

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	Ardene 1-17
Doc ID	1375472

Tops

Name	Top	Datum
Anhydrite (top)	3158	+109
Anhydrite (base)	3194	+73
Foraker	3742	-475
Topeka	3970	-703
Oread	4114	-847
LKC A	4188	-921
LKC B	4254	-987
LKC C	4312	-1043
LKC D	4352	-1085
LKC E	4412	-1145
LKC F	4443	-1176
Pawnee	4596	-1329
Ft. Scott	4620	-1353
RTD	4800	1533
LTD	4811	-1544

Summary of Changes

Lease Name and Number: Ardene 1-17

API/Permit #: 15-023-21448-00-00

Doc ID: 1375472

Correction Number: 2

Approved By: Karen Ritter

Field Name	Previous Value	New Value
Approved Date	02/08/2017	12/07/2017
Date of First or Resumed Production or SWD or Enhr Geologist Report / Mud Logs?	1/2/2016	8/1/2016 Yes
Perf_acid1		750 gal 15% MCA, 3% solvent
Perf_perf1bottom		4358
Perf_perf1top		4354
Perf_shots1		4
PerforationsRevised		[[dataGrid]]
Production Interval #1	4354-4358	4354
Production Interval #3		4358



Confidentiality Requested:

Yes No

CONFIDENTIAL WELL COMPLETION FORM

WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

- Deepening Re-perf. Conv. to ENHR Conv. to SWD
- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1285066
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

CONFIDENTIAL 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: _____

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- New Well Re-Entry Workover
- Oil WSW SWD SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

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

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Well Name: _____

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- Plug Back Conv. to GSW Conv. to Producer
- Commingled Permit #: _____
- Dual Completion Permit #: _____
- SWD Permit #: _____
- ENHR Permit #: _____
- GSW Permit #: _____

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. #20-5975804

WELL 5774 FII

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

SERVICE POINT: Osby KS

DATE <u>10-28-15</u>	SEC. <u>17</u>	TWP. <u>2</u>	RANGE <u>37</u>	CALLED OUT	ON LOCATION <u>6:30 a.m.</u>	JOB START <u>7:30 a.m.</u>	JOB FINISH <u>8:00 a.m.</u>
LEASE <u>Ardene</u>	WELL# <u>1-17</u>	LOCATION <u>McDonald W to Rd W</u>	COUNTY <u>Cheyenne</u>		STATE <u>KS</u>		
OLD OR NEW (Circle one) <u>NEW</u>		<u>1 1/2 W, W + S into</u>					

CONTRACTOR Berexo ID
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 T.D. 315'
 CASING SIZE 8 5/8 DEPTH 309'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 15
 PERFS.
 DISPLACEMENT 18.5 bbl H₂O

OWNER
 CEMENT
 AMOUNT ORDERED 225 sks Com 3'1.CC
27. gel

EQUIPMENT
 PUMP TRUCK CEMENTER Paul Beaver
 # 422 HELPER Wayne Meghly
 BULK TRUCK
 # 871/287 DRIVER Paul Beaver
 BULK TRUCK
 # 716 DRIVER Marty Phillips

COMMON 225 sks @ 17.90 4027.50
 POZMIX @
 GEL 423 # @ .50 211.50
 CHLORIDE 635 # @ 1.10 698.50
 ASC @
 @
 @
 @
 @
 @
 @

TOTAL 4,937.50
 DISCOUNT 48% 2370.00

REMARKS:

Mix 225 sks
Displace w/ water
cement did circ
5 bbl to pit
Thank you!
Paul + crew

SERVICE

HANDLING 243.31 ft³ @ 2.48 603.41
 MILEAGE 11.10 hrs x .50 mi @ 2.75 1526.25
 DEPTH OF JOB 309'
 PUMP TRUCK CHARGE 1512.25
 EXTRA FOOTAGE @
 HV MILEAGE 50 @ 7.70 385.00
 LV MILEAGE @
 @
 @

TOTAL 4,026.91
 DISCOUNT 48% 1932.91

CHARGE TO: Berexo llc
 STREET
 CITY STATE ZIP

PLUG & FLOAT EQUIPMENT

@
 @
 @
 @
 @
 TOTAL
 DISCOUNT %

To: Allied Oil & Gas Services, LLC.
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME Anthony Davis Jr
 SIGNATURE [Signature]

SALES TAX (If Any)
 TOTAL CHARGES 8,969.41
 DISCOUNT 4,302.91 (48%) IF PAID IN 30 DAYS
 NET TOTAL 4,666.50 IF PAID IN 30 DAYS

Date 10-28-15 District Dakota KS Ticket No. 167744
 Company Beraco Rig Beraco 10
 Lease Ardena Well No. 1-17
 County Cherokee State KS
 Location 17-2-37 Field _____

CEMENT DATA:
 Spacer Type: _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG

LEAD: Pump Time _____ hrs. Type _____
 Excess _____

Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG

TAIL: Pump Time _____ hrs. Type Com 3' C.C.
2.1 gal Excess _____

Amt. 225 Sks Yield 136 ft³/sk Density 15.02 PPG

WATER: Lead 6.2 gals/sk Tail _____ gals/sk Total _____ Bbls.

Pump Trucks Used 422 - Wayne
 Bulk Equip. 891/287 - Paul
716 - Monty

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 8 5/8 Type New Weight 23.3 Collar _____

Casing Depths: Top 48 Bottom 309'

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size 12 1/4 T.D. 315 ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. 0.657 Lin. ft./Bbl. _____
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

Float Equip: Manufacturer _____

Shoe: Type _____ Depth _____

Float: Type _____ Depth _____

Centralizers: Quantity _____ Plugs Top _____ Btm. _____

Stage Collars _____

Special Equip. _____

Disp. Fluid Type water Amt. 18.5 Bbls: Weight _____ PPG

Mud Type 40 W/S Weight _____ PPG

COMPANY REPRESENTATIVE _____

CEMENTER Paul Beaver

TIME (AM/PM)	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
7:30	100		33	3.3	4	Hold Safety meeting Mix 225 sks @ 15" Displace w/ water
	100		18.5	51.5	4	
8:00						shut-in swedge cement did cure

ALLIED OIL & GAS SERVICES, LLC

Federal Tax I.D. #20-5975804

WELL FILE

067501

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

SERVICE POINT: Oddy, KS

DATE <u>11-8-15</u>	SEC. <u>17</u>	TWP. <u>2</u>	RANGE <u>37</u>	CALLED OUT	ON LOCATION <u>2:00 a.m.</u>	JOB START <u>6:30 a.m.</u>	JOB FINISH <u>11:50 a.m.</u>
LEASE <u>Ardene</u>	WELL # <u>1-17</u>	LOCATION <u>McDonald N to Rd W, 1/2 W, 1/2 W</u>			COUNTY <u>Cherokee</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (Circle one)				<u>Into</u>			

CONTRACTOR Beredon 10
 TYPE OF JOB Production (Long string)
 HOLE SIZE 7 7/8 T.D. 4805'
 CASING SIZE 5 1/2 (155') DEPTH 4810'
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE _____ DEPTH _____
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 42'
 CEMENT LEFT IN CSG. 42'
 PERFS. _____
 DISPLACEMENT 113.48 bbl 1120

OWNER Same

CEMENT
 AMOUNT ORDERED 450 sks 60/40 8'1-gel
3/4" Flo-seal 350 sks Com. 10' salt
5" gilsonite, 2' gel

EQUIPMENT
 PUMP TRUCK # 431 CEMENTER Paul Berner
 HELPER Darren Racette
 BULK TRUCK # 891/287 DRIVER Monty Phillips
 BULK TRUCK # 898/310 DRIVER Ivan Carrillo (Liberal)

COMMON	<u>350 sks @ 17.90</u>	<u>6265.00</u>
POZMIX	@	
GEL	@	
CHLORIDE	@	
ASC	@	
gilsonite	<u>1750 # @ .98</u>	<u>1751.00</u>
salt	<u>1820 # @ .68</u>	<u>1237.60</u>
Lite 60/40/8	<u>450 sks @ 19.89</u>	<u>8950.50</u>
Flo-seal	<u>338 # @ 2.97</u>	<u>1003.86</u>
	@	
	@	
	@	
	@	

TOTAL 19,207.96

DISCOUNT 48% 9219.82

REMARKS:

Run Pipe / Float equip, Break Circ / Drop ball, pumped through shoe @ 900', Circ + Reciprocate, mix 20 sks in m.d., mix 30 sks in R.H., mix 400 sks Lite, tail w/ 350 sks Com, work up to pit, release plug, Displace w/ water. Plug did land @ 4805', Lift 200', Float did hold, cement did circulate.
Thank You!
Paul + Crew

SERVICE

HANDLING	<u>995.70 ft² @ 2.48</u>	<u>2345.34</u>
MILEAGE	<u>39.63 hrs @ 2.75</u>	<u>5447.13</u>
DEPTH OF JOB	<u>4810'</u>	
PUMP TRUCK CHARGE		<u>2765.75</u>
EXTRA FOOTAGE	@	
HV MILEAGE	<u>50 @ 7.70</u>	<u>385.00</u>
LV MILEAGE	@	<u>N/C</u>
	<u>Head manifold @</u>	<u>N/C</u>
	@	

TOTAL 10,945.22

DISCOUNT 48% 5253.70

CHARGE TO: Beredon 10
 STREET _____
 CITY _____ STATE _____ ZIP _____

PLUG & FLOAT EQUIPMENT

Weatherford	<u>5 1/2</u>	
AFU Float shoe	@	<u>545.00</u>
Latchdown plug Assy	@	<u>660.00</u>
Centralizers	<u>20 @ 57.00</u>	<u>1140.00</u>
Retip. Snatchers	<u>24 @ 89.00</u>	<u>2136.00</u>
	@	

TOTAL 4481.00

DISCOUNT 48% 2150.88

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PRINTED NAME _____
 SIGNATURE Ed Dawes

SALES TAX (if Any) _____
 TOTAL CHARGES 39,634.18
 DISCOUNT 16,624.40 (48%) IF PAID IN 30 DAYS
 NET TOTAL 18,009.77 IF PAID IN 30 DAYS

Date 11-8-15 District Oshtemo KS Ticket No. 161501
 Company BREXCO Pkg Breco 10
 Lease Ardene Well No. 1-17
 County Cherokee State KS
 Location 17-d-37 Field

CEMENT DATA:
 Spacer Type: _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG

CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 5 1/2 Type NW Weight 15.5 Collar

LEAD: Pump Time _____ hrs. Type 100/40/8/gel
3/4" Fb. seal Excess _____
 Amt. 450 Sks Yield 1.7 ft³/sk Density 12.7 PPG
 TAIL: Pump Time _____ hrs. Type 10' salt
5" gilsonite, 2" gel Excess _____
 Amt. 350 Sks Yield 1.56 ft³/sk Density 14.5 PPG
 WATER: Lead 10 gals/sk Tail 7 gals/sk Total _____ Bbls.

Casing Depths: Top 253 Bottom 4810'

Pump Trucks Used 431
 Bulk Equip. 891/287
818/310

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size 7 7/8 T.D. 4800 ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. 10.238 Lin. ft./Bbl. _____
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

Float Equip: Manufacturer Weatherford
 Shoe: Type ARU Float shoe Depth 4810'
 Float: Type Retekdown plug Assy Depth _____
 Centralizers: Quantity 20 Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. Recip Scrubber
 Disp. Fluid Type water Amt. 113.5 Bbls. Weight _____ PPG
 Mud Type 40 vis Weight _____ PPG

COMPANY REPRESENTATIVE _____

CEMENTER Paul Bauer

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
6:30	0		5	5	4	Hold Safety meeting Run pipe, Break circ drop, had pumped ball through @ 400# mix 20 sks in mix
	0		7	12	4	mix 30 sks in R.H
	200		95	107	6	mix 400 sks lik @ 12.8#
	200		57	164	6	mix 350 sks, Corn @ 14.5#
	0		5	169	4	wash up to pit / release plug
	2000		113	282	6	Displace w/ water
7:30						Plug did land @ 2500# Lift pressure 2000# cement did circ
						Hold Safety meeting
						That's it Paul

FINAL DISP. PRESS: _____ PSI BUMP PLUG TO _____ PSI BLEEDBACK _____ BBLs. THANK YOU



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Berexco LLC

17 2S 37W Cheyenne KS

2020 N Bramblewood
Wichita KS 67206

Ardene 1-17

Job Ticket: 64954

DST#: 1

ATTN: Bryan Bynog

Test Start: 2015.11.01 @ 01:05:00

GENERAL INFORMATION:

Formation: **Oread**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 04:13:00

Time Test Ended: 10:24:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Robert Zodrow

Unit No: 66

Interval: 4050.00 ft (KB) To 4120.00 ft (KB) (TVD)

Reference Elevations: 3272.00 ft (KB)

Total Depth: 4120.00 ft (KB) (TVD)

3261.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8960 Outside

Press@RunDepth: 18.64 psig @ 4051.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.11.01

End Date:

2015.11.01

Last Calib.: 2015.11.01

Start Time: 01:05:05

End Time:

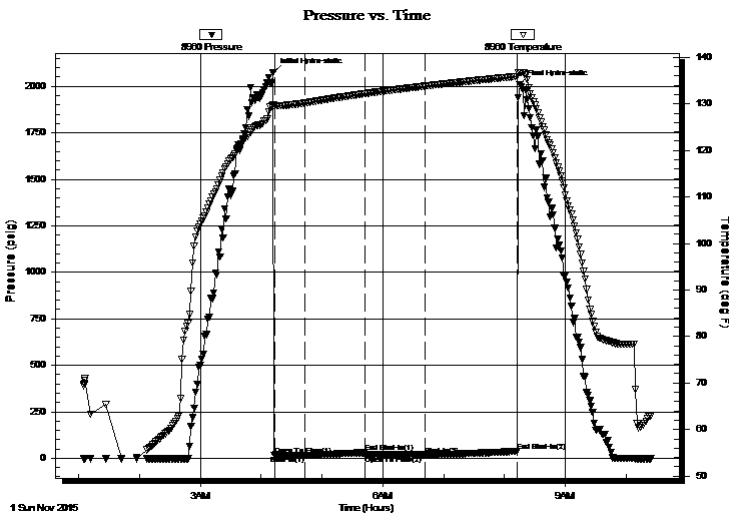
10:24:30

Time On Btm: 2015.11.01 @ 04:12:00

Time Off Btm: 2015.11.01 @ 08:15:30

TEST COMMENT: 30-IS- Blow built to 1/2" died back to surface
60-IS- No return
60-FF- No blow
90-FS- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2074.99	129.81	Initial Hydro-static
1	17.82	129.66	Open To Flow (1)
32	17.16	130.23	Shut-In(1)
90	31.29	132.20	End Shut-In(1)
91	17.90	132.20	Open To Flow (2)
150	18.64	133.84	Shut-In(2)
241	37.66	135.91	End Shut-In(2)
244	2012.13	136.73	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
2.00	MUD 100%M	0.01

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco LLC

17 2S 37W Cheyenne KS

2020 N Bramblewood
Wichita KS 67206

Ardene 1-17

Job Ticket: 64954

DST#: 1

ATTN: Bryan Bynog

Test Start: 2015.11.01 @ 01:05:00

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: 65.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
2.00	MUD 100%M	0.010

Total Length: 2.00 ft Total Volume: 0.010 bbl

Num Fluid Samples: 0

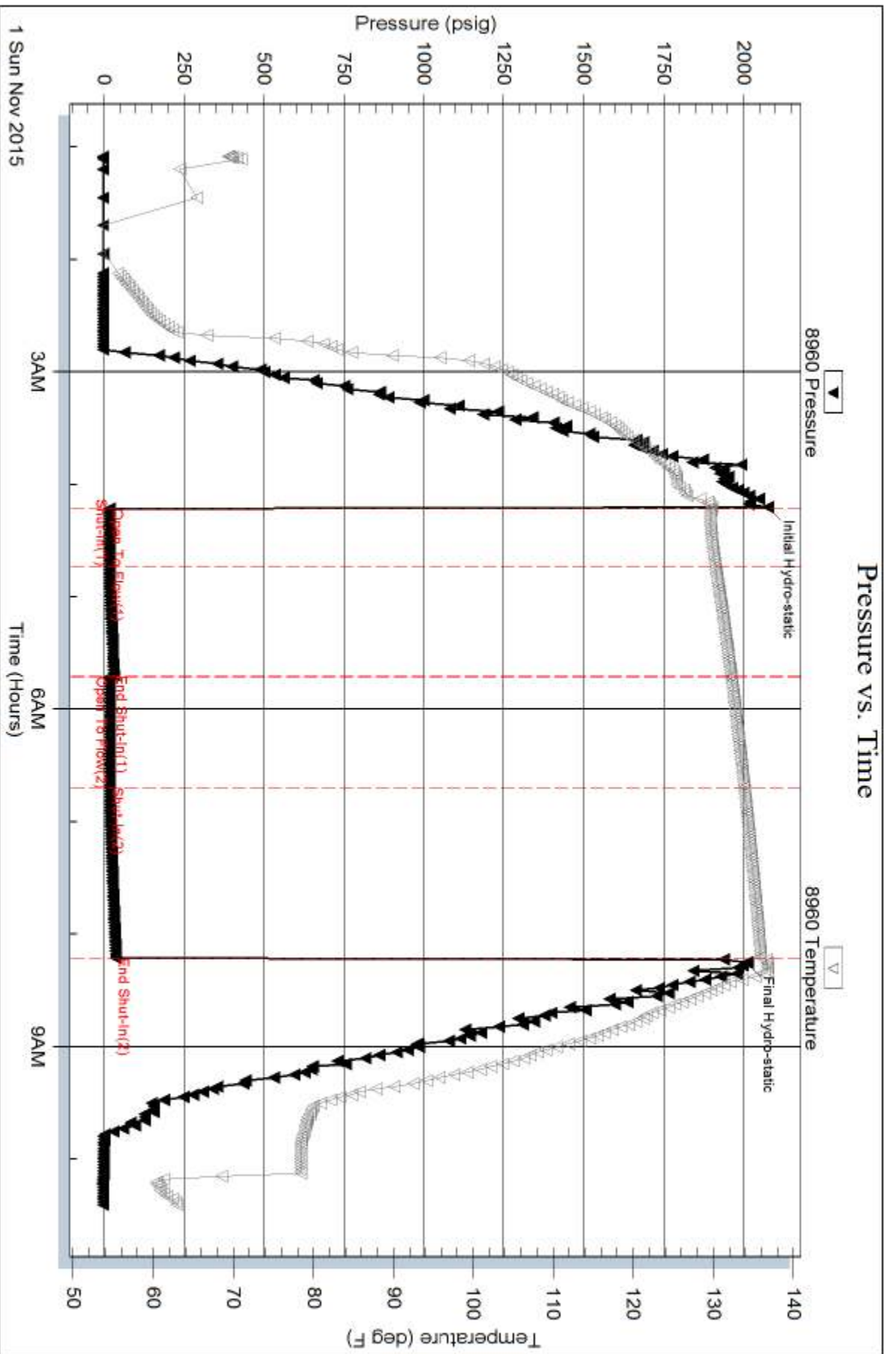
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Berexco LLC

17 2S 37W Cheyenne KS

2020 N Bramblewood
Wichita KS 67206

Ardene 1-17

Job Ticket: 64955

DST#: 2

ATTN: Bryan Bynog

Test Start: 2015.11.02 @ 01:05:00

GENERAL INFORMATION:

Formation: **Douglas & LKC "A"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 03:28:00

Time Test Ended: 10:28:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Robert Zodrow

Unit No: 66

Interval: 4130.00 ft (KB) To 4225.00 ft (KB) (TVD)

Reference Elevations: 3272.00 ft (KB)

Total Depth: 4225.00 ft (KB) (TVD)

3261.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8960 Outside

Press@RunDepth: 89.88 psig @ 4131.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.11.02

End Date:

2015.11.02

Last Calib.:

2015.11.02

Start Time: 01:05:05

End Time:

10:28:30

Time On Btm:

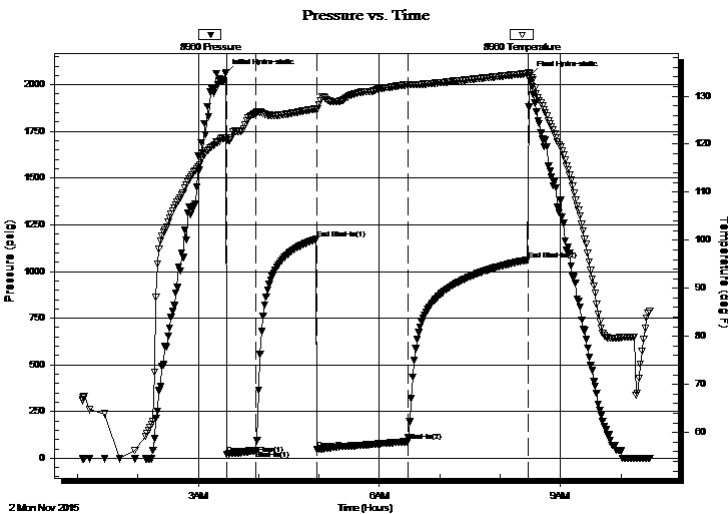
2015.11.02 @ 03:27:30

Time Off Btm:

2015.11.02 @ 08:29:30

TEST COMMENT: 30-IS- Blow built to 2 1/2"
60-IS- No return
90-FF- Blow built to 2 1/4"
120-FS- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2060.83	121.34	Initial Hydro-static
1	22.10	120.77	Open To Flow (1)
30	40.52	126.50	Shut-In(1)
90	1173.34	127.40	End Shut-In(1)
91	47.53	127.07	Open To Flow (2)
181	89.88	132.33	Shut-In(2)
300	1062.40	134.71	End Shut-In(2)
302	2049.97	134.64	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	OCM 5%O 95%M	0.59

* 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

17 2S 37W Cheyenne KS

2020 N Bramblewood
Wichita KS 67206

Ardene 1-17

Job Ticket: 64955

DST#: 2

ATTN: Bryan Bynog

Test Start: 2015.11.02 @ 01:05:00

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: 47.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	OCM 5%O 95%M	0.590

Total Length: 120.00 ft Total Volume: 0.590 bbl

Num Fluid Samples: 0

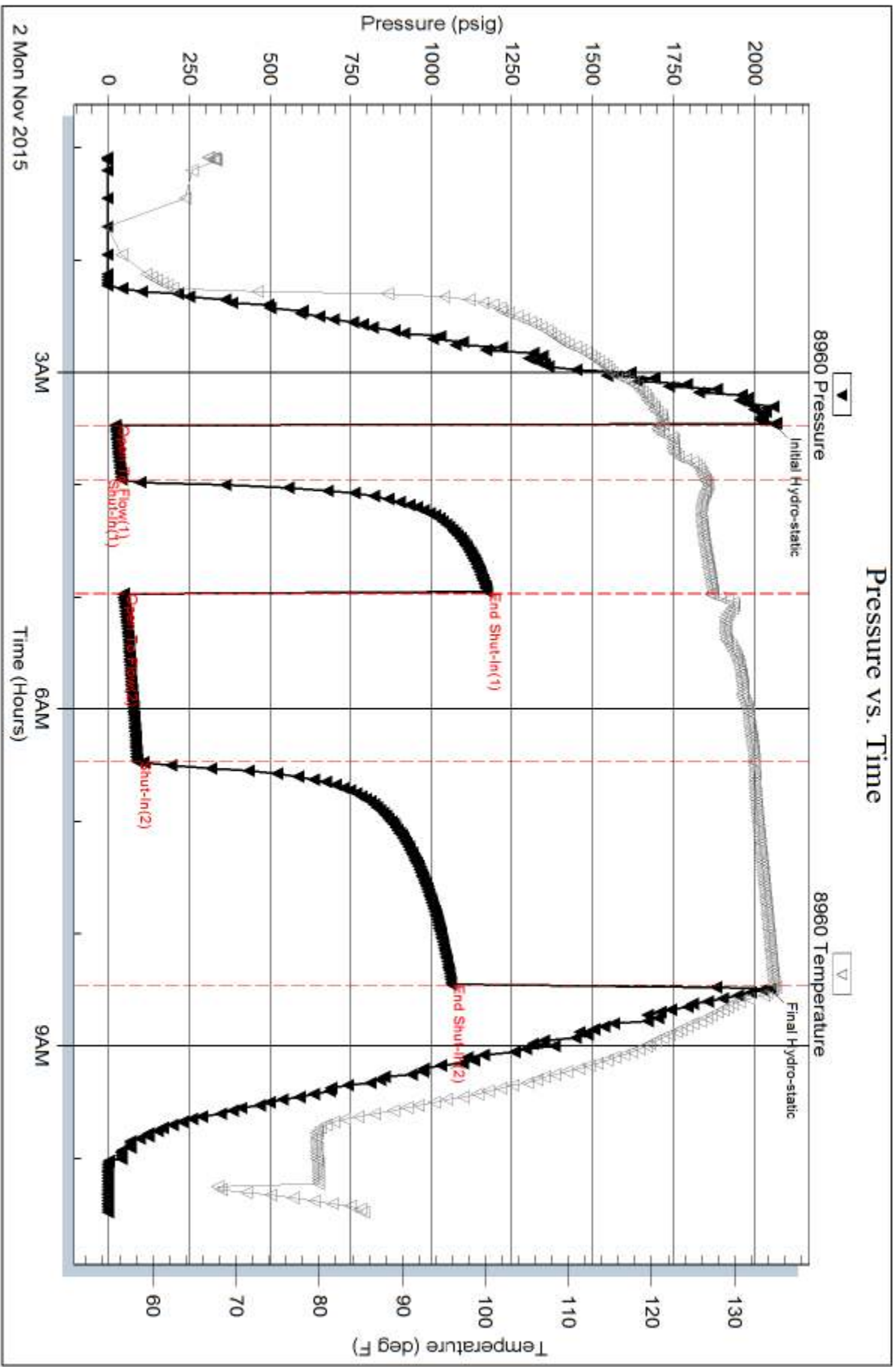
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

17 2S 37W Cheyenne KS
Ardene 1-17
Job Ticket: 64956 **DST#: 3**
Test Start: 2015.11.02 @ 20:30:00

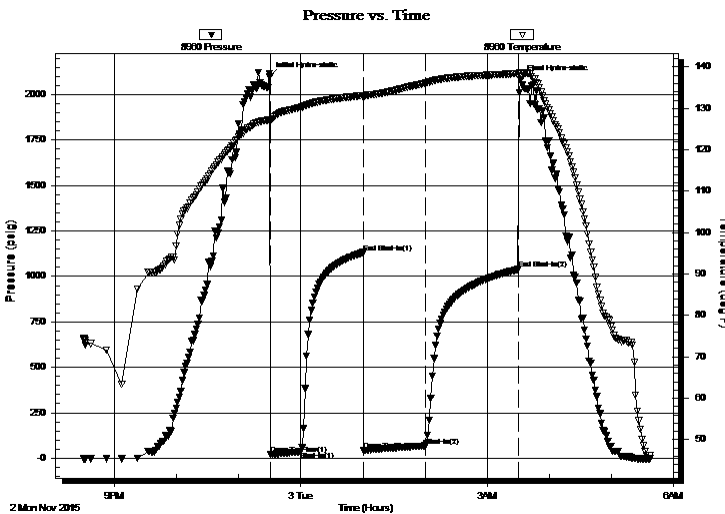
GENERAL INFORMATION:

Formation: **LKC "B"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 23:30:30
Time Test Ended: 05:37:30
Test Type: Conventional Bottom Hole (Reset)
Tester: Robert Zodrow
Unit No: 66
Interval: **4200.00 ft (KB) To 4280.00 ft (KB) (TVD)**
Reference Elevations: 3272.00 ft (KB)
Total Depth: 4280.00 ft (KB) (TVD) 3261.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

Serial #: 8960 Outside
Press @ Run Depth: 68.14 psig @ 4201.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2015.11.02 End Date: 2015.11.03 Last Calib.: 2015.11.03
Start Time: 20:30:05 End Time: 05:37:30 Time On Btm: 2015.11.02 @ 23:30:00
Time Off Btm: 2015.11.03 @ 03:32:30

TEST COMMENT: 30-IF- Blow built to 1 1/4"
60-ISI- No return
60-FF- No blow
90-FSI- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2099.39	127.35	Initial Hydro-static
1	22.24	126.82	Open To Flow (1)
30	36.35	130.26	Shut-In(1)
90	1131.31	133.09	End Shut-In(1)
91	42.83	132.67	Open To Flow (2)
151	68.14	136.13	Shut-In(2)
240	1038.57	138.43	End Shut-In(2)
243	2082.92	138.67	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	OCM 2%O 98%M	0.30

* 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

17 2S 37W Cheyenne KS

2020 N Bramblewood
Wichita KS 67206

Ardene 1-17

Job Ticket: 64956

DST#: 3

ATTN: Bryan Bynog

Test Start: 2015.11.02 @ 20:30:00

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: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.80 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	OCM 2%O 98%M	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

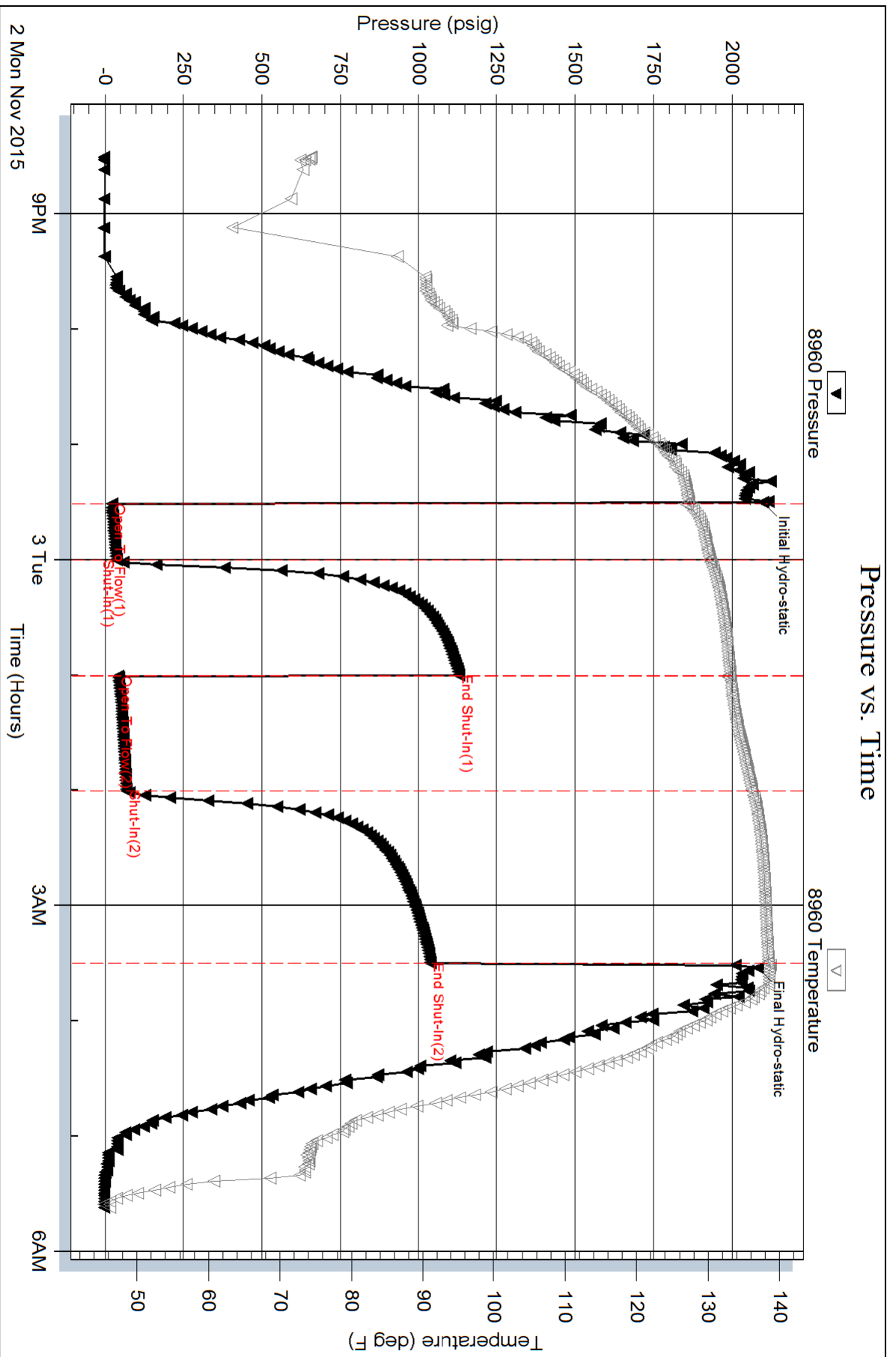
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:





TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Berexco LLC

17 2S 37W Cheyenne KS

2020 N Bramblewood
Wichita KS 67206

Ardene 1-17

Job Ticket: 64957

DST#: 4

ATTN: Bryan Bynog

Test Start: 2015.11.03 @ 16:30:00

GENERAL INFORMATION:

Formation: **LKC "C"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:07:30

Time Test Ended: 02:02:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Robert Zodrow

Unit No: 66

Interval: 4260.00 ft (KB) To 4330.00 ft (KB) (TVD)

Reference Elevations: 3272.00 ft (KB)

Total Depth: 4330.00 ft (KB) (TVD)

3261.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8960 Outside

Press@RunDepth: 27.88 psig @ 4261.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.11.03

End Date:

2015.11.04

Last Calib.: 2015.11.04

Start Time: 16:30:05

End Time:

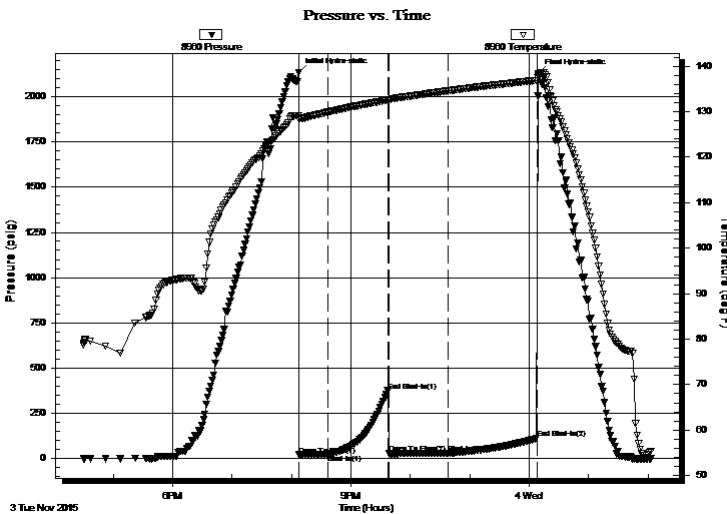
02:02:30

Time On Btm: 2015.11.03 @ 20:07:00

Time Off Btm: 2015.11.04 @ 00:09:00

TEST COMMENT: 30-IS- Blow built to 1/8" died in 29 mins
60-IS- No return
60-FF- No blow
90-FS- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2134.86	129.12	Initial Hydro-static
1	18.65	128.53	Open To Flow (1)
30	23.34	129.94	Shut-In(1)
90	373.68	132.55	End Shut-In(1)
91	25.57	132.45	Open To Flow (2)
152	27.88	134.60	Shut-In(2)
241	110.61	136.90	End Shut-In(2)
242	2127.16	137.84	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	OCM 10%O 90%M	0.05

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco LLC

17 2S 37W Cheyenne KS

2020 N Bramblewood
Wichita KS 67206

Ardene 1-17

Job Ticket: 64957

DST#: 4

ATTN: Bryan Bynog

Test Start: 2015.11.03 @ 16:30:00

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: 50.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.60 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 1000.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	OCM 10%O 90%M	0.049

Total Length: 10.00 ft Total Volume: 0.049 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

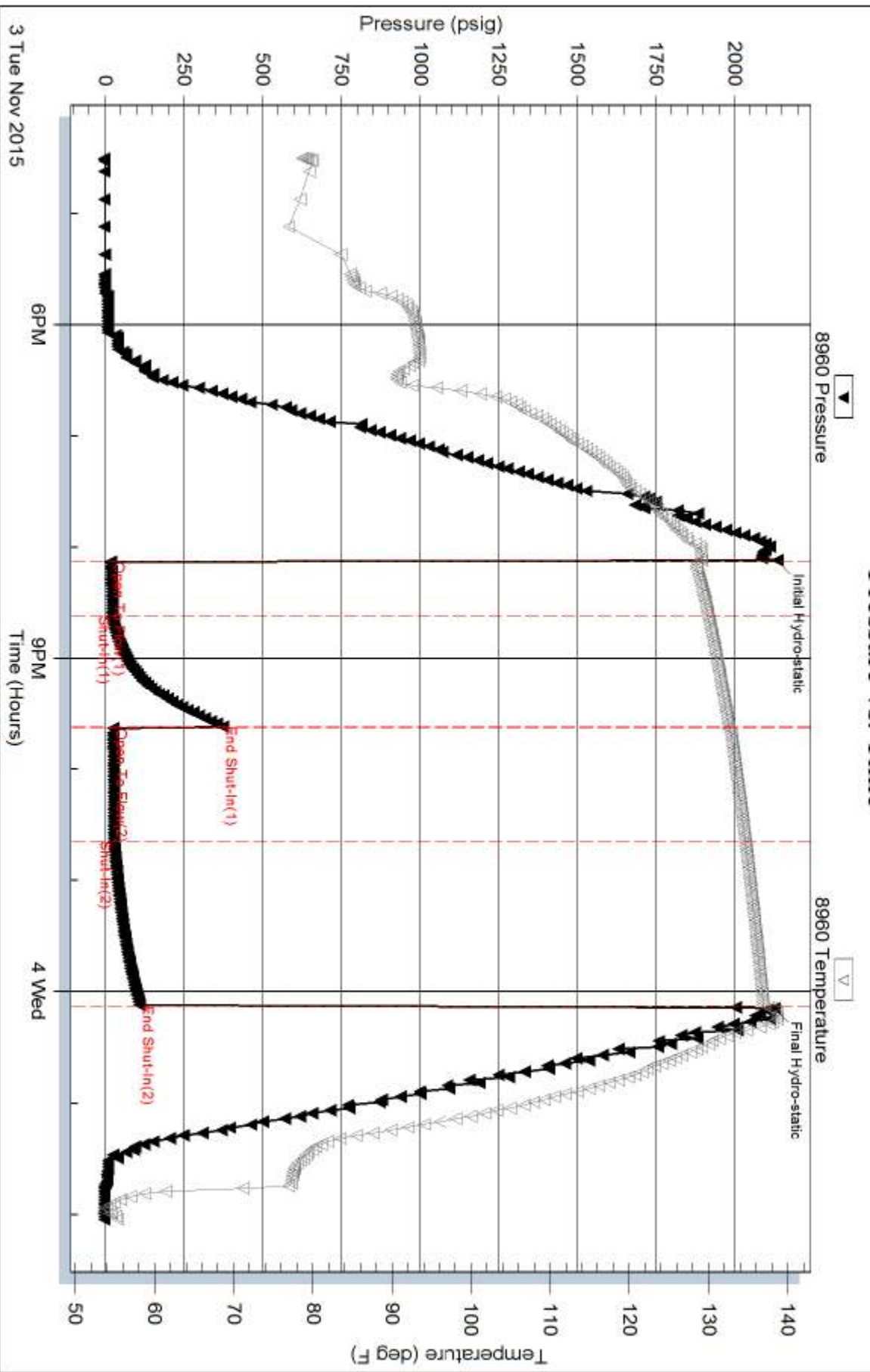
Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Pressure vs. Time





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

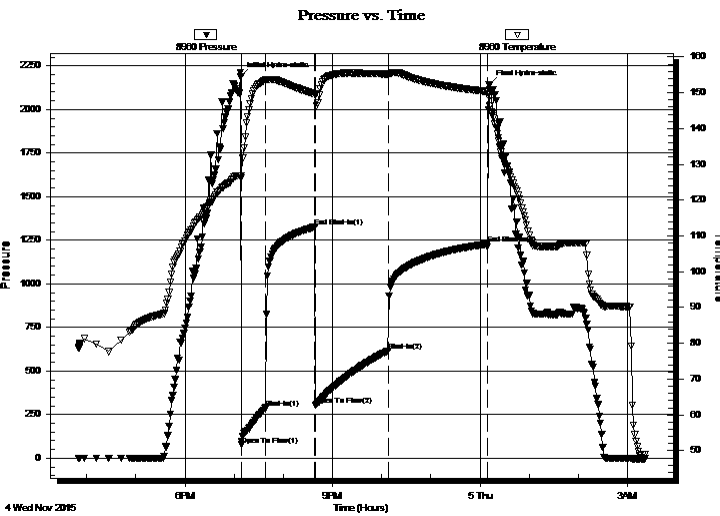
17 2S 37W Cheyenne KS
Ardene 1-17
 Job Ticket: 64958 **DST#: 5**
 Test Start: 2015.11.04 @ 15:50:00

GENERAL INFORMATION:

Formation: **LKC " D & E "**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:08:30
 Time Test Ended: 03:22:00
 Interval: **4315.00 ft (KB) To 4400.00 ft (KB) (TVD)**
 Total Depth: 4400.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Robert Zodrow
 Unit No: 66
 Reference Elevations: 3272.00 ft (KB)
 3261.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8960 Outside
 Press @ Run Depth: 616.34 psig @ 4316.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.11.04 End Date: 2015.11.05 Last Calib.: 2015.11.05
 Start Time: 15:50:05 End Time: 03:22:00 Time On Btm: 2015.11.04 @ 19:08:00
 Time Off Btm: 2015.11.05 @ 00:11:00

TEST COMMENT: 30-IF- Bob in 3 mins
 60-ISI- Bob in 10 mins Dropped Bar Reversed Out
 90-FF- Bob in 7 mins
 120-FSI- No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2187.30	126.96	Initial Hydro-static
1	77.10	126.28	Open To Flow (1)
31	289.66	153.46	Shut-In(1)
91	1326.90	149.63	End Shut-In(1)
91	303.56	149.19	Open To Flow (2)
180	616.34	155.19	Shut-In(2)
301	1228.14	150.36	End Shut-In(2)
303	2140.86	148.62	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GMCO 20%G 35%M 45%O	0.30
1720.00	GO 20%G 80%O	22.10
0.00	GIP 1500'	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

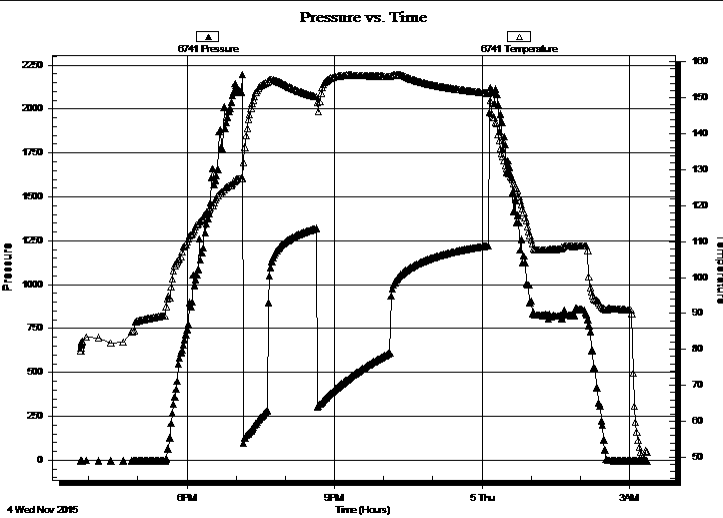
17 2S 37W Cheyenne KS
Ardene 1-17
Job Ticket: 64958 **DST#: 5**
Test Start: 2015.11.04 @ 15:50:00

GENERAL INFORMATION:

Formation: **LKC "D & E"**
 Deviated: No Whipstock: ft (KB) Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 19:08:30 Tester: Robert Zodrow
 Time Test Ended: 03:22:00 Unit No: 66
Interval: 4315.00 ft (KB) To 4400.00 ft (KB) (TVD) Reference Elevations: 3272.00 ft (KB)
 Total Depth: 4400.00 ft (KB) (TVD) 3261.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 11.00 ft

Serial #: 6741 Inside
 Press @ RunDepth: psig @ 4316.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.11.04 End Date: 2015.11.05 Last Calib.: 2015.11.05
 Start Time: 15:50:05 End Time: 03:22:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: 30-IF- Bob in 3 mins
 60-IS- Bob in 10 mins Dropped Bar Reversed Out
 90-FF- Bob in 7 mins
 120-FS- No return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GMCO 20%G 35%M 45%O	0.30
1720.00	GO 20%G 80%O	22.10
0.00	GIP 1500'	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco LLC

17 2S 37W Cheyenne KS

2020 N Bramblewood
Wichita KS 67206

Ardene 1-17

Job Ticket: 64958

DST#: 5

ATTN: Bryan Bynog

Test Start: 2015.11.04 @ 15:50:00

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

35 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

ppm

Viscosity: 115.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 5.60 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 900.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GMCO 20%G 35%M 45%O	0.295
1720.00	GO 20%G 80%O	22.105
0.00	GIP 1500'	0.000

Total Length: 1780.00 ft Total Volume: 22.400 bbl

Num Fluid Samples: 0

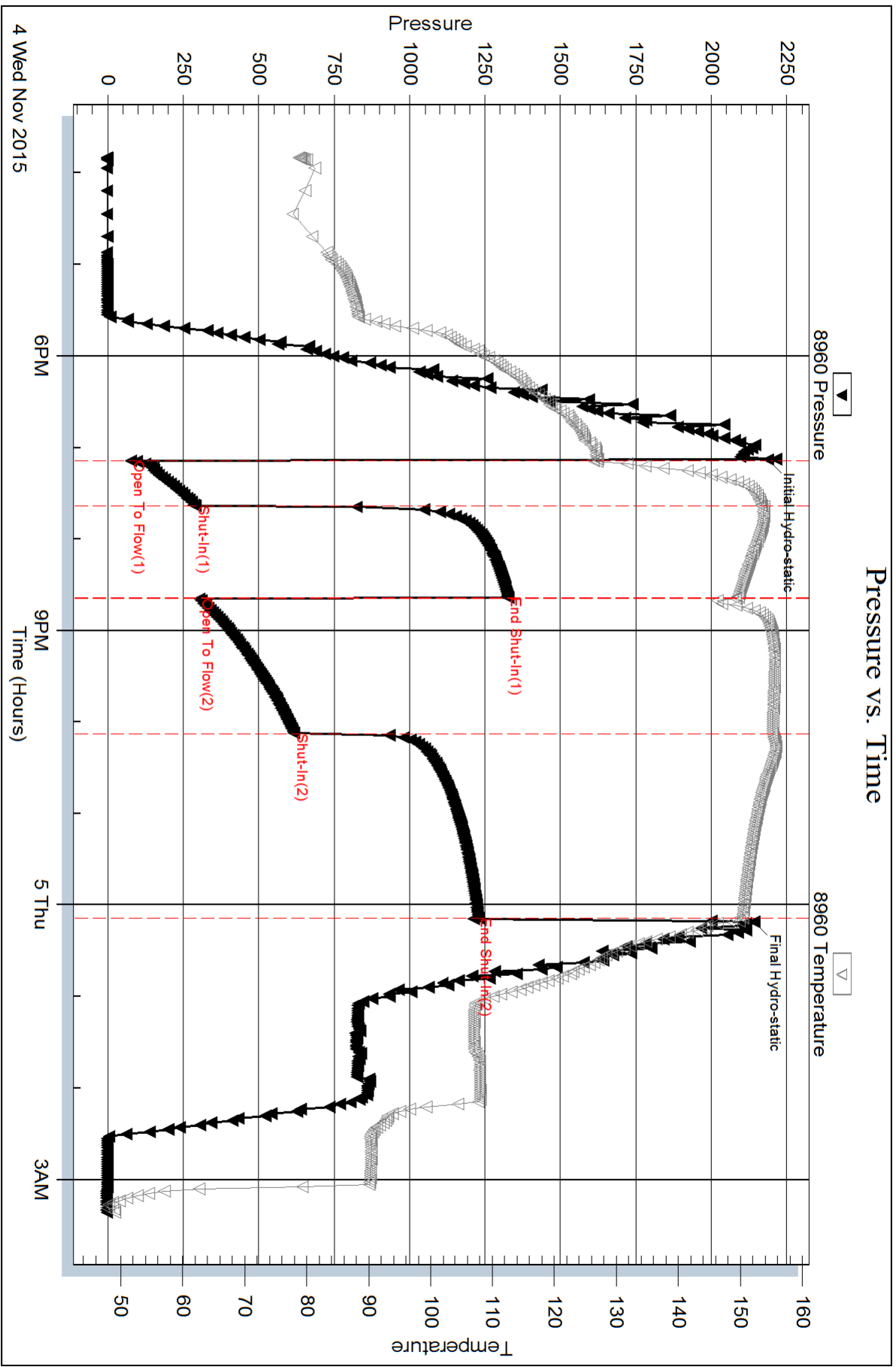
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



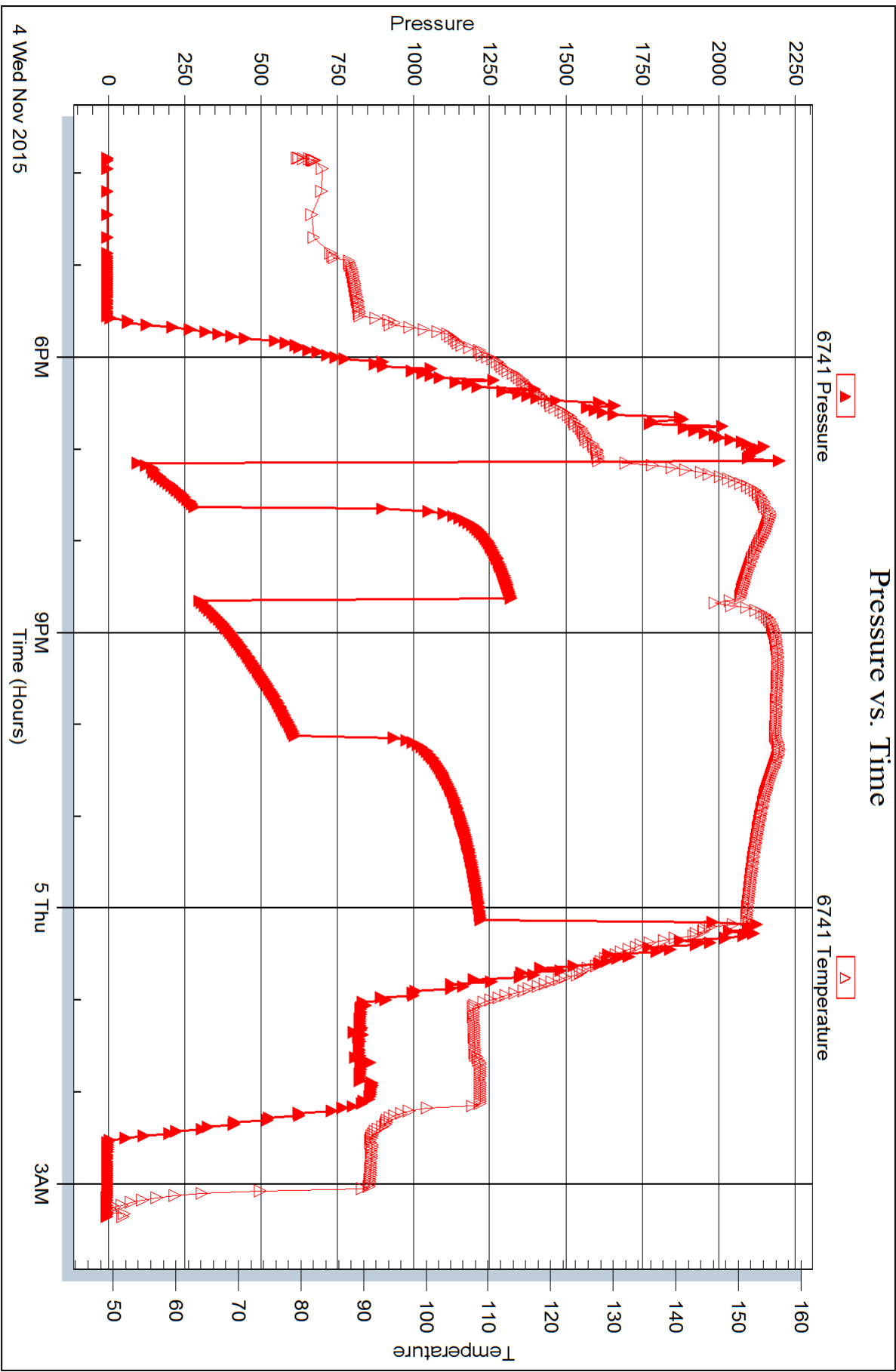
Serial #: 6741

Inside

Berexco LLC

Ardene 1-17

DST Test Number: 5





TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Berexco LLC

17 2S 37W Cheyenne KS

2020 N Bramblewood
Wichita KS 67206

Ardene 1-17

Job Ticket: 64959

DST#: 6

ATTN: Bryan Bynog

Test Start: 2015.11.06 @ 03:05:00

GENERAL INFORMATION:

Formation: **Pawnee & Fort Scott**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 05:26:00

Time Test Ended: 11:37:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Robert Zodrow

Unit No: 66

Interval: 4555.00 ft (KB) To 4635.00 ft (KB) (TVD)

Reference Elevations: 3272.00 ft (KB)

Total Depth: 4635.00 ft (KB) (TVD)

3261.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 11.00 ft

Serial #: 8960 Outside

Press@RunDepth: 55.39 psig @ 4556.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.11.06

End Date:

2015.11.06

Last Calib.:

2015.11.06

Start Time: 03:05:05

End Time:

11:36:59

Time On Btm:

2015.11.06 @ 05:25:30

Time Off Btm:

2015.11.06 @ 09:26:30

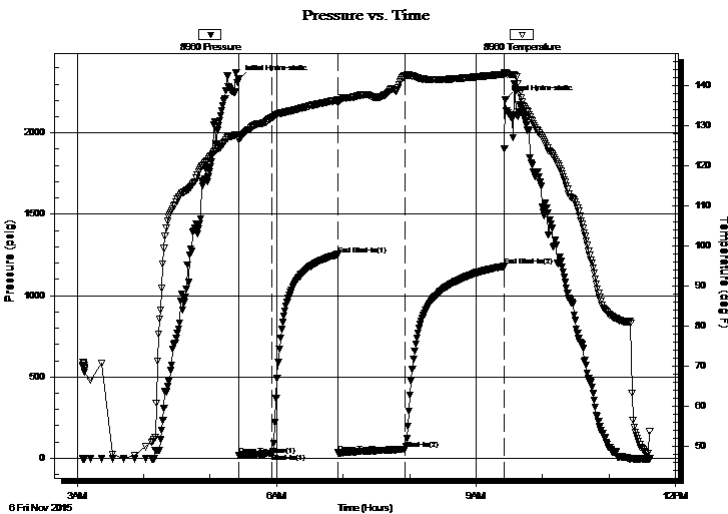
TEST COMMENT: 30-IS- blow built to 3/4"

60-IS- No return

60-FF- No blow

90-FS- No return

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2330.08	127.00	Initial Hydro-static
1	18.18	126.35	Open To Flow (1)
31	30.30	131.89	Shut-In(1)
90	1252.49	136.26	End Shut-In(1)
90	33.63	135.49	Open To Flow (2)
150	55.39	142.22	Shut-In(2)
240	1179.97	142.68	End Shut-In(2)
241	2205.69	142.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	MUD 100%M oil spots	0.30

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Berexco LLC

17 2S 37W Cheyenne KS

2020 N Bramblewood
Wichita KS 67206

Ardene 1-17

Job Ticket: 64959

DST#: 6

ATTN: Bryan Bynog

Test Start: 2015.11.06 @ 03:05:00

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: 75.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.40 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 800.00 ppm

Filter Cake: 2.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MUD 100%M oil spots	0.295

Total Length: 60.00 ft Total Volume: 0.295 bbl

Num Fluid Samples: 0

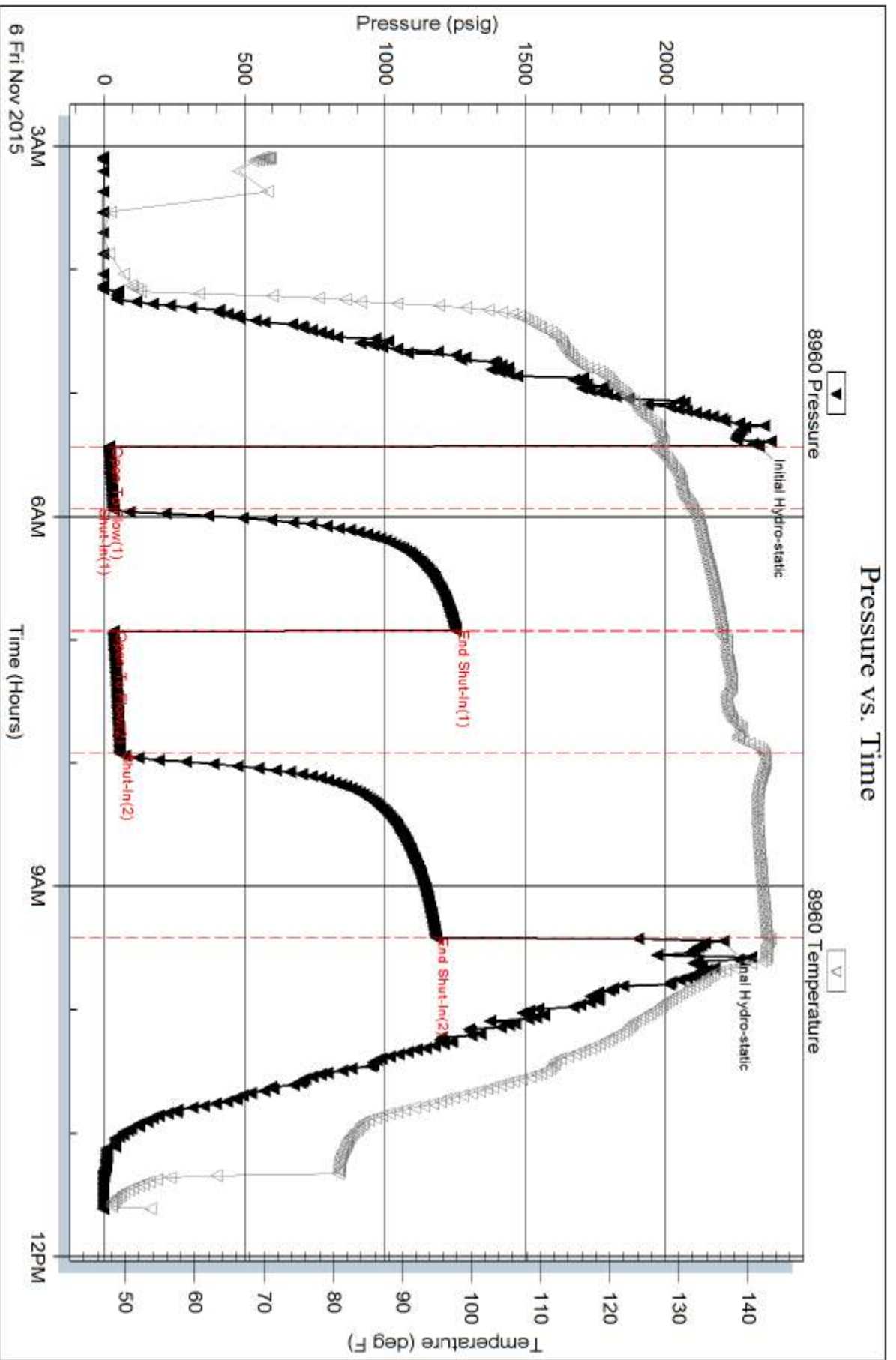
Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



**BEREXCO, LLC.
ARDENE #1-17
SENE SECTION 17 2S-37W
CHEYENNE COUNTY, KANSAS**

**GEOLOGIST
WILLIAM B. BYNOG**

RESUME

OPERATOR: BEREXCO, LLC.

WELL NAME & NUMBER: ARDENE #1-17

LOCATION: SENE SECTION 17 2S-37W

COUNTY: CHEYENNE

STATE: KANSAS

SPUD DATE: 10-27-2015 COMPLETION DATE: 11-8-2015

ELEVATIONS: GL: 3256 KB: 3267

CONTRACTOR: BEREDCO RIG 10

LOGS: LOG TECH TYPES: RAG, MICROLOG

WELLSITE ENGINEER: NONE

MUD COMPANY: MORGAN MUD

MUD TYPE & ENGINEER: FRESH CHEMICAL

GEOLOGIST: WILLIAM B. BYNOG

HOLE SIZE: 7 7/8

MUD LOGGING BY: NONE

DRILL STEM TEST COMPANY: TRILOBITE

DRILL STEM TEST: DST#1 4050-4120, DST#2 4130-4225,
DEST#3 4200-4280, DST#4 4260-4330,
DST#5 4315-4400, DST#6 4555-4635

WELL STATUS: RAN 5 ½ PRODUCTION CASING

Ardene #1-17 SAMPLE DESCRIPTIONS

3650-86 SHALE red,firm,silty

3686-3712 LIMESTONE buff,hard,blocky,microcrystalline,sandy in part poor porosity,chalky in part,abundant Chert orange,white

3712-32 Shale red,firm,silty

FORAKER

3732-50 LIMESTONE gray,slightly hard,fossils,dirty,shaly

3750-60 LIMESTONE buff,firm,chalky in part,poor porosity,no shows

3760-70 SHALE gray,firm,calcareous

3770-86 SANDSTONE white,slightly hard,very fine grained,chalky in part,poor vis porosity,no shows

3786-3804 SHALE red,soft,silty

3804-14 LIMESTONE white,firm,oolic,chalky,poor pinpoint porosity,spotty live brown stain,faint cut,no free oil

3814-80 SHALE red,firm,silty

3880-3904 LIMESTONE off white,slightly hard,blocky,chalky in part,oolic,poor pinpoint porosity,spotty black dead stain,faint cut,no live oil

Ardene #1-17 SAMPLE DESCRIPTIONS

3904-30 LIMESTONE buff,hard,fossils,very chalky in part,poor to fair microcrystalline porosity,no shows with thin SHALE as above

3930-40 LIMESTONE white,slightly hard,oolic,chalky in part,poor vis porosity,very spotty black dead stain

3940-58 SHALE red,firm,slightly silty

TOPEKA

3958-70 LIMESTONE buff,hard,blocky,chalky in part,oolic,poor pinpoint vuggy porosity,spotty black dead tar stain,good cut,no free oil

3970-84 LIMESTONE buff,hard,blocky,slightly oolic,poor pinpoint vuggy porosity,very spotty black dead stain,no free oil

3984-4010 LIMESTONE buff,very hard,dense,crptoxln,chalky in part,no shows

4010-36 SHALE red,green,firm,silty with thin LIMESTONE as above

4036-56 LIMESTONE buff,firm to hard,microcrystalline to sandy in part,poor vis porosity,no shows

4056-70 LIMESTONE buff,very hard,dense,crptoxln,no shows

4070-4105 SHALE red,green,gray green,firm,fissile abundant pyrite

Ardene #1-17 SAMPLE DESCRIPTIONS

OREAD

4105-16 GRAINSTONE white,firm,slightly chalky,fossils,poor to fair microcrystalline and intergranular porosity,spotty to even live brown stain,very good cut,good show free oil

4116-4154 LIMESTONE buff to gray brown,very hard,dense,blocky,crptoxln,no shows with thin SHALE as above

DOUGLAS SAND

4154-64 SANDSTONE translucent, friable, very fine grained, rounded, wsrtd, poor to fair intergranular porosity, spotty to even brown live stain, very good cut, very good show free oil

4164-82 SHALE red,firm,silty

A

4182-92 LIMESTONE white,firm,fossils,chalky in part,poor to fair microcrystalline and pinpoint vuggy porosity,spotty to even live brown stain,good cut,poor show free oil

4192-4200 LIMESTONE buff,light gray brown,very hs,dense,crptoxln,no shows

4200-08 LIMESTONE as above some poor microcrystalline porosity,spotty live stain,poor cut,no free oil

4208-16 SHALE red,green,firm,silty

4216-20 SANDSTONE white, friable, very fine grained, rounded, wsrtd, fair intergranular porosity, spotty live brown stain, fair cut, no free oil

Ardene #1-17 SAMPLE DESCRIPTIONS

4220-46 SHALE red,firm,argillaceous,fissile

B

4246-56 LIMESTONE white to buff,hard,blocky,dense,fnly microcrystalline,chalky in part poor porosity,trace black dead stain,no free oil

4256-64 GRAINSTONE white,firm,fossils,chalky in part,poor microcrystalline porosity,fair intergranular porosity,spotty live brown stain,very good cut,fair show free oil

4264-4272 SHALE red,green,firm,fissile,argillaceous abundant pyrite

4272-76 LIMESTONE gray brown,very hard,dense,crptoxln,no shows

4276-4304 SHALE as above abundant pyrite

C

4304-10 GRAINSTONE off white,firm to slightly hard,very fossils,fair intergranular and microcrystalline porosity,spotty to even live brown stain,very good cut,good show free oil

4310-18 LIMESTONE buff,very hard,dense,no shows

4318-24 GRAINSTONE off white,slightly hard, fossils,poor to fair intergranular and pinpoint vuggy porosity,spotty live brown stain,good cut,good show free oil

Ardene #1-17 SAMPLE DESCRIPTIONS

4324-44 SHALE red,green,firm,silty in part trace black,blocky,carbonaceous

D

4344-50 GRAINSTONE off white,hard,blocky,very oolic,poor to fair intergranular porosity,spotty live brown stain,fair cut,no free oil

4350-66 SHALE red,green,firm,argillaceous,fissile with thin LIMESTONE buff,hard,blocky,dense,no shows

4366-70 GRAINSTONE off white,slightly hard,oolic,poor to fair intergranular porosity,spotty live brown stain,good cut,fair show free oil

4370-83 SHALE as above

4383-87 LIMESTONE white,slightly hard,fossils,poor intergranular porosity,spotty live brown stain,good cut,poor show free oil

E

4387-4414 LIMESTONE buff,very hard,dense,crptoxln,no shows with thin SHALE as above

4404-08 SANDSTONE red,pale green,firm,very fine grained,rounded,clay filled,poor porosity,no shows

4408-26 SHALE as above

F

Ardene #1-17 SAMPLE DESCRIPTIONS

4426-32 LIMESTONE off white to pale gray,hard,blocky,chalky,poor pinpoint porosity,very spotty black dead stain,no live oil

4432-40 LIMESTONE buff,very hard,dense,blocky,crptoxln

4432-58 SHALE red,firm,silty in part,fissile

4458-4510 LIMESTONE buff,hard,dense,crptoxln,slightly fossils,chalky in part,no vis porosity,no shows with thin SHALE as above

4510-30 SHALE red,green,gray,soft,very argillaceous,gummy

4530-540 SILTSTONE red,firm,sandy in part

4540-68 LIMESTONE white,firm,microcrystalline to sandy in part,chalky,poor vis porosity,no shows

4568-86 SHALE red,green,gray,firm,fissile,britt

PAWNEE

4586-92 GRAINSTONE off white,firm,very fossils,chalky in part,poor microcrystalline and intergranular porosity,spotty to even live brown stain,very good cut,good show free oil

4592-97 LIMESTONE buff,hard,blocky,dense,poor vis porosity,no shows

Ardene #1-17 SAMPLE DESCRIPTIONS

4697-4602 LIMESTONE off white,slightly hard,blocky,chalky,microcrystalline,poor vis porosity,very spotty live brown stain,faint cut,no free oil

4602-10 SHALE gray,black,firm,fissile,carbonaceous

FORT SCOTT

4610-14 LIMESTONE off white,hard,blocky,chalky in part,microcrystalline,poor crystalline porosity,very spotty faint oil stain,weak cut,no free oil

4614-22 LIMESTONE off white,very hard,dense,chalky,abundant Chert white,poor vis porosity,no shows

4622-32 SHALE black,d gray,firm,fissile,carbonaceous

4632-42 LIMESTONE buff,hard,dense,blocky,crptoxln,no shows

4642-50 SHALE black,slightly hard,britt,very carbonaceous

4650-70 LIMESTONE buff,very hard,very dense,crptoxln,no shows chalky in part,aome Chert white

4670-4700 LIMESTONE as above with intrbdd SHALE as above

4700-30 SHALE red,green,firm,sandy in part

Ardene #1-17 SAMPLE DESCRIPTIONS

4730-50 SANDSTONE translucent,firm,m to coarse grained,angular,poor sorted,sileous,poor vis porosity,no shows with thin SHALE as above

4750-62 SHALE red,green,firm,fissile,silty in part

4762-4800 SANDSTONE trnls,as above abundant unconsolidated m to very coarse grains with thin SHALE as above

RTD 4800'

LTD 4811'