

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	Palomino Petroleum, Inc.
Well Name	BUTTERFIELD 3
Doc ID	1440145

All Electric Logs Run

Litho Density Neutron
Dual Induction
Micro
Dual Receiver Cement Bond

Form	ACO1 - Well Completion
Operator	Palomino Petroleum, Inc.
Well Name	BUTTERFIELD 3
Doc ID	1440145

Tops

Name	Top	Datum
Anhy.	1957	(+ 540)
Base Anhy.	1998	(+ 499)
Heebner	3746	(-1249)
Lansing	3784	(-1287)
Muncie Creek	3934	(-1437)
Stark Shale	4015	(-1518)
BKC	4066	(-1569)
Marmaton	4091	(-1594)
Pawnee	4212	(-1715)
Ft. Scott	4275	(-1778)
Cherokee Sh.	4296	(-1799)
Miss.	4376	(-1879)
LTD	4471	(-1974)

GLOBAL OIL FIELD SERVICES, LLC

24 S. Lincoln
RUSSELL, KS 67665

RECEIVED

NOV 29 2018

Invoice

Date	Invoice #
11/27/2018	0013264

Bill To
PALOMINO PETROLEUM INC 4924 SE 84TH ST NEWTON,KS 67114

P.O. No.	Terms	Project
BUTTERFIELD#3	Due on receipt	

Quantity	Description	Rate	Amount
170	COMMON CEMENT	16.50	2,805.00
6	CALCIUM-CHLORIDE	80.00	480.00
4	BENTONITE GEL	30.00	120.00
180	HANDLING	1.90	342.00
	BULK MILEAGE	630.00	630.00
1	TRI-PLEX PUMP CHARGE FOR SURFACE	850.00	850.00
45	HEAVY EQUIPMENT. ONE WAY	6.50	292.50
45	LMV- ONE WAY	2.75	123.75
	15% DISCOUNT IF PAID WITHIN 15 DAYS OF INVOICE		
	NESS CO SALES TAX	7.50%	0.00

Thank you for your business.		Total	\$5,643.25
Phone #	Fax #		
785-445-3525	785-445-3526		

GLOBAL OIL FIELD SERVICES, LLC

0013264

REMIT TO 24 S. Lincoln
Russell, KS 67665

SERVICE POINT: Russell KS

DATE <u>11/16/15</u>	SEC. <u>11</u>	TWP. <u>14S</u>	RANGE <u>26</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Butterfield</u>	WELL #. <u>3</u>	LOCATION <u>15 mi south to KRD 3 East</u>			COUNTY <u>Gove</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE)	<u>North into</u>						

CONTRACTOR Wtw Drilling Rig #22
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4 T.D.
 CASING SIZE 4 3/8 DEPTH 225'
 TUBING SIZE DEPTH
 DRILL PIPE DEPTH
 TOOL DEPTH
 PRES. MAX MINIMUM
 MEAS. LINE SHOE JOINT
 CEMENT LEFT IN CSG. 25'
 PERFS
 DISPLACEMENT

OWNER Palomino Petroleum
 CEMENT AMOUNT ORDERED 1705x Com 396cc
2% Gel

EQUIPMENT
 PUMP TRUCK # 409 CEMENTER Eddy
 HELPER Brad
 BULK TRUCK # 411 DRIVER Tom
 BULK TRUCK DRIVER

COMMON @
 POZMIX @
 GEL @
 CHLORIDE @
 ASC @
 HANDLING @
 MILEAGE @
 TOTAL

REMARKS:

Run 5 jds of 8 3/8 casing + lit
hooked to Rig Brake circulation hooked
to truck + pumped 1705x of cement
+ displaced 1234 bbls of H2O +
shut in
Cement + DID Circulate to Surface

CHARGE TO: Palomino Petroleum
 STREET
 CITY STATE ZIP

SERVICE

DEPTH OF JOB
 PUMP TRUCK CHARGE
 EXTRA FOOTAGE @
 MILEAGE @
 MANIFOLD @
 TOTAL

PLUG & FLOAT EQUIPMENT

@
 @
 @
 @
 @
 TOTAL

Global Oil Field 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
 SIGNATURE [Signature]

SALES TAX (If Any)
 TOTAL CHARGES
 DISCOUNT IF PAID IN 30 DAYS



RECEIVED

NOV 30 2018

Date: 11/24/2018
 Invoice # 1073

QUALITY OILWELL CEMENTING, INC.
 PO Box 32 - 740 WEST WICHITA AVE, RUSSELL KS 67665
 PHONE:785-324-1041 FAX:785-483-1087
 EMAIL: cementing@ruraltel.net

P.O.#:
 Due Date: 12/24/2018
 Division: Russell

Invoice

Contact:
 Palomino Petroleum Inc
Address/Job Location:

4924 SE 84th
 Newton Ks 67114

Reference:
 BUTTERFIELD 3 SWD SEC 11-14-26

Description of Work:
 PROD STRING

Services / Items Included:	Quantity	Price	Taxable	Item	Quantity	Price	Taxable
Labor		\$ 675.02	No				
Multi Density- 80/20	350	\$ 4,766.45	Yes				
5 1/2" Basket	2	\$ 423.68	Yes				
5 1/2" Turbolizer	6	\$ 326.84	Yes				
Mud Clear	500	\$ 279.93	Yes				
Auto Fill Float Shoe, 5 1/2"	1	\$ 254.21	Yes				
Bulk Truck Matl-Material Service Charge	350	\$ 264.80	No				
Latch Down Plug & Baffle, 5 1/2"	1	\$ 201.25	Yes				
Flo Seal	100	\$ 151.32	Yes				
Pump Truck Mileage-Job to Nearest Camp	47	\$ 160.02	No				
Bulk Truck Mileage-Job to Nearest Bulk Plant	47	\$ 124.46	No				

Invoice Terms:

Net 30

SubTotal: \$ 7,627.98
 Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (190.70)

SubTotal for Taxable Items:	\$ 6,243.59
SubTotal for Non-Taxable Items:	\$ 1,193.69
Total:	\$ 7,437.28
Tax:	\$ 530.71

8.50% Gove County Sales Tax

Thank You For Your Business!

Amount Due: \$ 7,967.99
Applied Payments:
Balance Due: \$ 7,967.99

Past Due Invoices are subject to a service charge (annual rate of 24%)
 This does not include any applicable taxes unless it is listed.
 ©2008-2013 Straker Investments, LLC. All rights reserved.

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 1073

Date	Sec.	Twp.	Range	County	State	On Location	Finish
1/24-18	11	14	26	Cove	KS		8:30pm

Location Quenter 155 KW HE 12

Lease Burrhead 3 Well No. SWD Owner

Contractor KW #22 To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish

Type Job Production String cementer and helper to assist owner or contractor to do work as listed.

Hole Size 7 7/8 T.D. Charge To Palomino Petroleum

Csg. 5 1/2 14# Depth 2115.25 Street

Tbg. Size Depth City State

Tool Depth The above was done to satisfaction and supervision of owner agent or contractor.

Cement Left in Csg. 32.15 Shoe Joint 32.15 Cement Amount Ordered 350 80/100 QMDC 1/4 HP 10

Meas Line Displace 50 3/4 BCL 500gal mud clear

EQUIPMENT Common 350 80/100 QMDC

Pumptrk 20 No. Cementer Eric Poz. Mix

Bulktrk No. Driver Eric Gel.

Bulktrk 9 No. Driver Doug Calcium

JOB SERVICES & REMARKS Hulls

Remarks: Salt

Rat Hole 305K Flowseal 100#

Mouse Hole Kol-Seal

Centralizers Mud CLR 48 500 gal

Baskets CFL-117 or CD110 CAF 38

D/V or Port Collar Sand

5 1/2 set @ 2115. Insert @ 2083. Handling 350

Est. Circulation. Pump 500gal Mileage

mud clear. Plug bathole 305K

Cement 5 1/2 with 3205K. **FLOAT EQUIPMENT**

Clear lines & Displace Plug. Guide Shoe

Plug landed @ 1200# Centralizer 6

2# pressure 200# Baskets 2

Cement Circulator! AFU Inserts

Float Shoe 1

Latch Down 1

Pumptrk Charge prod string

Mileage 47

Signature Alan [Signature]

Signature Thanks

Signature Alan [Signature]

Signature Alan [Signature]

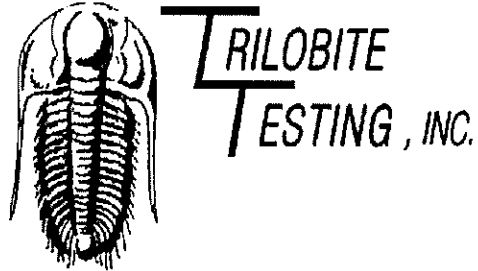
Signature Alan [Signature]

Signature Alan [Signature]

Signature Alan [Signature]

Signature Alan [Signature]

Tax	
Discount	
Total Charge	



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc**

4924 SE 84th St.
Newton, KS 67114

ATTN: Andrew Stenzel

Butterfield #3

11-14s-26w Gove,KS

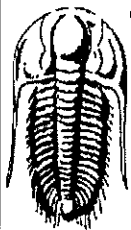
Start Date: 2018.11.21 @ 12:45:00

End Date: 2018.11.21 @ 20:05:30

Job Ticket #: 64431 DST #: 1

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

Printed: 2018.11.26 @ 10:07:55



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum, Inc

11-14s-26w Gove, KS

4924 SE 84th St.
New ton, KS 67114

Butterfield #3

Job Ticket: 64431

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2018.11.21 @ 12:45:00

GENERAL INFORMATION:

Formation: LKC- H & I

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 15:19:00

Time Test Ended: 20:05:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 3926.00 ft (KB) To 3990.00 ft (KB) (TVD)

Reference Elevations: 2497.00 ft (KB)

Total Depth: 3990.00 ft (KB) (TVD)

2488.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8522

Inside

Press@RunDepth: 25.67 psig @ 3927.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.21

End Date: 2018.11.21

Last Calib.: 2018.11.21

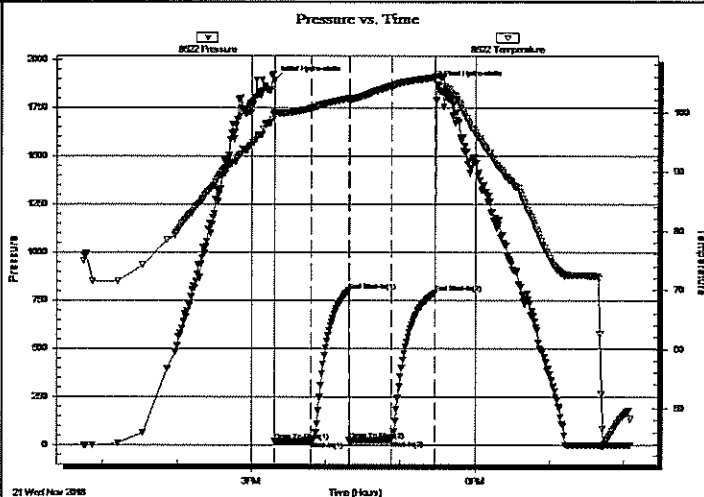
Start Time: 12:45:05

End Time: 20:05:29

Time On Btm: 2018.11.21 @ 15:18:30

Time Off Btm: 2018.11.21 @ 17:29:30

TEST COMMENT: 30- IF: 1/2" blow.
30- IS: No return.
30- FF: Surface blow.
30- FS: No return



PRESSURE SUMMARY

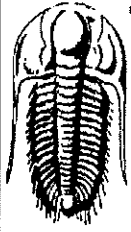
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1893.24	99.88	Initial Hydro-static
1	17.09	99.26	Open To Flow (1)
30	20.99	100.61	Shut-In(1)
61	801.28	102.33	End Shut-In(1)
61	21.68	101.85	Open To Flow (2)
94	25.67	104.39	Shut-In(2)
130	787.81	105.87	End Shut-In(2)
131	1868.20	106.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	Mud 100m (oil speks)	326.79

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum, Inc

11-14s-26w Gove, KS

4924 SE 84th St.
Newton, KS 67114

Butterfield #3

Job Ticket: 64431

DST#: 1

ATTN: Andrew Stenzel

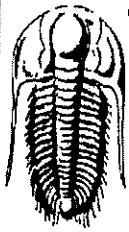
Test Start: 2018.11.21 @ 12:45:00

Tool Information

Drill Pipe:	Length: 3792.00 ft	Diameter: 3.80 inches	Volume: 53.19 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: 116.00 ft	Diameter: 116.00 inches	Volume: 1516.29 bbl	Weight to Pull Loose: 60000.00 lb
			Total Volume: 1569.48 bbl	Tool Chased 0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	3926.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	64.00 ft			
Tool Length:	91.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3900.00	
Shut In Tool	5.00		Fluid	3905.00	
Hydraulic tool	5.00			3910.00	
Jars	5.00			3915.00	
Safety Joint	2.00			3917.00	
Packer	5.00		Inside	3922.00	27.00 Bottom Of Top Packer
Packer	4.00			3926.00	
Stubb	1.00			3927.00	
Recorder	0.00	8522	Inside	3927.00	
Recorder	0.00	8319	Outside	3927.00	
Perforations	27.00			3954.00	
Change Over Sub	1.00			3955.00	
Drill Pipe	31.00			3986.00	
Change Over Sub	1.00			3987.00	
Bullnose	3.00			3990.00	64.00 Bottom Packers & Anchor
Total Tool Length:	91.00				



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum, Inc

11-14s-26w Gove, KS

4924 SE 84th St.
New ton, KS 67114

Butterfield #3

Job Ticket: 64431

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2018.11.21 @ 12:45:00

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: 65.00 sec/qt

Cushion Volume:

bbf

Water Loss: 5.99 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2200.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbf
25.00	Mud 100m (oil speks)	326.787

Total Length: 25.00 ft

Total Volume: 326.787 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

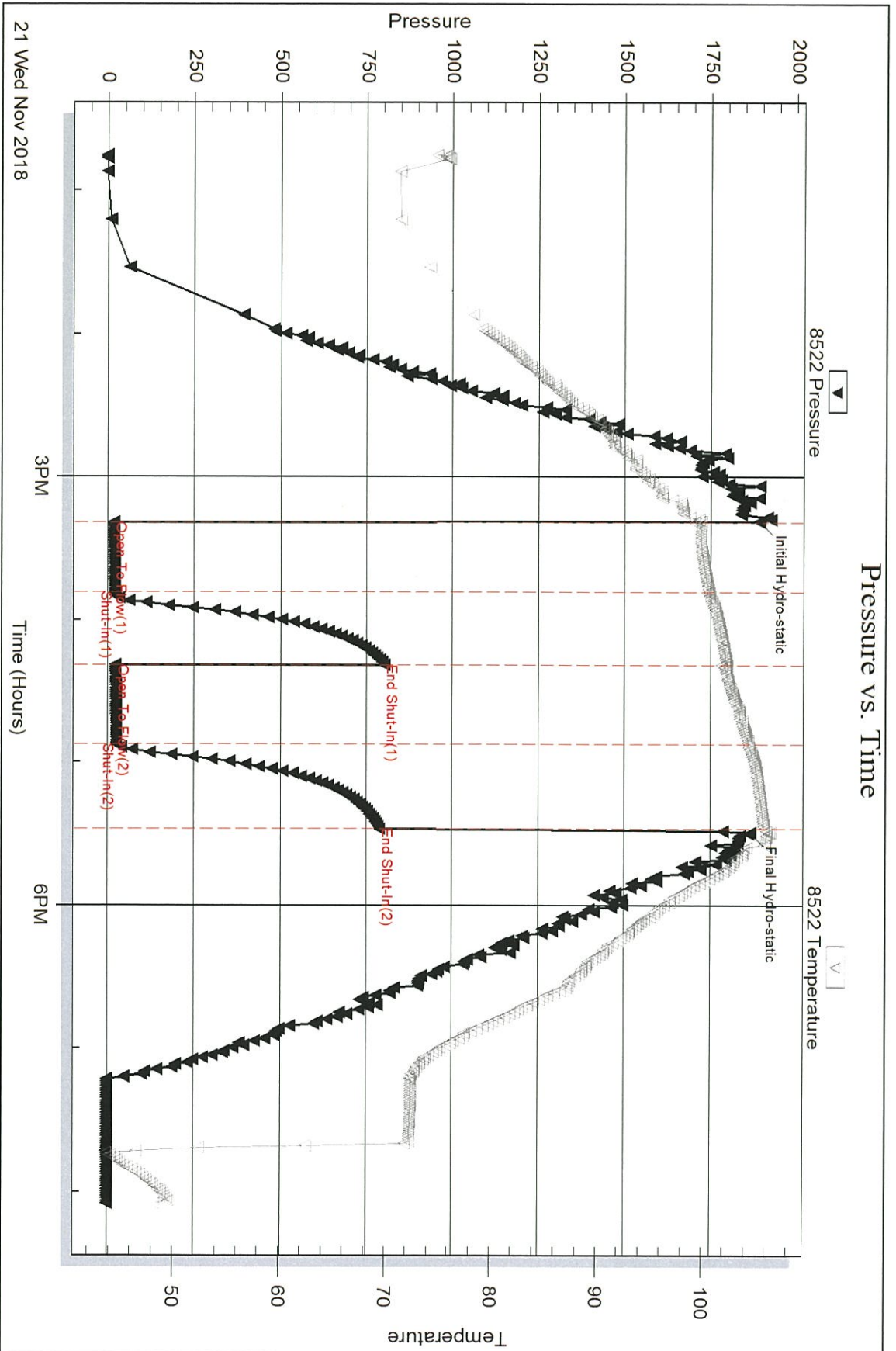
Serial #: 8522

Inside

Palorino Petroleum, Inc

Butterfield #3

DST Test Number: 1



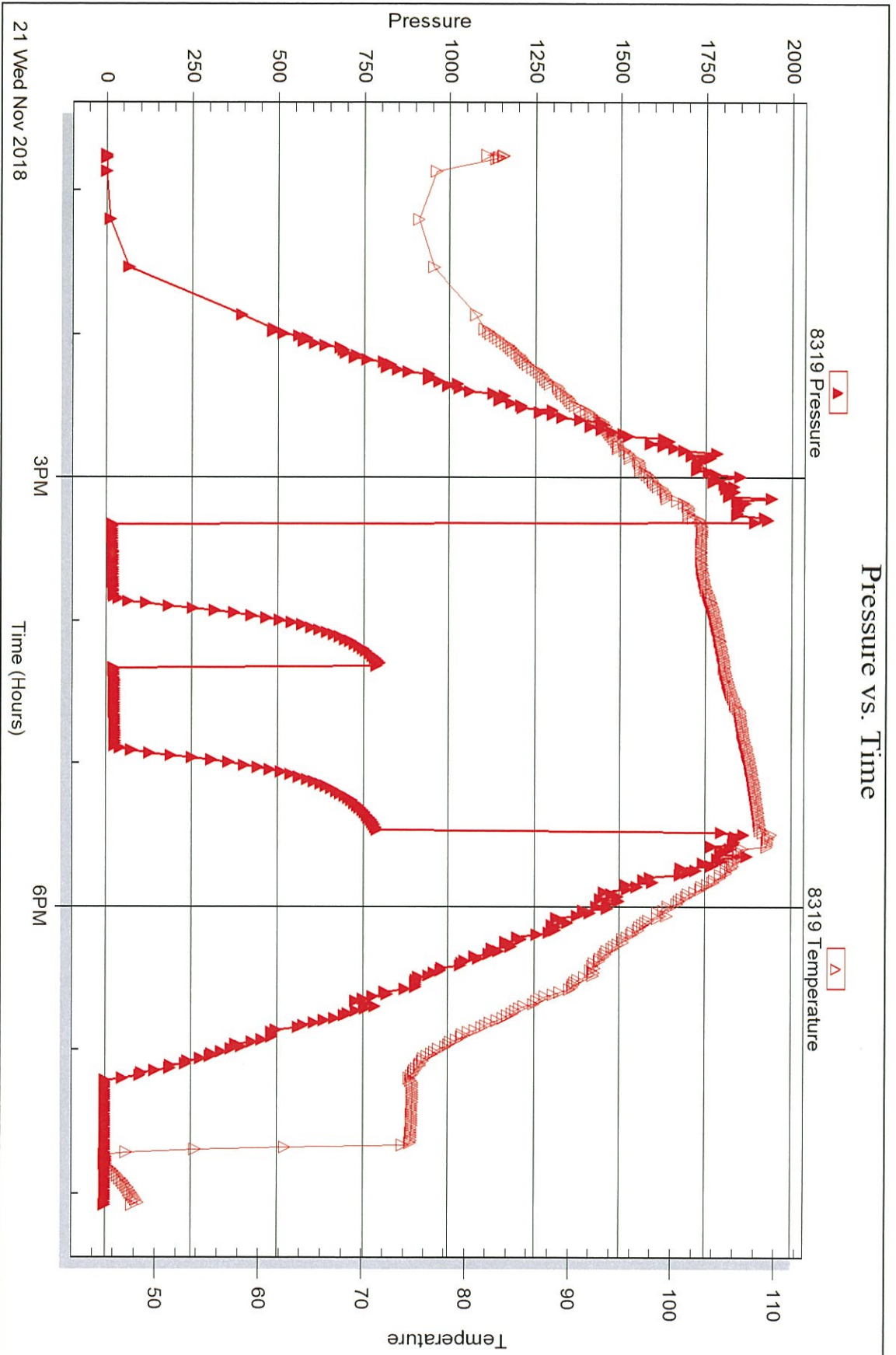
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Outside

Palomino Petroleum, Inc

Butterfield #3

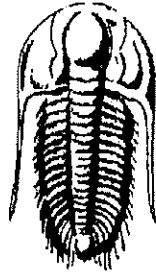
DST Test Number: 1



Triobite Testing, Inc

Ref. No: 64431

Printed: 2018.11.26 @ 10:07:57



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc**

4924 SE 84th St.
Newton, KS 67114

ATTN: Andrew Stenzel

Butterfield #3

11-14s-26w Gove,KS

Start Date: 2018.11.22 @ 10:37:00

End Date: 2018.11.22 @ 19:09:00

Job Ticket #: 64432 DST #: 2

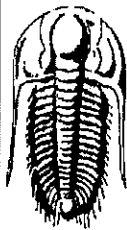
Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

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

Printed: 2018.11.26 @ 10:07:30

Palomino Petroleum, Inc
11-14s-26w Gove,KS
Butterfield #3
DST # 2
LKC K-L
2018.11.22



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum, Inc

11-14s-26w Gove, KS

4924 SE 84th St.
Newton, KS 67114

Butterfield #3

Job Ticket: 64432

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2018.11.22 @ 10:37:00

GENERAL INFORMATION:

Formation: LKC K-L

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:21:45

Time Test Ended: 19:09:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: 4009.00 ft (KB) To 4070.00 ft (KB) (TVD)

Reference Elevations: 2497.00 ft (KB)

Total Depth: 4070.00 ft (KB) (TVD)

2488.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8522

Inside

Press@RunDepth: 20.39 psig @ 4010.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.22

End Date:

2018.11.22

Last Calib.: 2018.11.22

Start Time: 10:51:05

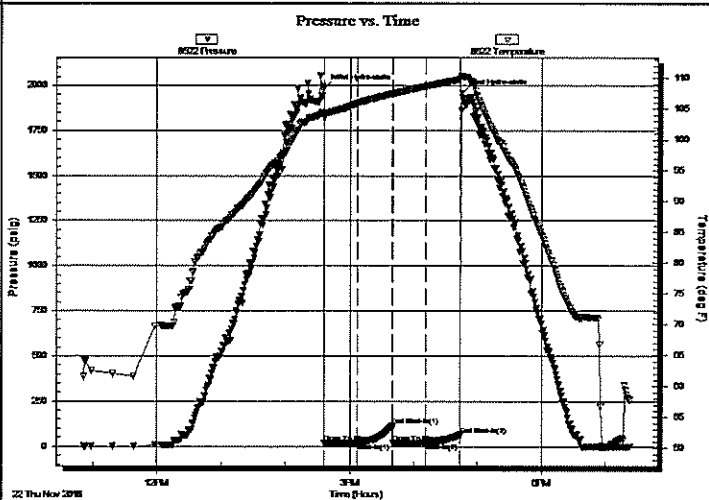
End Time:

19:22:59

Time On Btm: 2018.11.22 @ 14:35:30

Time Off Btm: 2018.11.22 @ 16:45:00

TEST COMMENT: 30- IF: Surface blow.
30- ISI: No return.
30- FF: No blow.
30-FSI: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1983.90	104.40	Initial Hydro-static
1	17.90	103.44	Open To Flow (1)
32	19.49	105.93	Shut-In(1)
64	114.45	107.51	End Shut-In(1)
65	19.16	107.40	Open To Flow (2)
96	20.39	108.71	Shut-In(2)
128	64.07	109.85	End Shut-In(2)
130	1958.22	110.41	Final Hydro-static

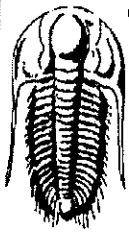
Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100m	130.71

* Recovery from multiple tests

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum, Inc

11-14s-26w Gove, KS

4924 SE 84th St.
Newton, KS 67114

Butterfield #3

Job Ticket: 64432

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2018.11.22 @ 10:37:00

GENERAL INFORMATION:

Formation: **LKC K-L**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 14:21:45

Time Test Ended: 19:09:00

Test Type: Conventional Bottom Hole (Reset)

Tester: Bradley Walter

Unit No: 78

Interval: **4009.00 ft (KB) To 4070.00 ft (KB) (TVD)**

Reference Elevations: 2497.00 ft (KB)

Total Depth: 4070.00 ft (KB) (TVD)

2488.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 9.00 ft

Serial #: 8319 Outside

Press@RunDepth: psig @ 4010.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.11.22

End Date:

2018.11.22

Last Calib.:

2018.11.22

Start Time: 10:51:05

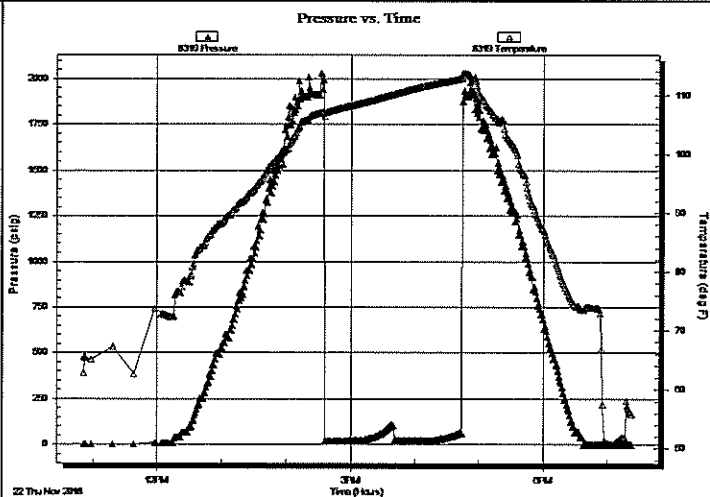
End Time:

19:22:59

Time On Btm:

Time Off Btm:

TEST COMMENT: 30- IF: Surface blow.
30- IS: No return.
30- FF: No blow.
30-FSI: No return.



PRESSURE SUMMARY

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

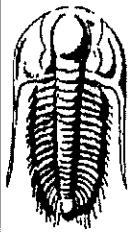
Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100m	130.71

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum, Inc

11-14s-26w Gove, KS

4924 SE 84th St.
New ton, KS 67114

Butterfield #3

Job Ticket: 64432

DST#: 2

ATTN: Andrew Stenzel

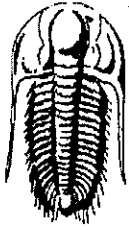
Test Start: 2018.11.22 @ 10:37:00

Tool Information

Drill Pipe:	Length: 3885.00 ft	Diameter: 3.80 inches	Volume: 54.50 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: 116.00 ft	Diameter: 116.00 inches	Volume: 1516.29 bbl	Weight to Pull Loose: 60000.00 lb
			<u>Total Volume: 1570.79 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	19.00 ft			String Weight: Initial 45000.00 lb
Depth to Top Packer:	4009.00 ft			Final 45000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	61.00 ft			
Tool Length:	88.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3983.00	
Shut In Tool	5.00		Fluid	3988.00	
Hydraulic tool	5.00			3993.00	
Jars	5.00			3998.00	
Safety Joint	2.00			4000.00	
Packer	5.00		Inside	4005.00	27.00 Bottom Of Top Packer
Packer	4.00			4009.00	
Stubb	1.00			4010.00	
Recorder	0.00	8522	Inside	4010.00	
Recorder	0.00	8319	Outside	4010.00	
Perforations	24.00			4034.00	
Change Over Sub	1.00			4035.00	
Drill Pipe	31.00			4066.00	
Change Over Sub	1.00			4067.00	
Bullnose	3.00			4070.00	61.00 Bottom Packers & Anchor
Total Tool Length:	88.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum, Inc

11-14s-26w Gove, KS

4924 SE 84th St.
New ton, KS 67114

Butterfield #3

Job Ticket: 64432

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2018.11.22 @ 10:37:00

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: 64.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 6.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 3100.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
10.00	Mud 100m	130.715

Total Length: 10.00 ft Total Volume: 130.715 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

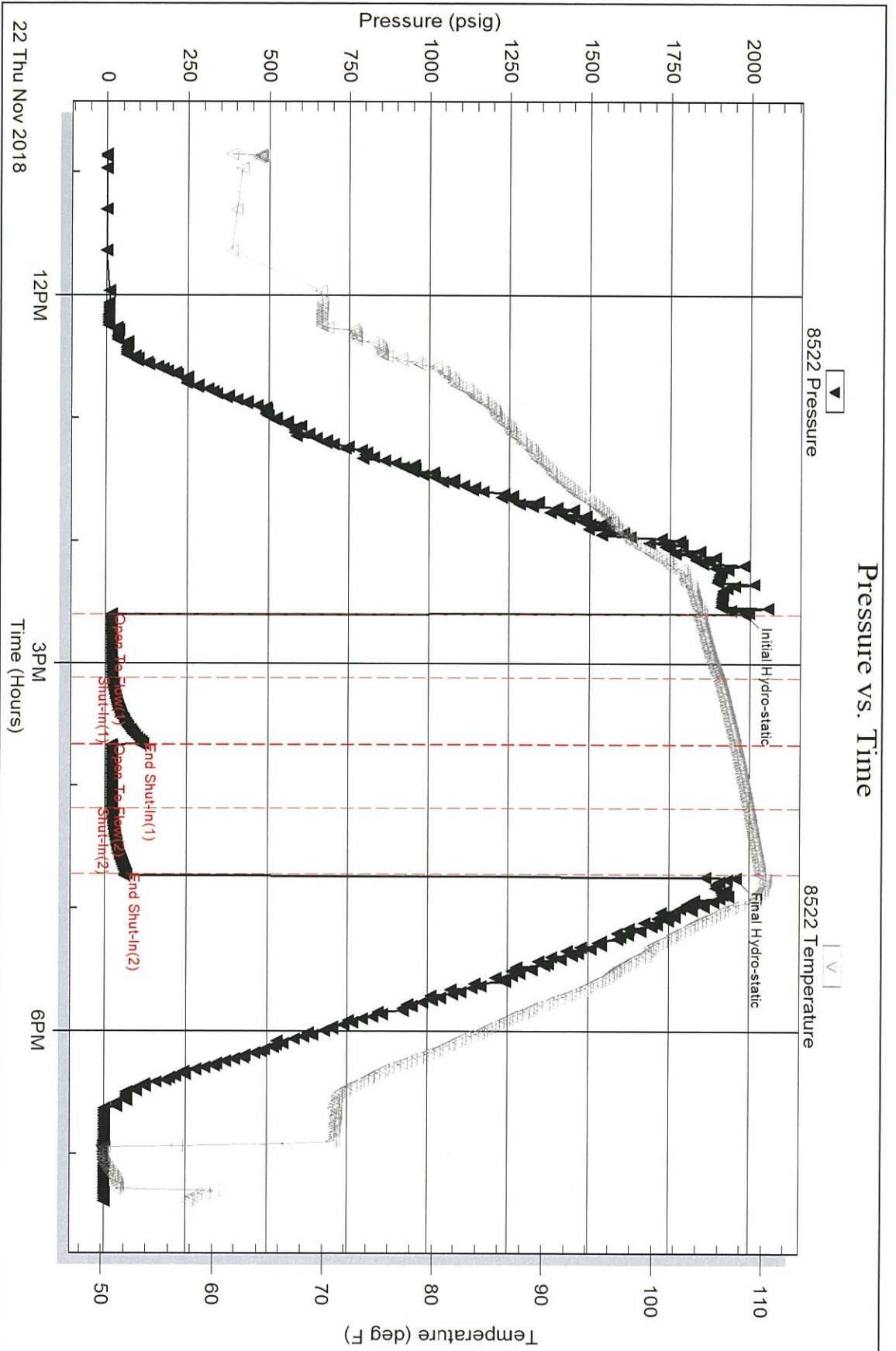
Serial #: 8522

Inside

Palomino Petroleum, Inc

Butterfield #3

DST Test Number: 2



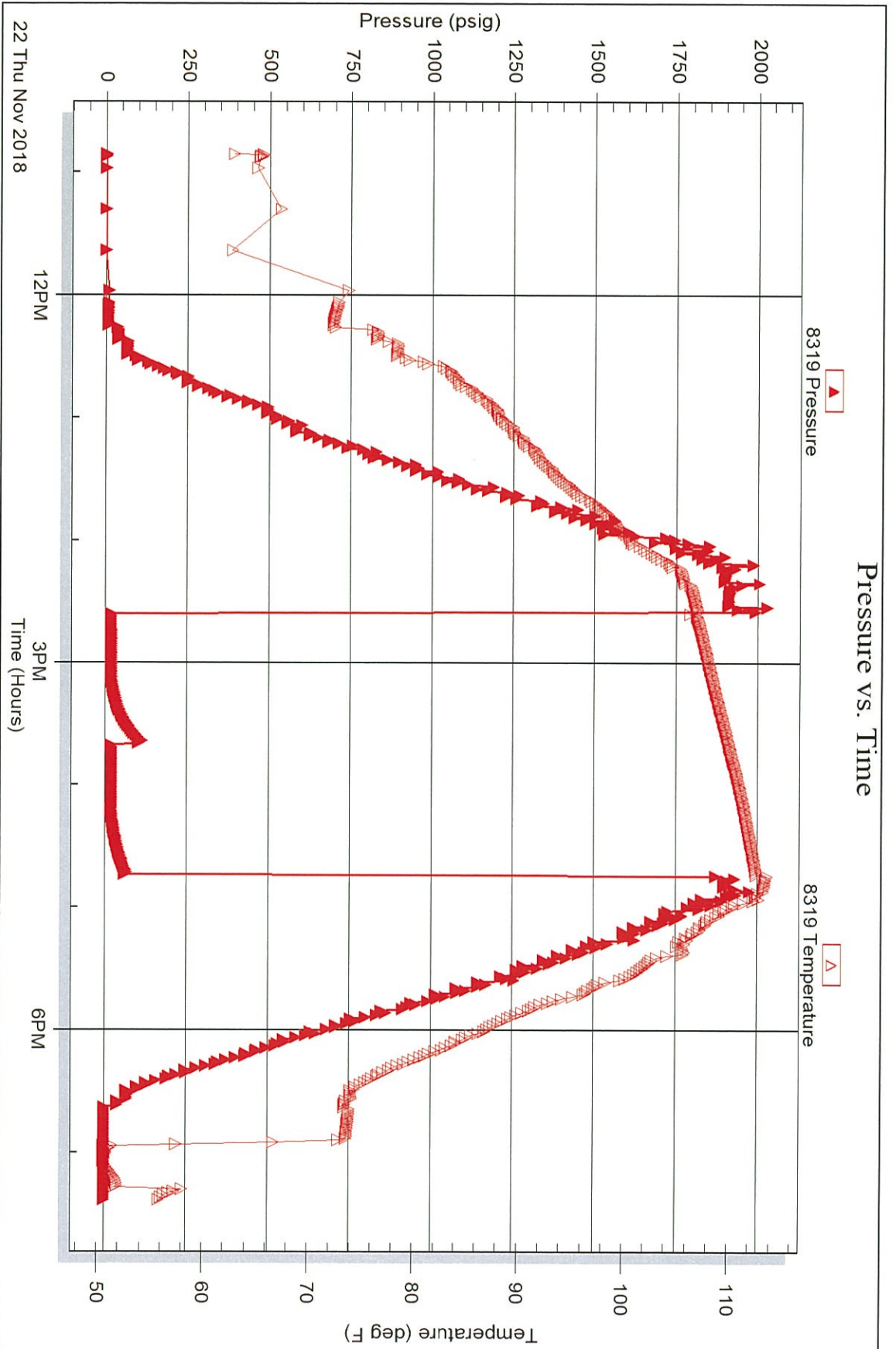
Serial #: 8319

Outside

Palomino Petroleum, Inc

Butterfield #3

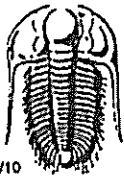
DST Test Number: 2



Triobite Testing, Inc

Ref. No: 64432

Printed: 2018.11.26 @ 10:07:31



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 64431

Well Name & No. Butterfield #3 Test No. 1 Date 11/21/2002
 Company Palomino Petroleum Inc. Elevation 2497 KB 2488 GL
 Address 4924 SE 84th St Newton, KS 67114
 Co. Rep / Geo. Andrew Stenzel Rig WW 22
 Location: Sec. 11 Twp 14s Rge. 26w Co. Gove State KS

Interval Tested 3926-3990 Zone Tested LKC H+I
 Anchor Length 64' Drill Pipe Run 3792 Mud Wt. 9.1
 Top Packer Depth 3921 Drill Collars Run 116 Vls 65
 Bottom Packer Depth 3926 Wt. Pipe Run Ø WL 6.0
 Total Depth 3990 Chlorides 2200 ppm System LCM 3#

Blow Description IF 1/2" blow
ISE No return.
FF Surface blow
FSI No return.

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>MVN</u>			<u>100</u>	
	<u>Oil spots</u>				

Rec Total 25 BHT 106 Gravity — API RW — @ —°F Chlorides — ppm

(A) Initial Hydrostatic 1893 Test 1050 T-On Location 1250
 (B) First Initial Flow 17 Jars 250 T-Started 1245
 (C) First Final Flow 21 Safety Joint 75 T-Open 1527
 (D) Initial Shut-In 801 Circ Sub N/C T-Pulled 1727
 (E) Second Initial Flow 22 Hourly Standby _____ T-Out 2006
 (F) Second Final Flow 24 Mileage 90 130 RT 130 Comments _____
 (G) Final Shut-In 788 Sampler _____
 (H) Final Hydrostatic 1868 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 30
 Sub Total 0
 Total 1505
 MP/DST Disc't _____
 Sub Total 1505

Approved By _____ Our Representative Andrew Stenzel

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. 64432

Well Name & No. Butterfield #3 Test No. 2 Date 11/22/2018
 Company Palomino Petroleum Inc Elevation 2497 KB 4488 GL
 Address 4924 SE 84th St Newton, Ks 67114
 Co. Rep / Geo. Andrew Stenzel Rig WW 22
 Location: Sec. 11 Twp 14S Rge. 26W Co. Gove State KS

Interval Tested 4009 - 4070 Zone Tested LHC K-L
 Anchor Length 61' Drill Pipe Run 3885 Mud Wt. 9.0
 Top Packer Depth 4004 Drill Collars Run 116 Vis 6.4
 Bottom Packer Depth 4009 Wt. Pipe Run Ø WL 6.4
 Total Depth 4070 Chlorides 3100 ppm System LCM 3#

Blow Description IF Surface blow
ISI No return
FF No blow
PSI No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>10</u>	<u>MUD</u>			<u>100</u>	

Rec Total 10 BHT _____ Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1984 Test 1150 T-On Location 0845
 (B) First Initial Flow 18 Jars 250 T-Started 105#
 (C) First Final Flow 19 Safety Joint 75 T-Open 1435
 (D) Initial Shut-In 114 Circ Sub N/C T-Pulled 1635
 (E) Second Initial Flow 19 Hourly Standby _____ T-Out 1923
 (F) Second Final Flow 20 Mileage 120KT x2 260 Comments R/O Tools
 (G) Final Shut-In 64 Sampler _____ 0730 11/24
 (H) Final Hydrostatic 1958 Straddle _____

Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 30 Extra Packer _____
 Initial Shut-In 30 Extra Recorder _____
 Final Flow 30 Day Standby _____
 Final Shut-In 30 Accessibility _____
 Sub Total 1735

Approved By _____ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged or 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.



Home
(785) 798-3400

Andrew Stenzel Geologist

Ness City, Kansas



Cell
(785) 798-5977

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

Well Name: Butterfield #3
 API: 15-063-22338-00-00
 Location: NW-NE-SE-NE Sec. 11-14-26W
 License Number: 30742
 Spud Date: 11/15/18
 Surface Coordinates: 1403 FNL & 559 FEL

Region: KANSAS
 Drilling Completed: 11/24/18

Bottom Hole
 Coordinates:
 Ground Elevation (ft): 2487
 Logged Interval (ft): 3600 To: TD
 Formation: MISSISSIPPIAN
 Type of Drilling Fluid: Mud-Co Chemical

K.B. Elevation (ft): 2497
 Total Depth (ft): 4466

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

OPERATOR

Company: Palomino Petroleum, Inc.
 Address: 4924 SE 84th St
 Newton, KS 67114

GEOLOGIST

Name: Andrew Stenzel
 Company: Petroleum Geologist
 Address: 501 S. Franklin
 Ness City, KS 67560

Drilling Report

DAILY DRILLING REPORT:

11/15/18 Moved in rig, rigged up
 11/16/18 Spudded at 12:00 am
 11/17/18 Drilling @ 1099'
 11/18/18 Drilling @ 2321'
 11/19/18 Tripping out for button bit @ 3500'
 11/20/18 Circulating @ 3886'
 11/21/18 Drilling @ 3968', DST #1
 11/22/18 Tripping out for DST #2, DST #2
 11/23/18 Drilling @ 4223'
 11/24/18 Ran electric logs, ran casing for SWD

Services

RIG: WW Drilling, Rig #22

MUD: MUDCO

LOGS: Gemini Wireline: CNDL, PE, DIL, ML

TESTER: Trilobite Testing

Casing Record

SURFACE Casing: Ran 5 jts new 8 5/8", 23# casing @ 202'

PRODUCTION Casing: Ran 51 jts new 5 1/2", 14# casing @ 2112'.

Formation Tops

Sample Tops		LogTops	
Anhy.	1960 (+537)	Anhy.	1957 (+540)
Base Anhy.	2005 (+492)	Base Anhy.	1998 (+499)
Heebner	3742 (-1245)	Heebner	3746 (-1249)
Lansing	3779 (-1282)	Lansing	3784 (-1287)
Muncie Cr	3927 (-1430)	Muncie Cr	3934 (-1437)
Stark Sh	4011 (-1514)	Stark Sh	4015 (-1518)
BKC	4064 (-1567)	BKC	4066 (-1569)
Marmaton	4099 (-1602)	Marmaton	4091 (-1594)
Pawnee	4100 (-1703)	Pawnee	4212 (-1715)
Ft. Scott	4273 (-1776)	Ft. Scott	4275 (-1778)
Cher. Sh.	4296 (-1799)	Cher. Sh.	4296 (-1799)
Miss.	4369 (-1772)	Miss.	4376 (-1879)
RTD	4466 (-1969)	LTD	4471 (-1974)



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Palomino Petroleum, Inc

11 14s 26w Gove, Ks

4924 SE 84th St.
Newton, Ks 67114

Butterfield #3

Job Ticket: 64431

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2018.11.21 @ 12:45:00

GENERAL INFORMATION:

Formation: LKC- H & I

Deviated: No Whipstock ft (KB)

Time Tool Opened: 15:19:00

Time Test Ended: 20:05:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Bradley Walter

Unit No: 78

Interval: 3926.00 ft (KB) To 3990.00 ft (KB) (TVD)

Total Depth: 3990.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2497.00 ft (KB)

2488.00 ft (CF)

KB to GR/CF: 9.00 ft

Serial #: 8522 Inside

Press@RunDepth: 25.67 psig @ 3927.00 ft (KB)

Start Date: 2018.11.21

End Date:

2018.11.21

Capacity: 8000.00 psig

Last Callb.: 2018.11.21

Start Time: 12:45:05

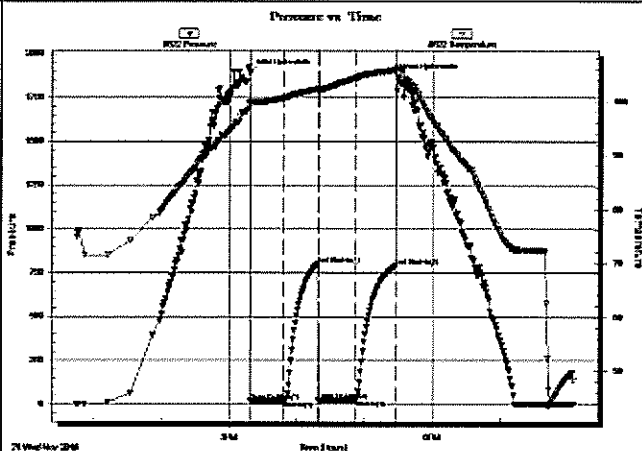
End Time:

20:05:29

Time On Blmt: 2018.11.21 @ 15:18:30

Time Off Blmt: 2018.11.21 @ 17:29:30

TEST COMMENT: 30- IF: 1/2" blow.
30- IS: No return.
30- FF: Surface blow.
30- FSI: No return



PRESSURE SUMMARY

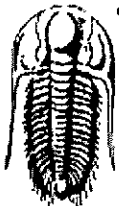
Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
0	1893.24	99.88	Initial Hydro-static
1	17.09	99.26	Open To Flow (1)
30	20.99	100.61	Shut-In(1)
61	801.28	102.33	End Shut-In(1)
61	21.68	101.85	Open To Flow (2)
94	25.67	104.39	Shut-In(2)
130	787.81	105.87	End Shut-In(2)
131	1868.20	106.46	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
25.00	Mud 100m (oil speks)	326.79

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Palomino Petroleum, Inc

11 14s 26w Gove, Ks

4924 SE 84th St.
Newton, Ks 67114

Butterfield #3

Job Ticket: 64432

DST#: 2

ATTN: Andrew Stenzel

Test Start: 2018.11.22 @ 10:37:00

GENERAL INFORMATION:

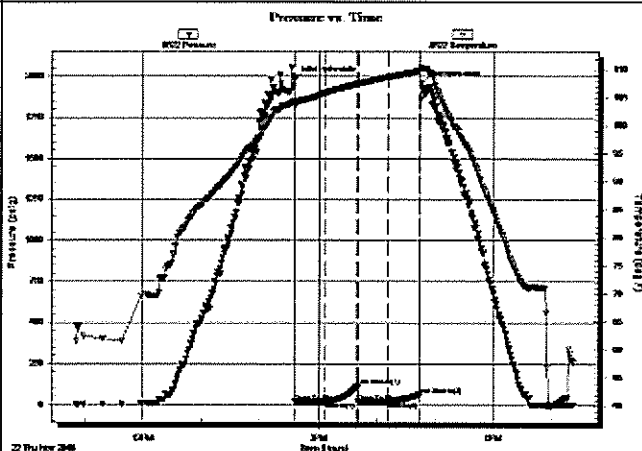
Formation: LKC K-L
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:21:45
 Time Test Ended: 19:09:00
 Interval: 4009.00 ft (KB) To 4070.00 ft (KB) (TVD)
 Total Depth: 4070.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Bradley Walter
 Unit No: 78
 Reference Elevations: 2497.00 ft (KB)
 2488.00 ft (CF)
 KB to GR/CF: 9.00 ft

Serial #: 8522

Inside

Press@RunDepth: 20.39 psig @ 4010.00 ft (KB)
 Start Date: 2018.11.22 End Date: 2018.11.22 Capacity: 8000.00 psig
 Start Time: 10:51:05 End Time: 19:22:59 Last Calib.: 2018.11.22
 Time On Blmr: 2018.11.22 @ 14:35:30
 Time Off Blmr: 2018.11.22 @ 16:45:00

TEST COMMENT: 30- IF: Surface blow.
 30- IS: No return.
 30- FF: No blow.
 30-FSI: No return.



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1983.90	104.40	Initial Hydro-static
1	17.90	103.44	Open To Flow (1)
32	19.49	105.93	Shut-in(1)
64	114.45	107.51	End Shut-in(1)
65	19.16	107.40	Open To Flow (2)
96	20.39	108.71	Shut-in(2)
128	64.07	109.85	End Shut-in(2)
130	1958.22	110.41	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud 100m	130.71



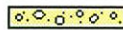

* Recovery from multiple tests

Gas Rates

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

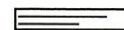



ROCK TYPES

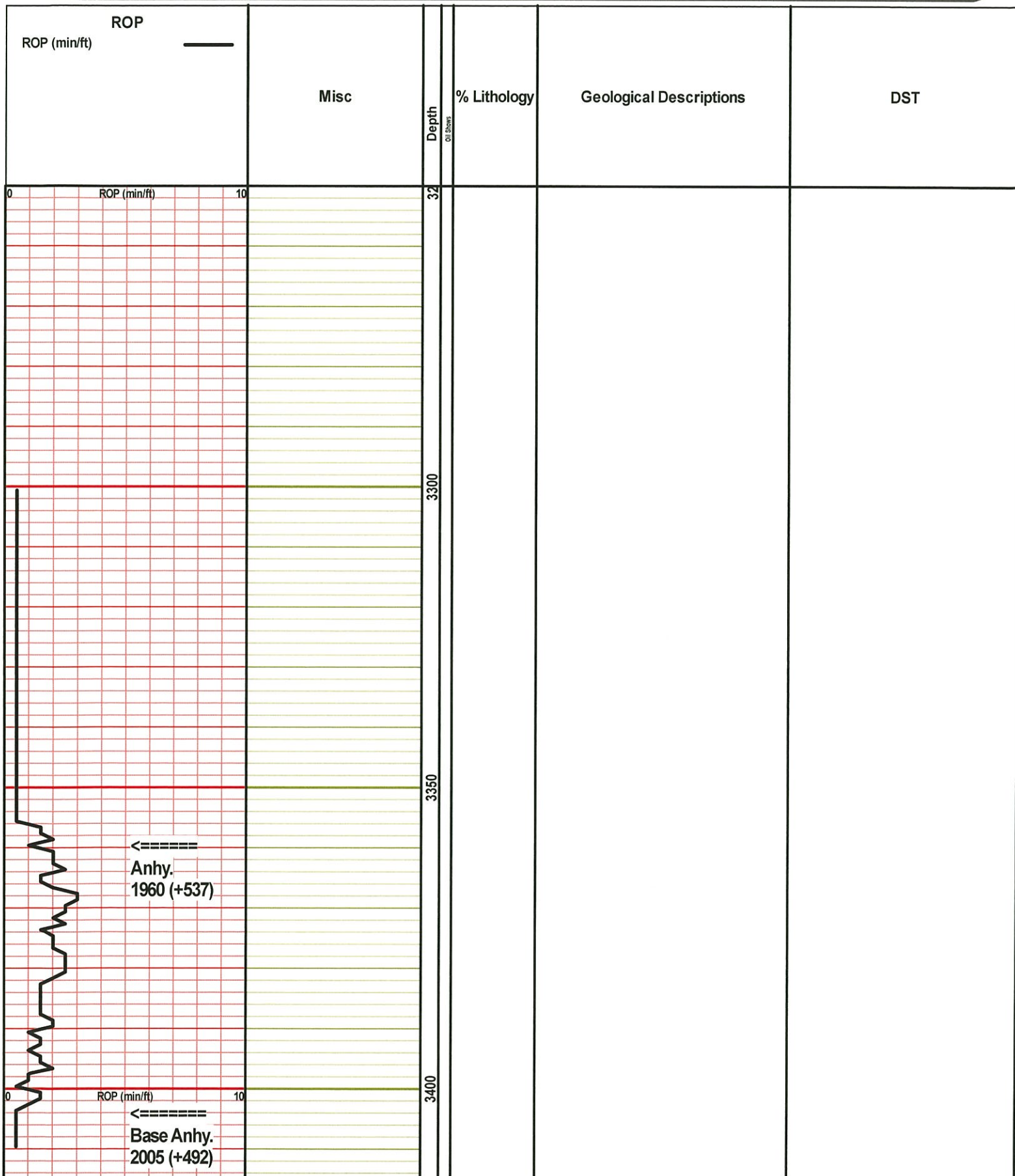
-  Anhy
-  Bent
-  Brec
-  Cht

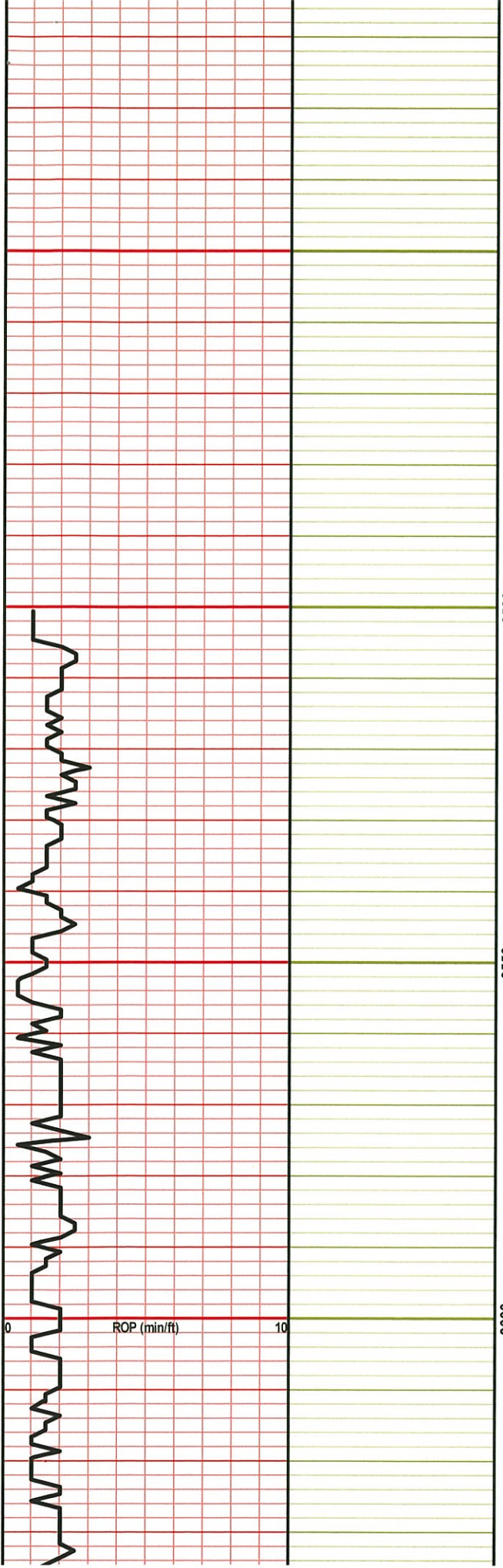
-  Clyst
-  Carb shale
-  Congl
-  Dol

-  Gyp
-  Igne
-  Lmst
-  Meta

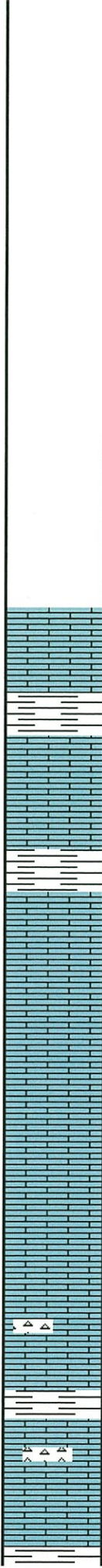
-  Mrlst
-  Salt
-  Shale
-  Shcol

-  Shgy
-  Sltst
-  Ss
-  Till





3450
3500
3550
3600

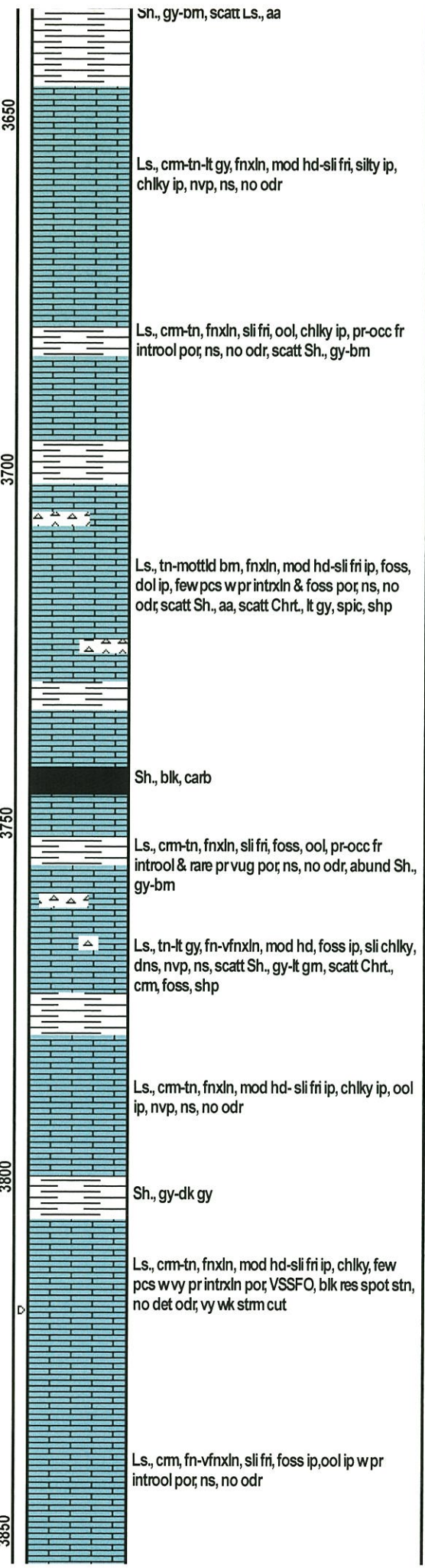
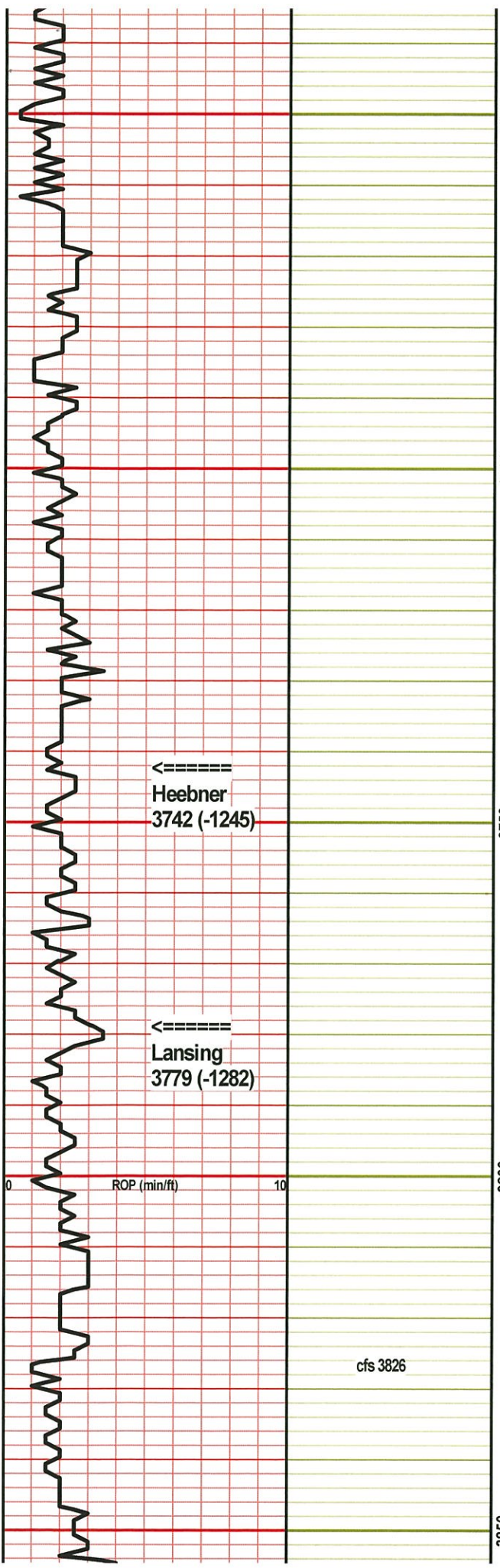


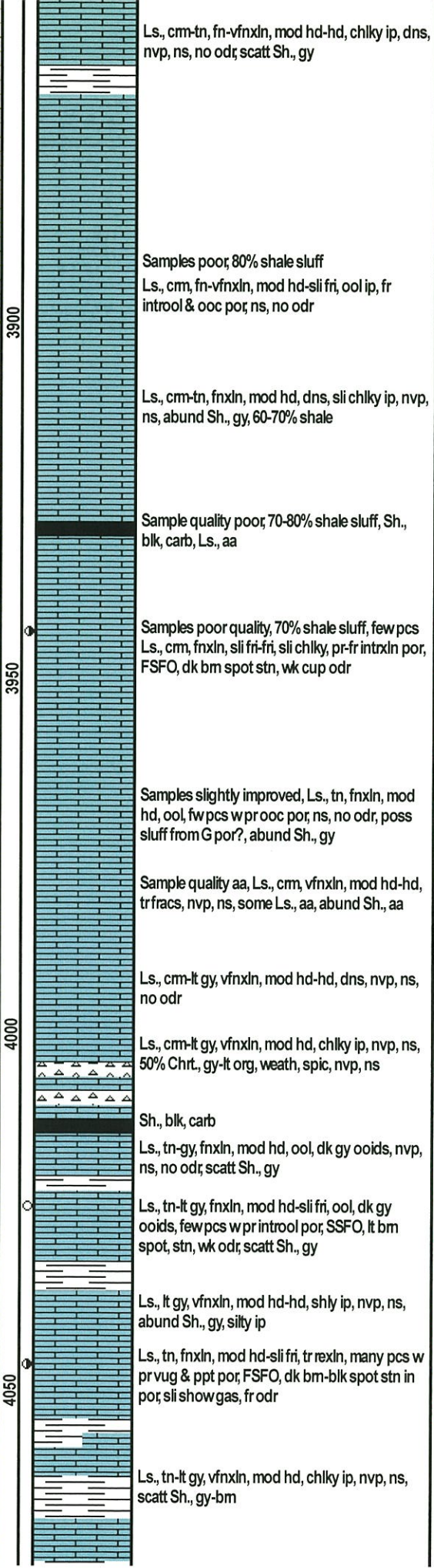
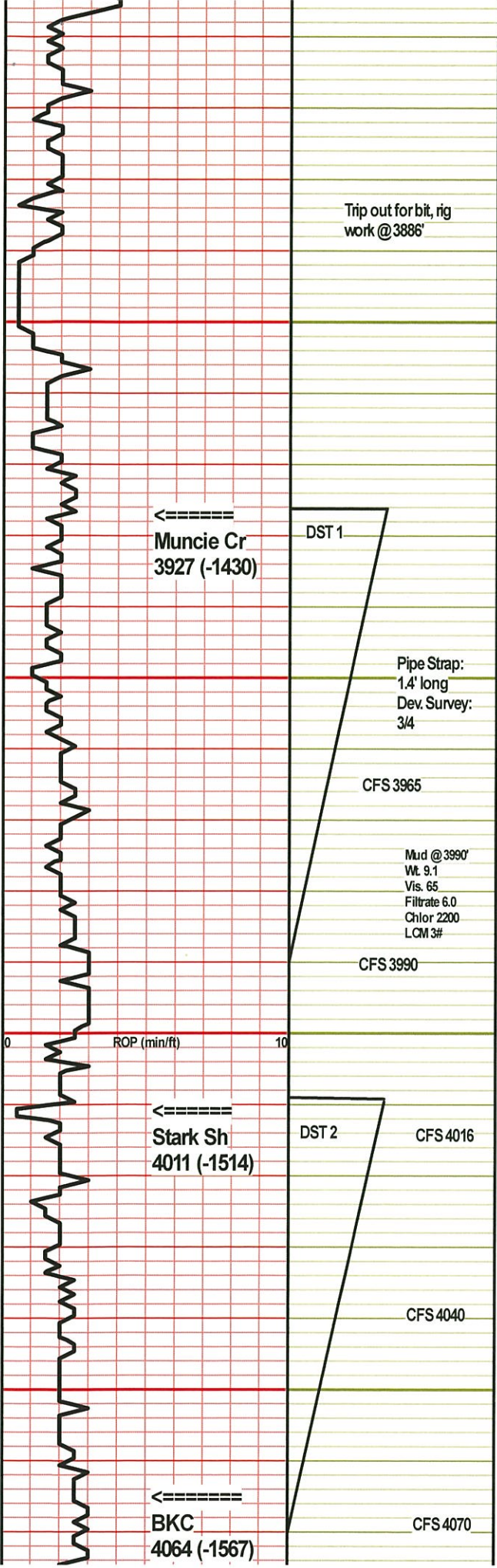
Ls., cm-lt gy, fnxln, mod hd-sli fri, chlky ip, ool ip, pr introol por, ns, no odr, abund Sh., gy

Ls., cm-tr, fnxln, sli fri-fri, vy chlky, ool/foss, nvp, ns, no odr

Ls., aa, few pcs w pr introol & foss por, one pc sli show blk dd oil, tary res str, no det odr, scatt Sh., gy

Ls., tn-lt gy, fnxln, mod hd, chlky ip, foss, nvp, ns, no odr, abund Sh., gy-lt gm, scatt Chrt., gy, foss





DST #1 3926-3990 (LKC H, I)

30-30-30-30
 IF: Built to 1/2"
 IS: No blow
 FF: Surface blow
 FS: No blow

Recovery:
 25' Mud woi spots

FP: 17-21; 22-26
 SIP: 801-788
 HP: 1893-1868

BHT: 106
 Gravity: -
 Chlor: ----

DST #2 4009-4070 (LKC K, L)

30-30-30-30
 IF: Surface Blow
 FF: No blow
 FS: No blow
 FF: No blow

Recovery:
 10' Mud

FP: 18-19; 19-20
 SIP: 114-64
 HP: 1984-1958

BHT: 108
 Gravity: -
 Chlor: ----

Mud @4070'
Wt. 9.0
Vis. 64
Filtrate 6.4
Chlor 3100
LCM 3#

←-----
Marmaton
4099 (-1602)

←-----
ROP (ft)
Pawnee
4200 (-1703)

←-----
Ft. Scott
4273 (-1776)

Mud @4290'
Wt. 9.2
Vis. 53
Filtrate 7.2
Chlor 3200

4100

4150

4200

4250

Ls., cm-lt gy, vfnxn, mod hd-hd, sli chlky, nvp, ns, abund Sh., gy

Ls., tn-lt bm, fnxn, mod hd, silty ip, tr frags, nvp, ns

Sh., gy-bm

Ls., cm-tn, fn-vfnxn, mod hd-hd, dns, shly ip, foss, nvp, ns, scatt Sh., gy-bm

Ls., cm, vfnxn, hd, dns, foss ip, nvp, ns

Ls., aa, couple pcs ool wvy pr introol por, VSSFO, few oil drops, dk bm str, no det odr, scatt Sh., gy

Ls., cm-lt gy, vfnxn, mod hd, shly ip, nvp, ns

Sh., dk gy, fiss

Ls., cm-lt gy, vfnxn, mod hd, sli chlky, nvp, ns, scatt Sh., gy

Ls., lt gy, vfnxn, mod hd, shly, abund Sh., gy, few pcs Ls., tn, ool w pr ooc por, ns, no odr or fluoro, poss sluff

Sh., gy, Ls., gy, vfnxn, mod hd, shly ip, dns, nvp, ns

Sh., blk, carb

Ls., cm-tn, fnxn, mod hd, foss ip, dns, few pcs wvy pr intrxn por, couple wVSSFO, tr lt bm str, no det odr

