



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1191493
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

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 SIOW
- Gas D&A ENHR SIGW
- OG GSW Temp. Abd.
- CM (Coal Bed Methane)
- Cathodic Other (Core, Expl., etc.): _____

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

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

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

API No. 15 - _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

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

1191493

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No			
Electric Log Run	<input type="checkbox"/> Yes <input type="checkbox"/> No			
List All E. Logs Run:				

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				

Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 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)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

Date of First, Resumed Production, SWD or ENHR: _____ Producing Method:
 Flowing Pumping Gas Lift Other *(Explain)* _____

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> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--	---	---

Form	ACO1 - Well Completion
Operator	Palmer Oil, Inc.
Well Name	Brookover 8-5
Doc ID	1191493

All Electric Logs Run

Induction
Porosity
Micro
Sonic

Form	ACO1 - Well Completion
Operator	Palmer Oil, Inc.
Well Name	Brookover 8-5
Doc ID	1191493

Tops

Name	Top	Datum
Anhy	1881'	+1018
B/Anhy	1945'	+954
Heebner	3914'	-1015
Lansing	3959'	-1060
B/KC	4461'	-1562
Pawnee	4561'	-1662
Ft.Scott	4596'	-1697
Cherokee	4614'	-1715
Mississippian	4895'	-1996



CHARGE TO: AMERICAN WARRIOR
 ADDRESS: PALMER OIL
 CITY, STATE, ZIP CODE:

TICKET 26107

PAGE 1 OF 2

1. SERVICE LOCATION: NESS CITY, KS WELL/PROJECT NO.: BROOKOVER 8-5 LEASE: FINNEY COUNTY/PARISH: KS STATE: KS CITY: GARDEN CITY, KS DATE: 18 FEB 14 OWNER:
 2. TICKET TYPE: SERVICE SALES CONTRACTOR: DUKE DRILLING RIG #5 RIG NAME/NO.: SHIPPED VIA: DELIVERED TO: ORDER NO.:
 3. WELL TYPE: OIL WELL CATEGORY: DEVELOPMENT JOB PURPOSE: 5 1/2 LONGSTRING WELL PERMIT NO.: WELL LOCATION: 6S, E/S INTD
 4. REFERRAL LOCATION: INVOICE INSTRUCTIONS:

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF							
575					MILEAGE #115	90	MIL			6.00	540.00
578					PUMP CHARGE	1	JOB			1500.00	1500.00
402					CENTRALIZERS	10	EA.			70.00	700.00
403					CEMENT BASKETS	1	EA.			300.00	300.00
406					LATCH DOWN PLUG & BAFFLE	1	EA.			275.00	275.00
407					INSERT FLOAT SHOE W/FILL	1	EA.			375.00	375.00
419					ROTATING HEAD RENTAL	1	JOB			200.00	200.00
281					MUD FLUSH	500	gal			1.25	625.00
221					LIQUID KCL	2	gal			25.00	50.00

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

X
 DATE SIGNED: 2-18-14 TIME SIGNED: 0830 A.M. P.M.

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

SURVEY	AGREE	UN-DECIDED	DIS-AGREE	#1	AMOUNT
OUR EQUIPMENT PERFORMED WITHOUT BREAKDOWN?					4565.00
WE UNDERSTOOD AND MET YOUR NEEDS?				#2	5381.12
OUR SERVICE WAS PERFORMED WITHOUT DELAY?				subtotal	9946.12
WE OPERATED THE EQUIPMENT AND PERFORMED JOB CALCULATIONS SATISFACTORILY?				Finney TAX 7.3%	491.40
ARE YOU SATISFIED WITH OUR SERVICE? <input type="checkbox"/> YES <input type="checkbox"/> NO				TOTAL	10,437.52
<input type="checkbox"/> CUSTOMER DID NOT WISH TO RESPOND					

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

SWIFT OPERATOR: David Kuehn APPROVAL:

Thank You.



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

TICKET CONTINUATION
PALMER OIL

TICKET No. 26107

CUSTOMER ~~AMERICAN WARRIOR~~ WELL BROOKOVER 8-5 DATE PAGE 2 OF 2

PRICE REFERENCE	SECONDARY REFERENCE/ PART NUMBER	ACCOUNTING			TIME	DESCRIPTION	QTY.		U/M		UNIT PRICE	AMOUNT
		LOC	ACCT	DF								
276						FLOCELE	50	lbs			2.50	125.00
283						SALT	900	lbs			.20	180.00
284						CALSEAL	8	bx			35.00	280.00
292						HALAD-322	125	lbs			8.00	1000.00
290						D-AIR	2	gal			42.00	84.00
325						STANDARD EA-2	175	bx			14.50	2537.50
581						SERVICE CHARGE					2.00	350.00
583						MILEAGE CHARGE					1.00	824.00
						TOTAL WEIGHT	78325		LOADED MILES	90	TON MILES	824.62

CONTINUATION TOTAL 5381.12

JOB LOG

SWIFT Services, Inc.

DATE: 7 FEB 14 PAGE NO.

CUSTOMER: PALMER OIL WELL NO. LEASE: BROOKOVER 8-5 JOB TYPE: 5 1/2 LONGSTRING TICKET NO. 26107

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2330							ON LOCATION
	0415							START PIPE 5 1/2-15,5" # RTD. 5055 SET @ 5052 SHOE ST. 20.88 CENTRALIZERS 1,2,3,4,5,7,9,11,13,15 BASKET # 7
	0630							DROP BALL - CIRCULATE.
	0650	Lp	12	✓		300		Pump 500 gal MUD FLUSH
		Lp	20	✓		300		Pump 20 Bbl KCL FLUSH
			7,5					PLUG RH (30sx) MH (20sx)
	0700	4	30	✓				MIX 125sx EA-2
								WASH OUT Pump & LINES.
	0715	Lp		✓				START DISPLACING PLUG
	0735	Ø	120	✓		1500		PLUG DOWN - LATCH PLUG IN.
								RELEASE PSI - DRY
								WASH TRUCK
	0830							JOB COMPLETE
								THANKS # 115
								JASON DAVE JUAN ROB



CEMENTING LOG

Date **2/8/2014** District **Liberal # 21** Ticket No. **52512**
 Company **Palmer Oil** Rig **Duke #5**
 Lease **Brookover** Well No **8-5**
 County **Finney** State **KS**
 Location _____
 Field _____
 Casing Data Conductor PTA Squeeze Misc.
 Surface Intermediate Production Liner
 Size **8 5/8** Type _____ Weight **24#** Collar _____

CEMENT DATA
 Spacer Type _____ H2O
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG
 LEAD: Time _____ hrs. Type **65/35 6% gel 3% CC**
.5# flo seal Excess _____
 Amt. **700** Sks Yield **1.97** ft³/sk Density **12.4** PPG
 TAIL: Time _____ hrs. Type **Class A 3%CC .25# flo Seal**
 Excess _____
 Amt. **200** Sks Yield **1.18** ft³/sk Density **15.6** PPG
 WATER Lead **10.9** Gal/sk Tail **5.3** Gal/sk Total _____ BBLs

Casing Depths Top **0** Bottom **1742**

Pump Trucks Used: **549-550**
 Bulk Equipment **456-476**
705-642

Drill Pipe: BBLs/LIN. FT _____ LIN. FT/BBL _____
 Open Hole: BBLs/LIN. FT _____ LIN. FT/BBL _____
 Capacity Factors: BBLs/LIN. FT **0.0637** LIN. FT/BBL **15.7**
 Casing BBLs/LIN. FT **0.0637** LIN. FT/BBL **15.7**
 Open Holes BBLs/LIN. FT **0.1458** LIN. FT/BBL **6.85**
 Drill Pipe BBLs/LIN. FT _____ LIN. FT/BBL _____
 Annulus BBLs/LIN. FT **0.0735** LIN. FT/BBL **13.6**
 BBLs/LIN. FT _____ LIN. FT/BBL _____
 Perforations From _____ ft to _____ ft Amt _____

Float Equipment: Manufacturer **Weather Ford**
 Shoe: Type **Guide Shoe** Depth **1742**
 Float: Type **AFU Insert Float** Depth **1700**
 Centralizers: Quantity **3** Plugs Top _____ Bottom _____
 Stage Collars _____
 Special Equipment **Cement Basket**
 Disp: Fluid Type **H2O** Amt **108.3** bbls Weight **8.33** PPG
 Mud Type _____ Weight _____

COMPANY REPRESENTATIVE _____ CEMENTER **Lenny Baeza**

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	PUMPED PER TIME PERIOD	RATE BBLs/MIN	
11:30pm						On location at 11:30am
2:00pm						Rigging up to well head
5:15pm						Safety meeting with rig crew
5:22pm	2000					Pressure testing pumping lines to 2000 psi
5:35pm	200		10		5	10 bbls of H2O head of cement
5:38pm	220		255.5		5	Mixing lead cement @ 12.4#
6:27pm	180		297		4	Mixing Tail cement @ 15.6#
6:37pm	0		0		0	End of cement shutting down to release plug
6:42pm	120		347		5	Plug left the head and started displacement of 108.3 bbls 50 bbls gone
6:52	600		397		5	100 bbls gone 5bpm @ 600 psi
7:00pm	1200		405		3	108 bbls gone and landed the plug bumped to 1200 psi and holding released the psi and float holding <i>100 bbls of Cement to Surface</i> rigging down iron
						leaving location @ 8:00pm
						THANK YOU !!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!

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



DRILL STEM TEST REPORT

Prepared For: **Palmer Oil**
PO Box 399
Garden City KS 67846

ATTN: Kevin Timsen

Brookover #8-5

8-25s-32w Finney,KS

Start Date: 2014.02.15 @ 10:57:15

End Date: 2014.02.15 @ 17:21:15

Job Ticket #: 56745 DST #: 1

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.02.18 @ 13:20:02



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Palmer Oil
PO Box 399
Garden City KS 67846
ATTN: Kevin Timsen

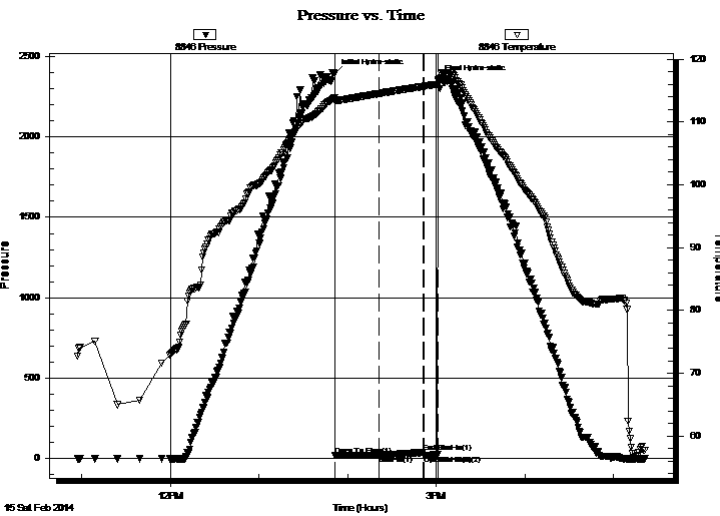
8-25s-32w Finney,KS
Brookover #8-5
Job Ticket: 56745 **DST#: 1**
Test Start: 2014.02.15 @ 10:57:15

GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 13:51:30
Time Test Ended: 17:21:15
Interval: **4804.00 ft (KB) To 4874.00 ft (KB) (TVD)**
Total Depth: 4874.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition:
Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 65
Reference Elevations: 2899.00 ft (KB)
2888.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8846 **Inside**
Press@RunDepth: 22.37 psig @ 4806.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.02.15 End Date: 2014.02.15 Last Calib.: 2014.02.15
Start Time: 10:57:15 End Time: 17:21:15 Time On Btm: 2014.02.15 @ 13:51:15
Time Off Btm: 2014.02.15 @ 15:01:30

TEST COMMENT: IF: Built to 1/8" blow and died in 20 min.
IS: No return blow
FF: No blow
FS: Pulled test



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2392.10	113.84	Initial Hydro-static
1	19.03	113.36	Open To Flow (1)
30	22.37	114.52	Shut-In(1)
60	38.88	115.67	End Shut-In(1)
61	22.47	115.69	Open To Flow (2)
70	22.78	116.02	Shut-In(2)
71	2354.34	116.58	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.02

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

Palmer Oil
 PO Box 399
 Garden City KS 67846
 ATTN: Kevin Timsen

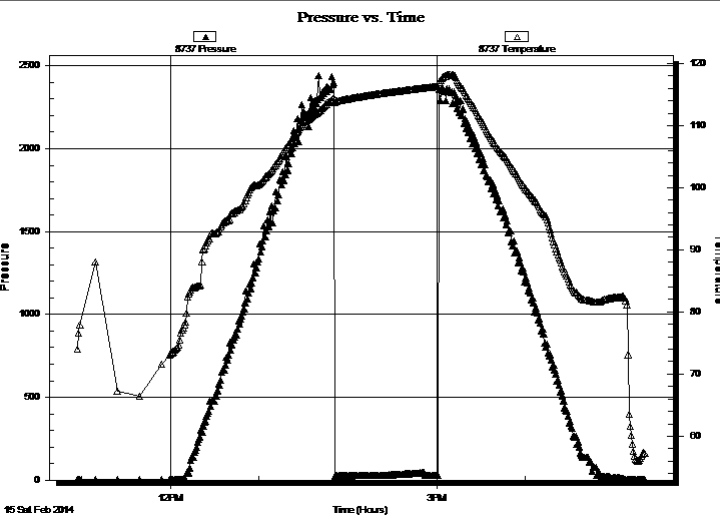
8-25s-32w Finney,KS
Brookover #8-5
 Job Ticket: 56745 **DST#: 1**
 Test Start: 2014.02.15 @ 10:57:15

GENERAL INFORMATION:

Formation: **Morrow**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 13:51:30
 Time Test Ended: 17:21:15
 Interval: **4804.00 ft (KB) To 4874.00 ft (KB) (TVD)**
 Total Depth: 4874.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition:
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Mike Roberts
 Unit No: 65
 Reference Elevations: 2899.00 ft (KB)
 2888.00 ft (CF)
 KB to GR/CF: 11.00 ft

Serial #: 8737 Outside
 Press@RunDepth: psig @ 4806.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.02.15 End Date: 2014.02.15 Last Calib.: 2014.02.15
 Start Time: 10:57:15 End Time: 17:21:00 Time On Btm:
 Time Off Btm:

TEST COMMENT: IF: Built to 1/8" blow and died in 20 min.
 IS: No return blow
 FF: No blow
 FS: Pulled test



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

Recovery		
Length (ft)	Description	Volume (bbl)
5.00	mud 100% m	0.02

Gas Rates			
	Choke (inches)	Pressure (psig)	Gas Rate (MMcf/d)



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palmer Oil
PO Box 399
Garden City KS 67846
ATTN: Kevin Timsen

8-25s-32w Finney,KS
Brookover #8-5
Job Ticket: 56745 **DST#: 1**
Test Start: 2014.02.15 @ 10:57:15

Tool Information

Drill Pipe:	Length: 4563.00 ft	Diameter: 3.80 inches	Volume: 64.01 bbl	Tool Weight: 1500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer: 20000.00 lb
Drill Collar:	Length: 241.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 90000.00 lb
			<u>Total Volume: 65.20 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial 72000.00 lb
Depth to Top Packer:	4804.00 ft			Final 72000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	81.00 ft			
Tool Length:	109.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			4777.00	
Shut In Tool	5.00			4782.00	
Hydraulic tool	5.00			4787.00	
Jars	5.00			4792.00	
Safety Joint	3.00			4795.00	
Packer	5.00			4800.00	28.00 Bottom Of Top Packer
Packer	4.00			4804.00	
Stubb	1.00			4805.00	
Perforations	1.00			4806.00	
Recorder	0.00	8846	Inside	4806.00	
Recorder	0.00	8737	Outside	4806.00	
Change Over Sub	1.00			4807.00	
Blank Spacing	62.00			4869.00	
Change Over Sub	1.00			4870.00	
Perforations	10.00			4880.00	
Bullnose	5.00			4885.00	81.00 Bottom Packers & Anchor
Total Tool Length:	109.00				



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palmer Oil
PO Box 399
Garden City KS 67846
ATTN: Kevin Timsen

8-25s-32w Finney,KS
Brookover #8-5
Job Ticket: 56745 **DST#: 1**
Test Start: 2014.02.15 @ 10:57:15

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API: 0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 0 ppm
Viscosity: 48.00 sec/qt	Cushion Volume: bbl	
Water Loss: 6.37 in ³	Gas Cushion Type:	
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig	
Salinity: 1800.00 ppm		
Filter Cake: 2.00 inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	mud 100% m	0.025

Total Length: 5.00 ft Total Volume: 0.025 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

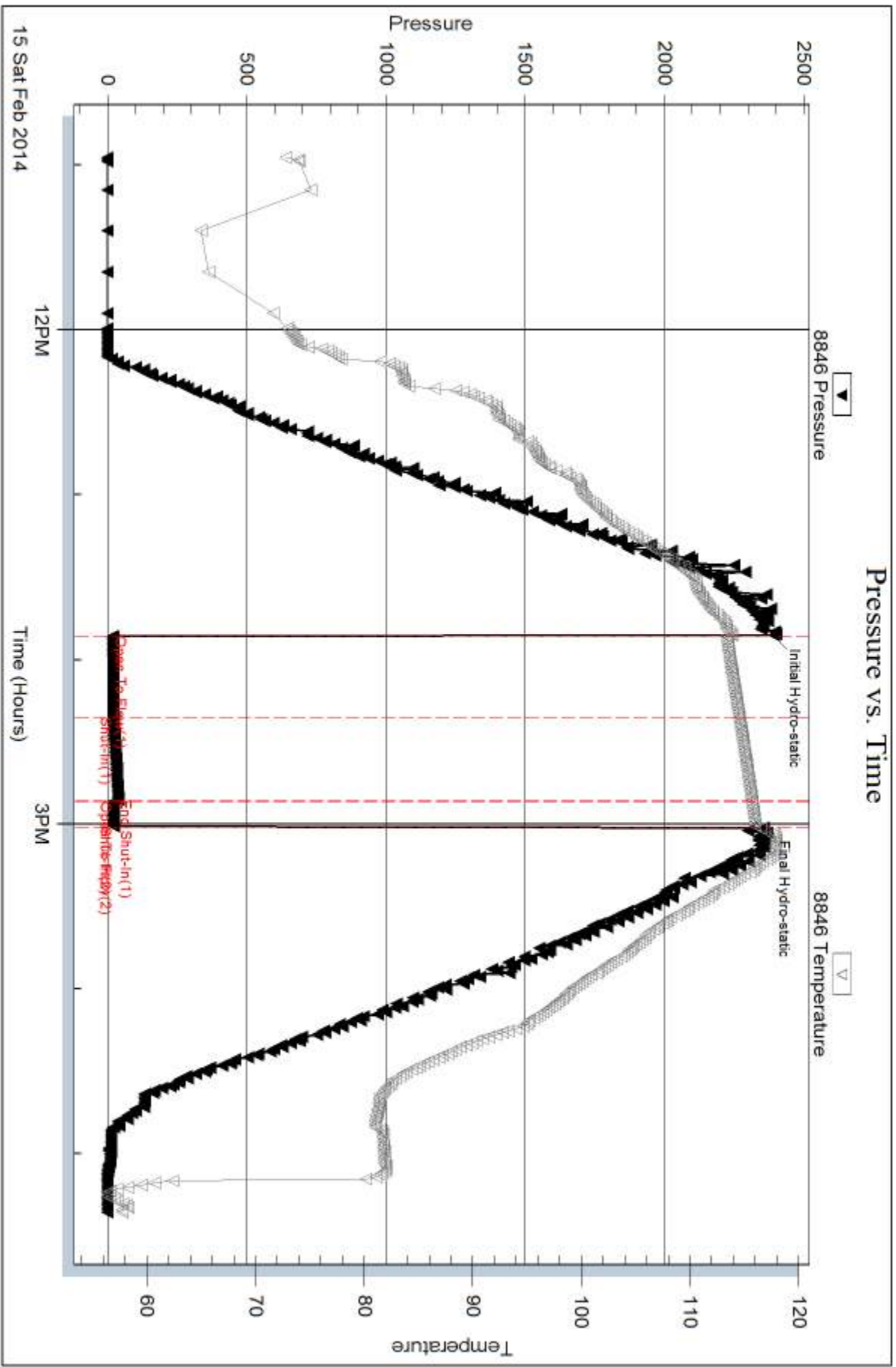
Serial #: 8846

Inside

Palmer Oil

Brookover #8-5

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 56745

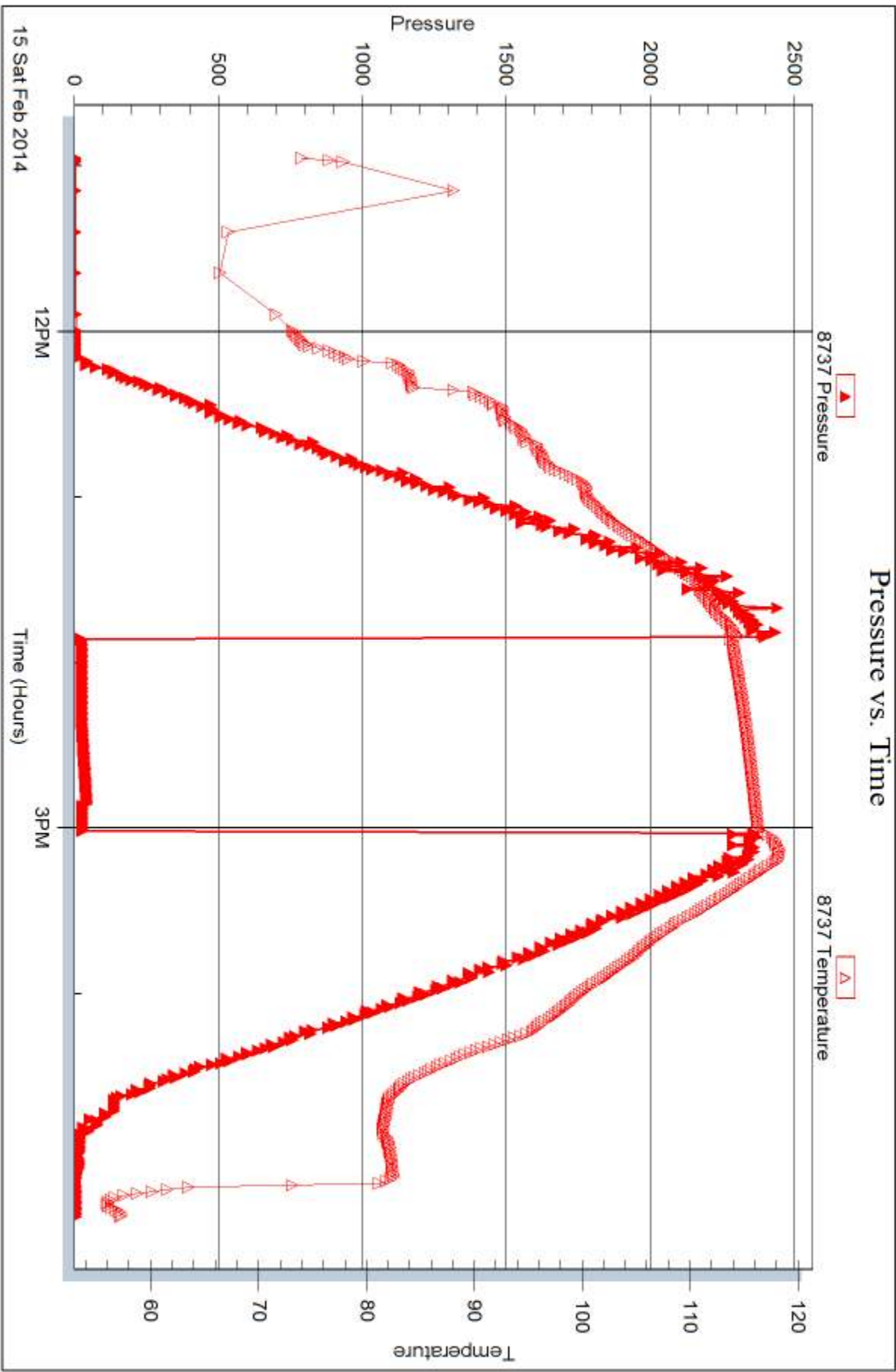
Printed: 2014.02.18 @ 13:20:04

Serial #: 8737

Outside Palmer Oil

Brookover #8-5

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 56745

Printed: 2014.02.18 @ 13:20:04



DRILL STEM TEST REPORT

Prepared For: **Palmer Oil**
PO Box 399
Garden City KS 67846

ATTN: Kevin Timsen

Brookover #8-5

8-25s-32w Finney,KS

Start Date: 2014.02.16 @ 08:00:15
End Date: 2014.02.16 @ 16:12:45
Job Ticket #: 56746 DST #: 2

Trilobite Testing, Inc
PO Box 362 Hays, KS 67601
ph: 785-625-4778 fax: 785-625-5620

Printed: 2014.02.18 @ 13:19:16



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Palmer Oil
PO Box 399
Garden City KS 67846
ATTN: Kevin Timsen

8-25s-32w Finney,KS
Brookover #8-5
Job Ticket: 56746 **DST#: 2**
Test Start: 2014.02.16 @ 08:00:15

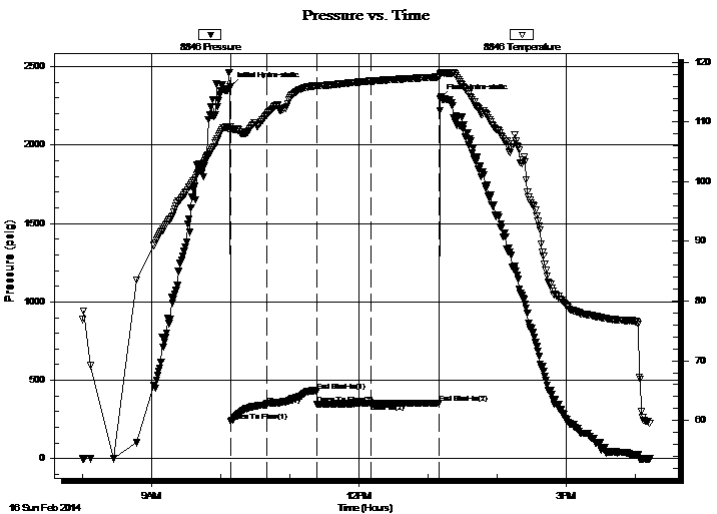
GENERAL INFORMATION:

Formation: **Morrow**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 10:09:00
Time Test Ended: 16:12:45
Interval: **4803.00 ft (KB) To 4905.00 ft (KB) (TVD)**
Total Depth: 4905.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Reset)
Tester: Mike Roberts
Unit No: 65
Reference Elevations: 2899.00 ft (KB)
2888.00 ft (CF)
KB to GR/CF: 11.00 ft

Serial #: 8846 **Inside**
Press@RunDepth: 352.78 psig @ 4807.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.02.16 End Date: 2014.02.16 Last Calib.: 2014.02.16
Start Time: 08:00:15 End Time: 16:12:45 Time On Btm: 2014.02.16 @ 10:08:15
Time Off Btm: 2014.02.16 @ 13:10:30

TEST COMMENT: IF:BOB in 1 min.
IS:Return blow built to 1/2" blow
FF:Built to 6" blow
FS:Return blow built to 1" blow

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2372.48	109.13	Initial Hydro-static
1	240.18	108.80	Open To Flow (1)
32	343.94	111.16	Shut-In(1)
75	430.94	116.08	End Shut-In(1)
76	348.43	116.07	Open To Flow (2)
122	352.78	116.85	Shut-In(2)
182	354.64	117.56	End Shut-In(2)
183	2296.32	118.05	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
61.00	ocgm 10%o 10%g 80%m	0.30
180.00	ocgm 10%o 30%g 60 %m	0.89
186.00	ocgm 10%o 40%g 50% m	2.61
124.00	ocm 2%o 98%m	1.74
62.00	mud 100%m	0.87

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palmer Oil
PO Box 399
Garden City KS 67846
ATTN: Kevin Timsen

8-25s-32w Finney,KS
Brookover #8-5
Job Ticket: 56746 **DST#: 2**
Test Start: 2014.02.16 @ 08:00:15

Tool Information

Drill Pipe:	Length: 4555.00 ft	Diameter: 3.80 inches	Volume: 63.89 bbl	Tool Weight: 1500.00 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: 241.00 ft	Diameter: 2.25 inches	Volume: 1.19 bbl	Weight to Pull Loose: 100000.0 lb
			<u>Total Volume: 65.08 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	21.00 ft			String Weight: Initial 76000.00 lb
Depth to Top Packer:	4803.00 ft			Final 80000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	102.00 ft			
Tool Length:	130.00 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			4776.00	
Shut In Tool	5.00			4781.00	
Hydraulic tool	5.00			4786.00	
Jars	5.00			4791.00	
Safety Joint	3.00			4794.00	
Packer	5.00			4799.00	28.00 Bottom Of Top Packer
Packer	4.00			4803.00	
Stubb	1.00			4804.00	
Perforations	3.00			4807.00	
Recorder	0.00	8846	Inside	4807.00	
Recorder	0.00	8737	Outside	4807.00	
Change Over Sub	1.00			4808.00	
Blank Spacing	94.00			4902.00	
Change Over Sub	1.00			4903.00	
Bullnose	2.00			4905.00	102.00 Bottom Packers & Anchor

Total Tool Length: 130.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Palmer Oil
PO Box 399
Garden City KS 67846
ATTN: Kevin Timsen

8-25s-32w Finney,KS
Brookover #8-5
Job Ticket: 56746 **DST#: 2**
Test Start: 2014.02.16 @ 08:00:15

Mud and Cushion Information

Mud Type: Gel Chem	Cushion Type:	Oil API:	0 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	0 ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.38 in ³	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 2000.00 ppm			
Filter Cake: 2.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
61.00	ocgm 10%o 10%g 80%m	0.300
180.00	ocgm 10%o 30%g 60 %m	0.885
186.00	ocgm 10%o 40%g 50% m	2.609
124.00	ocm 2%o 98%m	1.739
62.00	mud 100%m	0.870

Total Length: 613.00 ft Total Volume: 6.403 bbl
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

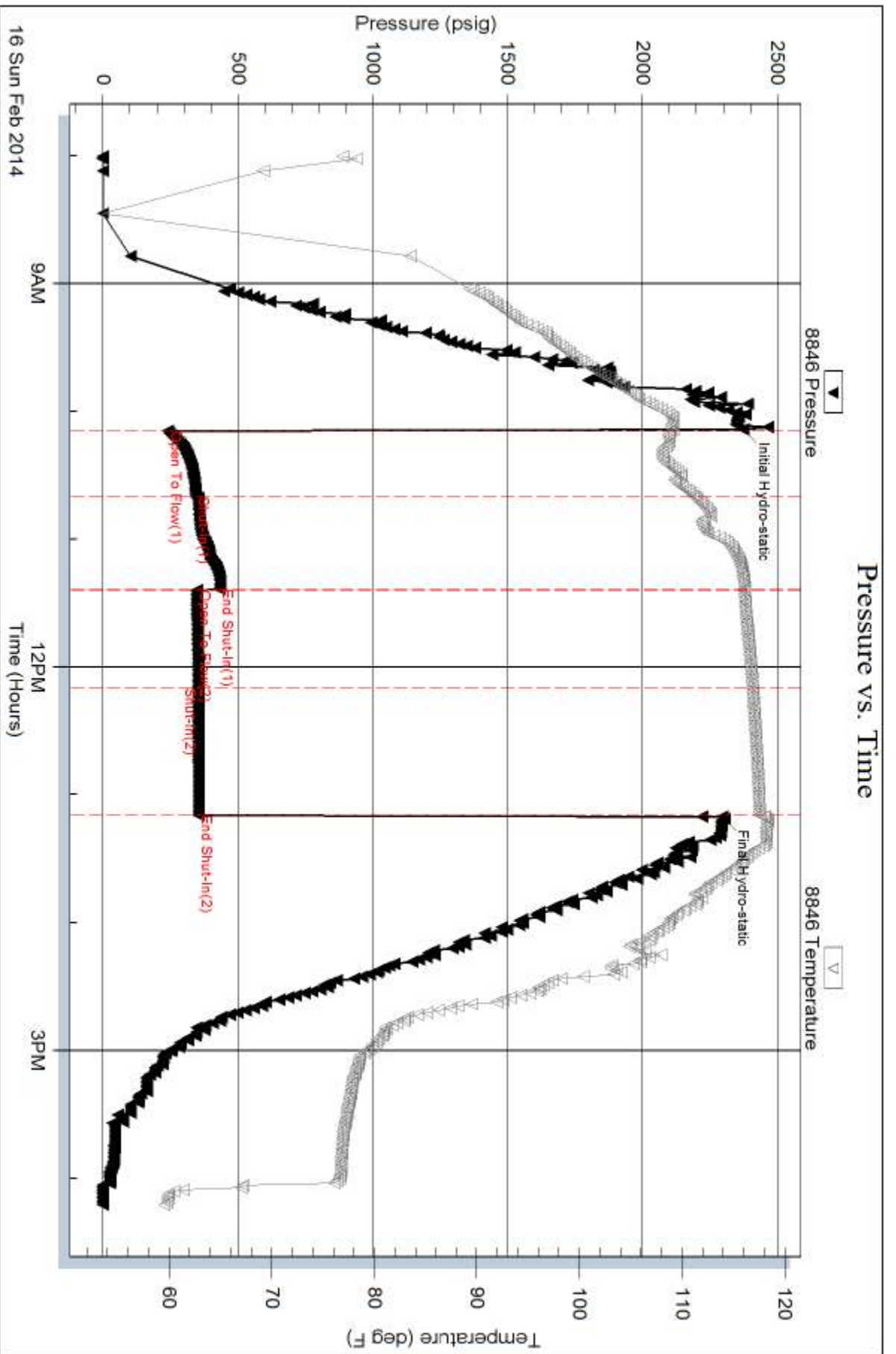
Serial #: 8846

Inside

Palmer Oil

Brookover #8-5

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56746

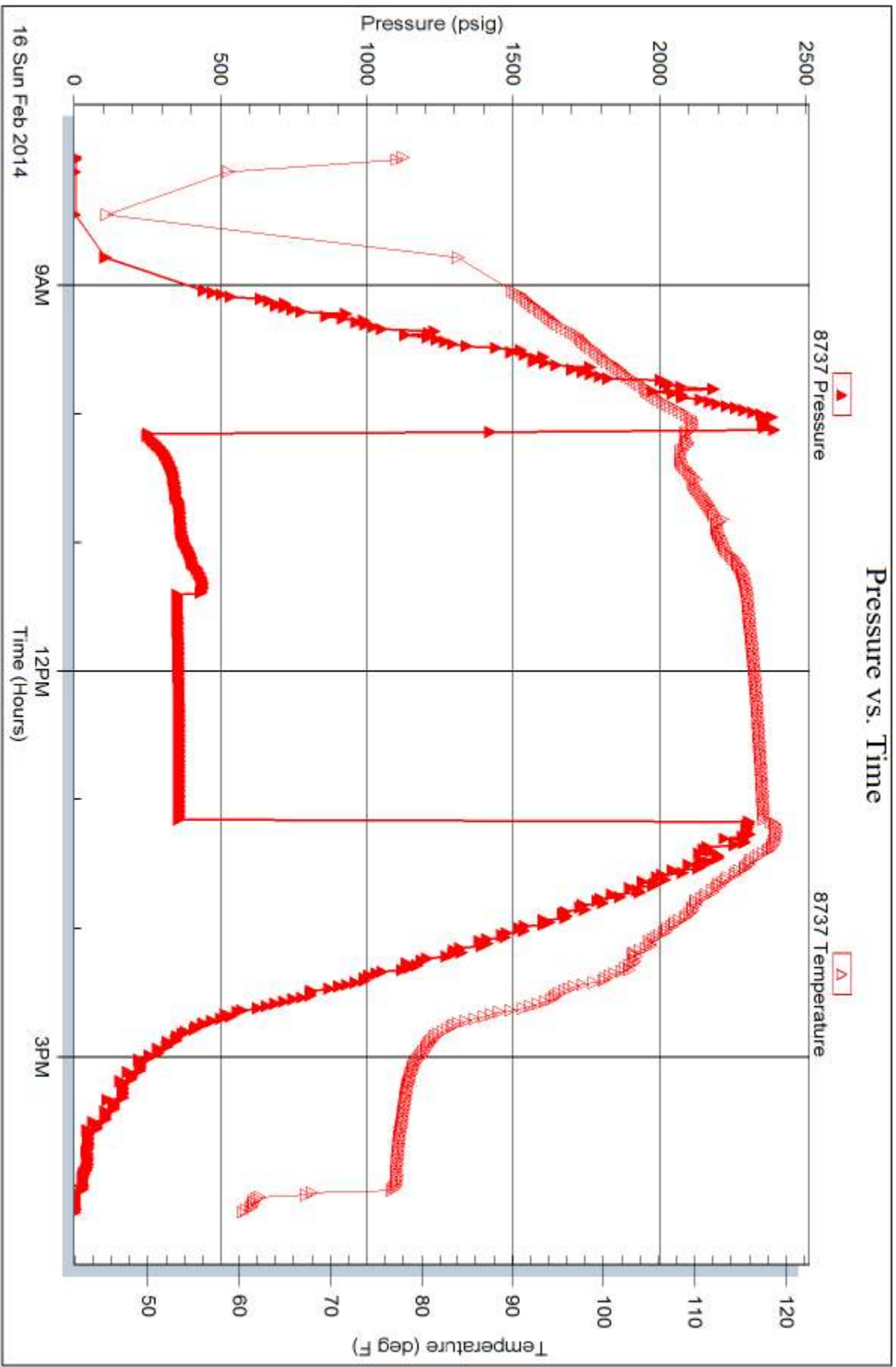
Printed: 2014.02.18 @ 13:19:19

Serial #: 8737

Outside Palmer Oil

Brookover #8-5

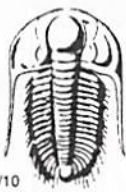
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 56746

Printed: 2014.02.18 @ 13:19:19



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 56745

Well Name & No. Brookover ~~#~~ #8-5 Test No. 1 Date 2-15-14
 Company Palmer Oil Elevation 2899 KB 2888 GL
 Address 3118 N. Cummings Rd P.O. Box 399 Garden City KS 67846
 Co. Rep / Geo. Kevin T. mson Rig Duke #5
 Location: Sec. 8 Twp. 25 Rge. 32 Co. Finney State KS

Interval Tested 4804-4874 Zone Tested Morrow
 Anchor Length 70 Drill Pipe Run 4563 Mud Wt. 9.4
 Top Packer Depth ~~4799~~ Drill Collars Run 241 Vis 48
 Bottom Packer Depth 4804 Wt. Pipe Run 0 WL 6.4
 Total Depth 4874 Chlorides 1800 ppm System LCM 2
 Blow Description IF: Built to 1/8" Blow & Died in 20 Min
IS: NO Return Blow
FF: NO Blow
FS: Pulled Test

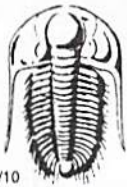
Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>MUD 100% to 101</u>			<u>100</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 5 BHT 120 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>2392</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>08:20</u>
(B) First Initial Flow <u>19</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>10:57</u>
(C) First Final Flow <u>22</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>13:51</u>
(D) Initial Shut-In <u>38</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>15:01</u>
(E) Second Initial Flow <u>22</u>	<input checked="" type="checkbox"/> Hourly-Standby <u>2 wait on short trip</u>	T-Out <u>17:21</u>
(F) Second Final Flow <u>Pulled</u>	<input checked="" type="checkbox"/> Mileage <u>88 RT 136.40/-</u>	Comments _____
(G) Final Shut-In <u>Pulled</u>	<input type="checkbox"/> Sampler _____	_____
(H) Final Hydrostatic <u>2354</u>	<input type="checkbox"/> Straddle _____	<input type="checkbox"/> Ruined Shale Packer _____
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer _____	<input type="checkbox"/> Ruined Packer _____
Initial Shut-In <u>30</u>	<input type="checkbox"/> Extra Packer _____	<input type="checkbox"/> Extra Copies _____
Final Flow <u>10</u>	<input type="checkbox"/> Extra Recorder _____	Sub Total <u>0</u>
Final Shut-In <u>Pulled</u>	<input type="checkbox"/> Day Standby _____	Total <u>1711.40</u>
	<input type="checkbox"/> Accessibility _____	MP/DST Disc't _____
	Sub Total <u>1711.40</u>	

Approved By _____ Our Representative Mike Rohut

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. 56746

Well Name & No. Brookover #8-5 Test No. 2 Date 2-16-14
 Company Palmer Oil Elevation 2899 KB 2888 GL
 Address 3118 Cummings Rd. P.O. Box 399 Garden City KS 67846
 Co. Rep / Geo. Kevin Timson Rig Duke #5
 Location: Sec. 8 Twp. 25 Rge. 32 Co. Finney State KS

Interval Tested 4803-4905 Zone Tested Morrow
 Anchor Length 102 Drill Pipe Run 4555 Mud Wt. 9.3
 Top Packer Depth 4798 Drill Collars Run 241 Vis 55
 Bottom Packer Depth 4803 Wt. Pipe Run φ WL 6.4
 Total Depth 4905 Chlorides 2000 ppm System LCM 2
 Blow Description IF: BOB in 1 Min
IS: Return Built to 1/2" Blow
FF: Built to 6" Blow
FS: Return Blow Built to 1" Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>62</u>	<u>MUD</u>			<u>100</u>	
<u>124</u>	<u>OCM</u>		<u>2</u>	<u>98</u>	
<u>186</u>	<u>DCgm</u>	<u>40</u>	<u>10</u>	<u>50</u>	
<u>180</u>	<u>OCgm</u>	<u>30</u>	<u>10</u>	<u>60</u>	
<u>61</u>	<u>OCgm</u>	<u>10</u>	<u>10</u>	<u>80</u>	

Rec Total 613 BHT 117 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>2372</u>	<input checked="" type="checkbox"/> Test <u>1250</u>	T-On Location <u>07:10</u>
(B) First Initial Flow <u>240</u>	<input checked="" type="checkbox"/> Jars <u>250</u>	T-Started <u>08:00</u>
(C) First Final Flow <u>343</u>	<input checked="" type="checkbox"/> Safety Joint <u>75</u>	T-Open <u>10:07</u>
(D) Initial Shut-In <u>430</u>	<input checked="" type="checkbox"/> Circ Sub <u>NC</u>	T-Pulled <u>13:07</u>
(E) Second Initial Flow <u>348</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>14:12</u>
(F) Second Final Flow <u>352</u>	<input checked="" type="checkbox"/> Mileage <u>BBRT 136.40/-</u>	Comments _____
(G) Final Shut-In <u>354</u>	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>2294</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Total <u>1711.40</u>
Final Shut-In <u>60</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't _____
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1711.40</u>	

Approved By _____ Our Representative Mike Roberts

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.

Geological Report

Palmer Oil, Inc.

Brookover #8-5

925' FNL & 2045' FWL

Sec. 8, T25s, R32w

Finney County, Kansas



Palmer Oil, Inc.

General Data

Well Data: Palmer Oil, Inc.
Brookover #8-5
925' FNL & 2045' FWL
Sec. 8, T25s, R32w
Finney County, Kansas
API # 15-055-22269-00-00

Drilling Contractor: Duke Drilling Co. Rig #5

Geologist: Kevin Timson

Spud Date: February 7, 2014

Completion Date: February 18, 2014

Elevation 2888' G.L.
2899' K.B.

Directions: From Garden City, KS. Go South on Hwy 83 1 mile South of Southwind. Turn East on lease road and South-East into location.

Casing: 1742' 8 5/8" #24 Surface Casing
5050' 5 1/2" #15.5 Production Casing

Samples: 4500' to RTD 10' Wet & Dry

Drilling Time: 3800' to RTD

Electric Logs: Pioneer Energy Services "J. Henrickson"
Full Sweep

Drillstem Tests: Two-Trilobite Testing "Mike Roberts"

Problems: Drilled additional 55' after log to improve low pressure reservoir production.

Formation Tops

Brookover #8-5

Sec. 8, T25s, R32w

925' FNL & 2045' FWL

Anhydrite	1881' +1018
Base	1945' +954
Heebner	3914' -1015
Lansing	3959' -1060
Stark	4342' -1443
Bkc	4461' -1562
Marmaton	4486' -1587
Pawnee	4561' -1662
Fort Scott	4596' -1697
Cherokee	4614' -1715
Morrow	4809' -1910
Miss	4895' -1996
RTD	5055' -2156

Sample Zone Descriptions

Morrow (4809', -1910): Covered in DST #1 & #2

Ss. Grey glauconitic. Very coarse grain. Well rounded. Fair stain. Fair saturation. Show of free oil when broken. Fair odor. 20 Unit gas kick.

Drill Stem Tests
Trilobite Testing
“Bradley Walter”

DST #1

Morrow

Interval (4804’ - 4874’) Anchor Length 70’

IHP - 2392 #

IFP - 30” – 1/8” blow died in 20 min 19-22 #

ISI - 30” – No return 38 #

FFP - 10” – No blow 22-NA #

FSIP - Pull Tool NA

FHP - 2354 #

BHT - 120° F

Recovery: 5’ Mud

DST #2

Morrow

Interval (4803’ – 4905’) Anchor Length 102’

IHP - 2372 #

IFP - 30” – BOB in 1 min 240-343 #

ISI - 45” – 1/2” return 430 #

FFP - 45” – 6” blow 348-352 #

FSIP - 60” – 1” return 354 #

FHP - 2296 #

BHT - 117° F

Recovery: 61’ OCGM (10% Oil)

180’ OCGM (10% Oil)

186’ OCGM (10% Oil)

124’ OCM (2% Oil)

62’ Mud

Structural Comparison

	Palmer Oil, Inc. Brookover #8-5 Sec. 8, T25s, R32w 925' FNL & 2045' FWL		Palmer Oil, Inc. Brookover #8-1 Sec. 8, T25s, R32w 990' FNL & 1255' FWL		Palmer Oil, Inc. Brookover #8-3 Sec 8, T25s, R32w 737' FNL & 2204' FEL
Formation					
Heebner	3914' -1015	-27	3897' -988	-19	3912' -996
Lansing	3959' -1060	-27	3942' -1033	-16	3960' -1044
Stark	4342' -1443	-31	4321' -1412	-13	4346' -1430
BKC	4461' -1562	NA	NA	NA	NA
Marmaton	4486' -1587	NA	NA	NA	NA
Pawnee	4561' -1662	-28	4543' -1634	-20	4558' -1642
Fort Scott	4596' -1697	-27	4579' -1670	-18	4595' -1679
Cherokee	4614' -1715	-30	4594' -1685	-15	4616' -1700
Morrow	4809' -1910	-29	4790' -1881	-12	4814' -1898
Miss	4895' -1996	-30	4875' -1966	-22	4890' -1974

Summary

The location for the Brookover #8-5 well was found via 3-D seismic survey. The new well ran structurally lower than expected at the Morrow Sandstone formation. Two drill stem tests were conducted, one of which recovered commercial quantities of oil. After all the gathered data had been examined, the decision was made to run 5 ½" production casing to produce and then inject the Morrow Sandstone formation.

Perforations

Primary:

Morrow (4883' – 4893')

Before Abandonment:

St. Louis (4911' – 4914')

Respectfully Submitted,

Kevin Timson
Palmer Oil, Inc.

