



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1209690
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: _____

1209690

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
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

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> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	TDI, Inc.
Well Name	Stephanie 1
Doc ID	1209690

Perforations

Shots Per Foot	Perforation Record	Material Record	Depth
4	3423'-3426'	250 gals., 15%	
4	3343'-3346'	250 gals., 15%	
4	3296'-3300'	250 gals., 15% & 1000 gals., 20%	
4	3250'-3255'	250 gals., 15% & 2250 gals., 20%	
4	3233'-3236'	250 gals., 15%	
4	3196'-3198'	250 gals., 15%	



DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

Stephanie #1

10-10s-17w Rooks KS

Start Date: 2014.05.04 @ 17:43:00

End Date: 2014.05.05 @ 00:43:45

Job Ticket #: 54038 DST #: 1

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

Printed: 2014.05.06 @ 14:34:19



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TDI Inc
1310 Bison Rd
Hays KS 67601
ATTN: Herb Deines

10-10s-17w Rooks KS
Stephanie #1
Job Ticket: 54038 **DST#: 1**
Test Start: 2014.05.04 @ 17:43:00

GENERAL INFORMATION:

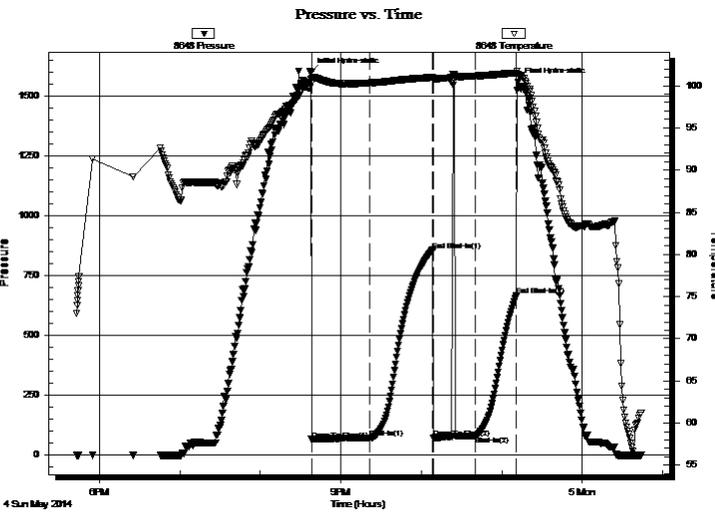
Formation: **Toronto - LKC D**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 20:38:00
 Time Test Ended: 00:43:45
 Interval: **3152.00 ft (KB) To 3270.00 ft (KB) (TVD)**
 Total Depth: 3270.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Cody Bloedorn
 Unit No: 73
 Reference Elevations: 2022.00 ft (KB)
 2012.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 8648

Inside

Press@RunDepth: 80.96 psig @ 3258.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.05.04 End Date: 2014.05.05 Last Calib.: 2014.05.05
 Start Time: 17:43:05 End Time: 00:43:44 Time On Btm: 2014.05.04 @ 20:37:45
 Time Off Btm: 2014.05.04 @ 23:12:00

TEST COMMENT: 45 - IF- 1 1/2" blow
 45 - IS- No return
 30 - FF- No blow for 15 minutes, flushed tool, w eak return fading in and out
 30 - FS- No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1600.95	100.75	Initial Hydro-static
1	65.15	100.28	Open To Flow (1)
44	72.11	100.33	Shut-In(1)
91	856.87	100.98	End Shut-In(1)
92	72.54	100.79	Open To Flow (2)
123	80.96	101.16	Shut-In(2)
154	667.91	101.51	End Shut-In(2)
155	1558.85	101.36	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
40.00	VSOCM, 1%O, 99%M	0.56

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc
1310 Bison Rd
Hays KS 67601
ATTN: Herb Deines

10-10s-17w Rooks KS
Stephanie #1
Job Ticket: 54038 **DST#: 1**
Test Start: 2014.05.04 @ 17:43:00

Tool Information

Drill Pipe:	Length: 3156.00 ft	Diameter: 3.80 inches	Volume: 44.27 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	49000.00 lb
			<u>Total Volume: 44.27 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	25.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3152.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	118.00 ft				
Tool Length:	139.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

Tool Description

Length (ft) Serial No. Position Depth (ft) Accum. Lengths

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3132.00	
Shut In Tool	5.00			3137.00	
Hydraulic tool	5.00			3142.00	
Packer	5.00			3147.00	21.00 Bottom Of Top Packer
Packer	5.00			3152.00	
Stubb	1.00			3153.00	
Perforations	10.00			3163.00	
Change Over Sub	1.00			3164.00	
Drill Pipe	93.00			3257.00	
Change Over Sub	1.00			3258.00	
Recorder	0.00	8648	Inside	3258.00	
Recorder	0.00	8940	Outside	3258.00	
Perforations	9.00			3267.00	
Bullnose	3.00			3270.00	118.00 Bottom Packers & Anchor

Total Tool Length: 139.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc **10-10s-17w Rooks KS**
 1310 Bison Rd **Stephanie #1**
 Hays KS 67601 Job Ticket: 54038 **DST#: 1**
 ATTN: Herb Deines Test Start: 2014.05.04 @ 17:43:00

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:	ppm
Viscosity: 57.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.39 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2500.00 ppm			
Filter Cake: 3.00 inches			

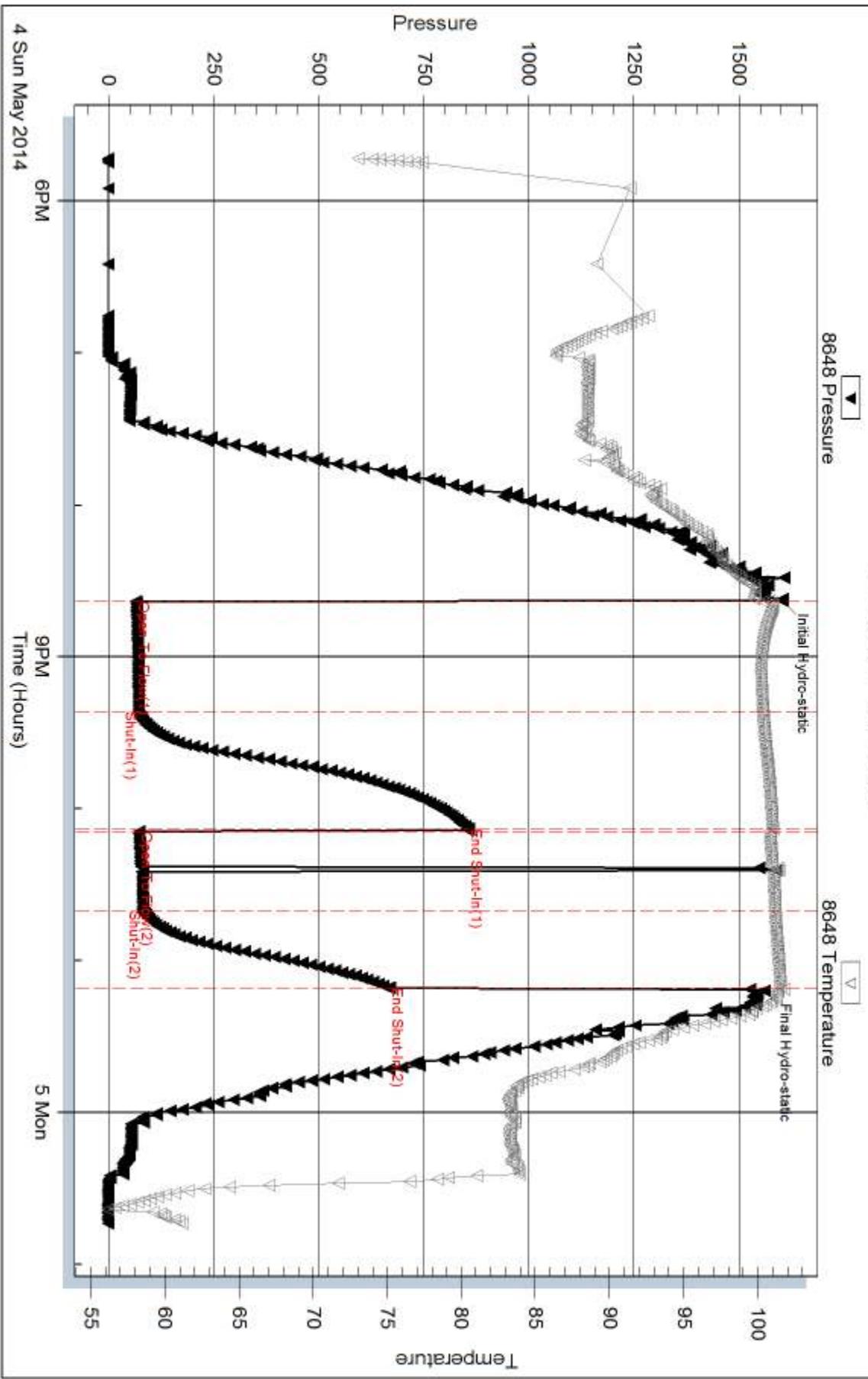
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
40.00	VSOCM, 1%O, 99%M	0.561

Total Length: 40.00 ft Total Volume: 0.561 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Pressure vs. Time

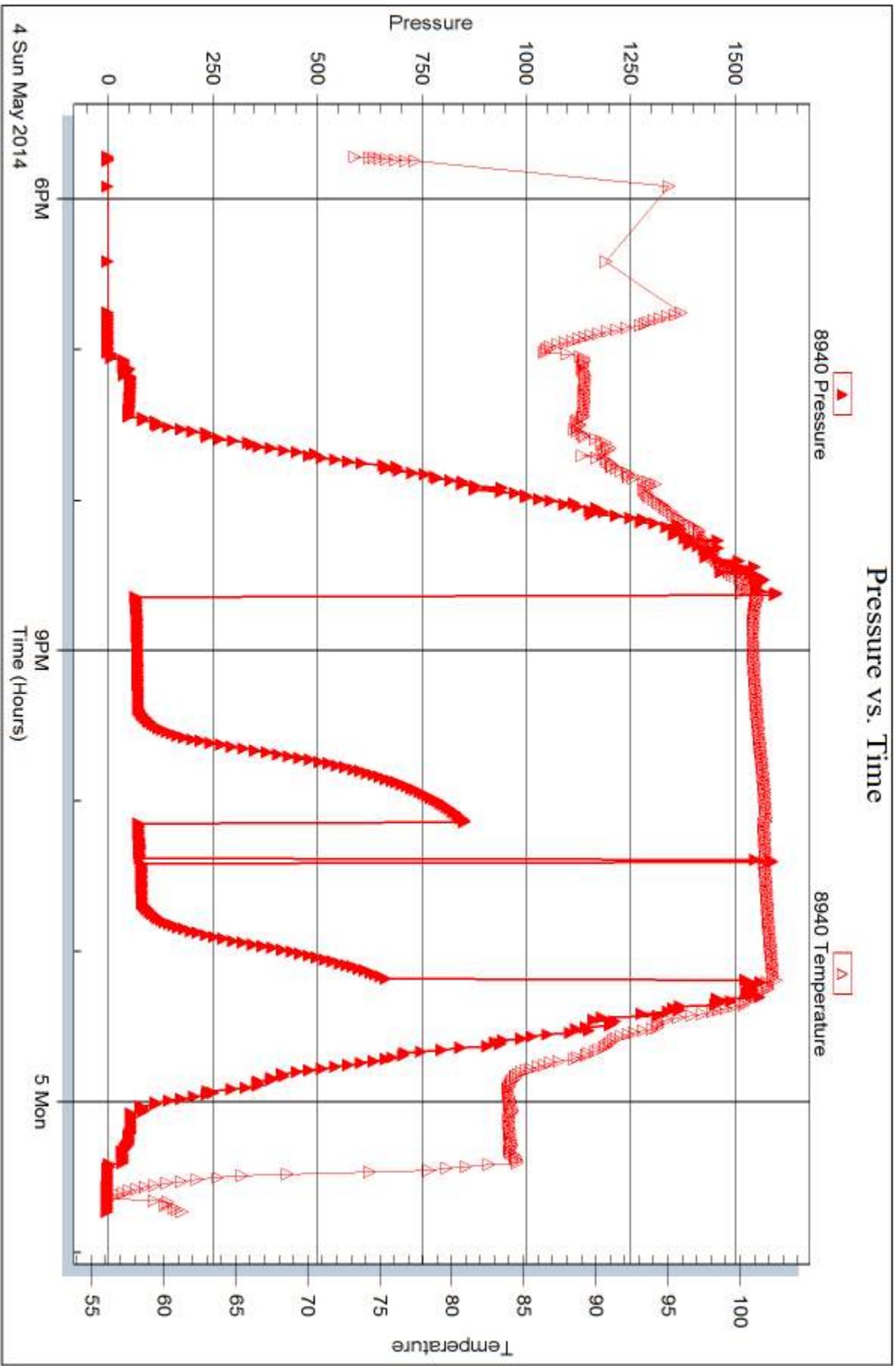


Serial #: 8940

Outside TDI Inc

Stephanie #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54038

Printed: 2014.05.06 @ 14:34:20



DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

Stephanie #1

10-10s-17w Rooks KS

Start Date: 2014.05.05 @ 13:31:00

End Date: 2014.05.05 @ 20:07:00

Job Ticket #: 54039 DST #: 2

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

Printed: 2014.05.06 @ 14:33:47



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI Inc
 1310 Bison Rd
 Hays KS 67601
 ATTN: Herb Deines

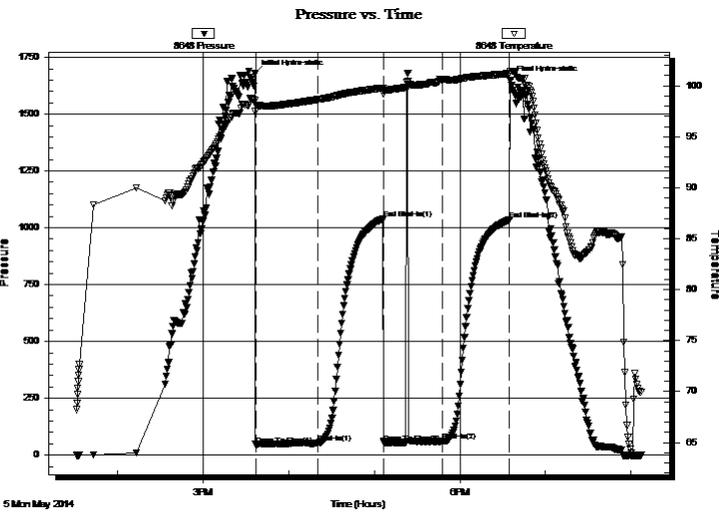
10-10s-17w Rooks KS
Stephanie #1
 Job Ticket: 54039 **DST#: 2**
 Test Start: 2014.05.05 @ 13:31:00

GENERAL INFORMATION:

Formation: **LKC "G-J"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 15:36:30 Tester: Cody Bloedorn
 Time Test Ended: 20:07:00 Unit No: 73
 Interval: **3298.00 ft (KB) To 3393.00 ft (KB) (TVD)** Reference Elevations: 2022.00 ft (KB)
 Total Depth: 3393.00 ft (KB) (TVD) 2012.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 8648 Inside
 Press@RunDepth: 60.86 psig @ 3368.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2014.05.05 End Date: 2014.05.05 Last Calib.: 2014.05.05
 Start Time: 13:31:05 End Time: 20:06:59 Time On Btm: 2014.05.05 @ 15:36:15
 Time Off Btm: 2014.05.05 @ 18:35:30

TEST COMMENT: 45 - IF- 3/4" blow
 45 - IS- No return
 45 - FF- No blow for 15 minutes, flushed tool, surged and died
 45 - FS- No return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1677.92	98.54	Initial Hydro-static
1	46.43	97.49	Open To Flow (1)
44	52.10	98.66	Shut-In(1)
90	1040.18	99.79	End Shut-In(1)
91	55.26	99.50	Open To Flow (2)
132	60.86	100.59	Shut-In(2)
179	1035.42	101.21	End Shut-In(2)
180	1649.53	101.43	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
20.00	WM - Oil spots, 5%W, 95%M	0.28

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc
1310 Bison Rd
Hays KS 67601
ATTN: Herb Deines

10-10s-17w Rooks KS
Stephanie #1
Job Ticket: 54039 **DST#: 2**
Test Start: 2014.05.05 @ 13:31:00

Tool Information

Drill Pipe:	Length: 3308.00 ft	Diameter: 3.80 inches	Volume: 46.40 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	49000.00 lb
			<u>Total Volume: 46.40 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	31.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3298.00 ft			Final	45000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	95.00 ft				
Tool Length:	116.00 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			3278.00	
Shut In Tool	5.00			3283.00	
Hydraulic tool	5.00			3288.00	
Packer	5.00			3293.00	21.00 Bottom Of Top Packer
Packer	5.00			3298.00	
Stubb	1.00			3299.00	
Perforations	5.00			3304.00	
Change Over Sub	1.00			3305.00	
Drill Pipe	62.00			3367.00	
Change Over Sub	1.00			3368.00	
Recorder	0.00	8648	Inside	3368.00	
Recorder	0.00	8940	Outside	3368.00	
Perforations	22.00			3390.00	
Bullnose	3.00			3393.00	95.00 Bottom Packers & Anchor

Total Tool Length: 116.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc
1310 Bison Rd
Hays KS 67601
ATTN: Herb Deines

10-10s-17w Rooks KS
Stephanie #1
Job Ticket: 54039
Test Start: 2014.05.05 @ 13:31:00

DST#: 2

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:	ppm
Viscosity: 45.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.59 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3300.00 ppm			
Filter Cake: 3.00 inches			

Recovery Information

Recovery Table

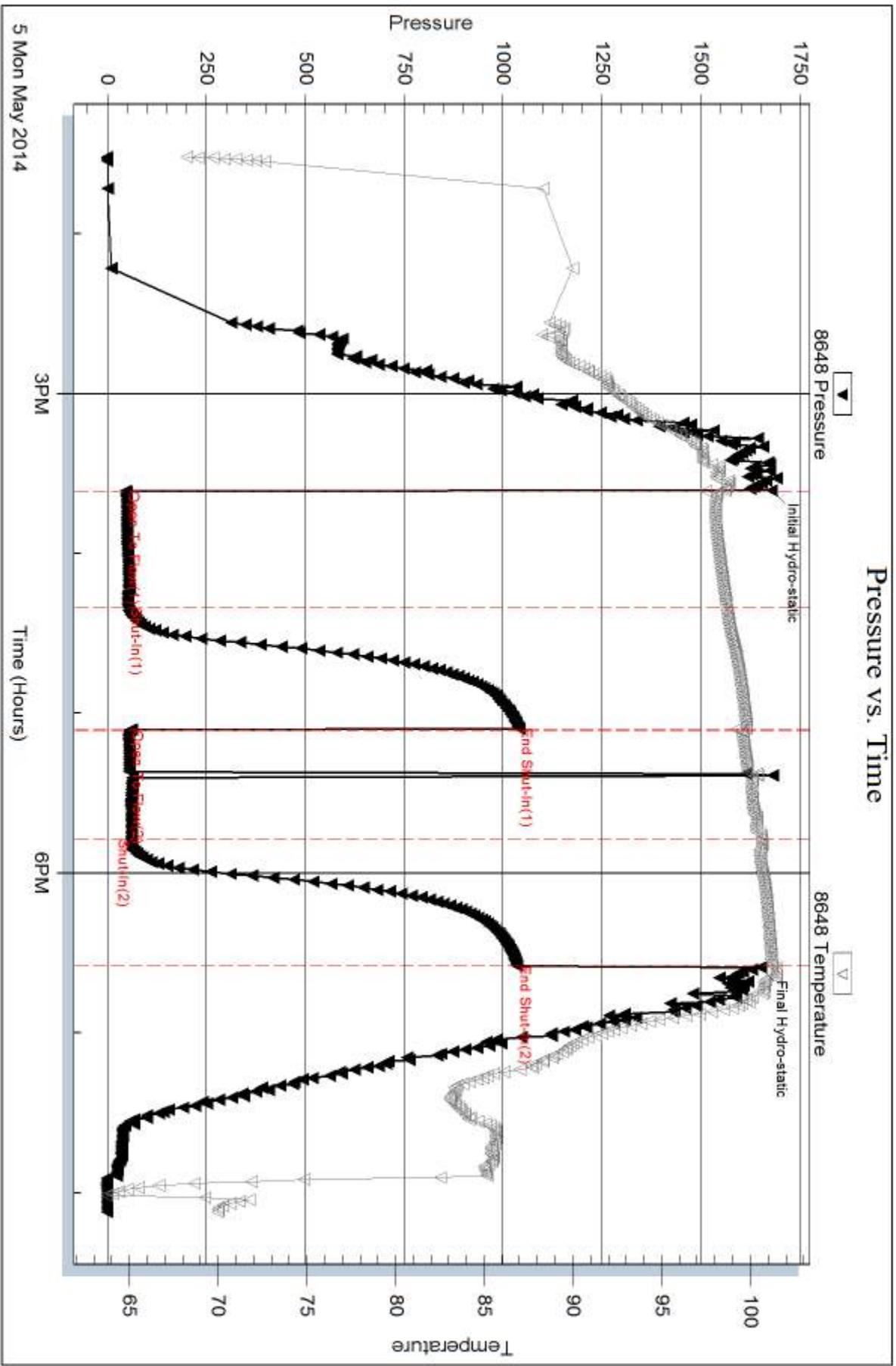
Length ft	Description	Volume bbl
20.00	WM - Oil spots, 5%W, 95%M	0.281

Total Length: 20.00 ft Total Volume: 0.281 bbl

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

Laboratory Name: Laboratory Location:

Recovery Comments:

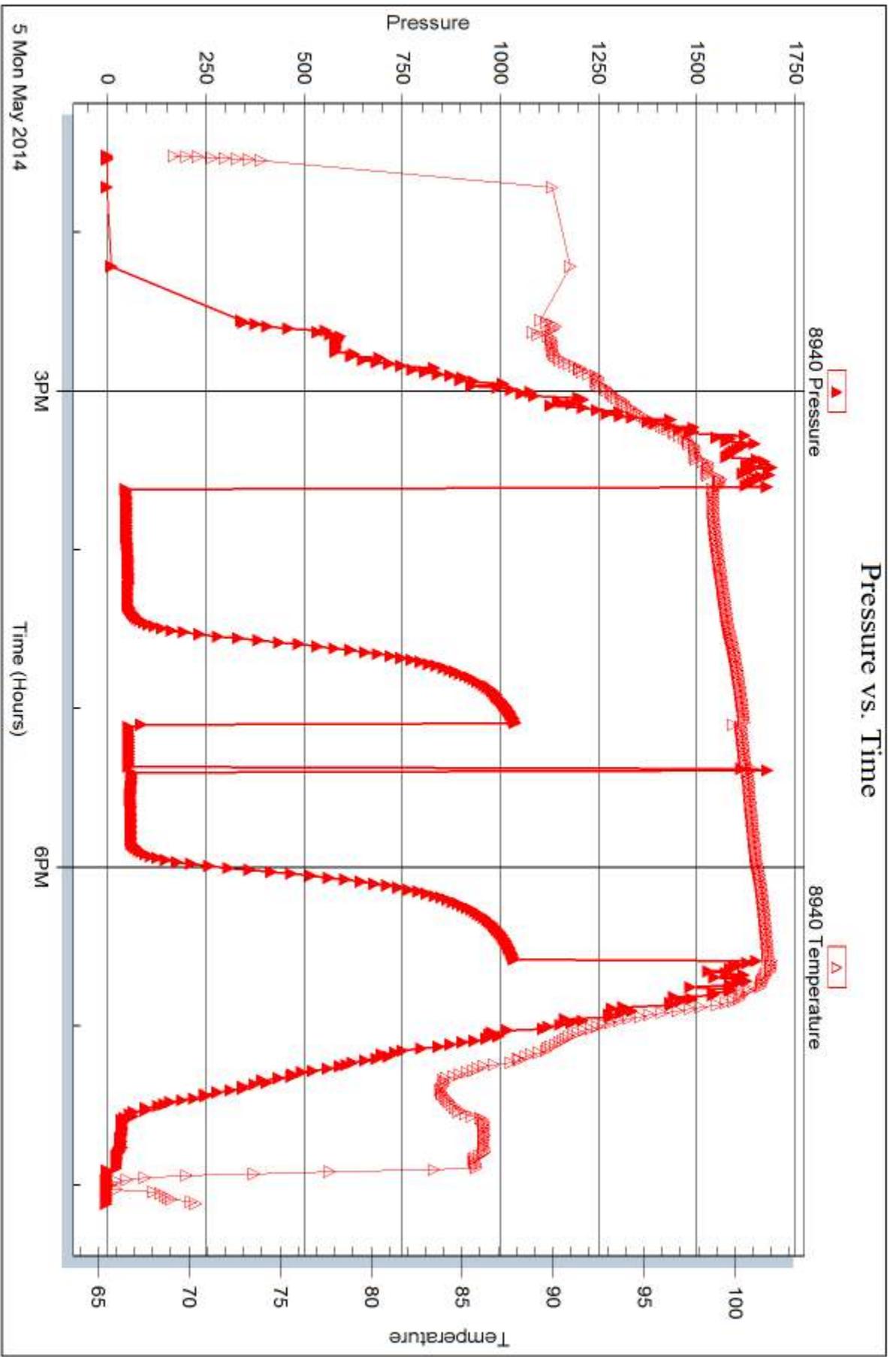


Serial #: 8940

Outside TDI Inc

Stephanie #1

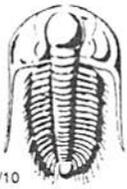
DST Test Number: 2



Triobite Testing, Inc

Ref. No: 54039

Printed: 2014.05.06 @ 14:33:49



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54038

Well Name & No. Stephanie #1 Test No. 1 Date 5-4-14
 Company TDI Inc Elevation 20²² KB 20¹² GL
 Address 1310 Bison Rd, Hays KS, 67601
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 10 Twp. 10s Rge. 17w Co. Rooks State KS

Interval Tested 3152-3270 Zone Tested Toronto - 2KC "D"
 Anchor Length 118' Drill Pipe Run 3156' Mud Wt. 9.0
 Top Packer Depth 3147 Drill Collars Run — Vis 57
 Bottom Packer Depth 3152 Wt. Pipe Run — WL 6.4
 Total Depth 3270 Chlorides 2,500 ppm System LCM 3#

Blow Description IF- 1 1/2" blow
ISI- No return
FF- No blow for 15 min. Flushed tool. Weak surface blow
FSI- No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>40</u>	<u>USOCM</u>	<u>1</u>		<u>99</u>	
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 40' BHT 1010 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic <u>1600</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>1723</u>
(B) First Initial Flow <u>65</u>	<input type="checkbox"/> Jars	T-Started <u>1743</u>
(C) First Final Flow <u>72</u>	<input type="checkbox"/> Safety Joint	T-Open <u>2038</u>
(D) Initial Shut-In <u>856</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>2312</u>
(E) Second Initial Flow <u>72</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1243</u>
(F) Second Final Flow <u>80</u>	<input checked="" type="checkbox"/> Mileage <u>61RT</u> <u>94.55</u>	Comments
(G) Final Shut-In <u>667</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1558</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>45</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>30</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>30</u>	<input type="checkbox"/> Day Standby	Total <u>1244.55</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1244.55</u>	

Approved By _____ Our Representative Cody Black

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. 54039

Well Name & No. Stephanie #1 Test No. 2 Date 5-5-14
 Company TDI Inc Elevation 2022 KB 2012 GL
 Address 1310 Bison Rd, Hays KS, 67601
 Co. Rep / Geo. Herb Demes Rig Southwind #1
 Location: Sec. 10 Twp. 10s Rge. 17w Co. Rooks State KS

Interval Tested 3298-3393 Zone Tested LKC "6-5"
 Anchor Length 95' Drill Pipe Run 3308' Mud Wt. 9.1
 Top Packer Depth 3293 Drill Collars Run — Vis 45
 Bottom Packer Depth 3298 Wt. Pipe Run — WL 7.6
 Total Depth 3393 Chlorides 3,300 ppm System LCM 3

Blow Description IF- 3/4" blow
ISI - No return
FF - No blow for 15 min. Flushed tool. Surged & died
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>20</u>	<u>W.M. 100 - oil spots</u>			<u>5</u>	<u>95</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 20' BHT 101° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1677 Test 1150 T-On Location 1309
 (B) First Initial Flow 46 Jars — T-Started 1331
 (C) First Final Flow 52 Safety Joint — T-Open 1537'
 (D) Initial Shut-In 1040 Circ Sub — T-Pulled 1837
 (E) Second Initial Flow 55 Hourly Standby — T-Out 2008
 (F) Second Final Flow 60 Mileage 61 RTx2 189.10 Comments Loaded tools
 (G) Final Shut-In 1035 Sampler — 5-6-14 @ 11:54 am
 (H) Final Hydrostatic 1649 Straddle —

Ruined Shale Packer —
 Ruined Packer —
 Extra Copies —
 Initial Open 45 Extra Packer — Sub Total 0
 Initial Shut-In 45 Extra Recorder — Total 1339.10
 Final Flow 45 Day Standby — MP/DST Disc't —
 Final Shut-In 45 Accessibility —
 Sub Total 1339.10

Approved By — Our Representative Cody Bloodon

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.

OPERATOR

Company: TDI, INC.
 Address: 1310 BISON ROAD
 HAYS, KANSAS 67601

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-628-2593
 Well Name: STEPHANIE # 1
 Location: SW NW SE SW, Sec.10-10s-17w API: 15-163-24,200-00-00
 Pool: WILDCAT Field: UNNAMED
 State: KANSAS Country: USA



Scale 1:240 Imperial

Well Name: STEPHANIE # 1
 Surface Location: SW NW SE SW, Sec.10-10s-17w
 Bottom Location:
 API: 15-163-24,200-00-00
 License Number: 4787
 Spud Date: 4/30/2014 Time: 2:00 PM
 Region: ROOKS COUNTY
 Drilling Completed: 5/6/2014 Time: 2:06 PM
 Surface Coordinates: 916' FSL & 1617' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 2012.00ft
 K.B. Elevation: 2022.00ft
 Logged Interval: 2100.00ft To: 3646.00ft
 Total Depth: 3646.00ft
 Formation: LANSING-KANSAS CITY
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.2081733 Latitude: 39.1930971
 N/S Co-ord: 916' FSL
 E/W Co-ord: 1617' FWL

LOGGED BY

Company: SOLUTIONS CONSULTING, INC.
 Address: 108 W 35TH
 HAYS, KS 67601
 Phone Nbr: (785) 639-1337
 Logged By: GEOLOGIST Name: HERB DEINES

CONTRACTOR

Contractor: SOUTHWIND DRILLING, INC.
 Rig #: 1
 Rig Type: MUD ROTARY
 Spud Date: 4/30/2014 Time: 2:00 PM
 TD Date: 5/6/2014 Time: 2:06 PM
 Rig Release: 5/7/2014 Time: 10:00 AM

ELEVATIONS

K.B. Elevation: 2022.00ft Ground Elevation: 2012.00ft
 K.B. to Ground: 10.00ft

NOTES

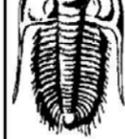
RECOMMENDATION TO RUN PRODUCTION CASING TO TEST NUMEROUS LKC BENCHES WITH SHOWS OF HYDROCARBONS

OPEN HOLE LOGGING BY PIONEER ENERGY SERVICES: DUAL INDUCTION LOG, DUAL COMPENSATED POROSITY LOG, MICRORESISTIVITY LOG

DRILL STEM TESTING BY TRILOBITE TESTING INC: TWO (2) COVENTIONAL TESTS

FORMATION TOPS COMPARISON AND CHRONOLOGY OF DAILY ACTIVITY

	STEPHANIE # 1	BICE EAST #1-3	VIOLA # 1
	SW NW SE SW	SW SW SW	SW NE NW SE
	SEC.10-10S-17W	SEC.10-10-17W	SEC.22-10-17W
	2012'GL 2022'KB	KB 2023'	KB 2090'
	<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
	Anhydrite	1286 +736	+756
	B-Anhydrite	1320 +702	+718
	Topeka	2932 -910	- 933
		- 918	



TRILOBITE TESTING, INC.

TDI Inc
1310 Bison Rd
Hays KS, 67601
ATTN: Herb Deines

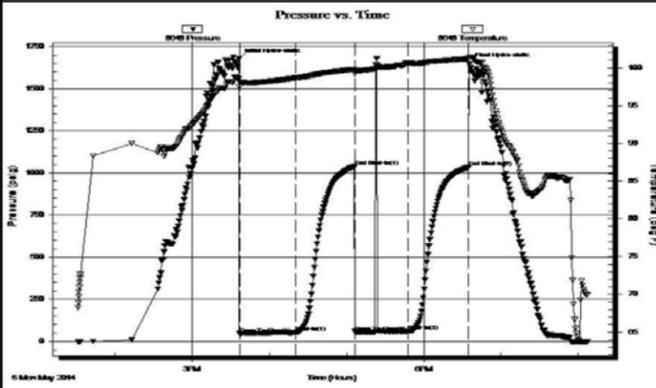
10-10s-17w Rooks KS
Stephanie #1
Job Ticket: 54039 **DST#: 2**
Test Start: 2014.05.05 @ 13:31:00

GENERAL INFORMATION:

Formation: **LKC "G-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:36:30
Time Test Ended: 20:07:00
Test Type: Conventional Bottom Hole (Reset)
Tester: Cody Bloedorn
Unit No: 73
Interval: **3298.00 ft (KB) To 3393.00 ft (KB) (TVD)**
Total Depth: 3393.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2022.00 ft (KB)
2012.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8648 Inside
Press@RunDepth: 60.86 psig @ 3368.00 ft (KB)
Start Date: 2014.05.05 End Date: 2014.05.05
Start Time: 13:31:05 End Time: 20:06:59
Capacity: 8000.00 psig
Last Calib.: 2014.05.05
Time On Btm: 2014.05.05 @ 15:36:15
Time Off Btm: 2014.05.05 @ 18:35:30

TEST COMMENT: 45 - IF- 3/4" blow
45 - IS- No return
45 - FF- No blow for 15 minutes, flushed tool, surged and died
45 - FS- No return



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1677.92	98.54	Initial Hydro-static
1	46.43	97.49	Open To Flow (1)
44	52.10	98.66	Shut-In(1)
90	1040.18	99.79	End Shut-In(1)
91	55.26	99.50	Open To Flow (2)
132	60.86	100.59	Shut-In(2)
179	1035.42	101.21	End Shut-In(2)
180	1649.53	101.43	Final Hydro-static

Length (ft)	Description	Volume (bbl)
20.00	WM - Oil spots, 5%V, 95%M	0.28

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

Recovery from multiple tests
Trilobite Testing, Inc Ref. No: 54039 Printed: 2014.05.05 @ 22:50:22

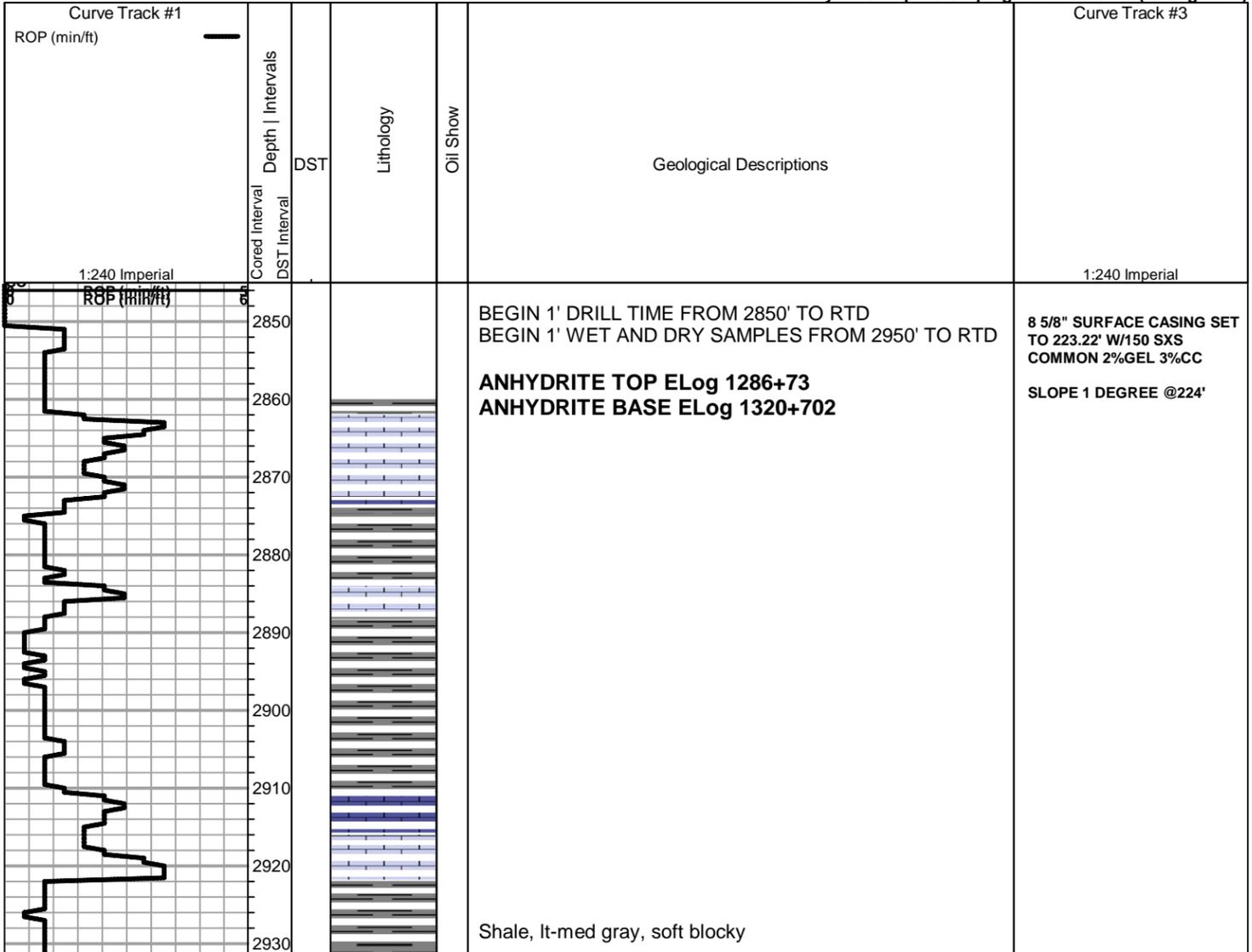
ROCK TYPES

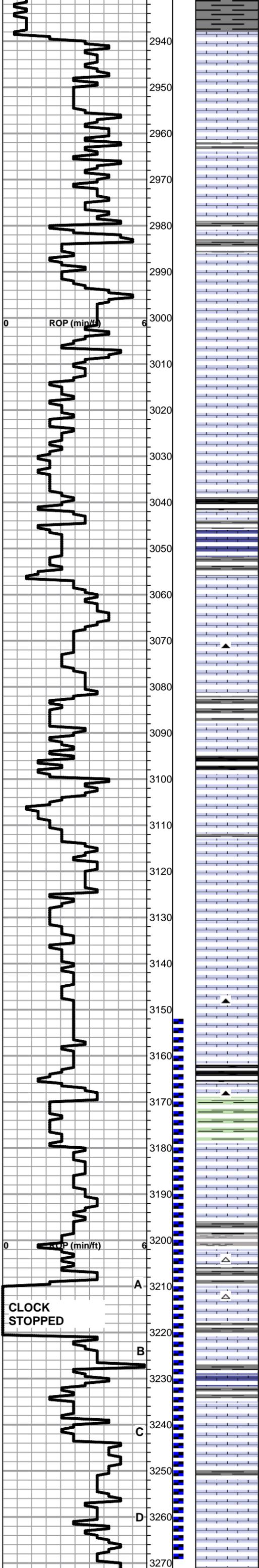
Clystgy	Lmst fw<7	shale, grn	shale, red
Chtcongl	Lmst fw7>	shale, gry	
Dolprim	Lscongl	Carbon Sh	

ACCESSORIES

MINERAL ▲ Chert, dark P Pyrite △ Chert White	FOSSIL ○ Oolite ⊕ Oomoldic
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Printed by GEOstrip VC Striplog version 4.0.7.0 (www.grsi.ca)





TOPEKA SPL 2938-916

Lime, lt-med grayish brn, fnxln, slightly fossiliferous

Lime, med grayish brn-gray, fnxln

Lime, lt gray-lt brn, fn-vfxln

Lime, lt grayish brn, fnxln

Lime, lt brn-grayish brn, fn-vfxln
Shale, gray, calcareous

Lime, lt-med brn-grayish brn, fnxln-granular in part, fossiliferous

Lime, lt-med brn, fnxln-granular in part, chalk matrix in part with bed chalk, slightly fossiliferous

Lime, lt-med brn, fnxln-increasing granular, slightly fossiliferous, bedded chalk in part

Lime, med brn-med gray, increasing chalk matrix with bedded chalk

Shale, black carbonaceous, fissile, blocky
Lime, med brn, vfxln

Lime, lt gray with green tinting, soft on crush

Lime, lt-med brn, fn-vfxln

Lime, crm-tan, fn-vfxln, slight bedded chalk

Lime, tan-lt brn with lt gray tint, fn-vfxln

Lime, lt brn-lt grayish brn, fnxln, fossiliferous in part

Lime, lt brn, fn-vfxln

Shale, black carbonaceous

Lime, lt-med brn, fnxln

Lime, lt-med brn, fnxln-granular, chalk matrix in part, NS

Lime, lt-med brn, fnxln-granular, white chalk wash with sticky clumps of chalk in part, NS

Lime, lt-med brn, fnxln-granular, scattered fusulinids

Lime, lt-med brn, fnxln-slightly granular, slightly fossiliferous

Lime, lt-med brn, fnxln, slightly granular in part

HEEBNER SHALE SPL 3162-1140

Shale, black carbonaceous, fisile, blocky
Lime, lt brn, fn-vfxln

TORONTO SPL 3179-1157

Lime, white-crm, mostly fnxln, thin zone with fine inter xln porosity, very lt odor, lt staining w few specks of free oil on crush

Lime, crm-lt brn, fn-vfxln, slight bedded chalk in part

LKC SPL 3202-1180

Lime, crm, fnxln, scattered fine ppt vuggy porosity in fine inter xln granular porosity, lt staining, very lt odor, NFO

Lime, lt-med brn, fnxln

Lime, med-dark grayish brn, fnxln, scattered micro fossils

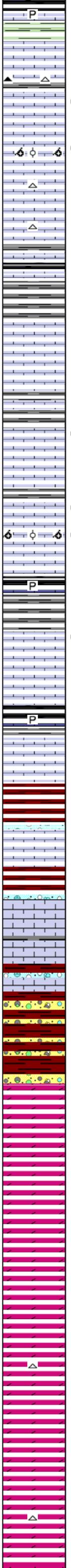
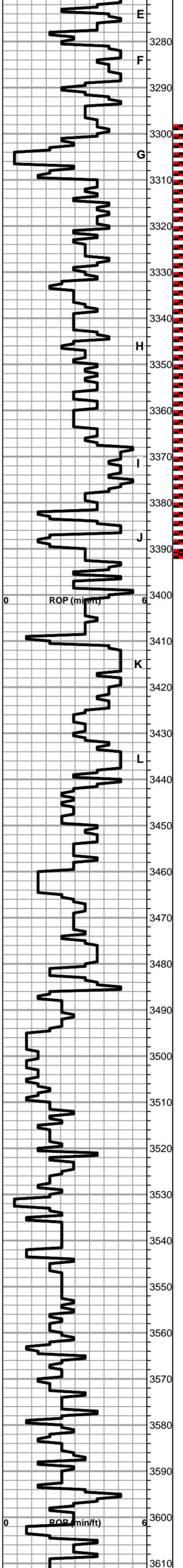
Lime, tan-lt brn, mostly fnxln with thin zone slightly fossiliferous with fine inter xln porosity with scattered fine vugs, very lt odor, scattered-saturated staining, NFO

Lime, lt brn, fnxln

Lime, crm, fnxln, fine xln with ppt vuggy porosity, scattered to saturated staining, very lt odor, NFO

Lime, crm-offwhite, fn-micro xln

DST # 1 3152' TO 3270'
TORONTO - "D" LKC
SEE HEADER FOR TEST SUMMARY



Shale, black carbonaceous
Lime, lt brn, vfxln

Lime, lt brn, fnxln, no visible porosity

Lime, crm-tan fn-vfxln, NS

Lime, crm-tan, fnxln, thin zone with fine interxln porosity with scattered vugs, lt spotty staining, very lt odor

Lime, crm-tan, oolitic/oomoldic with scattered to saturated staining in part, very lt odor, NFO, some barren oomoldic in part

Lime, crm-tan, fn-micro xln

Lime, crm-tan, fn-micro xln

Shale, black carbonaceous lime, med brn, vfxln

Lime, crm, fn-vfxln, very clean appearance, NS

Lime, crm, fn-micro xln, slightly fossiliferous, no visible porosity

Lime, crm, fn-vfxln, thin zone with fine inter xln granular porosity, lt scattered staining, very lt odor

Lime, crm, fn-vfxln, slight bedded chalk

Lime, crm-tan, fnxln with thin fnxln granular with fine ppt vuggy porosity, spotty staining, very lt odor

Lime, crm-tan, oomoldic in part, very lt odor with spotty staining

Shale gray-black carbonaceous, blocky, pyrite clusters, shale grading into grayish green, soft blocky

Lime, tan, thin oolitic/oomoldic zone, very lt odor, spotty staining, NFO, interoolitic porosity with scattered vugs.

Lime, crm-tan, fn-vfxln, hard on crush

Shale, med gray-black carbonaceous

Lime, tan, fn-micro xln, NS, very hard on crush

BKC SPL 3441-1419

Shale, reddish brn, soft, blocky

Lime, crm, fn-vfxln, red shale stain in part, no visible porosity

Shale, red, soft sticky

Lime, crm-lt brn, fnxln-granular

Lime, crm-lt-med brn, fn-vfxln, slight clastic lime content in part

Shale, vari colored with red shale

ARBUCKLE SPL 3506-1484

Dolomite, white-tan, soft granular, NS. Interval to 3530' drilled smoothly consistent with shale until harder dolomite encountered with increasing torque on drill string and bouncing of bit

Dolomite, lt brn-dark salmon, fn-cxln, inter xln porosity

Dolomite, lt brn, fn-cxln, scattered salmon colored dolomite in part

Dolomite, lt-med brn, fn-cxln, slight white chalk wash

Dolomite, lt-med brn, fnxln with scattered med-cxln

Dolomite, lt-med brn-scattered salmon, fn-cxln with scattered rhombic xln clusters

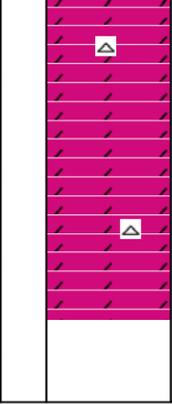
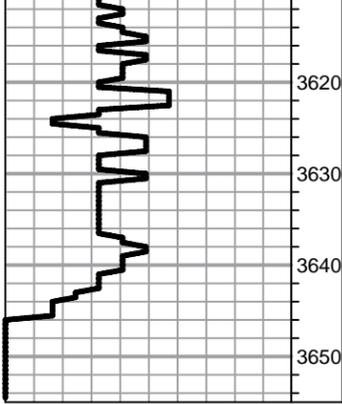
Dolomite, lt-med brn, fn-cxln

Dolomite, lt-med brn, fn-cxln

Dolomite, lt-med brn, fn-cxln, oolitic chert and bone white

CFS 3299'

DST # 2 3298' TO 3393' SEE HEADER FOR TEST SUMMARY



Dolomite, as described above to RTD

RTD 3646-1624 LTD 3643-1621

GLOBAL CEMENTING, L.L.C.

1311

REMIT TO 18048 170RD
RUSSELL, KS 67665

SERVICE POINT: Russell, KS

DATE <u>4-30-14</u>	SEC. <u>10</u>	TWP. <u>10</u>	RANGE <u>17</u>	CALLED OUT	ON LOCATION	JOB START <u>7:30pm</u>	JOB FINISH <u>8:00pm</u>
LEASE <u>Separate</u>	WELL #. <u>1</u>	LOCATION			COUNTY <u>Hookus</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE)							

CONTRACTOR Southwind

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D.

CASING SIZE 8 5/8 DEPTH 224

TUBING SIZE DEPTH 223.11

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 2057

PERFS

DISPLACEMENT 12 3/4 bbl

EQUIPMENT

PUMP TRUCK CEMENTER Heath

P1 HELPER Cody - Brad

BULK TRUCK

B3 DRIVER Eric

BULK TRUCK

DRIVER

OWNER

CEMENT AMOUNT ORDERED 150sr com 3% (C 2% gel)

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

TOTAL

REMARKS:

Ran 5 hrs of 8 5/8 casing and landing + est circulation

Hook up and mix 150sr and d. sp 12 3/4 bbl of H2O - shut in @ 150ps.

Cement did circulate!

CHARGE TO: TPI

STREET

CITY STATE ZIP

Global Cementing, L.L.C.,
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME

SIGNATURE [Signature]

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE 28 @

MANIFOLD @

TOTAL

PLUG & FLOAT EQUIPMENT

@

@

@

@

TOTAL

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT IF PAID IN 30 DAYS

JOB LOG

SWIFT Services, Inc.

DATE 5-2-14 PAGE NO.

CUSTOMER TOI WELL NO. 1 LEASE Stephanie JOB TYPE 5 1/2 Two Stage TICKET NO. 25539

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0620							on location TO 3646 SS 42 TP 3635 Insert 3593 DV rup -56 1251" 5 1/2 x 14" Centralizers 1,3,9,11,12,55 Baskets 3,56
	0645							Start Pipe
	0620							Drop Ball circulate Rotate
	0720	5	12				300	Start Mud Flush
		5	20				300	Start KCL Flush
		5	36				200	Start Cement 150 sks EA-2
	0745							Drop Plug wash out Pump + lines
	0749	6.5						Start Displacement
		6.5	67.6					Start KCL Flush
	0800	6.5	87.6				700 1500	Land Plug Hold Release Dry
	0805							Drop open Plug
	0815		7/4					Plug RH 30sks, MH 15sks
	0825						1300	Open DV
	0826	5	75					Start Cement 135 sks @ 11.2#/gal 20 sks @ 14#/gal
		5	6					
	0843							Drop Closing Plug Wash out Pump + lines
	0845	4						Start Displacement
		4	17				400	circulate Cement 25 sks 10 P.A
	0855	4	30.5				400 1500	Land Plug Hold Release Dry Wash up Back up
	0930							Sub Complete

Thank You Josh, Brian, Rob