Confidentiality Requested:
☑ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1191139

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 # 34904
Name: Palmer Oil, Inc.
Address 1: 3118 N. Cummings Rd.
Address 2: PO BOX 399
City: GARDEN CITY State: KS Zip: 67846 + ____
Contact Person: Joe
Phone: (620) 275-9231
CONTRACTOR: License # 5929
Name: Duke Drilling Co., Inc.
Wellsite Geologist: Keith Reavis
Purchaser: None

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 #:

01/13/2014	01/20/2014	02/27/2014
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-189-22830-00-00
Spot Description:
SW SE NE SW Sec. 23 Twp. 32 S. R. 37 ☐ East ☑ West
1600 Feet from ☐ North / ☑ South Line of Section
2300 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Stevens
Lease Name: UPC Well #: 23-6
Field Name:
Producing Formation: None
Elevation: Ground: 3115 Kelly Bushing: 3124
Total Vertical Depth: 6496 Plug Back Total Depth: 6440
Amount of Surface Pipe Set and Cemented at: 1745 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: 14000 ppm Fluid volume: 80 bbls
Dewatering method used: Evaporated
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: 03/03/2014
☑ **Confidential Release Date:** 03/02/2016
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☑ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 03/03/2014

[redacted] 1191139

Operator Name: Palmer Oil, Inc. Lease Name: UPC Well #: 23-6

Sec. 23 Twp. 32 S. R. 37 ☐ East ☑ West County: Stevens

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 ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Induction
Porosity
Micro

☑ Log Formation (Top), Depth and Datum ☐ Sample

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ 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
Surface	12.250	8.625	24	1745	Class A	825	6%gel,3%CC
Production	7.875	5.50	15.5	6497	AA-2	200	

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate				
___ Protect Casing	-			
___ Plug Back TD				
___ 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 *(Amount and Kind of Material Used)*	Depth
4	6368'to 6371		

TUBING RECORD: Size: 2.375 Set At: 6352 Packer At: 6352 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:
☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

METHOD OF COMPLETION:
☐ Open Hole ☐ Perf. ☐ Dually Comp. *(Submit ACO-5)* ☐ Commingled *(Submit ACO-4)*
☐ Other *(Specify)*

PRODUCTION INTERVAL:

Mail to: KCC - Conservation Division, 130 S. Market - Room 2078, Wichita, Kansas 67202

Form	ACO1 - Well Completion
Operator	Palmer Oil, Inc.
Well Name	UPC 23-6
Doc ID	1191139

Tops

Name	Top	Datum
Heebner	4147'	-1023
Lansing	4268'	-1144
Marmaton	4932'	-1808
Cherokee	5125'	-2001
Morrow	5635'	-2511
St.Gen	6214'	-3090
St. Louis	6304'	-3180
St.Louis B	6368'	-3244

Form	ACO1 - Well Completion
Operator	Palmer Oil, Inc.
Well Name	UPC 23-6
Doc ID	1191139

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.250	8.625	24	1745	Class A	825	6%gel,3% CC
Production	7.875	5.50	15.5	6497	AA-2	200	

ALLIED OIL & GAS SERVICES, LLC

CEMENTING LOG

STAGE NO.

Date 1-14-14 District Liberal Ticket No. 52405
Company Palmer Oil Rig Duke #9
Lease O Well No. 20-2
County Stevens State KS
Location Hugoton, KS Field

CASING DATA: Conductor ☐ PTA ☐ Squeeze ☐ Misc ☐
Surface ☑ Intermediate ☐ Production ☐ Liner ☐
Size 8 5/8 Type J-55 Weight 24# Collar

Casing Depths: Top O Bottom 1745.44

Drill Pipe: Size Weight Collars
Open Hole: Size 12 1/4 T.D. 1750 ft. P.B. to ft.

CAPACITY FACTORS:
Casing: Bbls/Lin. ft. .0636 Lin. ft./Bbl.
Open Holes: Bbls/Lin. ft. Lin. ft./Bbl. 13.6037
Drill Pipe: Bbls/Lin. ft. Lin. ft./Bbl.
Annulus: Bbls/Lin. ft. Lin. ft./Bbl.
Bbls/Lin. ft. Lin. ft./Bbl.
Perforations: From ft. to ft. Amt.

CEMENT DATA:
Spacer Type: Fresh Water
Amt. 10 bbls ~~Sks~~ Yield ft³/sk Density 8.33 PPG

LEAD: Pump Time hrs. Type Class A, 6% Gel, 3% CC, .25 #/sk Flo-Seal Excess 100%
Amt. 625 Sks Yield 1.97 ft³/sk Density 12.4 PPG
TAIL: Pump Time hrs. Type Class A, 3% CC, .25 #/sk Flo-Seal Excess 100%
Amt. 200 Sks Yield 1.18 ft³/sk Density 15.6 PPG
WATER: Lead 10.90 gals/sk Tail 5.3 gals/sk Total 200 Bbls.

Pump Trucks Used 1
Bulk Equip. 2

Float Equip: Manufacturer
Shoe: Type Guide Depth
Float: Type AFU Float Valve Depth
Centralizers: Quantity 3 Plugs Top 1 Btm.
Stage Collars
Special Equip. Cement Basket
Disp. Fluid Type Fresh water Amt. 108 Bbls. Weight 8.33 PPG
Mud Type Weight PPG

COMPANY REPRESENTATIVE [redacted] CEMENTER Edgar Rodriguez

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	RATE Bbls Min.	
9:30 P						Pre job Safety Meeting
9:40 P						Rig up Floor
9:55P	1000					Test Lines
9:59 P	180		10		6	Pump Spacer (fresh water)
10:03 P	190		219		7	Pump Lead (625 Sks class A cmt @ 12.4)
11:05 P	160		42		7	Pump Tail (200 Sks class A cmt @ 15.6)
11:19 P						Shutdown
11:20 P						Drop Top Plug
11:21 P	200				6	Pump Displacement
11:36 P	380		55		5	[redacted] Cmt back to surface. 53 bbls Total
12:00 A	500		108		3	Bump Plug. Bumped at 500 PSI and took to 1000
12:02 A.						Check Floats. 1/2 bbl back
12:05 A.						End Job. Good Returns whole Job
						Thank You

FINAL DISP. PRESS: 500 PSI BUMP PLUG TO 1000 PSI BLEEDBACK 1/2 BBLS. THANK YOU

BASIC ENERGY SERVICES
PRESSURE PUMPING & WIRELINE

1700 S. Country Estates Rd.
Liberal, Kansas 67905
Phone 620-624-2277

FIELD SERVICE TICKET
1717 04492 A

DATE TICKET NO.

DATE OF JOB 1/21/13 DISTRICT 1717	NEW WELL ☑ OLD WELL ☐ PROD ☐ INJ ☐ WDW ☐ CUSTOMER ORDER NO.:
CUSTOMER Palmer Oil/American Warrior	LEASE UPC 23-6 WELL NO.
ADDRESS	COUNTY Stevens STATE Ks
CITY STATE	SERVICE CREW Tommy, Daniel
AUTHORIZED BY Tyce	JOB TYPE: 242

EQUIPMENT#	HRS	EQUIPMENT#	HRS	EQUIPMENT#	HRS
75939	5.5				
3722337726	5.5				
14355 377255	5.5				

		TIME
TRUCK CALLED	DATE AM PM	10:00
ARRIVED AT JOB	AM PM	4:30
START OPERATION	AM PM	9:24
FINISH OPERATION	AM PM	22:35
RELEASED	AM PM	23:00
MILES FROM STATION TO WELL		50

CONTRACT CONDITIONS: (This contract must be signed before the job is commenced or merchandise is delivered).
The undersigned is authorized to execute this contract as an agent of the customer. As such, the undersigned agrees and acknowledges that this contract for services, materials, products, and/or supplies includes all of and only those terms and conditions appearing on the front and back of this document. No additional or substitute terms and/or conditions shall become a part of this contract without the written consent of an officer of Basic Energy Services LP.

SIGNED: X Emiglio Lopez
(WELL OWNER, OPERATOR, CONTRACTOR OR AGENT)

ITEM/PRICE REF. NO.	MATERIAL, EQUIPMENT AND SERVICES USED	UNIT	QUANTITY	UNIT PRICE	$ AMOUNT
CL105	A-1 Z	SK	200		
CL103	60/40 POZ	SK	50		
CC113	Gypsum	Lb	940		
CC111	Salt	Lb	1107		
CC103	C-41P	Lb	47		
CC201	Gilsonite	Lb	1000		
CF1251	Auto fill Float Shoe	EA	1		
CF607	Latch Down Plug	EA	1		
CF4452	Centralizer	EA	12		
CF4552	Basket	EA	1		
CF3000	Thread Lock	EA	1		
CC151	Mud Flush	gal	500		
E101	Heavy Equip Mileage	Mi	100		
CE240	Blending & Mixing Charge	SK	250		
E113	Bulk Delivery	TM	596		
CE207	Depth Charge 6001 to 7000	4hrs	1		
CE504	Pilot Container	Job	1		
E100	Pickup Mileage	Mi	50		
5003	Service Supervisor	EA	1		

CHEMICAL / ACID DATA:			

SUB TOTAL		10,854.68
SERVICE & EQUIPMENT	%TAX ON $	
MATERIALS	%TAX ON $	
TOTAL		

SERVICE REPRESENTATIVE Chad Hinz

THE ABOVE MATERIAL AND SERVICE ORDERED BY CUSTOMER AND RECEIVED BY: Emiglio Lopez
(WELL OWNER OPERATOR CONTRACTOR OR AGENT)

FIELD SERVICE ORDER NO.

CLOUD LITHO - Abilene, TX

BASIC ENERGY SERVICES
Liberal, Kansas

Cement Report

Customer: Palmer Oil / American Warrior	Lease No.	Date: 1/21/14	
Lease: UPC	Well #: 23-6	Service Receipt	
Casing: 5 1/2	Depth: 6497.	County: Stevens	State: KS
Job Type: L.S.	Formation	Legal Description	

Pipe Data

Casing size: 5 1/2	Tubing Size		
Depth: 6497.53	Depth	From	To
Volume: 153.6	Volume	From	To
Max Press: 2500	Max Press	From	To
Well Connection: P.C.	Annulus Vol.	From	To
Plug Depth	Packer Depth	From	To

Perforating Data

Shots/Ft

Cement Data

Lead: 200 sx AA-2 @ 14.8#

1.51 6.64

Tail in: 50 sx 60/40 POZ for RH

Time	Casing Pressure	Tubing Pressure	Bbls. Pumbed	Rate	Service Log
16:30					on Loc, Spot + R.U., Safety mtg
21:24	2800				Test Lines
21:28	360		12	5	Pump Mud flush
21:30	360		5	5	H2O Spacer
21:36					Plug R+M
21:50	340		0	5	St Mixing @ 14.8#
22:03	0		55		Wash up, Drop Plug
22:10	270		0	7	Start Disp
22:30	640		143	3	Slow Rate
22:35	850-1500		153.6	K	Plug Down
22:37	0				Release Psi, Float Held
					Job Complete

Service Units	25939	37223377726	14755377715			
Driver Names	C. Hinz	T. Marcelles	D. Beck			

Emilio
Customer Representative

Jerry Bennett
Station Manager

Chad Hinz
Cementer

Taylor Printing, Inc.

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Palmer Oil Inc.**

3118 N Cummings Rd
Garden City KS 67846

ATTN: Keith Reavis

UPC #23-6

23-32s-37w Stevens,KS

Start Date: 2014.01.19 @ 02:48:15
End Date: 2014.01.19 @ 13:37:30
Job Ticket #: 56735 DST #: 1

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

Printed: 2014.01.23 @ 15:02:17

DRILL STEM TEST REPORT

Palmer Oil Inc.

3118 N Cummings Rd
Garden City KS 67846

ATTN: Keith Reavis

23-32s-37w Stevens,KS

UPC #23-6

Job Ticket: 56735 **DST#: 1**

Test Start: 2014.01.19 @ 02:48:15

GENERAL INFORMATION:

Formation: **St. Louis**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:18:00
Time Test Ended: 13:37:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 65

Interval: 6354.00 ft (KB) To 6400.00 ft (KB) (TVD)
Total Depth: 6400.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

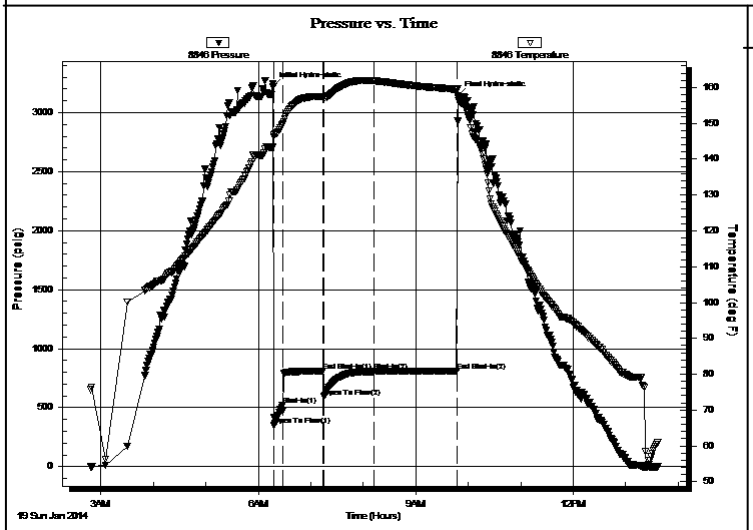
Reference Elevations: 3124.00 ft (KB)
3112.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8846 **Inside**

Press@RunDepth: 807.19 psig @ 6355.00 ft (KB)
Start Date: 2014.01.19 End Date: 2014.01.19
Start Time: 02:48:15 End Time: 13:37:30

Capacity: 8000.00 psig
Last Calib.: 2014.01.20
Time On Btm: 2014.01.19 @ 06:16:45
Time Off Btm: 2014.01.19 @ 09:48:15

TEST COMMENT: IF:BOB in 1 min.
IS:No return blow
FF:BOB in 2 min.
FS:No retrurn blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3219.73	143.29	Initial Hydro-static
2	352.85	146.69	Open To Flow (1)
11	521.86	149.72	Shut-In(1)
58	808.54	157.39	End Shut-In(1)
59	593.32	157.31	Open To Flow (2)
116	807.19	161.85	Shut-In(2)
211	808.81	159.50	End Shut-In(2)
212	3145.34	157.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1118.00	mcw 5%m 95%w	13.97
248.00	w cm 30%w 70%m	3.48
310.00	mud 100%m	4.35
0.00	GIP = 62 ft.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

Palmer Oil Inc.

3118 N Cummings Rd
Garden City KS 67846

ATTN: Keith Reavis

23-32s-37w Stevens,KS

UPC #23-6

Job Ticket: 56735 **DST#: 1**

Test Start: 2014.01.19 @ 02:48:15

GENERAL INFORMATION:

Formation: **St. Louis**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:18:00
Time Test Ended: 13:37:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 65

Interval: 6354.00 ft (KB) To 6400.00 ft (KB) (TVD)
Total Depth: 6400.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

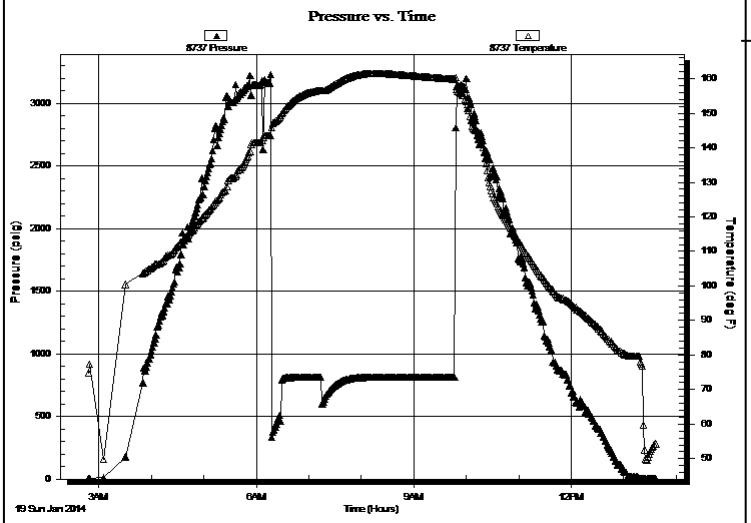
Reference Elevations: 3124.00 ft (KB)
3112.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8737 **Outside**

Press@RunDepth: psig @ 6355.00 ft (KB)
Start Date: 2014.01.19 End Date: 2014.01.19
Start Time: 02:48:15 End Time: 13:37:30

Capacity: 8000.00 psig
Last Calib.: 2014.01.20
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:BOB in 1 min.
IS:No return blow
FF:BOB in 2 min.
FS:No retrurn blow



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
1118.00	mcw 5%m 95%w	13.97
248.00	w cm 30%w 70%m	3.48
310.00	mud 100%m	4.35
0.00	GIP = 62 ft.	0.00

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

Palmer Oil Inc.

3118 N Cummings Rd
Garden City KS 67846

ATTN: Keith Reavis

23-32s-37w Stevens,KS

UPC #23-6

Job Ticket: 56735 **DST#: 1**

Test Start: 2014.01.19 @ 02:48:15

Tool Information

Drill Pipe:	Length:	6155.00 ft	Diameter:	3.80 inches	Volume:	86.34 bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00 inches	Volume:	0.00 bbl	
Drill Collar:	Length:	188.00 ft	Diameter:	2.25 inches	Volume:	0.92 bbl	
					Total Volume:	87.26 bbl	

Drill Pipe Above KB:	18.00 ft
Depth to Top Packer:	6354.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	46.00 ft
Tool Length:	75.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2500.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		140000.0 lb
Tool Chased		20.00 ft
String Weight:	Initial	80000.00 lb
	Final	91000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			6326.00		
Shut In Tool	5.00			6331.00		
Hydraulic tool	5.00			6336.00		
Jars	5.00			6341.00		
Safety Joint	3.00			6344.00		
Packer	5.00			6349.00	29.00	Bottom Of Top Packer
Packer	5.00			6354.00		
Stubb	1.00			6355.00		
Recorder	0.00	8846	Inside	6355.00		
Recorder	0.00	8737	Outside	6355.00		
Perforations	7.00			6362.00		
Change Over Sub	1.00			6363.00		
Drill Pipe	31.00			6394.00		
Change Over Sub	1.00			6395.00		
Bullnose	5.00			6400.00	46.00	Bottom Packers & Anchor
Total Tool Length:	**75.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

Palmer Oil Inc.

3118 N Cummings Rd
Garden City KS 67846

ATTN: Keith Reavis

23-32s-37w Stevens,KS

UPC #23-6

Job Ticket: 56735 **DST#: 1**

Test Start: 2014.01.19 @ 02:48:15

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:	10000 ppm
Viscosity:	50.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.18 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	1600.00 ppm				
Filter Cake:	1.00 inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1118.00	mcw 5%m 95%w	13.970
248.00	w cm 30%w 70%m	3.479
310.00	mud 100%m	4.348
0.00	GIP = 62 ft.	0.000

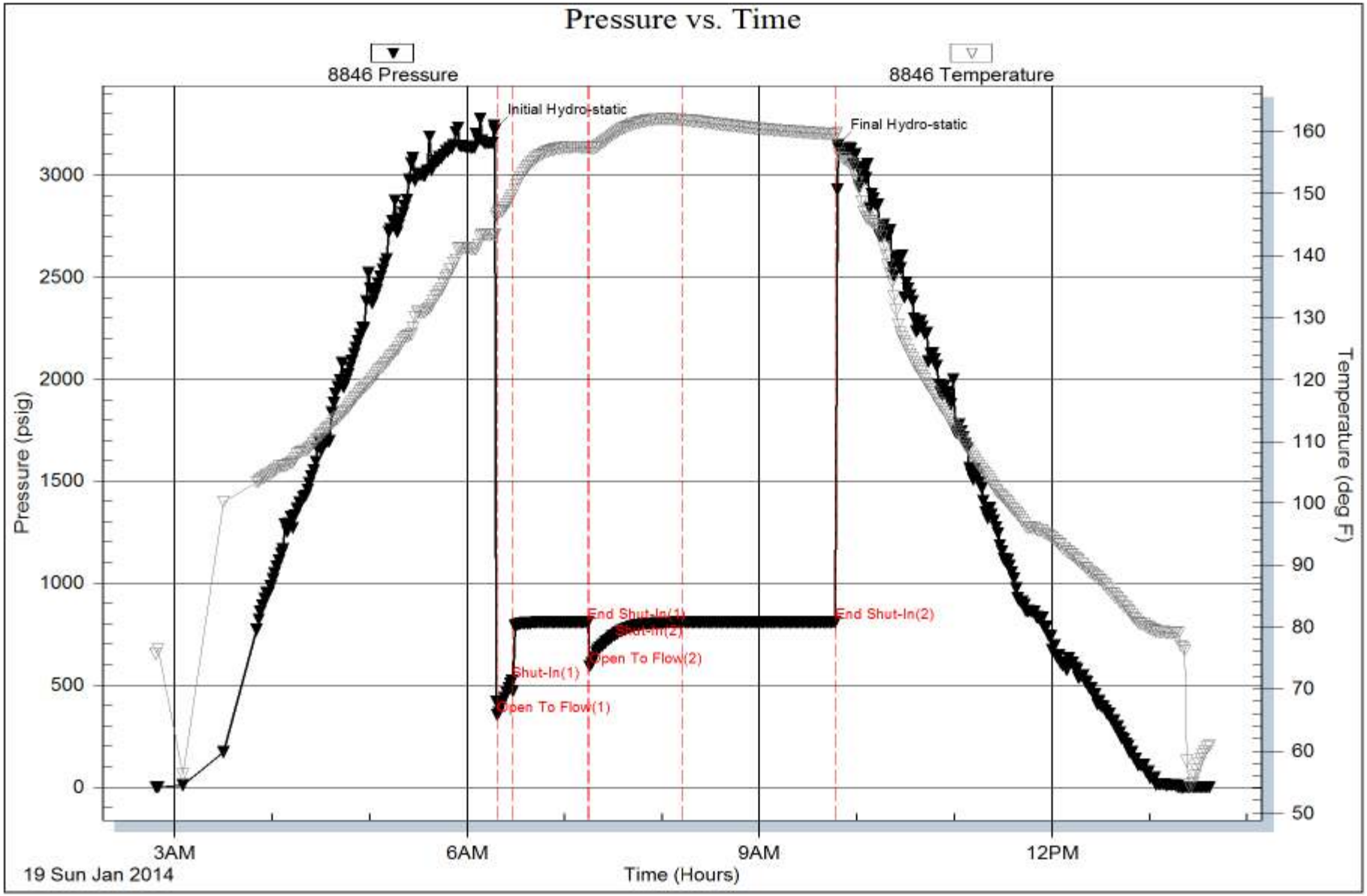
Total Length: 1676.00 ft Total Volume: 21.797 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

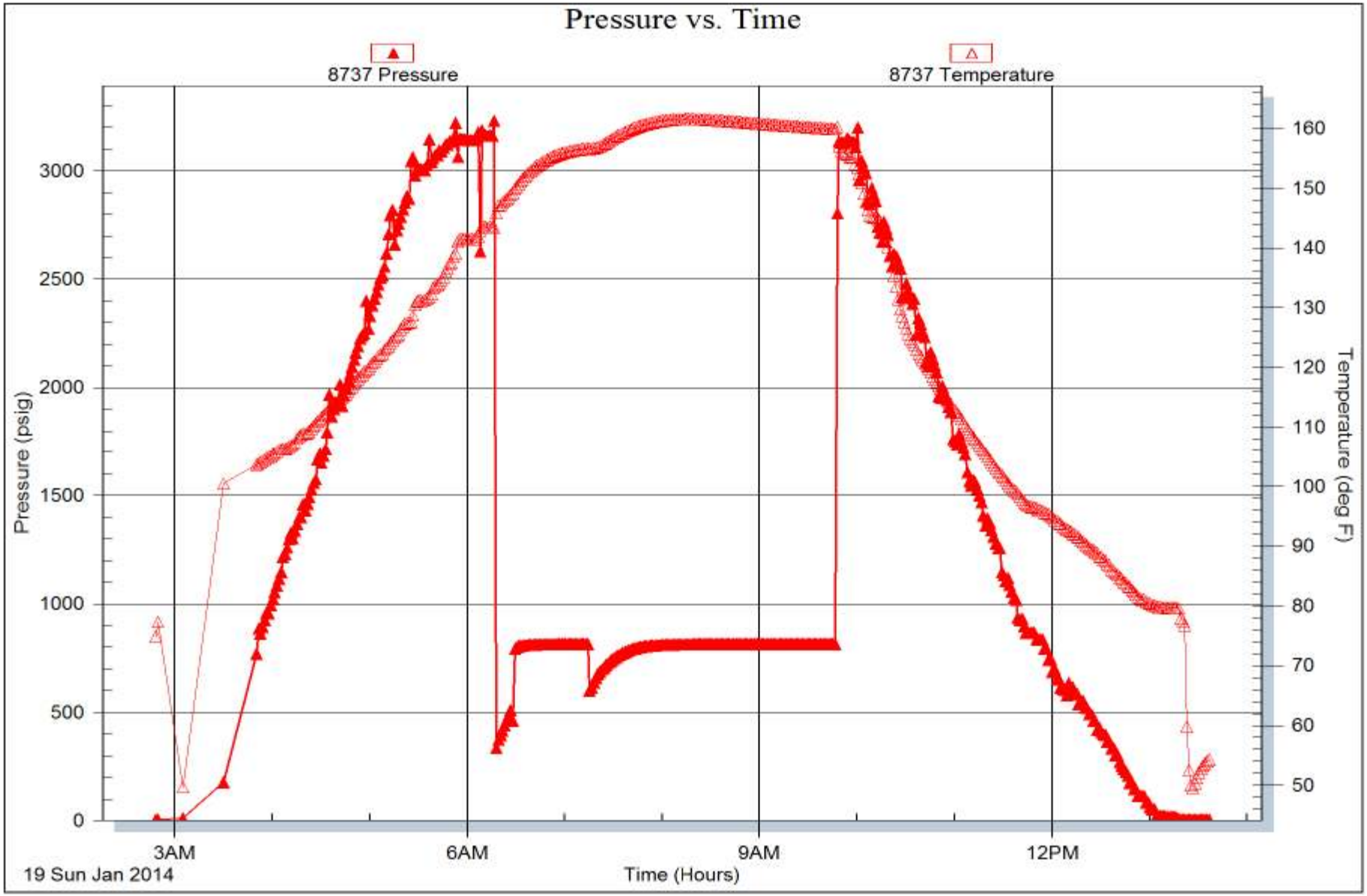
Recovery Comments: RW= .823@ 54.8*= 10,000 ppm

Serial #: 8846 **Inside** Palmer Oil Inc. UPC #23-6 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 56735 Printed: 2014.01.23 @ 15:02:19

Serial #: 8737 **Outside** Palmer Oil Inc. UPC #23-6 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 56735 Printed: 2014.01.23 @ 15:02:19

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 56735

Well Name & No. UPC #23-6 Test No. 1 Date 1-20-14

Company Palmer Oil Inc. Elevation 3124 KB 3112 GL

Address 3118 N. Cummings Rd Garden City KS 67846

Co. Rep / Geo. Keith Reavis Rig Duke #9

Location: Sec. 23 Twp. 32S Rge. 37W Co. Stevens State KS

Interval Tested 6354-6400 Zone Tested St. Louis

Anchor Length 46 Drill Pipe Run 6155 Mud Wt. 9.4

Top Packer Depth 6350 Drill Collars Run 188 Vis 50

Bottom Packer Depth 6354 Wt. Pipe Run 0 WL 7.2

Total Depth 6400 Chlorides 1600 ppm System LCM 2

Blow Description IF: BOB in 1 Min

IS: No Return Blow

FF: BOB in 2 Min

FS: No Return Blow

Rec [illegible]	Feet of GIP = 62 Ft	100 %gas	%oil	%water	%mud	
Rec 310	Feet of MUD	%gas	%oil	%water	100	%mud
Rec 248	Feet of WCM	%gas	%oil	30 %water	70	%mud
Rec 1118	Feet of MCW	%gas	%oil	95 %water	5	%mud
Rec	Feet of	%gas	%oil	%water		%mud

Rec Total 1676 BHT 160 Gravity — API RW .823 @ 54.8 °F Chlorides 10,000 ppm

(A) Initial Hydrostatic 3219	☑ Test 1450.00	T-On Location 01:00	
(B) First Initial Flow 352	☑ Jars 250.00	T-Started 02:48	
(C) First Final Flow 521	☑ Safety Joint 75.00	T-Open 06:18	
(D) Initial Shut-In 808	☑ Circ Sub	T-Pulled 09:43	
(E) Second Initial Flow 593	☐ Hourly Standby	T-Out 13:37	
(F) Second Final Flow 807	☑ Mileage 220 RT 341.00	Comments	
(G) Final Shut-In 808	☐ Sampler		
(H) Final Hydrostatic 3145	☐ Straddle	☐ Ruined Shale Packer	
	☐ Shale Packer	☐ Ruined Packer	
Initial Open 10	☐ Extra Packer	☐ Extra Copies	
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0	
Final Flow 60	☐ Day Standby	Total 2116	
Final Shut-In 90	☐ Accessibility	MP/DST Disc't	
	Sub Total $2116.00/-		

Approved By _____ Our Representative Mike Robert

OPERATOR

Company:	Palmer Oil, Inc.		
Address:	3118 N. Cummings Road P.O. Box 399 Garden City, KS 67846		
Contact Geologist:	Kevin Wiles		
Contact Phone Nbr:	620-275-9231		
Well Name:	UPC #23-6		
Location:	Sec. 23 - T32S - R37W	API:	15-189-22830-0000
Pool:		Field:	Willis
State:	Kansas	Country:	USA

Scale 1:240 Imperial

Well Name:	UPC #23-6		
Surface Location:	Sec. 23 - T32S - R37W		
Bottom Location:			
API:	15-189-22830-0000		
License Number:	34904		
Spud Date:	1/13/2013	Time:	00:00
Region:	Stevens County		
Drilling Completed:	1/20/2013	Time:	20:30
Surface Coordinates:	1600' FSL & 2300' FWL		
Bottom Hole Coordinates:			
Ground Elevation:	3112.00ft		
K.B. Elevation:	3124.00ft		
Logged Interval:	4600.00ft	To:	6500.00ft
Total Depth:	6500.00ft		
Formation:	Mississippian		
Drilling Fluid Type:	Chemical/Fresh Water Gel		

SURFACE CO-ORDINATES

Well Type:	Vertical		
Longitude:		Latitude:	
N/S Co-ord:	1600' FSL		
E/W Co-ord:	2300' FWL		

LOGGED BY

Keith Reavis
Consulting Geologist

Company:	Keith Reavis, Inc.		
Address:	3420 22nd Street Great Bend, KS 67530		
Phone Nbr:	620-617-4091		
Logged By:	KLG #136	Name:	Keith Reavis

CONTRACTOR

Contractor:	Duke Drilling Company		
Rig #:	9		
Rig Type:	mud rotary		
Spud Date:	1/13/2013	Time:	00:00
TD Date:	1/20/2013	Time:	20:30
Rig Release:		Time:	

ELEVATIONS

K.B. Elevation:	3124.00ft	Ground Elevation:	3112.00ft
K.B. to Ground:	12.00ft		

NOTES

Drill stem testing, sample examination and electrical log analysis indicated no commercial hydrocarbons in the UPC #23-6, however, the operator elected to run 5 1/2" casing and utilize this well for saltwater injection and secondary recovery.

A Bloodhound gas detection system operated by Bluestem Environmental was employed during the drilling of this well. ROP and gas data was imported from said system into this report. Gamma ray and caliper curves from the electrical log suite were also imported. Electrical log tops were generally from 3-5 ft. low to sample tops picked from ROP, however, no curves were shifted to provide an exact match.

Respectfully submitted,
Keith Reavis

Palmer Oil, Inc.

daily drilling report

DATE	7:00 AM DEPTH	REMARKS
01/17/2014	4912	Geologist Keith Reavis on location @ 1100 hrs, 5230 ft, drilling ahead Cherokee, short trip at 5455 ft., resume drilling 2115 hrs
01/18/2014	5961	drilling ahead, Morrow, bit trip @ 6100', out with PDC in with button, resume drilling @ 1800 hrs, Morrow, Chester
01/19/2014	6221	drilling ahead, Chester, St. Gen, St. Louis, show and gas kick warrant DST, cfs/ctch, TOH w/bit for DST #1
01/20/2014	6400	Tripping bit and tools, conduct DST #1, complete DST #1, successful test, TIH w/PDC bit, rathole to TD 6500 ft, ctch, TOH for logs
01/21/2014	6500	TOH for logs, conduct logging operations, geologist off location 0600 hrs

Palmer Oil, Inc.

well comparison sheet

	DRILLING WELL Palmer - UPC #23-6 1600' FSL & 2300' FWL Sec. 23 -T32S - R37W 3124 KB				COMPARISON WELL EOG - UPC #23-1 2310' FSL & 1830' FWL Sec. 23 -T32S - R37W 3133 KB		Structural Relationship		COMPARISON WELL Palmer - UPC #23-4 900' FSL & 2120' FWL Sec. 23 -T32S - R37W 3126 KB		Structural Relationship	
Formation	Sample	Sub-Sea	Log	Sub-Sea	Log	Sub-Sea	Sample	Log	Log	Sub-Sea	Sample	Log
Base Heebner	4143	-1019	4147	-1023	4150	-1017	-2	-6	4142	-1016	-3	-7
Lansing	4263	-1139	4268	-1144	4271	-1138	-1	-6	4264	-1138	-1	-6
Marmaton	4932	-1808	4932	-1808	4940	-1807	-1	-1	4924	-1798	-10	-10
Cherokee	5120	-1996	5125	-2001	5126	-1993	-3	-8	5120	-1994	-2	-7
Morrow	5632	-2508	5635	-2511	5630	-2497	-11	-14	5635	-2509	1	-2
Morrow LS mark	5928	-2804	5931	-2807	5932	-2799	-5	-8	5936	-2810	6	3
St. Gen	6213	-3089	6214	-3090	6216	-3083	-6	-7	6218	-3092	3	2
St. Louis	6306	-3182	6304	-3180	6304	-3171	-11	-9	6304	-3178	-4	-2
St. Louis B	6359	-3235	6368	-3244	6367	-3234	-1	-10	6366	-3240	5	-4
Total Depth	6500	-3376	6496	-3372	6499	-3366	-10	-6	6502	-3376	0	4

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Palmer Oil Inc.

3118 N Cummings Rd
Garden City KS
67846
ATTN: Keith Reavis

23-32s-37w Stevens Co.KS

UPC 23-6

Job Ticket: 56735 **DST#: 1**

Test Start: 2014.01.19 @ 02:48:15

GENERAL INFORMATION:

Formation: **St. Louis**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 06:18:00
Time Test Ended: 13:37:30

Test Type: Conventional Bottom Hole (Initial)
Tester: Mike Roberts
Unit No: 65

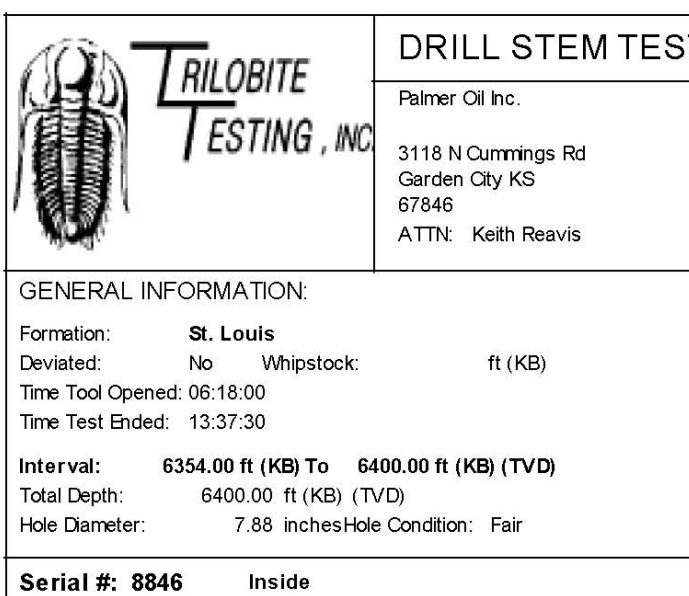
Interval: 6354.00 ft (KB) To 6400.00 ft (KB) (TVD)
Total Depth: 6400.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 3124.00 ft (KB)
3112.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 8846 **Inside**
Press@RunDepth: 807.19 psig @ 6355.00 ft (KB)
Start Date: 2014.01.19 End Date: 2014.01.19
Start Time: 02:48:15 End Time: 13:37:30

Capacity: 8000.00 psig
Last Calib.: 2014.01.20
Time On Btm: 2014.01.19 @ 06:16:45
Time Off Btm: 2014.01.19 @ 09:48:15

TEST COMMENT: IF:BOB in 1 min.
IS:No return blow
FF:BOB in 2 min.
FS:No retrurn blow



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	3219.73	143.29	Initial Hydro-static
2	352.85	146.69	Open To Flow (1)
11	521.86	149.72	Shut-In(1)
58	808.54	157.39	End Shut-In(1)
59	593.32	157.31	Open To Flow (2)
116	807.19	161.85	Shut-In(2)
211	808.81	159.50	End Shut-In(2)
212	3145.34	157.27	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1118.00	mcw 5%m 95%w	13.97
248.00	w cm 30%w 70%m	3.48
310.00	mud 100%m	4.35
0.00	GIP = 62 ft.	0.00

Gas Rates

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

ROCK TYPES

Clystgy, sdy lmst, Lmst fw<7, Lmst fw7>, shale, gry, Carbon Sh, shale, red, Ss, Sltst

ACCESSORIES

MINERAL
- Argillaceous
- Calcareous
- Chert, dark
- Dolomitic
- Glauconite
- Mineral Crystals
- Pyrite
- Sandy
- Chert White

FOSSIL
- Bioclastic or Fragmental
- Fossils < 20%
- Oolite
- Pellets
- Oomoldic

STRINGER
- Dolomite
- Limestone
- Shale

TEXTURE
- Chalky

OTHER SYMBOLS

Oil Show
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- Dead Oil Stn
- Fluorescence
- Gas

DST
- DST Int
- DST alt
- Core
- tail pipe

Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)

Curve Track #1
ROP (min/ft)
Gamma (API)
Cal (in)
1:240 Imperial

Depth | Intervals
Cored Interval
DST Interval
DST
Lithology
Oil Show
Geological Descriptions

TG, C1 - C5
Total Gas (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
1:240 Imperial

0 ROP (min/ft) 2
0 Gamma (API) 150
6 Cal (in) 16

0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100

4060 4080 4100 4120 4140 4160 4180 4200 4220 4240 4260 4280 4300 4320 4340 4360 4380 4400 4420 4440 4460 4480 4500 4520 4540 4560

geologist Keith Reavis on location @ 5230 ft
1100 hrs - 1/17/14

Base Heebner 4143 -1019

Lansing 4263 -1139

limestone, light gray to cream, oolitic to oomoldic, some good porosity, barren

limestone, mixed, gray to cream, dense, fossiliferous, no shows

begin 20 ft. wet and dry samples @ 4600 ft.

shale, gray, limey

limestone, cream to white and gray, microcrystalline, fossiliferous, some chalk, poor porosity, no shows

as above, some white dense bioclastic, increasing chalk

limestone, gray to light gray, fossiliferous to bioclastic, chalky in part, poor visible porosity, no shows

limestone, mixed gray to cream and light brown, fossiliferous to bioclastic, mostly dense, poor visible porosity, some scattered chert, no shows

shale, brown/black carbonaceous

limestone, light gray to light brown, oomoldic, some oolitic, good oomold porosity, no shows

limestone, mixed fossiliferous, some weathered and cherty, no shows

limestone, gray mottled pelleteal, mixed gray to cream fossiliferous, some chalky, with limestone, dense gray arenaceous, abundant dark gray shales, some limey, no shows

Marmaton 4932 -1808

limestone, white to light gray, microcrystalline, fossilifeorus to oolitic, dense to chalky

limestone, light gray to white, oomoldic to sub-oomoldic, good porosity, no shows, light fluoresence

limestone, gray to cream, some white, fossiliferous, pelletal, some oolitic, abundant gray arenaceous limestone, no shows

limestone, mostly lighter grays to white, fossiliferous, increasingly chalky, some weathered, no shows

as above, decreasing oolitic and pelletal

limestone, light gray to white, microcrystalline, fossilifeorus to bioclastic, chalky, poor porosity, flood chalk, no shows, trace gray chert

Cherokee 5120 -1996

limestone, light gray to cream and light brown, micro-cryptocrystalline, fossiliferous, trace pelletal, chalky to dense, some dense brown arenaceous, poor visible porosity, no shows

shale, gray, limey to argillaceous, limestone, gray to light gray, micro-cryptocrystalline, fossiliferous to arenaceous, some mottled, poor visible porosity, no shows

0 ROP (min/ft) 2
0 Gamma (API) 150
6 Cal (in) 16

0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100

5180
5200
5220
5240
5260
5280
5300
5320
5340
5360
5380
5400
5420
5440
5460
5480
5500
5520
5540
5560
5580
5600
5620
5640
5660
5680
5700
5720
5740
5760

reset depth

a.a.

extractor not in mud upon arrival, re-set

limestone a.a., mostly arenaceous

shale and limestone a.a.

as above

Mud-Co Mud chk
@ 5380 ft.
1230 hrs. 1/17/14
Vis. 57 Wt. 9.3
PV 18 YP 20
WL 7.2
Cake 1/32,
pH 11.0
CHL 2200 ppm
Ca 20ppm
Sol 7.0 LCM 1#
DMC $4340.30
CMC $11691.85

as above with brownish/black carbonaceous shales

shale, black carbonaceous, influx pyrite

shale, gray and black carbonaceous, some limestone, gray to dark gray, cryptocrystalline, lithographic to fossiliferous, scattered light gray dolomite, sub-sucrosic to arenaceous, no shows

cfs, short trip at 5455 back to surface casing

as above

SC

0 Total Gas (units) 200
0 C1 (units) 200
0 C2 (units) 200
0 C3 (units) 200
0 C4 (units) 200

mostly black carbonaceous shales

shales as above with limestone, light gray, micro-cryptocrystalline, chalky, fossiliferous

shale, black carbonaceous

limestone, gray mottled, cryptocrystalline, fossiliferous, chalky in part, no visible porosity, no shows, with gray and black carbonaceous shales

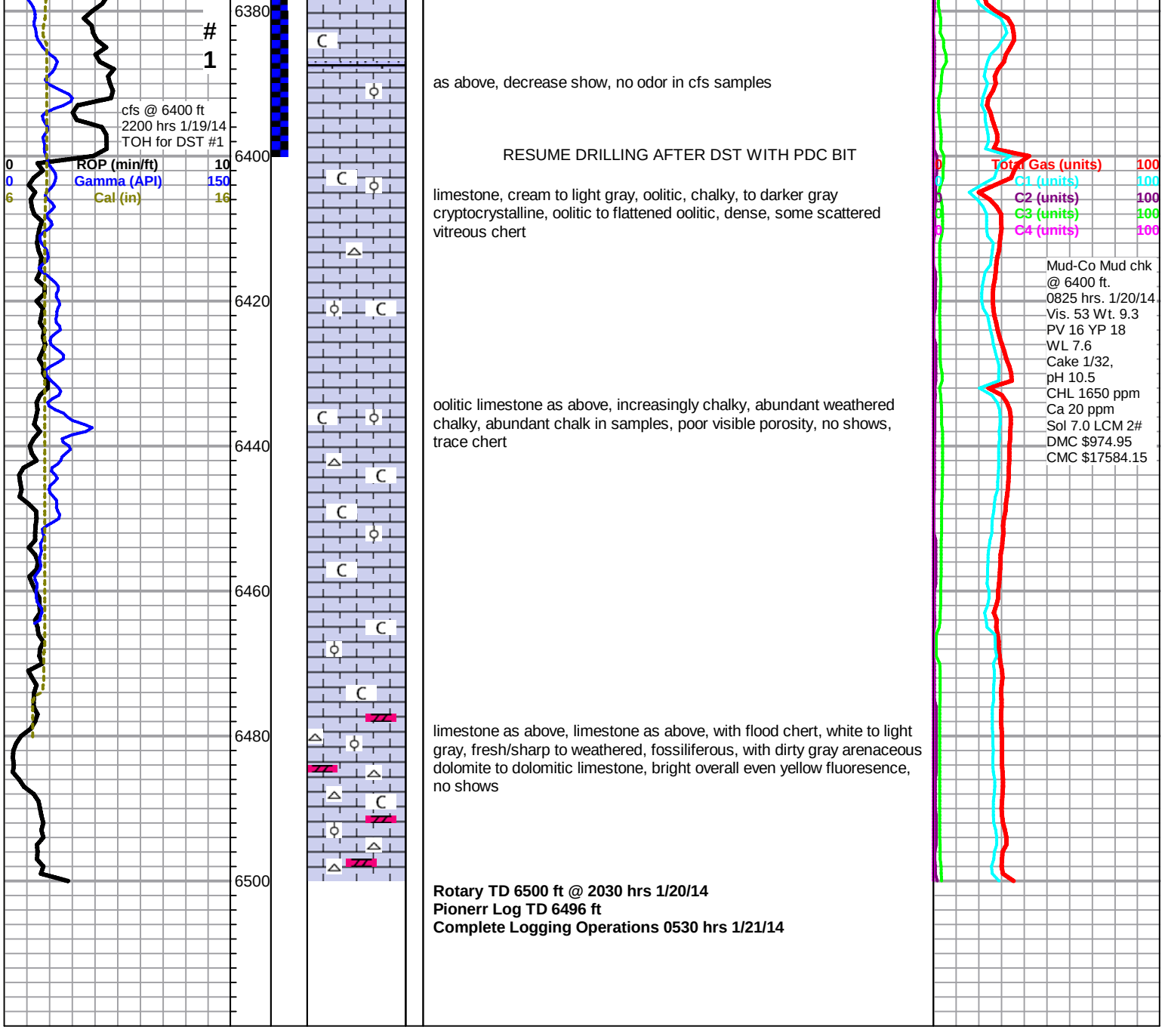
Morrow 5632 -2508

shale, gray and black, some soft, fissile to blocky, carrying abundant gray mottled fossiliferous limestones

as above

as above

SC
scale change
0 ROP (min/ft) 5
0 Gamma (API) 150
6 Cal (in) 16
0 Total Gas (units) 200
0 C1 (units) 200
0 C2 (units) 200
0 C3 (units) 200
0 C4 (units) 200
PDC bit balling up and also 1 jet plugged
5780
5800
5820
5840
5860
5880
5900
5920
5940
5960
5980
6000
6020
6040
6060
6080
6100
6120
6140
6160
6180
6200
6220
6240
6260
6280
6300
6320
6340
6360
as above
5940 sample, limestones mostly fall out, shales, gray to black, very soft, heavy gray wash in samples
Bit cleared
Middle Morrow LS Marker 5928 -2804
dolomitic limestone, light gray to tan, micro to fine crystalline, fossilifeorus to bioclastic, large clasts, some sand grains and quartz crystals with larger dolomite cyrstals, pyritic to glauconitic, poor visible porosity, no odor or shows, no fluoresence
dolomitic limestone, similar to above, chalkier, less sandy and glauconitic, abundant pyrite nodules, poor visible porosity, no odor, no shows or fluoresence
shale and gray dense clay/mudstone, carrying abundant limestone as above
as above, decreasing limestone
0845 hrs 1/18/14 stop, cfs, bit trip
poor samples, trip trash
limestone, gray to pale green, cryptocrystalline, lithographic, dense, no shows, gray and black shales, abundant pyrite nodules, no shows
Mud-Co Mud chk @ 6100 ft. 1345 hrs. 1/18/14 Vis. 55 Wt. 9.3 PV 17 YP 21 WL 7.2 Cake 1/32, pH 11.0 CHL 1600 ppm Ca 20 ppm Sol 7.0 LCM 3# DMC $2706.90 CMC $14398.75
grades to limestone, white to pale green, very sandy, friable to dense, sandstone to siltstone, white to pale green, very fine grained, well cemented, no porosity, some pyritic, no shows, abundant gray and black shales
as above, some sandy white oolitic limestone, soft, glaucontic, no shows - influx red shale, samples wash red beginning in 6180 sample
grades to shale conglomerate, red, gray and black, with orange to pink soft sandstone and siltstone, some limestones as above, heavy red wash in samples, no show
St. Gen 6213 -3089
limestone, light gray to white, micro-oolitic, sandy to silty, some chalky and friable, barren to light brown to black dead stain, no show free oil. no odor, poor visible porosity, poor faint fluoresence
as above, decreasing staining, influx light gray limestone, cryptocrystalline, fossiliferous to flattened oolitic, dense
as above, some scattered white to light gray oolitic, sub-mature, chalky and friable, sandy in part, no show, some scattered light gray and vitreous cherts
limestone, light gray, oolitic, mature to flattened, chalky in part, marked decrease in sandy limestones
St. Louis 6306 -3182
limestone, light gray, oolitic, mature to flattened, chalky in part, some sandy, abundant chalk, flood chert, white vitreuos to light gray, opaque to translucent, fossiliferous, no shows
as above, some pyrite
St. Louis "B" 6359 -3235
limestone, light gray, mature oolitic, large oolites, some fair inter-oolite porosity, slight staining, slight show light oil, good odor, good fluoresence, faint cut - abundant limestone as above, moderate chalk
DST


#
1
cfs @ 6400 ft
2200 hrs 1/19/14
TOH for DST #1
0 ROP (min/ft) 10
0 Gamma (API) 150
6 Cal (in) 16
6380
6400
6420
6440
6460
6480
6500
C
as above, decrease show, no odor in cfs samples
RESUME DRILLING AFTER DST WITH PDC BIT
limestone, cream to light gray, oolitic, chalky, to darker gray cryptocrystalline, oolitic to flattened oolitic, dense, some scattered vitreous chert
oolitic limestone as above, increasingly chalky, abundant weathered chalky, abundant chalk in samples, poor visible porosity, no shows, trace chert
limestone as above, limestone as above, with flood chert, white to light gray, fresh/sharp to weathered, fossiliferous, with dirty gray arenaceous dolomite to dolomitic limestone, bright overall even yellow fluoresence, no shows
Rotary TD 6500 ft @ 2030 hrs 1/20/14
Pionerr Log TD 6496 ft
Complete Logging Operations 0530 hrs 1/21/14
0 Total Gas (units) 100
0 C1 (units) 100
0 C2 (units) 100
0 C3 (units) 100
0 C4 (units) 100
Mud-Co Mud chk
@ 6400 ft.
0825 hrs. 1/20/14
Vis. 53 Wt. 9.3
PV 16 YP 18
WL 7.6
Cake 1/32,
pH 10.5
CHL 1650 ppm
Ca 20 ppm
Sol 7.0 LCM 2#
DMC $974.95
CMC $17584.15