



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1140735
OIL & GAS CONSERVATION DIVISION

Form ACO-1
August 2013

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

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

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

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

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
-----------------------------------	-----------------	---

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: _____



1140735

Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum
--	---

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

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

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
----------------	-------	---------	------------	---

Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
---	--

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

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
--	---	---



DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays KS 67601-9696

ATTN: Tom Denning

Hertel #1

6-15s-19w Ellis,KS

Start Date: 2013.04.02 @ 13:20:30

End Date: 2013.04.02 @ 19:41:09

Job Ticket #: 52554 DST #: 1

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

Printed: 2013.04.10 @ 10:31:21

TDI Inc
6-15s-19w Ellis,KS
Hertel #1
DST # 1
LKC "C"
2013.04.02



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc
1310 Bison Rd
Hays KS 67601-9696
ATTN: Tom Denning

6-15s-19w Ellis, KS
Hertel #1
Job Ticket: 52554 **DST#: 1**
Test Start: 2013.04.02 @ 13:20:30

Tool Information

Drill Pipe:	Length: 3362.00 ft	Diameter: 3.80 inches	Volume: 47.16 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 47.16 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	15.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3368.00 ft			Final	38000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	22.00 ft				
Tool Length:	43.00 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			3348.00	
Shut In Tool	5.00			3353.00	
Hydraulic tool	5.00			3358.00	
Packer	5.00			3363.00	21.00 Bottom Of Top Packer
Packer	5.00			3368.00	
Stubb	1.00			3369.00	
Recorder	0.00	8369	Inside	3369.00	
Recorder	0.00	8700	Outside	3369.00	
Perforations	18.00			3387.00	
Bullnose	3.00			3390.00	22.00 Bottom Packers & Anchor
Total Tool Length:	43.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc
1310 Bison Rd
Hays KS 67601-9696
ATTN: Tom Denning

6-15s-19w Ellis,KS
Hertel #1
Job Ticket: 52554 **DST#: 1**
Test Start: 2013.04.02 @ 13:20:30

Mud and Cushion Information

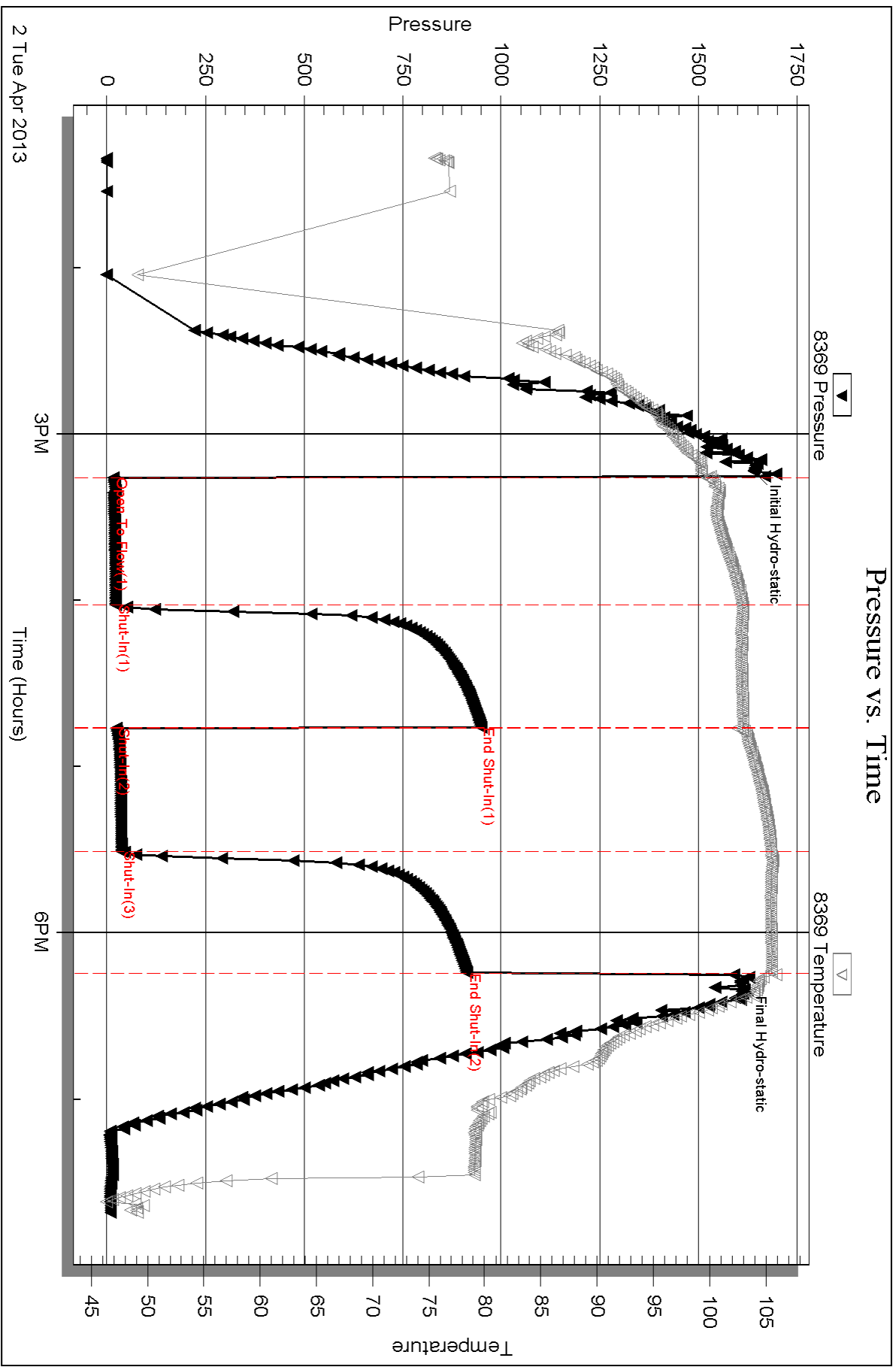
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: 74000 ppm	
Viscosity: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.75 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3800.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	35'GIP	0.000
25.00	SOCMW 3%O20%M77%W	0.351

Total Length: 25.00 ft Total Volume: 0.351 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: RW .16@45F

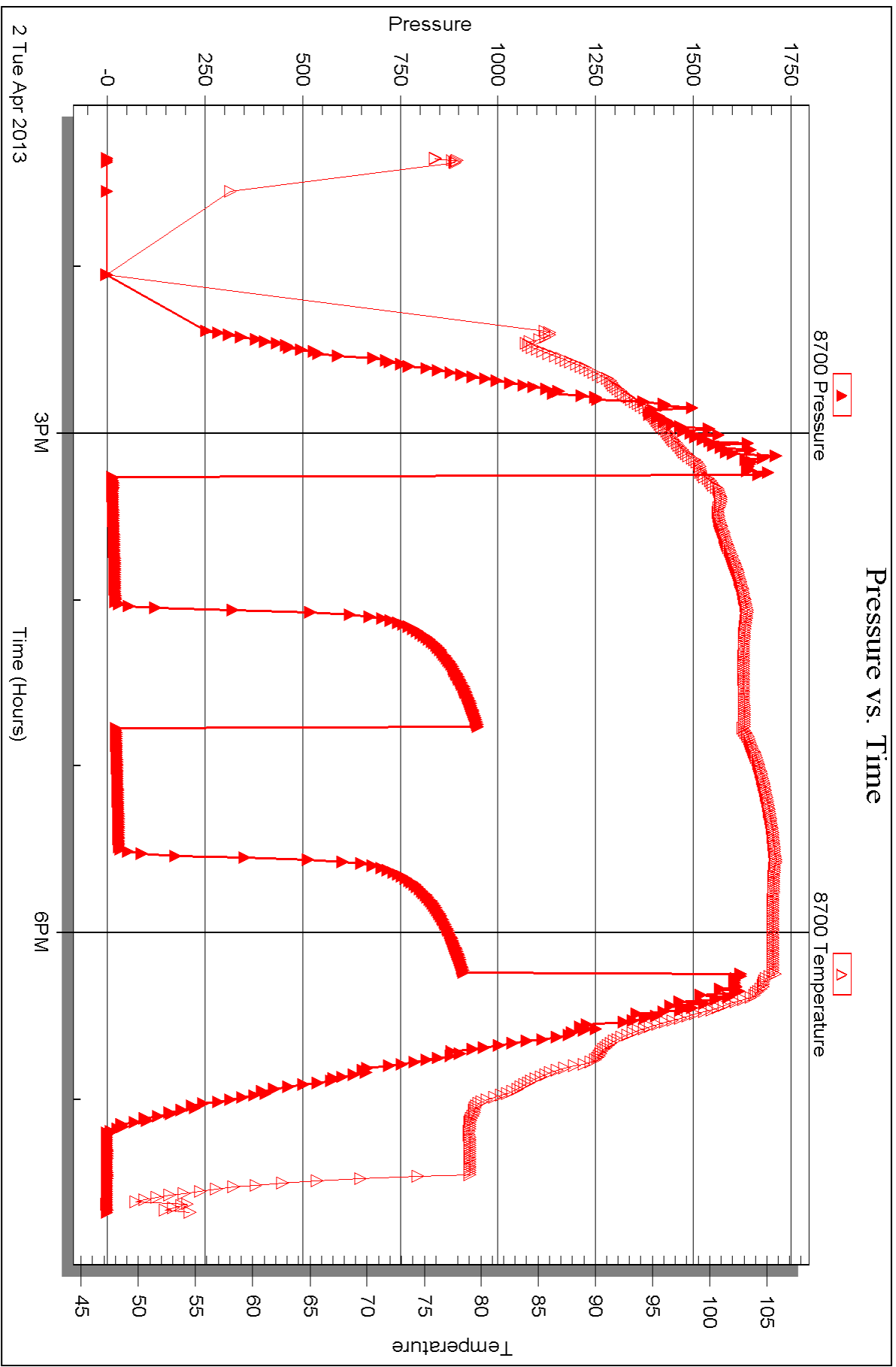


Serial #: 8700

Outside TDI Inc

Header #1

DST Test Number: 1





DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays KS 67601-9696

ATTN: Tom Denning

Hertel #1

6-15s-19w Ellis,KS

Start Date: 2013.04.03 @ 02:05:35

End Date: 2013.04.03 @ 08:33:29

Job Ticket #: 52555 DST #: 2

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

Printed: 2013.04.10 @ 10:19:15



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc
1310 Bison Rd
Hays KS 67601-9696
ATTN: Tom Denning

6-15s-19w Ellis, KS
Hertel #1
Job Ticket: 52555 **DST#: 2**
Test Start: 2013.04.03 @ 02:05:35

Tool Information

Drill Pipe:	Length: 3403.00 ft	Diameter: 3.80 inches	Volume: 47.74 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	60000.00 lb
			<u>Total Volume: 47.74 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	30.00 ft			String Weight: Initial	38000.00 lb
Depth to Top Packer:	3394.00 ft			Final	41000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	18.00 ft				
Tool Length:	39.00 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			3374.00	
Shut In Tool	5.00			3379.00	
Hydraulic tool	5.00			3384.00	
Packer	5.00			3389.00	21.00 Bottom Of Top Packer
Packer	5.00			3394.00	
Stubb	1.00			3395.00	
Recorder	0.00	8369	Inside	3395.00	
Recorder	0.00	8700	Outside	3395.00	
Perforations	14.00			3409.00	
Bullnose	3.00			3412.00	18.00 Bottom Packers & Anchor
Total Tool Length:	39.00				



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc
1310 Bison Rd
Hays KS 67601-9696
ATTN: Tom Denning

6-15s-19w Ellis,KS
Hertel #1
Job Ticket: 52555 **DST#: 2**
Test Start: 2013.04.03 @ 02:05:35

Mud and Cushion Information

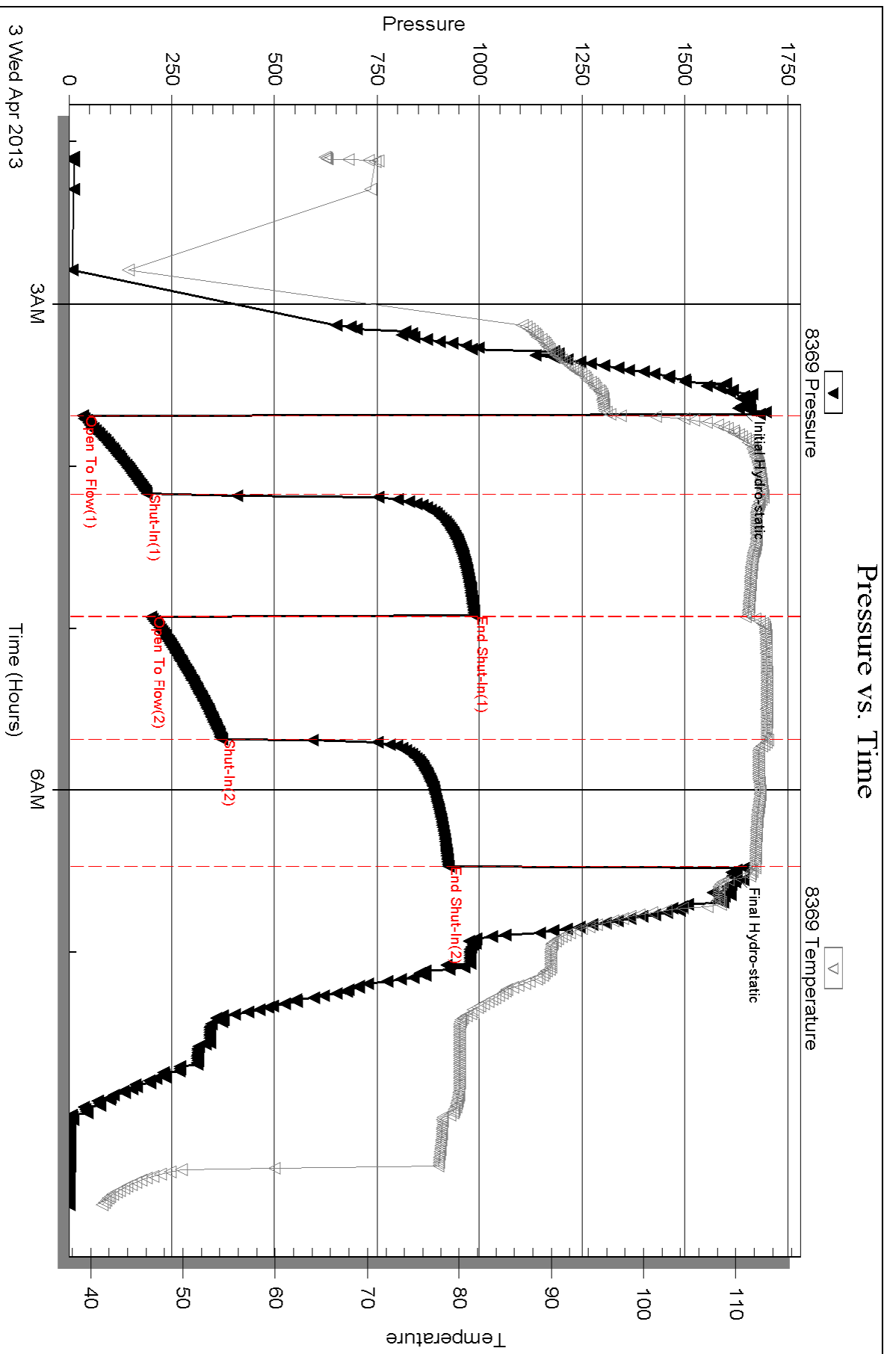
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	56000 ppm
Viscosity: 65.00 sec/qt	Cushion Volume: bbl		
Water Loss: 6.76 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 3800.00 ppm			
Filter Cake: 1.00 inches			

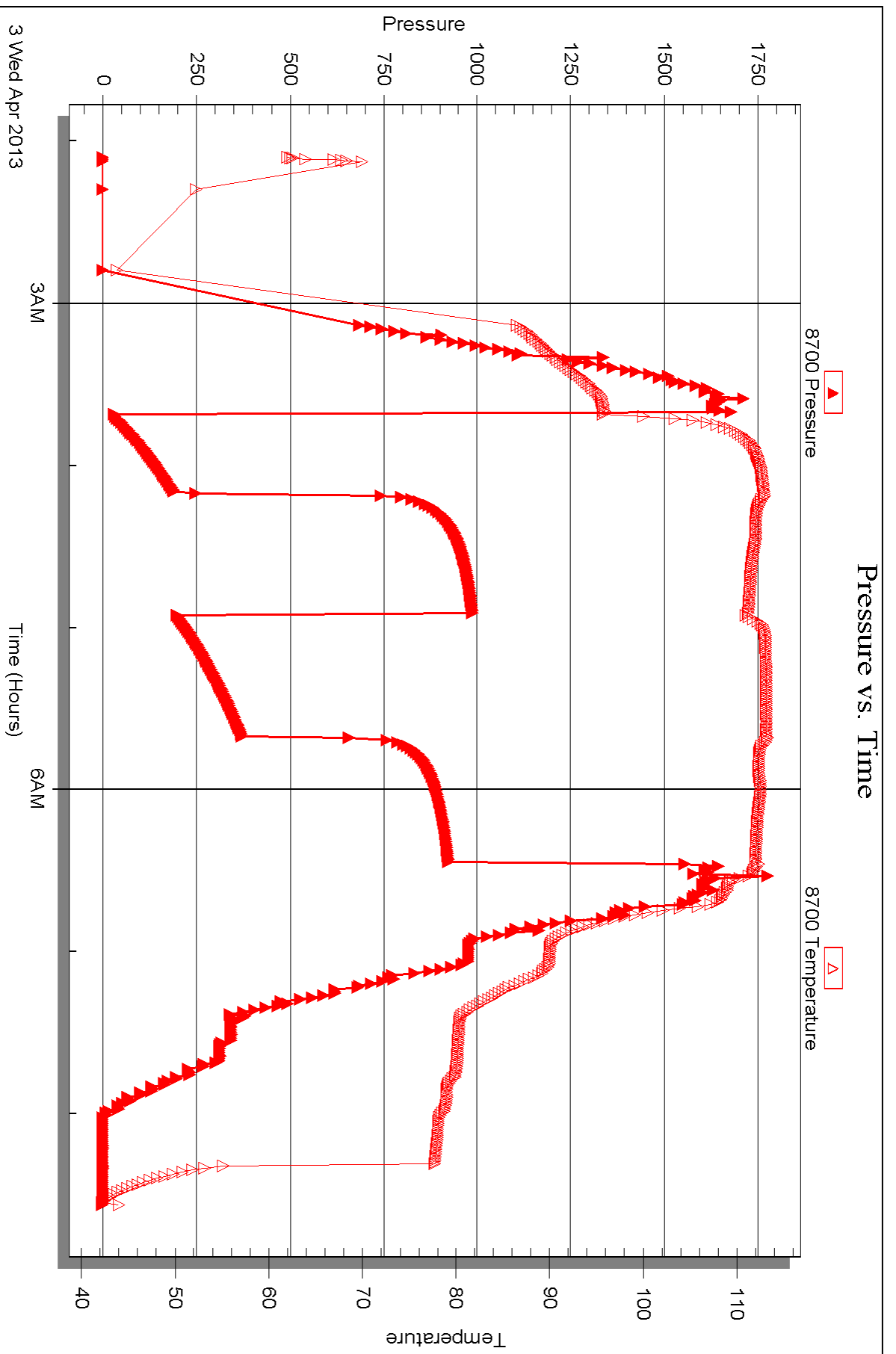
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	MW w/oil spots	0.842
585.00	Water	8.206

Total Length: 645.00 ft Total Volume: 9.048 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments: RW .16 @ 60F







DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays KS 67601-9696

ATTN: Tom Denning

Hertel #1

6-15s-19w Ellis,KS

Start Date: 2013.04.03 @ 22:06:04

End Date: 2013.04.04 @ 02:24:43

Job Ticket #: 52556 DST #: 3

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

Printed: 2013.04.10 @ 10:16:51

TDI Inc
6-15s-19w Ellis,KS
Hertel #1
DST # 3
LKC I-J
2013.04.03



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI Inc
 1310 Bison Rd
 Hays KS 67601-9696
 ATTN: Tom Denning

6-15s-19w Ellis, KS
Hertel #1
 Job Ticket: 52556 **DST#: 3**
 Test Start: 2013.04.03 @ 22:06:04

GENERAL INFORMATION:

Formation: **LKC I-J**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 23:35:14
 Time Test Ended: 02:24:43
Interval: 3500.00 ft (KB) To 3559.00 ft (KB) (TVD)
 Total Depth: 3550.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Reset)
 Tester: Ray Schwager
 Unit No: 42
 Reference Elevations: 2050.00 ft (KB)
 2040.00 ft (CF)
 KB to GR/CF: 10.00 ft

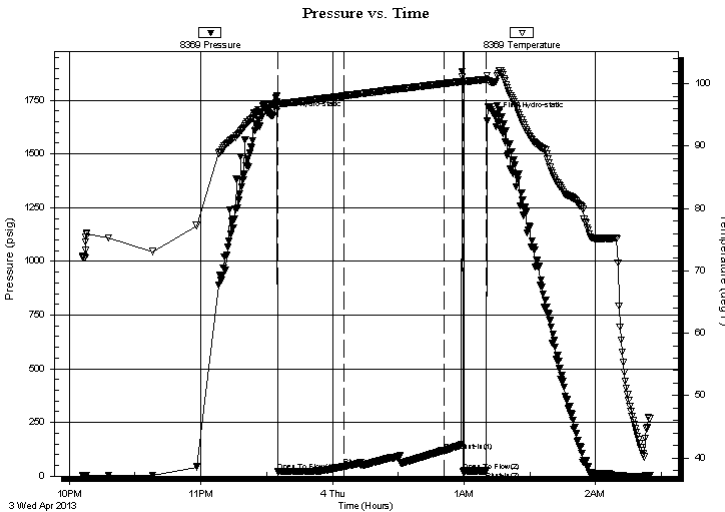
Serial #: 8369

Inside

Press @ Run Depth: 45.48 psig @ 3514.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.03 End Date: 2013.04.04 Last Calib.: 2013.04.04
 Start Time: 22:06:04 End Time: 02:24:43 Time On Btm: 2013.04.03 @ 23:32:59
 Time Off Btm: 2013.04.04 @ 01:14:29

TEST COMMENT: 30-IFP-w k surface bl thru-out
 45-ISIP-no bl
 20-FFP-no bl , flushed tool no help
 pulled tool

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1678.26	96.75	Initial Hydro-static
3	22.89	96.40	Open To Flow (1)
33	45.48	98.06	Shut-In(1)
78	117.83	100.02	End Shut-In(1)
87	23.41	99.93	Open To Flow (2)
98	24.62	100.70	Shut-In(2)
102	1674.08	100.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud	0.01

* Recovery from multiple tests

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

TDI Inc
1310 Bison Rd
Hays KS 67601-9696
ATTN: Tom Denning

6-15s-19w Ellis, KS
Hertel #1
Job Ticket: 52556 **DST#: 3**
Test Start: 2013.04.03 @ 22:06:04

Tool Information

Drill Pipe:	Length: 3499.00 ft	Diameter: 3.80 inches	Volume: 49.08 bbl	Tool Weight:	2200.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight to Pull Loose:	55000.00 lb
			<u>Total Volume: 49.08 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	40000.00 lb
Depth to Top Packer:	3500.00 ft			Final	40000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	71.00 ft				
Number of Packers:	2	Diameter:	6.75 inches		
Tool Comments:					

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
Change Over Sub	1.00			3480.00	
Shut In Tool	5.00			3485.00	
Hydraulic tool	5.00			3490.00	
Packer	5.00			3495.00	21.00 Bottom Of Top Packer
Packer	5.00			3500.00	
Stubb	1.00			3501.00	
Perforations	13.00			3514.00	
Recorder	0.00	8369	Inside	3514.00	
Recorder	0.00	8700	Outside	3514.00	
Blank Spacing	33.00			3547.00	
Bullnose	3.00			3550.00	50.00 Bottom Packers & Anchor

Total Tool Length: 71.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc
1310 Bison Rd
Hays KS 67601-9696
ATTN: Tom Denning

6-15s-19w Ellis,KS
Hertel #1
Job Ticket: 52556 **DST#: 3**
Test Start: 2013.04.03 @ 22:06:04

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: 48.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.39 in ³	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 4000.00 ppm			
Filter Cake: 1.00 inches			

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1.00	Mud	0.014

Total Length: 1.00 ft Total Volume: 0.014 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

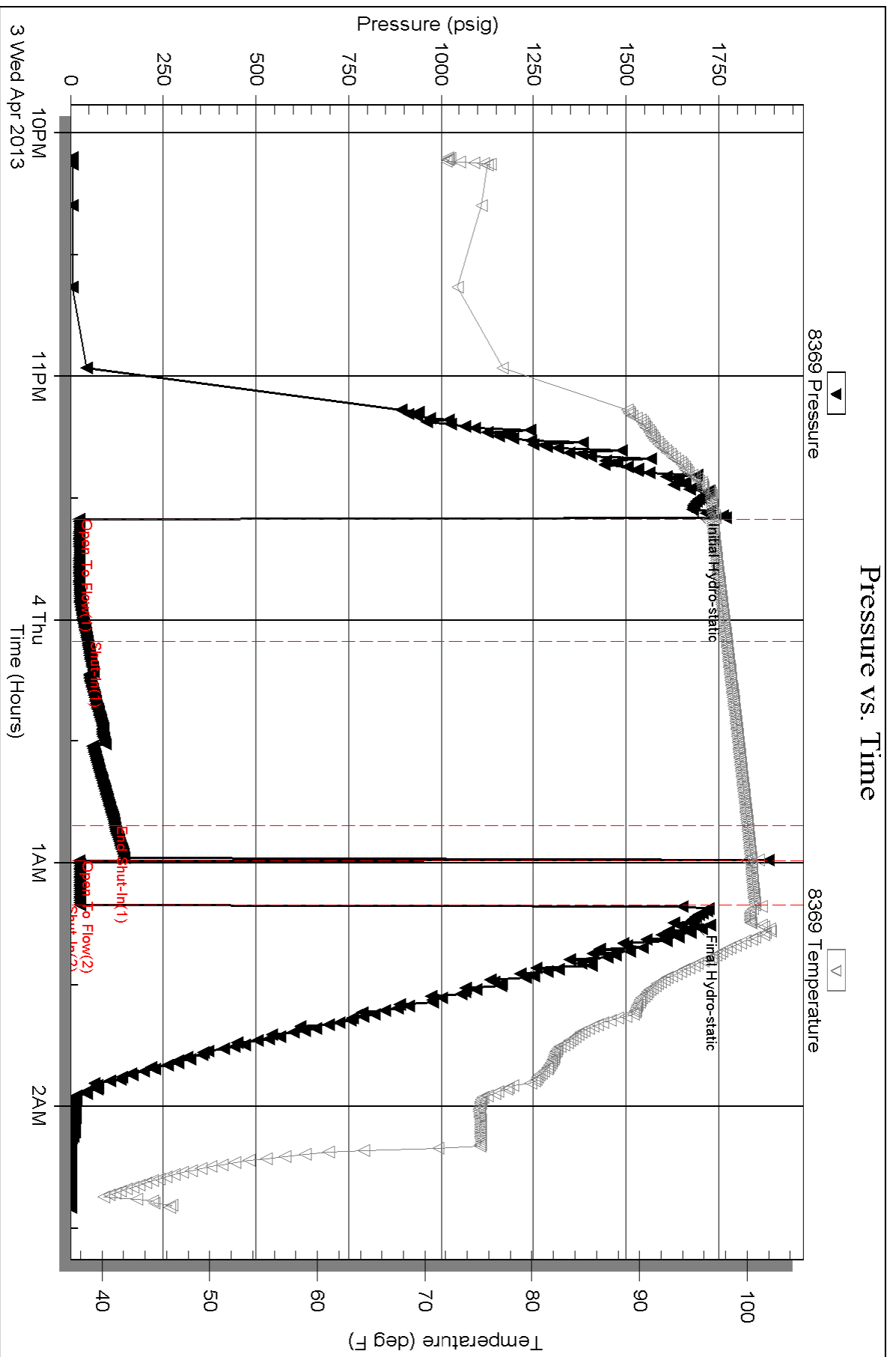
Serial #: 8369

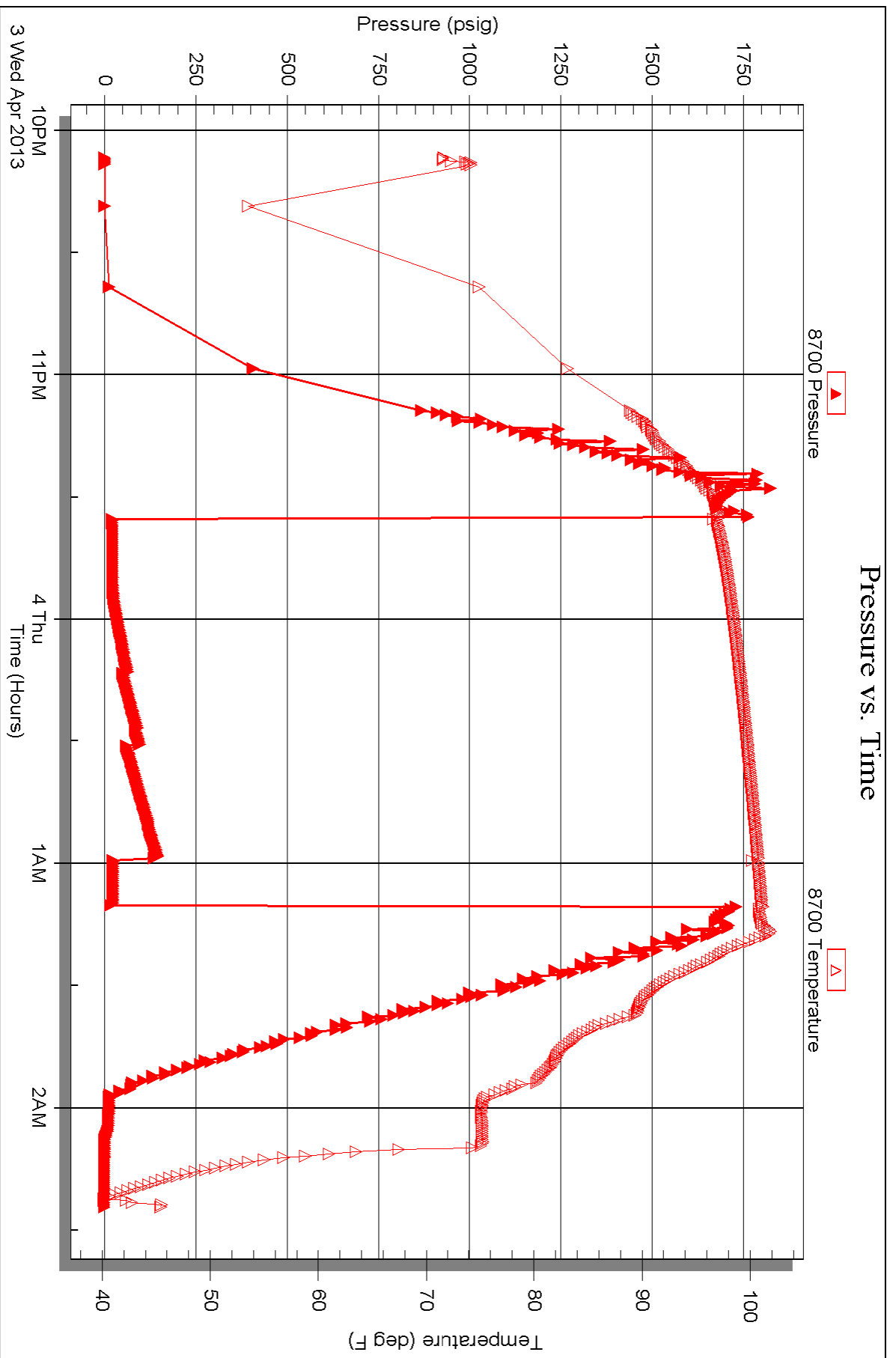
Inside

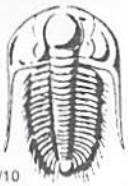
TDI Inc

Header #1

DST Test Number: 3







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 52554

Well Name & No. HERTEL#1 Test No. 1 Date 4-2-13
 Company TDI, Inc Elevation 2050 KB 2040 GL
 Address 1310 Bison Rd Hays, Ks 67601-9696
 Co. Rep / Geo. Herb Dienes Rig Southwind rig 1
 Location: Sec. 6 Twp. 15^s Rge. 19^w Co. ELLIS State Ks

Interval Tested 3368-3390 Zone Tested LKC "C"
 Anchor Length 22 Drill Pipe Run 3362 Mud Wt. 9
 Top Packer Depth 3368 Drill Collars Run - Vis 48
 Bottom Packer Depth 3368 Wt. Pipe Run - WL 6.8
 Total Depth 3390 Chlorides 3800 ppm System LCM 1#
 Blow Description IFP - WEAK Blow thru-out, 1/4" To 1 1/4" Blow
ISTP - NO Blow
FFP - WEAK Blow thru-out, 1/4" Blow
FSTP - NO Blow

Rec	Feet of	%gas	%oil	%water	%mud
<u>25</u>	<u>SOCMW</u>	<u>3</u>	<u>77</u>	<u>20</u>	
<u>35</u>	<u>GIP</u>				

Rec Total 25 BHT 10.5 Gravity - API RW .16 @ 45 ° F Chlorides 74000 ppm
 (A) Initial Hydrostatic 1639 Test 1150 T-On Location 1230
 (B) First Initial Flow 17 Jars _____ T-Started 1320
 (C) First Final Flow 22 Safety Joint _____ T-Open 1515
 (D) Initial Shut-In 949 Circ Sub _____ T-Pulled 1815
 (E) Second Initial Flow 23 Hourly Standby _____ T-Out 1941
 (F) Second Final Flow 37 Mileage 34RT 52.70 Comments _____
 (G) Final Shut-In 913 Sampler _____
 (H) Final Hydrostatic 1605 Straddle _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Initial Open 45 Shale Packer _____
 Initial Shut-In 45 Extra Packer _____
 Final Flow 45 Extra Recorder _____ Sub Total 0
 Final Shut-In 45 Day Standby _____ Total 1202.70
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1202.70

Approved By Herb Dienes Our Representative RAY Schwager Thank you

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. 52555

Well Name & No. HERTEL #1 Test No. 2 Date 4-3-13
 Company TOI, Inc Elevation 2050 KB 2040 GL
 Address 1310 Bison Rd Hays Ks 67601-96
 Co. Rep / Geo. Herb Dienes Rig Southwind rig 1
 Location: Sec. 6 Twp. 15^s Rge. 19^w Co. ELLIS State Ks

Interval Tested 3394-3412 Zone Tested LKC "0"
 Anchor Length 18 Drill Pipe Run 3403 Mud Wt. 9.2
 Top Packer Depth 3389 Drill Collars Run - Vis 65
 Bottom Packer Depth 3394 Wt. Pipe Run - WL 6.8
 Total Depth 3412 Chlorides 3800 ppm System LCM 1#

Blow Description IFP - WEAK TO STRONG IN 5min
ISIP - NO BLOW
FFP - WEAK TO STRONG IN 7min
FSIP -

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>MW w/oil spots</u>				
<u>585</u>	<u>WATER</u>				

Rec Total 745 BHT 112 Gravity - API RW .16 @ 60 °F Chlorides 56000 ppm

(A) Initial Hydrostatic 1630 Test 1150 T-On Location 0145
 (B) First Initial Flow 33 Jars _____ T-Started 0205
 (C) First Final Flow 189 Safety Joint _____ T-Open 0340
 (D) Initial Shut-In 987 Circ Sub _____ T-Pulled 0625
 (E) Second Initial Flow 189 Hourly Standby _____ T-Out 0833
 (F) Second Final Flow 371 Mileage 34RT 52.70 Comments _____
 (G) Final Shut-In 924 Sampler _____
 (H) Final Hydrostatic 1618 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____

Initial Open 30 Extra Packer _____ Extra Copies _____
 Initial Shut-In 45 Extra Recorder _____ Sub Total 0
 Final Flow 45 Day Standby _____ Total 1202.70
 Final Shut-In 45 Accessibility _____ MP/DST Disc't _____
 Sub Total 1202.70

Approved By _____ Our Representative RAY SCHWAGER Thank you

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. 52556

4/10

Well Name & No. Hertel #1 Test No. 3 Date 4-3-13
 Company TDI Inc Elevation 2050 KB 2040 GL
 Address 1310 Bison Rd Hays Ks 67601-96
 Co. Rep / Geo. Herb Dienes Rig Southwind rig 1
 Location: Sec. 6 Twp. 15^s Rge. 19^w Co. ELLIS State K

Interval Tested 3500-3550 Zone Tested LKC I-J
 Anchor Length 50 Drill Pipe Run 3499 Mud Wt. 9.2
 Top Packer Depth 3495 Drill Collars Run - Vis 48
 Bottom Packer Depth 3500 Wt. Pipe Run - WL 7.4
 Total Depth 3550 Chlorides 4000 ppm System LCM 2#
 Blow Description IFP - Weak surface Blow thru-out
ISIP - NO Blow
FFP - NO Blow, flushed Tool

Rec	Feet of	%gas	%oil	%water	%mud
<u>1</u>	<u>Mud</u>				
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud
Rec	Feet of	%gas	%oil	%water	%mud

Rec Total 1 BHT 101 Gravity - API RW - @ - ° F Chlorides - ppm

(A) Initial Hydrostatic <u>1678</u>	<input checked="" type="checkbox"/> Test <u>1150</u>	T-On Location <u>2055</u>
(B) First Initial Flow <u>22</u>	<input type="checkbox"/> Jars	T-Started <u>2205</u>
(C) First Final Flow <u>45</u>	<input type="checkbox"/> Safety Joint	T-Open <u>2335</u>
(D) Initial Shut-In <u>117</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>0110</u>
(E) Second Initial Flow <u>23</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>0224</u>
(F) Second Final Flow <u>24</u>	<input checked="" type="checkbox"/> Mileage <u>34RT</u> 105.40	Comments <u>loaded tools @ 16:30 on 4/4</u>
(G) Final Shut-In	<input type="checkbox"/> Sampler	<input type="checkbox"/> Ruined Shale Packer
(H) Final Hydrostatic <u>1674</u>	<input type="checkbox"/> Straddle	<input type="checkbox"/> Ruined Packer
Initial Open <u>30</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Extra Copies
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	Sub Total <u>0</u>
Final Flow <u>20</u>	<input type="checkbox"/> Extra Recorder	Total <u>1255.40</u>
Final Shut-In <u>pulled Tool</u>	<input type="checkbox"/> Day Standby	MP/DST Disc't
	<input type="checkbox"/> Accessibility	
	Sub Total <u>1255.40</u>	

Approved By _____

Our Representative Ray Schwager

Thank you

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: HERTEL # 1
 Location: NW NE SE SE Sec 6-15s-19w
 Pool: WILDCAT
 State: KANSAS

API: 15-051-26,486-00-00
 Field: UNNAMED
 Country: USA



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

Scale 1:240 Imperial

Well Name: HERTEL # 1
 Surface Location: NW NE SE SE Sec 6-15s-19w
 Bottom Location:
 API: 15-051-26,486-00-00
 License Number: 4787
 Spud Date: 3/29/2013 Time: 3:15 PM
 Region: ELLIS COUNTY
 Drilling Completed: 4/4/2013 Time: 12:01 PM
 Surface Coordinates: 1030' FSL & 580' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 2040.00ft
 K.B. Elevation: 2050.00ft
 Logged Interval: 2900.00ft To: 3717.00ft
 Total Depth: 3717.00ft
 Formation: LANSING-KANSAS CITY
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: Latitude:
 N/S Co-ord: 1030' FSL
 E/W Co-ord: 580' FEL

LOGGED BY

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

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

CONTRACTOR

Contractor: SOUTHWIND DRILLING, INC.
 Rig #: 1
 Rig Type: MUD ROTARY

Rig Type: MUD ROTARY
 Spud Date: 3/29/2013
 TD Date: 4/4/2013
 Rig Release: 4/4/2013

Time: 3:15 PM
 Time: 12:01 PM
 Time: 10:30 PM

ELEVATIONS

K.B. Elevation: 2050.00ft Ground Elevation: 2040.00ft
 K.B. to Ground: 10.00ft

NOTES

RECOMMENDATION TO PLUG AND ABANDON WELL BASED ON NEGATIVE RESULTS OF THREE DSTS.
 OPEN HOLE LOGGING BY: PIONEER ENERGY SERVICES-DUAL INDUCTION LOG, DUAL COMPENSATED POROSITY LOG
 DRILL STEM TESTING BY: TRILOBITE TESTING INC. - THREE (3) CONVENTIONAL TESTS

FORMATION TOPS SUMMARY AND CHRONOLOGY OF DAILY ACTIVITY

Hertel # 1	DINGES FAMILY # 1
1030' FSL & 580' FEL, SE/4	1425' FNL & 2310' FWL
Sec. 6-15s-19w	Sec. 8-15s-19w
2040' GL 2050' KB	Reference Well

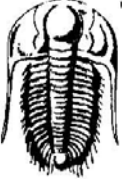
<u>FORMATION</u>	<u>SAMPLE TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1296+ 754	1296+ 754	+ 762
B-Anhydrite	1333+ 717	1330+ 720	+ 725
Topeka	3038- 988	3038- 988	- 987
Heebner Shale	3306-1256	3306-1256	-1258
Toronto	3327-1277	3326-1276	-1278
LKC	3353-1303	3352-1302	-1303
BKC	3600-1550	3597-1547	-1551
Marmaton	3647-1597	3644-1594	-1596
Conglomerate Sand	3699-1649		-1628
Arbuckle		None found	
RTD	3717-1667		
LTD		3715-1665	-1666

SUMMARY OF DAILY ACTIVITY

3-29-13 RU, spud 3:15 pm, set 8 5/8" to 219.68' w/ 150 sxs Common, 2%Gel, 3%CC, plug down 8:00PM, slope 1/2 degree, WOC 8 hrs
 3-30-13 255', drilling, drilled plug at 4:00 am
 3-31-13 1759', drilling
 4-01-13 2620', drilling, displaced 2640' to 2665'

4-02-13 3360', drilling, DST # 1 3368-90 LKC "C", DST # 2 3394-3412 LKC "D"
 4-03-13 3412', TIWB, drilling, DST # 3 3500-50 LKC "I" and "J"
 4-04-13 3595', drilling, RTD @ noon @ 3717', logs, P&A

DST # 1 TEST SUMMARY LKC "C" ZONE

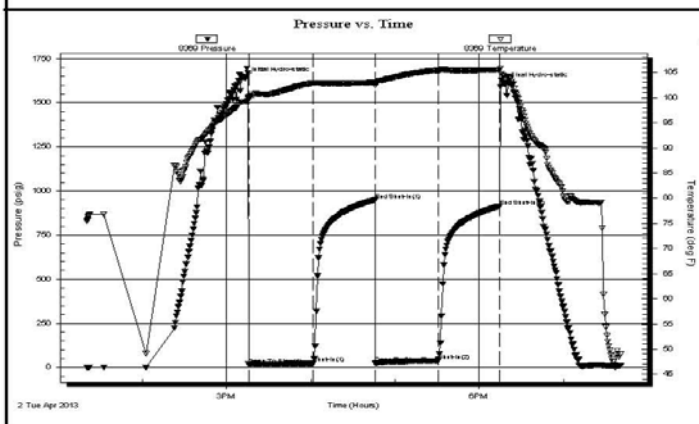
 <p>TRILOBITE TESTING, INC.</p>	DRILL STEM TEST REPORT	
	TDI Inc 1310 Bison Rd Hays Ks 67601-9696 ATTN: Tom Denning	6-15s-19w Ellis Hertel #1 Job Ticket: 52554 DST#: 1 Test Start: 2013.04.02 @ 13:20:30

GENERAL INFORMATION:

Formation: LKC "C"	Test Type: Conventional Bottom Hole (Initial)
Deviated: No Whipstock ft (KB)	Tester: Ray Schwager
Time Tool Opened: 15:15:40	Unit No: 42
Time Test Ended: 19:41:09	Reference Elevations: 2050.00 ft (KB)
Interval: 3368.00 ft (KB) To 3390.00 ft (KB) (TVD)	2041.00 ft (CF)
Total Depth: 3390.00 ft (KB) (TVD)	KB to GR/CF: 9.00 ft
Hole Diameter: 7.85 inches	Hole Condition: Fair

Serial #: 8369	Inside	Capacity: 8000.00 psig
Press@RunDepth: 37.53 psig @ 3369.00 ft (KB)	Start Date: 2013.04.02	Last Calib.: 2013.04.02
Start Time: 13:20:30	End Date: 2013.04.02	Time On Btm: 2013.04.02 @ 15:13:25
End Time: 19:41:09	Time Off Btm: 2013.04.02 @ 18:17:54	

TEST COMMENT: 45-IFP-w k bl thru-out 1/4" to 1 1/4" bl
 45-ISIP-no bl
 45-FFP-w k bl thru-out 1/4" bl
 45-FSIP-no bl




PRESSURE SUMMARY			
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1639.98	99.26	Initial Hydro-static
3	17.10	99.77	Open To Flow (1)
48	22.63	102.90	Shut-In(1)
93	949.32	103.00	End Shut-In(1)
93	23.94	102.46	Open To Flow (2)
138	37.53	105.46	Shut-In(2)
182	913.62	105.50	End Shut-In(2)
185	1605.59	104.33	Final Hydro-static

Recovery		
Length (ft)	Description	Volume (bbl)
0.00	35'GIP	0.00
25.00	SOCMV 3% O20% M77% W	0.35

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

DST # 2 TEST SUMMARY LKC "D" ZONE

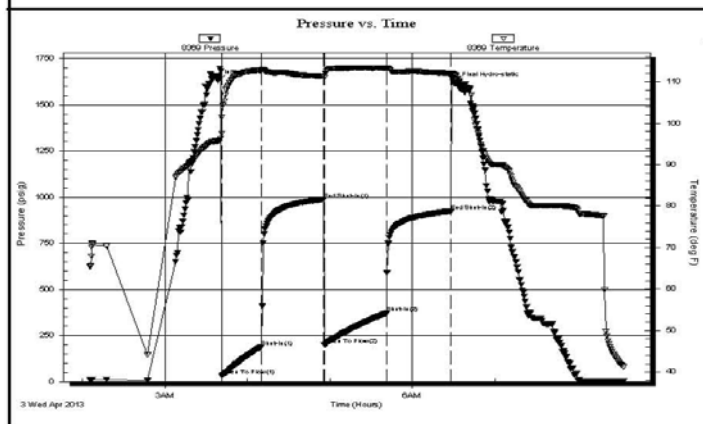
 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT	
	TDI Inc 1310 Bison Rd Hays Ks 67601-9696 ATTN: Tom Denning	6-15s-19w Ellis Hertel #1 Job Ticket: 52555 DST#: 2 Test Start: 2013.04.03 @ 02:05:35

GENERAL INFORMATION:

Formation: LKC "D"	Test Type: Conventional Bottom Hole (Reset)
Deviated: No Whipstock ft (KB)	Tester: Ray Schwager
Time Tool Opened: 03:41:15	Unit No: 42
Time Test Ended: 08:33:29	Reference Elevations: 2050.00 ft (KB)
Interval: 3394.00 ft (KB) To 3412.00 ft (KB) (TVD)	2040.00 ft (CF)
Total Depth: 3412.00 ft (KB) (TVD)	KB to GR/CF: 10.00 ft
Hole Diameter: 7.85 inches	Hole Condition: Fair

Serial #: 8369	Inside	Capacity: 8000.00 psig
Press@RunDepth: 371.30 psig @ 3395.00 ft (KB)	Start Date: 2013.04.03	Last Calib.: 2013.04.03
Start Time: 02:05:35	End Date: 2013.04.03	Time On Btm: 2013.04.03 @ 03:38:30
	End Time: 08:33:29	Time Off Btm: 2013.04.03 @ 06:30:59

TEST COMMENT: 30-IFP-w k to strg in 5min
 45-ISIP-no bl
 45-FFP-w k to strg in 7min
 45-FSIP-no bl



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1630.89	95.71	Initial Hydro-static
3	33.43	97.54	Open To Flow (1)
32	189.76	112.89	Shut-In(1)
77	987.69	111.33	End Shut-In(1)
78	199.67	111.08	Open To Flow (2)
123	371.30	113.33	Shut-In(2)
170	924.62	112.09	End Shut-In(2)
173	1618.17	111.62	Final Hydro-static

Length (ft)	Description	Volume (bbl)
60.00	MVW w /oil spots	0.84
585.00	Water	8.21

* Recovery from multiple tests

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

Trilobite Testing, Inc

Ref. No: 52555

Printed: 2013.04.03 @ 09:00:44

DST # 3 TEST SUMMARY LKC "i" AND "J" ZONES

 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT	
	TDI Inc	6-15s-19w Ellis



GENERAL INFORMATION:

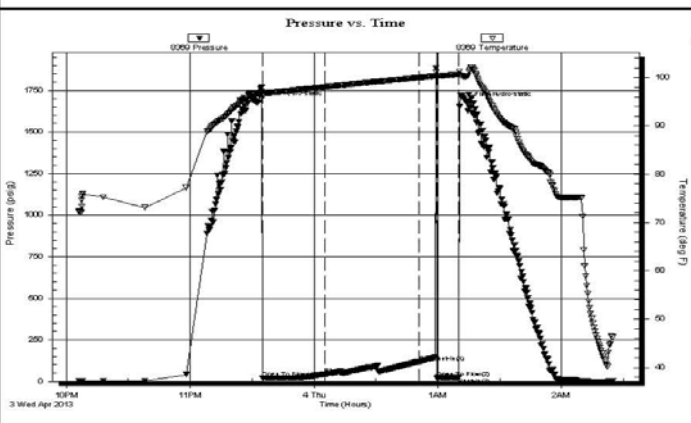
Formation: **LKC I-J**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Reset)
 Time Tool Opened: 23:35:14 Tester: Ray Schwager
 Time Test Ended: 02:24:43 Unit No: 42

Interval: **3500.00 ft (KB) To 3559.00 ft (KB) (TVD)** Reference Elevations: 2050.00 ft (KB)
 Total Depth: 3550.00 ft (KB) (TVD) 2040.00 ft (CF)
 Hole Diameter: 7.85 inches Hole Condition: Fair KB to GR/CF: 10.00 ft

Serial #: 8369 Inside

Press@RunDepth: 45.48 psig @ 3514.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2013.04.03 End Date: 2013.04.04 Last Calib.: 2013.04.04
 Start Time: 22:06:04 End Time: 02:24:43 Time On Btm: 2013.04.03 @ 23:32:59
 Time Off Btm: 2013.04.04 @ 01:14:29

TEST COMMENT: 30-IFP-w k surface bl thru-out
 45-ISIP-no bl
 20-FFP-no bl, flushed tool no help
 pulled tool



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1678.26	96.75	Initial Hydro-static
3	22.89	96.40	Open To Flow (1)
33	45.48	98.06	Shut-In(1)
78	117.83	100.02	End Shut-In(1)
87	23.41	99.93	Open To Flow (2)
98	24.62	100.70	Shut-In(2)
102	1674.08	100.32	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1.00	Mud	0.01

* Recovery from multiple tests

Gas Rates

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

ROCK TYPES

- | | | | |
|----------|------------|------------|----------|
| Cht vari | Chtcong1 | shale, gry | Ss |
| Clystgy | Lmst fw7> | Carbon Sh | Dol Lime |
| Clystcol | shale, grn | shale, red | Lscong1 |

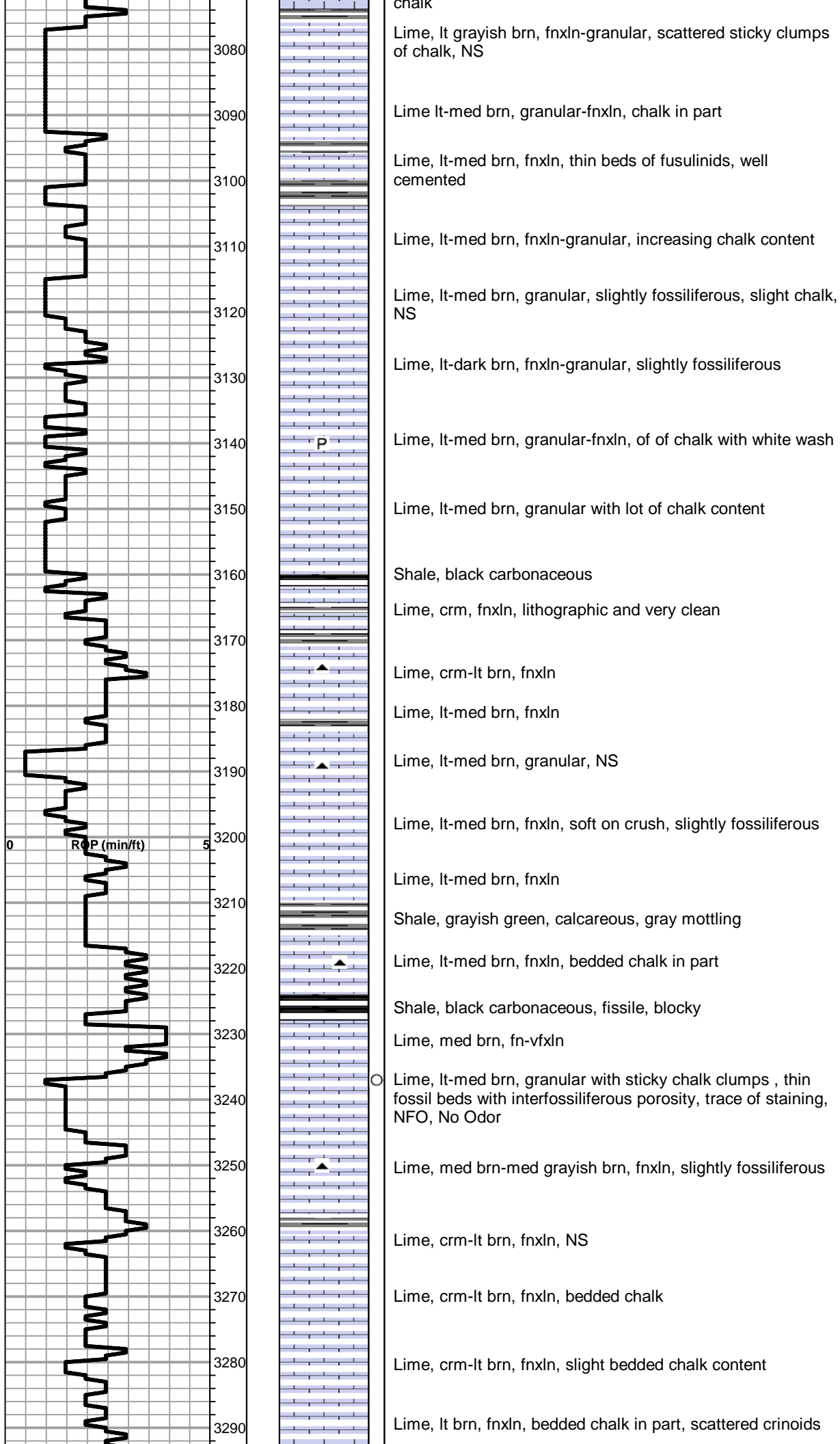
ACCESSORIES

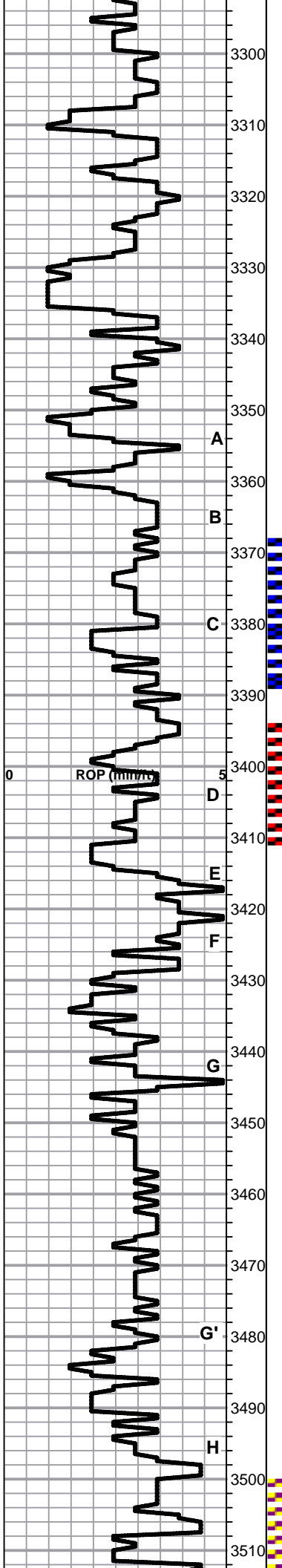
- MINERAL**
- ▲ Chert, dark
 - ≡ Nodules
 - P Pyrite
 - ⋄ Varicolored chert
 - △ Chert White

OTHER SYMBOLS

- DST**
- DST Int
 - DST alt
 - Core

Curve Track #1 ROP (min/ft)	Depth Intervals Cored Interval DST Interval	DST Lithology Oil Show	Geological Descriptions	TG, C1 - C5 1:240 Imperial
<p>1:240 Imperial</p>	<p>2900 2910 2920 2930 2940 2950 2960 2970 2980 2990</p>		<p>BEGIN 1' DRILL TIME FROM 2900' TO RTD BEGIN 10' WET AND DRY SAMPLES FROM 3000' TO RTD</p> <p>ANHYDRITE TOP 1296+754 ANHYDRITE BASE 1330+720</p> <p>Lime, lt brn-med gray, granular, slightly fossiliferous, slight chalk</p> <p>Lime, lt-med brn-gray, fnxln-granular, slightly fossiliferous-fusulinids</p>	<p>8 5/8" SURFACE CASING SET TO 219.68' W/ 150 SXS COMMON, 2%GEL, 3%CC</p> <p>SLOPE SURVEY 1/2 DEGREE</p>
<p>ROP (min/ft)</p>	<p>3000 3010 3020 3030 3040 3050 3060 3070</p>		<p>Lime, lt-med brn, fnxln, fossiliferous Shale, lt-med gray, soft sticky argillaceous clumps</p> <p>Shale, lt-med gray, soft mud-soft blocky</p> <p><u>TOPEKA 3038-988</u></p> <p>Lime, lt brn, fnxln</p> <p>Lime, lt-med brn-grayish brn, fnxln, fusulinids</p> <p>Lime, lt brn-lt grayish brn, fnxln</p> <p>Lime, lt brn-lt grayish brn, fnxln, scattered fusulinids</p> <p>Lime, lt brn-lt grayish brn, fn-vfxln with sticky clumps of</p>	





3300
3310
3320
3330
3340
3350
3360
3370
3380
3390
3400
3410
3420
3430
3440
3450
3460
3470
3480
3490
3500
3510

Lime, lt-med brn, fnxln, slight chalk content

HEEBNER SHALE 3306-1256

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

Shale, lime green forming soft mud

TORONTO 3326-1276

Lime, crm-tan, fnxln-granular, slight chalk, NS, No wet cut

Lime, crm-tan-lt brn, fn-vfxln, NS

Shale, red wash, soft mud

LKC 3352-1302

Lime, lt brn with gray tint, fnxln

Lime, lt-dark brn mix, fnxln

Lime, mix of brns and types, fnxln

Lime, lt brn, fnxln-granular, thin bed of oolitic-oolmoldic material with spotty lt staining, p-f odor, NFO

Lime, lt brn, fnxln

Lime, crm-lt brn, fnxln-granular w fossil fragments, scattered lt staining, f odor, NFO

Lime, crm, fnxln, bedded chalk

Shale, black carbonaceous

Lime, lt gray, fnxln

Shale, lt gray forming soft mud clumps

Lime, crm-tan, fnxln, lt of chalk content, NS

Lime, crm-lt brn, fnxln, bedded chalk, NS

Lime, white-crm, fn-vfxln, lot of bedded chalk

Lime, crm-lt brn, fnxln, soft on crush, bedded chalk

Lime, crm-lt brn, fn-vfxln, bedded chalk

Lime, crm-lt brn, fn-vfxln, bedded chalk

Shale, black carbonaceous

Lime, med brn-gray, fnxln

Lime, lt-med brn, mostly fnxln, bedded chalk, No Odor, NFO, No Staining

Shale, lt gray forming soft mud clumps
Lime, crm-lt brn, fnxln.

Lime, crm, mostly fnxln, scattered lt staining in fine pinpoint

DST # 1 3368' TO 3390' SEE HEADER FOR TEST SUMMARY

SLOPE SURVEY @3390 3/4

DST # 2 3394' TO 3412' SEE HEADER FOR TEST SUMMARY

A

B

C

D

E

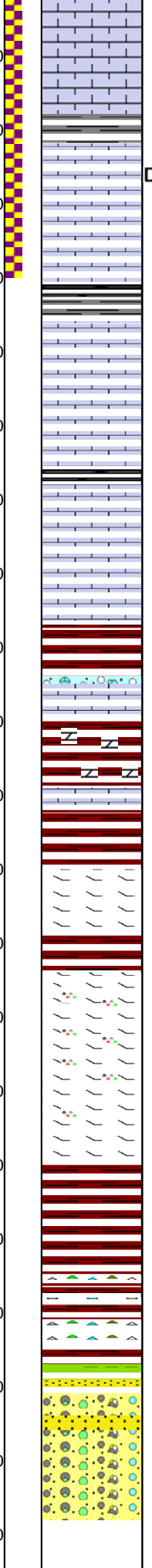
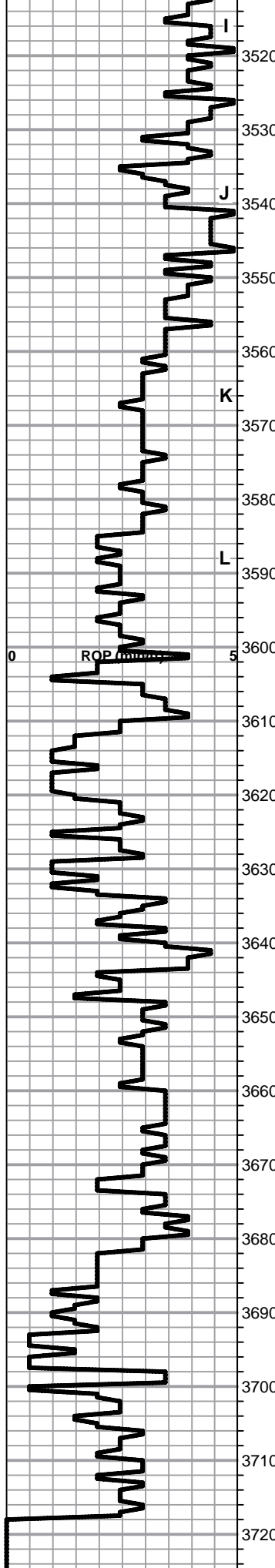
F

G

G'

H

ROP (min/hr)



Lime, crm, mostly fnxn, scattered lt staining in fine porosity, Lt Odor, NFO

3520 Lime, crm-tan, fnxn, bedded chalk

3530 Shale, lt gray forming sticky clumps

3540 Lime, lt brn, fnxn, chips with scattered dead oil stain, NFO, No Odor

3550 Lime, lt brn, fnxn-micro xln, bedded chalk

3560 Shale, gray-black carbonaceous, fissile, mix of slivers and blocky

3570 Lime, crm-lt brn, fnxn, bedded chalk, NS

3580 Lime, crm-lt brn, fn-micro xln, bedded chalk

3590 Lime, lt brn, fnxn, bedded chalk

BKC 3597-1547

3600 Shale, red-dark reddish brn, lt red wash

3610 Lime, crm, fn-vfxln, clastic lime-shale mix at boundaries

3620 Shale, reds, brns, maroon w chert nodules

3630 Shale, reds, brns, soft blocky with lt red wash

3640 Lime, crm-lt brn, dolomitic, fnxn

MARMATON 3644-1594

3650 Lime, crm-lt brn, dolomitic, fnxn, hard on crush
Chert, orange-tan, fresh, sharp

3660 Lime, crm, fnxn, hard on crush, dolomitic, cherty

3670 Lime, crm, fnxn, dolomitic, hard on crush

3680 Shale, deep red wash

3690 Shale, red wash, vari color cherts with scattered oolitic chert, NS

3700 Shale, vari color with vary color cherts and scattered ss, NS

CONGLOMERATE SAND 3699-1649

3710 SS, quartz, well sorted, subrounded, clear, NS, friable to fused solid in part

3720 Cherts vari colored, pyritic in part, NS

RTD 3717-1667 LTD 3715-1665

DST # 3 3500' TO 3550' SEE
HEADER FOR TEST
SUMMARY

1ST PLUG @ 1310' W/ 25 SXS
2ND PLUG @ 550' W/ 100 SXS
3RD PLUG @ 270' W/ 40 SXS
4TH PLUG @ 40' W/ 10 SXS
RATHOLE W/ 30 SXS
MOUSEHOLE W/ 15 SXS
PLUG DOWN 10:30 PM
4/4/2013

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025
Cell 785-324-1041

Home Office P.O. Box 32 Russell, KS 67665

No. 6676

Date	3-29-13	Sec.	6	Twp.	15	Range	19	County	Ellis	State	KS	On Location		Finish	8:00 P.M.
------	---------	------	---	------	----	-------	----	--------	-------	-------	----	-------------	--	--------	-----------

Location *Antenna 4w 3/4s into*

Lease	<i>Hertel</i>	Well No.	<i>1</i>	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.
Contractor	<i>Sutherland</i>			Charge To	<i>TDC</i>
Type Job	<i>Surface</i>			Street	
Hole Size	<i>12 1/4</i>	T.D.	<i>221</i>	City	
Csg.	<i>8 5/8</i>	Depth	<i>220</i>	State	
Tbg. Size		Depth		The above was done to satisfaction and supervision of owner agent or contractor.	
Tool		Depth		Cement Amount Ordered	<i>150 ccm 30 lb 2 1/2 bags</i>
Cement Left in Csg.	<i>15</i>	Shoe Joint			

Meas Line Displace *13 RC*

EQUIPMENT				Common
Pumptrk	<i>9</i>	No. Cementer	<i>2</i>	<i>150</i>
		Helper		
Bulktrk		No. Driver	<i>3</i>	
		Driver		
Bulktrk	<i>8</i>	No. Driver	<i>5</i>	
		Driver		

JOB SERVICES & REMARKS		Hulls
Remarks:		Salt
Rat Hole		Flowseal
Mouse Hole		Kol-Seal
Centralizers		Mud CLR 48
Baskets		CFL-117 or CD110 CAF 38
D/V or Port Collar		Sand
<i>8 5/8 on bottom. Est. Circulation</i>		Handling <i>158</i>
<i>Mix 150 ccm Displace</i>		Mileage

FLOAT EQUIPMENT	
<i>Cement Circulated</i>	Guide Shoe
	Centralizer
	Baskets
	AFU Inserts
	Float Shoe
	Latch Down

Pumptrk Charge	<i>Surface</i>
Mileage	<i>14</i>

	Tax
	Discount
	Total Charge

X Signature *Ray R*

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025

Home Office P.O. Box 32 Russell, KS 67665

No. 6730

Cell 785-324-1041

Date	4-4-13	Sec.	6	Twp.	15	Range	19	County	ELLIS	State	KS	On Location		Finish	11:30 AM
Location								ANTONIO 4W 3/4S W10TC							
Lease	Lat Hertel				Well No.	1									
Contractor	Southland				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.										
Type Job	plug				Charge To	T D I									
Hole Size	7 7/8				T.D.	3717									
Csg.	Dill pipe				Depth										
Tbg. Size					Depth										
Tool					Depth										
Cement Left in Csg.					Shoe Joint										
Meas Line					Displace	1/4 flow									
EQUIPMENT															
Pumptrk	5	No.	Cement	Nite											
			Helper												
Bulktrk	1	No.	Driver	Brett											
			Driver												
Bulktrk	1	No.	Driver	David L											
			Driver												
JOB SERVICES & REMARKS															
Remarks:															
Rat Hole	30 SWS				Salt										
Mouse Hole	15 SWS				Flowseal 50#										
Centralizers	Kol-Seal														
Baskets	Mud CLR 48														
D/V or Port Collar	CFL-117 or CD110 CAF 38														
1st	1310ft	25	SWS	Sand											
2nd	550	100	SWS	Handling 228											
3rd	270	40	SWS	Mileage											
4th	40	10	SWS	FLOAT EQUIPMENT											
Guide Shoe															
Centralizer															
Baskets															
AFU Inserts															
Float Shoe															
Latch Down															
Wood plugs															
Pumptrk Charge plug															
Mileage 14															
														Tax	
														Discount	
Signature <i>[Signature]</i>														Total Charge	

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



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

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

Sam Brownback, Governor

May 21, 2013

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

Re: ACO1
API 15-051-26486-00-00
Hertel 1
SE/4 Sec.06-15S-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