

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	HAGANS "14" 3
Doc ID	1431204

All Electric Logs Run

Dual Induction
Dual Receiver Cement Bond
Dual Comp Porosity
Micro

Form	ACO1 - Well Completion
Operator	Palomino Petroleum, Inc.
Well Name	HAGANS "14" 3
Doc ID	1431204

Tops

Name	Top	Datum
Anhy.	1984	(+ 585)
Base Anhy.	2016	(+ 553)
Heebner	3843	(-1274)
Lansing	3886	(-1317)
BKC	4183	(-1614)
Marmaton	4230	(-1661)
Pawnee	4320	(-1751)
Ft. Scott	4383	(-1814)
Cherokee Sh.	4408	(-1839)
Miss.	4471	(-1902)
LTD	4608	(-2039)



P. O. Box 466
 Ness City, KS 67560
 Off: 785-798-2300



Invoice

DATE	INVOICE #
9/25/2018	31734

BILL TO
Palomino Petroleum Inc. 4924 S E 84th Street Newton, KS 67114-8827



- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3	Hagans "14"	Ness	Express Well	Oil	Development	Cement Port Collar	Blaine

PRICE REF.	DESCRIPTION	QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way	30	Miles	5.00	150.00
576D-D	Pump Charge - Deep Surface (> 500 Ft.) & Port Collars	1	Job	1,300.00	1,300.00
330	Swift Multi-Density Standard (MIDCON II)	150	Sacks	16.25	2,437.50T
276	Flocele	50	Lb(s)	2.50	125.00T
104	Port Collar Tool Rental	1	Each	200.00	200.00T
581D	Service Charge Cement	225	Sacks	1.75	393.75
583D	Drayage	335.85	Ton Miles	0.85	285.47
	Subtotal				4,891.72
	Sales Tax Ness County			6.50%	179.56

We Appreciate Your Business!	Total	\$5,071.28
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CHARGE TO: Delwind Petroleum
 ADDRESS
 CITY, STATE, ZIP CODE

TICKET 031734

PAGE 1 OF 1

SERVICE LOCATIONS W22 City KS WELL/PROJECT NO. 23 LEASE Hogans 14" COUNTY/PARISH Neas STATE KS CITY Utica DATE 25 Sep 18 OWNER
 TICKET TYPE SERVICE SALES CONTRACTOR RIG NAME/NO. Express SHIPPED VIA Truck DELIVERED TO Location ORDER NO.
 WELL TYPE Oil WELL CATEGORY Development JOB PURPOSE convert port collar WELL PERMIT NO. WELL LOCATION

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING LOC ACCT DF	DESCRIPTION	QTY. U/M		QTY. U/M		UNIT PRICE	AMOUNT
575			MILEAGE TRX W/	30	mi			5.00	150.00
576D			Pump Charge PORT COLLAR	1	ea			1300.00	1300.00
330			SWD count	150	sk			16.25	2437.50
276			Handle	50	lb			2.50	125.00
164			Port Collar Spring Tool Rental	1	ea			200.00	200.00
581			Service charge	205	sk			1.75	393.75
583			Damage	23300	lb			0.85	26547

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.
 DATE SIGNED [Signature] TIME SIGNED [Signature] A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UNDECIDED	DISAGREE
WE UNDERSTOOD AND MET YOUR NEEDS?			
OUR SERVICE WAS PERFORMED WITHOUT DELAY?			
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?			

ARE YOU SATISFIED WITH OUR SERVICE? YES NO

PAGE TOTAL 4891.75
 TOTAL 5071.28

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.
 SWIFT OPERATOR [Signature] APPROVAL [Signature]
 Thank You!

JOB LOG

SWIFT Services, Inc.

DATE 25 Sep 18 PAGE NO. 1

CUSTOMER *Palermo Petroleum* WELL NO. LEASE *Hagens "14"* JOB TYPE *Cement port collar* TICKET NO. *31734*

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								<i>225 sk 5MD cement w/ 1/4# flocc</i> <i>236 5 1/2 port collar @ 1255'</i>
	<i>1400</i>							<i>on loc 12K 114</i>
	<i>1554</i>					<i>1000</i>	<i>1000</i>	<i>test to 1000 psi - held</i> <i>open port collar</i>
	<i>1602</i>	<i>3 1/2</i>	<i>2</i>			<i>100</i>		<i>inj rate 3 gpm @ 100 psi</i>
	<i>1605</i>	<i>3 1/2</i>				<i>100</i>		<i>mix 5MD cement @ 11.2 ppg</i>
		<i>3 1/2</i>	<i>6</i>			<i>100</i>		<i>- circ to surface -</i>
		<i>3</i>	<i>8</i>			<i>350</i>		<i>→ cement to surface ←</i>
		<i>3</i>	<i>10.5</i>			<i>350</i>		<i>Displace 10 1/2 bbl H₂O</i>
								<i>close port collar</i>
						<i>1000</i>	<i>1000</i>	<i>test to 1000 psi - held</i>
	<i>1638</i>							<i>Run 4 joints</i>
	<i>1645</i>		<i>22</i>					<i>Reverse hole clean</i> <i>- 2 cement plugs -</i>
	<i>1655</i>							<i>work truck</i>
								<i>Rack up</i>
	<i>1715</i>							<i>job complete</i> <i>4 hrs</i> <i>Blaine, Flint, & Isaac</i>



P. O. Box 466
Ness City, KS 67560
Off: 785-798-2300



Invoice

DATE	INVOICE #
9/18/2018	31730

BILL TO
Palomino Petroleum Inc. 4924 S E 84th Street Newton, KS 67114-8827

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3	Hagens "14"	Ness	WW Rig #2	Oil	Development	Cement Long Str...	Blaine
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				30	Miles	5.00	150.00
578D-L	Pump Charge - Long String				1	Job	1,300.00	1,300.00
403-5	5 1/2" Cement Basket				1	Each	275.00	275.00T
404-5	5 1/2" Port Collar				1	Each	2,500.00	2,500.00T
406-5	5 1/2" Latch Down Plug & Baffle				1	Each	250.00	250.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	325.00	325.00T
409-5	5 1/2" Turbolizer				10	Each	85.00	850.00T
419-5	5 1/2" Rotating Head Rental				1	Each	200.00	200.00T
330	Swift Multi-Density Standard (MIDCON II)				125	Sacks	16.25	2,031.25T
325	Standard Cement				100	Sacks	13.00	1,300.00T
284	Calseal				5	Sack(s)	35.00	175.00T
283	Salt				500	Lb(s)	0.20	100.00T
285	CFR-1				50	Lb(s)	4.50	225.00T
276	Flocele				50	Lb(s)	2.50	125.00T
281	Mud Flush				500	Gallon(s)	1.50	750.00T
221	Liquid KCL (Clayfix)				4	Gallon(s)	25.00	100.00T
290	D-Air				2	Gallon(s)	42.00	84.00T
581D	Service Charge Cement				225	Sacks	1.75	393.75
583D	Drayage				343.71	Ton Miles	0.85	292.15
	Subtotal							11,426.15
	Sales Tax Ness County						6.50%	603.87
We Appreciate Your Business!							Total	\$12,030.02



CHARGE TO: Palumbo Petroleum
 ADDRESS
 CITY, STATE, ZIP CODE

TICKET 031730

PAGE 1 OF 2

SERVICE LOCATIONS: Wm City #6
 WELL/PROJECT NO: 3 LEASE: Wiggins '14' COUNTY/PARISH: HOUSTON STATE: TX CITY: Utica DATE: 18 Sep 18 OWNER:
 TICKET TYPE: SERVICE SALES CONTRACTOR: WCS RIG NAME/NO.: 2 SHIPPED VIA: CT DELIVERED TO: location ORDER NO.:
 WELL TYPE: 0-1 WELL CATEGORY: Development JOB PURPOSE: convert long strings WELL PERMIT NO.:
 WELL LOCATION: 14-16-26
 REFERRAL LOCATION: INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF					
575					30	in	5.00	150.00	
578				MILEAGE TRK 114	1	ea	1300.00	1300.00	
403				Fund Charge	1	ea	275.00	275.00	
404				convert Basket	1	ea	2500.00	2500.00	
406				Post collar	1	ea	250.00	250.00	
407				Latch down plus 4 bbls	1	ea	325.00	325.00	
409				Insert float sleeve w/ auto fill	10	ea	85.00	850.00	
419				TURBO-LIZER	1	ea	200.00	200.00	
				Rotating head rental	1	ea	208.00	208.00	

LEGAL TERMS: Customer hereby acknowledges and agrees to the terms and conditions on the reverse side hereof which include, but are not limited to, PAYMENT, RELEASE, INDEMNITY, and LIMITED WARRANTY provisions.

MUST BE SIGNED BY CUSTOMER OR CUSTOMER'S AGENT PRIOR TO START OF WORK OR DELIVERY OF GOODS.
 DATE SIGNED: [Signature] TIME SIGNED: [Signature]
 A.M. P.M.

REMIT PAYMENT TO:
 SWIFT SERVICES, INC.
 P.O. BOX 466
 NESS CITY, KS 67560
 785-798-2300

SURVEY	AGREE	UNDECIDED	DISAGREE	PAGE TOTAL	TOTAL
ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND	<input type="checkbox"/> YES <input type="checkbox"/> NO			5850.00	18030.00
				5576.15	
				11,426.15	
				1155	
				TAX 410	
				603.89	

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.
 SWIFT OPERATOR: [Signature] APPROVAL: [Signature]
 Thank You!



PO Box 466
Ness City, KS 67560
Off: 785-798-2300

TICKET CONTINUATION

TICKET No. 31730

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WEIGHT				DATE	UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY	U/M	QTY	U/M			

330		1				SMD comment	125	sk			16.25	2031.25
325		1				Standard comment (for 3A-2)	100	sk			13.20	1300.00
284		1				Calsteel	500	lb	5	sk	35.00	175.00
283		1				salt	500	lb			0.80	100.00
285		1				CFR-1	50	lb			4.50	225.00
276		1				Fleece	50	lb			2.50	125.00
281		1				mud flush	500	gal			1.50	750.00
221		1				RCL Dryvid	4	gal			25.00	100.00
290		1				D-AIR	2	gal			42.00	84.00
581		1				SERVICE CHARGE					22.5	22.5
583		1				MILEAGE CHARGE					2.913	2.913
						LOADED MILES					50	
						CUBIC FEET					3.71	
						TOTAL WEIGHT					913	
						TOTAL MILES					3.71	
											1.75	393.75
											0.85	292.15
												5576.15

CONTINUATION TOTAL 5576.15

JOB LOG

SWIFT Services, Inc.

DATE 18 Sep 18 PAGE NO. 1

CUSTOMER PALMIND WELL NO. # 3 LEASE Hagens 14' JOB TYPE Cement log string TICKET NO. 31730

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
								125 sk SMD cement w/ 1/4" floccle 100 sk EA-2 cement w/ 1/4" floccle 5 1/2" x 14" casing TD = 4612 10' ts - 4612' Centralizers 1, 3, 5, 7, 9, 11, 13, 15, 17, 62 Basket #63 Port collar #63 1955'
	2300							on loc TRK 114
Sept	0110							shoot 5 1/2" x 14" casing in well
	0330							Drop ball - circulate - ROTATE
	0415		5					Pump 500 gal mud flush - 20 bbl RCL flush Plug RH 3052
	0430	4	40				200	MIX SMD cement 95 sk @ 12.7 ppg
		4	24				200	MIX EA-2 cement 100 sk @ 15.3 ppg
	0450							Drop latch down plug wash out pump & line
	0457	6					200	Displace plug
		6	100				600	
	0515	6	111				1500	Land plug Release pressure to truck - dried up
	0520							wash up truck
	0550							Rack up
	0600							Job complete Trucks Done, Flit & wash



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

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

Invoice

Invoice#

814128

Invoice Date: 09/19/18

Terms: Net 30

Page 1

PALOMINO PETROLEUM, INC.
4924 SE 84TH STREET
NEWTON KS 67114-8827
USA

RECEIVED
SEP 22 2018

HAGEN 14 #3

Tax: 204.75

Total: 4,926.75



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

11891
 11478

TICKET NUMBER 55259
 LOCATION Oakley, KS
 FOREMAN Walt Dunkel

FIELD TICKET & TREATMENT REPORT
 CEMENT

Invoice #1814128

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY	
9-11-18	6285	Hagens 14 #3	14	16S	26W	NESS	
CUSTOMER Palomino Petroleum		Office Rd D 1 1/2 N E+M into		TRUCK #	DRIVER	TRUCK #	DRIVER
MAILING ADDRESS 4924 SE 8TH STREET				731	Cory Davis		
CITY Newtm		STATE KS		693	Neil White		
		ZIP CODE 67114-8827		697	Walt Dunkel		

JOB TYPE Surface HOLE SIZE 12 1/4 HOLE DEPTH 215' CASING SIZE & WEIGHT 8 5/8 23#
 CASING DEPTH 215' DRILL PIPE _____ TUBING _____ OTHER _____
 SLURRY WEIGHT 15.2 SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING _____
 DISPLACEMENT 12.42 DISPLACEMENT PSI _____ MIX PSI _____ RATE _____

REMARKS: Safety Meeting, rig up on Well #2, Circ casing on bottom,
mix 17.5 sks com 3%cc-2%cl, Displace 19.4 BBL H₂O, Surface

Cement DeD Circ

Apply 2 BBL to Bit

Thank You
Walt Dunkel

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
C00471	1	PUMP CHARGE	1,150.00	1,150.00
C00002	40	MILEAGE	7.15	286.00
C00711	8.23	Ton Mileage Delivery	1.75	660.00
8053 CC5871	175 sks	Surface Blend II	24.00	4,200.00
				6,296.00
			Less 25% Disc	1,574.00
				4,722.00
			SALES TAX	204.75
			ESTIMATED TOTAL	4,926.75

SCANNED

AUTHORIZATION [Signature] TITLE _____ DATE _____

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.

TERMS AND CONDITIONS

ATTENTION: THESE TERMS AND CONDITIONS CONTAIN INDEMNITY PROVISIONS FOR DAMAGE TO PERSONS AND PROPERTY.

All Services or Products provided by QES Pressure Pumping LLC (f/k/a Consolidated Oil Well Services LLC) are subject to these Terms and Conditions unless superseded by a Master Service Agreement signed by the parties. In the event Customer does not accept these Terms and Conditions as written, Customer must request a Master Service Agreement from QES' Contracts Administration Department at msa@qesjo.com.

The operations, services, supplies, materials, personnel or goods to be provided ("Services" or "Products" as applicable) by QES Pressure Pumping LLC ("QES") will be provided to you as customer ("Customer") in accordance with the following terms and conditions ("Agreement"). QES and Customer may be referred to as "Party" or "Parties".

1. Price and Taxes. Customer will pay QES for the Services or Products in accordance with QES' quoted price which exclude applicable taxes or process license fees. Customer shall pay all applicable taxes and process license fees related to the Services and/or Products. QES' prices are subject to change without notice.

2. Terms of Payment. Customer will pay QES cash in advance for Services and Products unless QES has approved credit prior to the performance of the Services and/or delivery of the Products. Credit terms for approved accounts require full payment of the invoiced amount within 30 days from the date of invoice. All invoices not paid within 30 days will be charged an interest rate of 1 1/2% per month or the maximum rate allowed under applicable state law, whichever is higher. Customer will be responsible for any fees incurred by QES in the collection of any amounts owed to QES including but not limited to attorney's fees and/or collection fee costs.

3. Proof of Services or Delivery of Products. QES will furnish verification of proof of Services performed and Product delivered to Customer's representative at the time of performance of the Services or Product delivery. Customer agrees to sign and return such verification indicating Customer's acceptance of the Services or Products.

4. Delivery or Completion. All liability and responsibility of QES ceases when (1) Products are delivered to the Customer by QES and no longer in the care, custody and control of QES or (2) when the carrier receives the Products and/or shipment. QES will not be responsible for loss or damage to Products in transit or for delays of carriers in delivering goods. In case of shortage, non-conformance, or apparent damage, it is the Customer's responsibility to secure written acknowledgement from the carrier before Customer accepts delivery. Additionally, QES will not be liable for any damage for delays in delivery or completion due to a Force Majeure (as defined below), acts or omissions of the Customer, third party material or manufacturing delays, impossibility or impracticability of performance or any other cause or causes beyond the control of QES. In the event of a delay caused by the aforesaid, the delivery or completion date will be extended for a period equal to any such delay, and the purchase or service will not be void or voidable as a result thereof.

5. Well or Service Site Conditions. Customer, having custody and control of the well and/or service site, and having superior knowledge of the same and the conditions surrounding them, warrant that the well and/or service site will be in proper condition to receive and accommodate Services and Products. Upon QES' request, Customer will provide documentation to verify that the well or service site is adequate to support the Services and the delivery of Products. Customer also warrants that QES' personnel and equipment will be able to safely access the well and service site and that any special equipment or road improvements required for such access will be the responsibility of Customer, unless otherwise agreed to by the parties.

6. Chemical Handling and Hazardous Materials. Customer agrees that for any waste created as part of the Services, Customer will be considered the "generator" for purposes of any applicable laws or regulations pertaining to the transportation, storage and handling of chemicals and hazardous materials.

7. Data, Data Transmission and Storage. QES does not warrant or guarantee the accuracy of any research analysis, survey, or other data generated for the Services. QES is not responsible for any accidental or intentional interception of such data by third parties and it is the responsibility of the Customer to safeguard such data against loss including any need to secure digital or paper copies for storage.

8. WARRANTIES - LIMITATION OF LIABILITY.

a) QES warrants that the Services and Products will: (i) be free from defects in materials and workmanship; (ii) be performed in a good and workmanlike manner, in accordance with good oilfield servicing practices; and (iii) conform to the plans, specifications and technical information provided in writing by Customer until the Services or Products are accepted by Customer or QES' contractual obligations are met. In the event that Customer discovers a defect in the Services or Products within the warranty period specified above, Customer will notify QES of such defect. In the event that QES confirms that the Services or Products are defective, QES's liability and Customer's exclusive remedy in any cause of action (whether in tort, contract, breach of warranty or otherwise) arising out of the sale or use of any Services or Products is expressly limited to, at QES' option, the (i) replacement of such Services or Products upon their return to QES or (ii) a credit to Customer for the full price paid by Customer for the defective segment of the Services or Products upon their return to QES. In the case of products or parts, not wholly of QES' manufacture, QES' liability will be limited to the extent of its recovery from the manufacturer of such products or parts under its liability to QES. QES will not be liable for any damages, claims, losses or expenses of Customer resulting from such defects or for damages resulting from delays, loss of use, or other direct, indirect, incidental, punitive or consequential damages of any kind. QES will not be responsible for: (i) failures of Services that have been in any way tampered with or altered by anyone other than an authorized representative of QES; (ii) failures due to lack of compliance with recommended maintenance procedures; and (iii) products requiring replacement due to normal wear and tear.

b) EXCEPT FOR THE WARRANTIES EXPRESSLY STATED ABOVE, THERE ARE NO OTHER WARRANTIES. THE PARTIES EXPRESSLY EXCLUDE AND CUSTOMER WAIVES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

c) IN NO EVENT WILL QES' ENTIRE LIABILITY (IN TORT, CONTRACT, WARRANTY, INFRINGEMENT OR OTHERWISE) TO CUSTOMER EXCEED THE PURCHASE PRICE ACTUALLY PAID BY CUSTOMER FOR THE SERVICES OR PRODUCTS THAT GIVE RISE TO A DISPUTE. THIS PROVISION WILL SURVIVE ANY TERMINATION OF THIS AGREEMENT.

9. INDEMNIFICATION AND WAIVER OF CONSEQUENTIAL DAMAGES.

9.1 For purpose of this Section 9, the following definitions will apply: "QES Group" means QES Pressure Pumping LLC, its parent company, and affiliated companies, and its and their officers, directors, employees, contractors, subcontractors and invitees. "Customer Group" means Customer, its parent (if any), subsidiary and affiliated companies, co-owners, co-venturers, partners and any entity with whom Customer has an economic interest with respect to the Services, including Customer's joint interest owners and partners and its and their officers, directors, employees, contractors (not including QES), subcontractors and invitees.

9.2 QES INDEMNITY. QES AGREES TO PROTECT, DEFEND, INDEMNIFY AND HOLD HARMLESS CUSTOMER GROUP FROM AND AGAINST ALL CLAIMS, DEMANDS, AND CAUSES OF ACTION OF EVERY KIND AND CHARACTER, ARISING IN CONNECTION WITH THE SERVICES, ON ACCOUNT OF BODILY INJURY, ILLNESS, OR DEATH OF ANY MEMBER OF QES GROUP OR DAMAGE TO OR LOSS OF PROPERTY OF ANY MEMBER OF QES GROUP.

9.3 CUSTOMER INDEMNITY. CUSTOMER AGREES TO PROTECT, DEFEND, INDEMNIFY AND HOLD HARMLESS QES GROUP FROM AND AGAINST ALL CLAIMS, DEMANDS, AND CAUSES OF ACTION OF EVERY KIND AND CHARACTER, ARISING IN CONNECTION WITH THE SERVICES, ON ACCOUNT OF BODILY INJURY ILLNESS, OR DEATH OF ANY MEMBER OF CUSTOMER GROUP OR DAMAGE TO OR LOSS OF PROPERTY OF ANY MEMBER OF CUSTOMER GROUP.

9.4 WELL. CUSTOMER WILL RELEASE, PROTECT, DEFEND, AND INDEMNIFY QES GROUP FROM AND AGAINST ALL CLAIMS, DEMANDS AND CAUSES OF ACTION OF EVERY KIND AND CHARACTER IN THE EVENTS OF: (i) LOSS OR DAMAGE TO ANY GEOLOGICAL FORMATION, STRATA OR OIL OR GAS RESERVOIR OR MINERAL OR WATER RESOURCE BENEATH THE SURFACE OF THE LAND OR WATER, (ii) LOSS OR DAMAGE TO THE HOLE OR WELL, (iii)

IMPAIRMENT OF PROPERTY RIGHTS OR OTHER INTERESTS IN OR TO OIL, GAS, MINERAL OR WATER RESOURCES, AND (iv) REGAINING CONTROL OF ANY WILD WELL OR OUT OF CONTROL WELL, UNDERGROUND OR ABOVE THE SURFACE, INCLUDING REMOVAL OF WRECK, DEBRIS, EQUIPMENT, AND HAZARDOUS MATERIALS AND REMEDIATING ENVIRONMENTAL DAMAGE.

9.5 POLLUTION RESPONSIBILITY. Subject to paragraphs 9.2 and 9.3, it is understood and agreed between Customer and QES that the responsibility for pollution shall be as follows:

(a) QES WILL ASSUME RESPONSIBILITY FOR CONTROL AND REMOVAL OF AND WILL PROTECT, DEFEND AND INDEMNIFY CUSTOMER GROUP FROM AND AGAINST ALL CLAIMS, DEMANDS AND CAUSES OF ACTION OF EVERY KIND OF CHARACTER ARISING FROM POLLUTION OR CONTAMINATION WHICH ORIGINATES ABOVE THE SURFACE OF THE LAND OR WATER FROM THE EQUIPMENT OF ANY MEMBER OF QES GROUP MAINTAINED IN QES GROUPS' CARE, CUSTODY AND CONTROL, AND ARISING FROM THE PERFORMANCE OF THE SERVICES.

(b) CUSTOMER WILL ASSUME RESPONSIBILITY FOR CONTROL AND REMOVAL OF AND WILL PROTECT, DEFEND AND INDEMNIFY QES GROUP FROM AND AGAINST ALL CLAIMS, DEMANDS AND CAUSES OF ACTION OF EVERY KIND AND CHARACTER ARISING FROM POLLUTION OTHER THAN THAT DESCRIBED IN SECTION 9.5(A) ABOVE, WHICH MAY OCCUR DURING THE CONDUCT OF OPERATIONS HEREUNDER, INCLUDING, BUT NOT LIMITED TO, POLLUTION RESULTING FROM FIRE, BLOWOUT, CRATERING, SEEPAGE OR OTHER UNCONTROLLED FLOW OF OIL, GAS OR OTHER SUBSTANCE.

9.6 WAIVER OF CONSEQUENTIAL DAMAGES. NOTWITHSTANDING ANY PROVISION TO THE CONTRARY, CUSTOMER AND QES FURTHER AGREE THAT NEITHER PARTY WILL BE LIABLE TO THE OTHER OR EACH OTHER'S RESPECTIVE GROUP FOR ANY CONSEQUENTIAL, INCIDENTAL OR INDIRECT DAMAGES, INCLUDING BUT NOT LIMITED TO, LOSS OF PROFIT, LOSS OF PRODUCTION, REVENUE, OR ANTICIPATED BUSINESS ("LOSSES"). CUSTOMER AGREES TO INDEMNIFY AND HOLD QES GROUP HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS FOR SUCH LOSSES ASSERTED BY MEMBERS OF CUSTOMER GROUP. QES AGREES TO INDEMNIFY AND HOLD CUSTOMER GROUP HARMLESS FROM AND AGAINST ANY AND ALL CLAIMS FOR SUCH LOSSES ASSERTED BY MEMBERS OF QES GROUP.

9.7 EXCEPT AS OTHERWISE EXPRESSLY LIMITED BY THIS AGREEMENT OR BY LAW, ALL RELEASES, INDEMNITY OBLIGATIONS AND OTHER LIABILITIES ASSUMED UNDER THIS AGREEMENT WILL BE WITHOUT LIMIT AND WITHOUT REGARD TO THE CAUSE OR CAUSES, INCLUDING, WITHOUT LIMITATION, PREEXISTING CONDITIONS, UNSEAWORTHINESS, STRICT LIABILITY, WILLFUL MISCONDUCT, AND THE SOLE, JOINT, GROSS, OR CONCURRENT NEGLIGENCE OF ANY PARTY.

9.8. Each Party hereunder agrees to support its indemnity obligations with liability insurance coverage with limits of liability not less than ten million dollars (\$10,000,000). It is the express intention of the Parties that the indemnities contained herein apply to the fullest extent permitted by applicable law, and in no event will a Party's indemnity obligation be limited to the amount of insurance carried by each Party.

THIS SECTION 9 WILL SURVIVE THE TERMINATION OR EXPIRATION OF THIS AGREEMENT.

10. Insurance. All insurance policies of either Party, in any way related to the Services, whether or not required by this Agreement, shall to the extent of the risks and liabilities assumed by such party: (i) name the other party group as additional insured (except for worker's compensation, OEE/COW, or professional liability policies), (ii) waive subrogation as to the other party group; and (iii) be primary and non-contributory to any insurance of the other party group.

11. Force Majeure. Except the obligation to make payments when due, neither QES nor Customer will be liable nor deemed to be in breach of this Agreement for any delay or failure in performance resulting from the acts of God, civil or military authority, material change of law, any governmental action, acts of public enemy, war, accidents, fires, explosions, earthquakes, floods, failure of transportation, national strikes, acute or unusual labor, material or equipment shortages, or any similar or dissimilar cause beyond the reasonable control of either Party. The Party so affected will as soon as such a cause or event occurs promptly notify the other Party in writing concerning the cause and the estimated effect and take reasonable measures with proper dispatch to remedy the condition. In the event Customer declares a force majeure occurrence, QES will be compensated at the standard daily rate for the materials and personnel that are standing idle as a consequence of the force majeure occurrence until Customer terminates the work order or work resumes.

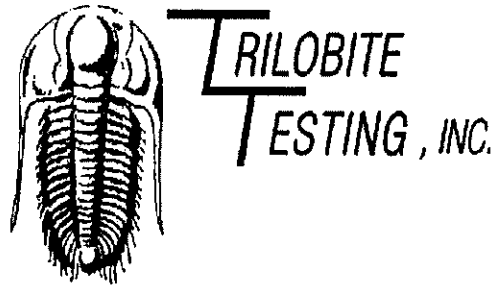
12. Governing Law. This Agreement will be governed by the laws of the State of Texas, without regard to its conflicts of law provisions. The Parties agree to submit to the exclusive jurisdiction of the federal or state courts located in Houston, Harris County, Texas with respect to any and all disputes that arise out of or are related in any way to the subject matter of this Agreement. This Section 12 will survive the termination or expiration of this Agreement.

13. Independent Contractor. QES will be an independent contractor with respect to the Services performed, and neither QES nor anyone employed by QES will be deemed for any purpose to be the employee, agent, servant, borrowed servant or representative of Customer.

14. Severability. In the event any provision of this Agreement is inconsistent with or contrary to any applicable law, rule or regulation, the provision will be deemed modified to the extent required to comply, and the remaining terms, as modified, will remain in full force and effect.

15. Waiver. A waiver on the part of either Party of any breach of any term, provision or condition of this Agreement will not constitute a precedent and not bind either Party hereto to a waiver of any succeeding or other breach of the same or any other term, provision or condition of this Agreement.

16. Entire Agreement. This Agreement contains the entire agreement of the Parties with regard to the subject matter hereof and supersedes any prior oral and written agreements, contracts, representations or warranty between the Parties relating to the subject matter hereof. No amendment or modification of this Agreement will be effective unless it is in writing and signed by an authorized representative of each Party. If the Parties enter into a Master Service Agreement, then any term or condition herein which conflicts with the provisions of such Master Service Agreement will be deemed invalid.



DRILL STEM TEST REPORT

Prepared For: **Palomino Petroleum, Inc.**

3924 SE 94th St.
Newton, KS 67114

ATTN: Andrew Stenzel

Hagans "14" #3

14-16s-26w Ness,KS

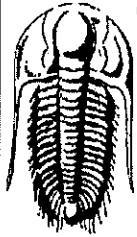
Start Date: 2018.09.17 @ 17:16:12

End Date: 2018.09.18 @ 01:34:57

Job Ticket #: 64702 DST #: 1

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

Printed: 2018.09.19 @ 14:58:20



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Palomino Petroleum, Inc.

14-16s-26w Ness,KS

3924 SE 94th St.
New ton, KS 67114

Hagans "14" #3

Job Ticket: 64702

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2018.09.17 @ 17:16:12

GENERAL INFORMATION:

Formation: **Mississippi**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 19:37:12

Time Test Ended: 01:34:57

Test Type: Conventional Bottom Hole (Initial)

Tester: Matt Smith

Unit No: 68

Interval: **4428.00 ft (KB) To 4510.00 ft (KB) (TVD)**

Reference Elevations: 2570.00 ft (KB)

Total Depth: 4510.00 ft (KB) (TVD)

2565.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Fair

KB to GR/CF: 5.00 ft

Serial #: 8931

Inside

Press@RunDepth: 272.85 psig @ 4429.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2018.09.17

End Date:

2018.09.18

Last Calib.: 2018.09.18

Start Time: 17:16:17

End Time:

01:34:56

Time On Btm: 2018.09.17 @ 19:35:27

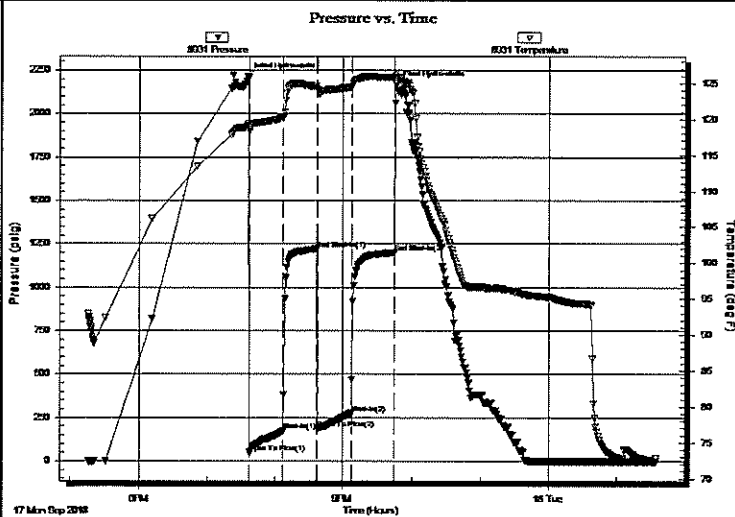
Time Off Btm: 2018.09.17 @ 21:46:27

TEST COMMENT: IF: Strong blow . B.O.B. in 11 mins. Built to 28 3/4"

IS: Weak blow . Built to 1/4".

FF: Strong blow . B.O.B. in 11 mins. Built to 26 3/4"

FSI: Weak blow . Built to 1/4".



PRESSURE SUMMARY

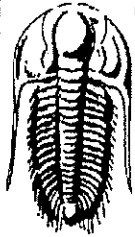
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2211.57	119.13	Initial Hydro-static
2	47.99	118.35	Open To Flow (1)
32	170.39	120.20	Shut-In(1)
62	1219.82	124.58	End Shut-In(1)
62	184.17	124.15	Open To Flow (2)
92	272.85	124.44	Shut-In(2)
129	1199.41	125.77	End Shut-In(2)
131	2161.48	125.87	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	GMCO 55%o 23%g 22%m	0.30
60.00	SGMCO 90%o 5%m 5%g	0.30
248.00	GMCO 55%o 25%m 20%g	3.48
340.00	CO 100%o	4.77
0.00	279' GIP	0.00

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palomino Petroleum, Inc.

14-16s-26w Ness,KS

3924 SE 94th St.
New ton, KS 67114

Hagans "14" #3

Job Ticket: 64702

DST#: 1

ATTN: Andrew Stenzel

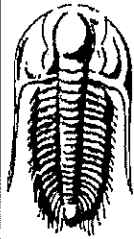
Test Start: 2018.09.17 @ 17:16:12

Tool Information

Drill Pipe:	Length: 4295.00 ft	Diameter: 3.80 inches	Volume: 60.25 bbl	Tool Weight: 2100.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 26000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 70000.00 lb
			<u>Total Volume: 60.84 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial 61000.00 lb
Depth to Top Packer:	4428.00 ft			Final 63000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	82.00 ft			
Tool Length:	110.00 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			4401.00	
Shut In Tool	5.00			4406.00	
Hydraulic tool	5.00			4411.00	
Jars	5.00			4416.00	
Safety Joint	3.00			4419.00	
Packer	4.00			4423.00	28.00 Bottom Of Top Packer
Packer	5.00			4428.00	
Stubb	1.00			4429.00	
Recorder	0.00	8931	Inside	4429.00	
Recorder	0.00	8792	Outside	4429.00	
Perforations	4.00			4433.00	
Change Over Sub	1.00			4434.00	
Blank Spacing	62.00			4496.00	
Change Over Sub	1.00			4497.00	
Perforations	10.00			4507.00	
Bullnose	3.00			4510.00	82.00 Bottom Packers & Anchor
Total Tool Length:	110.00				



TRILOBITE
TESTING, INC

DRILL STEM TEST REPORT

FLUID SUMMARY

Palomino Petroleum, Inc.

14-16s-26w Ness,KS

3924 SE 94th St.
New ton, KS 67114

Hagans "14" #3

Job Ticket: 64702

DST#: 1

ATTN: Andrew Stenzel

Test Start: 2018.09.17 @ 17:16:12

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

39 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

4400 ppm

Viscosity: 57.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 9.18 in³

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 4400.00 ppm

Filter Cake: 0.20 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	GMCO 55%o 23%g 22%m	0.295
60.00	SGMCO 90%o 5%m 5%g	0.295
248.00	GMCO 55%o 25%m 20%g	3.479
340.00	CO 100%o	4.769
0.00	279' GIP	0.000

Total Length: 708.00 ft

Total Volume: 8.838 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #: none

Laboratory Name:

Laboratory Location:

Recovery Comments: Gravity 37 @ 78 Degrees. Corrected to 39 @ 60 Degrees.

Serial #: 8931

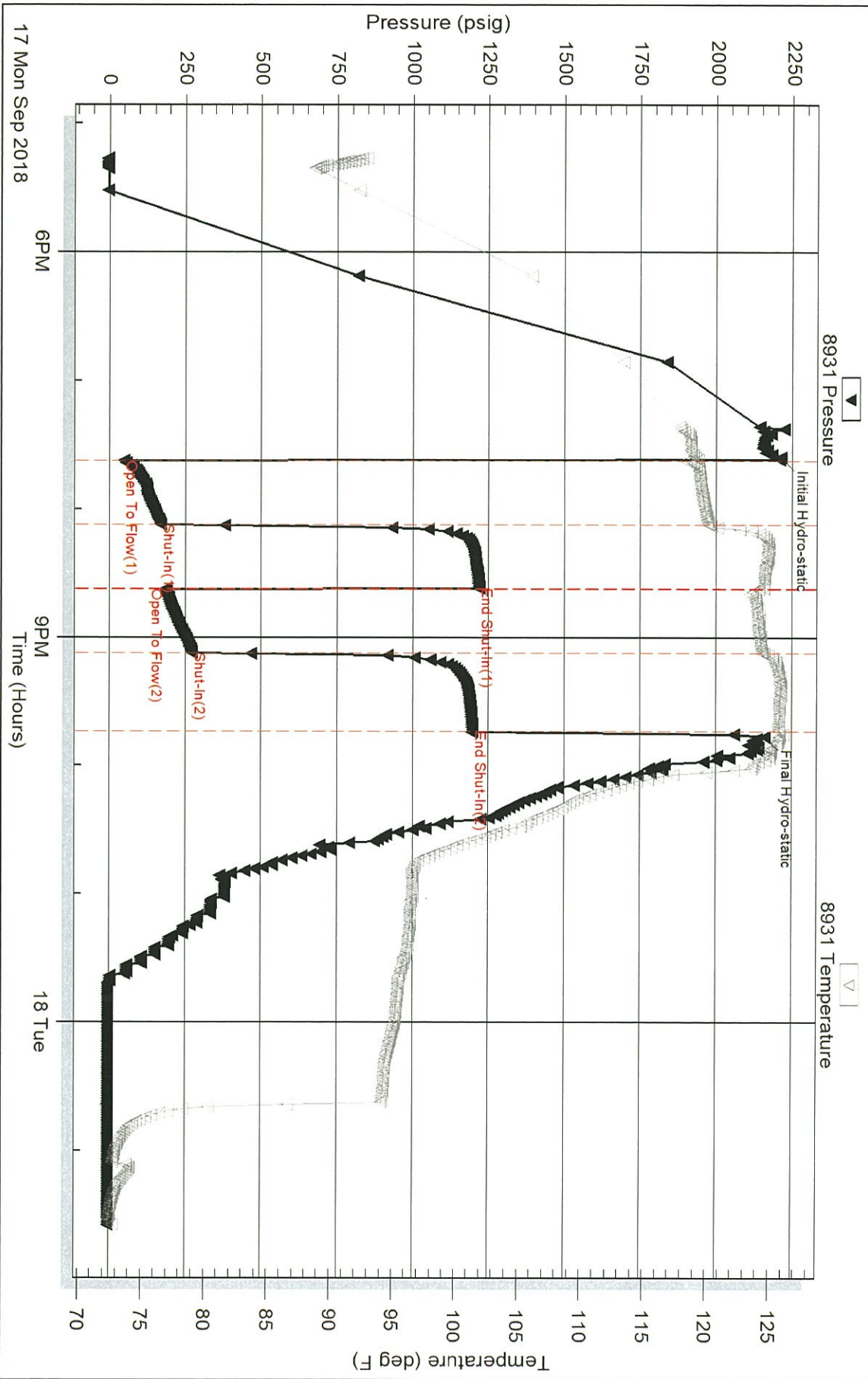
Inside

Palomino Petroleum, Inc.

Hagens "14" #3

DST Test Number: 1

Pressure vs. Time



Serial #: 8792

Outside Palomino Petroleum, Inc.

Hagans "14" #3

DST Test Number: 1





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67801

Test Ticket

NO. 64702

Well Name & No. Hagens "14" #3 Test No. 1 Date 9/17/18
 Company Palomino Petroleum, Inc. Elevation 2570 KB 2365 GL
 Address 4924 SE 94th St. Newton, KS, 67114
 Co. Rep / Geo. Andrew Stenzel Rig WW DRAHing #2
 Location: Sec. 14 Twp 16S Rge. 26W Co. Ness State KS.

Interval Tested 4428 - 4510 Zone Tested Mississippi
 Anchor Length 82' Drill Pipe Run 4295' Mud Wt. 9.3
 Top Packer Depth 4423 Drill Collars Run 120 Vis 57
 Bottom Packer Depth 4428 Wt. Pipe Run Q WL 9.2
 Total Depth 4510 Chlorides 4400 ppm System LCM TR

Blow Description IF: Strong Blow, B.O.B. in 11mins., Burt to 28 3/4".
ESI: Weak blow, Burt to 1/4".
FF: Strong blow, B.O.B. in 11mins., Burt to 26 3/4".
FSI: Weak blow, Burt to 1/4".

Sec	Feet of	%gas	%oil	%water	%mud
ec <u>279'</u>	Feet of <u>G.I.P.</u>	<u>100</u>			
ec <u>340'</u>	Feet of <u>Clean Oil</u>		<u>100</u>		
ec <u>248'</u>	Feet of <u>OcmG</u>	<u>20</u>	<u>55</u>		<u>25</u>
ec <u>60'</u>	Feet of <u>OcmG</u>	<u>5</u>	<u>90</u>		<u>5</u>
ec <u>60'</u>	Feet of <u>OcmG</u>	<u>23</u>	<u>55</u>		<u>22</u>

ec Total 708' Fluid BHT 119° Gravity 39@60° API RW N/A @ N/A °F Chlorides 4400 ppm

Initial Hydrostatic 2212 Test 1150 T-On Location 1632
 First Initial Flow 48 Jars 250 T-Started 1716
 First Final Flow 170 Safety Joint 75 T-Open 1937
 Initial Shut-In 1220 Circ Sub _____ T-Pulled 2137
 Second Initial Flow 184 Hourly Standby _____ T-Out 0134
 Second Final Flow 273 Mileage 98 98 Comments _____
 Final Shut-In 1199 Sampler _____
 Final Hydrostatic 2161 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1573
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1573

Approved By Andrew Stenzel Our Representative [Signature]

TriLOBITE Testing Inc. shall not be liable for damages 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 our, or its statements or actions concerning the results of any test, tools lost or damaged in the field shall be paid for at cost by the party for whom the test is made.



Home
(785) 798-3400

Andrew Stenzel Geologist

Ness Co., Kansas



Cell
(785) 798-5977

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

Well Name: Hagens "14" #3
Well Id: 15-135-25020-00-00
Location: NW-SW-NE-SW Sec. 14 16S-26W (Ness County)
License Number: 30742
Spud Date: 9/11/18
Surface Coordinates: 1833' FSL & 1335' FWL
Region: KANSAS
Drilling Completed: 9/19/18

Bottom Hole

Coordinates: 2564
Ground Elevation (ft): 2564
Logged Interval (ft): 3700 To: TD
Formation: MISSISSIPPIAN
Type of Drilling Fluid: Mud-Co Chemical
K.B. Elevation (ft): 2569
Total Depth (ft): 4612

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:
9/11/18 MIRU, ran surface casing
9/12/18 Drilling @ 309'
9/13/18 Drilling @ 2287'
9/14/18 Drilling @ 3210'
9/15/18 Drilling @ 3787'
9/16/18 Drilling @ 4232'
9/17/18 Drilling @ 4443', DST #1
9/18/18 Drilling @ 4525', Ran electric logs
9/19/18 Ran production casing

Services

RIG: VW Drilling, Rig #2
MUD: MUDCO
LOGS: Pioneer: CNDL, DIL, ML

Casing Record

SURFACE Casing: Ran 5 jts new 8 5/8", 23# casing @ 215'

PRODUCTION Casing: Ran 109 jts new 5 1/2", 14# casing @ 4610'

Formation Tops

Sample Tops

Anhy. 1986 (+583)
 Base Anhy. 2020 (+549)
 Heebner 3848 (-1279)
 Lansing 3892 (-1323)
 BKC 4186 (-1617)
 Marmaton 4229 (-1660)
 Pawnee 4322 (-1753)
 Ft. Scott 4387 (-1818)
 Cher. Sh. 4408 (-1839)
 Miss. 4471 (-1902)
 RTD 4612 (-2043)

LogTops

Anhy. 1984 (+585)
 Base Anhy. 2016 (+553)
 Heebner 3843 (-1274)
 Lansing 3886 (-1317)
 BKC 4183 (-1614)
 Marmaton 4230 (-1661)
 Pawnee 4320 (-1751)
 Ft. Scott 4383 (-1814)
 Cher. Sh. 4408 (-1839)
 Miss. 4471 (-1902)
 LTD 4608 (-2039)



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Palamino Petroleum, Inc.

3924 SE 94th St.
 Newton, Ks. 67114

ATTN: Andrew Stenzel

14-16s-26w Ness Co. Ks.

Hagans "14" #3

Job Ticket: 64702 DST#: 1

Test Start: 2018.09.17 @ 17:16:12

GENERAL INFORMATION:

Formation: Mississippi
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 19:37:12
 Time Test Ended: 01:34:57

Test Type: Conventional Bottom Hole (Initial)
 Tester: Matt Smith
 Unit No: 68

Interval: 4428.00 # (KCB) To 4540.00 # (KCB) (TVM)

Reference Elevations: 2570.00 ft (KCB)

3550

3600

3650

3700

3750

↓ Anhy.
1986 (+583)

↓ Base Anhy.
2020 (+549)

ROP (min/ft)

0

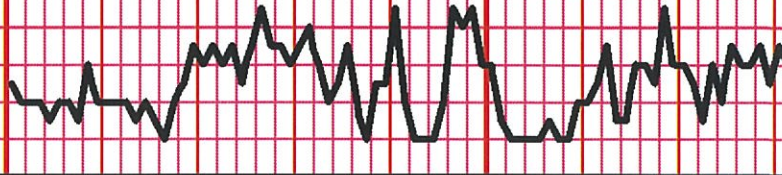
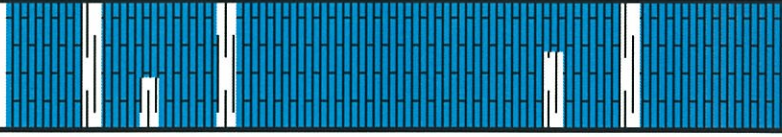
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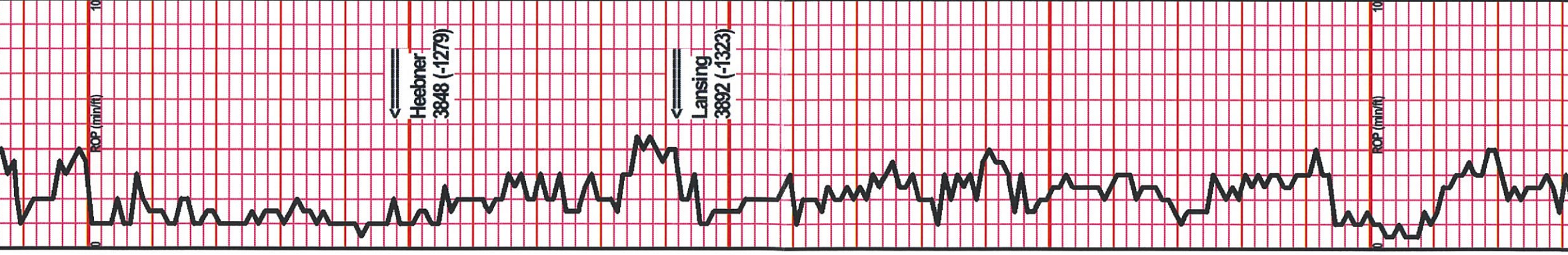
Ls., tr-ft, gy, frxin, sil fr-ft, vy chiky, ool, foss, fr
foss & intrxin por, ns, no odr, scatt St., gy

Ls., tr-motidk bm, soft, vy chiky, foss ip, pr
intrxin & foss por, ns, no odr, scatt St., gy-olk
gy

Ls., cm-ft, gy, vfrxin, mod hd, dns, foss ip, nvp,
ns

Ls., cm-ft, frxin, mod hd, ool ip, foss, pr
introol & foss por, ns, no odr, scatt St., gy





Mud @ 3825
Wt. 8.9
Vis. 54
Filtrate AP19.2
Chlor 4000
LCM 1#



LS., aa, scatt Chrt., lt gy, shp, foss

LS., crm-tn, frxn, sli fr-soft, vy chiky, foss ip, pr
foss por, ns, no odr; scatt Sh., gy

LS., tn-nottd btm, frxn, soft, vy chiky, foss, pr
foss por, ns, no odr; scatt Sh., gy-bm

Sh., blk, carb

Sh., gy, fss, lt gm, vy soft, clayey

LS., crm, vfrxn, mod hd, chiky ip, rest dns, nvp,
ns

Sh., gy-bm

LS., crm, fr-vfrxn, mod hd-sli fr, sli chiky, dns,
nvp, ns, scatt Chrt., crm-lt gy, shp

Sh., gy-dk gy, silty/sndy ip

LS., tn, frxn, mod hd, tr frac, tr rexn, nvp, ns,
abund Chrt., tn-bm, weath, foss ip

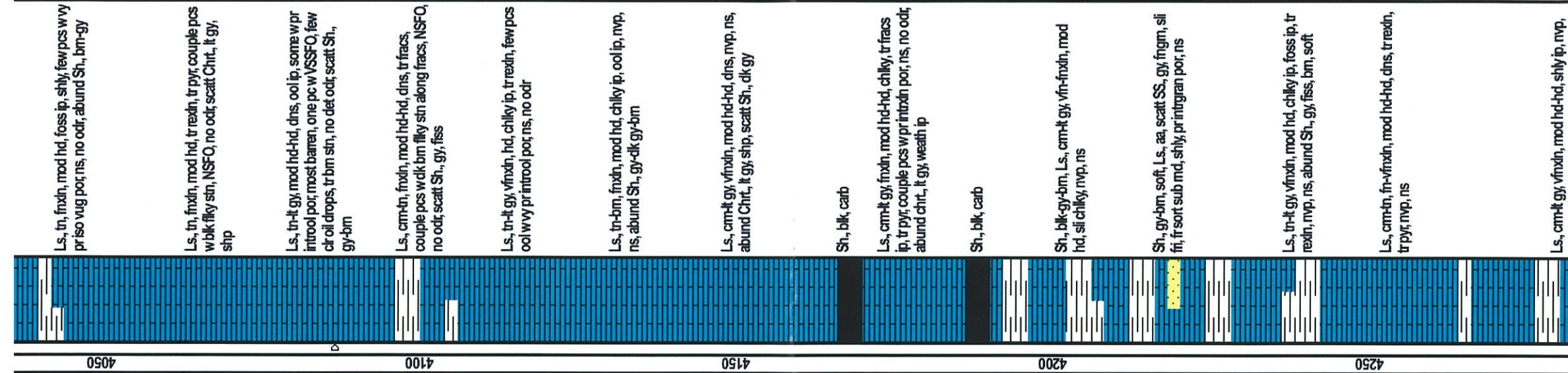
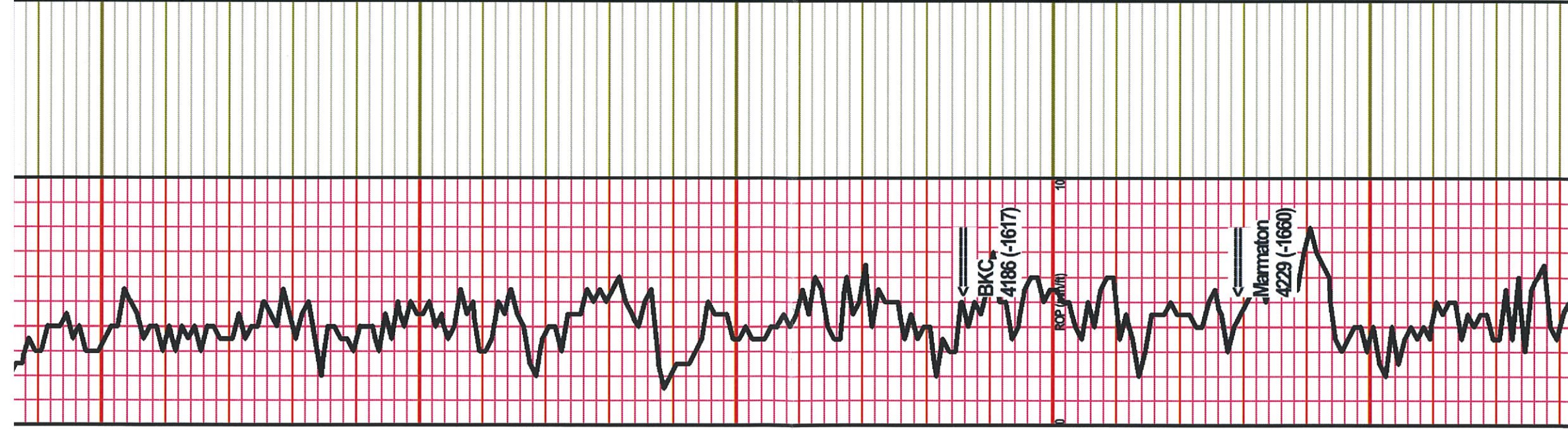
LS., crm, vfr-vfrxn, mod hd, sli chiky, nvp, ns,
scatt Sh., gy

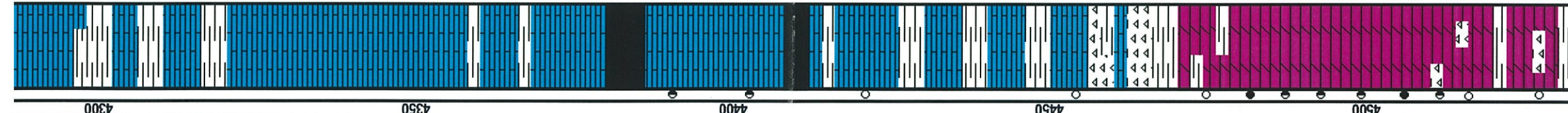
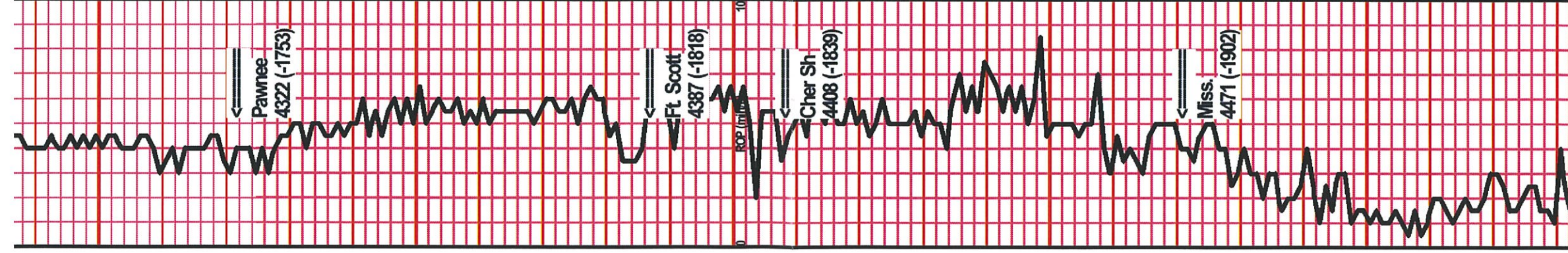
LS., crm-lt gy, vfrxn, mod hd, chiky ip, couple
pcs ool w printool por, ns, no odr, scatt Sh., gy

LS., tn, mod hd, frxn, ool, fr ooc por, ns, no odr

LS., tn, fr-vfrxn, mod hd, ool, some pr-fr ooc
por, ns, no odr

LS., crm-lt gy, vfrxn, hd, dns, nvp, ns





Ls., lt gy, vfnxdn, hd, shly ip, silty ip, nvp, ns, abund Sh., gy-kt gm-bm

Sh., dk gy, fess

Sh., lt gy, vfnxdn, mod hd, chiky ip, shly ip, nvp, ns

Ls., gy, vfnxdn, mod hd-hd, shly ip, nvp, ns, scatt Sh., gy

Sh., blk, carb

Ls., crm-hn, fnxdn, mod hd, ool, foss, some w pr-rare fr intrxdn, ppt & introol por, tr pr vug por, FSFO, even brn sat shn ip, most w sub sat, fr show gas, fr cup odr, fr odr on brk

Ls., in-ht gy, vfnxdn, mod hd-hd, foss ip, few pcs w pr foss & occ pr vug por, FSFO, lt brn spot shn, sll show gas, fr cup odr, fr odr on brk

Sh., blk, carb

Ls., crm-hn, fnxdn, mod hd, few pcs w vy pr intrxdn & rare pr vug por, SSFO, dk brn spot shn, no det cup odr, wk odr on brk, scatt Sh., gy-dk gy

Ls., crm-ht gy, fnxdn, mod hd, chiky ip, tr resdn, nvp, ns, scatt Sh., gy-bm-ht gm

Ls., crm-hn, fnxdn, hd, couple pcs w pr intrxdn por, SSFO, brn spot shn, no det odr, abund Chrt., tn, weath, abund Sh., brn-ht gm

Sh., yel-bm, Chrt., yel-org-tn, weath, some Ls., aa

Dol., tn, vfnxdn, mod hd-hd, weath, spic ip, some pr intrxdn & spic cast por, rare pr vug por, SSFO, sub sat blk shn, wk odr on brk, scatt Sh., gy

Dol., tn, fnxdn, mod hd, weath ip, spic, pr intrdn & pr-rare fr vug & spic cast por, SSFO, sub sat-seat brn shn, fr cup odr, gd odr on brk

Dol., crm-hn, fnxdn, mod hd-sll ffi, few pcs drs w no-wy pr vis por, most w pr-fr intrxdn & fr-rare gd vug & spic cast por, FSFO, even brn sat, sub sat ip, sll show gas, gd odr

Dol., in-crm, fr-med xln, mod hd-sll ffi, few pcs drs w vy pr-nvp, most w fr intrxdn, vuggy & occ spic cast por, FSFO, even brn-blk sat, vy gd odr

Dol., in-crm, fr-medbn, mod hd-sll ffi, fr intrxdn & fr-rare gd vug por, occ fr spic cast por, GSFO, even brn sat in most, some blk sub sat, sll show gas, vy gd odr

Dol., crm, fnxdn, sll fr-mod hd ip, chiky ip, chrt ip, many pcs w fr intrxdn & vug por, SF-SFO, rare sub sat shn, fr odr, scatt Sh., gy-bm

Dol., crm, fr-medbn ip, mod hd-sll ffi, chrt ip, fr intrxdn & occ fr vug & spic cast por, SSFO, rare spot shn, wk cup odr, scatt Sh., gy-bm

DST #1 4428-4510 (Mississippi)

30-30-30-30

F: BOB in 11 min, built to 28.34"

IS: Weak blow, built to 1/4"

FF: BOB in 11 mins, built to 26.34"

FS: Weak blow, built to 1/4"

Recovery:

279 GP

340' CO (100%/O)

248' GMCO (20%/G, 55%/O, 25%/M)

60' GMCO (5%/G, 90%/O, 5%/M)

60' GMCO (25%/G, 55%/O, 22%/M)

708' TF

FP: 48-170; 184-273

SP: 1220-1199

HP: 2212-2161

BHT: 119

Gravity: 39

Chlor: —

intxin por, vssr-u, it bm spot san ip, one pc w lary res
sh, vy wk odr, abund Chrt., It gy-cm, spic, abund Sh.,
gy, fss

Dol, cm-tt-ht gy, vfnxn, mod hd-sli fri ip, vy
chky, some w fr intxin & vug por, ns, no odr,
abund Chrt., It gy, spic ip, shp

Dol, aa, incr chiky, ns, no odr, incr Chrt., aa

Dol, cm-tt, fnxn, mod hd-sli fri, some fr intxin
por, ns, no odr, incr Chrt., cm-tt gy-ct,
fracbroken ip, ns, scatt Sh., gy-bm

Dol, bm, fnxn, hd, dns, nvp, ns, no odr, abund
Chrt., aa

Chrt., aa, scatt Dol., tn, fnxn, mod hd, pr-fr vug
por, ns, no odr,



RTD
4612 (-2043)

ROP (min/ft)

