Confidentiality Requested:
☐ Yes ☐ No

KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1102829

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: Coffeyville Resources

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 #:

10/12/2012 Spud Date or Recompletion Date
10/18/2012 Date Reached TD
11/21/2012 Completion Date or Recompletion Date

API No. 15 - 15-051-26389-00-00
Spot Description:
E2 - SW - SW - NW Sec. 24 Twp. 15 S. R. 19 ☐ East ☑ West
2310 Feet from ☑ North / ☐ South Line of Section
420 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: GW Unit Well #: 1
Field Name: Martina East
Producing Formation: Lansing / Kansas City
Elevation: Ground: 1969 Kelly Bushing: 1979
Total Vertical Depth: 3725 Plug Back Total Depth:
Amount of Surface Pipe Set and Cemented at: 1167 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: 86000 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: 01/11/2013
☑ **Confidential Release Date:** 01/11/2015
☑ **Wireline Log Received**
☑ **Geologist Report Received**
☐ **UIC Distribution**
ALT ☑ **I** ☐ **II** ☐ **III** **Approved by:** NAOMI JAMES **Date:** 01/14/2013

1102829

Operator Name: TDI, Inc. Lease Name: GW Unit Well #: 1

Sec. 24 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
Microresistivity Log

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

Name	Top	Datum
Anhydrite	1160'	+819'
Topeka	2938'	-959'
Heebner	3220'	-1241'
Lansing/Kansas City	3266'	-1287'
Base Kansas City	3510'	-1531'
Conglomerate	3568'	-1589'
Arbuckle	3582'	-1603'

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	23	1167	SMD	375	
Production	7.875	5.5	14	3710	EA-2	175	

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
4	3449'-3455'	250 gals., 15%	
4	3426'-3430'	1250 gals., 15%	

TUBING RECORD: Size: 2.875 Set At: 3652 Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 1/1/2013

Producing Method: ☐ Flowing ☑ Pumping ☐ Gas Lift ☐ Other *(Explain)*

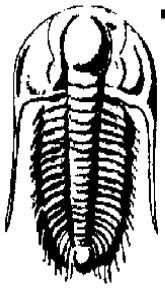
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	45		10		36

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:
Lansing/Kansas City

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison RD
Hays KS 67601

ATTN: Tom Denning/ Herb De

GW Unit #1

24-15s-19w Ellis,KS

Start Date: 2012.10.16 @ 14:40:14

End Date: 2012.10.16 @ 22:18:44

Job Ticket #: 49663 DST #: 1

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.19 @ 15:30:13

DRILL STEM TEST REPORT

TDI Inc

1310 Bison RD
Hays KS 67601

ATTN: Tom Denning/ Herb De

24-15s-19w Ellis,KS

GW Unit #1

Job Ticket: 49663 **DST#: 1**

Test Start: 2012.10.16 @ 14:40:14

GENERAL INFORMATION:

Formation: **Lansing A-C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:26:59
Time Test Ended: 22:18:44

Test Type: Conventional Bottom Hole (Initial)
Tester: Chris Staats
Unit No: 47

Interval: 3258.00 ft (KB) To 3305.00 ft (KB) (TVD)
Total Depth: 3305.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

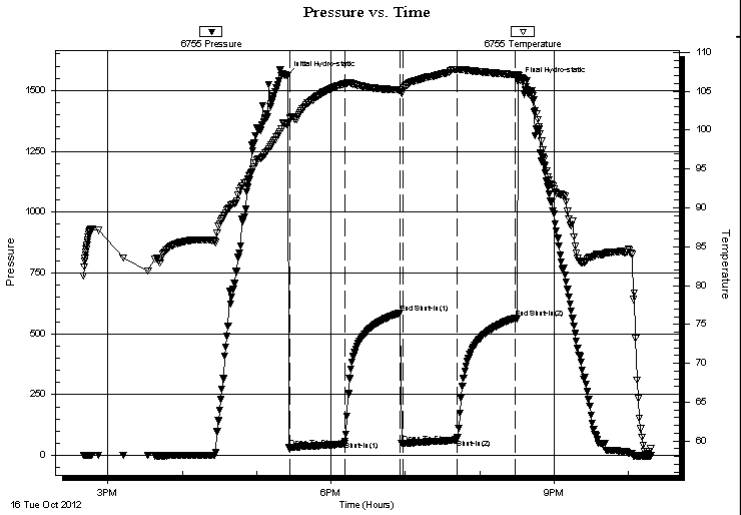
Reference Elevations: 1979.00 ft (KB)
1969.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6755 **Inside**

Press@RunDepth: 65.67 psig @ 3259.00 ft (KB)
Start Date: 2012.10.16 End Date: 2012.10.16
Start Time: 14:40:19 End Time: 22:18:43

Capacity: 8000.00 psig
Last Calib.: 2012.10.16
Time On Btm: 2012.10.16 @ 17:24:29
Time Off Btm: 2012.10.16 @ 20:30:59

TEST COMMENT: IF: Fair blow 5 1/2"
ISI: No blow back
FF: Weak blow 2"
FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1561.22	100.69	Initial Hydro-static
3	32.06	101.59	Open To Flow (1)
47	58.21	105.98	Shut-In(1)
92	585.92	105.15	End Shut-In(1)
94	48.80	104.89	Open To Flow (2)
138	65.67	107.76	Shut-In(2)
185	565.17	107.12	End Shut-In(2)
187	1535.76	107.11	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud With oil spots	0.14
60.00	M,W 30% mud 70% w ater	0.84

Gas Rates

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

DRILL STEM TEST REPORT

TDI Inc

1310 Bison RD
Hays KS 67601

ATTN: Tom Denning/ Herb De

24-15s-19w Ellis,KS

GW Unit #1

Job Ticket: 49663 **DST#: 1**

Test Start: 2012.10.16 @ 14:40:14

GENERAL INFORMATION:

Formation: **Lansing A-C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:26:59
Time Test Ended: 22:18:44

Test Type: Conventional Bottom Hole (Initial)
Tester: Chris Staats
Unit No: 47

Interval: 3258.00 ft (KB) To 3305.00 ft (KB) (TVD)
Total Depth: 3305.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

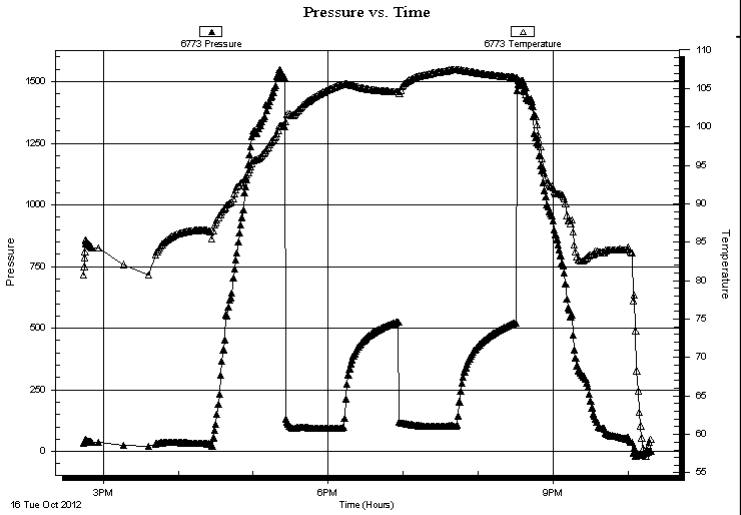
Reference Elevations: 1979.00 ft (KB)
1969.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6773 **Outside**

Press@RunDepth: psig @ 3259.00 ft (KB)
Start Date: 2012.10.16 End Date: 2012.10.16
Start Time: 14:44:15 End Time: 22:18:39

Capacity: 8000.00 psig
Last Calib.: 2012.10.16
Time On Btm:
Time Off Btm:

TEST COMMENT: IF: Fair blow 5 1/2"
ISI: No blow back
FF: Weak blow 2"
FSI: No blow back



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud With oil spots	0.14
60.00	M,W 30% mud 70% w ater	0.84

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: Tom Denning/ Herb De

24-15s-19w Ellis,KS

GW Unit #1

Job Ticket: 49663 **DST#: 1**

Test Start: 2012.10.16 @ 14:40:14

Tool Information

Drill Pipe:	Length:	3256.00 ft	Diameter:	3.80	inches	Volume:	45.67	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	45.67	bbl	

Drill Pipe Above KB:	26.00 ft
Depth to Top Packer:	3258.00 ft
Depth to Bottom Packer:	ft
Interval betw een Packers:	47.00 ft
Tool Length:	75.00 ft
Number of Packers:	2 Diameter: 6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		48000.00 lb
Tool Chased		4.00 ft
String Weight:	Initial	32000.00 lb
	Final	32000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3231.00		
Shut In Tool	5.00			3236.00		
Hydraulic tool	5.00			3241.00		
Jars	5.00			3246.00		
Safety Joint	3.00			3249.00		
Packer	5.00			3254.00	28.00	Bottom Of Top Packer
Packer	4.00			3258.00		
Stubb	1.00			3259.00		
Recorder	0.00	6773	Outside	3259.00		
Recorder	0.00	6755	Inside	3259.00		
Perforations	1.00			3260.00		
Change Over Sub	0.50			3260.50		
Drill Pipe	31.00			3291.50		
Change Over Sub	0.50			3292.00		
Perforations	10.00			3302.00		
Bullnose	3.00			3305.00	47.00	Bottom Packers & Anchor
Total Tool Length:	**75.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc

1310 Bison RD
Hays KS 67601

ATTN: Tom Denning/ Herb De

24-15s-19w Ellis,KS

GW Unit #1

Job Ticket: 49663 **DST#: 1**

Test Start: 2012.10.16 @ 14:40:14

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:	51.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.58 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4100.00 ppm				
Filter Cake:	0.02 inches				

Recovery Information

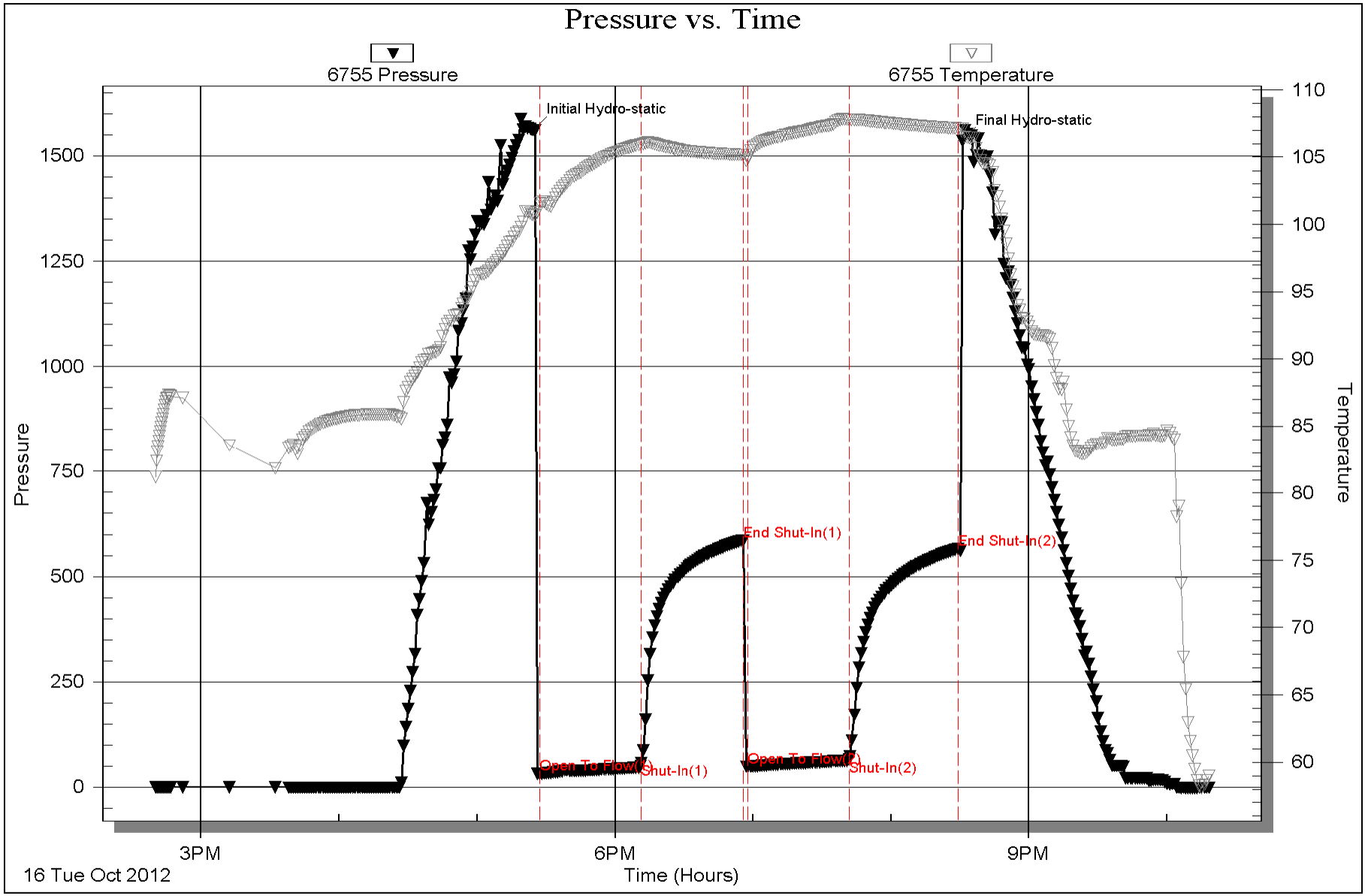
Recovery Table

Length ft	Description	Volume bbl
10.00	Mud With oil spots	0.140
60.00	M,W 30% mud 70% w ater	0.842

Total Length: 70.00 ft Total Volume: 0.982 bbl

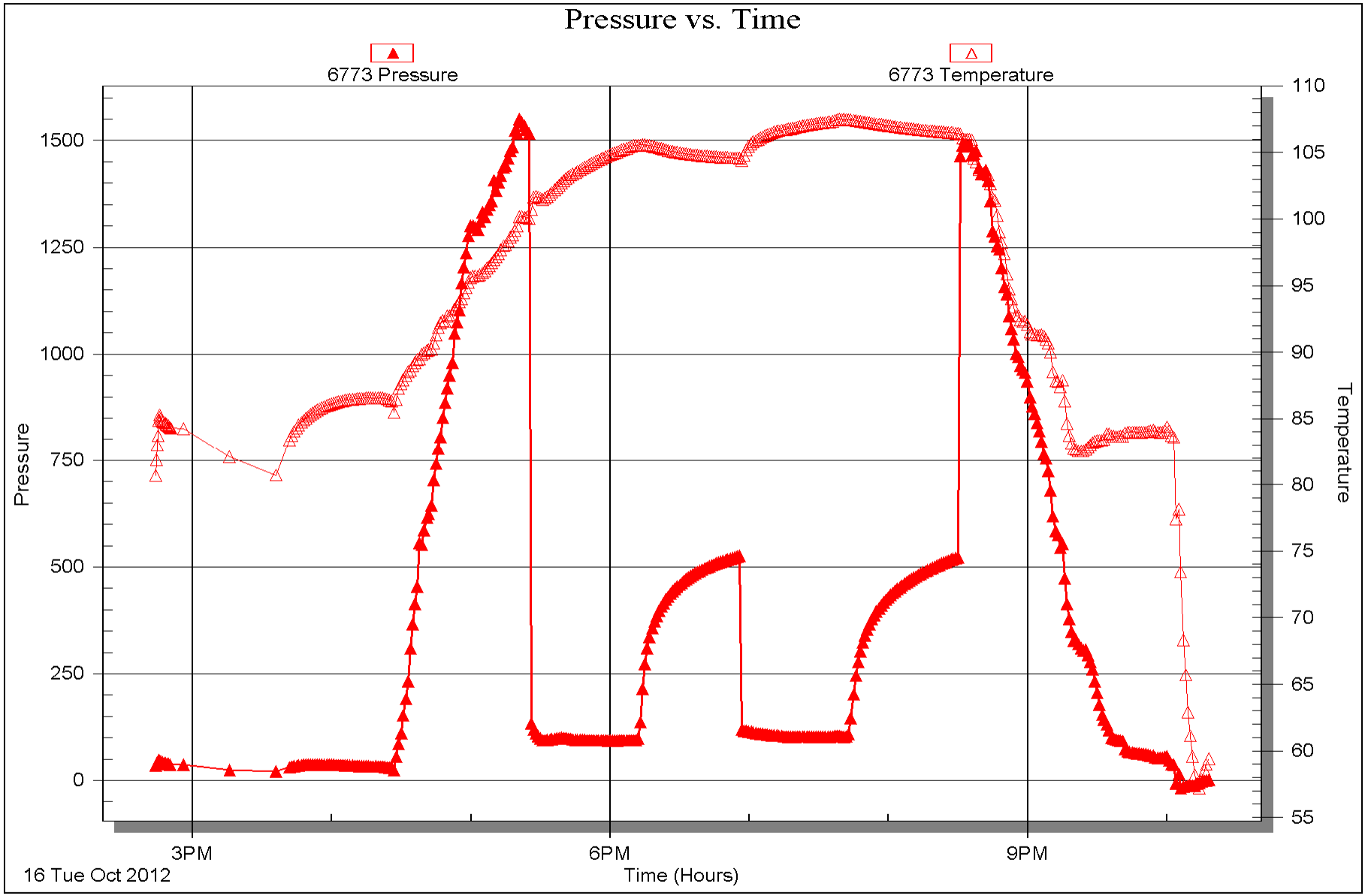
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6755 **Inside** TDI Inc GW Unit #1 DST Test Number: 1



Trilobite Testing, Inc Ref. No: 49663 Printed: 2012.10.19 @ 15:30:17

Serial #: 6773 **Outside** TDI Inc GW Unit #1 DST Test Number: 1



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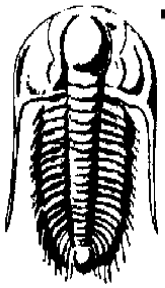


TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison RD
Hays KS 67601

ATTN: Tom Denning/ Herb De

GW Unit #1

24-15s-19w Ellis,KS

Start Date: 2012.10.18 @ 11:30:00

End Date: 2012.10.18 @ 18:08:30

Job Ticket #: 50777 DST #: 2

Trilobite Testing, Inc

PO Box 362 Hays, KS 67601

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

Printed: 2012.10.19 @ 15:27:07

DRILL STEM TEST REPORT

TDI Inc

1310 Bison RD
Hays KS 67601

ATTN: Tom Denning/ Herb De

24-15s-19w Ellis,KS

GW Unit #1

Job Ticket: 50777 **DST#: 2**

Test Start: 2012.10.18 @ 11:30:00

GENERAL INFORMATION:

Formation: **KC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:17:30
Time Test Ended: 18:08:30

Test Type: Conventional Straddle (Reset)
Tester: Brett Dickinson
Unit No: 59

Interval: 3382.00 ft (KB) To 3464.00 ft (KB) (TVD)
Total Depth: 3724.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

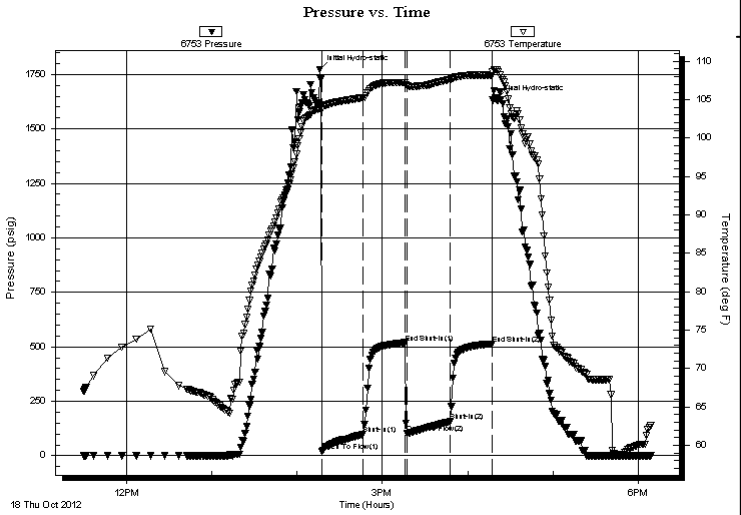
Reference Elevations: 1979.00 ft (KB)
1969.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6753 **Outside**

Press@RunDepth: 156.25 psig @ 3460.00 ft (KB)
Start Date: 2012.10.18 End Date: 2012.10.18
Start Time: 11:30:05 End Time: 18:08:29

Capacity: 8000.00 psig
Last Calib.: 2012.10.18
Time On Btm: 2012.10.18 @ 14:16:00
Time Off Btm: 2012.10.18 @ 16:20:00

TEST COMMENT: IF-BOB in 4 min
ISI-1/2" blow
FF-BOB in 2 min
FSI-BOB in 6 min



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1772.97	103.91	Initial Hydro-static
2	19.96	103.78	Open To Flow (1)
31	98.42	105.29	Shut-In(1)
60	518.56	107.27	End Shut-In(1)
62	102.74	106.80	Open To Flow (2)
92	156.25	107.64	Shut-In(2)
121	513.79	108.19	End Shut-In(2)
124	1636.34	108.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	SGO 90%O 10%G	0.98
185.00	GSMCO 40%G 10%M 50%O	2.60
125.00	GVSMCO 35%G 5%M 60%O	1.75
0.00	245ft GIP	0.00

* 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: Tom Denning/ Herb De

24-15s-19w Ellis,KS

GW Unit #1

Job Ticket: 50777 **DST#: 2**

Test Start: 2012.10.18 @ 11:30:00

GENERAL INFORMATION:

Formation: **KC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:17:30
Time Test Ended: 18:08:30

Test Type: Conventional Straddle (Reset)
Tester: Brett Dickinson
Unit No: 59

Interval: 3382.00 ft (KB) To 3464.00 ft (KB) (TVD)
Total Depth: 3724.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

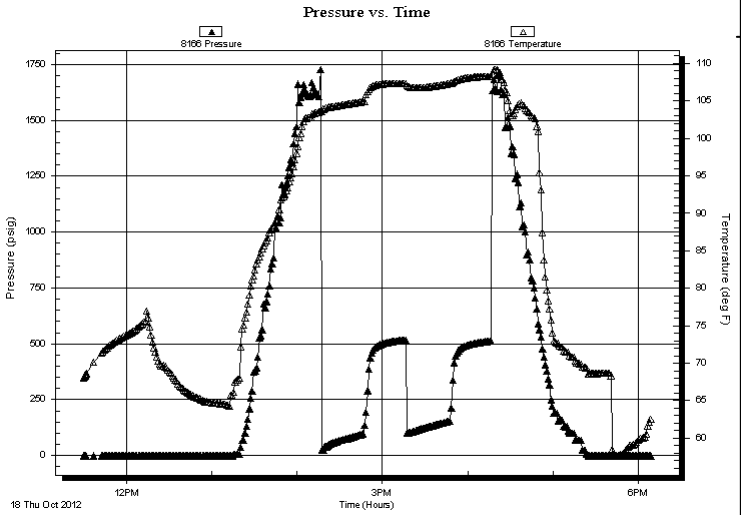
Reference Elevations: 1979.00 ft (KB)
1969.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8166 **Inside**

Press@RunDepth: psig @ 3460.00 ft (KB)
Start Date: 2012.10.18 End Date: 2012.10.18
Start Time: 11:30:05 End Time: 18:08:29

Capacity: 8000.00 psig
Last Calib.: 2012.10.18
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-BOB in 4 min
ISI-1/2" blow
FF-BOB in 2 min
FSI-BOB in 6 min



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
70.00	SGO 90%O 10%G	0.98
185.00	GSMCO 40%G 10%M 50%O	2.60
125.00	GVSMCO 35%G 5%M 60%O	1.75
0.00	245ft GIP	0.00

* 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: Tom Denning/ Herb De

24-15s-19w Ellis,KS

GW Unit #1

Job Ticket: 50777 **DST#: 2**

Test Start: 2012.10.18 @ 11:30:00

GENERAL INFORMATION:

Formation: **KC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:17:30
Time Test Ended: 18:08:30

Test Type: Conventional Straddle (Reset)
Tester: Brett Dickinson
Unit No: 59

Interval: 3382.00 ft (KB) To 3464.00 ft (KB) (TVD)
Total Depth: 3724.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

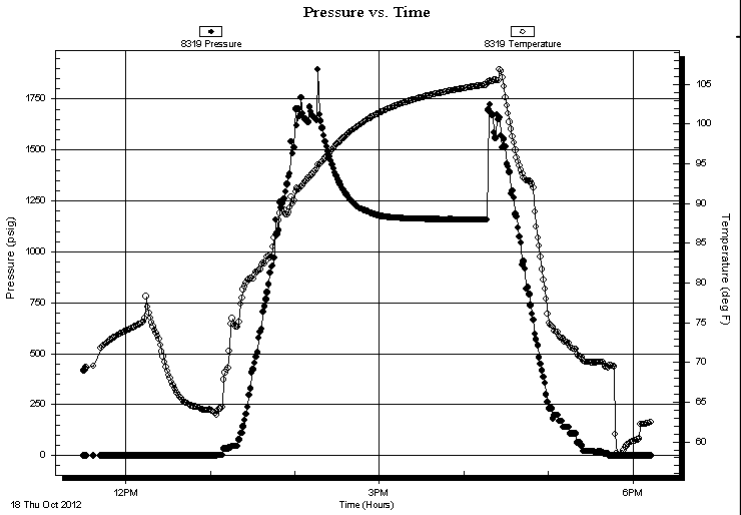
Reference Elevations: 1979.00 ft (KB)
1969.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 8319 **Below (Straddle)**

Press@RunDepth: psig @ 3469.00 ft (KB)
Start Date: 2012.10.18 End Date: 2012.10.18
Start Time: 11:30:05 End Time: 18:12:59

Capacity: 8000.00 psig
Last Calib.: 2012.10.18
Time On Btm:
Time Off Btm:

TEST COMMENT: IF-BOB in 4 min
ISI-1/2" blow
FF-BOB in 2 min
FSI-BOB in 6 min



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
70.00	SGO 90%O 10%G	0.98
185.00	GSMCO 40%G 10%M 50%O	2.60
125.00	GVSMCO 35%G 5%M 60%O	1.75
0.00	245ft GIP	0.00

* 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: Tom Denning/ Herb De

24-15s-19w Ellis,KS

GW Unit #1

Job Ticket: 50777 **DST#: 2**

Test Start: 2012.10.18 @ 11:30:00

Tool Information

Drill Pipe:	Length:	3390.00 ft	Diameter:	3.80	inches	Volume:	47.55	bbl	
Heavy Wt. Pipe:	Length:	0.00 ft	Diameter:	0.00	inches	Volume:	0.00	bbl	
Drill Collar:	Length:	0.00 ft	Diameter:	2.25	inches	Volume:	0.00	bbl	
						Total Volume:	47.55	bbl	

Drill Pipe Above KB:	28.00 ft
Depth to Top Packer:	3382.00 ft
Depth to Bottom Packer:	3464.00 ft
Interval betw een Packers:	82.00 ft
Tool Length:	365.00 ft
Number of Packers:	3 Diameter: 6.75 inches

Tool Weight:		2000.00 lb
Weight set on Packer:		25000.00 lb
Weight to Pull Loose:		45000.00 lb
Tool Chased		0.00 ft
String Weight:	Initial	38000.00 lb
	Final	40000.00 lb

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths	
Change Over Sub	1.00			3363.00		
Shut In Tool	5.00			3368.00		
Hydraulic tool	5.00			3373.00		
Packer	4.00			3377.00	20.00	Bottom Of Top Packer
Packer	5.00			3382.00		
Stubb	1.00			3383.00		
Perforations	3.00			3386.00		
change Over Sub	1.00			3387.00		
Blank Spacing	63.00			3450.00		
change Over Sub	1.00			3451.00		
Perforations	9.00			3460.00		
Recorder	0.00	8166	Inside	3460.00		
Recorder	0.00	6753	Outside	3460.00		
Blank Off Sub	4.00			3464.00	82.00	Tool Interval
Packer	4.00			3468.00		
Stubb	1.00			3469.00		
Recorder	0.00	8319	Below	3469.00		
perforations	2.00			3471.00		
Change Over Sub	1.00			3472.00		
Blank Spacing	251.00			3723.00		
Change Over Sub	1.00			3724.00		
Bullnose	3.00			3727.00	263.00	Bottom Packers & Anchor
Total Tool Length:	**365.00**					

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc

1310 Bison RD
Hays KS 67601

ATTN: Tom Denning/ Herb De

24-15s-19w Ellis,KS

GW Unit #1

Job Ticket: 50777 **DST#: 2**

Test Start: 2012.10.18 @ 11:30:00

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	37 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	56.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	7.79 in³	Gas Cushion Type:			
Resistivity:	0.00 ohm.m	Gas Cushion Pressure:	psig		
Salinity:	4100.00 ppm				
Filter Cake:	inches				

Recovery Information

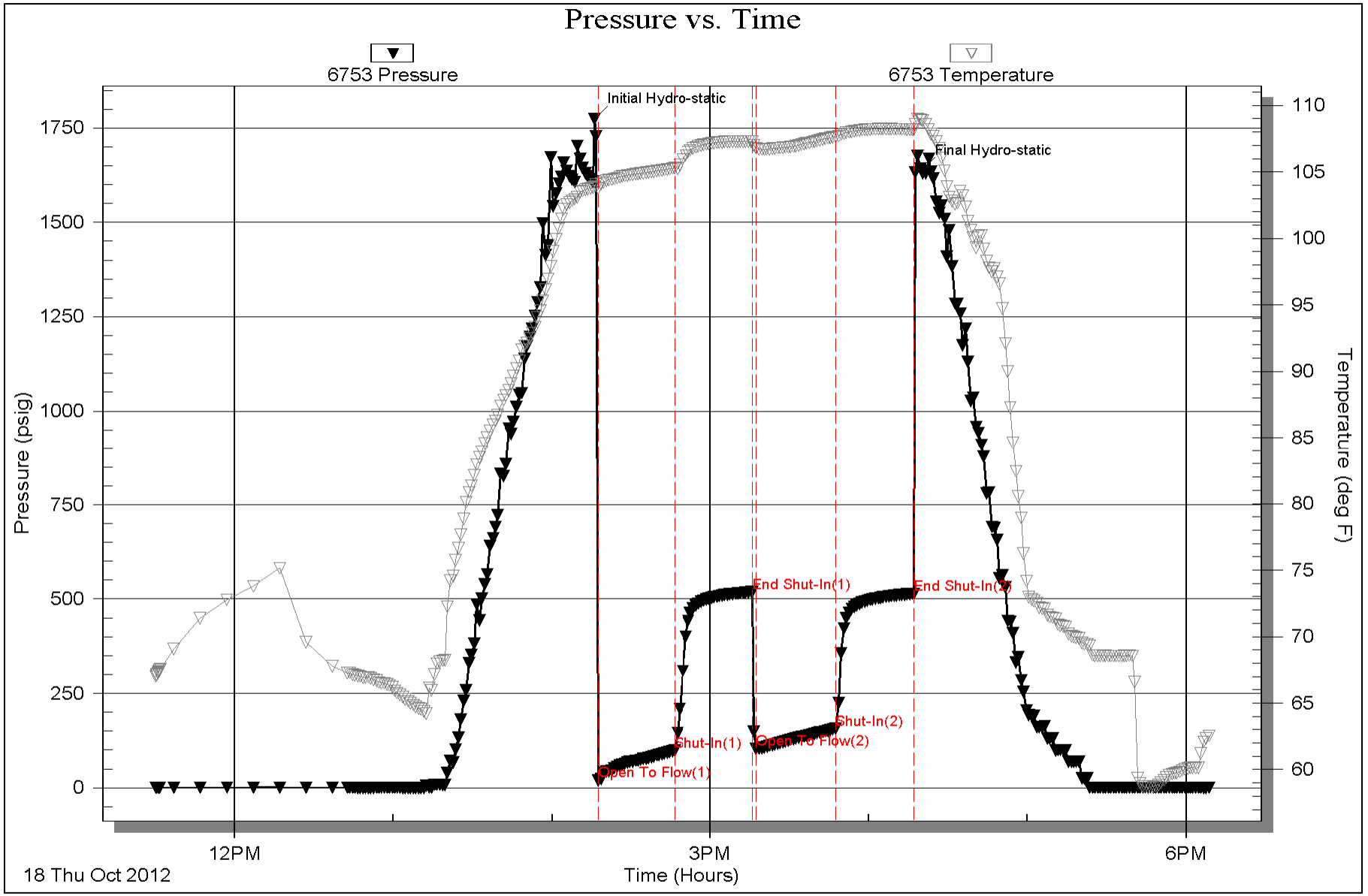
Recovery Table

Length ft	Description	Volume bbl
70.00	SGO 90%O 10%G	0.982
185.00	GSMCO 40%G 10%M 50%O	2.595
125.00	GVSMCO 35%G 5%M 60%O	1.753
0.00	245ft GIP	0.000

Total Length: 380.00 ft Total Volume: 5.330 bbl

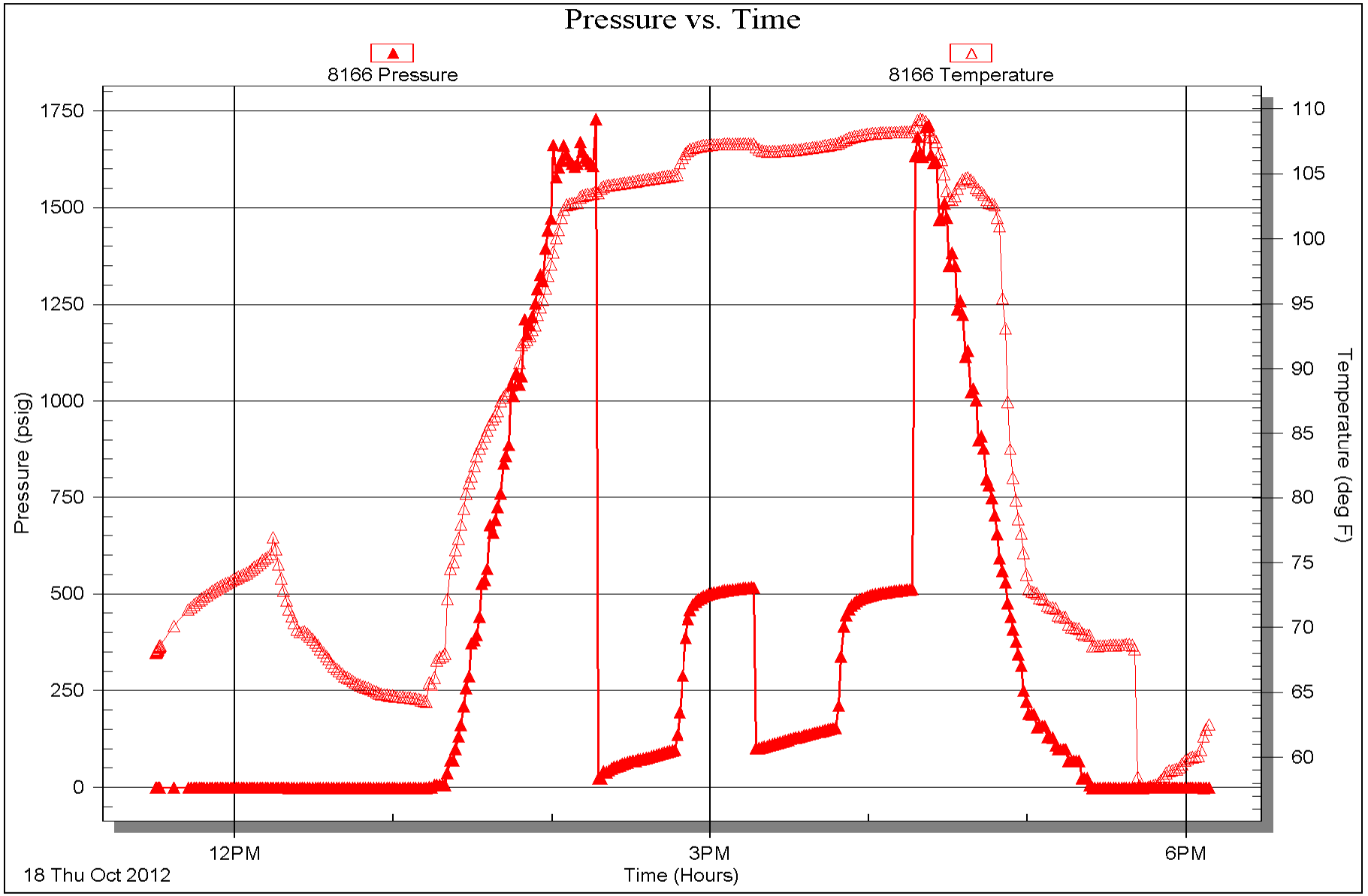
Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
Laboratory Name: Laboratory Location:
Recovery Comments:

Serial #: 6753 **Outside** TDI Inc GW Unit #1 DST Test Number: 2



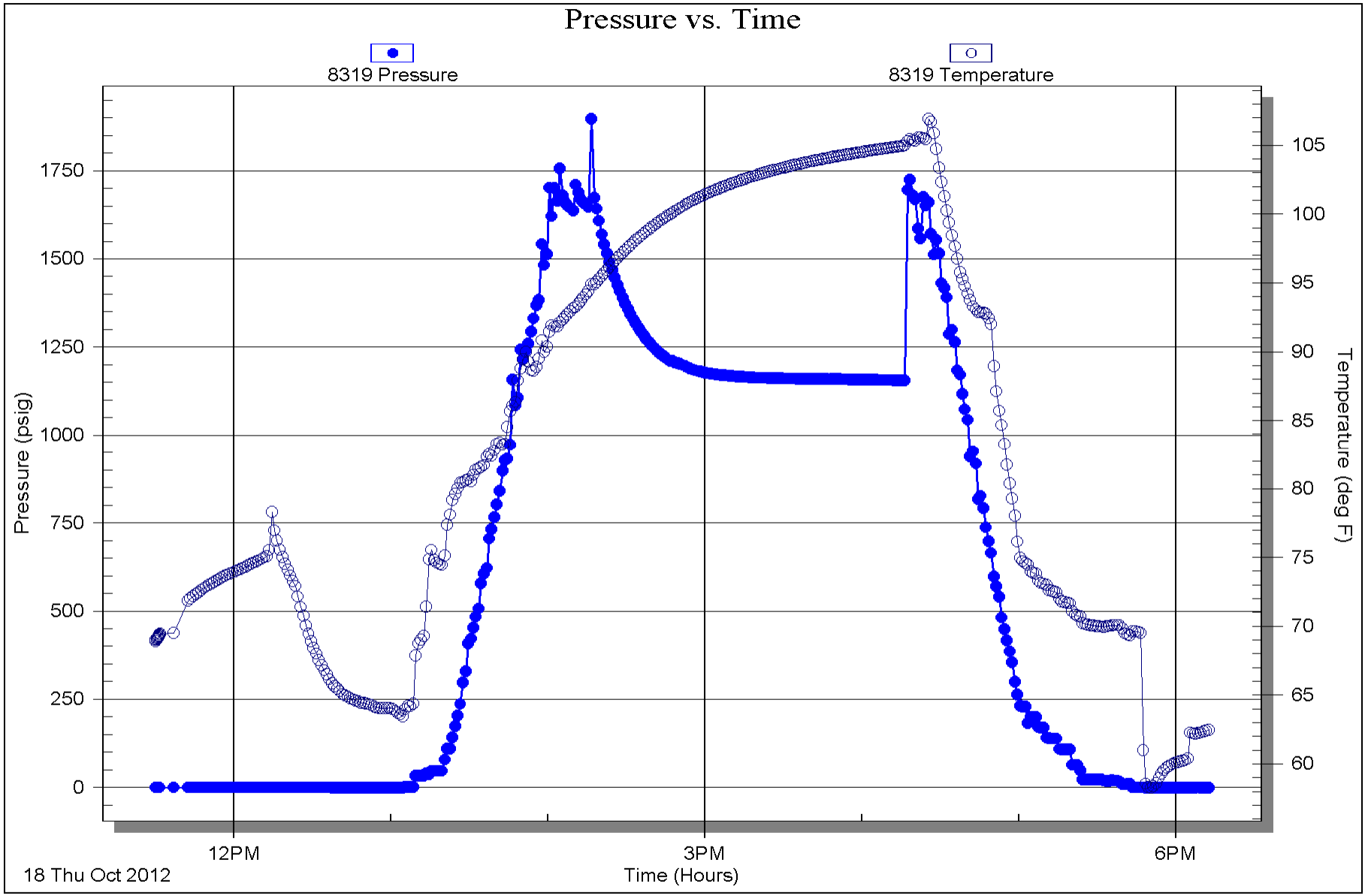
Trilobite Testing, Inc Ref. No: 50777 Printed: 2012.10.19 @ 15:27:12

Serial #: 8166 **Inside** TDI Inc GW Unit #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 50777 Printed: 2012.10.19 @ 15:27:12

Serial #: 8319 Below (Straddle) GW Unit #1 DST Test Number: 2



Trilobite Testing, Inc Ref. No: 50777 Printed: 2012.10.19 @ 15:27:13

TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

4/10

Test Ticket

NO. 49663

Well Name & No. G-W Unit #1 Test No. 1 Date 10-16-12

Company TDI INC Elevation 1979 KB 1969 GL

Address 1310 Bison RD Hays KS 67601

Co. Rep / Geo. Tom Denning / Herb Deines Rig Southwind #1

Location: Sec. 24 Twp. 15s Rge. 19w Co. Ellis State KS

Interval Tested 3258 - 3305 Zone Tested Lansing A-C

Anchor Length 47' Drill Pipe Run 3265 Mud Wt. 8.8

Top Packer Depth 3253 Drill Collars Run 0 Vis 51

Bottom Packer Depth 3258 Wt. Pipe Run 0 WL 7.6

Total Depth 3305 Chlorides 4400 ppm System LCM 1

Blow Description IF: Fair blow 5½"

ISI NO blow back

FF Weak blow 2"

FSI NO blow back

Rec 10'	Feet of MUD with OIL SPOTS	%gas	%oil	%water	%mud
Rec 60'	Feet of M, W	%gas	%oil 70	%water 30	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 70' BHT 115 Gravity - API RW .10 @ 60 °F Chlorides 27,000 ppm

(A) Initial Hydrostatic 1561	☑ Test 1150	T-On Location 14:25
(B) First Initial Flow 32	☐ Jars	T-Started 14:40
(C) First Final Flow 58	☐ Safety Joint	T-Open 17:26
(D) Initial Shut-In 585	☐ Circ Sub	T-Pulled 20:30
(E) Second Initial Flow 48	☐ Hourly Standby	T-Out
(F) Second Final Flow 65	☑ Mileage 30 miles 46.50	Comments
(G) Final Shut-In 565	☐ Sampler	
(H) Final Hydrostatic 1535	☐ Straddle	☐ Ruined Shale Packer
	☐ Shale Packer	☐ Ruined Packer
Initial Open 45	☐ Extra Packer	☐ Extra Copies
Initial Shut-In 45	☐ Extra Recorder	Sub Total 0
Final Flow 45	☐ Day Standby	Total 1196.50
Final Shut-In 45	☐ Accessibility	MP/DST Disc't
	Sub Total 1196.50	

Approved By [signature] Our Representative [signature]

TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

4/10

Test Ticket

NO. 50777

Well Name & No. GW Unit well #1 Test No. 2 Date 10/18/12

Company TDI Inc. Elevation 1978 KB 1968 GL

Address 1310 Bison Rd Hays KS 67601

Co. Rep / Geo. Rig Southwind #1

Location: Sec. 24 Twp. 15 Rge. 19 Co. Ellis State KS

Interval Tested 3382 - 3464 Zone Tested KC "H, I, J"

Anchor Length 82 Drill Pipe Run 3390 Mud Wt. 9.2

Top Packer Depth 3377, 3382 Drill Collars Run — Vis 56

Bottom Packer Depth 3464 Wt. Pipe Run — WL 7.8

Total Depth 3724 Chlorides 4,100 ppm System LCM 1

Blow Description IF - BOB in 4 min

ISI - ½ in blow

FF - BOB in 2 min

FSI - BOB in 6 min

Rec 20	Feet of SGO	16 %gas	80 %oil	%water	%mud	
Rec 185	Feet of GSMCO	40 %gas	50 %oil	%water	10 %mud	
Rec 125	Feet of GVSMCO	35 %gas	60 %oil	%water	5 %mud	
Rec	Feet of	%gas	%oil	%water	%mud	
Rec	Feet of 245 FT GIP	%gas	%oil	%water	%mud	

Rec Total 380 BHT 108 Gravity 37 API RW @ °F Chlorides ppm

(A) Initial Hydrostatic	1,773	☒ Test 1150	T-On Location 10:15
(B) First Initial Flow	20	☐ Jars	T-Started 11:30
(C) First Final Flow	98	☐ Safety Joint	T-Open 14:10
(D) Initial Shut-In	519	☐ Circ Sub	T-Pulled 16:10
(E) Second Initial Flow	103	☐ Hourly Standby	T-Out 18:10
(F) Second Final Flow	156	☒ Mileage 30 ~~x~~ T 46.50	Comments
(G) Final Shut-In	514	☐ Sampler	
(H) Final Hydrostatic	1,636	☒ Straddle 600	☐ Ruined Shale Packer
		☐ Shale Packer	☐ Ruined Packer
Initial Open	30	☐ Extra Packer	☐ Extra Copies
Initial Shut-In	30	☐ Extra Recorder	Sub Total 0
Final Flow	30	☐ Day Standby	Total 1796.50
Final Shut-In	30	☒ Accessibility	MP/DST Disc't
		Sub Total 1796.50	

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:	GW UNIT # 1		
Location:	E2 SW SW NW Sec.24-15s-19w	API:	15-051-26,389-00-00
Pool:	WILDCAT	Field:	MARTINA EAST
State:	KANSAS	Country:	USA

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

Scale 1:240 Imperial

Well Name:	GW UNIT # 1		
Surface Location:	E2 SW SW NW Sec.24-15s-19w		
Bottom Location:			
API:	15-051-26,389-00-00		
License Number:	4787		
Spud Date:	10/12/2012	Time:	8:30 AM
Region:	ELLIS COUNTY		
Drilling Completed:	10/18/2012	Time:	12:38 AM
Surface Coordinates:	2310' FNL & 420' FWL		
Bottom Hole Coordinates:			
Ground Elevation:	1969.00ft		
K.B. Elevation:	1979.00ft		
Logged Interval:	2400.00ft	To:	3725.00ft
Total Depth:	3725.00ft		
Formation:	LANSING-KANSAS CITY		
Drilling Fluid Type:	CHEMICAL/FRESH WATER GEL		

SURFACE CO-ORDINATES

Well Type:	Vertical		
Longitude:		Latitude:	
N/S Co-ord:	2310' FNL		
E/W Co-ord:	420' FWL		

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 #:	1

Rig Type:	MUD ROTARY		
Spud Date:	10/12/2012	Time:	8:30 AM
TD Date:	10/18/2012	Time:	12:38 AM
Rig Release:	10/19/2012	Time:	5:00 AM

ELEVATIONS

K.B. Elevation:	1979.00ft	Ground Elevation:	1969.00ft
K.B. to Ground:	10.00ft		

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON FAVORABLE STRUCTURE AND RESULTS OF DST# 2.

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

DRILL STEM TESTING BY TRILOBITE TESTING INC. - 1 CONVENTIONAL TEST, 1 STRADDLE TEST

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

GW UNIT # 1
2310' FNL & 420' FWL, NW/4
Sec. 24-15s-19w
1969' GL 1979' KB

FORMATION	SAMPLE TOPS	LOG TOPS
Anhydrite	1162+ 817	**1160+ 819**
B-Anhydrite	1196+ 783	**1194+ 785**
Topeka	2937- 958	**2938- 959**
Heebner Shale	3224-1245	**3220-1241**
Toronto	3245-1266	**3239-1260**
LKC	3269-1290	**3266-1287**
BKC	3512-1533	**3510-1531**
Conglomerate Sand		**3568-1589**
Arbuckle	3573-1594	**3582-1603**
Reagan Sand	3715-1736	**NOT CALLED**
RTD	3725-1746	
LTD		**3723-1744**

SUMMARY OF DAILY ACTIVITY

10-12-12 **Spud,**

10-13-12 **1170', set 8 5/8" surface casing to 1167' with 375 SMD, plug down 8:30 AM, WOC 12 hours. Slope ¼ degree**

10-14-12 1575', drilling

10-15-12 2484', drilling, displace 2859'-2885'

10-16-12 3240', drilling, short trip, DST # 1 3258' – 3305' A-C, slope 1 degree

10-17-12 3400', drilling

10-18-12 RTD 3725' at 12:38AM, short trip, logs, straddle test # 2, 3382' – 3464' H-J, lay down drill pipe and start running production casing

10-19-12 3725', finish running production casing and cementing, plug down 5:00 AM, rig down and move drilling rig to next location

DST # 1 TEST SUMMARY

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI INC

1310 Bison RD
Hays KS 67601

ATTN: Tom Denning/ Herb De

24-15s-19w

G-W Unit #1

Job Ticket: 49663 **DST#: 1**

Test Start: 2012.10.16 @ 14:40:14

GENERAL INFORMATION:

Formation: **Lansing A-C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 17:26:59
Time Test Ended: 22:18:44

Test Type: Conventional Bottom Hole (Initial)
Tester: Chris Staats
Unit No: 47

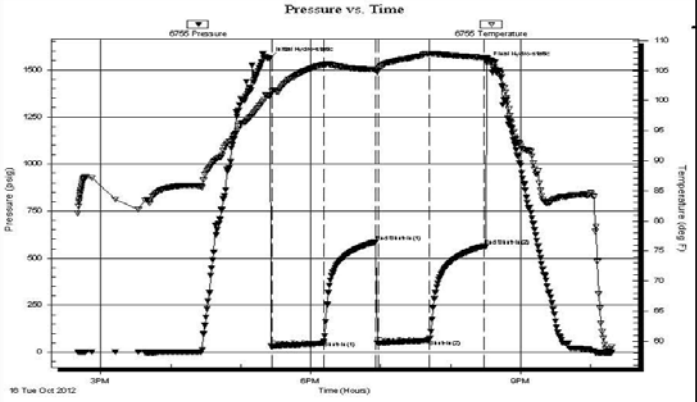
Interval: 3258.00 ft (KB) To 3305.00 ft (KB) (TVD)
Total Depth: 3305.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1979.00 ft (KB)
1969.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6755 **Inside**
Press@RunDepth: 65.67 psig @ 3259.00 ft (KB)
Start Date: 2012.10.16 End Date: 2012.10.16
Start Time: 14:40:19 End Time: 22:18:43

Capacity: 8000.00 psig
Last Calib.: 2012.10.16
Time On Btm: 2012.10.16 @ 17:24:29
Time Off Btm: 2012.10.16 @ 20:30:59

TEST COMMENT: IF: Fair blow 5 1/2"
ISI: No blow back
FF: Weak blow 2"
FSI: No blow back



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1561.22	100.69	Initial Hydro-static
3	32.06	101.59	Open To Flow (1)
47	58.21	105.98	Shut-In(1)
92	585.92	105.15	End Shut-In(1)
94	48.80	104.89	Open To Flow (2)
138	65.67	107.76	Shut-In(2)
185	565.17	107.12	End Shut-In(2)
187	1535.76	107.11	Final Hydro-static

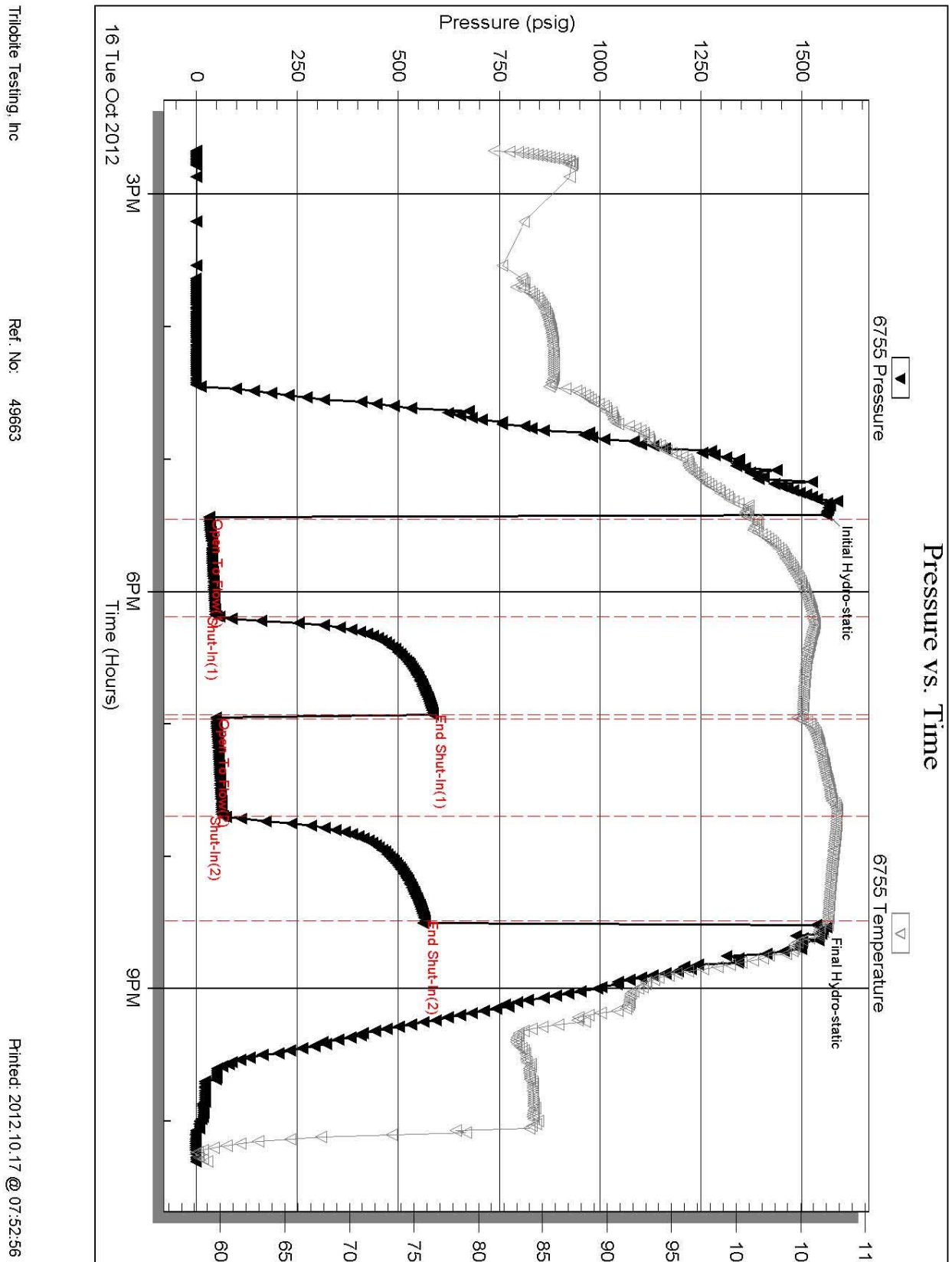
Recovery

Length (ft)	Description	Volume (bbl)
10.00	Mud With oil spots	0.14
60.00	M,W 30% mud 70% water	0.84

Gas Rates

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

DST # 1 EXPANDED CHART



Temperature (deg F)

DST # 2 STRADDLE TEST SUMMARY

TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI INC

1310 Bison RD
Hays KS 67601

ATTN: Tom Denning/ Herb De

24-15s-19w

G-W Unit #1

Job Ticket: 50777 **DST#: 2**

Test Start: 2012.10.18 @ 11:30:00

GENERAL INFORMATION:

Formation: **KC "H-J"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:17:30
Time Test Ended: 18:08:30

Test Type: Conventional Straddle (Reset)
Tester: Brett Dickinson
Unit No: 59

Interval: 3382.00 ft (KB) To 3464.00 ft (KB) (TVD)
Total Depth: 3724.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 1979.00 ft (KB)
1969.00 ft (CF)
KB to GR/CF: 10.00 ft

Serial #: 6753 **Outside**
Press@RunDepth: 156.25 psig @ 3460.00 ft (KB)
Start Date: 2012.10.18 End Date: 2012.10.18
Start Time: 11:30:05 End Time: 18:08:29

Capacity: 8000.00 psig
Last Calib.: 2012.10.18
Time On Btm: 2012.10.18 @ 14:16:00
Time Off Btm: 2012.10.18 @ 16:20:00

TEST COMMENT: IF-BOB in 4min
ISI-1/2in blow
FF-BOB in 2min
FSI-BOB in 6min

PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1772.97	103.91	Initial Hydro-static
2	19.96	103.78	Open To Flow (1)
31	98.42	105.29	Shut-In(1)
60	518.56	107.27	End Shut-In(1)
62	102.74	106.80	Open To Flow (2)
92	156.25	107.64	Shut-In(2)
121	513.79	108.19	End Shut-In(2)
124	1636.34	108.90	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
70.00	SGO 90%O 10%G	0.98
185.00	GSMCO 40%G 10%M 50%O	2.60
125.00	GVSMCO 35%G 5%M 60%O	1.75
0.00	245ft GIP	0.00

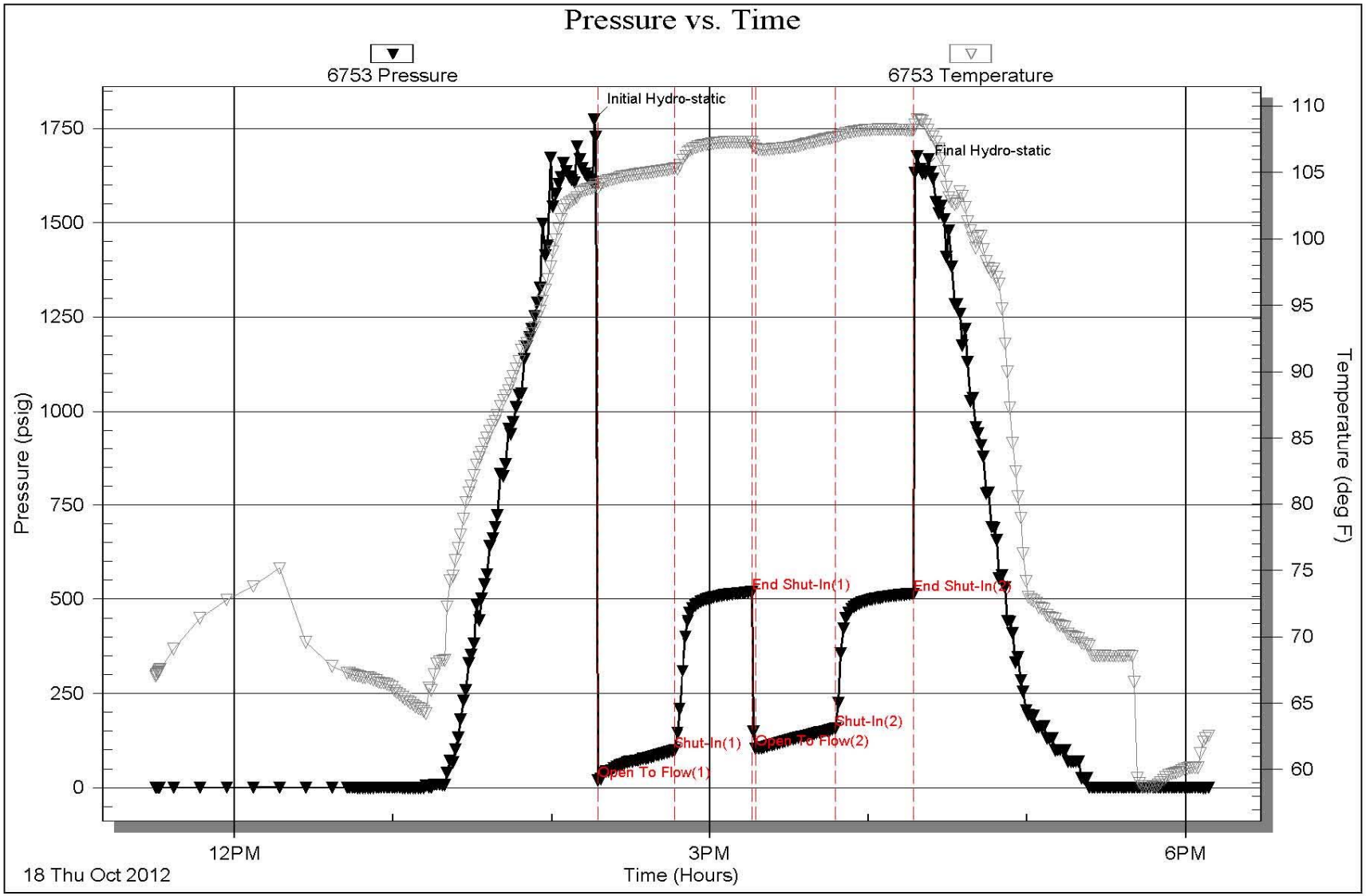
* Recovery from multiple tests

Gas Rates

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

DST # 2 EXPANDED CHART

Serial #: 6753 **Outside** TDI INC G-W Unit #1 DST Test Number: 2



ROCK TYPES

CglSandy
shale, red
Ss
Dol Lime
shale, grn
shale, gry
Carbon Sh
Dolsec
Lmst fw<7
Lmst fw7>
Cht vari
Clystgy
Dolprim

Trilobite Testing, Inc Ref. No: 50777 Printed: 2012.10.18 @ 23:03:50

ACCESSORIES

MINERAL
- Chert, dark
- Pyrite
- Sandy
- Varicolored chert
- Chert White

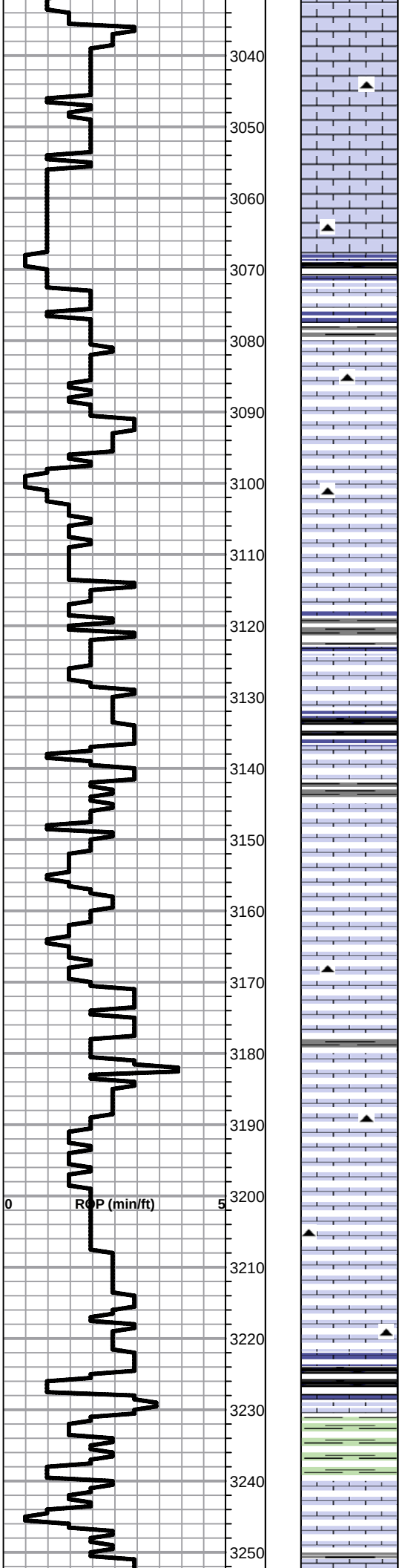
FOSSIL
- Oolite

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				BEGIN 1' DRILL TIME FROM 2900' TO RTD BEGIN 10' WET AND DRY SAMPLES FROM 3000' TO RTD	**8 5/8" SET TO 1167' W/ 375 SXS SMD, PLUG DOWN 8:30AM, WOC 12 HRS SLOPE 1/4 DEGREE**
	2910				**ANHYDRITE SPL TOP 1162+817 ELog 1160+819** **ANHYDRITE SPL BASE 1196+783 ELog 1194+785**	
	2920					
	2930				**TOPEKA SPL 2937-958 ELog 2938-959**	
	2940					
	2950					
	2960					
	2970				Lime, offwhite-med brn-gray, fnxln, slightly fossiliferous	
	2980				Lime, lt-med brn-gray, fnxln, bedded sticky clumps of chalk	
	2990				Lime, lt-med brn, granular, NS	
0 ROP (min/ft) 5	3000				Lime, lt-med brn, fnxln	
	3010				Lime, med brn-med grayish brn, fnxln-granular	
	3020				Lime, med brn-grayish brn, fnxln	
	3030					



Lime, lt-med brn-grayish brn, fnxln-granular

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

Lime, med brn-grayish brn, granular

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

Shale, med-dark gray-black carbonaceous, fissile, blocky

Shale, med gray, slivers

Lime, med brn-grayish brn, fnxln-granular

Lime, crm, fn-vfxln, bedded chalk in part
scattered brn chert, fresh, sharp

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

Lime, lt brn-lt grayish brn, fnxln-granular, slight chalk in part

Shale, gray-black carbonaceous, fissile, blocky

Lime, lt rn-lt gray, fnxln

Lime, med brn, fnxln, slightly fossiliferous

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

Lime, lt-med brn, fnxln, fossiliferous in part-fusulinids and crinoid segments, NS

Lime, med-dark brn-gray, fnxln, slightly fossiliferous

Lime, grayish brn, fnxln

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

Lime, lt-med brn, granular, slightly fossiliferous, bed chalk

Lime, lt-med brn, fnxln, bed chalk

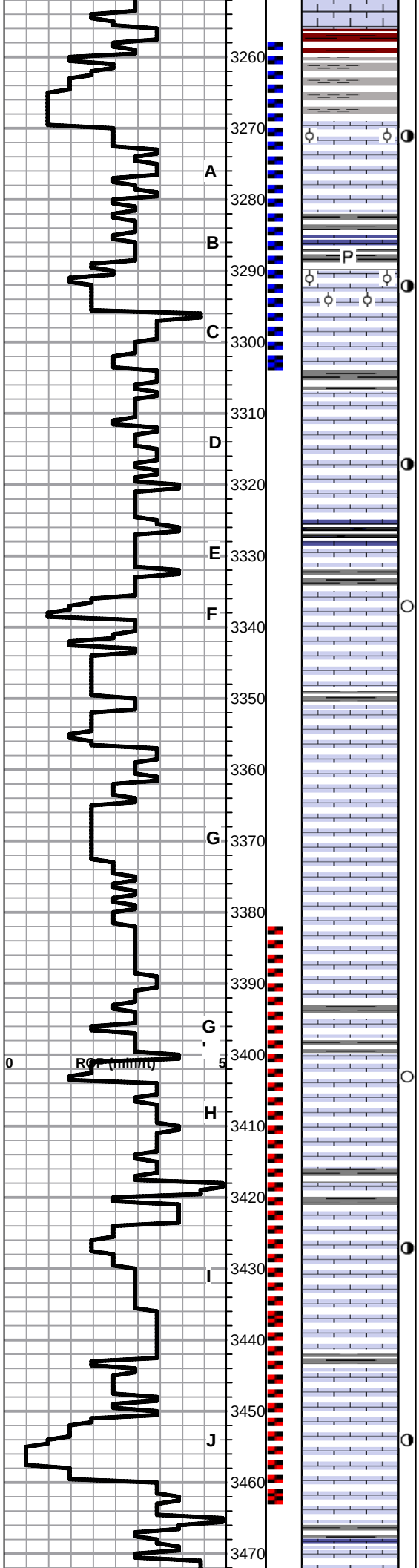
Lime, lt-med brn, fnxln

HEEBNER SHALE SPL 3224-1245 ELog 3220-1241

Shale, black carbonaceous, fissile, blocky
Lime, grayish brn, slightly fossiliferous, vfxln
Shale, lime green, forming soft mud

TORONTO ELog 3239-1260

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



Lime, crm-lt brn, fn-vfxln, slightly chalky, NS

Shale, reddish tan, forming soft mud

LKC SPL 3269-1290 ELog 3266-1287

Lime, tan, fnxln with few clumps of oolitic-fossil fragment material with lite odor and scattered staining in interxln and interoolitic porosity.

DST # 1 3258' TO 3305' SEE HEADER FOR TEST SUMMARY

Lime, tan-med brn, fnxln

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

Lime, crm-tan, oolitic with fossil fragments, scattered stain, lite odor, interoolitic-oolmoldic porosity

PIPE STRAP @ 3305'
STRAP 3332.09'
BOARD 3332.20
.11

Lime, crm-tan, fnxln, bed chalk

Shale, med gray, soft

SLOPE @ 3305' 1 DEGREE

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

Lime, tan-lt brn, fnxln, thin zone with scattered vuggy porosity, scattered stain and lite odor.

Shale, gray-black carbonaceous
Lime, lt grayish brn, fnxln, slightly fossiliferous
Shale, lt gray forming soft mud

Lime, lt-dark brn, fnxln with pale gray, vuggy lime, with lt stain, no detectable odor

Lime, tan-lt brn, fnxln, bedded chalk in part

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

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

Lime, crm-tan, fnxln, bedded chalk

Lime, lt grayish brn, fnxln-vfxln

Lime, tan-lt brn, mostly fnxln with scattered lt staining in fine scattered interxln porosity. doesn't appear well developed

Lime, crm-lt brn, fnxln

Shale, grayish green, soft blocky

DST # 2 STRADDLE TEST 3382' TO 3464' SEE HEADER FOR TEST SUMMARY

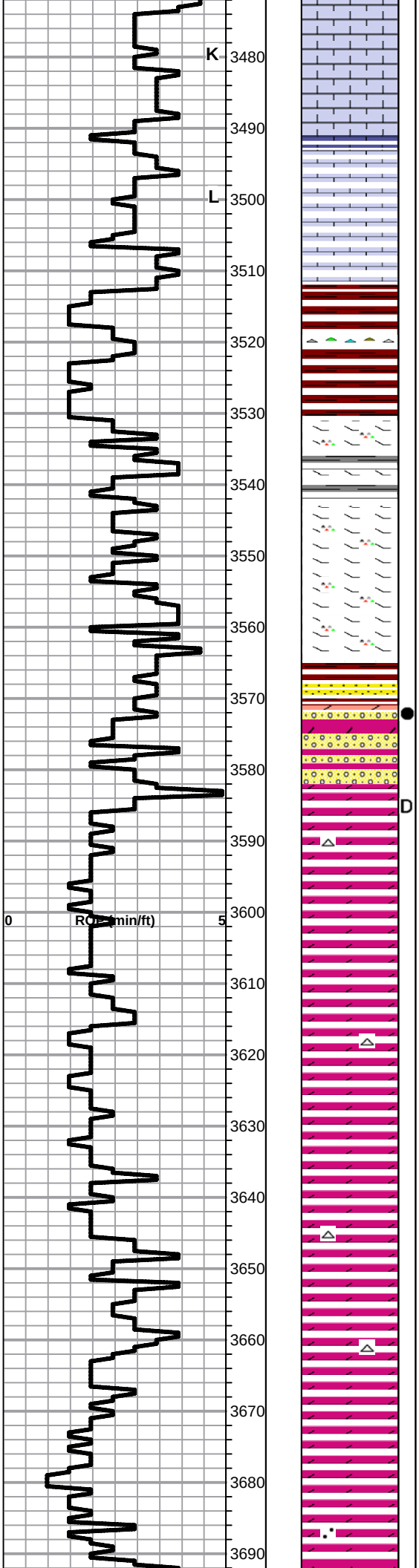
Lime, tan-lt brn, fnxln with zone with fn interxln and vuggy porosity, scattered stain with fair odor, NFO

Lime, crm, fnxln, bedded chalk in part

Lime, crm-tan, fnxln with bedded chalk in part

Lime, crm-tan, oolitic/oolmoldic with very lite stain. Samples appeared barren but had a very good wet cut. Show appears to very lite oil leaving little visible evidence of presence in zone

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



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

Lime, crm-lt brn, fnxln

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

Lime, crm-tan, fn-vfxln, chalky white wash

BKC SPL 3512-1533 ELog 3510-1531

Shale, red wash

Shale, reddish brn, forming sticky clumps

Shale, red, very sticky clumps

Lime, offwhite, vfxln, hard on crush, scattered fossils

Lime, tan-med brn, fnxln with vari colored fresh chert including orange chert.

Lime, crm-tan, fnxln, very chalky

CONGLOMERATE SAND ELog 3568-1589

Sandstone, poorly sorted, cemented with scattered clusters of better sorted sand with saturation and SFO on crush with lt odor. Zone contained a fair content of dolomite with stain

ARBUCKLE ELog 3582-1603

Dolomite, ivory-crm, granular with gilsonite in interxln porosity

Dolomite, ivory-crm, fn-med xln

Dolomite, ivory-crm, fn-med xln

Dolomite, crm, granular, fn-med xln

Dolomite, crm, fnxln

Dolomite, ivory-crm, fn-md xln, granular in part

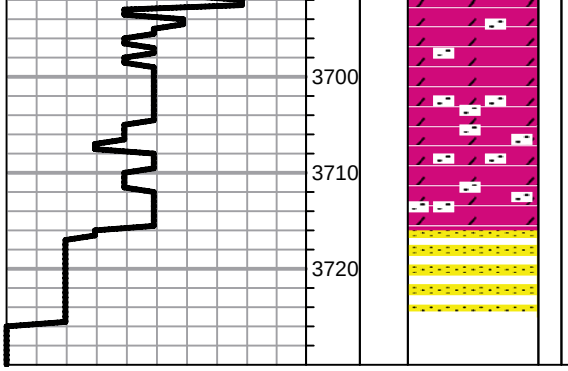
Dolomite, tan-lt brn, fnxln, few clusters of sticky chalk

Dolomite, crm, fnxln, hard on crush

Dolomite, crm, fn-cxln, scattered specks of glauconite

Dolomite, fnxln, brittle on crush

Dolomite, crm, fnxln, increasing content of quartz grains



Dolomite, crm, fnxln, clear sand clusters in part mixed with dolomite

Dolomite, tan, fnxln, sandy, specks of glauconite

REAGAN SAND SPL 3715-1736

Sandstone, clear quartz, well sorted with green and pink tinting in part, friable, NS

RUN 5 1/2" PRODUCTION CASING SET TO 3710' W/ 175 SXS EA2, PLUG DOWN 5:00 AM 10-19-2012

JOB LOG

SWIFT Services, Inc.

DATE 10-13-12 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
T.D.I.	#1	GW UNIT	8 5/8" SURFACE	23377

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	0330							ON LOCATION
	0530							START 8 5/8" CASING IN WELL
								TD - 1170' SET @ 1167
								TP - 1167' 8 5/8 # 23
								ST - 17'
								CENTRALIZERS - 1, 3, 15
	0700							BREAK CIRCULATION
	0740	6	12		✓		250	PUMP 500 GAL MUDFLUSH
	0742	6	20		✓		250	PUMP 20 BBLS KCL FLUSH
	0755	6	46		✓		250	MIX CEMENT - 100 SKS @ 11.8 PPG
		6	37		✓			100 SKS @ 12.7 PPG
		6	31		✓			100 SKS @ 13.5 PPG
		6	20		✓		100	75 SKS @ 14.5 PPG
	0818							RELEASE PLUG
	0820	7	0		✓			DISPLACE PLUG
	0830	6	73.6				500 MAX	PLUG DOWN - SHUT IN
								CIRCULATED 5 SKS CMT 25 TO PIT
								WASH TRUCK
	0930							JOB COMPLETE
								THANK YOU
								WAYNE, BRIAN, JEREMY

JOB LOG

SWIFT Services, Inc.

DATE 10-19-12 | PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
TDI	#1	GW Unit	Cement Longstring	22847

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
								TD 3723
	0030							On location w/ FE.
	0130							Start 5 1/4 14 #/ft Csg to 3710'
								Insert Float Shoe w/ Auto-Fill
								L.D. Baffle - 55 42.35' @ 3668' = 89 1/2
								Cent 1-3-5-7-91-10-12
								Cent Bskts #2 pin & 90 pin after #12
								Drop Fill up ball to seat
	0250							Fin run Casing - Tag bottom
	0300							Start Cir / Rotate
	0400							Fin Cir
			7/5					Plug RH - 30 SKS MH 15 SKS
		5	12					Pump 500 gal Mud Flush
		6	20					Pump 20 BBL KCL Flush
		4						Start 130 SKS 50/50 Class B Poz
							Vac	Fin Cmt
								Wash out Pump & Lines
								Drop L.D. Plug
		8 1/2					500	Start Displ
		8 1/2	70				600	Caught Lift Press - Slow rate
	0445	5 1/2	80/89 1/2				810/1600	Plug Down - Held Release & Held
	0500							Job Complete
								Washup & Rackup
	0530							

Thanks
Don, Brian & Jeremy

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/

January 2, 2013

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

Re: ACO1
API 15-051-26389-00-00
GW Unit 1
NW/4 Sec.24-15S-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