

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](mailto: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	Baird Oil Company LLC
Well Name	PERKINS 3-24
Doc ID	1351988

Tops

Name	Top	Datum
Anhydrite	1541	+490
Base Anhydrite	1575	+456
Topeka	2993	-962
Heebner	3195	-1164
Toronto	3217	-1186
Lansing	3233	-1202
Base Kansas City	3443	-1412
Marmaton	3468	-1437
Arbuckle	3481	-1450
Total Depth	3560	-1529





# SWIFT



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



## Invoice

DATE	INVOICE #
3/15/2017	30167

BILL TO
Baird Oil Company LLC PO Box 428 Logan, KS 67646

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-24	Perkins	Rooks	WW #12	Oil	Development	Cement Surface ...	Blaine
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				60	Miles	5.00	300.00
576D-S	Pump Charge - Shallow Surface (< 500 Ft.)				1	Job	800.00	800.00
325	Standard Cement				150	Sacks	12.25	1,837.50T
279	Bentonite Gel				3	Sack(s)	25.00	75.00T
278	Calcium Chloride				7	Sack(s)	40.00	280.00T
581D	Service Charge Cement				150	Sacks	1.50	225.00
583D	Drayage				442.5	Ton Miles	0.75	331.88
	Subtotal							3,849.38
	Sales Tax Rooks County						7.00%	153.48
	<p>R 3/20/2017</p> <p>P 3/21/2017</p> <p>Perkins 190402 4,002.86</p> <p>Perkins 3-24- Pump charge, cement &amp; other misc. used to cement surface casing</p>							

**We Appreciate Your Business!**

**Total**

\$4,002.86





CHARGE TO: **BARRS OIL**  
 ADDRESS:  
 CITY, STATE, ZIP CODE:

TICKET 30167

PAGE 1 OF 1

1. SERVICE LOCATIONS <b>Amo stocks</b>	WELL/PROJECT NO. <b>3-24</b>	LEASE <b>Perkins</b>	COUNTY/PARISH <b>Rooks</b>	STATE <b>KS</b>	CITY <b>Stockton</b>	DATE <b>15 MAR 17</b>	OWNER
2. <b>High BS</b>	TICKET TYPE <input type="checkbox"/> SERVICE <input type="checkbox"/> SALES	CONTRACTOR	RIG NAME/NO. <b>12</b>	SHIPPED <input checked="" type="checkbox"/> MET	DELIVERED TO <b>Location</b>	ORDER NO.	
3.	WELL TYPE <b>01</b>	WELL CATEGORY <b>Development</b>	JOB PURPOSE <b>Install surface pipe</b>	WELL PERMIT NO.		WELL LOCATION <b>24-7-20</b>	
4. REFERRAL LOCATION	INVOICE INSTRUCTIONS						

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575		2			MILEAGE	60	mi			5.00	300.00
576 S		2			TRK III	1	ea			800.00	800.00
325		1			Pump Charge	150	sk			121.35	1837.50
279		1			Standard Cement	2	%	3	sk	25.00	75.00
278		1			Bentonite gel	3	%	7	sk	40.00	280.00
581		1			Calcium Chloride	150				1.50	225.00
583		1			Service Charge Deyage	445	TM			0.75	331.88

**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:  AM  PM

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

**SURVEY**

OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?	AGREE	UN-DECIDED	DIS-AGREE
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?	<input checked="" type="checkbox"/> YES		<input type="checkbox"/> NO

PAGE TOTAL: **3849.38**  
 TAX: **153.48**  
 TOTAL: **4002.86**

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





# SWIFT



Services, Inc.

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



## Invoice

DATE	INVOICE #
3/21/2017	29412

BILL TO
Baird Oil Company LLC PO Box 428 Logan, KS 67646

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-24	Perkins	Rooks	WW #12	Oil	Development	Cement Long Str...	Jonathan
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				60	Miles	5.00	300.00
578D-L	Pump Charge - Long String				1	Job	1,250.00	1,250.00
290	D-Air				5	Gallon(s)	42.00	210.00T
221	Liquid KCL (Clayfix)				2	Gallon(s)	25.00	50.00T
280	Flocheck 21				500	Gallon(s)	3.00	1,500.00T
402-5	5 1/2" Centralizer				12	Each	60.00	720.00T
403-5	5 1/2" Cement Basket				1	Each	250.00	250.00T
407-5	5 1/2" Insert Float Shoe With Auto Fill				1	Each	300.00	300.00T
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	225.00	225.00T
411-5	5 1/2" Recipo Scratcher				32	Each	45.00	1,440.00T
326	60/40 Pozmix (2% Gel)				40	Sacks	9.75	390.00T
277	Gilsonite (Coal Seal)				10	Lb(s)	0.75	7.50T
325	Standard Cement				200	Sacks	12.25	2,450.00T
283	Salt				1,550	Lb(s)	0.20	310.00T
285	CFR-1				100	Lb(s)	4.50	450.00T
276	Flocele				50	Lb(s)	2.25	112.50T
581D	Service Charge Cement				240	Sacks	1.50	360.00
583D	Drayage				718	Ton Miles	0.75	538.50
	Subtotal							13,363.50
	Sales Tax Rooks County						7.00%	764.05
	Perkins 190402 14,127.55 Perkins 3-24 Pump Charge, Cement + other misc. expenses used to Cement production casing							

**We Appreciate Your Business!**

**Total**

\$14,127.55



CHARGE TO: Baird Oil Company  
 ADDRESS: \_\_\_\_\_  
 CITY, STATE, ZIP CODE: \_\_\_\_\_

TICKET 29412

PAGE 1 OF 2

SERVICE LOCATIONS:  
 1. Hays, KS WELL/PROJECT NO. 3-24 LEASE Perkins COUNTY/PARISH Rooks STATE KS DATE 03/21/17 OWNER \_\_\_\_\_  
 2. Ness City, KS CONTRACTOR W W Drilling RIG NAME/NO. \_\_\_\_\_ SHIPPED VIA \_\_\_\_\_ ORDER NO. \_\_\_\_\_  
 3. \_\_\_\_\_ WELL TYPE Oil WELL CATEGORIES Development JOB PURPOSE Cement Long String WELL PERMIT NO. \_\_\_\_\_ WELL LOCATION \_\_\_\_\_  
 4. \_\_\_\_\_ INVOICE INSTRUCTIONS \_\_\_\_\_

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	U/M	QTY.	U/M	UNT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE #113	600	mi			5.00	300.00
578					Pump Charge - Long String	1	EA			1250.00	1250.00
290					D-AIR	5	gal			42.00	210.00
221					Liquid KCL	2	gal			25.00	50.00
280					Floabuck 21	500	gal			3.00	1500.00
402					Centralizers 5 1/2"	12	EA			60.00	720.00
403					Basket 5 1/2"	1	EA			250.00	250.00
407					Insert Float 30" Auto P. 11 5 1/2"	1	EA			300.00	300.00
404					Port Collar 5 1/2"	1	EA			2500.00	2500.00
406					Latch Down Plug Battle 5 1/2"	1	EA			225.00	225.00
411					Recipe Scraper 5 1/2"	33	EA			45.00	1440.00

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 \_\_\_\_\_ TIME SIGNED \_\_\_\_\_  
 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	UN-DECIDED	DIS-AGREE
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?	<input type="checkbox"/> YES		<input type="checkbox"/> NO

P.1 8745.00  
 P.2 4618.50  
 P.3 13363.57  
 P.4 7141.05  
 TOTAL 14127.15

CUSTOMER ACCEPTANCE OF MATERIALS AND SERVICES The customer hereby acknowledges receipt of the materials and services listed on this ticket.

SWIFT OPERATOR: Jonah Stapp APPROVAL: Mark Givens  
 Thank You!





Swanton, Inc

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

TICKET CONTINUATION

TICKET No. 29412

CUSTOMER Baird Oil Company

WELL Perkins 3-24

DATE 03/21/17

PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	WELL				DATE	UNIT PRICE	AMOUNT
		LOC	ACCT	DF			QTY	U/M	QTY	U/M			
326		2				60/40 Pozmix (290gal)	40	SKS				9.25	390.00
277		2				Coal Seal (Gisonite)	10	lbs				0.75	7.50
325		2				Standard Cement	200	SKS				12.25	2450.00
283		2				Salt	1550	lbs				0.20	310.00
285		2				CFR-1	100	lbs				4.50	450.00
276		2				Elsele	50	lbs				2.25	112.50
581		2										1.50	300.00
583		2										75	538.50

SERVICE CHARGE  
MILEAGE CHARGE  
TOTAL WEIGHT  
23938

Cement  
LOADED MILES  
60

CUBIC FEET  
TON MILES  
240 SKS  
718

CONTINUATION TOTAL 4618.50



JOB LOG

SWIFT Services, Inc.

DATE 03/21/17 PAGE NO.

CUSTOMER Baird Oil Company WELL NO. 3-24 LEASE Perkins JOB TYPE Cement Long String TICKET NO. 29412

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0145							On Location w/ Float Equip
								15.5 # 5 1/2" Casing RTD 3560'
								Total Pipe 3567'
								Baffle @ 3545.5
								Port Collar @ 1534' on #50
								Centralizers - 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 49
								Basket - 50
								Start Running Casing w/ Float Equip
	0630							Break Circulation on bottom
	0730							Fin. Circulation
	0735	2.5	8					Plug Rathole w/ 30 SKs 60/40
	0745	5	10			300		Pump 10 Bbl KCL spacer
	0755	5	12			400		Start Flocheck
		5	10			500		Fin Flocheck Start 10 Bbl KCL spacer
	0800	5.5	0			500		Start Cmt 200 SKs Standard
	0815	5.5	42			300		Fin Cmt
								Wash out Pump & Lines
	0820					Vac		Drop Plug
	0825	8.5	0			100		Start Displacement 84.3 Bbl
	0835	5.5	84.3			1200 1700		Fin Displacement
								Wash up truck
								Rack up
								Job Complete
								Thank You,
								Jon, David E, Kelly, Isaac



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



# Invoice

DATE	INVOICE #
3/23/2017	30303

BILL TO
Baird Oil Company LLC PO Box 428 Logan, KS 67646

- Acidizing
- Cement
- Tool Rental

TERMS	Well No.	Lease	County	Contractor	Well Type	Well Category	Job Purpose	Operator
Net 30	#3-24	Perkins	Rooks	Hurricane Service	Oil	Development	Cement Port Collar	Jason
PRICE REF.	DESCRIPTION				QTY	UM	UNIT PRICE	AMOUNT
575D	Mileage - 1 Way				70	Miles	5.00	350.00
576D-D	Pump Charge - Deep Surface (> 500 Ft.) & Port Collars				1	Job	1,250.00	1,250.00
105	Port Collar Tool Rental With Man				1	Each	275.00	275.00T
276	Flocele				50	Lb(s)	2.25	112.50T
290	D-Air				2.5	Gallon(s)	42.00	105.00T
330	Swift Multi-Density Standard (MIDCON II)				200	Sacks	15.75	3,150.00T
581D	Service Charge Cement				200	Sacks	1.50	300.00
583D	Drayage				698.24	Ton Miles	0.75	523.68
	Subtotal							6,066.18
	Sales Tax Rooks County						7.00%	254.98
	R3/27/2017 P3/28/2017 Perkins 190402 644.25 Perkins 3-24 - Rental of port Collar & man when cementing port collar Perkins 190402 567691 Perkins 3-24 - Pump charge, cement & other misc. expenses used to cement port collar							
							3/28/2017 CK#16707	

<b>We Appreciate Your Business!</b>	<b>Total</b>	\$6,321.16
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CHARGE TO: BAIRD OIL  
 ADDRESS:  
 CITY, STATE, ZIP CODE:

TICKET 30303

PAGE 1 OF

SERVICE LOCATIONS  
 1. NESS CITY, KS  
 WELL PROJECT NO. LEASE PERKINS 3-24  
 CONTRACTOR HURRICANE SERU, RIG NAME/NO. RODKS  
 TICKET TYPE  SERVICE  SALES  
 WELL TYPE DIL WELL CATEGORY DEVELOPMENT JOB PURPOSE CEMENT PORT COLLAR  
 REFERRAL LOCATION INVOICE INSTRUCTIONS

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.	UM	QTY.	UM	UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE # 115	7D	MIL			5	350
576D					PUMP CHARGE	150B				1850	1850
105					PORT COLLAR OPENING TOOL	150B				275	275
276					FLOSOLE	50	lbs			2	112
29D					D-41R	2 1/2	gals			42	105
33D					SMD CEMENT	200	5X			15	3150
581					CEMENT SERVICE CHARGE	200	5X			1	300
583					DRAVAGE	19950	lbs	698	2 TIM	75	523

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 23 MAR 17 TIME SIGNED 1145 AM  PM

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

SURVEY  
 OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?  
 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?  
 CUSTOMER DID NOT WISH TO RESPOND

PAGE TOTAL 6066  
 TAX 7.010  
 TOTAL 6371 16

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 23 MAR 17 PAGE NO.

CUSTOMER		WELL NO.		LEASE		JOB TYPE		TICKET NO.	
BAIRD OIL				PERKINS 3-24		CEMENT PORT COLLAR		30303	
CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS	
				T	C	TUBING	CASING		
	0730								ON LOCATION
									PORT COLLAR @ 1534
	0945						1000		TEST - HELD
	0948								OPEN PORT COLLAR
	0950	4	80			400			Pump 80 Bbl MUD
	1007	4	110			300			MIX 200 SX SMD
		3 1/2	8			100			DISPLACE CEMENT
									CIRCULATE 20SX TO PIT
	1049					1000			CLOSE PORT COLLAR - TEST - HELD
									RUN 3 JTS.
	1059	4	21			300			REVERSE CLEAN
	1109								WASH TRUCK
	1140								JOB COMPLETE.
									THANKS #115
									JASON DAVE ISAAC



API # 15-163-24332-00-00

## GEOLOGICAL REPORT DRILLING TIME AND SAMPLE LOG

COMPANY Baird Oil Company, LLC  
 LEASE Perkins # 3-24  
 FIELD Alcona  
 LOCATION 725' ENL + 330' FWL  
 SEC 24 TWSP 7s RGE 20W  
 COUNTY Rooks STATE Kansas

ELEVATION  
 KB 2031'  
 DF 2029'  
 GL 2023'  
 Depths Measured From  
 Log KB Drilling KB

CONTRACTOR WWD Drilling Rig #12  
 SPUD 3-15-17 COMP 3-20-17  
 SAMPLES SAVED FROM 2950' TO R.T.D

CASING  
 Surface 8 5/8" set @ 211'  
 Production 5 1/2"  
 ELECTRIC LOGS  
ELI

### FORMATION TOPS AND STRUCTURAL POSITION

FORMATION	SAMPLE	E. LOG	DATUM	A	B	C	D
			<u>2.169</u>	•	•	•	
<u>Anhydrite</u>	<u>1545</u>	<u>1541</u>	<u>+ 490</u>	<u>+ 482</u>	<u>+ 484</u>	<u>+ 495</u>	
<u>Base Anhydrite</u>	<u>1578</u>	<u>1575</u>	<u>+ 456</u>	<u>+ 448</u>	<u>+ 450</u>	<u>+ 466</u>	
<u>Topeka</u>	<u>2994</u>	<u>2993</u>	<u>- 962</u>	<u>- 964</u>	<u>- 966</u>	<u>- 966</u>	
<u>Heebner</u>	<u>3195</u>	<u>3195</u>	<u>- 1164</u>	<u>- 1164</u>	<u>- 1168</u>	<u>- 1168</u>	
<u>Toronto</u>	<u>3217</u>	<u>3217</u>	<u>- 1186</u>	<u>- 1187</u>	<u>- 1191</u>	<u>- 1191</u>	
<u>Lansing</u>	<u>3233</u>	<u>3233</u>	<u>- 1202</u>	<u>- 1202</u>	<u>- 1206</u>	<u>- 1206</u>	
<u>Base Kansas City</u>	<u>3443</u>	<u>3443</u>	<u>- 1412</u>	<u>- 1413</u>	<u>- 1419</u>	<u>- 1417</u>	
<u>Marmaton</u>	<u>3468</u>	<u>3468</u>	<u>- 1437</u>	<u>- 1441</u>	<u>- 1446</u>		
<u>Arbuckle</u>	<u>3480</u>	<u>3481</u>	<u>- 1450</u>	<u>- 1451</u>	<u>- 1451</u>	<u>NR.</u>	
<u>Total Depth</u>	<u>3560</u>	<u>3560</u>	<u>- 1529</u>	<u>- 1522</u>	<u>- 1529</u>	<u>- 1476</u>	

### REFERENCE WELLS

- A Black Diamond; Perkins #1, NE-NW-NW Sec 24-7s-20W
- B Baird Oil Co (current) Wheeler #1, NE-NE-NE Sec 23-7s-20W
- C Baird Oil Co (current) Perkins #2, NW-NW-NW Sec 24-7s-20W
- D



REMARKS

This well ran structurally favorable to other producers in the area. Due to structural position and positive D.S.T. data it was decided production casing should be cemented to further test the well. The following zones should be tested; 3482'-3486' and 3475'-3479'.

Richard B. Well  
3-21-17

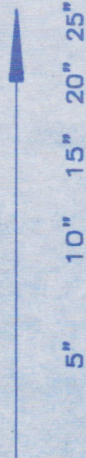
7502

LEGEND

-   
Anhydrite
-   
Salt
-   
Sandstone
-   
Shale
-   
Carb sh
-   
Limestone
-   
Ool. Lime
-   
Chert
-   
Dolomite

DRILLING TIME IN MINUTES  
PER FOOT

Rate of Penetration Decreases



1540

60

LITHOLOGY



SAMPLE DESCRIPTIONS

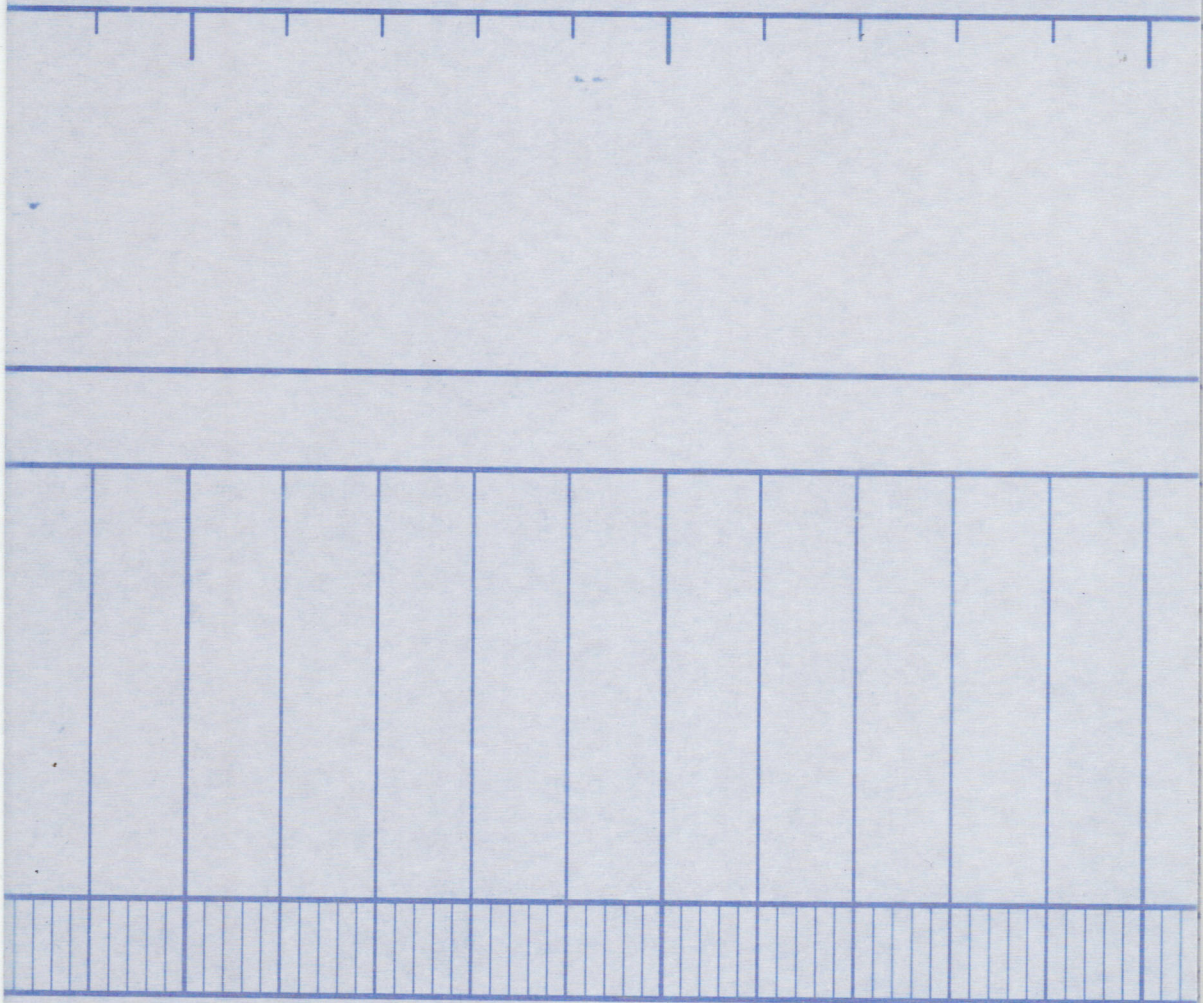
OIL SHOWS

REMARKS

Port collar @ 1534'

LOG 7710





80

2850

2900

Base Anhydrite  
L. 109 1575

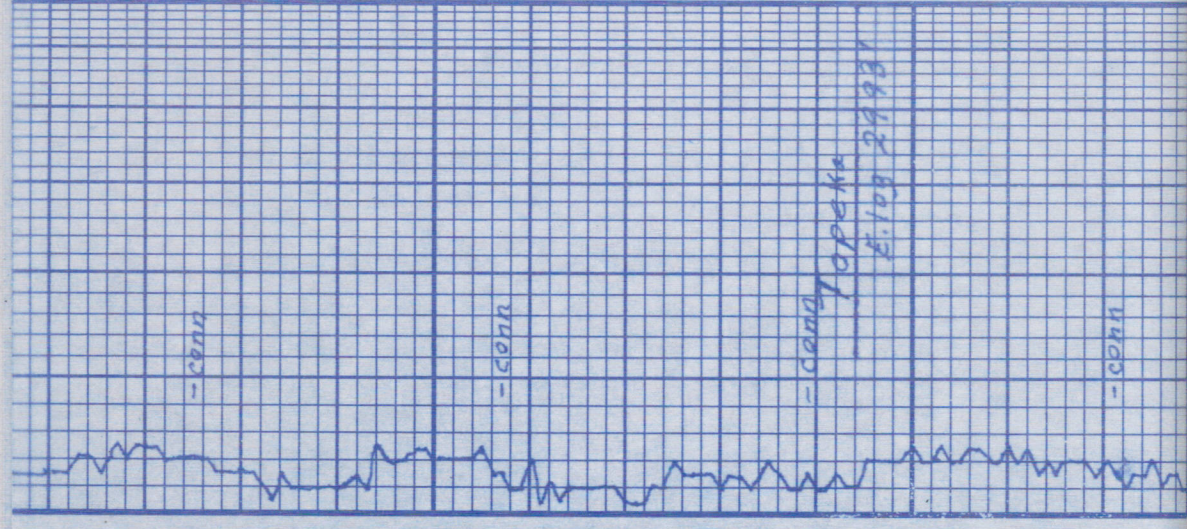
- Conn

- Conn

- Conn







20

40

60

80

3000

20

Samples are lagged  
good samples

siltstone: brn + gry

ls: tn-gry mt/d fs/f ds  
N.S.O.

siltstone: gry

ls: tn-gry fs/f ds N.S.O.

siltstone: gry

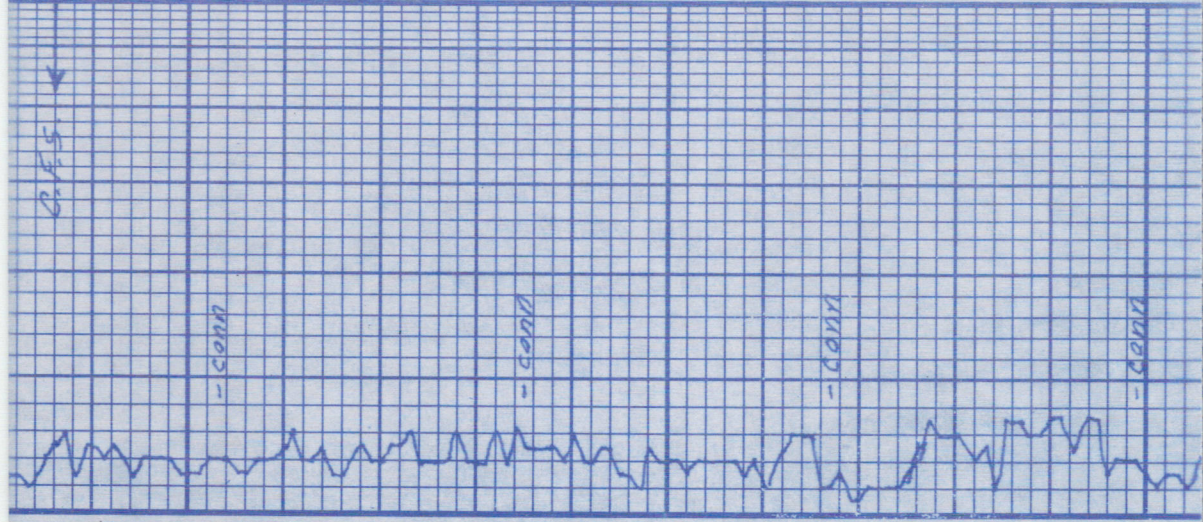
ls: tn-gry fs/f N.S.O.

ls: tn-gry fs/f ds N.S.O.

ls: tn-gry fxdn. fs/f ds.  
N.S.O.

ls: tn-gry sli. suc. fxdn.  
fs/f ds. fxdn. fxdn.





40  
 60  
 80  
 3100  
 20  
 40

no vis P No exit No exit  
 N.S.O.  
 LS: tn-gry fsif dms N.S.O.  
 sh: gry + brn

LS: tn-rt-gry tr fsin  
 mostly fsif tr ppφ N.S.O.  
 LS: a.a.

LS: tn-gry sli.cky-fsif  
 ppφ N.S.O.

sh: blk Carb  
 LS: tn-gry mtr d fsif dms  
 Tr. SS: wh. gry v. in. gn.  
 Casual. in. in. φ N.S.O.  
 sh: gry, brn, gn

LS: tn fsif dms N.S.O.

LS: wh-ta fsin-fsif tr  
 sac in. in. φ N.S.O.

sh: brn sly + grf sly

LS: wh-ta fsin-fsif dms.

LS: wh-ta sac-fsin-fsif  
 ppφ in. in. φ N.S.O.

✓



No odor Δ Lt. gry + wh  
 sh: brn, gry, grn  
 Lt. wh - tn fsh - fsh  
 Δ ty tn No V.S.O.  
 N.S.O.  
 Lt. wh - tn fsh ppφ - sl. vgy φ  
 gd rainbow S.O. pp F.O. on  
 Ckshb gd odor ✓  
 sh: BIK Carb.  
 Lt. tn - gry fsh dms  
 sh: gry + brn slty  
 Lt. wh - tn - lt. gry fsh ppφ  
 sl. vgy φ - tn fsh - sptd  
 5th RT. pp floating F.O.  
 fr. odor ✓  
 Lt. wh - tn fsh oil - sl. oil  
 ppφ - in part φ Lt sptd  
 O strn R.T. F.O. on crush ✓  
 Lt. wh - tn fsh dms  
 fr. blk Carb Sh.  
 Lt. gry fsh dms  
 sh: brn + gry  
 Lt. wh - tn fsh sl. oil sl.  
 BIK ppφ - fr. vgy φ ✓

60

80

3200

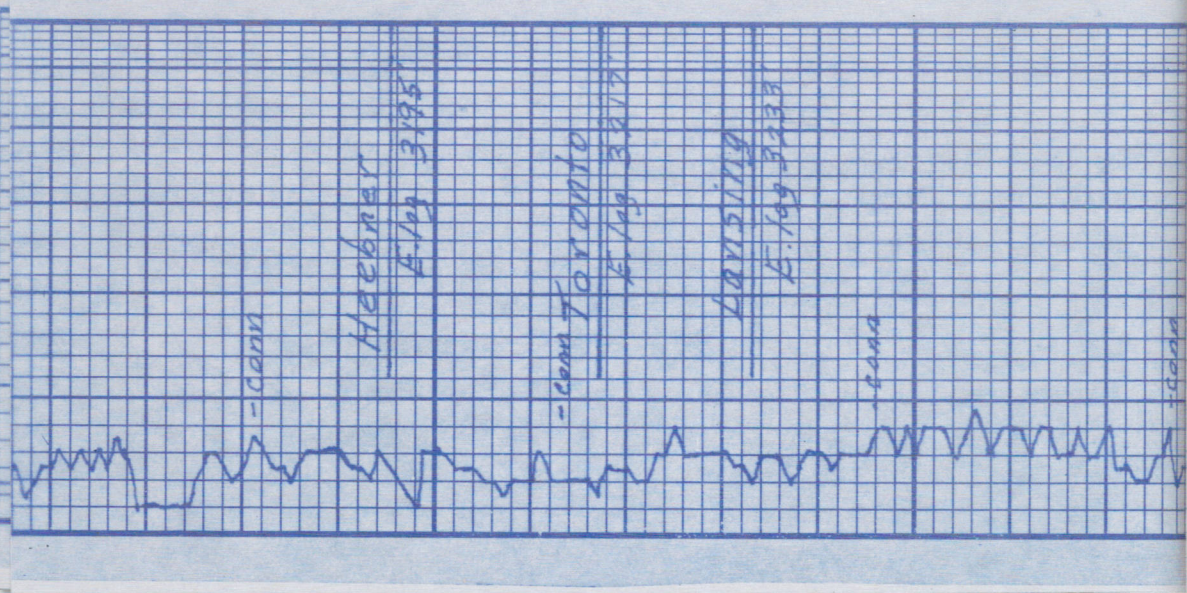
20

40

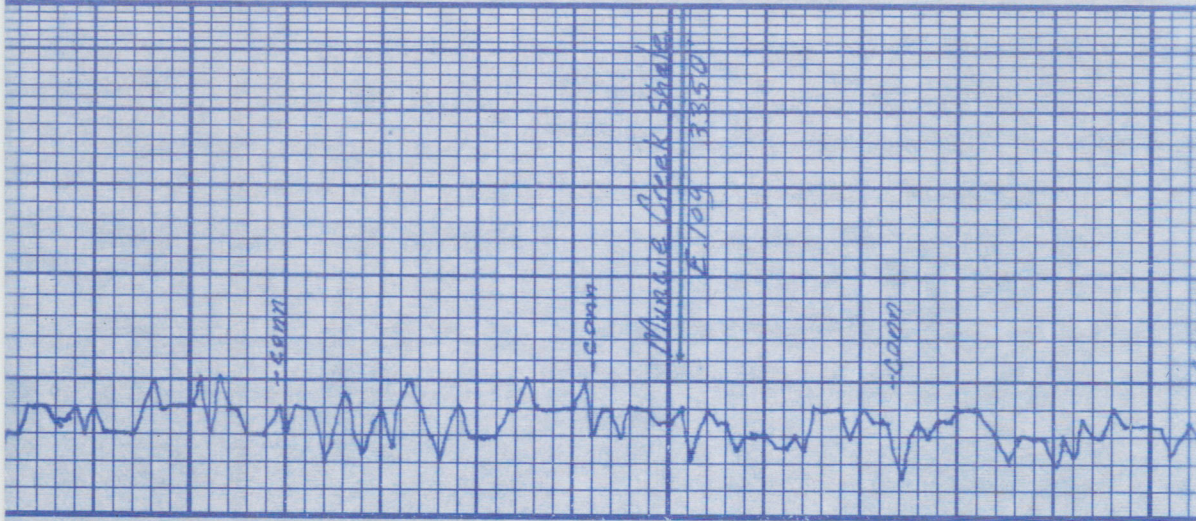
60

'A'

'C'







LS: wh to fsh - fsh Tr. ppφ H. spid 0.5m R.T. floating F.O. Δ wh	LS: wh to fsh Tr. ppφ Tr. pp 0.5m	LS: wh to fsh - fsh Tr sh. 0.01 Tr. 0.5m Tr. pp F.O. odor	LS: wh to fsh - fsh oil in part of Tr. vgyφ sh. 0.5m Δ wh	LS: wh to fsh das Tr. Δ or Tr. 61K Carb Sh.	LS: wh to fsh - sh: fsh das Tr. pp. fsh. spid 0.5m N.F.O. Tr. Δ to	LS: wh to fsh pr. ppφ Tr. fsh. spid 0.5m N.F.O.	LS: wh to fsh das
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✓  
 ✓  
 ✓  
 ✓  
 ✓  
 ✓  
 ✓

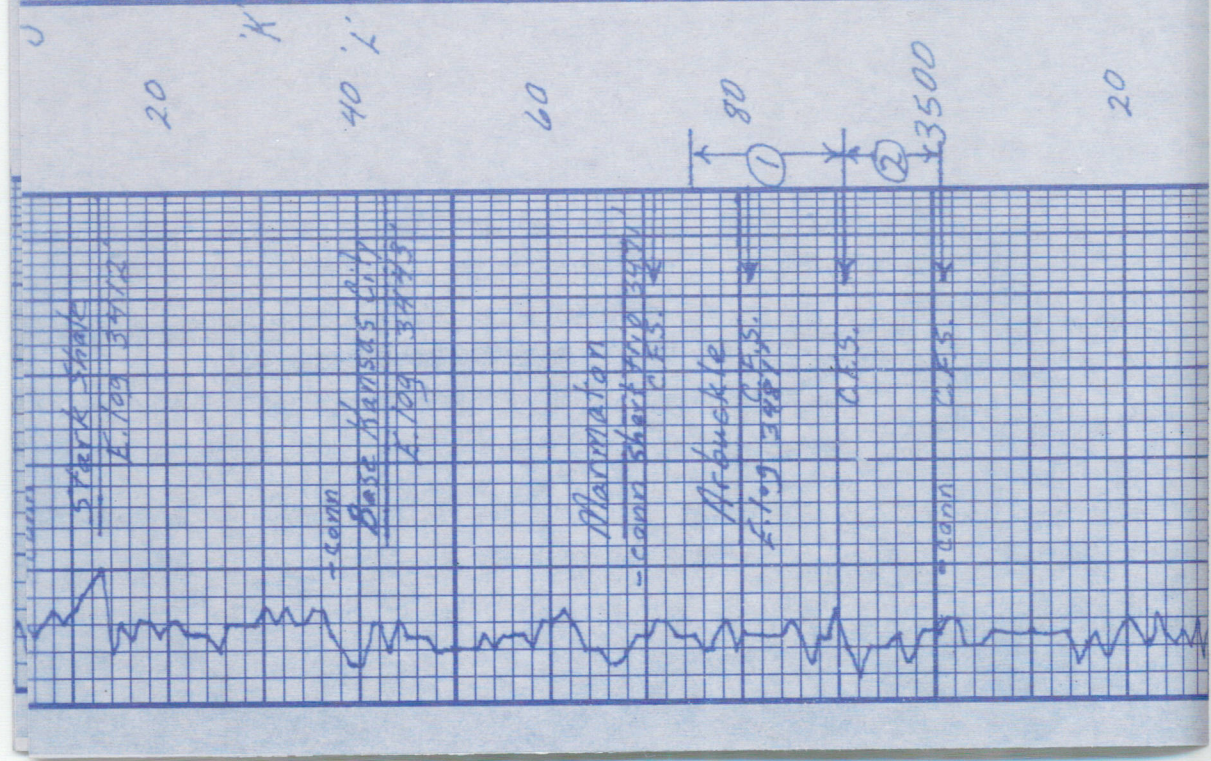
Tr. spid 0.5m N.F.O.  
 Incline @ 3491' 1/2°

D  
 3300  
 E  
 20 F  
 G  
 40  
 H  
 60  
 I  
 80  
 3400



Strap 3502.05  
 Board 3501.87  
 Diff. .18  
 Trilobite Testing  
 DST #1 3475'-3491'  
 30-45-30-45  
 FF: B.O.B. in 9 min  
 FSI: 1 1/2" blow  
 FF: B.O.B. in 6 min  
 FSI: 1/2" blow  
 Recovery: 390' G.I.P.  
 416' Total  
 230' C.O. 37° API gravity  
 62' G.M.+W.C.O.  
 107.9, 40% O, 40% W  
 107.7 M  
 124' O+C.M.W 57.9,  
 107.0, 80% W, 57.2 M  
 Hyd: 1724-1707 #  
 FP: 33-119/130-183 #  
 SHP: 533-517 #  
 BH Temp: 110° F.  
 Chlorides: 42,000 ppm  
 DST #2 3491'-3501'  
 30-30-30-30 "  
 IF: wk. blow incr. to 3 "  
 FSI: No blow  
 FF: wk. blow incr. to 1/2 "  
 FSI: No blow  
 Recovery: 129' Total  
 5' C.O. 32° API gravity

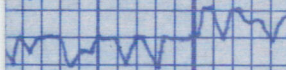
V.R.T. pr. Lt. 0.5th	Sh: brn + gry sily	20	U
Ls: wh. tn. fcln - sli. fcln ppφ pr. Lt. 0.5th	Ls: wh. tn. fcln - sli. fcln ppφ pr. Lt. 0.5th	40	K
Slt. stone: gry + brn	Slt. stone: gry + brn	60	L
Fr. 55: gry v. tn. gn consol in gran φ N.S.O.	Fr. 55: gry v. tn. gn consol in gran φ N.S.O.	80	
Ls: wh. tn. fcln d.s.	Ls: wh. tn. fcln d.s.		
Sh: brn + gry	Sh: brn + gry		
Ls: wh. tn. fcln sli. fcln ppφ Lt. 5 ft 0.5th Tr. ppφ	Ls: wh. tn. fcln sli. fcln ppφ Lt. 5 ft 0.5th Tr. ppφ		
Comp. Dol: to sat. R.H. in ln φ Lt. Fr. O sat F.O. Dol: wh. tn. fcln - mxln in ln φ scaat Lt. O sat ppφ O. Tr. V.V.	Comp. Dol: to sat. R.H. in ln φ Lt. Fr. O sat F.O. Dol: wh. tn. fcln - mxln in ln φ scaat Lt. O sat ppφ O. Tr. V.V.		
φ odor	φ odor		
Dol: wh. tn. fcln - mxln Fr. Lt. O.5th Fr. 6. incr. cky	Dol: wh. tn. fcln - mxln Fr. Lt. O.5th Fr. 6. incr. cky		
Trashy sample	Trashy sample		
Dol: wh. tn. fcln pr. in ln φ R.T. Lt. 0.5th	Dol: wh. tn. fcln pr. in ln φ R.T. Lt. 0.5th		
Dol: wh. tn. fcln - mxln in ln φ to above cks. Fr. Lt. 0.5th	Dol: wh. tn. fcln - mxln in ln φ to above cks. Fr. Lt. 0.5th	20	



Slick shale  
 L. 109 3471.2  
 Base Kansas City  
 L. 109 3474.3  
 Marathon  
 - can short and 2500'  
 C.F.S.  
 Arbuckle  
 L. 109 3487.5  
 C.F.S.  
 Gann  
 C.F.S.



-cont



P.T.D.

E.109 35881

40

60



T.T. Taryo SPKS

Dol: to -pk feln-mxh insid  
glau SPKS fr. at 2.5' from  
dark favy-aspk SPKS  
mostly barren

Dol: a.a.

62' O+G CWM 57.9, 57.0  
30% W 60% M  
62' OCMW 27.0, 78.0  
207.0 M  
Hyd: 1759-1714#  
FP: 17-47/52-86#  
BHP: 565-539#  
BHTemp: 108°F  
Chlorides: 38,000ppm  
Incline @ 3560' 3/4°





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Baird Oil Co LLC**

PO Box 428  
Logan KS 67646

ATTN: Jim Baird, Rich Bell

**Perkins #3-24**

**24-7s-20w Rooks,KS**

Start Date: 2017.03.19 @ 14:40:39

End Date: 2017.03.19 @ 22:53:48

Job Ticket #: 64131                      DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.03.21 @ 10:45:54

Baird Oil Co LLC    24-7s-20w Rooks,KS    Perkins #3-24    DST # 1    Arbuckle    2017.03.19



**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Baird Oil Co LLC

24-7s-20w Rooks,KS

PO Box 428  
Logan KS 67646

Perkins #3-24

Job Ticket: 64131

DST#: 1

ATTN: Jim Baird, Rich Bell

Test Start: 2017.03.19 @ 14:40:39

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 17:38:34  
 Time Test Ended: 22:53:48

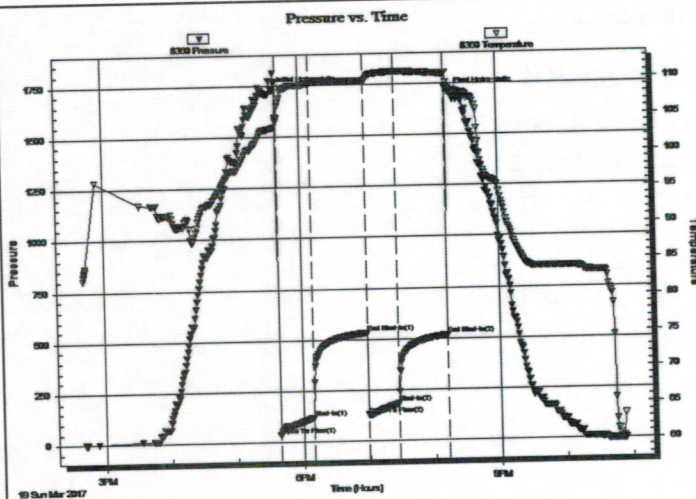
Test Type: Conventional Bottom Hole (Initial)  
 Tester: Ray Schwager  
 Unit No: 77

Interval: **3475.00 ft (KB) To 3491.00 ft (KB) (TVD)**  
 Total Depth: 3491.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2031.00 ft (KB)  
 2023.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8360** Inside Capacity: 8000.00 psig  
 Press@RunDepth: 183.24 psig @ 3485.00 ft (KB) Last Calib.: 2017.03.19  
 Start Date: 2017.03.19 End Date: 2017.03.19  
 Start Time: 14:40:39 End Time: 22:53:48 Time On Btm: 2017.03.19 @ 17:35:49  
 Time Off Btm: 2017.03.19 @ 20:16:03

TEST COMMENT: 30-IFP-w k to BOB in 9 min  
 45-ISIP-1 1/2" bl bk  
 30-FFP-w k to BOB in 6 min  
 45-FSIP-1/2" bl bk



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1724.20	103.47	Initial Hydro-static
3	33.73	104.37	Open To Flow (1)
34	119.79	109.55	Shut-In(1)
83	533.30	109.81	End Shut-In(1)
84	130.03	109.68	Open To Flow (2)
111	183.24	111.08	Shut-In(2)
157	517.87	110.74	End Shut-In(2)
161	1707.14	108.69	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
124.00	O&GCMW 5%G10%O5%M80%W	0.65
62.00	GMVCOil 10%G10%M40%W40%O	0.87
230.00	CO	3.23
0.00	390' GIP	0.00

## Gas Rates

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







**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**TOOL DIAGRAM**

Baird Oil Co LLC

**24-7s-20w Rooks, KS**

PO Box 428  
Logan KS 67646

**Perkins #3-24**

Job Ticket: 64131

**DST#: 1**

ATTN: Jim Baird, Rich Bell

Test Start: 2017.03.19 @ 14:40:39

### Tool Information

Drill Pipe:	Length: 3351.00 ft	Diameter: 3.80 inches	Volume: 47.01 bbl	Tool Weight: 2200.00 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: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
		<b>Total Volume:</b>	<b>47.60 bbl</b>	Tool Chased 0.00 ft
Drill Pipe Above KB:	17.00 ft			String Weight: Initial 66000.00 lb
Depth to Top Packer:	3475.00 ft			Final 69000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	16.00 ft			
Tool Length:	37.00 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			3455.00	
Shut In Tool	5.00			3460.00	
Hydraulic tool	5.00			3465.00	
Packer	5.00			3470.00	21.00 Bottom Of Top Packer
Packer	5.00			3475.00	
Stubb	1.00			3476.00	
Perforations	9.00			3485.00	
Recorder	0.00	8360	Inside	3485.00	
Recorder	0.00	6751	Outside	3485.00	
Perforations	3.00			3488.00	
Bullnose	3.00			3491.00	16.00 Bottom Packers & Anchor

**Total Tool Length: 37.00**





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Baird Oil Co LLC

**24-7s-20w Rooks,KS**

PO Box 428  
Logan KS 67646

**Perkins #3-24**

Job Ticket: 64131

**DST#: 1**

ATTN: Jim Baird, Rich Bell

Test Start: 2017.03.19 @ 14:40:39

### Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

37 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

42000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
124.00	O&GCMW 5%G10%O5%M80%W	0.646
62.00	GMWCOil 10%G10%M40%W40%O	0.870
230.00	CO	3.226
0.00	390' GIP	0.000

Total Length: 416.00 ft

Total Volume: 4.742 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .15@75F



Serial #: 8360

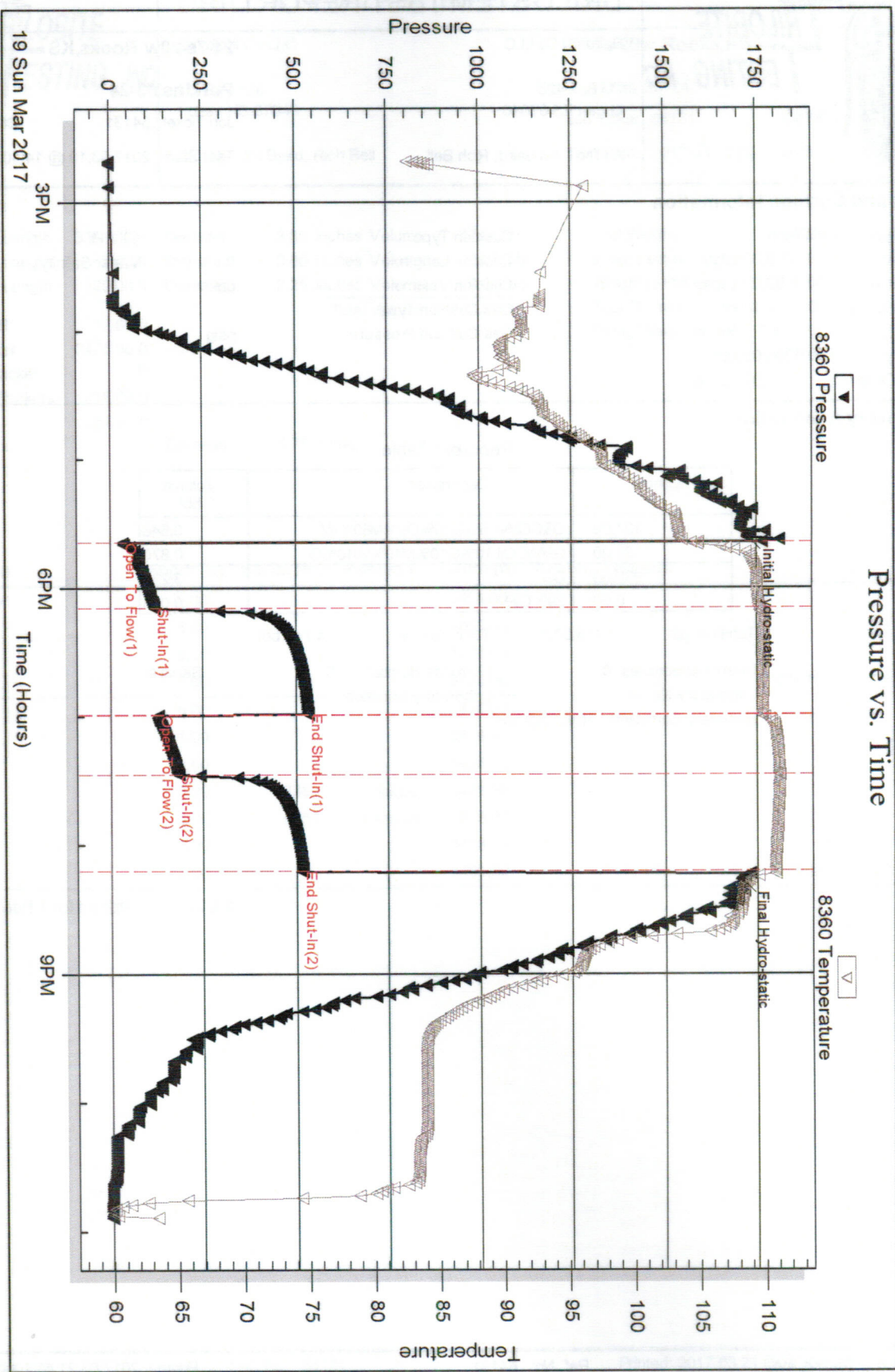
Inside

Baird Oil Co LLC

Perkins #3-24

DST Test Number: 1

### Pressure vs. Time



Triobite Testing, Inc

Ref. No: 64131

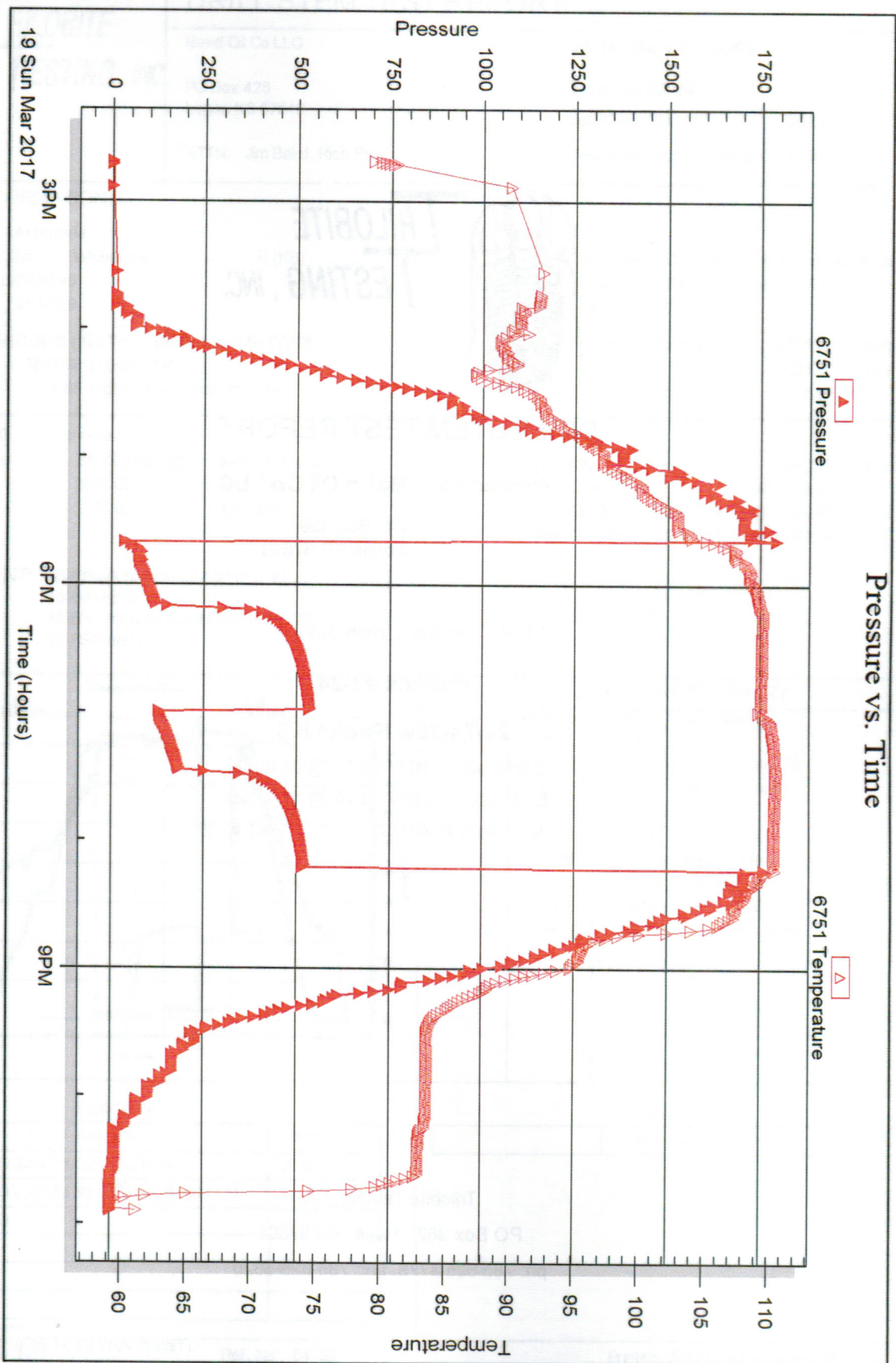
Printed: 2017.03.21 @ 10:45:55

Serial #: 6751

Outside Baird Oil Co LLC

Perkins #3-24

DST Test Number: 1

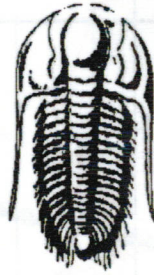


Trilobe Testing, Inc

Ref. No: 64131

Printed: 2017.03.21 @ 10:45:55





**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Prepared For: **Baird Oil Co LLC**

PO Box 428  
Logan KS 67646

ATTN: Jim Baird, Rich Bell

**Perkins #3-24**

**24-7s-20w Rooks,KS**

Start Date: 2017.03.20 @ 05:00:05

End Date: 2017.03.20 @ 11:17:29

Job Ticket #: 64132                      DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2017.03.21 @ 10:45:28

Baird Oil Co LLC  
24-7s-20w Rooks,KS  
Perkins #3-24  
DST # 2  
Atbuckle  
2017.03.20



**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Baird Oil Co LLC

24-7s-20w Rooks, KS

PO Box 428  
Logan KS 67646

Perkins #3-24

ATTN: Jim Baird, Rich Bell

Job Ticket: 64132

DST#: 2

Test Start: 2017.03.20 @ 05:00:05

## GENERAL INFORMATION:

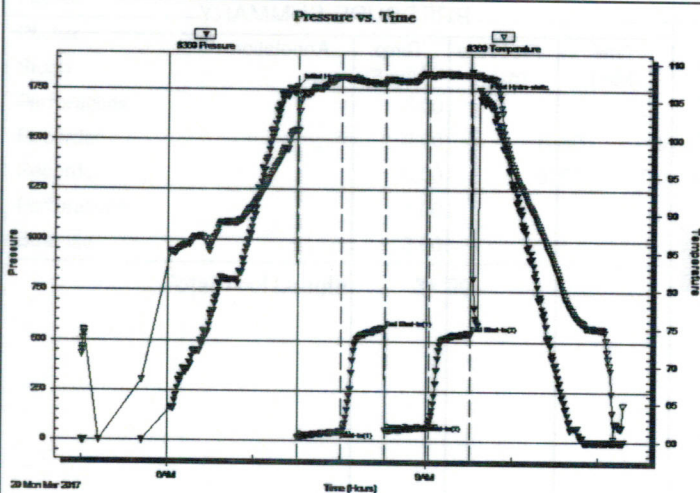
Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 07:30:45  
 Time Test Ended: 11:17:29  
 Interval: **3491.00 ft (KB) To 3501.00 ft (KB) (TVD)**  
 Total Depth: 3501.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ray Schwager  
 Unit No: 77  
 Reference Elevations: 2031.00 ft (KB)  
 2023.00 ft (CF)  
 KB to GR/CF: 8.00 ft

## Serial #: 8360

Inside

Press@RunDepth: 86.72 psig @ 3497.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2017.03.20 End Date: 2017.03.20 Last Calib.: 2017.03.20  
 Start Time: 05:00:05 End Time: 11:17:29 Time On Btm: 2017.03.20 @ 07:29:45  
 Time Off Btm: 2017.03.20 @ 09:39:14

TEST COMMENT: 30-IFP-w k bl thru-out 1/2" to 3" bl  
 30-ISIP-no bl  
 30-FFP-w k bl thru-out surface to 1/2" bl  
 30-FSIP-no bl



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1759.75	101.13	Initial Hydro-static
1	17.63	100.91	Open To Flow (1)
31	47.74	108.12	Shut-In(1)
62	565.95	107.34	End Shut-In(1)
62	52.89	107.16	Open To Flow (2)
92	86.72	108.49	Shut-In(2)
121	539.02	108.45	End Shut-In(2)
130	1714.76	108.11	Final Hydro-static

## Recovery

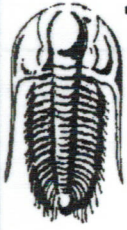
Length (ft)	Description	Volume (bbl)
62.00	SOCMW 2%O20%M78%W	0.30
62.00	SO&GCWM 5%G5%O30%W60%M	0.34
5.00	CO	0.07

\* Recovery from multiple tests

## Gas Rates

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





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

Baird Oil Co LLC

24-7s-20w Rooks, KS

PO Box 428  
Logan KS 67646

Perkins #3-24

Job Ticket: 64132

DST#: 2

ATTN: Jim Baird, Rich Bell

Test Start: 2017.03.20 @ 05:00:05

## GENERAL INFORMATION:

Formation: **Arbuckle**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 07:30:45  
 Time Test Ended: 11:17:29

Test Type: Conventional Bottom Hole (Reset)  
 Tester: Ray Schwager  
 Unit No: 77

Interval: **3491.00 ft (KB) To 3501.00 ft (KB) (TVD)**  
 Total Depth: 3501.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2031.00 ft (KB)  
 2023.00 ft (CF)  
 KB to GR/CF: 8.00 ft

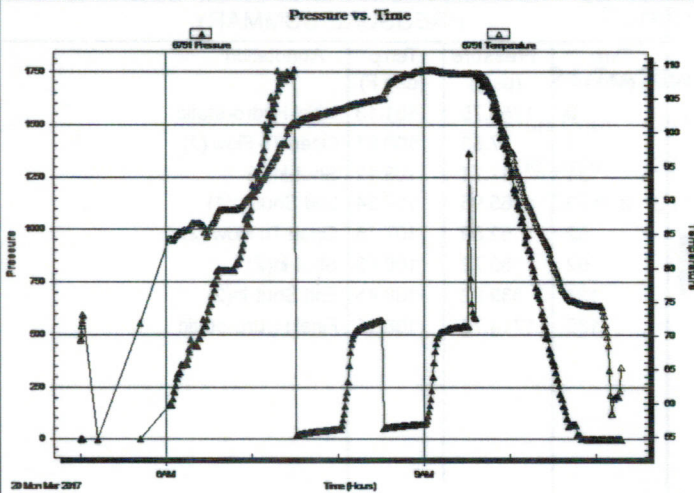
Serial #: 6751

Outside

Press@RunDepth: psig @ 3497.00 ft (KB)  
 Start Date: 2017.03.20 End Date: 2017.03.20  
 Start Time: 05:00:05 End Time: 11:17:29

Capacity: 8000.00 psig  
 Last Calib.: 2017.03.20  
 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 30-IFP-w k bl thru-out 1/2" to 3" bl  
 30-ISIP-no bl  
 30-FFP-w k bl thru-out surface to 1/2" bl  
 30-FSIP-no bl



## PRESSURE SUMMARY

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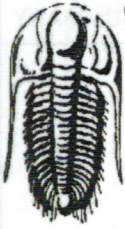
## Recovery

Length (ft)	Description	Volume (bbl)
62.00	SOCMW 2%O20%M78%W	0.30
62.00	SO&GCWM 5%G5%O30%W60%M	0.34
5.00	CO	0.07

\* Recovery from multiple tests

## Gas Rates

Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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**TRILOBITE  
TESTING, INC**

## DRILL STEM TEST REPORT

TOOL DIAGRAM

Baird Oil Co LLC

24-7s-20w Rooks,KS

PO Box 428  
Logan KS 67646

Perkins #3-24

Job Ticket: 64132

DST#: 2

ATTN: Jim Baird, Rich Bell

Test Start: 2017.03.20 @ 05:00:05

### Tool Information

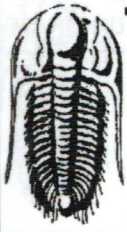
Drill Pipe:	Length: 3381.00 ft	Diameter: 3.80 inches	Volume: 47.43 bbl	Tool Weight: 2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 120.00 ft	Diameter: 2.25 inches	Volume: 0.59 bbl	Weight to Pull Loose: 80000.00 lb
			<u>Total Volume: 48.02 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial 68000.00 lb
Depth to Top Packer:	3491.00 ft			Final 68000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	10.00 ft			
Tool Length:	31.00 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			3471.00	
Shut In Tool	5.00			3476.00	
Hydraulic tool	5.00			3481.00	
Packer	5.00			3486.00	21.00 Bottom Of Top Packer
Packer	5.00			3491.00	
Stubb	1.00			3492.00	
Perforations	5.00			3497.00	
Recorder	0.00	8360	Inside	3497.00	
Recorder	0.00	6751	Outside	3497.00	
Perforations	1.00			3498.00	
Bullnose	3.00			3501.00	10.00 Bottom Packers & Anchor

**Total Tool Length: 31.00**





**TRILOBITE  
TESTING, INC.**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Baird Oil Co LLC

**24-7s-20w Rooks, KS**

PO Box 428  
Logan KS 67646

**Perkins #3-24**

Job Ticket: 64132

**DST#: 2**

ATTN: Jim Baird, Rich Bell

Test Start: 2017.03.20 @ 05:00:05

## Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

32 deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

38000 ppm

Viscosity: 52.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.18 in<sup>3</sup>

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 1200.00 ppm

Filter Cake: 1.00 inches

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
62.00	SOCMW 2%O20%M78%W	0.305
62.00	SO&GCWM 5%G5%O30%W60%M	0.341
5.00	CO	0.070

Total Length: 129.00 ft      Total Volume: 0.716 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: RW .18@70F

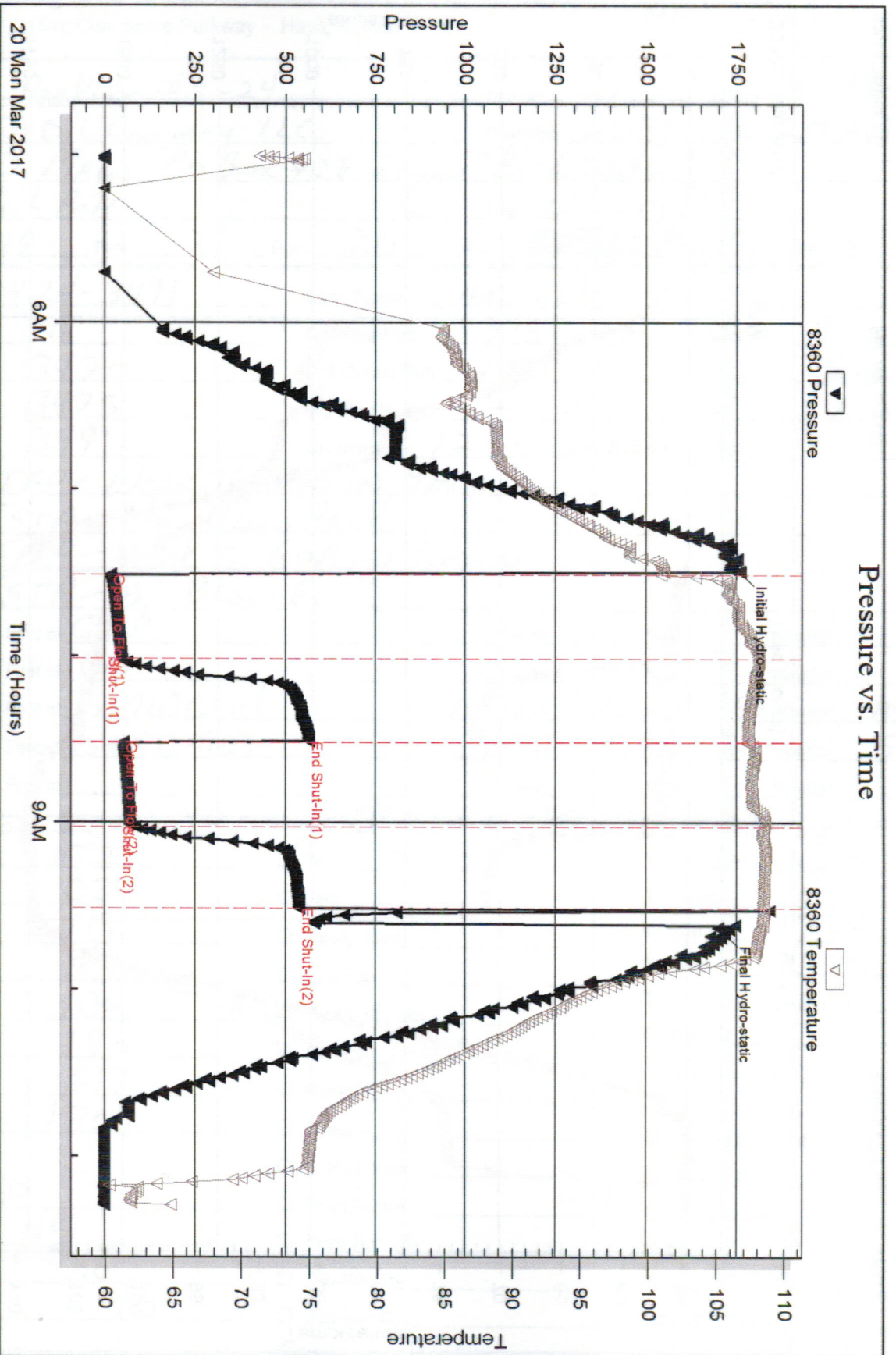
Serial #: 8360

Inside

Baird Oil Co LLC

Perkins #3-24

DST Test Number: 2



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Ref. No: 64132

Printed: 2017.03.21 @ 10:45:29



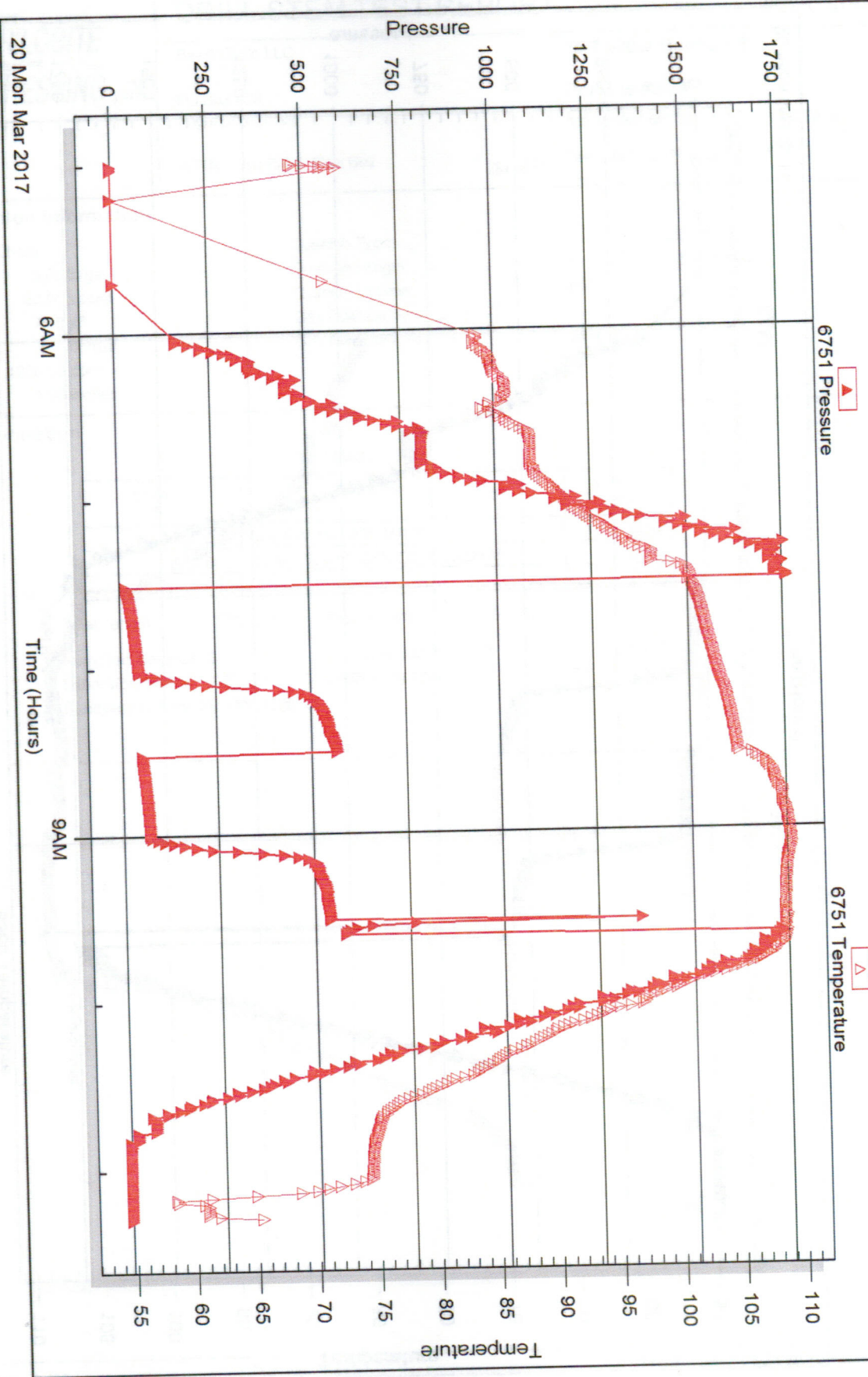
Serial #: 6751

Outside Baird Oil Co LLC

Perkins #3-24

DST Test Number: 2

### Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 64132

Printed: 2017.03.21 @ 10:45:29





# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 64131

Well Name & No. Perkins #3-24 Test No. 1 Date 3-19-17  
 Company BAIRD OIL COMPANY LLC Elevation 2031 KB 2023 GL  
 Address 113 W. MAIN PO BOX 428 LOGAN, KS 67646  
 Co. Rep / Geo. Rich Bell Rig WWrig12  
 Location: Sec. 24 Twp. 7<sup>s</sup> Rge. 20<sup>w</sup> Co. ~~SEVEN~~ Rocks State Ks

Interval Tested 3475-3491 Zone Tested Arbuckle  
 Anchor Length 16 Drill Pipe Run 3351 Mud Wt. 9.2  
 Top Packer Depth 3470 Drill Collars Run 120 Vis 52  
 Bottom Packer Depth 3475 Wt. Pipe Run — WL 7.2  
 Total Depth 3491 Chlorides 1200 ppm System LCM 1 1/2#  
 Blow Description IFP - WEAK TO BOBIN 9min  
ISTP - 1 1/2" Blow Back  
FFP - WEAK TO BOBIN 6min  
FSTP - 1/2" Blow Back

Rec	Feet of	%gas	%oil	%water	%mud
<u>390</u>	<u>GTP</u>				
<u>230</u>	<u>CO</u>				
<u>62</u>	<u>GMWCOIL</u>	<u>10</u>	<u>40</u>	<u>40</u>	<u>10</u>
<u>124</u>	<u>O46CMW</u>	<u>5</u>	<u>10</u>	<u>80</u>	<u>5</u>

Rec Total 416 BHT 110 Gravity 37 API RW .15 @ 75 °F Chlorides 42000 ppm

(A) Initial Hydrostatic 1724  Test 1050 T-On Location 1350  
 (B) First Initial Flow 33  Jars \_\_\_\_\_ T-Started 1440  
 (C) First Final Flow 119  Safety Joint \_\_\_\_\_ T-Open 1735  
 (D) Initial Shut-In 533  Circ Sub \_\_\_\_\_ T-Pulled 2005  
 (E) Second Initial Flow 130  Hourly Standby \_\_\_\_\_ T-Out 2253  
 (F) Second Final Flow 183  Mileage 110RT 82.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 517  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1707  Straddle \_\_\_\_\_  Ruined Shale Packer \_\_\_\_\_  
 Shale Packer \_\_\_\_\_  Ruined Packer \_\_\_\_\_  
 Extra Packer \_\_\_\_\_  Extra Copies \_\_\_\_\_  
 Extra Recorder \_\_\_\_\_ Sub Total 0  
 Day Standby \_\_\_\_\_ Total 1132.50  
 Accessibility \_\_\_\_\_ MP/DST Disc't \_\_\_\_\_

Initial Open 30  
 Initial Shut-In 45  
 Final Flow 30  
 Final Shut-In 45

Sub Total 1132.50

Approved By Richard Bell Our Representative Ray Schwager **THANK YOU**

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. 64132

Well Name & No. Perkins #3-24 Test No. 2 Date 3-20-17  
 Company Baird Oil Company LLC Elevation 2031 KB 2023 GL  
 Address 113 W. MAIN PO Box 428 Logan, Ks 67646  
 Co. Rep / Geo. Rich Bell Rig WWrig 12  
 Location: Sec. 24 Twp. 7<sup>s</sup> Rge. 20<sup>w</sup> Co. Rooks State Ks

Interval Tested 3491-3501 Zone Tested Arbuckle  
 Anchor Length 10 Drill Pipe Run 3381 Mud Wt. 9.2  
 Top Packer Depth 3486 Drill Collars Run 120 Vis 52  
 Bottom Packer Depth 3491 Wt. Pipe Run — WL 7.2  
 Total Depth 3501 Chlorides 1200 ppm System LCM 1 1/2 #  
 Blow Description IFP - WEAK Blow thru-out 1/2" To 3" Blow  
ISTP - NO Blow  
FFP - WEAK Blow thru-out SURFACE To 1/2" Blow  
FSIP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Co</u>				
<u>62</u>	<u>50 + 6 CWM</u>	<u>5</u>	<u>5</u>	<u>30</u>	<u>60</u>
<u>62</u>	<u>50 CMW</u>		<u>2</u>	<u>78</u>	<u>20</u>

Rec Total 129 BHT 108 Gravity 32 API RW .18 @ 70 ° F Chlorides 38000 ppm  
 (A) Initial Hydrostatic 1759  Test 1050 T-On Location 0430  
 (B) First Initial Flow 17  Jars \_\_\_\_\_ T-Started 0500  
 (C) First Final Flow 47  Safety Joint \_\_\_\_\_ T-Open 0730  
 (D) Initial Shut-In 565  Circ Sub \_\_\_\_\_ T-Pulled 0930  
 (E) Second Initial Flow 52  Hourly Standby \_\_\_\_\_ T-Out 1117  
 (F) Second Final Flow 86  Mileage 82.50 Comments \_\_\_\_\_  
 (G) Final Shut-In 539  Sampler \_\_\_\_\_  
 (H) Final Hydrostatic 1714  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 1132.50  
 MP/DST Disc't \_\_\_\_\_  
 Sub Total 1132.50

Approved By Richard Bell Our Representative Ray Schwager Thank you

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