

Confidentiality Requested:

☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1212872

Form ACO-1

August 2013

Form must be Typed
Form must be Signed
All blanks must be Filled

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

- ☐ New Well ☐ Re-Entry ☐ Workover
- ☐ Oil ☐ WSW ☐ SWD ☐ SIOW
- ☐ Gas ☐ D&A ☐ ENHR ☐ SIGW
- ☐ OG ☐ GSW ☐ Temp. Abd.
- ☐ CM (Coal Bed Methane)
- ☐ Cathodic ☐ Other (Core, Expl., etc.): _____

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

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

Spud Date or
Recompletion Date

Date Reached TD

Completion Date or
Recompletion Date

API No. 15 - _____

Spot Description: _____

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

_____ Feet from ☐ North / ☐ South Line of Section

_____ Feet from ☐ East / ☐ West Line of Section

Footages Calculated from Nearest Outside Section Corner:

☐ NE ☐ NW ☐ SE ☐ SW

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

Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? ☐ Yes ☐ No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

☐ Confidentiality Requested

Date: _____

☐ Confidential Release Date: _____

☐ Wireline Log Received

☐ Geologist Report Received

☐ UIC Distribution

ALT ☐ I ☐ II ☐ III Approved by: _____ Date: _____

Form	ACO1 - Well Completion
Operator	TDI
Well Name	Paulette 1
Doc ID	1212872

Casing

Purpose Of String	Size Hole Drilled	Size Casing Set	Weight	Setting Depth	Type Of Cement	Number of Sacks Used	Type and Percent Additives
Surface	12.25	8.625	23	1152	SMD	375	



DRILL STEM TEST REPORT

Prepared For: **TDI LLC**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

Paulette #1

22-15s-19w Ellis,KS

Start Date: 2014.06.24 @ 18:25:00

End Date: 2014.06.25 @ 00:35:00

Job Ticket #: 55296 DST #: 1

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

Printed: 2014.06.27 @ 10:23:52



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TDI LLC

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

22-15s-19w Ellis,KS

Paulette #1

Job Ticket: 55296

DST#: 1

Test Start: 2014.06.24 @ 18:25:00

GENERAL INFORMATION:

Formation: **L.K.C. "B - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:02:00

Time Test Ended: 00:35:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Bob Hamel

Unit No: 67

Interval: 3252.00 ft (KB) To 3290.00 ft (KB) (TVD)

Total Depth: 3290.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1957.00 ft (KB)

1947.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6625 Outside

Press@RunDepth: 73.90 psig @ 3256.00 ft (KB)

Start Date: 2014.06.24

End Date:

2014.06.25

Start Time: 18:25:01

End Time:

00:35:00

Capacity: 8000.00 psig

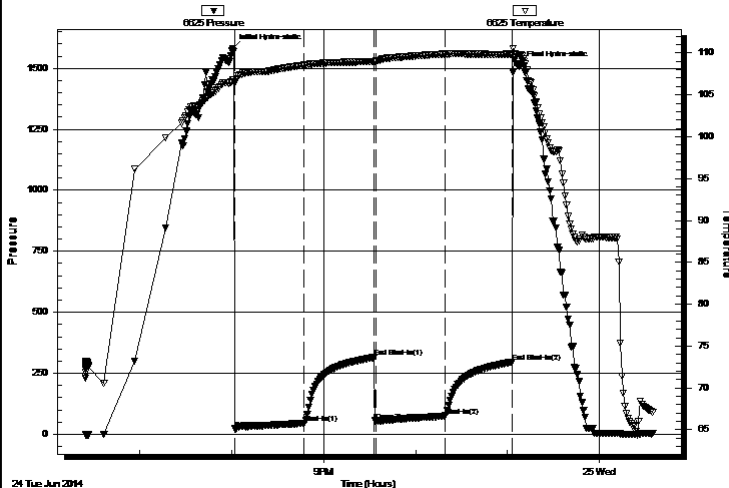
Last Calib.: 2014.06.24

Time On Btm: 2014.06.24 @ 20:01:00

Time Off Btm: 2014.06.24 @ 23:08:00

TEST COMMENT: I.F. - 45 - Weak blow built to 9"
I.S.I. - 45 - No blow back
F.F. - 45 - Weak blow built to 4"
F.S.I. - 45 - No blow back

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1581.78	106.75	Initial Hydro-static
1	21.41	106.60	Open To Flow (1)
47	45.29	108.57	Shut-In(1)
92	314.29	108.96	End Shut-In(1)
93	51.97	109.01	Open To Flow (2)
138	73.90	109.87	Shut-In(2)
182	295.45	109.86	End Shut-In(2)
187	1511.02	109.77	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
83.00	S,O,S,M,W, 2%O 48%M 50%W	1.16

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TDI LLC

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

22-15s-19w Ellis, KS

Paulette #1

Job Ticket: 55296

DST#: 1

Test Start: 2014.06.24 @ 18:25:00

GENERAL INFORMATION:

Formation: **L.K.C. "B - D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 20:02:00

Time Test Ended: 00:35:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Bob Hamel

Unit No: 67

Interval: 3252.00 ft (KB) To 3290.00 ft (KB) (TVD)

Total Depth: 3290.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1957.00 ft (KB)

1947.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8319 Inside

Press@RunDepth: psig @ 3256.00 ft (KB)

Start Date: 2014.06.24

End Date:

2014.06.25

Start Time: 18:25:01

End Time:

00:35:00

Capacity: 8000.00 psig

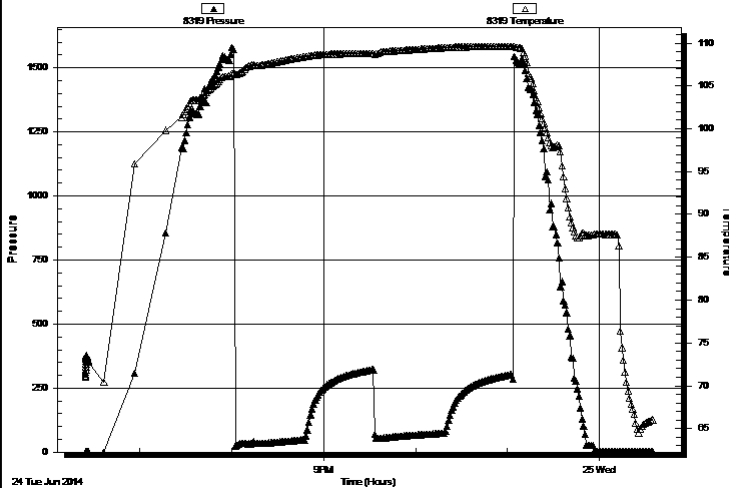
Last Calib.: 2014.06.25

Time On Btm:

Time Off Btm:

TEST COMMENT: I.F. - 45 - Weak blow built to 9"
I.S.I. - 45 - No blow back
F.F. - 45 - Weak blow built to 4"
F.S.I. - 45 - No blow back

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
83.00	S,O,S,M,W, 2%O 48%M 50%W	1.16

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI LLC

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

22-15s-19w Ellis,KS

Paulette #1

Job Ticket: 55296

DST#: 1

Test Start: 2014.06.24 @ 18:25:00

Tool Information

Drill Pipe:	Length:	3248.00 ft	Diameter:	3.80 inches	Volume:	45.56 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 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:	50000.00 lb
					Total Volume:	45.56 bbl	Tool Chased	7.00 ft
Drill Pipe Above KB:		16.00 ft					String Weight: Initial	43000.00 lb
Depth to Top Packer:		3252.00 ft					Final	43000.00 lb
Depth to Bottom Packer:		ft						
Interval between Packers:		38.00 ft						
Tool Length:		58.00 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			3233.00	
Shut In Tool	5.00			3238.00	
Hydraulic tool	5.00			3243.00	
Packer	4.00			3247.00	20.00 Bottom Of Top Packer
Packer	5.00			3252.00	
Stubb	1.00			3253.00	
Perforations	3.00			3256.00	
Recorder	0.00	6625	Outside	3256.00	
Recorder	0.00	8319	Inside	3256.00	
Perforations	30.00			3286.00	
Bullnose	4.00			3290.00	38.00 Bottom Packers & Anchor

Total Tool Length: 58.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI LLC

22-15s-19w Ellis,KS

1310 Bison Rd
Hays KS 67601

Paulette #1

Job Ticket: 55296

DST#: 1

ATTN: Herb Deines

Test Start: 2014.06.24 @ 18:25:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 63.00 sec/qt

Water Loss: 7.98 in³

Resistivity: 0.00 ohm.m

Salinity: 4500.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

5500 ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
83.00	S,O,S,M,W, 2%O 48%M 50%W	1.164

Total Length: 83.00 ft Total Volume: 1.164 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: R.W. = 1.29 OHMS @ 61.3 DEG.

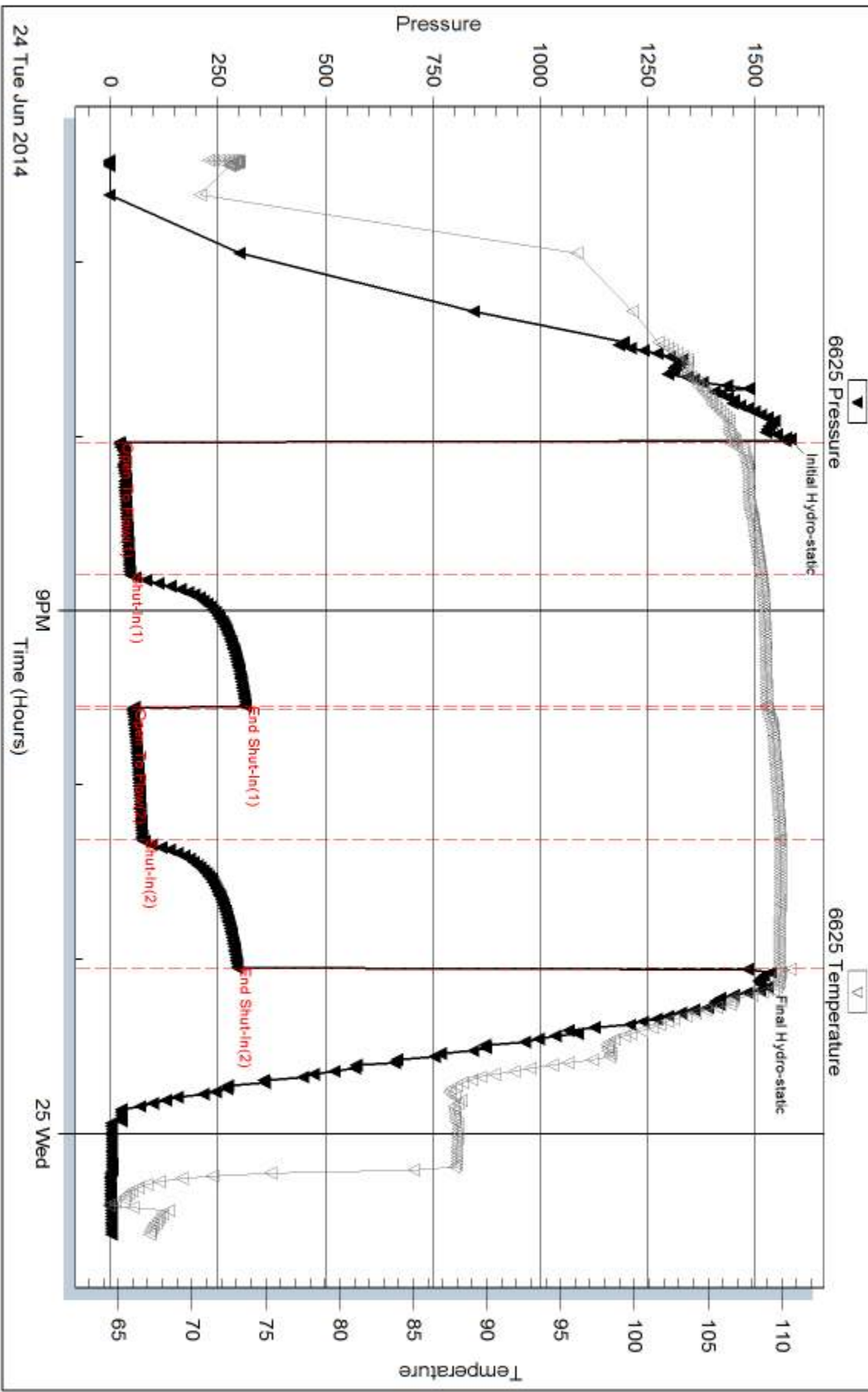
Serial #: 6625

Outside TDI LLC

Paulette #1

DST Test Number: 1

Pressure vs. Time



Serial #: 8319

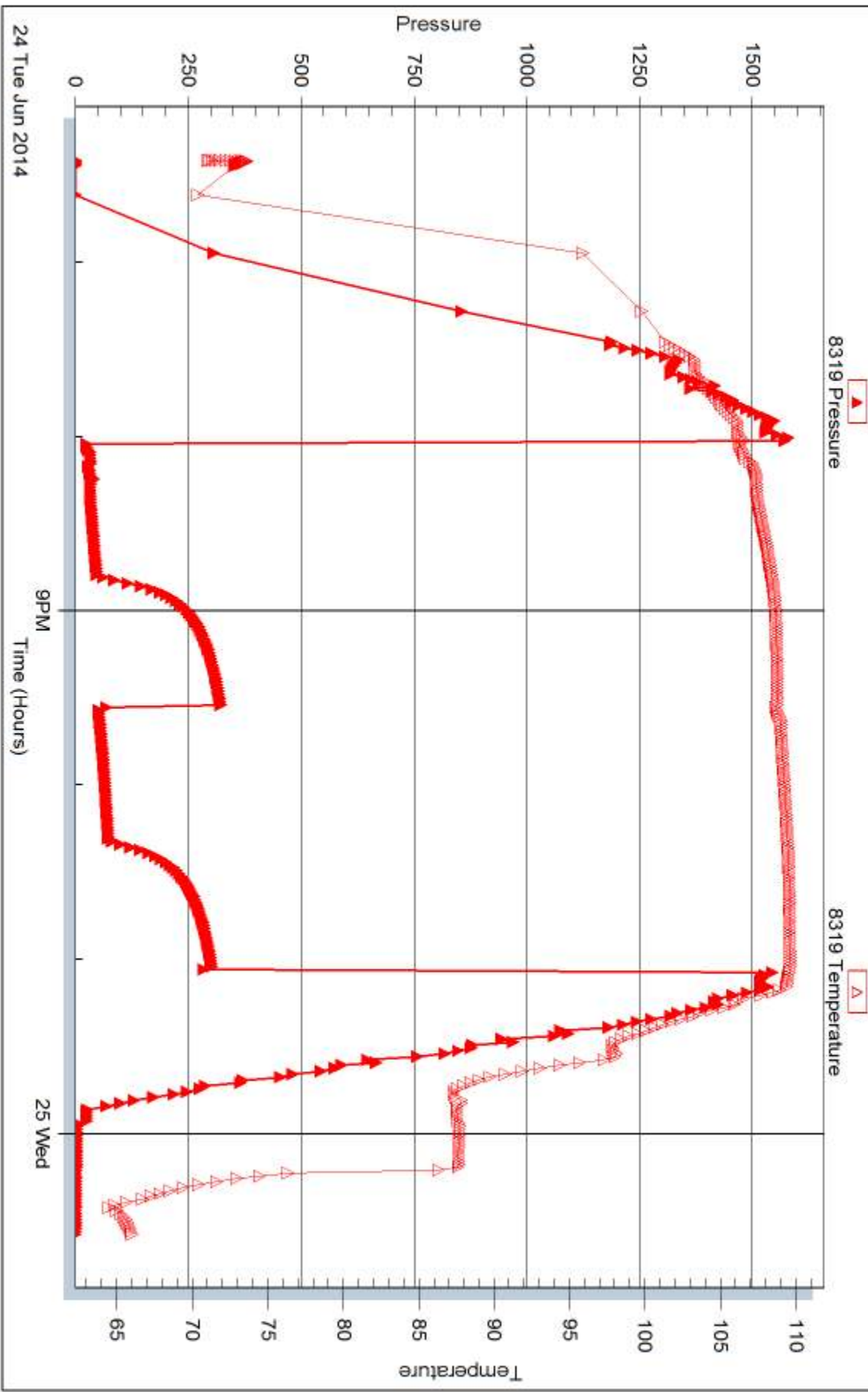
Inside

TD LLC

Paulette #1

DST Test Number: 1

Pressure vs. Time



Trilobite Testing, Inc

Ref. No: 55296

Printed: 2014.06.27 @ 10:23:53



DRILL STEM TEST REPORT

Prepared For: **TDI LLC**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

Paulette #1

22-15s-19w Ellis,KS

Start Date: 2014.06.26 @ 04:09:00

End Date: 2014.06.26 @ 10:37:30

Job Ticket #: 59384 DST #: 2

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

Printed: 2014.06.27 @ 10:22:44



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI LLC

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

22-15s-19w Ellis,KS

Paulette #1

Job Ticket: 59384

DST#: 2

Test Start: 2014.06.26 @ 04:09:00

GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:27:30

Time Test Ended: 10:37:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

Interval: 3295.00 ft (KB) To 3338.00 ft (KB) (TVD)

Total Depth: 3664.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1957.00 ft (KB)

1947.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 6625 Inside

Press@RunDepth: 217.32 psig @ 3362.00 ft (KB)

Start Date: 2014.06.26

End Date:

2014.06.26

Start Time: 04:09:01

End Time:

10:37:30

Capacity: 8000.00 psig

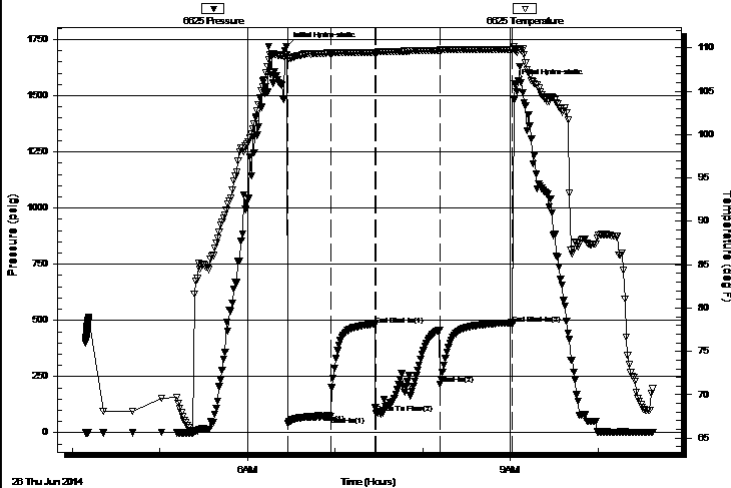
Last Calib.: 2014.06.26

Time On Btm: 2014.06.26 @ 06:27:00

Time Off Btm: 2014.06.26 @ 09:03:00

TEST COMMENT: 30-IF-Built to 6 1/2"
30-ISI-No Return
45-FF-Built to 2 1/4"
45-FSI-No Return

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1719.00	109.15	Initial Hydro-static
1	42.03	108.86	Open To Flow (1)
30	74.46	109.39	Shut-In(1)
60	480.75	109.43	End Shut-In(1)
61	85.88	109.49	Open To Flow (2)
105	217.32	109.75	Shut-In(2)
155	484.49	109.84	End Shut-In(2)
156	1552.27	109.93	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
83.00	VSWCM, 3%w, 97%m	1.16
15.00	M, 100%m	0.21

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI LLC

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

22-15s-19w Ellis, KS

Paulette #1

Job Ticket: 59384

DST#: 2

Test Start: 2014.06.26 @ 04:09:00

GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:27:30

Time Test Ended: 10:37:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

Interval: 3295.00 ft (KB) To 3338.00 ft (KB) (TVD)

Total Depth: 3664.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1957.00 ft (KB)

1947.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8652 Below (Straddle)

Press@RunDepth: psig @ 3373.00 ft (KB)

Start Date: 2014.06.26

End Date:

2014.06.26

Start Time: 04:09:05

End Time:

10:37:44

Capacity: 8000.00 psig

Last Calib.:

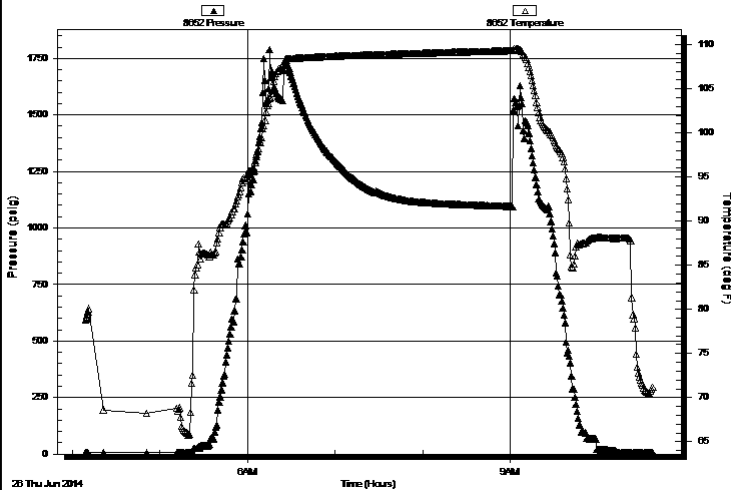
2014.06.26

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-Built to 6 1/2"
30-ISI-No Return
45-FF-Built to 2 1/4"
45-FSI-No Return

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
83.00	VSWCM, 3%w, 97%m	1.16
15.00	M, 100%m	0.21

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TDI LLC

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

22-15s-19w Ellis, KS

Paulette #1

Job Ticket: 59384

DST#: 2

Test Start: 2014.06.26 @ 04:09:00

GENERAL INFORMATION:

Formation: **LKC "F"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 06:27:30

Time Test Ended: 10:37:30

Test Type: Conventional Bottom Hole (Reset)

Tester: Phillip Gage

Unit No: 67

Interval: 3295.00 ft (KB) To 3338.00 ft (KB) (TVD)

Total Depth: 3664.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1957.00 ft (KB)

1947.00 ft (CF)

KB to GR/CF: 10.00 ft

Serial #: 8319 Outside

Press@RunDepth: psig @ 3362.00 ft (KB)

Start Date: 2014.06.26

End Date:

2014.06.26

Start Time: 04:09:01

End Time:

10:37:30

Capacity: 8000.00 psig

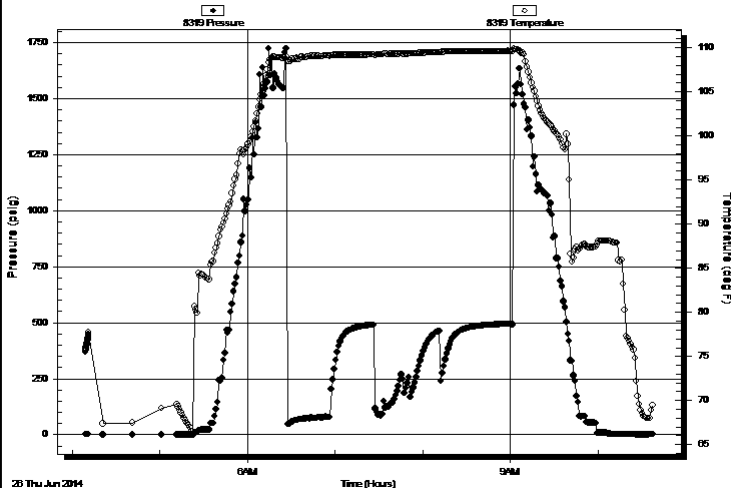
Last Calib.: 2014.06.26

Time On Btm:

Time Off Btm:

TEST COMMENT: 30-IF-Built to 6 1/2"
30-ISI-No Return
45-FF-Built to 2 1/4"
45-FSI-No Return

Pressure vs. Time



PRESSURE SUMMARY

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

Length (ft)	Description	Volume (bbl)
83.00	VSWCM, 3%w, 97%m	1.16
15.00	M, 100%m	0.21

Gas Rates

	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
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* Recovery from multiple tests



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI LLC

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

22-15s-19w Ellis,KS

Paulette #1

Job Ticket: 59384

DST#: 2

Test Start: 2014.06.26 @ 04:09:00

Tool Information

Drill Pipe:	Length:	3293.00 ft	Diameter:	3.80 inches	Volume:	46.19 bbl	Tool Weight:	2200.00 lb		
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70 inches	Volume:	0.00 bbl	Weight set on Packer:	25000.00 lb		
Drill Collar:	Length:	0.00 ft	Diameter:	2.25 inches	Volume:	0.00 bbl	Weight to Pull Loose:	50000.00 lb		
						Total Volume:	46.19 bbl	Tool Chased	0.00 ft	
Drill Pipe Above KB:	18.00 ft								String Weight: Initial	46000.00 lb
Depth to Top Packer:	3295.00 ft								Final	49000.00 lb
Depth to Bottom Packer:	ft									
Interval between Packers:	406.00 ft									
Tool Length:	426.00 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			3276.00		
Shut In Tool	5.00			3281.00		
Hydraulic tool	5.00			3286.00		
Packer	4.00			3290.00	20.00	Bottom Of Top Packer
Packer	5.00			3295.00		
Stubb	1.00			3296.00		
Change Over Sub	1.00			3297.00		
Drill Pipe	31.00			3328.00		
Change Over Sub	1.00			3329.00		
Change Over Sub	1.00			3330.00		
Drill Pipe	31.00			3361.00		
Change Over Sub	1.00			3362.00		
Recorder	0.00	6625	Inside	3362.00		
Recorder	0.00	8319	Outside	3362.00		
Perforations	5.00			3367.00		
Blank Off Sub	1.00			3368.00		
Stubb	3.00			3371.00	406.00	Tool Interval
Packer	1.00			3372.00		
Stubb	1.00			3373.00		
Recorder	0.00	8652	Below	3373.00		
Perforations	6.00			3379.00		
Change Over Sub	1.00			3380.00		
Drill Pipe	316.00			3696.00		
Change Over Sub	1.00			3697.00		
Bullnose	4.00			3701.00	1000425.00	Bottom Packers & Anchor

Total Tool Length: 426.00



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI LLC

22-15s-19w Ellis,KS

1310 Bison Rd
Hays KS 67601

Paulette #1

Job Ticket: 59384

DST#: 2

ATTN: Herb Deines

Test Start: 2014.06.26 @ 04:09:00

Mud and Cushion Information

Mud Type: Gel Chem

Mud Weight: 9.00 lb/gal

Viscosity: 54.00 sec/qt

Water Loss: 9.19 in³

Resistivity: 0.00 ohm.m

Salinity: 6200.00 ppm

Filter Cake: 1.00 inches

Cushion Type:

Cushion Length:

Cushion Volume:

Gas Cushion Type:

Gas Cushion Pressure:

ft

bbl

psig

Oil API:

Water Salinity:

deg API

ppm

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
83.00	VSWCM, 3%w , 97%m	1.164
15.00	M, 100%m	0.210

Total Length: 98.00 ft

Total Volume: 1.374 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

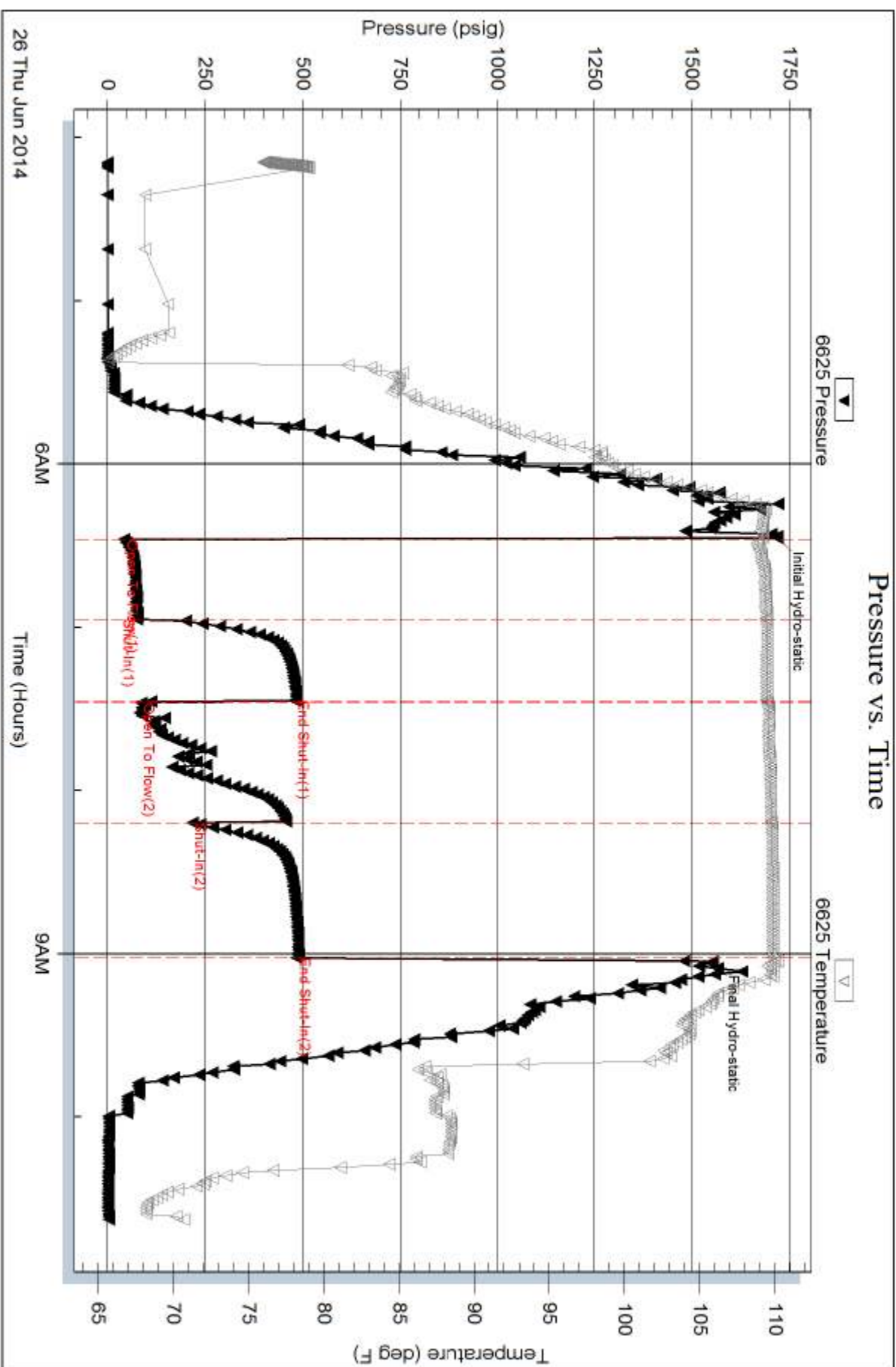
Recovery Comments:

Serial #: 6625

Inside TDI LLC

Paulette #1

DST Test Number: 2

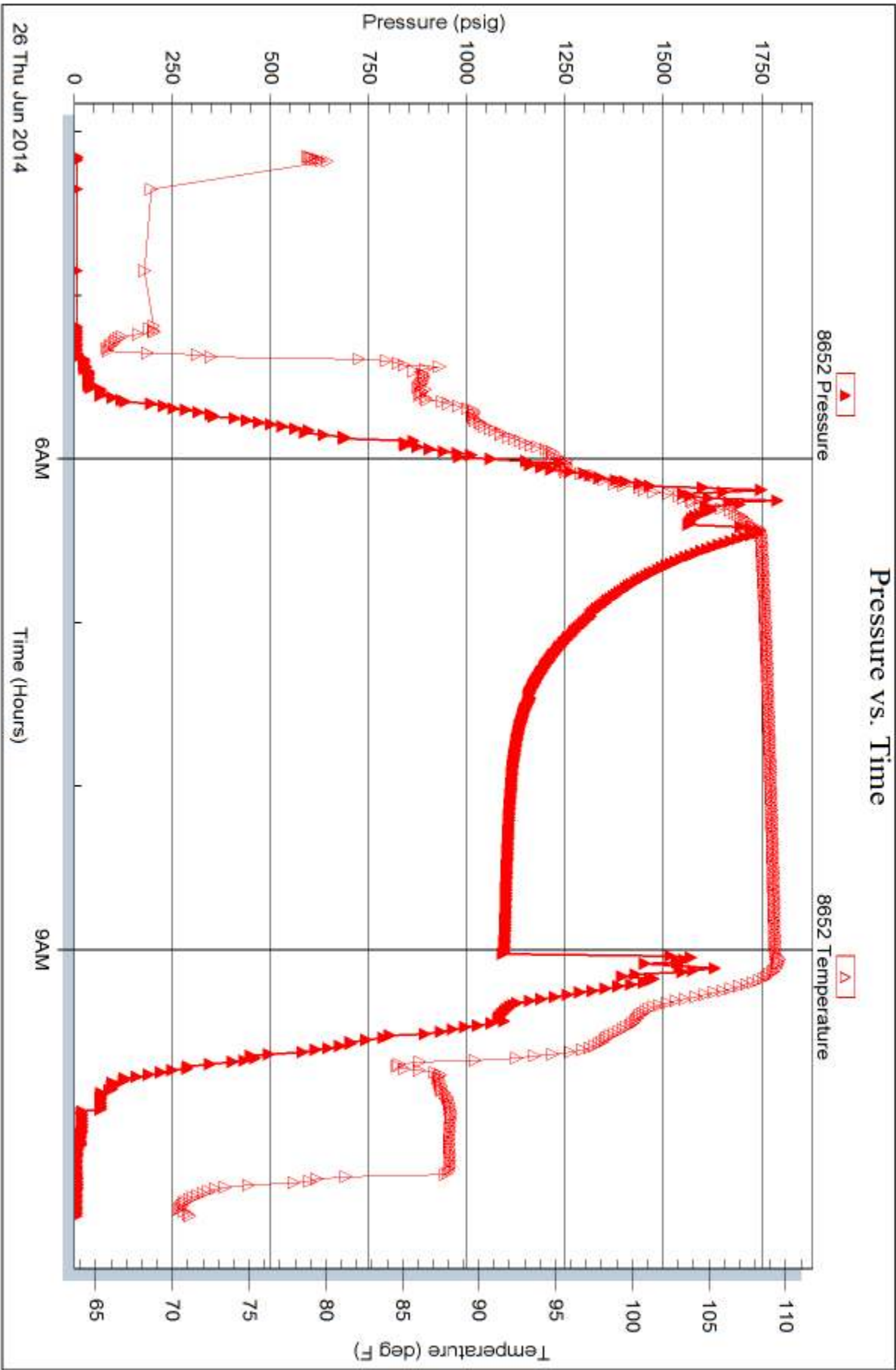


Serial #: 8652

Below (Strat) 14JC

Paulette #1

DST Test Number: 2

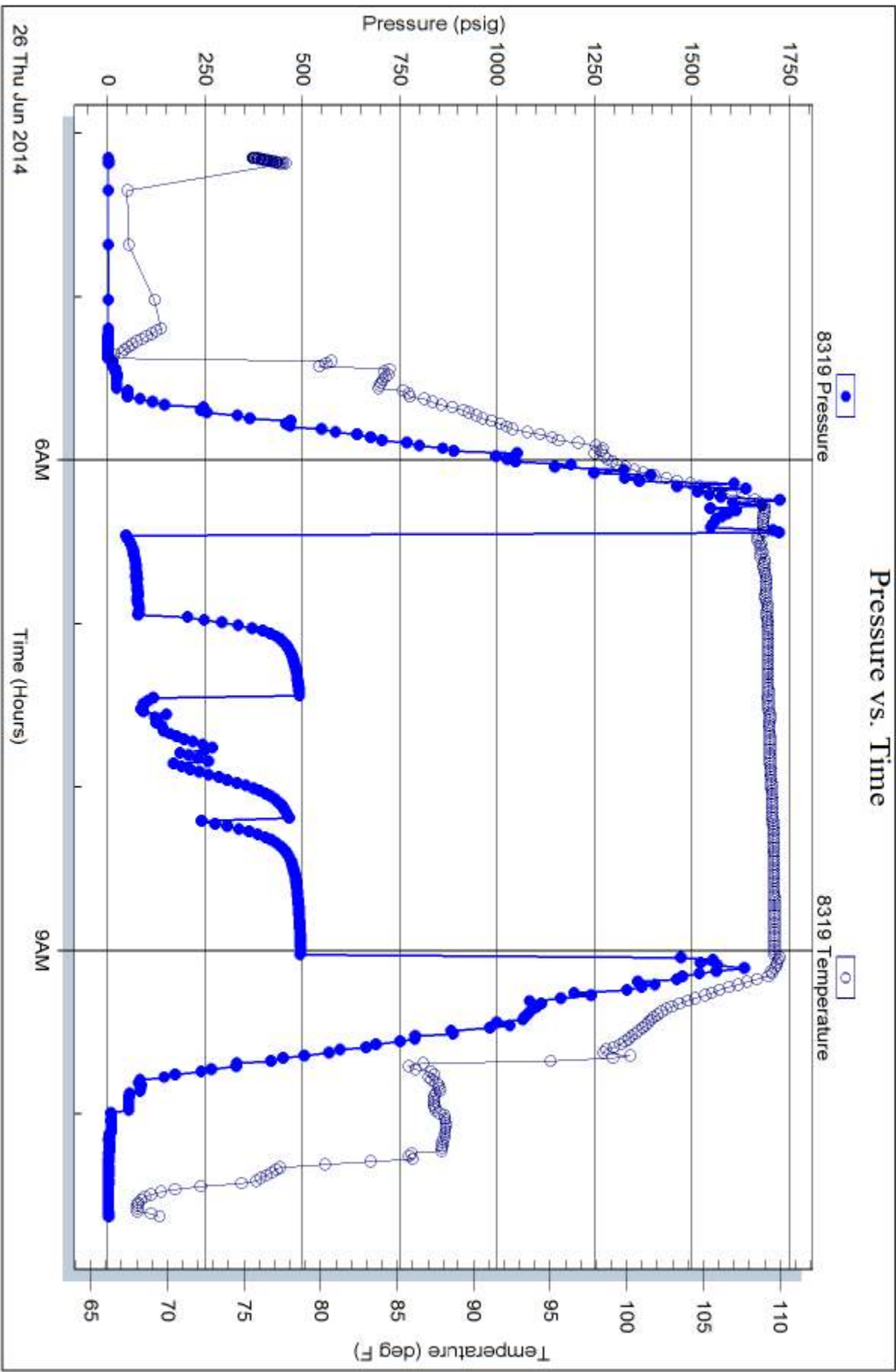


Serial #: 8319

Outside TDI LLC

Paulette #1

DST Test Number: 2





TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 55296

Well Name & No. Bonlette #1 Test No. 1 Date 6-24-14
 Company T.D.I. h.c. Elevation 1,952 KB 1,947 GL
 Address 1310 Bison R.D. Hays KS. 67601
 Co. Rep / Geo. Herb Deines Rig Southwind #1
 Location: Sec. 22 Twp. 15-S Rge. 19-W Co. Ellis State KS.

Interval Tested 3252-3290 Zone Tested B.C.D
 Anchor Length 38' Drill Pipe Run 3298 Mud Wt. 8.8
 Top Packer Depth 3247 Drill Collars Run — Vis 63
 Bottom Packer Depth 3252 Wt. Pipe Run — WL 8.0
 Total Depth 3290 Chlorides 4500 ppm System LCM 1/2

Blow Description IF-45-1/2" INT. Blow Built to (9" in 45 min.)
I.S.I-45- No B.B.
E.F-45-W.S.B. Started @ 2min. Built to (4" in 45 min.)
E.S.I-45- No B.B.

Rec	Feet of	%gas	%oil	%water	%mud
Rec <u>83'</u>	Feet of <u>S, O, S, M, W</u>	%gas <u>2</u>	%oil <u>50</u>	%water <u>48</u>	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 83' BHT 109.8 Gravity — API RW 1.29 @ 61.3 °F Chlorides 5,500 ppm
 (A) Initial Hydrostatic 1,582 ☒ Test 1150 T-On Location 17:45:00
 (B) First Initial Flow 21 ☐ Jars — T-Started 18:25:00
 (C) First Final Flow 45 ☐ Safety Joint — T-Open 20:28:00
 (D) Initial Shut-In 314 ☐ Circ Sub — T-Pulled 23:28:00
 (E) Second Initial Flow 52 ☐ Hourly Standby — T-Out 00:57:00
 (F) Second Final Flow 79 ☒ Mileage 24 / R.T. 37.20 Comments "Thank-you"
 (G) Final Shut-In 295 ☐ Sampler —
 (H) Final Hydrostatic 1,511 ☐ Straddle —
☐ Shale Packer —
☐ Extra Packer —
☐ Extra Recorder —
☐ Day Standby —
☐ Accessibility —

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

☐ Ruined Shale Packer
☐ Ruined Packer
☐ Extra Copies
 Sub Total 0
 Total 1187.20
 MP/DST Disc't —

Approved By _____

Our Representative Bert Hume

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. 59384

Well Name & No. Panlette #1 Test No. 2 Date 6-26-14
 Company TDI LLC Elevation 1952 KB 1947 GL
 Address 1310 Bison RD Hays, KS 67601
 Co. Rep / Geo. Herb Demers Rig Southwind #1
 Location: Sec. 22 Twp. 15s Rge. 19w Co. Ellis State KS

Interval Tested 3295-3338 Zone Tested UCL "FP"
 Anchor Length 43' 330' Tail Drill Pipe Run 3293 Mud Wt. 9.2
 Top Packer Depth 3290 Drill Collars Run 60' Vis 54
 Bottom Packer Depth 3295 Wt. Pipe Run — WL 9.2
 Total Depth 3664 Chlorides 6,200 ppm System LCM 1

Blow Description IF- Buite to 6 1/2"
ISF- No Return
FF- Buite to 2 1/4"
FSI- No Return

Rec	Feet of	%gas	%oil	%water	%mud
<u>83</u>	<u>VSWM</u>			<u>3</u>	<u>97</u>
<u>15</u>	<u>M</u>				<u>100</u>

Rec Total 138 BHT 109 Gravity — API RW — @ — ° F Chlorides — ppm

(A) Initial Hydrostatic 1719
 (B) First Initial Flow 42
 (C) First Final Flow 74
 (D) Initial Shut-In 480
 (E) Second Initial Flow 85
 (F) Second Final Flow 27
 (G) Final Shut-In 484
 (H) Final Hydrostatic 1552

☒ Test 1150
☐ Jars —
☐ Safety Joint —
☐ Circ Sub —
☐ Hourly Standby —
☒ Mileage 24 RT 37.20
☐ Sampler —
☒ Straddle 600

T-On Location 04:07
 T-Started 04:09
 T-Open 06:27
 T-Pulled 08:57
 T-Out 10:38
 Comments —

Initial Open 30
 Initial Shut-In 30
 Final Flow 45
 Final Shut-In 45

☐ Shale Packer —
☐ Extra Packer —
☐ Extra Recorder —
☐ Day Standby 1d 3h
☐ Accessibility —

☐ Ruined Shale Packer —
☐ Ruined Packer —
☐ Extra Copies —
 Sub Total 100
 Total 1887.20
 MP/DST Disc't —

Sub Total 1787.20

Approved By —

Our Representative Phil Shupe

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: PAULETTE # 1
Location: W2 SE SW SE Sec.T15S-R19W
API: 15-051-26,709-00-00
Pool:
State: KANSAS

Field: UNNAMED
Country: USA



Scale 1:240 Imperial

Well Name: PAULETTE # 1
Surface Location: W2 SE SW SE Sec.T15S-R19W
Bottom Location:
API: 15-051-26,709-00-00
License Number: 4787
Spud Date: 6/20/2014 Time: 3:34 PM
Region: ELLIS COUNTY
Drilling Completed: 6/25/2014 Time: 7:28 PM
Surface Coordinates: 330' FSL & 1925' FEL
Bottom Hole Coordinates:
Ground Elevation: 1947.00ft
K.B. Elevation: 1957.00ft
Logged Interval: 2800.00ft To: 3668.00ft
Total Depth: 3668.00ft
Formation: LANSING-KANSAS CITY
Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
Longitude: -99.4188651
Latitude: 38.726556
N/S Co-ord: 330' FSL
E/W Co-ord: 1925' FEL

LOGGED BY

Company: SOLUTIONS CONSULTING, INC.
Address: 108 WEST 35TH STREET
HAYS, KANSAS 67601

Phone Nbr: 785-625-3380
Logged By: GEOLOGIST

Name: HERB DEINES

CONTRACTOR

Contractor: SOUTHWIND DRILLING, INC.
Rig #: 1
Rig Type: MUD ROTARY
Spud Date: 6/20/2014
TD Date: 6/25/2014

Time: 3:34 PM
Time: 7:28 PM

ELEVATIONS

K.B. Elevation: 1957.00ft
K.B. to Ground: 10.00ft

Ground Elevation: 1947.00ft

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL BASED ON NEGATIVE RESULTS OF TWO DSTS AND LOG ANALYSIS

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

DRILL STEM TESTING BY TRILOBITE TESTING INC: ONE (1) CONVENTIONAL TEST AND ONE (1) STRADDLE TEST

FORMATION TOPS COMPARISON

	PAULETTE # 1	HERL # 2	WERTH C-3
	W2 SE SW SE	SW NW NE	SW SW SW
	SEC.22-15S-19W	SEC.27-15-19W	SEC.23-15-19W
	1947'GL 1957'KB	KB 2006'	KB 1952'
<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1156 +801	+ 806	+810
B-Anhydrite	1189 +768	+ 768	+772
Topeka	2924 -967	- 959	- 974
Heebner Sh.	3198-1241	-1235	-1238
Toronto	3217-1260	-1253	
LKC	3244-1287	-1279	-1284
BKC	3496-1539	-1537	-1536
Marmaton	3540-1583	-1564	
Conglomerate Sd	3574-1617	-1588	
Arbuckle	NOT FOUND	NR	-1622
Reagan Sand	3600-1643		
Precambrian	3666-1709		
RTD	3668-1711	-1634	-1683

SUMMARY OF DAILY ACTIVITY

6-20-14 RU, Spud 3:00 PM,
6-21-14 1155', set 8 5/8" surface casing to 1152' w/ 375sxs SMD, slope 1 1/4 degree, plug down 3:45 PM, WOC 12 Hours
6-22-14 1300', drill plug at 3:45 AM
6-23-14 2465', drilling, displaced 2793' to 2814'
6-24-14 3160', CFS 3225', short trip, CFS 3290', TOWB, DST # 1 3252' to

3290' "A"- "D" LKC, TIWB

6-25-14

3370', drilling, RTD 3668' @7:28PM, CCH, TOWB, start logging

6-26-14

3668', finish logs, straddle DST # 2 3295' to 3338' "F" LKC, TIWB, LDDP, P&A

DST # 1 TEST SUMMARY

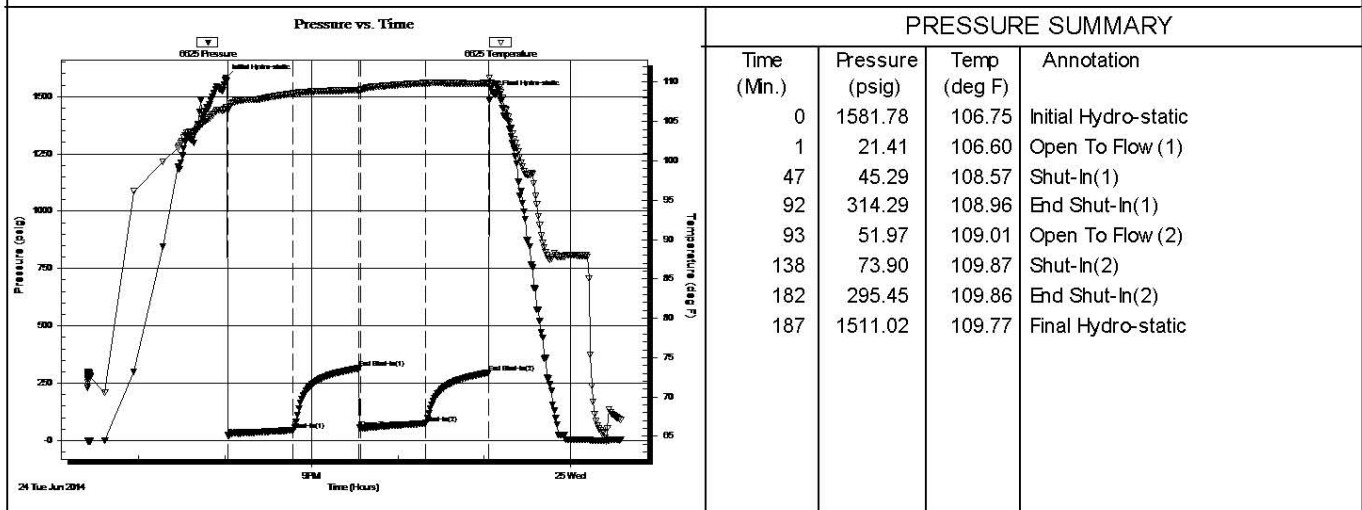
	DRILL STEM TEST REPORT	
	T.D.I. L.L.C. 1310 Bison R.D. HAYS KS. 67601 ATTN: Herb Deines	SEC. 22 - 15 s. - 19 w./ Ellis Paulette # 1 Job Ticket: 55296 DST#: 1 Test Start: 2014.06.24 @ 18:25:00

GENERAL INFORMATION:

Formation: L.K.C. "B,C,D,"		Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock: ft (KB)		Tester: Bob Hamel
Time Tool Opened: 20:02:00		Unit No: 67
Time Test Ended: 00:35:00		
Interval: 3252.00 ft (KB) To 3290.00 ft (KB) (TVD)		Reference Elevations: 1957.00 ft (KB)
Total Depth: 3290.00 ft (KB) (TVD)		1947.00 ft (CF)
Hole Diameter: 7.88 inches Hole Condition: Fair		KB to GR/CF: 10.00 ft

Serial #: 6625	Outside				
Press@RunDepth: 73.90 psig @ 3256.00 ft (KB)		Capacity: 8000.00 psig			
Start Date: 2014.06.24	End Date: 2014.06.25	Last Calib.: 1899.12.30			
Start Time: 18:25:01	End Time: 00:35:00	Time On Btm: 2014.06.24 @ 20:01:00			
		Time Off Btm: 2014.06.24 @ 23:08:00			

TEST COMMENT: I.F. - 45 - 1/2" INT. BLOW BUILT TO (9" IN 45 MIN.)
 I.S.I. - 45 - NO B.B.
 F.F. - 45 - W.S.B. STARTED @ 2 MIN. BUILT TO (4" IN 45 MIN.)
 F.S.I. - 45 - NO B.B.



Recovery

Gas Rates

Length (ft)	Description	Volume (bbl)
83.00	S.O.S,M,W, 2%O 48%M50%W	1.16

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

Trilobite Testing, Inc

Ref. No: 55296

Printed: 2014.06.25 @ 08:17:50

DST # 2 STRADDLE TEST SUMMARY

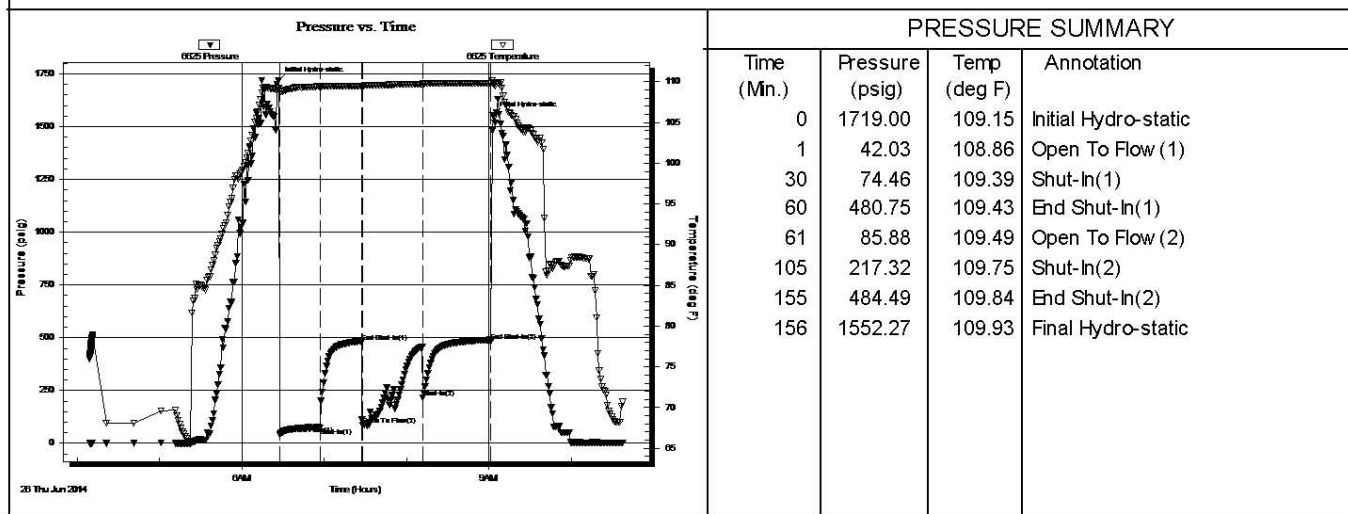
 TRILOBITE TESTING, INC	DRILL STEM TEST REPORT	
	TDI LLC	22-15s-19w Ellis
	1310 Bison R.D. HAYS KS. 67601	Paulette # 1
	ATTN: Herb Deines	Job Ticket: 59384 DST#: 2 Test Start: 2014.06.26 @ 04:09:00

GENERAL INFORMATION:

Formation: **LKC "F"**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 06:27:30
 Time Test Ended: 10:37:30
 Interval: **3295.00 ft (KB) To 3338.00 ft (KB) (TVD)**
 Total Depth: 3664.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Phillip Gage
 Unit No: 67
 Reference Elevations: 1957.00 ft (KB)
 1947.00 ft (CF)
 KB to GR/CF: 10.00 ft

Serial #: 6625 Inside
 Press@RunDepth: 217.32 psig @ 3362.00 ft (KB)
 Start Date: 2014.06.26 End Date: 2014.06.26
 Start Time: 04:09:01 End Time: 10:37:30
 Capacity: 8000.00 psig
 Last Calib.: 2014.06.26
 Time On Btm: 2014.06.26 @ 06:27:00
 Time Off Btm: 2014.06.26 @ 09:03:00

TEST COMMENT: 30-IF-Built to 6 1/2"
 30-ISI-No Return
 45-FF-Built to 2 1/4"
 45-FSI-No Return



Recovery

Length (ft)	Description	Volume (bbl)
83.00	S.O.S,M,W, 2%O 48%M50%W	1.16

Gas Rates

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

83.00	VSVMCM, 3%w , 97%ml	1.16
15.00	M, 100%ml	0.21

* Recovery from multiple tests

Trilobite Testing, Inc

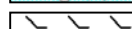
Ref. No: 59384

Printed: 2014.06.26 @ 11:05:43

Image Header 04

Image Header 05

ROCK TYPES

	Clystgy		shale, grn		shale, red		Lscongl
	Lmst fw<7		shale, gry		Ss		Dol Lime
	Lmst fw7>		Carbon Sh		Meta		CglSandy

ACCESSORIES

MINERAL

- ▲ Chert, dark
- P Pyrite

OTHER SYMBOLS

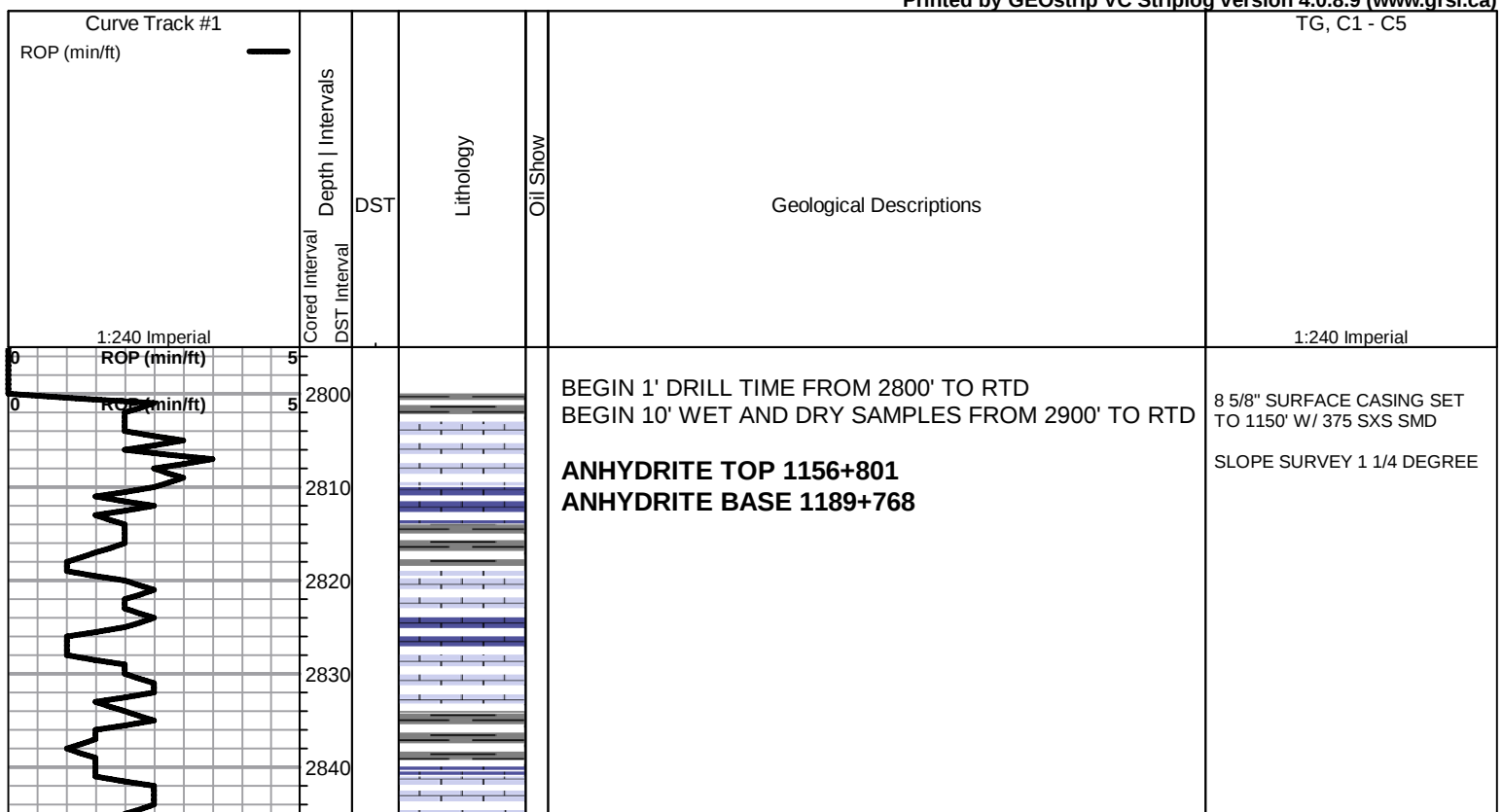
Oil Show

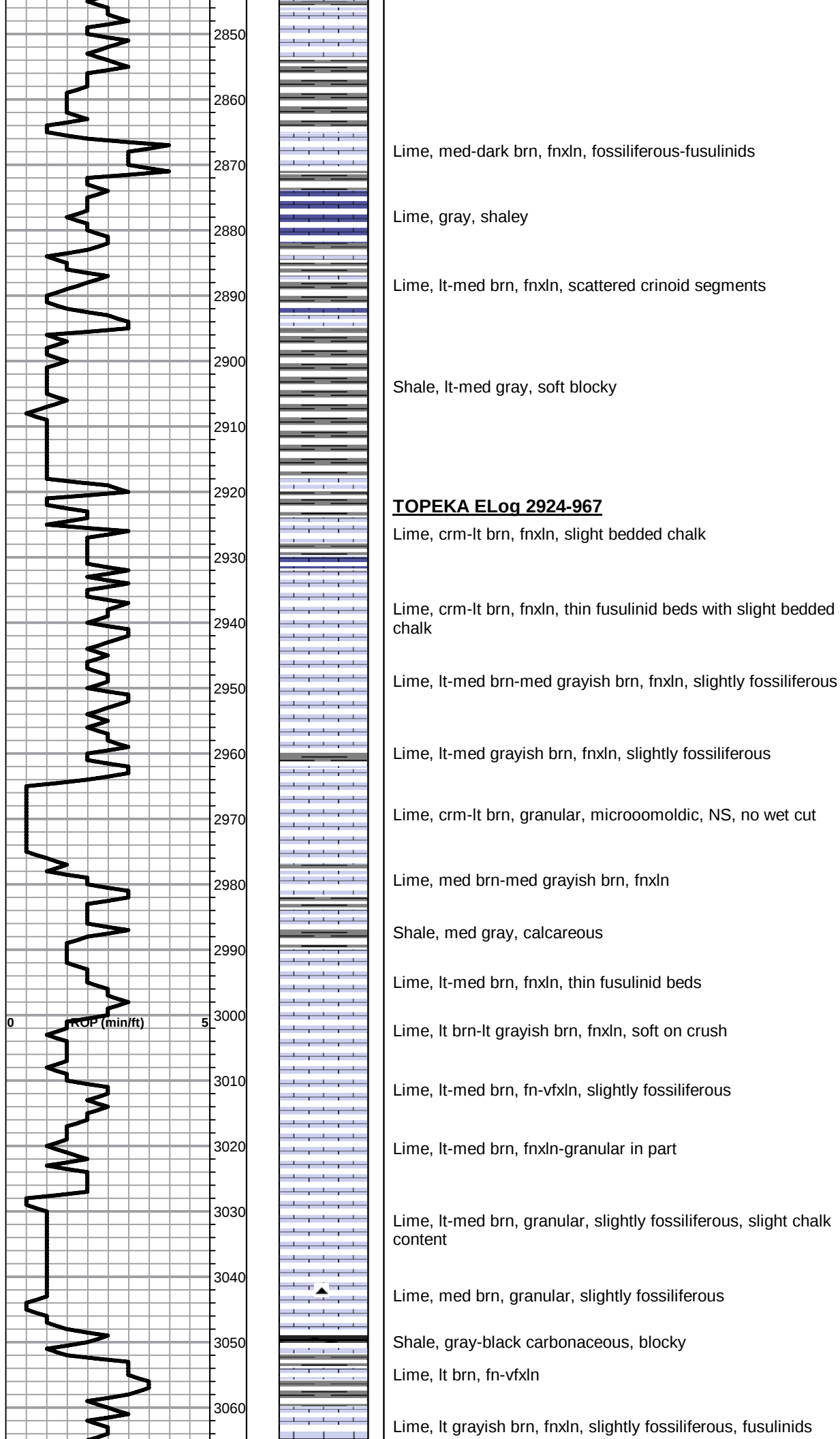
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- D Dead Oil Stn
- Fluorescence
- * Gas

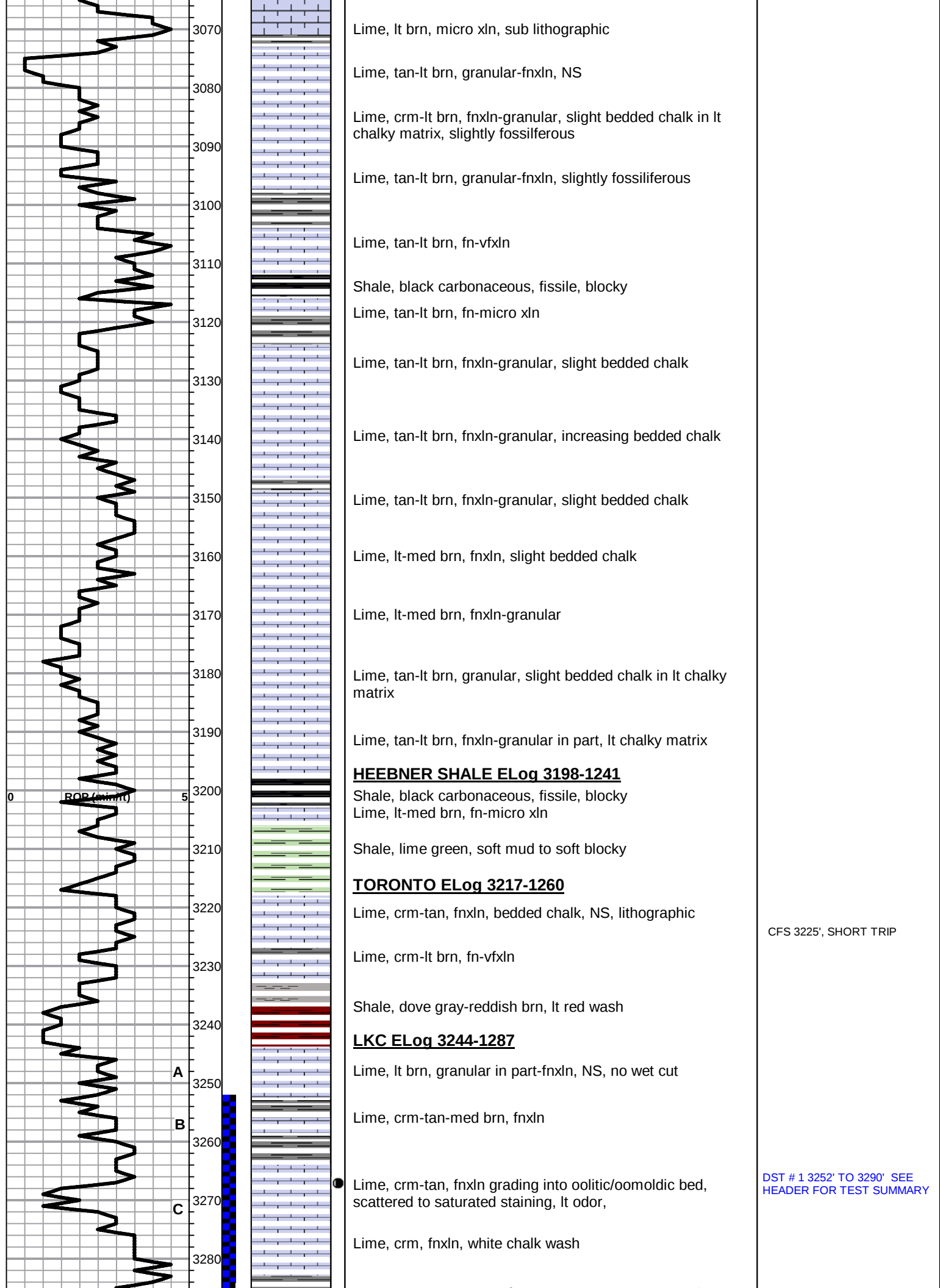
DST

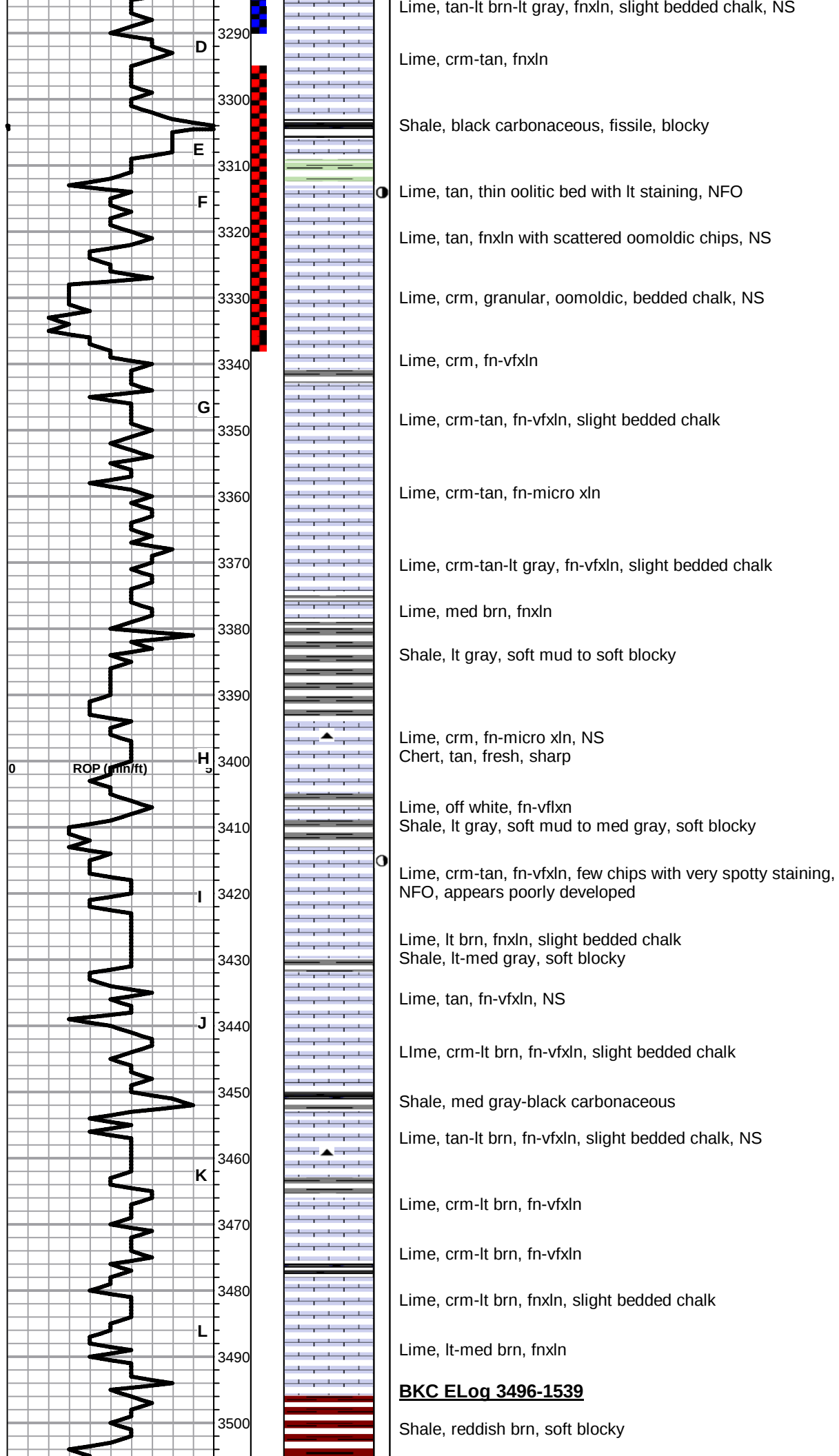
- DST Int
- DST alt
- Core
- tail pipe

Printed by GEOstrip VC Striplog version 4.0.8.9 (www.grsi.ca)



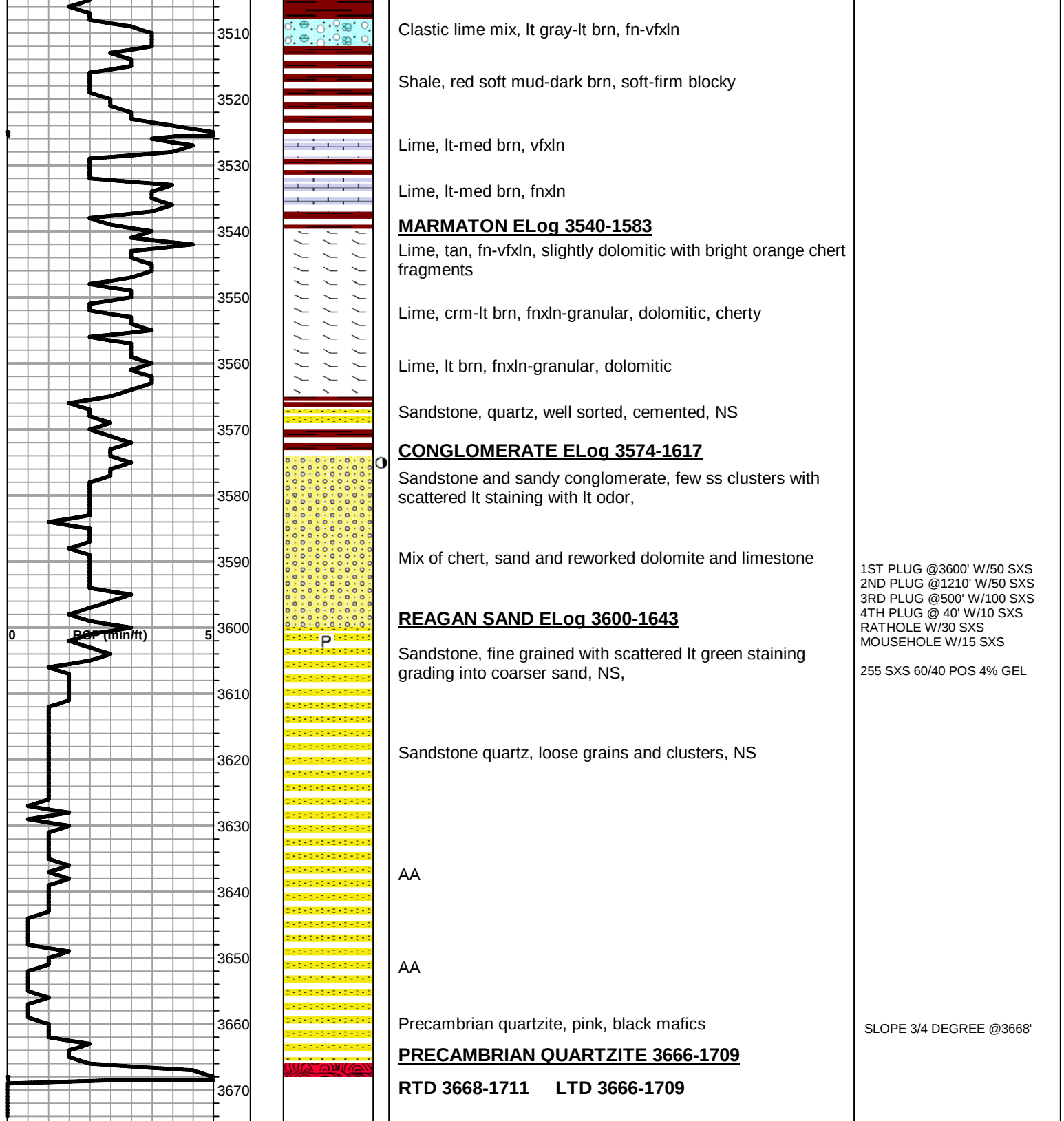






DST # 2 STRADDLE TEST
3295' TO 3338' SEE HEADER
FOR TEST SUMMARY

BKC ELog 3496-1539



SWIFT Services, Inc.

DATE	6-21-14	PAGE NO.	1
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CUSTOMER	TDI	WELL NO.	#1	LEASE	PAULETTE	JOB TYPE	8 3/8 SURFACE	TICKET NO.	26384
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CHART NO.	TIME	RATE (BPM)	VOLUME (BBL/GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	1130							ON LOCATION
	1300							START 8 5/8" CASING IN WELL
								TD-1155' SETC 1151'
								TP-1151' 8 5/8" # 23
								ST-42'
								CENTRIZERS- 1, 4, 14
	1420							BREAK CIRCULATION
	1445	6	12		✓		400	PUMP 500 GAL MUDFLUSH
	1447	6	20		✓		400	PUMP 20 BBLs KCL-FLUSH
	1455	6 1/2	58		✓		400	MIX CEMENT- 125 SKS = 11.8 PP6
		6 1/2	38		✓			100 SKS = 12.5 PP6
		6	23		✓			75 SKS = 13.5 PP6
		6	20		✓		150	75 SKS = 14.5 PP6
	1525							RELEASE PLUG
	1525	6 1/2	0		✓			DISPLACE PLUG
		6	68				500	
	1637	6	71				800	PLUG DOWN - SHOT IN
								CIRCULATED 40 SKS CEMENT TO PT
								WASH TRUCK
	1630							JOB COMPLETE
								THANK YOU WAYNE, JOSH, ROB

