Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1092733

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 # 4787
Name: TDI, Inc.
Address 1: 1310 BISON RD
Address 2:
City: HAYS State: KS Zip: 67601 + 9696
Contact Person: Tom Denning
Phone: (785) 628-2593
CONTRACTOR: License # 33350
Name: Southwind Drilling, Inc.
Wellsite Geologist: Herb Deines
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 #:

8/6/2012	8/12/2012	8/12/2012
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-051-26308-00-00
Spot Description:
E2 - NW - NE - SW Sec. 11 Twp. 15 S. R. 19 ☐ East ☑ West
2310 Feet from ☐ North / ☑ South Line of Section
1920 Feet from ☐ East / ☑ West Line of Section
Footages Calculated from Nearest Outside Section Corner:
☐ NE ☐ NW ☐ SE ☑ SW
GPS Location: Lat: *(e.g. xx.xxxxx)* , Long: *(e.g. -xxx.xxxxx)*
Datum: ☐ NAD27 ☐ NAD83 ☐ WGS84
County: Ellis
Lease Name: Befort Well #: 1
Field Name: unnamed
Producing Formation: Dry hole
Elevation: Ground: 2043 Kelly Bushing: 2050
Total Vertical Depth: 3750 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 211 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: 81000 ppm Fluid volume: 800 bbls
Dewatering method used: Evaporated
Location of fluid disposal if hauled offsite:
Operator Name:
Lease Name: License #:
Quarter Sec. Twp. S. R. ☐ East ☐ West
County: Permit #:

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

☑ **Confidentiality Requested**
Date: 09/06/2012
☑ **Confidential Release Date:** 09/06/2014
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☐ I ☑ II ☐ III **Approved by:** NAOMI JAMES **Date:** 09/06/2012

[redacted] 1092733

Operator Name: TDI, Inc. Lease Name: Befort Well #: 1

Sec. 11 Twp. 15 S. R. 19 ☐ East ☑ West County: Ellis

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

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

Drill Stem Tests Taken ☑ Yes ☐ No
(Attach Additional Sheets)

Samples Sent to Geological Survey ☑ Yes ☐ No

Cores Taken ☐ Yes ☑ No

Electric Log Run ☑ Yes ☐ No

List All E. Logs Run:

Dual Induction Log
Dual Compensated Porosity Log

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

Name: Attached Top: Attached Datum: Attached

CASING RECORD ☑ New ☐ Used
Report all strings set-conductor, surface, intermediate, production, etc.

Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives
Surface	12.25	8.625	24	211	Common	150	3% cc, 2% gel

ADDITIONAL CEMENTING / SQUEEZE RECORD

Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
___ Perforate ___ Protect Casing ___ Plug Back TD ___ Plug Off Zone	-			
	-			

Did you perform a hydraulic fracturing treatment on this well? ☐ Yes ☐ No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? ☐ Yes ☐ No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? ☐ Yes ☐ No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record *(Amount and Kind of Material Used)*	Depth

TUBING RECORD: Size: Set At: Packer At: Liner Run: ☐ Yes ☐ No

Date of First, Resumed Production, SWD or ENHR. Producing Method: ☐ Flowing ☐ Pumping ☐ Gas Lift ☐ Other *(Explain)* _____

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: ☐ Vented ☐ Sold ☐ Used on Lease
(If vented, Submit ACO-18.)

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

PRODUCTION INTERVAL:

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

Form	ACO1 - Well Completion
Operator	TDI, Inc.
Well Name	Befort 1
Doc ID	1092733

Tops

Name	Top	Datum
Anhydrite	1250'	+800'
B-Anhydrite	1284'	+766'
Topeka	3013'	-963'
Heebner	3290'	-1240'
Lansing/Kansas City	3337'	-1287'
Base Kansas City	3582'	-1532'
Conglomerate Sand	3674'	-1624'
Arbuckle	3704'	-1654'

DRILL STEM TEST REPORT

Prepared For: **TDI inc.**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

Befort #1

11-15s-19w Ellis,KS

Start Date: 2012.08.10 @ 13:51:00
End Date: 2012.08.10 @ 19:50:00
Job Ticket #: 47913 DST #: 1

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

Printed: 2012.08.15 @ 10:40:23

DRILL STEM TEST REPORT

TDI inc.

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

11-15s-19w Ellis,KS

Befort #1

Job Ticket: 47913 **DST#: 1**

Test Start: 2012.08.10 @ 13:51:00

GENERAL INFORMATION:

Formation: **LKC"A-C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:41:00
Time Test Ended: 19:50:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Andy Carreira
Unit No: 39

Interval: 3346.00 ft (KB) To 3375.00 ft (KB) (TVD)
Total Depth: 3375.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

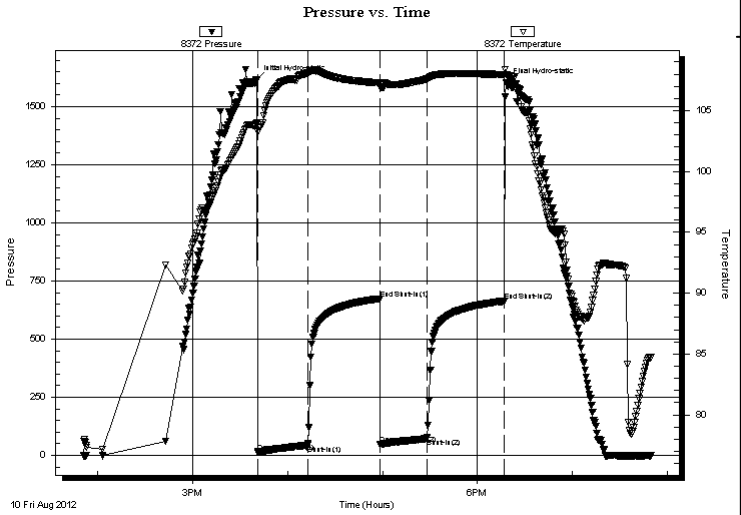
Reference Elevations: 2050.00 ft (KB)
2043.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8372 **Outside**

Press@RunDepth: 72.84 psig @ 3347.00 ft (KB)
Start Date: 2012.08.10 End Date: 2012.08.10
Start Time: 13:51:05 End Time: 19:49:59

Capacity: 8000.00 psig
Last Calib.: 2012.08.10
Time On Btm: 2012.08.10 @ 15:40:40
Time Off Btm: 2012.08.10 @ 18:18:09

TEST COMMENT: IF:(30min) Built to 2" in 9 min.
ISI:(45min) No Return
FF:(30min) 1" in 9 min. 2" in 24 min.
FSI:(45min) No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1614.19	104.02	Initial Hydro-static
1	13.67	103.23	Open To Flow (1)
32	44.75	108.10	Shut-In(1)
78	673.91	107.29	End Shut-In(1)
78	47.57	106.96	Open To Flow (2)
108	72.84	107.58	Shut-In(2)
156	663.64	107.97	End Shut-In(2)
158	1604.03	107.99	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW m=10% w=90%	1.68

Gas Rates

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

DRILL STEM TEST REPORT

TDI inc.

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

11-15s-19w Ellis,KS

Befort #1

Job Ticket: 47913 **DST#: 1**

Test Start: 2012.08.10 @ 13:51:00

GENERAL INFORMATION:

Formation: **LKC"A-C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:41:00
Time Test Ended: 19:50:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Andy Carreira
Unit No: 39

Interval: 3346.00 ft (KB) To 3375.00 ft (KB) (TVD)
Total Depth: 3375.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

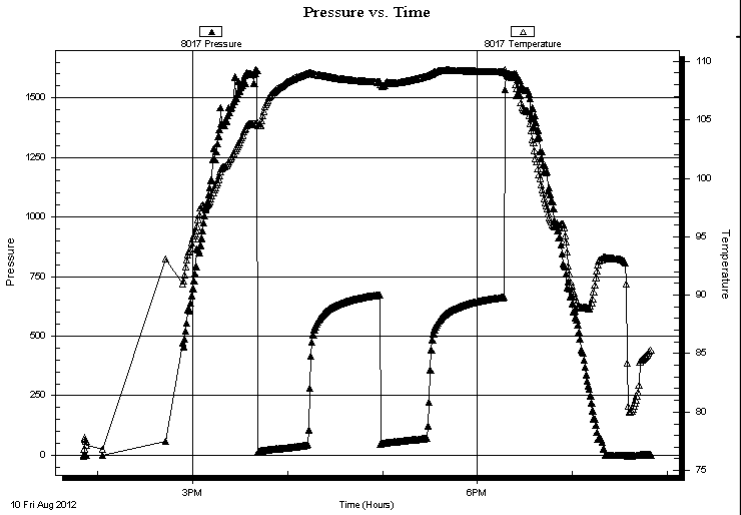
Reference Elevations: 2050.00 ft (KB)
2043.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8017 **Inside**

Press@RunDepth: psig @ 3347.00 ft (KB)
Start Date: 2012.08.10 End Date: 2012.08.10
Start Time: 13:51:05 End Time: 19:49:59

Capacity: 8000.00 psig
Last Calib.: 2012.08.10
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:(30min) Built to 2" in 9 min.
ISI:(45min) No Return
FF:(30min) 1" in 9 min. 2" in 24 min.
FSI:(45min) No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
120.00	MW m=10% w =90%	1.68

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI inc.

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

11-15s-19w Ellis,KS

Befort #1

Job Ticket: 47913 **DST#: 1**

Test Start: 2012.08.10 @ 13:51:00

Tool Information

Drill Pipe:	Length:	3348.00 ft	Diameter:	3.80	inches	Volume:	46.96	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	46.96	bbl	

Drill Pipe Above KB:	22.00 ft
Depth to Top Packer:	3346.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	29.00 ft
Tool Length:	49.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		22000.00 lb
Weight to Pull Loose:		44000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	36000.00 lb
	Final	37000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3327.00		
Shut In Tool	5.00			3332.00		
Hydraulic tool	5.00			3337.00		
Packer	5.00			3342.00	20.00	Bottom Of Top Packer
Packer	4.00			3346.00		
Stubb	1.00			3347.00		
Recorder	0.00	8017	Inside	3347.00		
Recorder	0.00	8372	Outside	3347.00		
Perforations	25.00			3372.00		
Bullnose	3.00			3375.00	29.00	Bottom Packers & Anchor
Total Tool Length:	**49.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI inc.

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

11-15s-19w Ellis,KS

Befort #1

Job Ticket: 47913 **DST#: 1**

Test Start: 2012.08.10 @ 13:51:00

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:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.58 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	3700.00 ppm				
Filter Cake:	inches				

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
120.00	MW m=10% w=90%	1.683

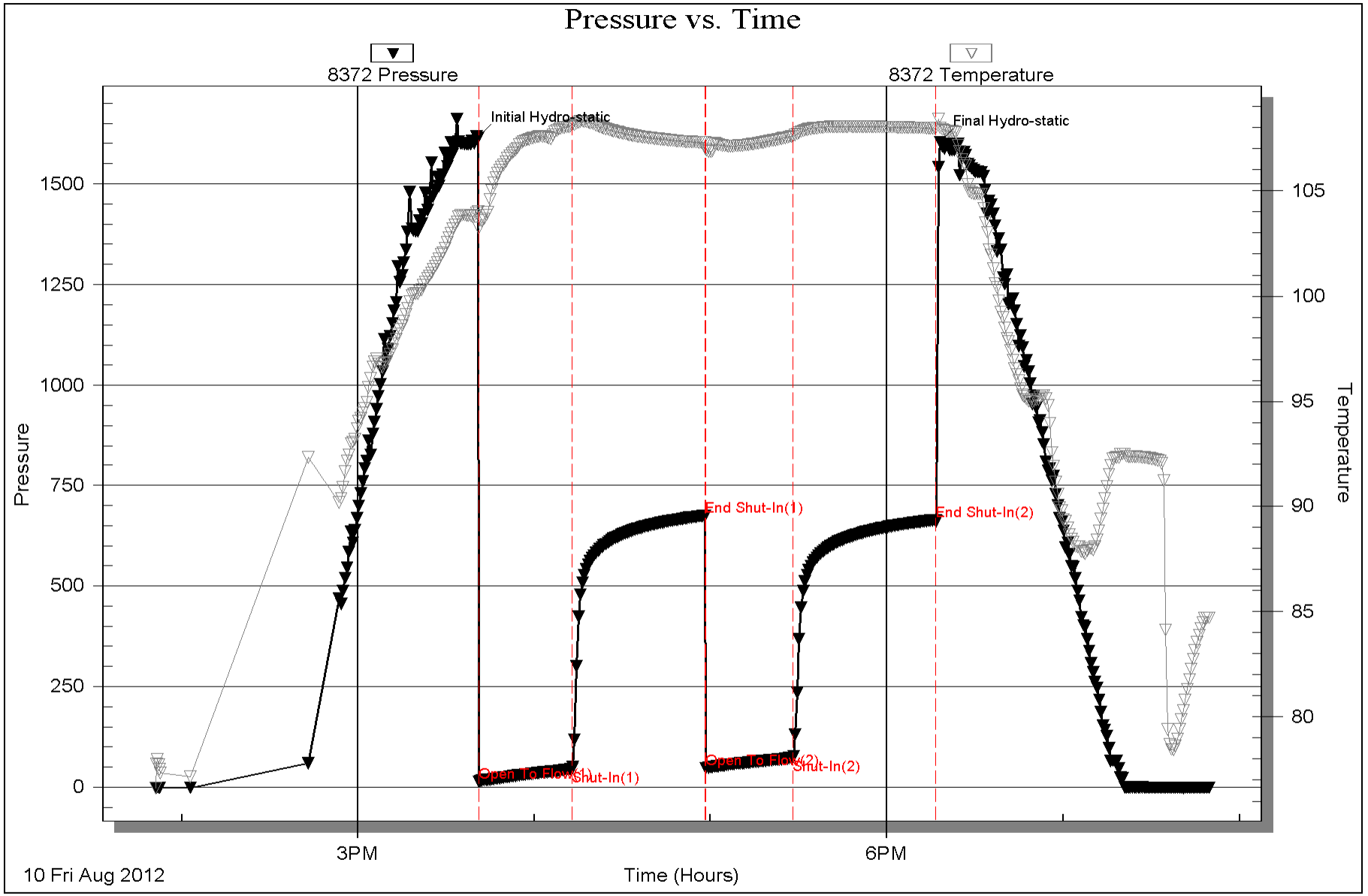
Total Length: 120.00 ft Total Volume: 1.683 bbl

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

Laboratory Name: Laboratory Location:

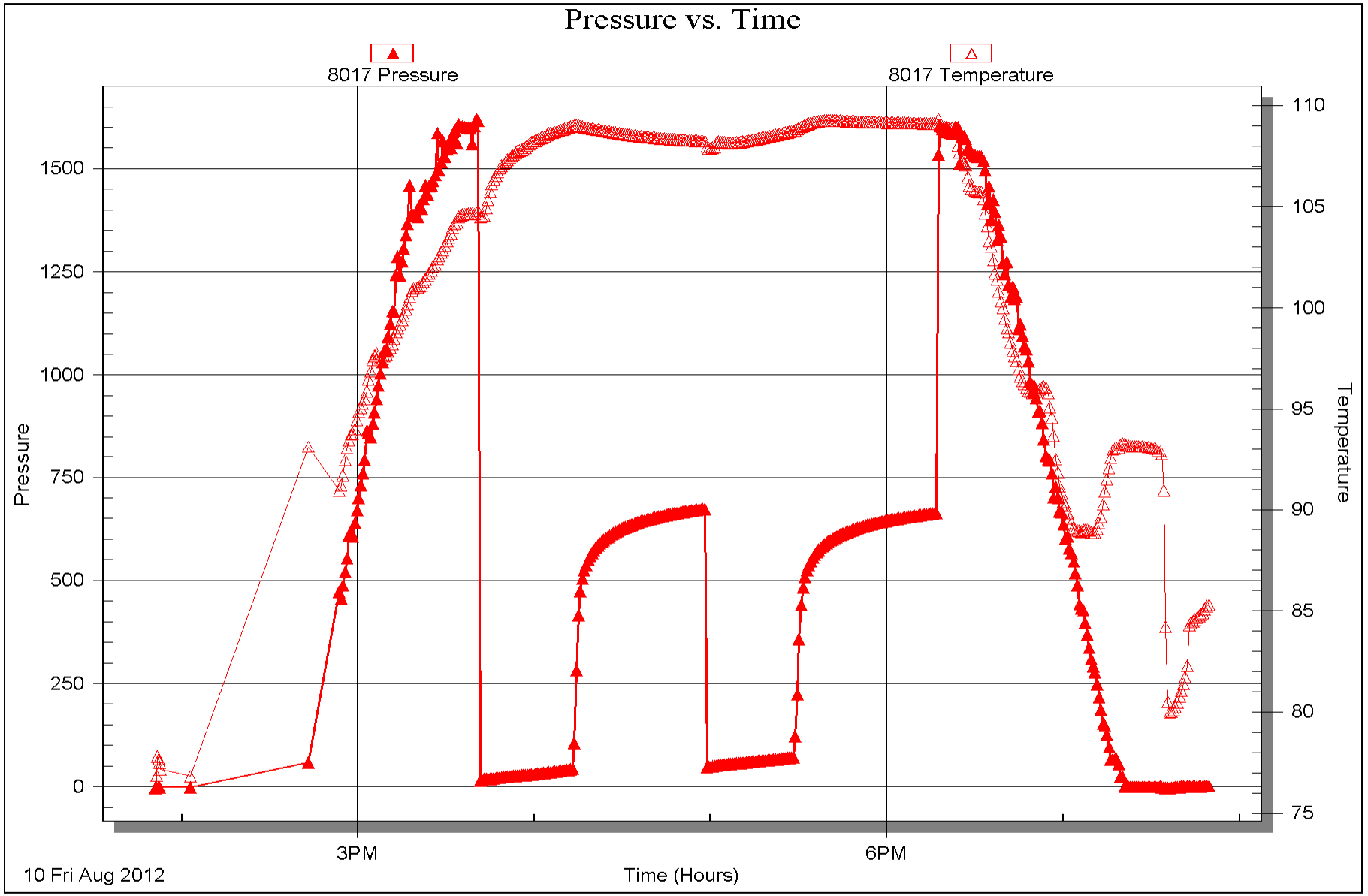
Recovery Comments:

Serial #: 8372 **Outside** TDI inc. Befort #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 47913 Printed: 2012.08.15 @ 10:40:26

Serial #: 8017 **Inside** TDI inc. Befort #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 47913 Printed: 2012.08.15 @ 10:40:26

DRILL STEM TEST REPORT

Prepared For: **TDI inc.**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

Befort #1

11-15s-19w Ellis,KS

Start Date: 2012.08.11 @ 10:45:05
End Date: 2012.08.11 @ 17:04:09
Job Ticket #: 47914 DST #: 2

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

Printed: 2012.08.15 @ 10:39:01

DRILL STEM TEST REPORT

TDI inc.

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

11-15s-19w Ellis,KS

Befort #1

Job Ticket: 47914 **DST#: 2**

Test Start: 2012.08.11 @ 10:45:05

GENERAL INFORMATION:

Formation: **LKC"I-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:10:20
Time Test Ended: 17:04:09

Test Type: Conventional Bottom Hole (Reset)
Tester: Andy Carreira
Unit No: 39

Interval: 3486.00 ft (KB) To 3535.00 ft (KB) (TVD)
Total Depth: 3535.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

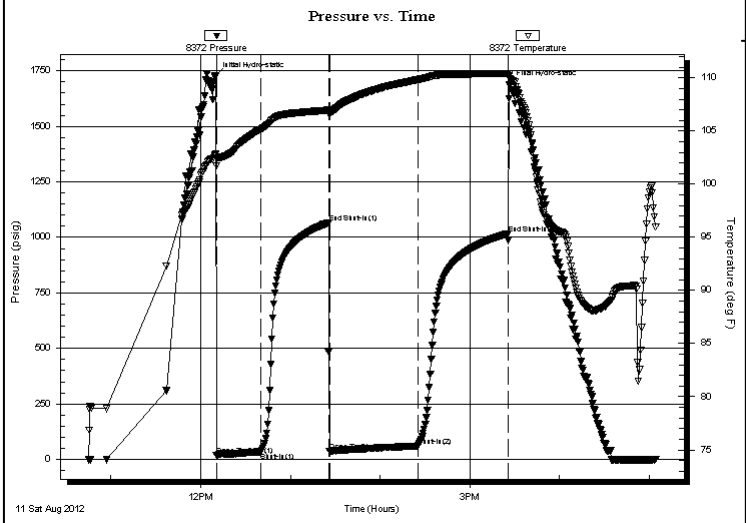
Reference Elevations: 2050.00 ft (KB)
2043.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8372 **Outside**

Press@RunDepth: 60.59 psig @ 3493.00 ft (KB)
Start Date: 2012.08.11 End Date: 2012.08.11
Start Time: 10:45:05 End Time: 17:04:10

Capacity: 8000.00 psig
Last Calib.: 2012.08.11
Time On Btm: 2012.08.11 @ 12:09:50
Time Off Btm: 2012.08.11 @ 15:26:20

TEST COMMENT: IF:(30min) Built & held steady at 2" in 15 min.
ISI:(45min) No Return
FF:(60min) 1" in 5 min. Decreased to surface blow .
FSI:(60min) No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1726.26	102.78	Initial Hydro-static
1	18.14	101.75	Open To Flow (1)
31	34.78	105.16	Shut-In(1)
76	1065.75	106.96	End Shut-In(1)
77	37.88	106.70	Open To Flow (2)
136	60.59	109.82	Shut-In(2)
196	1016.79	110.42	End Shut-In(2)
197	1687.03	110.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
95.00	OSMW o=tr m=30% w=70%	1.33

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TDI inc.

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

11-15s-19w Ellis,KS

Befort #1

Job Ticket: 47914 **DST#: 2**

Test Start: 2012.08.11 @ 10:45:05

GENERAL INFORMATION:

Formation: **LKC"I-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:10:20
Time Test Ended: 17:04:09

Test Type: Conventional Bottom Hole (Reset)
Tester: Andy Carreira
Unit No: 39

Interval: 3486.00 ft (KB) To 3535.00 ft (KB) (TVD)
Total Depth: 3535.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

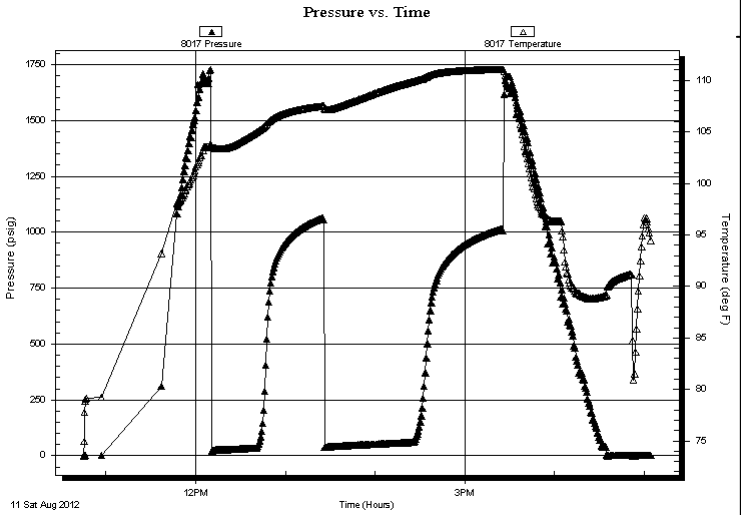
Reference Elevations: 2050.00 ft (KB)
2043.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8017 **Inside**

Press@RunDepth: psig @ 3493.00 ft (KB)
Start Date: 2012.08.11 End Date: 2012.08.11
Start Time: 10:45:05 End Time: 17:04:20

Capacity: 8000.00 psig
Last Calib.: 2012.08.11
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:(30min) Built & held steady at 2" in 15 min.
ISI:(45min) No Return
FF:(60min) 1" in 5 min. Decreased to surface blow .
FSI:(60min) No Return



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
95.00	OSMW o=tr m=30% w=70%	1.33

* Recovery from multiple tests

Gas Rates

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

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI inc.

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

11-15s-19w Ellis,KS

Befort #1

Job Ticket: 47914 **DST#: 2**

Test Start: 2012.08.11 @ 10:45:05

Tool Information

Drill Pipe:	Length:	3488.00 ft	Diameter:	3.80	inches	Volume:	48.93	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	2.70	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	48.93	bbl	

Drill Pipe Above KB:	22.00 ft
Depth to Top Packer:	3486.00 ft
Depth to Bottom Packer:	ft
Interval between Packers:	49.00 ft
Tool Length:	69.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:	2000.00 lb
Weight set on Packer:	22000.00 lb
Weight to Pull Loose:	44000.00 lb
Tool Chased	0.00 ft
String Weight: Initial	37000.00 lb
Final	38000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3467.00		
Shut In Tool	5.00			3472.00		
Hydraulic tool	5.00			3477.00		
Packer	5.00			3482.00	20.00	Bottom Of Top Packer
Packer	4.00			3486.00		
Stubb	1.00			3487.00		
Perforations	5.00			3492.00		
Change Over Sub	1.00			3493.00		
Recorder	0.00	8017	Inside	3493.00		
Recorder	0.00	8372	Outside	3493.00		
Drill Pipe	32.00			3525.00		
Change Over Sub	1.00			3526.00		
Perforations	6.00			3532.00		
Bullnose	3.00			3535.00	49.00	Bottom Packers & Anchor
Total Tool Length:	**69.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI inc.

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

11-15s-19w Ellis,KS

Befort #1

Job Ticket: 47914 **DST#: 2**

Test Start: 2012.08.11 @ 10:45:05

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:	59.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.79 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	7800.00 ppm				
Filter Cake:	inches				

Recovery Information

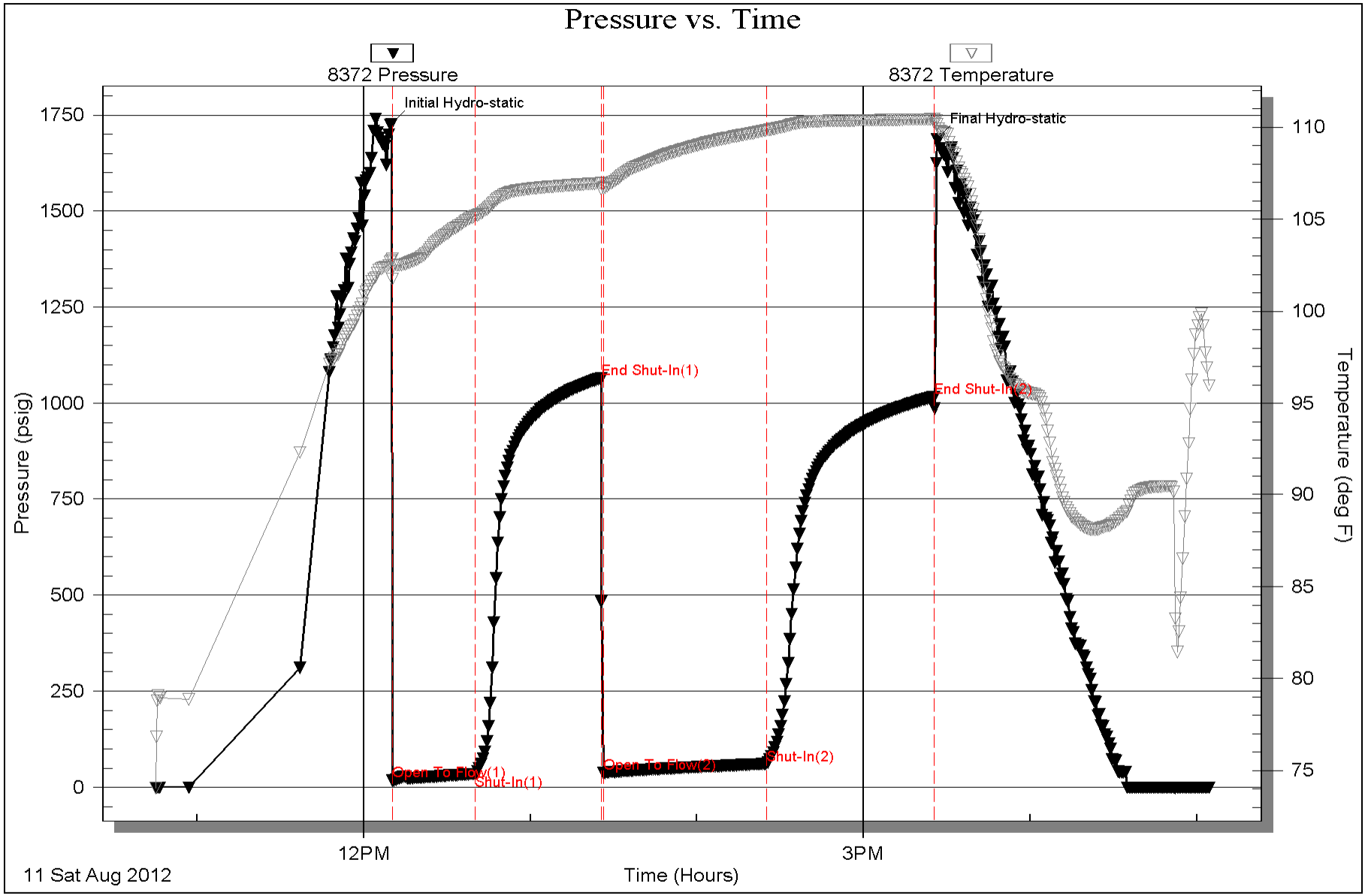
Recovery Table

Length ft	Description	Volume bbl
95.00	OSMW o=tr m=30% w=70%	1.333

Total Length: 95.00 ft Total Volume: 1.333 bbl

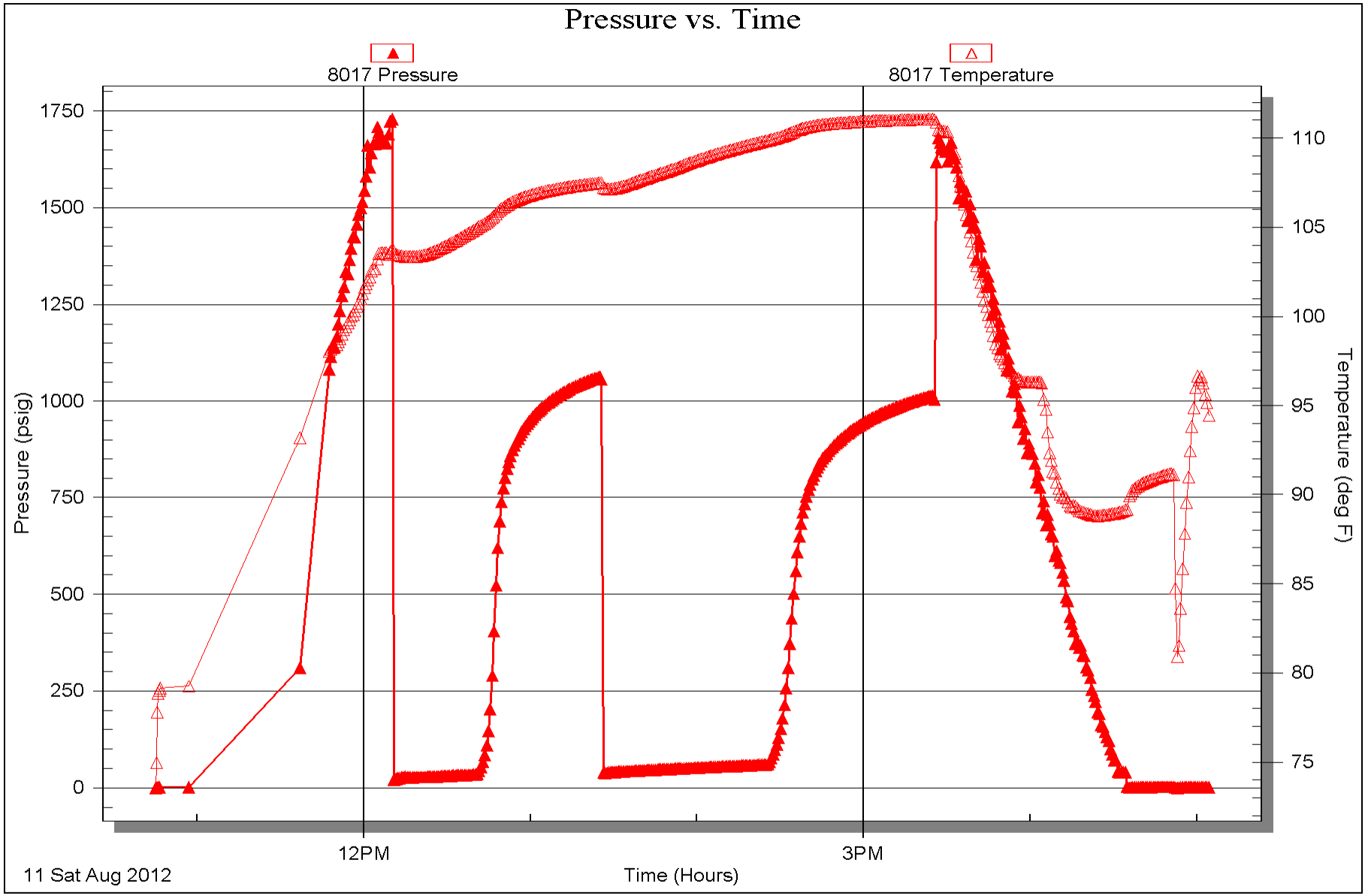
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 8372 **Outside** TDI inc. Befort #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 47914 Printed: 2012.08.15 @ 10:39:05

Serial #: 8017 **Inside** TDI inc. Befort #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 47914 Printed: 2012.08.15 @ 10:39:06

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 47913

Well Name & No. Befort #1 Test No. 1 Date 8-10-12

Company IDI, INC. Elevation 2050 KB ~~2048~~ 2043 GL

Address 1310 Bison Rd Hays, Ks. 67601

Co. Rep / Geo. Herb Deines Rig Southwind 4

Location: Sec. 11 Twp. 15s Rge. 19W Co. Ellis State Ks

Interval Tested 3346 - 3375 Zone Tested LKC "A-C"

Anchor Length 29' Drill Pipe Run 3348 Mud Wt. 9.0

Top Packer Depth 3341 Drill Collars Run 0 Vis 56

Bottom Packer Depth 3346 Wt. Pipe Run 0 WL 7.6

Total Depth 3375 Chlorides 3700 ppm System LCM 1

Blow Description ~~IF~~: Built to 2" in 9min.

~~ISI~~: No Return

FF: 1" in 9min, 2" in 24min

~~FSI~~: No Return

Rec 120	Feet of MW	%gas	%oil	90 %water	10 %mud
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 120' BHT 107 Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic	1614	☑ Test	1150
(B) First Initial Flow	13	☐ Jars	
(C) First Final Flow	44	☐ Safety Joint	
(D) Initial Shut-In	673	☐ Circ Sub	
(E) Second Initial Flow	47	☐ Hourly Standby	
(F) Second Final Flow	72	☑ Mileage ←30RT	46.50
(G) Final Shut-In	663	☐ Sampler	
(H) Final Hydrostatic	1604	☐ Straddle	
		☐ Shale Packer	
Initial Open	30	☐ Extra Packer	
Initial Shut-In	45	☐ Extra Recorder	
Final Flow	30	☐ Day Standby	
Final Shut-In	45	☐ Accessibility	
		Sub Total	1196.50

T-On Location	12:59
T-Started	13:51
T-Open	15:45
T-Pulled	18:15
T-Out	19:52

Comments

☐ Ruined Shale Packer

☐ Ruined Packer

☐ Extra Copies

Sub Total 0

Total 1196.50

MP/DST Disc't

Approved By ____ Our Representative ____

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 47914

Well Name & No. Befort #1 Test No. 2 Date 8-11-12

Company TDI, INC Elevation 2050 KB 2043 GL

Address 1310 Bison Rd Hays Ks 67601

Co. Rep / Geo. Herb Deines Rig Southwind 4

Location: Sec. 11 Twp. 15s Rge. 19w Co. Ellis State Ks

Interval Tested 3486-3535 Zone Tested LKC "I-J"

Anchor Length 49 Drill Pipe Run 3488 Mud Wt. 9.1

Top Packer Depth 3481 Drill Collars Run 0 Vis 59

Bottom Packer Depth 3486 Wt. Pipe Run 0 WL 7.8

Total Depth 3535 Chlorides 7800 ppm System LCM 1

Blow Description IF: Built & held steady at 2" in 15 min

ISI: No Return

FF: 1" in 5 min. Decreased to surface blow

FSI: No Return

Rec 95	Feet of 05mw	%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	Feet of	%gas	%oil	%water	%mud

Rec Total 95' BHT 110° Gravity ____ API RW ____ @ ____ °F Chlorides ____ ppm

(A) Initial Hydrostatic 1726

(B) First Initial Flow 18

(C) First Final Flow 34

(D) Initial Shut-In 1065

(E) Second Initial Flow 37

(F) Second Final Flow 60

(G) Final Shut-In 1016

(H) Final Hydrostatic 1687

Initial Open 30

Initial Shut-In 45

Final Flow 60

Final Shut-In 60

- ☑ Test 1150
- ☐ Jars
- ☐ Safety Joint
- ☐ Circ Sub
- ☐ Hourly Standby
- ☑ Mileage 30RT 46.50
- ☐ Sampler
- ☐ Straddle
- ☐ Shale Packer
- ☐ Extra Packer
- ☐ Extra Recorder
- ☐ Day Standby
- ☐ Accessibility

Sub Total 1196.50

T-On Location 10:21

T-Started 10:45

T-Open 12:10

T-Pulled 15:25

T-Out 17:05

Comments

- ☐ Ruined Shale Packer
- ☐ Ruined Packer
- ☐ Extra Copies

Sub Total 0

Total 1196.50

MP/DST Disc't

Approved By ____ Our Representative ____

OPERATOR

Company:	TDI, INC.		
Address:	1310 BISON ROAD HAYS, KANSAS 67601		
Contact Geologist:	TOM DENNING		
Contact Phone Nbr:	785-259-3141		
Well Name:	BEFORT # 1		
Location:	E2 NW NE SW Sec.11-15s-19w	API:	15-051-26,308-00-00
Pool:	WILDCAT	Field:	UNNAMED
State:	KANSAS	Country:	USA

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

Scale 1:240 Imperial

Well Name:	BEFORT # 1		
Surface Location:	E2 NW NE SW Sec.11-15s-19w		
Bottom Location:			
API:	15-051-26,308-00-00		
License Number:	4787		
Spud Date:	8/6/2012	Time:	8:30 AM
Region:	ELLIS COUNTY		
Drilling Completed:	8/12/2012	Time:	8:16 AM
Surface Coordinates:	2310' FSL & 1920' FEL		
Bottom Hole Coordinates:			
Ground Elevation:	204300.00ft		
K.B. Elevation:	2050.00ft		
Logged Interval:	2900.00ft	To:	3750.00ft
Total Depth:	3750.00ft		
Formation:	LANSING-KANSAS CITY		
Drilling Fluid Type:	FRESH WATER GEL/CHEMICAL		

SURFACE CO-ORDINATES

Well Type:	Vertical		
Longitude:		Latitude:	
N/S Co-ord:	2310' FSL		
E/W Co-ord:	1920' FEL		

LOGGED BY

SOLUTIONS CONSULTING

Company:	SOLUTIONS CONSULTING
Address:	108 W 35TH HAYS, KS 67601

Phone Nbr:	(785) 639-1337		
Logged By:	Geologist	Name:	HERB DEINES

CONTRACTOR

Contractor:	SOUTHWIND DRILLING, INC.		
Rig #:	4		
Rig Type:	MUD ROTARY		
Spud Date:	8/6/2012	Time:	8:30 AM
TD Date:	8/12/2012	Time:	8:16 AM
Rig Release:	8/12/2012	Time:	10:00 PM

ELEVATIONS

K.B. Elevation:	2050.00ft	Ground Elevation:	204300.00ft
K.B. to Ground:	7.00ft		

NOTES

DECISION TO PLUG AND ABANDON WELL BASED ON NEGATIVE RESULTS OF TWO DSTS AND LACK OF CONGLOMERATE SAND DEVELOPMENT.

RAN DUAL INDUCTION LOG AND DUAL COMPENSATED POROSITY LOG

FORMATION TOPS AND SUMMARY OF DAILY ACTIVITY

Befort # 1
2310' FSL & 1920' FWL, SW/4
Sec.11-15s-19w
2043' GL 2050' KB

FORMATION	SAMPLE TOPS	LOG TOPS
Anhydrite	1254+ 796	**1250+ 800**
B-Anhydrite	1287+ 763	**1284+ 766**
Topeka	3014- 964	**3013- 963**
Heebner Shale	3294-1244	**3290-1240**
Toronto	3317-1267	**3314-1264**
LKC	3340-1290	**3337-1287**
BKC	3589-1539	**3582-1532**
Conglomerate Sand		**3674-1624**
Arbuckle		**3704-1654**
RTD	3750-1700	
LTD		**3750-1700**

SUMMARY OF DAILY ACTIVITY

8-06-12 **RU, Spud, set 8 5/8" to 211' w/150 sxs. Common, 2%Gel, 3%CC**

Plug down 2:15PM slope ¾ degree, Quality ticket # 822

8-07-12 922', drilling

8-08-12 2065', drilling

8-09-12 2790', drilling, mud up

8-10-12 3335', drilling, DST # 1 "C" 3346'-3375', slope 1 degree

8-11-12 3535', CFS, DST # 2, "I" "J" 3486'-3535'

8-12-12 3721', drilling, RTD 3750', Logs, Plug and Abandon well.

DST # 1 TEST SUMMARY

TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

TDI inc.

1310 Bison rd
Hays Ks. 67601

ATTN: Herb Deines

11-15s-19w Ellis

Befort #1

Job Ticket: 47913 **DST#: 1**

Test Start: 2012.08.10 @ 13:51:00

GENERAL INFORMATION:

Formation: **LKC"A-C"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 15:41:00
Time Test Ended: 19:50:00

Test Type: Conventional Bottom Hole (Initial)
Tester: Andy Carreira
Unit No: 39

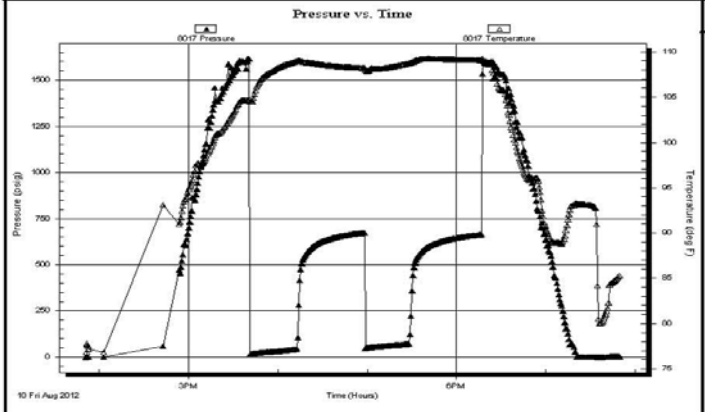
Interval: 3346.00 ft (KB) To 3375.00 ft (KB) (TVD)
Total Depth: 3375.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2050.00 ft (KB)
2043.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8017 **Inside**
Press@RunDepth: psig @ 3347.00 ft (KB)
Start Date: 2012.08.10 End Date: 2012.08.10
Start Time: 13:51:05 End Time: 19:49:59

Capacity: 8000.00 psig
Last Calib.: 2012.08.10
Time On Btm:
Time Off Btm:

TEST COMMENT: IF:(30min) Built to 2" in 9 min.
ISI:(45min) No Return
FF:(30min) 1" in 9 min. 2" in 24 min.
FSI:(45min) No Return



PRESSURE SUMMARY

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

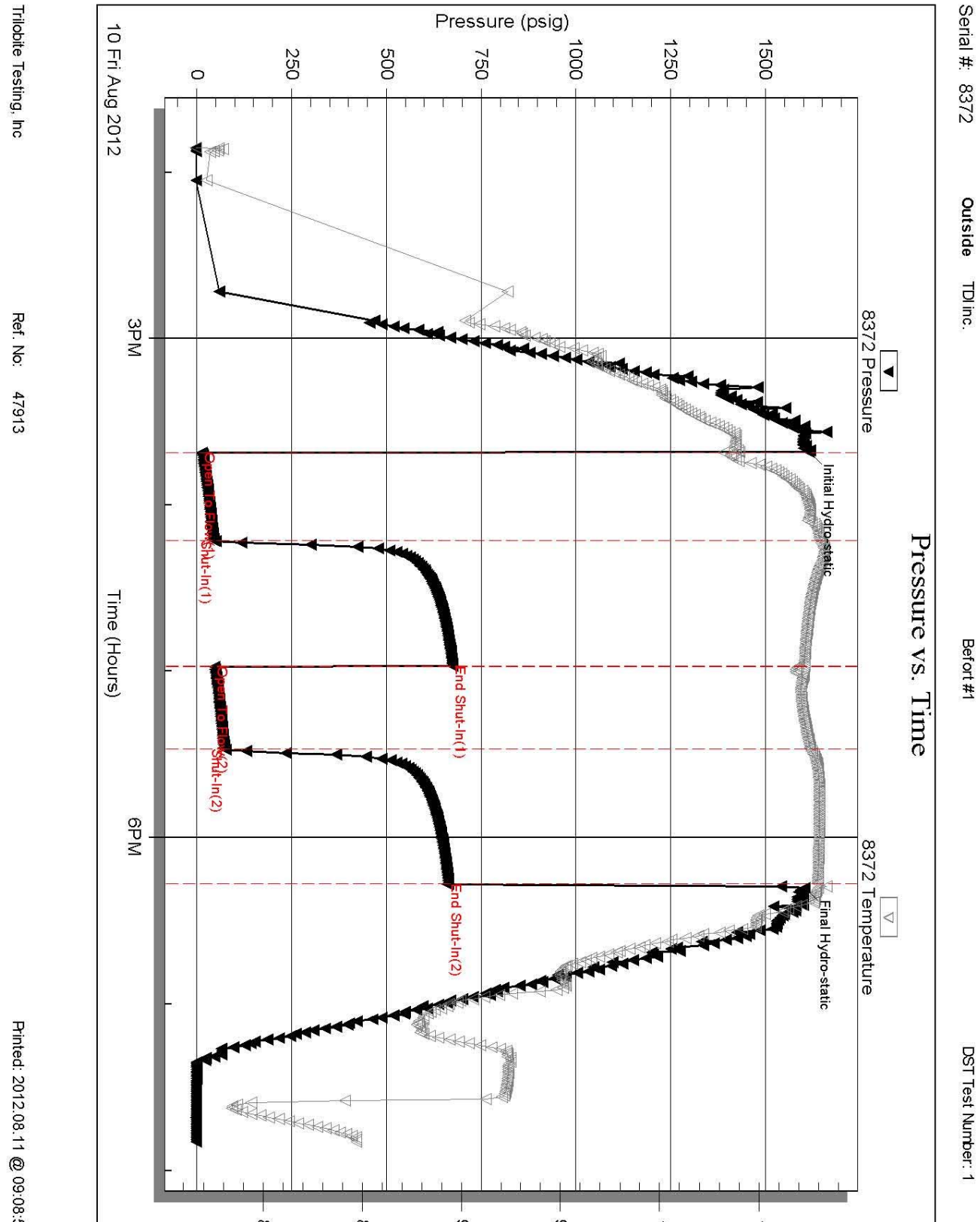
Recovery

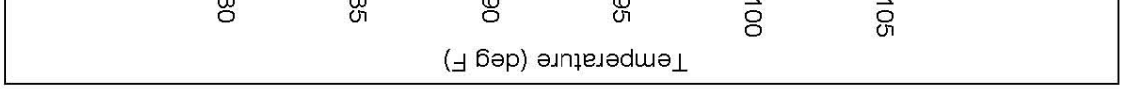
Length (ft)	Description	Volume (bbl)
120.00	MW m=10% w=90%	1.68

Gas Rates

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

DST # 1 EXPANDED CHART





DST # 2 TEST SUMMARY

DRILL STEM TEST REPORT

TRILOBITE TESTING, INC.

TDI inc.

1310 Bison rd
Hays Ks. 67601

ATTN: Herb Deines

11-15s-19w Ellis

Befort #1

Job Ticket: 47914 **DST#: 2**

Test Start: 2012.08.11 @ 10:45:05

GENERAL INFORMATION:

Formation: **LKC"I-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 12:10:20
Time Test Ended: 17:04:09

Test Type: Conventional Bottom Hole (Reset)
Tester: Andy Carreira
Unit No: 39

Interval: 3486.00 ft (KB) To 3535.00 ft (KB) (TVD)
Total Depth: 3535.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

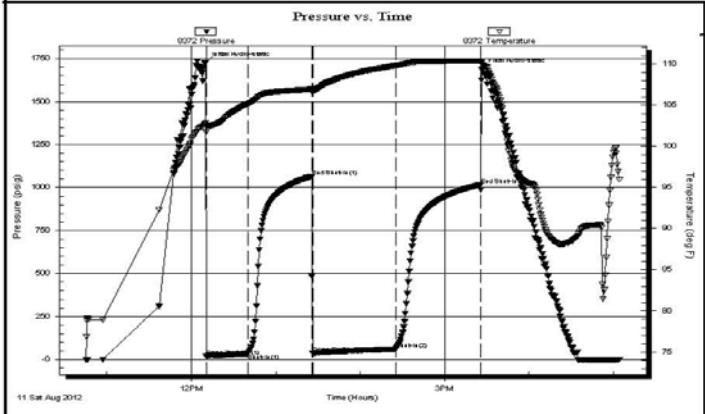
Reference Elevations: 2050.00 ft (KB)
2043.00 ft (CF)
KB to GR/CF: 7.00 ft

Serial #: 8372

Press@RunDepth: 60.59 psig @ ft (KB)
Start Date: 2012.08.11 End Date: 2012.08.11
Start Time: 10:45:05 End Time: 17:04:10

Capacity: 8000.00 psig
Last Calib.: 2012.08.11
Time On Btm: 2012.08.11 @ 12:09:50
Time Off Btm: 2012.08.11 @ 15:26:20

TEST COMMENT: IF:(30min) Built & held steady at 2" in 15 min.
ISI:(45min) No Return
FF:(60min) 1" in 5 min. Decreased to surface blow .
FSI:(60min) No Return



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1726.26	102.78	Initial Hydro-static
1	18.14	101.75	Open To Flow (1)
31	34.78	105.16	Shut-In(1)
76	1065.75	106.96	End Shut-In(1)
77	37.88	106.70	Open To Flow (2)
136	60.59	109.82	Shut-In(2)
196	1016.79	110.42	End Shut-In(2)
197	1687.03	110.17	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
95.00	OSMW o=tr m=30% w=70%	1.33

* Recovery from multiple tests

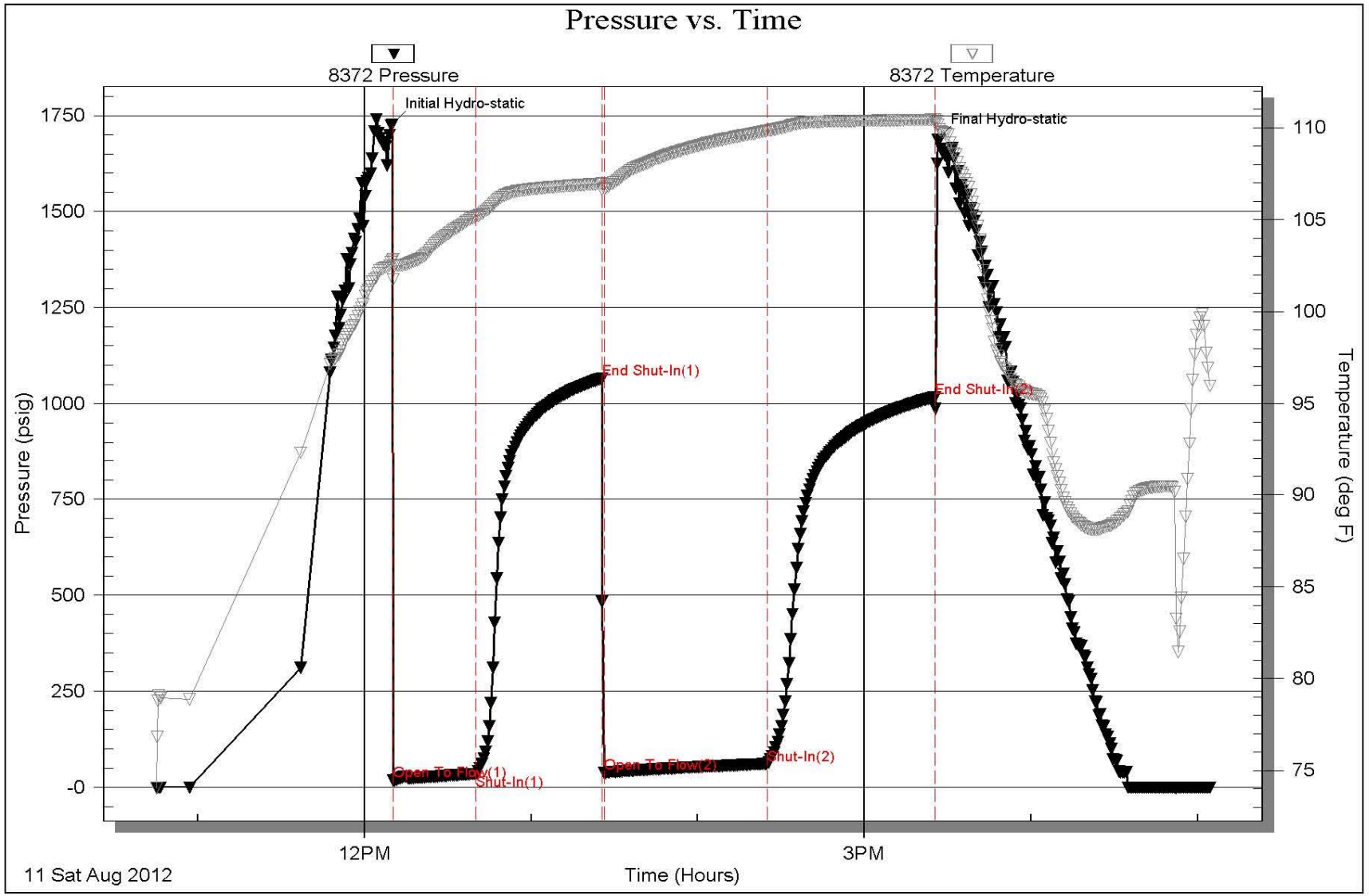
Gas Rates

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

Trilobite Testing, Inc Ref. No: 47914 Printed: 2012.08.12 @ 01:58:31

DST # 2 EXPANDED CHART

Serial #: 8372 TDI inc. Befort #1 DST Test Number: 2



ROCK TYPES

Dol Lime
Lscongl
Ss
Sltst
Calc Dol
Carbon Sh
shale, red
Shcol
Lmst fw7>
shale, grn
shale, gry
Cht vari
Dolprim
Lmst fw<7

Trilobite Testing, Inc Ref. No: 47914 Printed: 2012.08.12 @ 01:58:32

ACCESSORIES

MINERAL
- Chert, dark
- Chert White

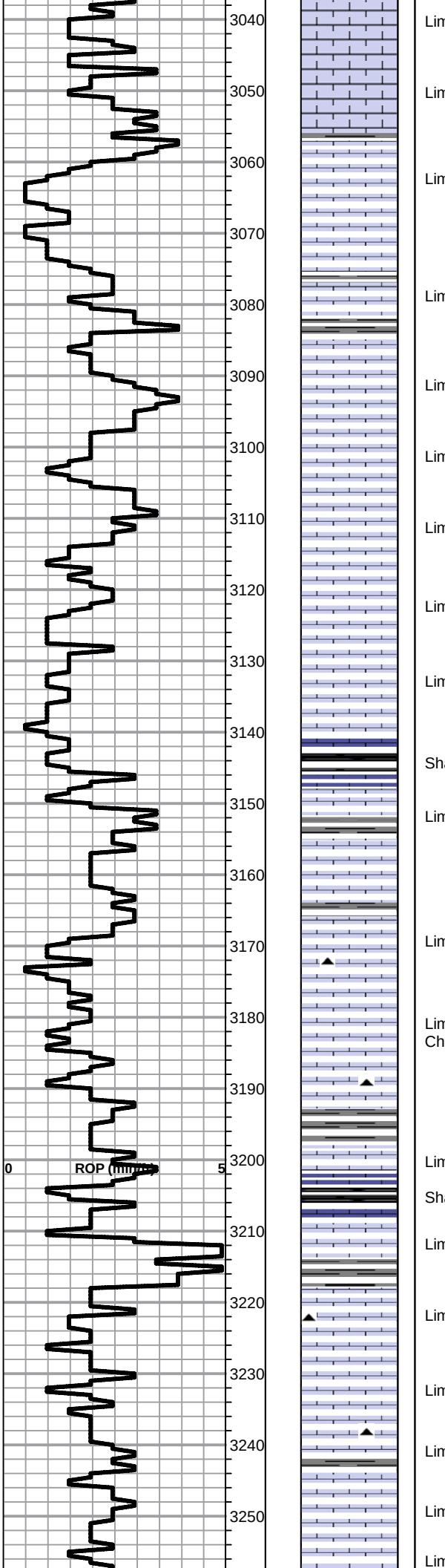
FOSSIL
- Oolite
- Oomoldic

OTHER SYMBOLS

DST
- DST Int
- DST alt
- Core

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

Curve Track #1 ROP (min/ft) 1:240 Imperial	Depth | Intervals Cored Interval DST Interval	DST	Lithology	Oil Show	Geological Descriptions	TG, C1 - C5 1:240 Imperial
0 ROP (min/ft) 5	2900				Keep 1' drill time from 2900' to RTD Begin 10' wet and dry samples from 3000' to RTD **ANHYDRITE ELog top 1250+800** **ANHYDRITE ELog base 1284+766**	**8 5/8" surface casing set to 211' w/150 sacks Common.2%Gel, 3%CC** **Slope 3/4 degree**
	2910					
	2920					
	2930					
	2940					
	2950					
	2960					
	2970				Lime, brn-gray, fnxln, chalk in part, slightly fossiliferous	
	2980				Lime, brn, fnxln, fossiliferous Shale, lt gray, soft, forming sticky mud balls	
	2990					
0 ROP (min/ft) 5	3000				Shale, lt gray, soft, sticky grading into med gray shale, soft, blocky	
	3010				**TOPEKA SPL 3014-964 ELOG 3013-963**	
	3020				Lime, med brn, fnxln, slightly chalky, slightly fossiliferous Shale, tan - lt gray, forming soft mud	
	3030				Lime, lt-dark brn, fnxln, slight chalk in part, slightly fossiliferous	



Lime, offwhite, fnxln

Lime, offwhite-lt gray, fnxln, chalky

Lime, lt-med brn, granular with chalk in part, NS

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

Lime, grayish brn-lt gray, fn-vfxln

Lime, grayish brn-med brun,fnxln-granular, chalk in part

Lime, lt-med brn, fnxln, chalk in part

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

Lime, lt-med brn, mostly granular

Shale, gray-black carbonaceous, fissile, blocky

Lime, crm, fnxln-cryptoxln

Lime, crm-lt brn, fnxln-granular

Lime, crm-lt brn, granular
Chert, lt gray

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

Shale, gray-black carbonaceous

Lime, lt-med grayish brn, fnxln

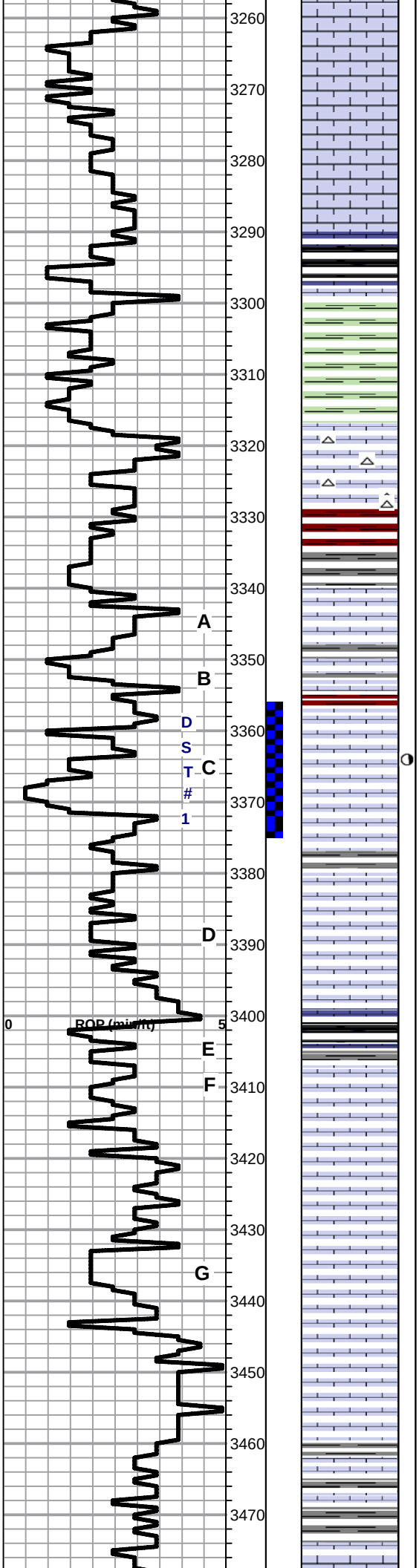
Lime, grayish brn, fnxln

Lime, lt brn-grayish brn, granular

Lime, offwhite-lt brn, fnxln-granular, slightly chalky

Lime, offwhite-crm, fnxln-granular, slight chalk in part

Lime, crm-lt brnish gray, granular-fnxln



Lime, crm-lt brn, granular, chalky

Lime, crm-lt brn, fnxln-grnaular

HEEBNER SHALE SPL 3294-1244 ELog 3290-1240

Shale, black carbonaceous
Lime, med brn, fnxln,hard

Shale, lt green, soft blocky

TORONTO SPL 3317-1267 ELog 3314-1264

Lime, crm, fn-vfxln, bedded chalk in part, NS

Shale, red wash, soft

LKC SPL 3340-1290 ELog 3337-1287

Lime, tan fnxln, crumbly in part-hard-brittle

Lime, tan, fnxln, brittle on break, bedded chalk in part

Lime, crm-tan, fnxln-oolitic/oomoldic, scattered staining, NFO, very lt odor. Zone condemned with DST # 1

DST # 1 3346' TO 3375'
SEE HEADER FOR TEST SUMMARY

Lime, crm-tan, fnxln

Slope 1 degree

Lime, tan-lt brn, fnxln, bedded chalk

Lime, tan-brn, fnxln, chalk

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

Lime, crm-tan, fnxln, chalk

Lime, crm-tan, fnxln, chalk

Lime, crm-tan, fnxln, chalk

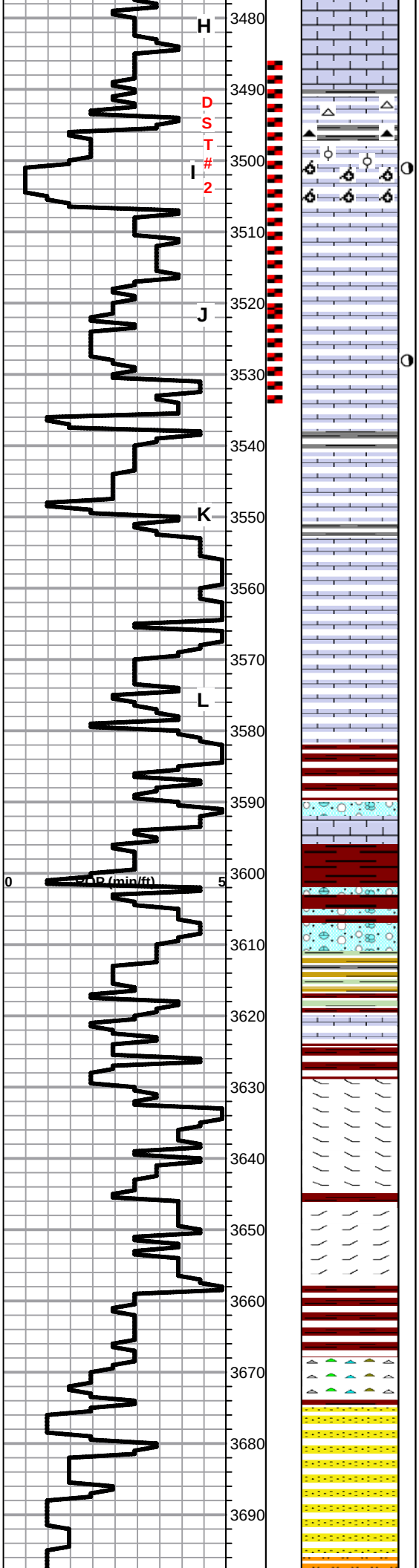
Lime, crm-tan, granular-fnxln, chalky

Lime, crm-tan, fnxln, chalk

Lime, crm-tan, fn-vfxln, chalk

Lime, crm-tan, fn-cryptoxln, chalk in part

Lime, crm-tan, fnxln with dark brn, fnxln lime in part



Lime, crm-tan, fnxln with dark brn, fnxln lime in part

Lime, crm-tan, fn-vfxln, slightly chalky

Lime, crm-tan, fnxln
Chert, white and black, sharp, fresh

Lime, crm-tan, oolitic-oomoldic, scattered lt stain, no odor, NFO

Lime, crm-lt brn, fnxln, chalk in part

Lime, crm-lt brn, fnxln, chalk in part

Lime, crm-lt brn, fnxln , scattered stain with very lite odor

Lime, crm-tan, fnxlln

Lime, crm-tan, fn-vfxln, chalk in part

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

Lime, crm-lt brn, fnxln-cryptoxln, chalk in part

BKC SPL 3589-1539 ELOG 3582-1532

Lime, lt-med brn, fn-vfxln

Shale, red wash

Clastic lime mix with red shale stain

Shale, reds, greens, grays

Lime, crm-tan, fnxln, slight chalk in part

MARMATON MARKER ELog 3629-1579

Lime, dolomitic, tan-lt brn, fnxln

Mix of reworked dolomite and vary colored micritic limestone

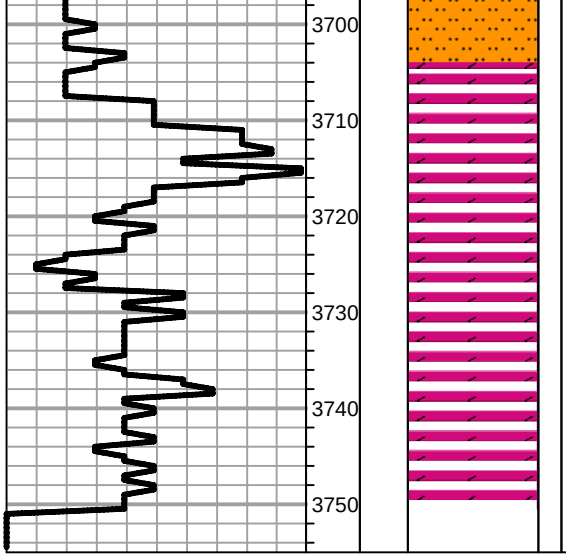
Shale, red wash

CONGLOMERATE SAND ELog 3674-1624

Sandstone, medium-coarse grained, poor sorting, cemented in part with mix of coarser grained well sorted sandstone. Largely barren. Zone very low structurally.

Shale, red, soft and sticky with mix of white sticky clay

**DST # 2 3486' TO 3535'
SEE HEADER FOR TEST DETAILS**



Shale, red, soft and sticky with mix of white sticky clay

ARBUCKLE ELog 3704-1654

Dolomite, crm, fn-cxln, light chalky wash

Dolomite, crm-buff, fnxln, light chalky wash

Dolomite, crm, fn-cxln, slight white chalky wash

Dolomite and quartz sand grains, crm, fn-cxln

1st plug @ 3650' w/25 sxs
2nd plug @ 1270' w/25 sxs
3rd plug @ 545' 2/100 sxs
4th plug @ 260' w/40 sxs
5th plug @ 40' w/10 sxs
rathole w/30 sxs

Slope 1 degree

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 822

Cell 785-324-1041

	Sec.	Twp.	Range	County	State	On Location	Finish
Date 8-6-12	11	15	19	ELLIS	KANSAS		2:15 pm

Lease BEFORT Well No. #1 Location ANTONINO 1W-1S-1/2W

Contractor SOUTHWIND #4

Type Job SURFACE

Hole Size 12¼" T.D. 211'

Csg. 8⅝" Depth 211'

Tbg. Size Depth

Tool Depth

Cement Left in Csg. Shoe Joint 15'

Meas Line Displace 12½

EQUIPMENT

Pumptrk #9 No. Cementer Helper MATT

Bulktrk #8 No. Driver Driver CODY

Bulktrk PU No. Driver Driver CISCO

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

CEMENT DID CIRCULATE!x

THANK YOU!x

x Signature Brent Brown

Owner T.D.I. INC.

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To T.D.I

Street 1310 BISON RD.

City HAYS, KS State KS, 67601

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 150 com-3%cc-2%gel

Common	150
Poz. Mix	
Gel.	3
Calcium	5
Hulls	
Salt	
Flowseal	
Kol-Seal	
Mud CLR 48	
CFL-117 or CD110 CAF 38	
Sand	
Handling	158
Mileage	

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Pumptrk Charge	Surface
Mileage	12
Tax	
Discount	
Total Charge	

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 719

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
6-19-12	11	15	19W	Ellis	KS	5:00pm	9:30pm

Lease Bethel Well No. #1 Location Antonino 2S 4W Ninto

Contractor Southwind #4

Type Job Plug

Hole Size T.D. 3750

Csg. Depth

Tbg. Size Depth

Tool Depth

Cement Left in Csg. Shoe Joint

Meas Line Displace

EQUIPMENT

Pumptrk 16 No. Cementer Matt / Helper Travis

Bulktrk 8 No. Driver Driver

Bulktrk No. Driver Cody / Driver

JOB SERVICES & REMARKS

Remarks:

Rat Hole 30 SKS

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

1st ~~3700~~ → 25 SKS

2nd 1770 25 SKS

3rd SKS 100 SKS

4th ~~260~~ 260,40 SKS

5th 40 40 SKS

Wood plug

Owner

To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Charge To TDI

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Cement Amount Ordered 230 60/40 4% gel

Common 138

Poz. Mix 92

Gel. 8

Calcium

Hulls

Salt

Flowseal 50#

Kol-Seal

Mud CLR 48

CFL-117 or CD110 CAF 38

Sand

Handling 238

Mileage

FLOAT EQUIPMENT

Guide Shoe

Centralizer

Baskets

AFU Inserts

Float Shoe

Latch Down

Pumptrk Charge plug

Mileage 12

Tax

Discount

Total Charge

X Signature

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

Kansas
Corporation Commission

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

September 05, 2012

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

Re: ACO1
API 15-051-26308-00-00
Befort 1
SW/4 Sec.11-15S-19W
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