	10	4 1/2 latchdown	340.00	3400.00
CP8484	1	4 1/2 APU float ghor	470.00	470.00
CP8553	15	4 1/2 centralizers	78.00	1170.00
CP8628	1	4 1/2 basket	350.00	350.00
CP8675	30	4 1/2 scratches	65.00	1950.00
		Subtotal		27113.50
		-35%		9489.73
		Subtotal		17623.77
		7.9% SALES TAX		1,002.18
		ESTIMATED TOTAL		\$18,628.95

AVIN 3737
 AUTHORIZATION [Signature] AWAIS GUL TITLE _____ DATE 11/19/2017

I acknowledge that the payment terms unless specifically amended in writing on the front of the form or in the customer's account records, and conditions of service on the back of this form are in effect for services identified on this form

Received Time, Nov. 19. 2017 4:47PM No. 1657



PRESSURE PUMPING LLC
PO Box 684, Chanute, KS 66720
620-431-9210 or 800-457-8876

FIELD TICKET & TREATMENT REPORT
CEMENT

TICKET NUMBER 54960
LOCATION Challenger, KS
FOREMAN Walt Dunkel

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
11-6-17	1707	Pachap 1-8	8	33	35 ^W	Rawlins

CUSTOMER	TRUCK #	DRIVER	TRUCK #	DRIVER
Boreveco Inc	753	Troy Williams		
	772-T121	Kieth Curwell		

CITY	STATE	ZIP CODE

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 368' CASING SIZE & WEIGHT 8 5/8" - 23#
 CASING DEPTH 368' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 15.2 SLURRY VOL _____ WATER gal/ft _____ CEMENT LEFT in CASING 15'-20'
 DISPLACEMENT 22 1/4 DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 BPM

REMARKS: Safety Meeting, rig up on Boreveco #10, C/O casing on bottom
Mix 325 sls cont, 3%acc - 2%gel, Displace 22 1/4 BBL H₂O. Shut in
Cement Drill Circ.

Thank You
Walt & crew

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
C00471	1	PUMP CHARGE	1,150.00	1,150.00
C00002	60	MILEAGE	7.12	427.20
C00710	15.28	Ton Mileage Delivery	1.82	1,604.40
C05871	325-sls	Surface Blend II	24.00	7,800.00
				11,383.40
		Less 35% Disc		3,984.19
				7,399.21
			SALES TAX	
			ESTIMATED	
			TOTAL	

AUTHORIZATION Milo Solin TITLE Toolpusher DATE 11-6-17

I acknowledge that the payment terms, unless specifically 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.