



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1226565
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
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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: _____



1226565

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

INSTRUCTIONS: Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

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

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: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	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> <input type="checkbox"/> Other <i>(Specify)</i> _____ <i>(Submit ACO-4)</i>	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	Gore Oil Company
Well Name	Carmichael 2
Doc ID	1226565

All Electric Logs Run

Micro
Sonic
Dual Receiver Cement Bond
Compensated Density/Neutron
Dual Induction

Form	ACO1 - Well Completion
Operator	Gore Oil Company
Well Name	Carmichael 2
Doc ID	1226565

Tops

Name	Top	Datum
Anhydrite	1488	+673
B/Anhydrite	1534	+627
Topeka	3092	-931
Heebner Shale	3304	-1143
Toronto	3323	-1162
Lansing	3344	-1183
BKC	3566	-1405
Arbuckle	3606	-1445



DRILL STEM TEST REPORT

Prepared For: **Gore Oil Company**

202 S St Francis
Wichita KS 67202

ATTN: Chuck Schmaltz

Carmichael #2

22-9s-18w-Rooks KS

Start Date: 2013.10.21 @ 14:21:59

End Date: 2013.10.21 @ 23:22:09

Job Ticket #: 54842 DST #: 1

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

Printed: 2013.10.25 @ 11:10:38



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Gore Oil Company

22-9s-18w-Rooks KS

202 S St Francis
Wichita KS 67202

Carmichael #2

Job Ticket: 54842

DST#: 1

ATTN: Chuck Schmalz

Test Start: 2013.10.21 @ 14:21:59

GENERAL INFORMATION:

Formation: **Lansing**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 17:29:29

Time Test Ended: 23:22:09

Test Type: Conventional Bottom Hole (Initial)

Tester: Tate Lang

Unit No: 49

Interval: 3412.00 ft (KB) To 3455.00 ft (KB) (TVD)

Reference Elevations: 2161.00 ft (KB)

Total Depth: 3455.00 ft (KB) (TVD)

2153.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 8.00 ft

Serial #: 8898 Outside

Press @ Run Depth: 238.22 psig @ 3419.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2013.10.21

End Date:

2013.10.21

Last Calib.:

2013.10.21

Start Time: 14:22:00

End Time:

23:22:09

Time On Btm:

2013.10.21 @ 17:29:19

Time Off Btm:

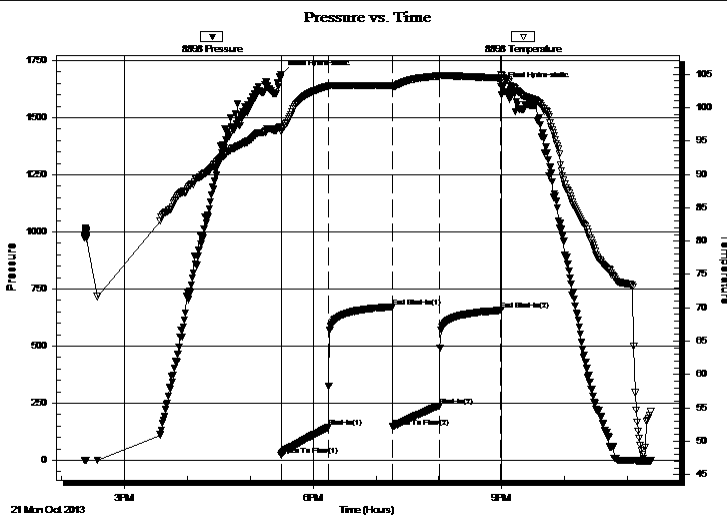
2013.10.21 @ 20:59:08

TEST COMMENT: Good surface blow built to 7"

Dead no blow back

B.O.B. In 25 mins.

Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1689.14	97.16	Initial Hydro-static
1	22.64	96.45	Open To Flow (1)
46	143.44	103.22	Shut-In(1)
107	671.83	103.29	End Shut-In(1)
107	146.90	103.06	Open To Flow (2)
152	238.22	104.75	Shut-In(2)
210	656.61	104.43	End Shut-In(2)
210	1635.26	104.98	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	20%M 80%W	1.40
300.00	5%M 95%W w ith oil spots	4.21

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Gore Oil Company

22-9s-18w-Rooks KS

202 S St Francis
Wichita KS 67202

Carmichael #2

Job Ticket: 54842

DST#: 1

ATTN: Chuck Schmaltz

Test Start: 2013.10.21 @ 14:21:59

Tool Information

Drill Pipe:	Length: 3377.00 ft	Diameter: 3.80 inches	Volume: 47.37 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 47.52 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3412.00 ft			Final 54000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	43.00 ft			
Tool Length:	70.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3390.00	
Hydraulic tool	5.00			3395.00	
Jars	5.00			3400.00	
Safety Joint	2.00			3402.00	
Packer	5.00			3407.00	27.00 Bottom Of Top Packer
Packer	5.00			3412.00	
Stubb	1.00			3413.00	
Perforations	6.00			3419.00	
Recorder	0.00	8897	Inside	3419.00	
Recorder	0.00	8898	Outside	3419.00	
Change Over Sub	1.00			3420.00	
Drill Pipe	31.00			3451.00	
Change Over Sub	1.00			3452.00	
Bullnose	3.00			3455.00	43.00 Bottom Packers & Anchor

Total Tool Length: 70.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Gore Oil Company

22-9s-18w-Rooks KS

202 S St Francis
Wichita KS 67202

Carmichael #2

Job Ticket: 54842

DST#: 1

ATTN: Chuck Schmaltz

Test Start: 2013.10.21 @ 14:21:59

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

60000 ppm

Viscosity: 76.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 7.20 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
120.00	20%M 80%W	1.401
300.00	5%M 95%W with oil spots	4.208

Total Length: 420.00 ft

Total Volume: 5.609 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

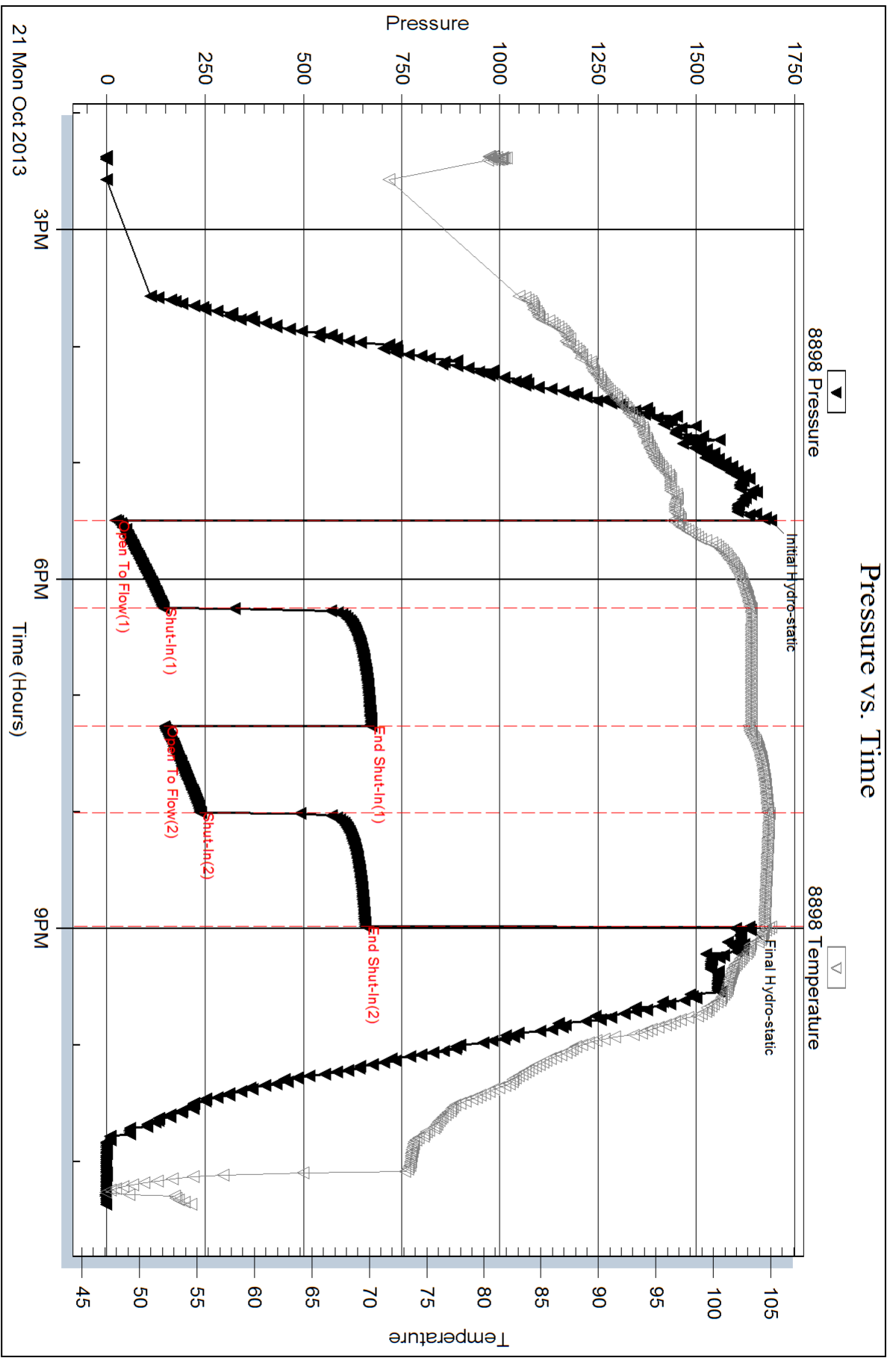
Recovery Comments:

Serial #: 8898

Outside Gore Oil Company

Carmichael #2

DST Test Number: 1



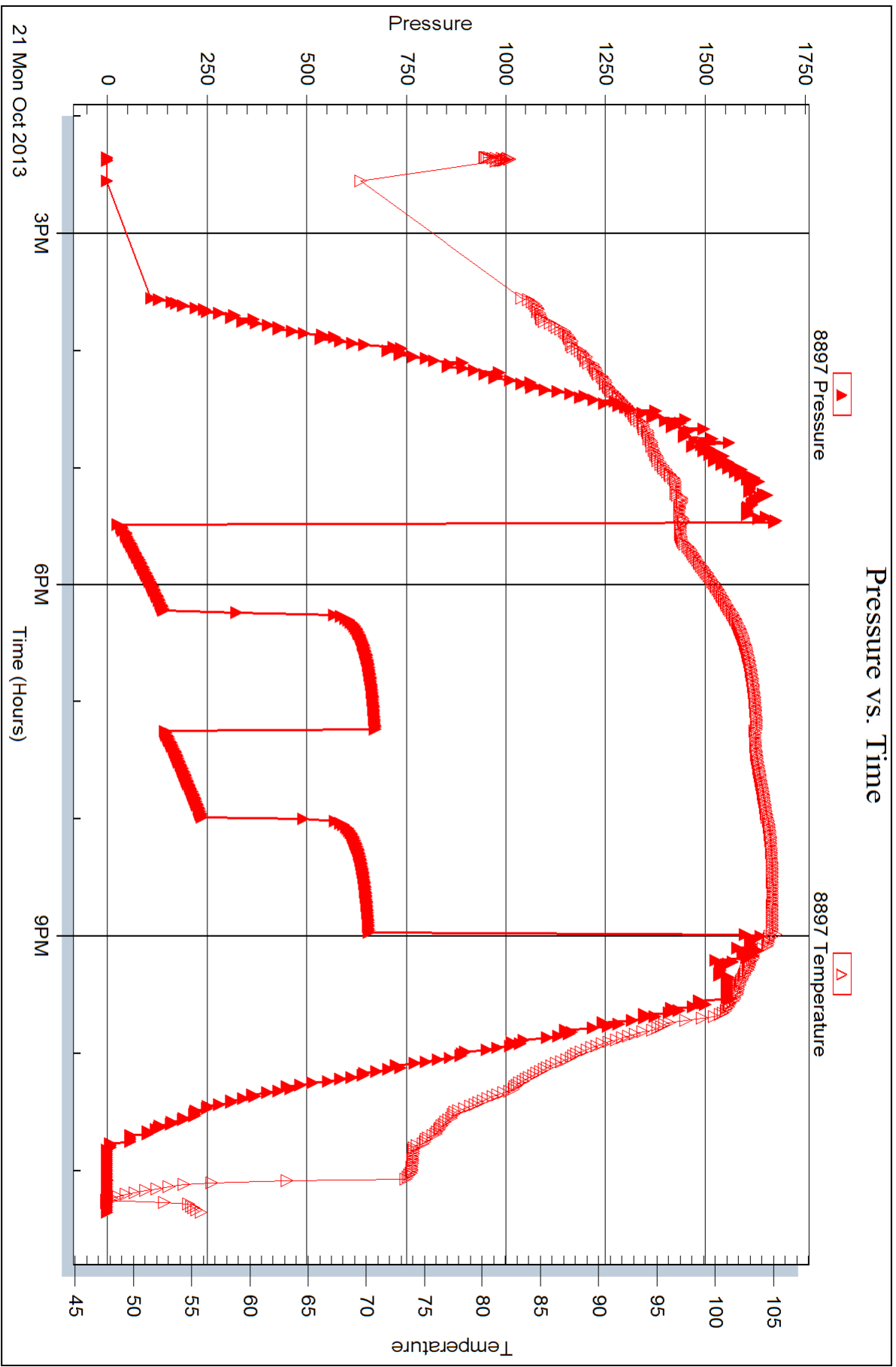
Serial #: 8897

Inside

Gore Oil Company

Carmichael #2

DST Test Number: 1



Triobite Testing, Inc

Ref. No: 54842

Printed: 2013.10.25 @ 11:10:40



DRILL STEM TEST REPORT

Prepared For: **Gore Oil Company**

202 S St Francis
Wichita KS 67202

ATTN: Chuck Schmaltz

Carmichael #2

22-9s-18w-Rooks KS

Start Date: 2013.10.22 @ 12:01:31

End Date: 2013.10.22 @ 19:55:31

Job Ticket #: 54843 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2013.10.25 @ 11:08:25



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Gore Oil Company

22-9s-18w-Rooks KS

202 S St Francis
Wichita KS 67202

Carmichael #2

Job Ticket: 54843

DST#: 2

ATTN: Chuck Schmalz

Test Start: 2013.10.22 @ 12:01:31

GENERAL INFORMATION:

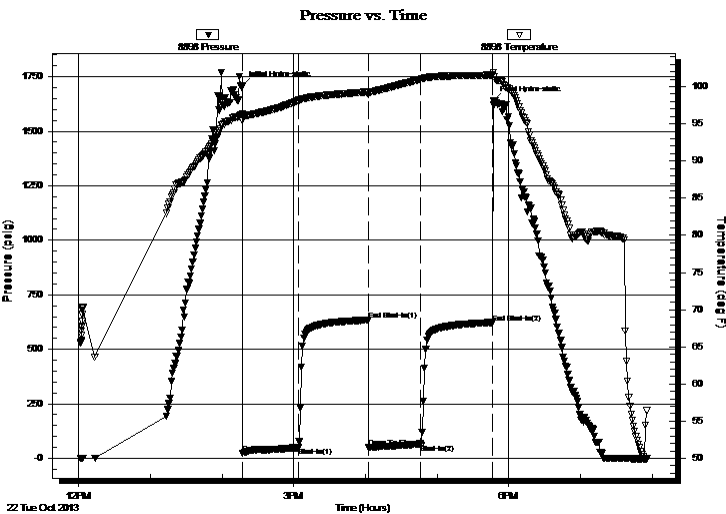
Formation: **KC**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:17:11
 Time Test Ended: 19:55:31
 Interval: **3462.00 ft (KB) To 3562.00 ft (KB) (TVD)**
 Total Depth: 3562.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Tate Lang
 Unit No: 49
 Reference Elevations: 2161.00 ft (KB)
 2153.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8898

Outside

Press @ Run Depth: 65.26 psig @ 3470.00 ft (KB)
 Start Date: 2013.10.22 End Date: 2013.10.22
 Start Time: 12:01:32 End Time: 19:55:31
 Capacity: 8000.00 psig
 Last Calib.: 2013.10.22
 Time On Btm: 2013.10.22 @ 14:17:01
 Time Off Btm: 2013.10.22 @ 17:47:01

TEST COMMENT: Weak surface blow built to 3"
 Dead no blow back
 Weak surface blow built to 1/2"
 Dead no blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1709.18	96.31	Initial Hydro-static
1	22.71	95.45	Open To Flow (1)
47	48.77	98.13	Shut-In(1)
106	633.70	99.30	End Shut-In(1)
106	49.77	98.90	Open To Flow (2)
150	65.26	100.99	Shut-In(2)
210	622.68	101.55	End Shut-In(2)
210	1641.28	101.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
80.00	30%M 70%W with oil spots	0.84

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Gore Oil Company

22-9s-18w-Rooks KS

202 S St Francis
Wichita KS 67202

Carmichael #2

Job Ticket: 54843

DST#: 2

ATTN: Chuck Schmaltz

Test Start: 2013.10.22 @ 12:01:31

Tool Information

Drill Pipe:	Length: 3408.00 ft	Diameter: 3.80 inches	Volume: 47.81 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: 31.00 ft	Diameter: 2.25 inches	Volume: 0.15 bbl	Weight to Pull Loose: 59000.00 lb
			<u>Total Volume: 47.96 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	4.00 ft			String Weight: Initial 52000.00 lb
Depth to Top Packer:	3462.00 ft			Final 52000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	100.00 ft			
Tool Length:	127.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3440.00	
Hydraulic tool	5.00			3445.00	
Jars	5.00			3450.00	
Safety Joint	2.00			3452.00	
Packer	5.00			3457.00	27.00 Bottom Of Top Packer
Packer	5.00			3462.00	
Stubb	1.00			3463.00	
Perforations	7.00			3470.00	
Recorder	0.00	8897	Inside	3470.00	
Recorder	0.00	8898	Outside	3470.00	
Change Over Sub	1.00			3471.00	
Drill Pipe	63.00			3534.00	
Change Over Sub	1.00			3535.00	
Perforations	24.00			3559.00	
Bullnose	3.00			3562.00	100.00 Bottom Packers & Anchor

Total Tool Length: 127.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Gore Oil Company

22-9s-18w-Rooks KS

202 S St Francis
Wichita KS 67202

Carmichael #2

Job Ticket: 54843

DST#: 2

ATTN: Chuck Schmaltz

Test Start: 2013.10.22 @ 12:01:31

Mud and Cushion Information

Mud Type: Gel Chem

Cushion Type:

Oil API:

deg API

Mud Weight: 9.00 lb/gal

Cushion Length:

ft

Water Salinity:

35000 ppm

Viscosity: 55.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 8.39 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure:

psig

Salinity: 2250.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

Length ft	Description	Volume bbbl
80.00	30%M 70%W w ith oil spots	0.840

Total Length: 80.00 ft Total Volume: 0.840 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

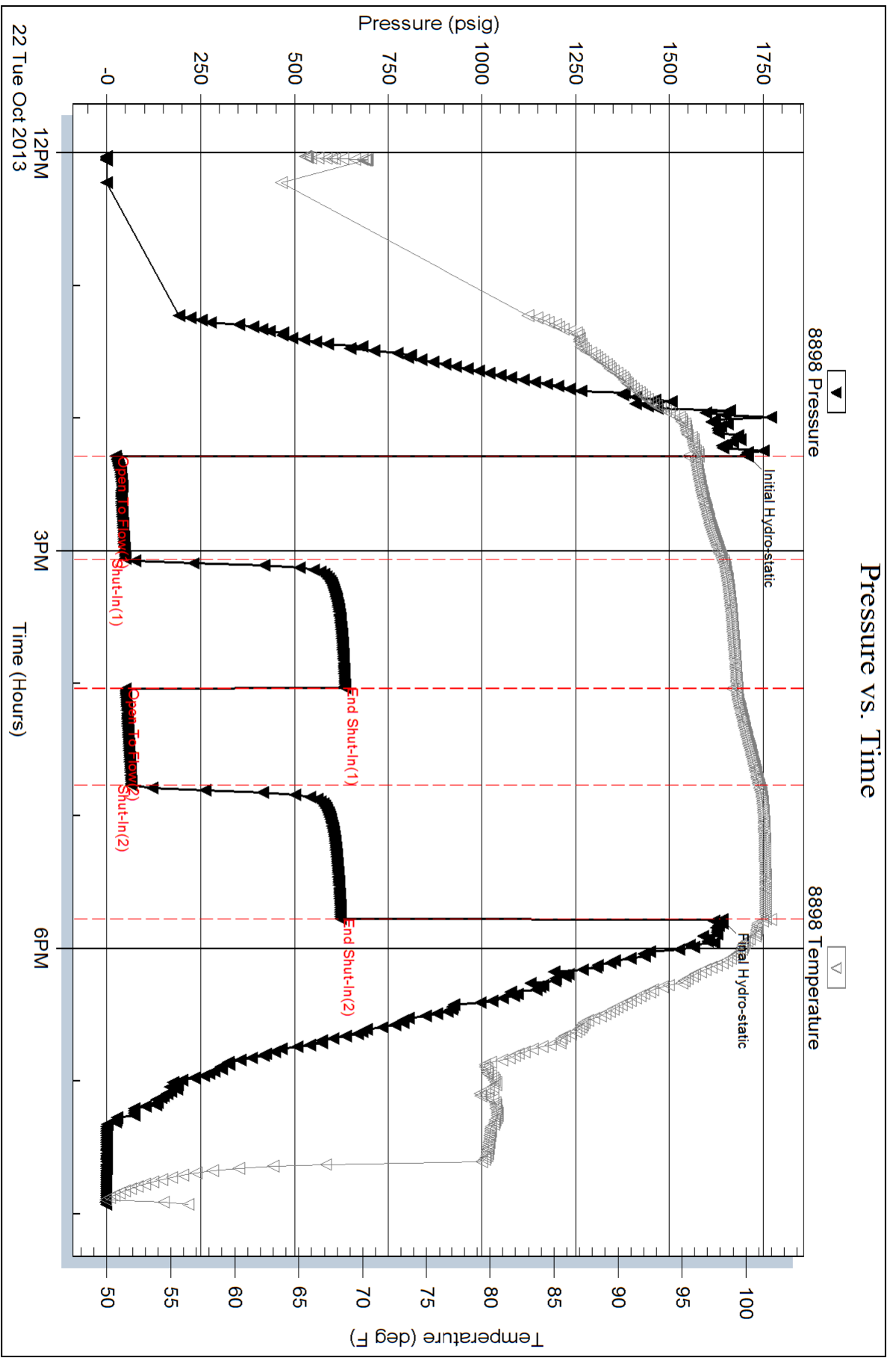
Recovery Comments:

Serial #: 8898

Outside Gore Oil Company

Carmichael #2

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 54843

Printed: 2013.10.25 @ 11:08:26

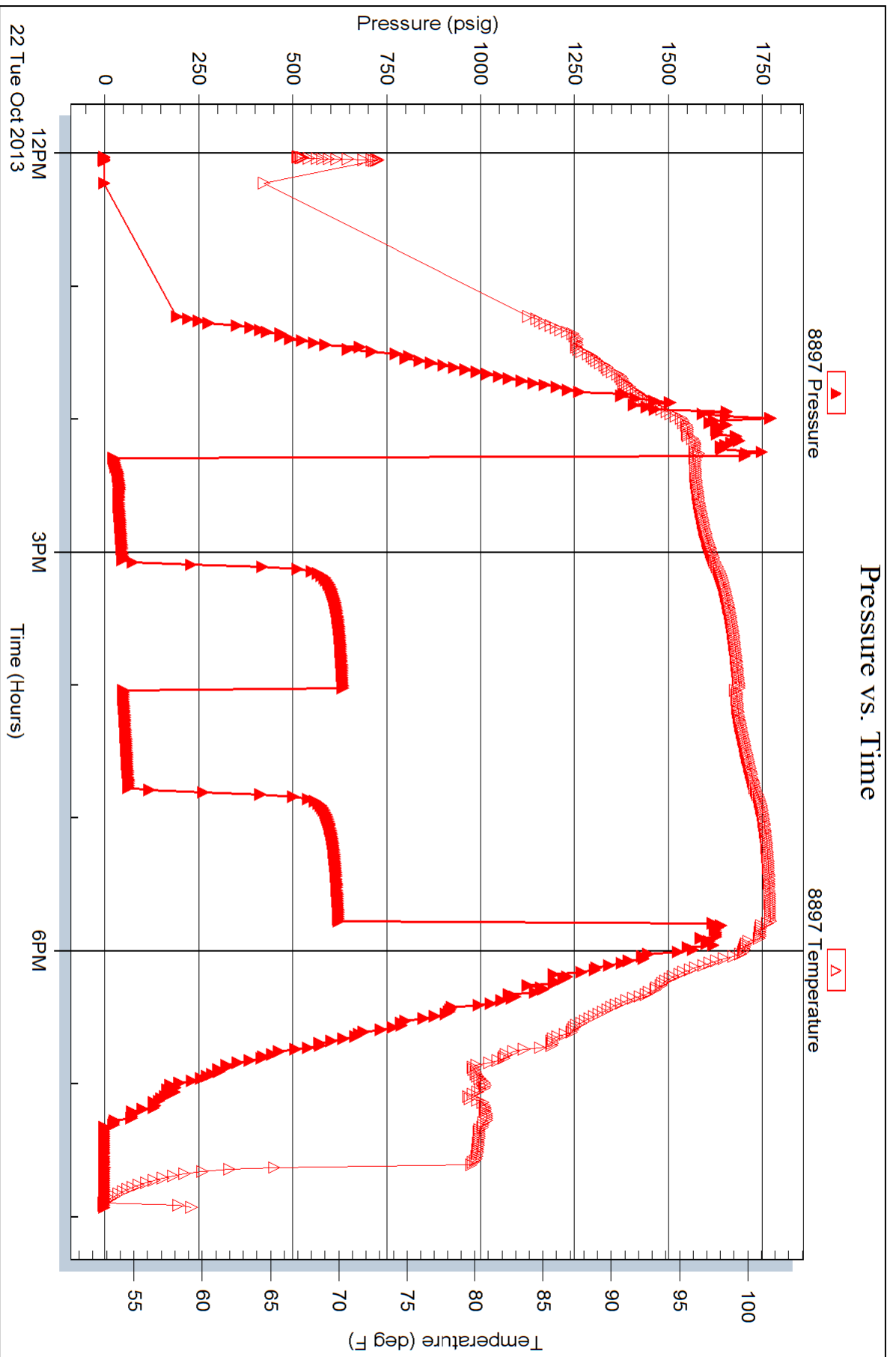
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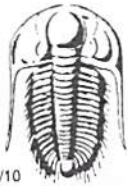
Inside

Gore Oil Company

Carmichael #2

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54842

Well Name & No. Carmichael #2 Test No. 1 Date 10-21-13
 Company Gore Oil Company Elevation 2161 KB 2153 GL
 Address 202 S St. Francis Wichita KS 67202
 Co. Rep / Geo. Chuck Schmalz Rig Maverick #108
 Location: Sec. 22 Twp. 9 Rge. 18 Co. Reeds State KS

Interval Tested 3412 3455 Zone Tested Lansing
 Anchor Length 43 Drill Pipe Run 3377 Mud Wt. 8.6
 Top Packer Depth 3468 Drill Collars Run 31 Vis 76
 Bottom Packer Depth 3412 Wt. Pipe Run 0 WL 7.2
 Total Depth 3455 Chlorides 1800 ppm System LCM 3#

Blow Description Good surface blow built to Tin.
Dead no blow back
B.O.B. In 25 mins
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>120</u>	<u>MCW</u>		<u>80</u>	<u>20</u>	
<u>300</u>	<u>SMCW with oil spots</u>		<u>95</u>	<u>5</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

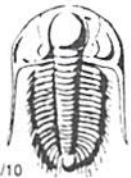
Rec Total 420 BHT 105 Gravity - API RW 160 @ 50 ° F Chlorides 6000 ppm

(A) Initial Hydrostatic 1689 Test 1150 T-On Location 12:25
 (B) First Initial Flow 23 Jars 250 T-Started 14:21
 (C) First Final Flow 143 Safety Joint 75 T-Open 17:29
 (D) Initial Shut-In 672 Circ Sub T-Pulled 20:59
 (E) Second Initial Flow 147 Hourly Standby 2 hrs 200 T-Out 23:21
 (F) Second Final Flow 238 Mileage 60 R/T 93
 (G) Final Shut-In 657 Sampler
 (H) Final Hydrostatic 1635 Straddle
 Shale Packer
 Shale Packer
 Extra Packer
 Extra Recorder
 Day Standby
 Accessibility

Initial Open 45 Ruined Shale Packer
 Initial Shut-In 60 Ruined Packer
 Final Flow 45 Extra Copies
 Final Shut-In 60 Sub Total 0
 Total 1768
 MP/DST Disc't
 Sub Total 1768

Approved By [Signature] Our Representative [Signature]

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. 54843

Well Name & No. Carmichael #2 Test No. 2 Date 10-22-13
 Company Gore Oil Company Elevation 2161 KB 2153 GL
 Address 202 S St Francis Wichita KS 67202
 Co. Rep / Geo. Chuck Schmalz Rig Maverick #108
 Location: Sec. 22 Twp. 9 Rge. 18 Co. Rooks State KS

Interval Tested 3462 3562 Zone Tested KC
 Anchor Length 100 Drill Pipe Run 3408 Mud Wt. 9.0
 Top Packer Depth 3458 Drill Collars Run 31 Vis 55
 Bottom Packer Depth 3462 Wt. Pipe Run 0 WL 8.4
 Total Depth 3562 Chlorides 2250 ppm System LCM 2F

Blow Description Weat surface blow built to 3in,
Dead no blow back
Neat surface blow built to 1/2in
Dead no blowback

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>80</u>	Feet of <u>mc w</u>	<u>with oil spots</u>	<u>70</u>	<u>30</u>	<u>0</u>
Rec Total <u>80</u>	BHT <u>102</u>	Gravity	API RW <u>231 @ 60° F</u>	Chlorides <u>3000</u>	ppm

(A) Initial Hydrostatic 1709 Test 1150 T-On Location 11:25
 (B) First Initial Flow 23 Jars 250 T-Started 12:01
 (C) First Final Flow 49 Safety Joint 75 T-Open 14:17
 (D) Initial Shut-In 634 Circ Sub T-Pulled 17:47
 (E) Second Initial Flow 50 Hourly Standby T-Out 19:53
 (F) Second Final Flow 65 Mileage 60 R/T x2 186 Comments loaded
 (G) Final Shut-In 622 Sampler Ruined Shale Packer
 (H) Final Hydrostatic 1641 Straddle Ruined Packer
 Shale Packer Extra Copies
 Extra Packer Sub Total 0
 Extra Recorder Total 1661
 Day Standby MP/DST Disc't
 Accessibility Sub Total 1661

Initial Open 45
 Initial Shut-In 60
 Final Flow 45
 Final Shut-In 60

Approved By _____ Our Representative [Signature]

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.

LEGEND

	Anhydrite								
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DRILLING TIME IN MINUTES
PER FOOT
Rate of Penetration Decreases

5" 10" 15" 20" 25"

DEPTH

LITHOLOGY

SAMPLE DESCRIPTIONS

OIL SHOWS

REMARKS

3000
10
20
30
40
3050
60
70
80
3100
90
10
20
30
40
3150
60
70
80
90
3200
10
20

ls: tan, brown-grey, fr.-med xth
if sil. foss, no vis of N.S. ls: grey,
dk grey, fr.-med xth, dense

ls: tan, grey-tan, fr.-med xth, foss
in part, sil. foss appear on impure
upper part, N.S. ls: tan, med xth, cherty
sil. sil. foss, few med xth, sil. sh.

ls: as above, few pcs wh, fr xth
ls, cherty, v. sil. sandy: sh: grey

ls: tan, grey, fr. med xth, foss in
part, no vis of, no show, ls: grey
fr xth, dense: ls: wh, fr xth, cherty

ls: tan, grey, fr.-med xth, sil. foss
no vis of, no show, sh: lt. grey, green

ls: as above, sh. grey, green, ls:
wh, tan, some wh, imbedded sh

mostly shale, grey, lt. grey, green
sil. sil. foss, mica. few pcs wh, lt. grey
sil. sil. foss, mica, shaly, fr xth, sil.

ls: brown, fr.-med xth, dense,
grey, fr med xth, mottled, sil. foss
sh & few pcs sil. stone as above N.S.

ls: tan, grey, fr.-med xth, some
mottled, sil. foss, few pcs sil. shaly
considerable grey, green, grey shale
some sil. is inclusion, wh, cherty
sil. stone -> sil. chert

ls: tan, lt. dk grey, mica - some
med xth, foss in part, no vis of
N.S. & few pcs tan, fresh opaque

ls: tan, grey, micro xth, dense

ls: grey, dk grey, fr xth, sil. foss
no vis of, no show

ls: as above, few pcs wh, lt. grey
fr xth, cherty ls, mottled in part

ls: tan, brown, brown-grey, wh. fr xth
dense, ls-tan, lt brown, fr.-med xth
sil. foss, no vis of, no show

ls: tan, lt. grey, wh. fr xth, dense
few pcs grey, fr.-med xth, mottled
sil. foss, no vis of N.S.

ls: as above, ls: brown, fr.-med xth
mottled, sil. foss, no vis of, ls: grey
wh. fr xth dense

ls: as above, dense, no vis of N.S.

ls: tan, lt. brown, fr.-med xth, sil.
foss, sil. foss, no vis of, some med xth
of, no show, fr. wh, sil. foss.

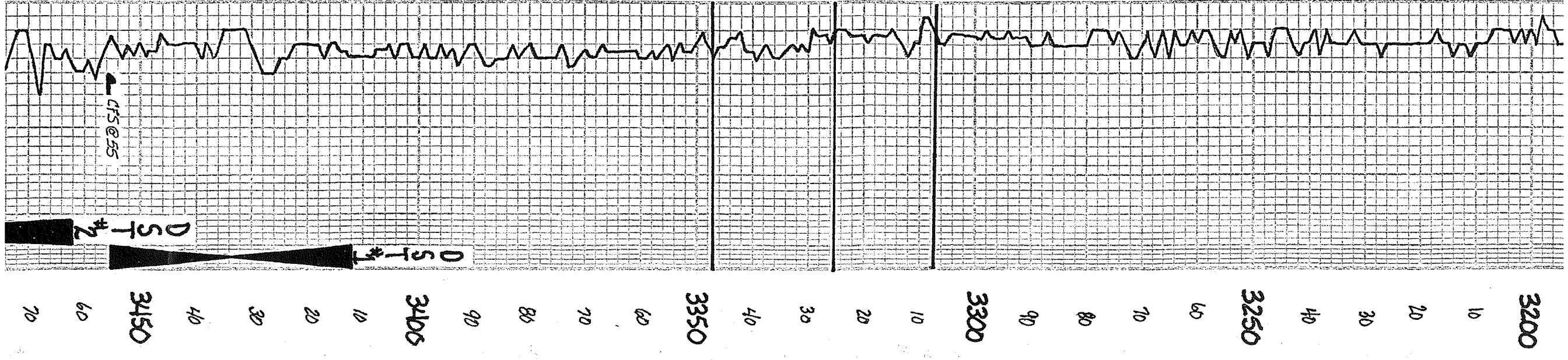
ls: tan, lt. brown, some grey, mica
med xth, dense, no vis of, no show

ls: tan, brown, fr.-med xth,
sil. foss, no vis of, no show, ls: grey
micro-med xth, sil. foss, mottled, N.S.

ls: tan, tan-grey, mica wh, dense
ls: brown, grey, fr.-med xth, sil.
foss, no vis of, no show

ls: as above, no vis of, no show

Topoka
3095 (-934)



sh. foss, no vis. ϕ , no show. ls: grey med.-med kh, sil. foss, mottled N.S.
 15: tan, tan-grey, micro-fx, dense brown, grey, fr. med kh, sil. foss, mottled in part, no vis. ϕ , N.S.
 15: as above, no show, few pcs w/ shale contact. sh: grey, grey-gm

15: tan, brown, grey, brown, fr. med kh, sil. foss, no vis. ϕ , no show
 15: as above, some mottled, no vis. ϕ , no show.
 15: tan, brown, micro-fx, dense

15: off. wh, tan, fr. med kh, tr. sand pr. interbed. in sandy ps, 2 pcs w/ vis. spongy brown sil., tr. pr. stain, pr. cut no color
 15: tan, brown, grey, v. fm. sc. fine med kh, sil. foss, no vis. ϕ , no show

15: tan, brown, micro-fx, dense
 Δ tan, brown, fresh, spague
 15: as above, no vis. ϕ , no show
 sh: black, dk. grey
 15: tan, brown, v. fm. fresh, dense

sh: grey, grey-green, calc. in part, few pcs sil. mica.
 15: tan, brown, off-white, mostly fine, no vis. ϕ , no show, spl. pcs
 15: off. wh, med kh, mottled, tr. pr. interbed. ϕ , no show, tr. stain, orange fresh, sp. - semi. trans

15: wh, off. wh, tan, fr. med kh, dense, Δ as above
 15: tan, brown, grey, fr. med kh, mottled, sil. foss, no vis. ϕ , no show
 sh: grey, green-grey, calc.

15: off. wh, tan, fr. brown, fr. med kh, dense, 2 pcs ls: wh, finely calcitic w/ pr. interbed. ϕ , tr. off. ss. FO on break, pr. stain, no odor. Δ tan, tan-orange fresh, sp. - semi. trans
 15: wh, off. wh, tan, fr. med kh, dense, Δ as above

15: tan, brown, grey, fr. med kh, dense w/ sh: fr. grey, green, some sil. silty
 15: wh, tan, fr. grey, fr. med kh, dense w/ sh: fr. grey, green, some sil. silty

15: tan, brown, grey, micro-some med kh, sil. foss, dense
 15: tan, brown, fr. med kh, v. sand pr. interbed. ϕ , tr. stain FO, pr. stain, tr. pr. stain, no odor - 2-3 pcs
 15: tan, brown, fr. med kh, no vis. ϕ , no show, tr. off. wh, tan, orange-fresh

15: tan, brown, grey, fr. med kh, dense, no vis. ϕ , no show
 15: tan, H. brown, fr. med kh, sand pr. interbed. ϕ , tr. off. ss. FO on break, pr. stain, 15: wh, tan, fr. med kh, ls: green, fine-grained, sand pr. stain, on break, 90 cut, scatter, tr. stain, very fine, odor. Δ tan, fresh, spague
 15: tan, H. brown, micro-fx, wh, sh.

15: tan, brown, grey, fr. med kh, tr. foss, no vis. ϕ , no show, ls: off. wh, tan, fr. wh, sil. cherty, no vis. ϕ , N.S.
 15: tan, brown, grey, micro-fx, wh, no vis. ϕ , N.S. 15: grey, fr. med kh, mottled, sil. foss, no vis. ϕ , N.S. shade: grey, dk. grey \rightarrow black

Huebner Sh.
 3307 (-1146)

Toronto
 3325 (-1164)

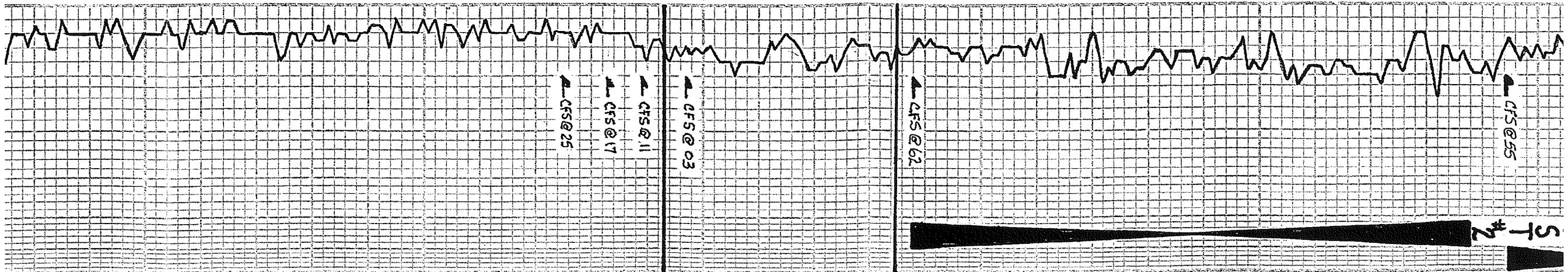
Lansing
 3347 (-1186)

DST #1
 (3412 - 3455)
 45" - 60" - 45" - 60"

IFP: SURF BLDG BLDG TO 3"
 FFP: B08 IN 25"
 Recovery:
 120' MCW
 (20% M, 80% W)
 320' SNCW w/oil spls

CHL: 60,000 PPM
 WUB: 2,250 PPM
 HSP: 1689# 163S #
 FP: 23/143# 147/238
 SIP: 672# 657 #
 BHT: 105 °F

DST #2
 (3462 - 3562)
 45" - 60" - 45" - 60"
 IFP: SURF BLDG BLDG TO 3"
 FFP: SURF BLDG BLDG TO 1/2"

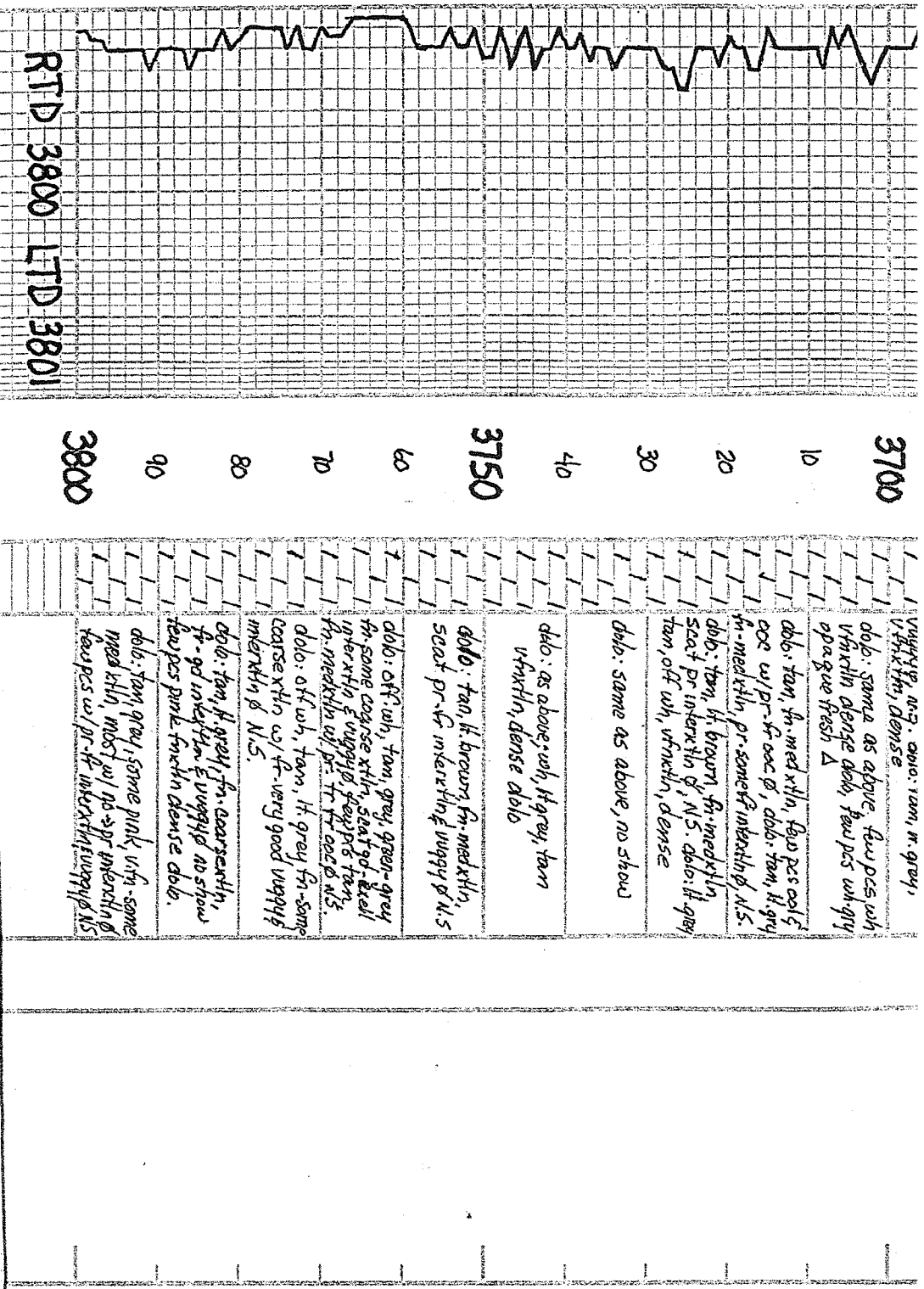


3450	15: tan, lt. brown, micro. fm. w/fin. qtz
60	15: tan, brown, grey, fm. med. kh. fr. loss, no vis of, no show. 15: dk. tan, tan, w/fin. sh. cherty, no vis of N.S.
70	15: tan, brown, grey, micro. fr. kh. no vis of N.S. 15: grey, fm. med. kh. mottled, sil. loss, no vis of, N.S. shale: grey, dk. grey → black
80	15: tan, brown, grey, dk. grey, micro. fr. kh. dense, qtz pcs 15: dk. tan, tan, fr. kh. sh. cherty, fr. w/fin. qtz, no show, no oil stain, v. pr. cut, N.S. or 6, no odor
90	15: tan, brown, dk. grey, micro. fr. kh. dense, considerable Δ. brown, grey-brown, op. semi. trans. fresh w/ sh. grey, green, grey, some calc.
3500	15: wh. off wh. tan, fr. some med. kh. sand pr. fr. fine wavy & inter. thin of sand pr. fr. fr. dk. stain, pr. fr. show cut. USSFO, few gas bubbles on bit. v. fr. odor
10	15: wh. tan, fr. med. kh. v. sil. calc & calc. fr. calcite, fr. pr. calc. sand pr. fr. inter. kh. of, sand pr. fr. fr. dk. of, some sand & bubbles USSFO & gas bubbles on bit, v. fr. odor
20	15: tan, brown, grey, micro. fr. kh. dense, few gas wh. off wh. & 15 w/ pr. inter. kh. & sand, pr. brown oil residue, USS "scummy" brown oil, N.S. or 6, no odor
30	15: tan, brown, fr. med. kh. sil. loss
40	15: tan, brown, fr. med. kh. sil. loss
50	15: tan, brown, fr. med. kh. sil. loss
60	15: tan, brown, fr. med. kh. sil. loss
70	15: tan, brown, fr. med. kh. sil. loss
80	15: tan, brown, fr. med. kh. sil. loss
90	15: tan, brown, fr. med. kh. sil. loss
3600	15: off wh. tan, some grey, fm. med. kh. no vis of. sh. grey, brown, red, yellow few gas w/ imbedded sand grains no show
10	sh: grey, green, brown, shale, yellow sandy, 5, 55; med. grained, rounded, yellow shale matrix, no B, no show, no odor, considerable sh. brown, red, grey, green yellow-green, oil 15 as above, v. some sandy, sil. loss, no show @ 03
20	as above w/ globe: tan, fr. med. kh. fr. pr. inter. kh. & sand, oil residue & hwy dk. oil, no show free oil, no odor @ 11
30	15: tan, brown, fr. med. kh. sil. loss
40	15: tan, brown, fr. med. kh. sil. loss
50	15: tan, brown, fr. med. kh. sil. loss
60	15: tan, brown, fr. med. kh. sil. loss
70	15: tan, brown, fr. med. kh. sil. loss
80	15: tan, brown, fr. med. kh. sil. loss
90	15: tan, brown, fr. med. kh. sil. loss
3650	15: tan, brown, fr. med. kh. sil. loss
10	15: tan, brown, fr. med. kh. sil. loss
20	15: tan, brown, fr. med. kh. sil. loss
30	15: tan, brown, fr. med. kh. sil. loss
40	15: tan, brown, fr. med. kh. sil. loss
50	15: tan, brown, fr. med. kh. sil. loss
60	15: tan, brown, fr. med. kh. sil. loss
70	15: tan, brown, fr. med. kh. sil. loss
80	15: tan, brown, fr. med. kh. sil. loss
90	15: tan, brown, fr. med. kh. sil. loss
3700	15: tan, brown, fr. med. kh. sil. loss
10	15: tan, brown, fr. med. kh. sil. loss
20	15: tan, brown, fr. med. kh. sil. loss

DST #2
 (3462-3562)
 45" - 60" 45" - 60"
 IFF: SURF BLOW BLDG TO 3"
 FFP: SURF BLOW BLDG TO 1/2"
RECOVERY:
 80' MCW w/ oil spls
 (30% MUD, 70% WTR)
 CHL: 35,000 PPM
 MUD: 2,250 PPM
 HSP: 1709# 1641#
 FP: 23/49# 50/65#
 SIP: 6341# 622#
 BHT: 102°F

BKC
 3565 (-1404)

Arbuckle
 3607 (-1446)



DRILLING TIME Minutes/Foot	DEPTH	LITHOLOGY	SAMPLE DESCRIPTIONS	OIL SHOWS	REMARKS
5"					
10"					
15"					
20"					
25"					
	3800				
	90				
	80				
	70				
	60				
	3750				
	40				
	30				
	20				
	10				
	3700				

CONTRACTOR MAVERICK DRLE. Co.
 LEASE CARMICHAEL IP _____
 ELEVATION 2161 KB RTD 3800

LOCATION 1400' ENL, 2970' FEL
 SEC 22 TWP 9S RNG 18W
 COUNTY ROOKS STATE KANSAS