



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1158742
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: _____



1158742

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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DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1310 Bison Rd.
Hays, KS 67601

ATTN: Herb Deines

Marsha #1

21-15s-18w Eliis,KS

Start Date: 2013.08.24 @ 15:06:13

End Date: 2013.08.24 @ 21:58:22

Job Ticket #: 54390 DST #: 1

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

Printed: 2013.08.27 @ 13:34:29

TDI Inc.
21-15s-18w Eliis,KS
Marsha #1
DST # 1
A-D
2013.08.24



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

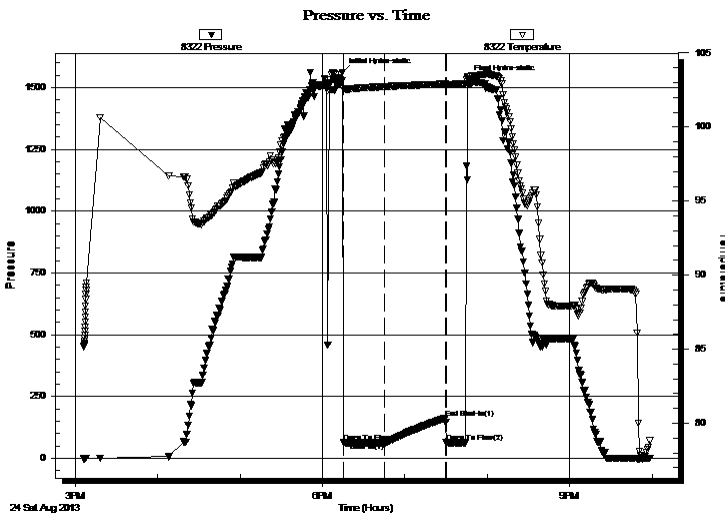
21-15s-18w Eliis,KS
Marsha #1
Job Ticket: 54390 **DST#: 1**
Test Start: 2013.08.24 @ 15:06:13

GENERAL INFORMATION:

Formation: **A-D**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 18:15:33
Time Test Ended: 21:58:22
Interval: **3220.00 ft (KB) To 3290.00 ft (KB) (TVD)**
Total Depth: 3290.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Good
Test Type: Conventional Bottom Hole (Initial)
Tester: Tate Lang
Unit No: 41
Reference Elevations: 1964.00 ft (KB)
1954.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8322 Outside
Press @ Run Depth: 63.44 psig @ 3221.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2013.08.24 End Date: 2013.08.24 Last Calib.: 2013.08.24
Start Time: 15:06:14 End Time: 21:58:23 Time On Btm: 2013.08.24 @ 18:14:43
Time Off Btm: 2013.08.24 @ 19:45:43

TEST COMMENT: Slid 20 ft Weak surface blow started at 3 1/4" Died back to 2 1/2"
Dead no blow back
Dead no blow Flushed tool @ 15 mins no blow tried 3 times think i unseated packers on the 3rd try.
pulled it



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1561.44	103.15	Initial Hydro-static
1	63.49	102.59	Open To Flow (1)
31	63.44	102.73	Shut-In(1)
75	163.93	102.91	End Shut-In(1)
76	63.54	102.88	Open To Flow (2)
91	1534.00	103.42	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
100.00	100%M	1.40

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

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

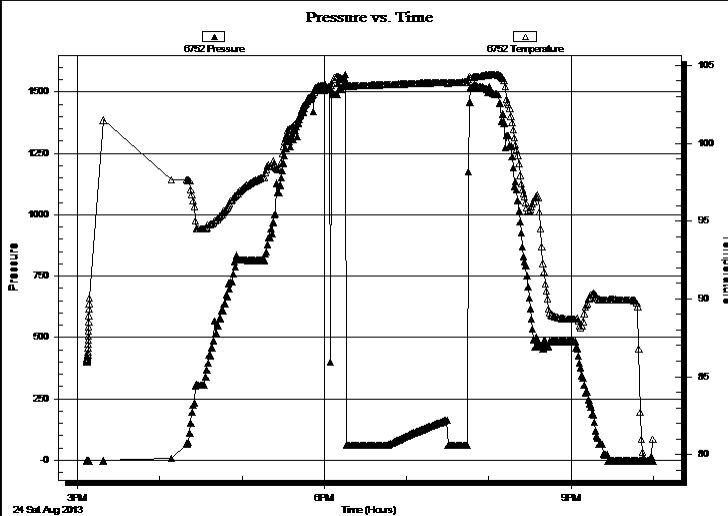
21-15s-18w Eliis,KS
Marsha #1
Job Ticket: 54390 **DST#: 1**
Test Start: 2013.08.24 @ 15:06:13

GENERAL INFORMATION:

Formation: A-D			
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Bottom Hole (Initial)	
Time Tool Opened: 18:15:33		Tester: Tate Lang	
Time Test Ended: 21:58:22		Unit No: 41	
Interval: 3220.00 ft (KB) To 3290.00 ft (KB) (TVD)		Reference Elevations: 1964.00 ft (KB)	
Total Depth: 3290.00 ft (KB) (TVD)		1954.00 ft (CF)	
Hole Diameter: 7.88 inches	Hole Condition: Good	KB to GR/CF: 10.00 ft	

Serial #: 6752	Inside			
Press @ Run Depth: psig @	3221.00 ft (KB)	Capacity:	8000.00 psig	
Start Date: 2013.08.24	End Date: 2013.08.24	Last Calib.:	2013.08.24	
Start Time: 15:06:46	End Time: 21:59:35	Time On Btm:		
		Time Off Btm:		

TEST COMMENT: Slid 20 ft Weak surface blow started at 3 1/4" Died back to 2 1/2"
Dead no blow back
Dead no blow Flushed tool @ 15 mins no blow tried 3 times think i unseated packers on the 3rd try.
pulled it



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
100.00	100%M	1.40

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

21-15s-18w Eliis,KS

Marsha #1

Job Ticket: 54390

DST#: 1

ATTN: Herb Deines

Test Start: 2013.08.24 @ 15:06:13

Tool Information

Drill Pipe:	Length: 3223.00 ft	Diameter: 3.80 inches	Volume: 45.21 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: 20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 50000.00 lb
			<u>Total Volume: 45.21 bbl</u>	Tool Chased 20.00 ft
Drill Pipe Above KB:	23.00 ft			String Weight: Initial 34000.00 lb
Depth to Top Packer:	3220.00 ft			Final 34000.00 lb
Depth to Bottom Packer:	ft			
Interval between Packers:	70.00 ft			
Tool Length:	90.00 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			3201.00	
Shut In Tool	5.00			3206.00	
Hydraulic tool	5.00			3211.00	
Recorder	5.00			3216.00	
Packer	4.00			3220.00	20.00 Bottom Of Top Packer
Stubb	1.00			3221.00	
Recorder	0.00	6752	Inside	3221.00	
Recorder	0.00	8322	Outside	3221.00	
Perforations	2.00			3223.00	
Change Over Sub	1.00			3224.00	
Drill Pipe	62.00			3286.00	
Change Over Sub	1.00			3287.00	
Bullnose	3.00			3290.00	70.00 Anchor Tool

Total Tool Length: 90.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc. **21-15s-18w Eliis,KS**
 1310 Bison Rd. **Marsha #1**
 Hays, KS 67601 Job Ticket: 54390 **DST#: 1**
 ATTN: Herb Deines Test Start: 2013.08.24 @ 15:06:13

Mud and Cushion Information

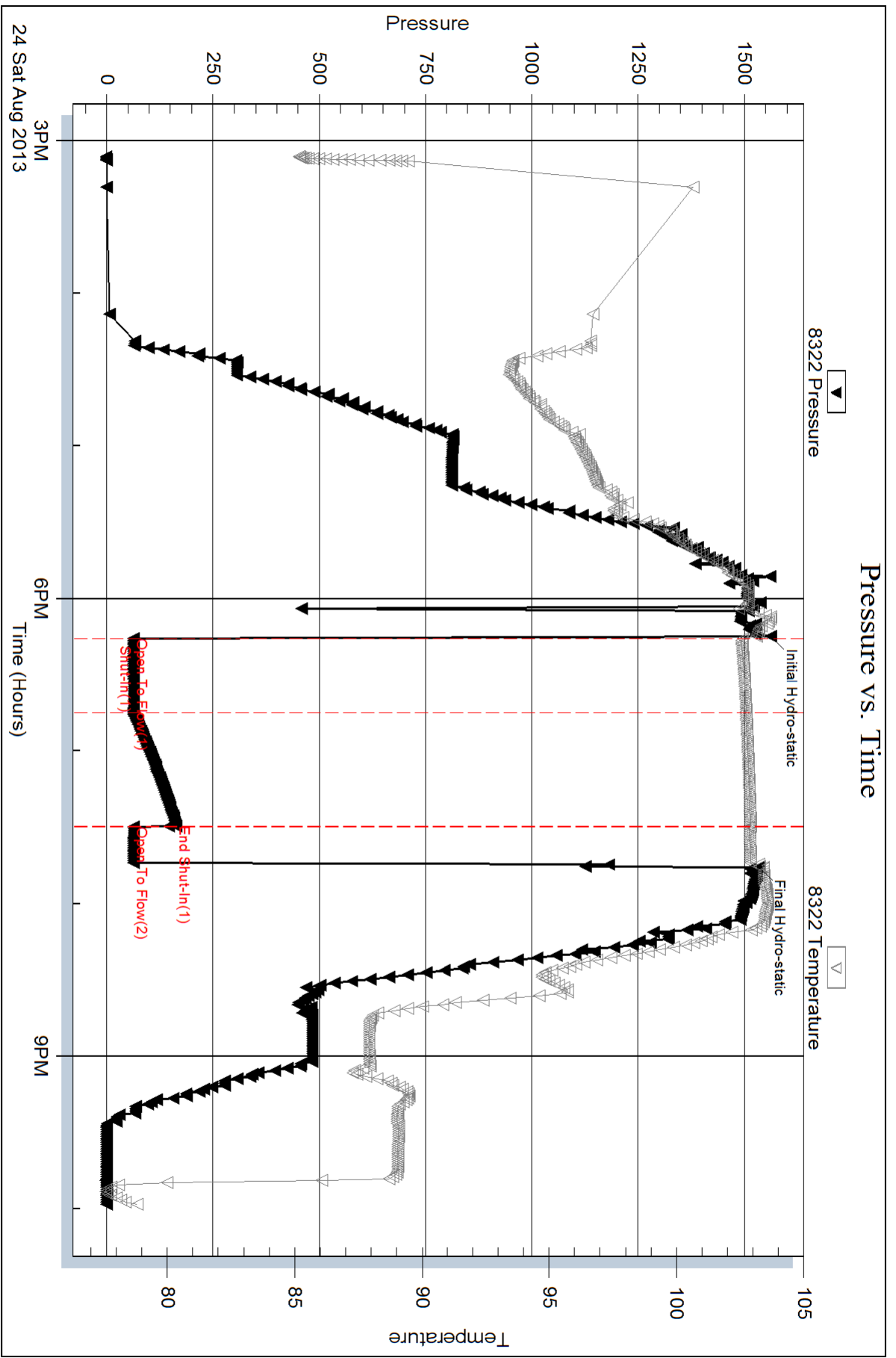
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 40.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2800.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
100.00	100%M	1.403

Total Length: 100.00 ft Total Volume: 1.403 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



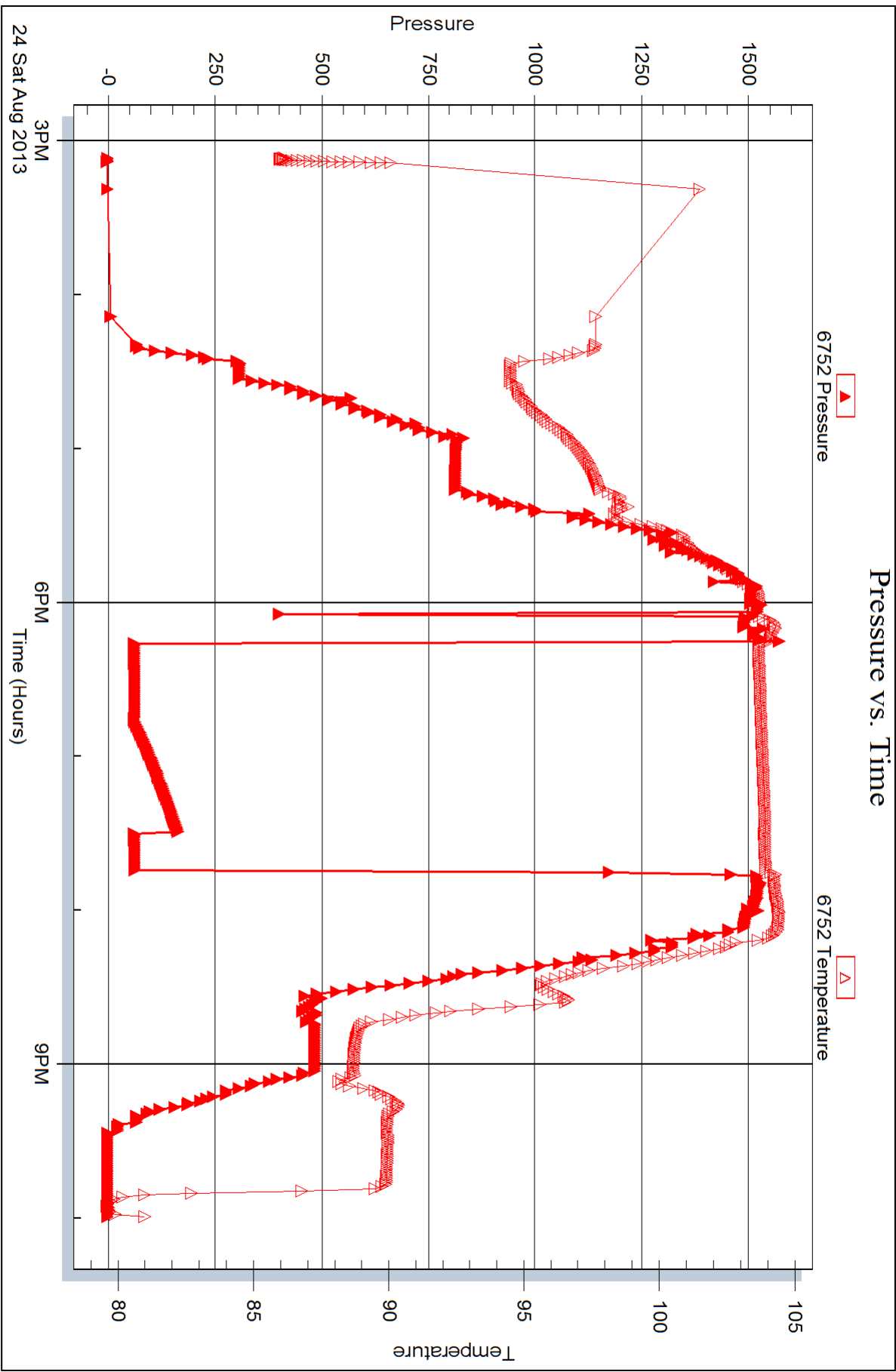
Serial #: 6752

Inside

TDI Inc.

Marsha #1

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 54390

Printed: 2013.08.27 @ 13:34:31



DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1310 Bison Rd.
Hays, KS 67601

ATTN: Herb Deines

Marsha #1

21-15s-18w Eliis,KS

Start Date: 2013.08.25 @ 14:50:42

End Date: 2013.08.25 @ 21:08:42

Job Ticket #: 54391 DST #: 2

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

Printed: 2013.08.27 @ 13:33:36

TDI Inc. 21-15s-18w Eliis,KS Marsha #1 DST # 2 H,I,J,K 2013.08.25



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

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

21-15s-18w Eliis,KS
Marsha #1
Job Ticket: 54391 **DST#: 2**
Test Start: 2013.08.25 @ 14:50:42

GENERAL INFORMATION:

Formation: **H,I,J,K**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 16:30:02
 Time Test Ended: 21:08:42
 Interval: **3354.00 ft (KB) To 3445.00 ft (KB) (TVD)**
 Total Depth: 3445.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Good
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Tate Lang
 Unit No: 41
 Reference Elevations: 1964.00 ft (KB)
 1954.00 ft (CF)
 KB to GR/CF: 10.00 ft

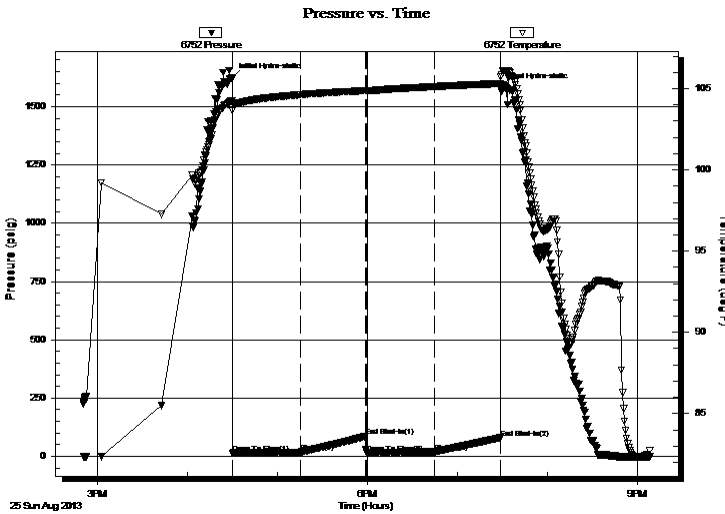
Serial #: 6752

Inside

Press @ Run Depth: 18.33 psig @ 3357.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.08.25 End Date: 2013.08.25 Last Calib.: 2013.08.25
 Start Time: 14:50:43 End Time: 21:08:42 Time On Btm: 2013.08.25 @ 16:29:52
 Time Off Btm: 2013.08.25 @ 19:29:02

TEST COMMENT: Fair surface blow built to 4 1/2"
 Dead no blow back
 Fair surface blow built to 5"
 Dead no blow back

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1624.80	104.26	Initial Hydro-static
1	13.53	103.64	Open To Flow (1)
46	16.64	104.63	Shut-In(1)
89	85.04	104.88	End Shut-In(1)
90	15.12	104.87	Open To Flow (2)
136	18.33	105.13	Shut-In(2)
179	78.79	105.31	End Shut-In(2)
180	1580.47	105.73	Final Hydro-static

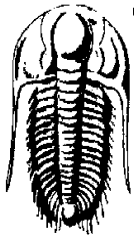
Recovery

Length (ft)	Description	Volume (bbl)
20.00	8%O 92%M	0.28
0.00	100' GIP	0.00

* Recovery from multiple tests

Gas Rates

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



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

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

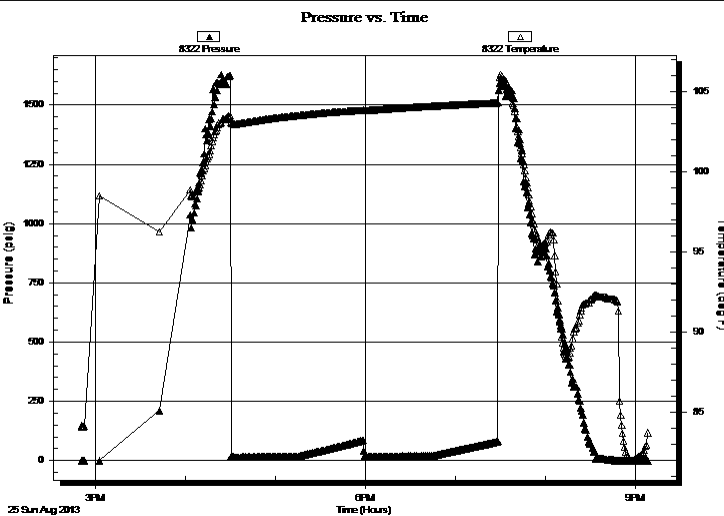
21-15s-18w Eliis, KS
Marsha #1
Job Ticket: 54391 **DST#: 2**
Test Start: 2013.08.25 @ 14:50:42

GENERAL INFORMATION:

Formation: **H,I,J,K**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 16:30:02
Time Test Ended: 21:08:42
Test Type: Conventional Bottom Hole (Reset)
Tester: Tate Lang
Unit No: 41
Interval: **3354.00 ft (KB) To 3445.00 ft (KB) (TVD)**
Reference Elevations: 1964.00 ft (KB)
Total Depth: 3445.00 ft (KB) (TVD)
1954.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Good
KB to GR/CF: 10.00 ft

Serial #: 8322 Outside
Press @ Run Depth: psig @ 3357.00 ft (KB)
Capacity: 8000.00 psig
Start Date: 2013.08.25 End Date: 2013.08.25 Last Calib.: 2013.08.25
Start Time: 14:50:41 End Time: 21:08:50 Time On Btm:
Time Off Btm:

TEST COMMENT: Fair surface blow built to 4 1/2"
Dead no blow back
Fair surface blow built to 5"
Dead no blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
20.00	8%O 92%M	0.28
0.00	100' GIP	0.00

Gas Rates

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

* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

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

21-15s-18w Eliis,KS
Marsha #1
Job Ticket: 54391 **DST#: 2**
Test Start: 2013.08.25 @ 14:50:42

Tool Information

Drill Pipe:	Length: 3348.00 ft	Diameter: 3.80 inches	Volume: 46.96 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:	20000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	45000.00 lb
			<u>Total Volume: 46.96 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	14.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3354.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	91.00 ft				
Tool Length:	111.00 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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Change Over Sub	1.00			3335.00	
Shut In Tool	5.00			3340.00	
Hydraulic tool	5.00			3345.00	
Recorder	5.00			3350.00	
Packer	4.00			3354.00	20.00 Bottom Of Top Packer
Stubb	1.00			3355.00	
Perforations	2.00			3357.00	
Recorder	0.00	6752	Inside	3357.00	
Recorder	0.00	8322	Outside	3357.00	
Change Over Sub	1.00			3358.00	
Drill Pipe	63.00			3421.00	
Change Over Sub	1.00			3422.00	
Perforations	20.00			3442.00	
Bullnose	3.00			3445.00	91.00 Anchor Tool

Total Tool Length: 111.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc. **21-15s-18w Eliis,KS**
 1310 Bison Rd. **Marsha #1**
 Hays, KS 67601 Job Ticket: 54391 **DST#: 2**
 ATTN: Herb Deines Test Start: 2013.08.25 @ 14:50:42

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: 40.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 2800.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
20.00	8%O 92%M	0.281
0.00	100' GIP	0.000

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:

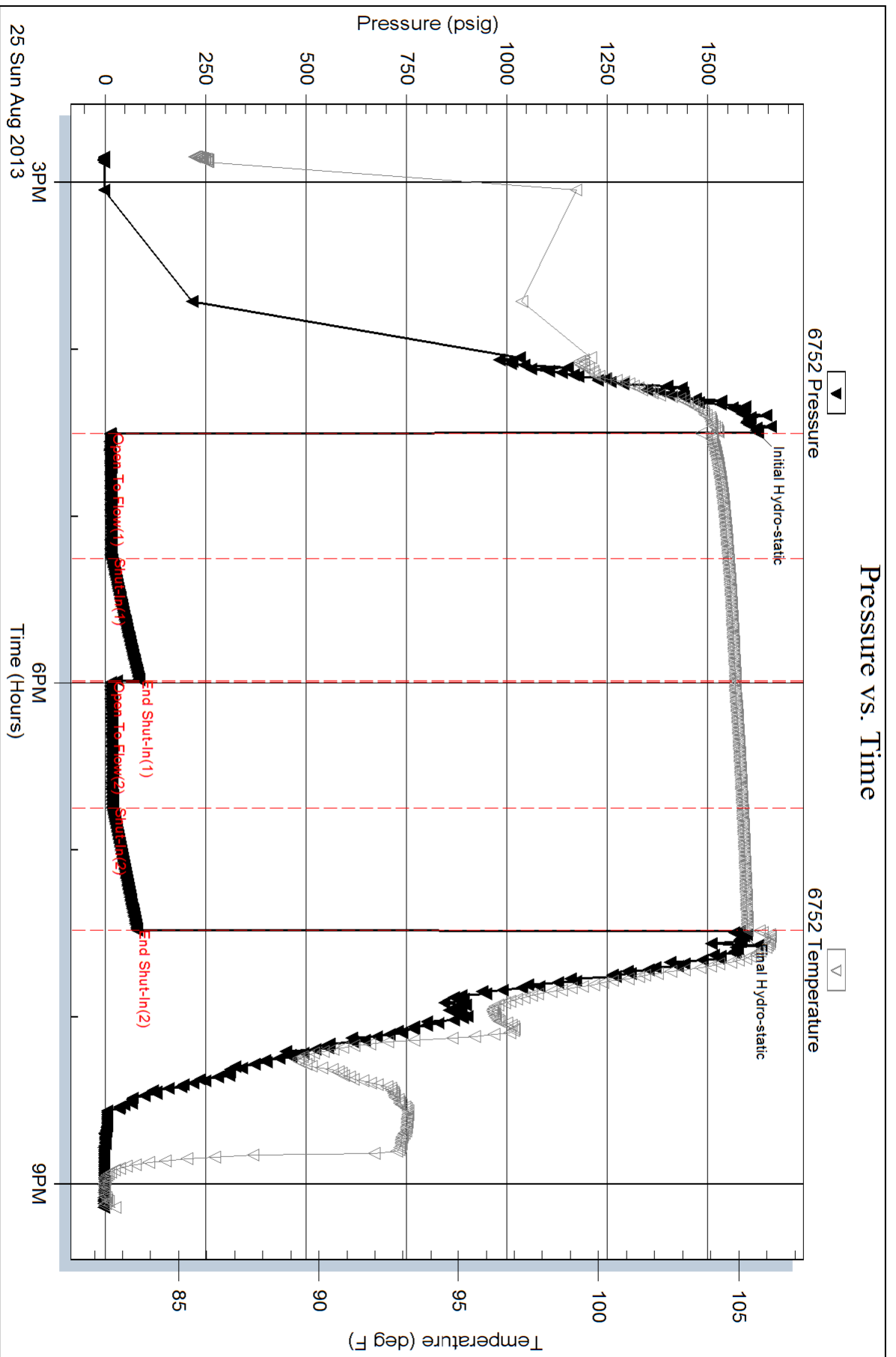
Serial #: 6752

Inside

TDI Inc.

Marsha #1

DST Test Number: 2

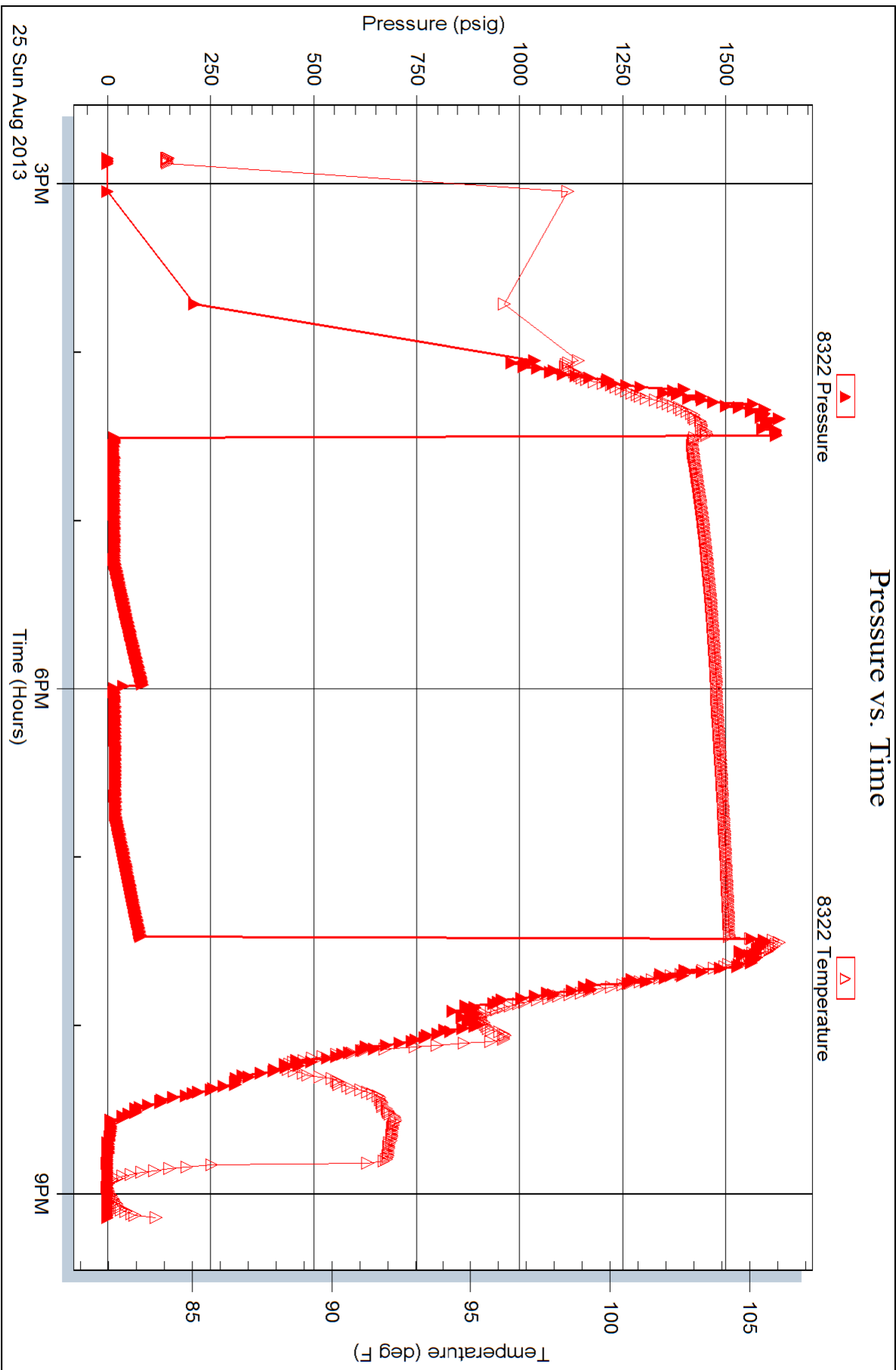


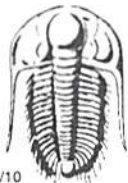
Serial #: 8322

Outside TDI Inc.

Marsha #1

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 54390

Well Name & No. Marsha #1 Test No. 1 Date 8-24-13
 Company TDI Inc Elevation 1964 KB 1954 GL
 Address 1310 Bison Rd, Hays, KS 67601
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 21 Twp. 15 Rge. 18 Co. Ellis State KS

Interval Tested 3220 3240 Zone Tested A-D
 Anchor Length 70' Drill Pipe Run 3223 Mud Wt. 8.8
 Top Packer Depth 3216 Drill Collars Run 0 Vis 40
 Bottom Packer Depth 3220 Wt. Pipe Run 0 WL 8.0
 Total Depth 3290 Chlorides 2800 ppm System LCM #

Blow Description Slid 20ft surface blow started @ 3 1/4 in died back to 2 1/2 in
Dead w/ blow back
Dead w/ blow flush too @ 5 min tried 3 time no blow think unseated packer 3rd time pulled it

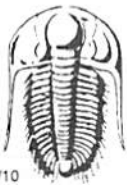
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 100 BHT 103 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1561 Test 1150 T-On Location 13:15
 (B) First Initial Flow 63 Jars — T-Started 15:06
 (C) First Final Flow 63 Safety Joint — T-Open 18:15
 (D) Initial Shut-In 164 Circ Sub — T-Pulled 20:00
 (E) Second Initial Flow 64 Hourly Standby — T-Out 22:00
 (F) Second Final Flow NA Mileage 26 R/7 40.30
 (G) Final Shut-In 1534 Sampler —
 (H) Final Hydrostatic 1534 Straddle —

Initial Open 30 Ruined Shale Packer —
 Initial Shut-In 45 Ruined Packer —
 Final Flow 30 Extra Copies —
 Final Shut-In pull it Extra Recorder —
 Sub Total 0
 Total 1190.30
 MP/DST Disc't —
 Sub Total 1190.30

Approved By _____ Our Representative [Signature] Thanks
 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. 54391

Well Name & No. Marsha #1 Test No. 2 Date 8-25-13
 Company TDI Inc. Elevation 1964 KB 1954 GL
 Address 1310 Bison Rd Hays, KS 67601
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 21 Twp. 15 Rge. 18 Co. Ellis State KS

Interval Tested 3354 3445 Zone Tested "H.I.S.K"
 Anchor Length _____ Drill Pipe Run 3348 Mud Wt. 8.9
 Top Packer Depth 3350 Drill Collars Run 0 Vis 46
 Bottom Packer Depth 3354 Wt. Pipe Run 0 WL 7.8
 Total Depth 3445 Chlorides 4000 ppm System LCM 1#

Blow Description Fair surface blow built to 4 1/2 in.
Dead no blow back
Fair surface blow built to 5 in
Dead no blow back

Rec	Feet of	%gas	%oil	%water	%mud
<u>100</u>	<u>GIA</u>	<u>100</u>			
<u>20</u>	<u>VS OCM</u>		<u>8</u>		<u>92</u>
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 20 BHT 105 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1625 Test 1150 T-On Location 13:30
 (B) First Initial Flow 14 Jars _____ T-Started 14:50
 (C) First Final Flow 17 Safety Joint _____ T-Open 16:30
 (D) Initial Shut-In 85 Circ Sub _____ T-Pulled 19:30
 (E) Second Initial Flow 15 Hourly Standby _____ T-Out 21:09
 (F) Second Final Flow 18 Mileage 26 R/T 40.30 Comments _____
 (G) Final Shut-In 79 Sampler _____
 (H) Final Hydrostatic 1580 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 45 Extra Recorder _____ Sub Total 0
 Initial Shut-In 45 Day Standby _____ Total 1190.30
 Final Flow 45 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 45 Sub Total 1190.30

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.

OPERATOR

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

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-628-2593
 Well Name: MARSHA # 1
 Location: W2 SE SW SW Sec.21-15s-18w
 Pool:
 State: KANSAS

API: 15-051-26,559-00-00
 Field: SCHOENCHEN WEST
 Country: USA



TDI, Inc.
 1310 BISON ROAD
 HAYS, KANSAS 67601
 (785) 628-2593

Scale 1:240 Imperial

Well Name: MARSHA # 1
 Surface Location: W2 SE SW SW Sec.21-15s-18w
 Bottom Location:
 API: 15-051-26,559-00-00
 License Number: 4787
 Spud Date: 8/19/2013 Time: 4:45 PM
 Region: ELLIS COUNTY
 Drilling Completed: 8/26/2013 Time: 11:45 AM
 Surface Coordinates: 330' FSL & 850' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 1950.00ft
 K.B. Elevation: 1960.00ft
 Logged Interval: 2800.00ft To: 3695.00ft
 Total Depth: 3695.00ft
 Formation: LANSING-KANSAS CITY
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.3351958 Latitude: 38.7268336
 N/S Co-ord: 330' FSL
 E/W Co-ord: 850' 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

Rig Type: MUD ROTARY
 Spud Date: 8/19/2013
 TD Date: 8/26/2013
 Rig Release: 8/27/2013

Time: 4:45 PM
 Time: 11:45 AM
 Time: 5:15 AM

ELEVATIONS

K.B. Elevation: 1960.00ft Ground Elevation: 1950.00ft
 K.B. to Ground: 10.00ft

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL DUE TO NEGATIVE RESULTS OF TWO DSTS AND LOW STRUCTURE OF CONGLOMERATE SAND

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) CONVENTIONAL TESTS

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

MARSHA # 1

330' FSL & 850' FWL, SW/4

Sec. 21-15s-18w

1950' GL 1960' KB

BIEKER # 1

SW SE SW

Sec 21-15s-18w

Reference Well

<u>FORMATION</u>	<u>SAMPLE TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1124+ 836	1123+ 837	+ 820
B-Anhydrite	1156+ 804	1156+ 804	
Topeka	2909- 949	2903- 943	- 942
Heebner Shale	3188-1228	3185-1225	-1225
Toronto	3209-1249	3205-1245	-1245
LKC	3238-1278	3233-1273	-1274
BKC	3466-1506	3462-1502	-1503
Conglomerate SS	3549-1589	3547-1587	-1608
Arbuckle	3561-1601	3561-1601	-1611
RTD& LTD	3695-1735	3693-1733	

SUMMARY OF DAILY ACTIVITY

8-19-13 RU, spud 4:45 PM,
 8-20-13 786', set 8 5/8" surface pipe to 1121' w/ 375 sxs (Swift) FMD, plug
 down 9:00 PM, WOC 12hrs, slope 2 degrees
 8-21-13 1135,'WOC, drill plug at 9:00 am
 8-22-13 2082', drilling

- 8-23-13 2675', drilling, displaced 2877' to 2908'
- 8-24-13 3220', CFS@3290', DST # 1 "A" to "D" LKC 3220'- 3290', slope 1/2
- 8-25-13 3382', CFS@3445', DST # 2 "H" to "K" LKC 3354'-3445'
- 8-26-13 3555' , drilling, RTD 3695' @11:45am, CCH, TOWB, logs, P&A
- 8-27-13 3695', LDDP and finish plugging well, plug down 5:15 am

DST # 1 TEST SUMMARY

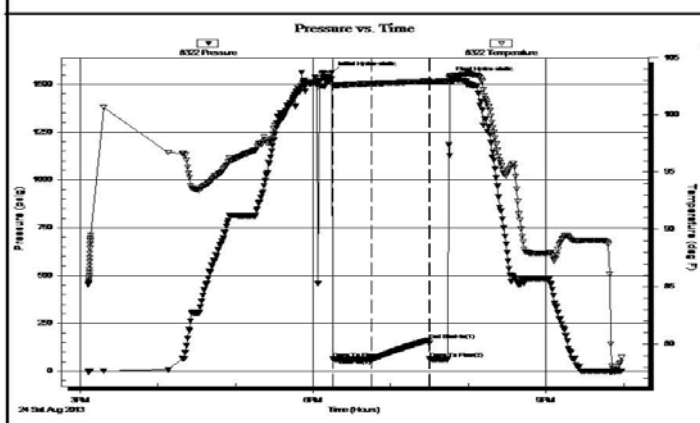
	DRILL STEM TEST REPORT	
	TDI Inc. 1310 Bison Rd. Hays, KS 67601 ATTN: Herb Deines	21-15-18- Eliis Co. Marsha #1 Job Ticket: 54390 DST#: 1 Test Start: 2013.08.24 @ 15:06:13

GENERAL INFORMATION:

Formation: A-D	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: ft (KB)	Tester: Tate Lang
Time Tool Opened: 18:15:33	Unit No: 41
Time Test Ended: 21:58:22	Reference Elevations: 1964.00 ft (KB)
Interval: 3220.00 ft (KB) To 3290.00 ft (KB) (TVD)	1954.00 ft (CF)
Total Depth: 3290.00 ft (KB) (TVD)	KB to GR/CF: 10.00 ft
Hole Diameter: 7.88 inches	Hole Condition: Good

Serial #: 8322	Outside	Capacity: 8000.00 psig
Press@RunDepth: 63.44 psig @ 3221.00 ft (KB)	Start Date: 2013.08.24	End Date: 2013.08.24
Start Time: 15:06:14	End Time: 21:58:23	Time On Btm: 2013.08.24 @ 18:14:43
		Time Off Btm: 2013.08.24 @ 19:45:43

TEST COMMENT: Slid 20 ft Weak surface blow started at 3 1/4in Died back to 2 1/2in
 Dead no blow back
 Dead no blow Flushed tool @ 15mins no blow tried 3 times think i unseated packers on the 3rd try.
 pulled it




PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1561.44	103.15	Initial Hydro-static
1	63.49	102.59	Open To Flow (1)
31	63.44	102.73	Shut-In(1)
75	163.93	102.91	End Shut-In(1)
76	63.54	102.88	Open To Flow (2)
91	1534.00	103.42	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
100.00	100%M	1.40

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

DST # 2 TEST SUMMARY

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT	
	TDI Inc. 1310 Bison Rd. Hays, KS 67601 ATTN: Herb Deines	21-15-18- Ellis Co. Marsha #1 Job Ticket: 54391 DST#: 2 Test Start: 2013.08.25 @ 14:50:42

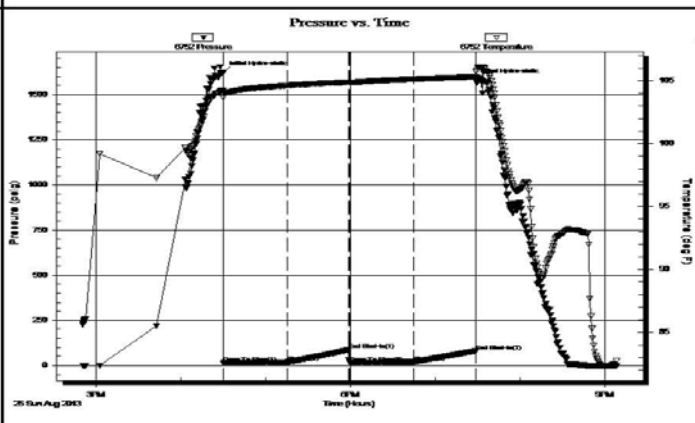
GENERAL INFORMATION:

Formation: **H,I,J,K**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 16:30:02 Tester: Tate Lang
 Time Test Ended: 21:08:42 Unit No: 41
 Interval: **3354.00 ft (KB) To 3445.00 ft (KB) (TVD)** Reference Elevations: 1964.00 ft (KB)
 Total Depth: 3445.00 ft (KB) (TVD) 1954.00 ft (CF)
 Hole Diameter: 7.88 inches Hole Condition: Good KB to GR/CF: 10.00 ft

Serial #: 6752 Inside

Press@RunDepth: 18.33 psig @ 3357.00 ft (KB)	Capacity: 8000.00 psig
Start Date: 2013.08.25 End Date: 2013.08.25	Last Calib.: 2013.08.25
Start Time: 14:50:43 End Time: 21:08:42	Time On Btm: 2013.08.25 @ 16:29:52
	Time Off Btm: 2013.08.25 @ 19:29:02

TEST COMMENT: Fair surface blow built to 4 1/2in.
 Dead no blow back
 Fair surface blow built to 5in.
 Dead no blow back















PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1624.80	104.26	Initial Hydro-static
1	13.53	103.64	Open To Flow (1)
46	16.64	104.63	Shut-In(1)
89	85.04	104.88	End Shut-In(1)
90	15.12	104.87	Open To Flow (2)
136	18.33	105.13	Shut-In(2)
179	78.79	105.31	End Shut-In(2)
180	1580.47	105.73	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
20.00	8%O 92%M	0.28
0.00	100' GIP	0.00

* Recovery from multiple tests

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

ROCK TYPES

 Clystgy	 Lmst fw7>	 Carbon Sh	 Ss
 Dolprim	 shale, grn	 shale, red	 Lscong1
 Lmst fw<7	 shale, gry	 Shcol	 CglSandy

ACCESSORIES

MINERAL

- ▲ Chert, dark
- P Pyrite
- Sandy

FOSSIL

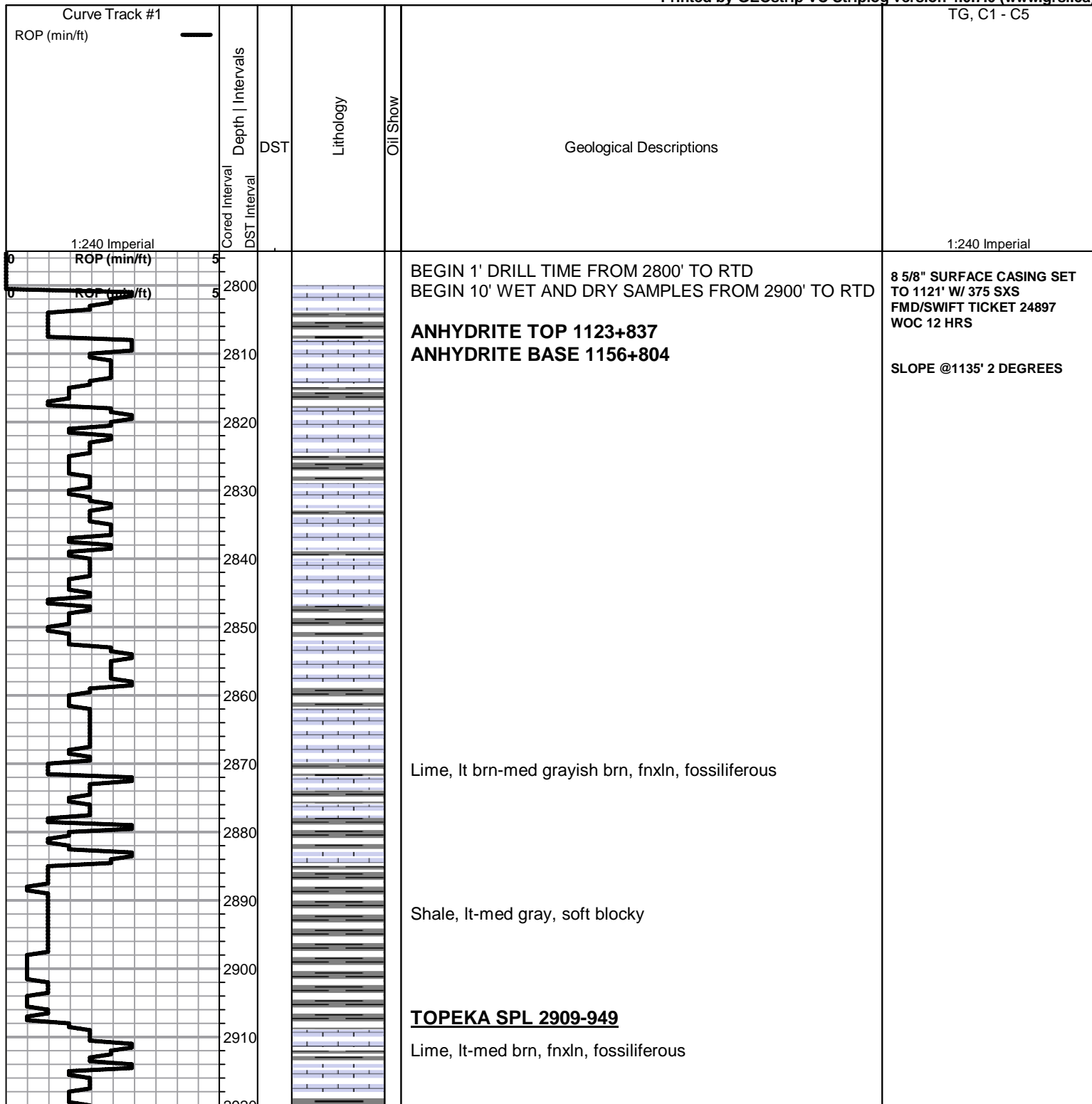
- Oolite
- ⊕ Oomoldic

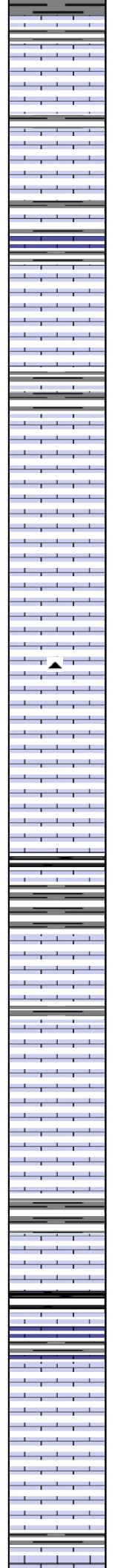
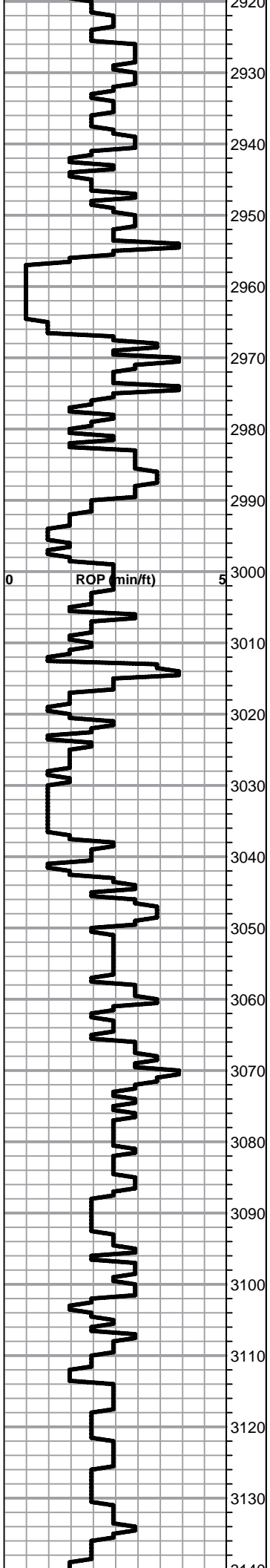
OTHER SYMBOLS

DST

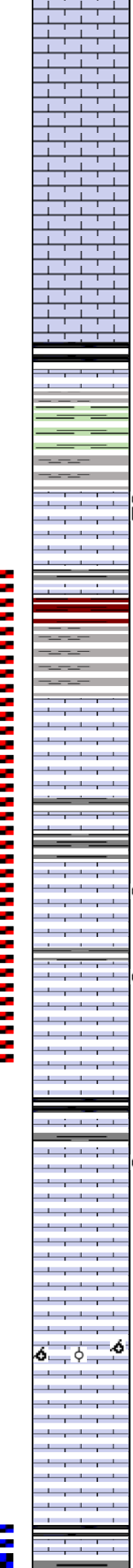
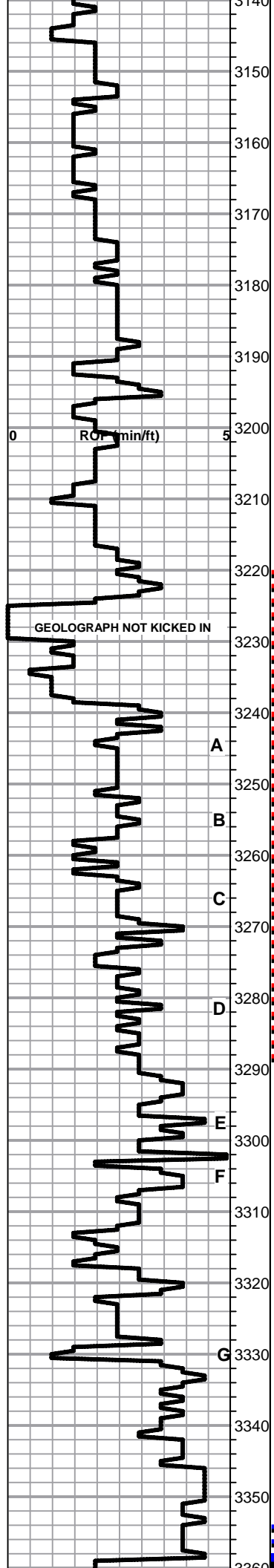
- DST Int
- DST alt
- Core

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





- 2920 Lime, lt-med brn-med grayish brn, fnxln, fossiliferous
- 2930 Lime, lt-med brn-grayish brn, fnxln, slightly fossiliferous
- 2940 Lime, lt-med brn, fnxln, fossiliferous
- 2950 Lime, lt-dark brn, fnxln, soft on crush, slightly fossiliferous
- 2960 Lime, lt brn, granular, NS
- 2970 Lime, lt-med brn, fnxln
Shale, dove gray, soft mud
- 2980 Lime, med brn, fnxln-granular, slightly fossiliferous
- 2990 Lime, lt-med brn, fnxln-granular, NS
- 3000 Lime, lt-med brn-grayish brn, fnxln-granular
- 3010 Lime, lt-med brn, granular-fnxln
- 3020 Lime, lt-med brn-grayish brn, mostly granular
- 3030 Lime, lt-med brn, granular, slightly fossiliferous
- 3040 Shale, gray-black carbonaceous
- 3050 Lime, crm-tan, fn-vfxln, slight bedded chalk
- 3060 Lime, crm-tan, fnxln, very clean-lithographic
- 3070 Lime, crm-tan-lt brn, fnxln-slightly granular, slight bedded chalk
- 3080 Lime, crm-tan, fnxln, slight bedded chalk
- 3090 Shale, lt gray, soft, waxy
- 3100 Lime, tan-lt brn, fnxln, gray mottling in part near shale
- 3110 Lime, med brn-lt grayish brn, fnxln, hard on crush
- 3120 Lime, crm, granular, slight chalk
- 3130 Lime, lt brn with lt gray tint in part, fnxln, slight bedded chalk
- 3140 Lime, tan-lt brn, fnxln, darker brn lime near shale boundary



Lime, crm-lt brn, fnxln-granular, slight chalk

Lime, crm-lt brn, fnxln-granular, slight chalk, slight fossiliferous

Lime, crm-lt brn, granular-fnxln, slight bedded chalk

Lime, crm-lt brn, granular, slight bedded chalk

HEEBNER SHALE SPL 3188-1228

Shale, black carbonaceous, fissile, blocky
Lime, lt-med brn, fn-vfxln, slightly fossiliferous

Shale, lt gray-lime green, soft

TORONTO SPL 3209-1249

Lime, tan, fnxln-granular, slight fn vuggy porosity, dead oil and gilsonite, v lt odor, spotty staining,

Lime, crm-tan-brn with spotted mottling, fnxln

Shale, reddish brn-lt gray, soft, blocky

LKC SPL 3238-1278

Lime, lt-med brn, fn-vfxln, slight bedded chalk

Lime, mix of lt-dark brn-gray, fnxln, mottling in part

Lime, crm-lt brn, fnxln with few oolitic chips, spotty stain, NFO, no odor

Lime, crm-tan, granular in part with fine vugs, f-g odor, spotty staining

Lime, crm-tan, fnxln, slight bedded chalk

Shale, black carbonaceous, fissile, blocky
Lime, crm-lt brn fnxln, slight bedded chalk

Lime, tan, fnxln, few chips with fine inter xln and fine vuggy porosity, scattered to saturated stain in part, NFO, v lt odor

Lime, crm-tan, fnxln, bedded chalk, NS

Lime, crm-tan, mostly fnxln with few oomoldic chips-barren

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

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

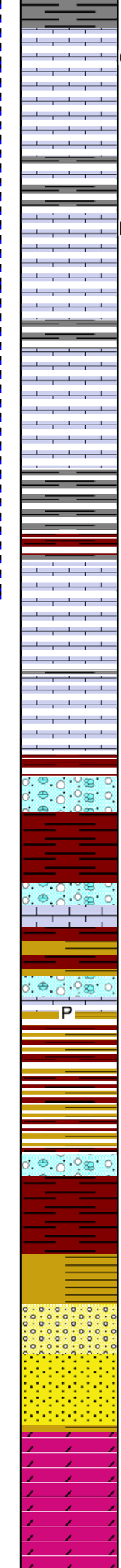
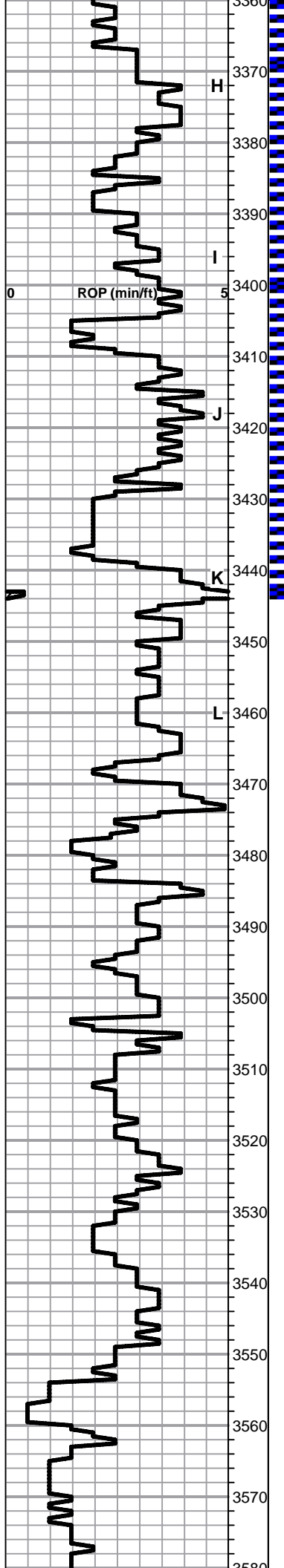
Shale, black carbonaceous
Lime, lt-med gray, fnxln

MICROLOG SHOWED ZONE TO BE POORLY DEVELOPED

DST # 1 3220' TO 3290' SEE HEADER FOR TEST SUMMARY

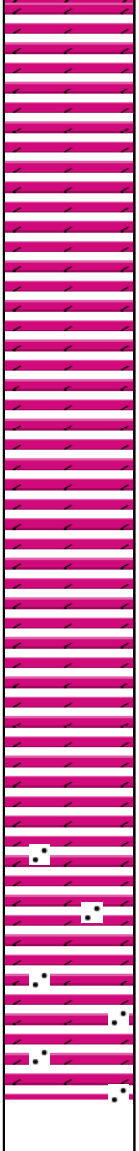
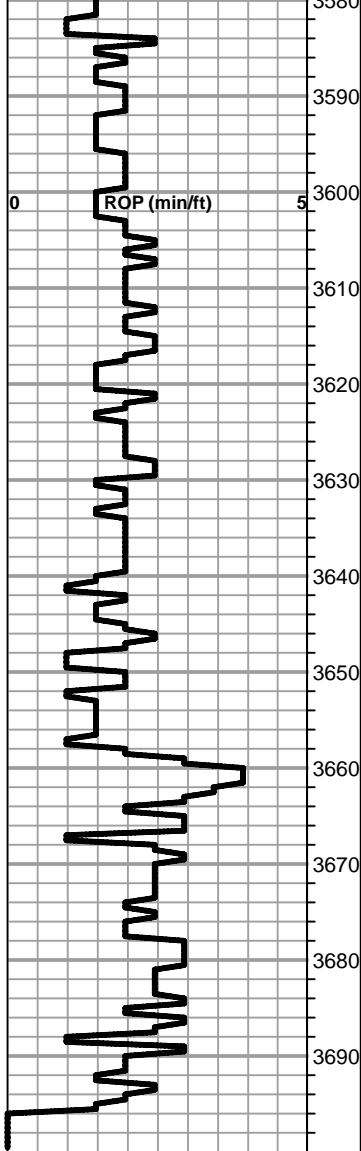
MICROLOG SHOWED ZONE TO BE VERY THIN

CFS@3340'



- Lime, crm-tan, mostly fn-vfxln, few chips with spotty stain, NFO, no odor
- Lime, crm-tan, fn-micro xln, slight bedded chalk
- D Lime, crm-tan, fnxln, bedded chalk, dead, dark oil staining, spotty, NFO, no odor
- Lime, crm-tan, fn-vfxln, slight bedded chalk
- Lime, crm-tan, most fnxln-micro xln, bedded chalk, NS
- J Lime, crm-tan, fn-micro xln
- Shale, med gray, calcareous in part
- K Lime, tan, fn-micro xln, , lt red wash in part
- Lime, white-crm, fn-vfxln, bedded chalk
- L Lime, crm-tan, frnxln, bedded chalk
- BKC SPL 3466-1506**
- Shale, reddish brn-brn, firm blocky with clastic lime shale mix in part
- Shale, red wash, soft-firm
- Clastic lime mix
- Shale, vari colored, soft-firm blocky
- Shale, lime, chert mix
- P Shale, vari color, pyrite clusters
- Shale, vari color with red wash
- Shale, soft red mud forming sticky clumps, red wash
- Shale, varicolored
- CONGLOMERATE SAND SPL 3549-1589**
- Sandstone and dolomite mix, sucrosic, chert, few ss clusters, NS
- ARBUCKLE SPL 3561-1601**
- Dolomite, crm, fnxln, sucrosic in part, few chips with lt spotty staining with few oil specks on crush
- Dolomite, crm, fnxln-granular

DST # 2 3354' TO 3445' SEE HEADER FOR TEST SUMMARY



Dolomite, crm, fnxln-granular

Dolomite, crm, fnxln-granular

Dolomite, crm, fnxln-granular

Dolomite, crm, fnxln-granular

Dolomite, crm, fnxln-granular

Dolomite, ivory-crm, fnxln-granular

Dolomite, crm, fnxln-granular, few clusters fused quartz grains

Dolomite, crm-tan, fnxln-granular

Dolomite, crm, fnxln-granular with quartz grain inclusions, clear and angular

Dolomite, crm, fnxln-granular with increasing quartz grains

RTD 3695-1735

LTD 3693-1733

JOB LOG

SWIFT Services, Inc.

DATE 8-2073 PAGE NO. 1

CUSTOMER TDI WELL NO. #1 LEASE Marsha JOB TYPE Deep Surface TICKET NO. 24897

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1500							on loc w/FE
								RTD 1135'
								8 5/8" x 23# x 1133' x 17'
								Turbo 4, 3, 13
	1730							start FE
	1930							Break Circ
	2000	5	0			200		Start KCL Flush
	2005	5	20/0			200		Start SMD 100sks 11.2#
	2016	5	55/0			200		start SMD 100sks 12.5#
	2023	5	37/0			200		start SMD 100sks 13.5#
	2029	5	31/0			200		start SMD 25sks 14.5#
	2033		21					End Cement Drop Plug
	2038	5	0			150		Start Displacement
	2047	4	45			300		Circulate cement
	2055		71.5			450 700		Land Plug Shut In
								circ 50sks top 17
								Thank you
								Nick, David E. & Rob

JOB LOG

SWIFT Services, Inc.

DATE 8-26-13 PAGE NO. 1

CUSTOMER T D I WELL NO. #1 LEASE Marshq JOB TYPE Plug to Abandon TICKET NO. 24997

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2215							On location - 235 SKS 60/40 P2 Rig LDDP 40% GE Rig run Plugging Stabs to 3560'
	2400							D.P. @ 3560 - Rig CIR
	0030							1st Plug 3560' - 50 SKS cont
			10			100		10 BBI H2O
			12 1/2			100		12 1/2 BBI cont - 50 SKS
			3 1/2			100		3 1/2 BBI H2O thru tub
	0100		40					Rig pump 70 BBI H2O 2nd Plug 1170' - Full hole
			10					10 BBI H2O
			10					10 BBI cont - 40 SKS
	0230		10					10 BBI H2O thru tub
								3rd Plug 450' - Full hole
			5					5 BBI H2O
			23					23 BBI cont - 90 SKS cont
	0330		1					1 BBI H2O
			3					10 SKS @ 40' 8 5/8 Plug
			7 1/2					30 SKS @ RH
			4					15 SKS @ uH
	0515							Job Complete Washup & Reequip
	0545							<i>Mark's</i> Don Johnson John J

Conservation Division
Finney State Office Building
130 S. Market, Rm. 2078
Wichita, KS 67202-3802



Phone: 316-337-6200
Fax: 316-337-6211
<http://kcc.ks.gov/>

Mark Sievers, Chairman
Thomas E. Wright, Commissioner
Shari Feist Albrecht, Commissioner

Sam Brownback, Governor

September 17, 2013

Tom Denning
TDI, Inc.
1310 BISON RD
HAYS, KS 67601-9696

Re: ACO1
API 15-051-26559-00-00
Marsha 1
SW/4 Sec.21-15S-18W
Ellis County, Kansas

Dear Production Department:

We are herewith requesting that the Well Completion Form ACO-1 and attached information for the subject well be held confidential for a period of two years.

Should you have any questions or need additional information regarding subject well, please contact our office.

Respectfully,
Tom Denning