



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1088373
OIL & GAS CONSERVATION DIVISION

Form ACO-1

August 2013

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

WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

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

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

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

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

Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date
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API No. 15 - _____

Spot Description: _____

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

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

- NE NW SE SW

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

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite: _____

Operator Name: _____

Lease Name: _____ License #: _____

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

County: _____ Permit #: _____

AFFIDAVIT

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

Submitted Electronically

KCC Office Use ONLY

- Confidentiality Requested
Date: _____
- Confidential Release Date: _____
- Wireline Log Received
- Geologist Report Received
- UIC Distribution
- ALT I II III Approved by: _____ Date: _____

1088373

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
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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Form	ACO1 - Well Completion
Operator	TDI, Inc.
Well Name	Richard 2
Doc ID	1088373

All Electric Logs Run

Dual Induction Log
Dual Compensated Porosity Log
Microresistivity Log
Borehole Compensated Sonic Log



DRILL STEM TEST REPORT

Prepared For: **TDI Inc**

1310 Bison Rd
Hays KS 67601-9696

ATTN: Herb Deines

Richard #2

10-15s-18w Ellis,KS

Start Date: 2012.05.16 @ 16:30:00

End Date: 2012.05.16 @ 23:50:00

Job Ticket #: 47129 DST #: 1

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

Printed: 2012.05.23 @ 16:25:59

TDI Inc
10-15s-18w Ellis,KS
Richard #2
DST # 1
Arbuckle
2012.05.16



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

TDI Inc
 1310 Bison Rd
 Hays KS 67601-9696
 ATTN: Herb Deines

10-15s-18w Ellis,KS
Richard #2
 Job Ticket: 47129 **DST#: 1**
 Test Start: 2012.05.16 @ 16:30:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: 2032.00 ft (KB)
 Time Tool Opened: 18:49:00
 Time Test Ended: 23:50:00
 Interval: **3608.00 ft (KB) To 3649.00 ft (KB) (TVD)**
 Total Depth: 3750.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Straddle (Initial)
 Tester: Jim Svaty
 Unit No: 41
 Reference Elevations: 2032.00 ft (KB)
 2022.00 ft (CF)
 KB to GR/CF: 10.00 ft

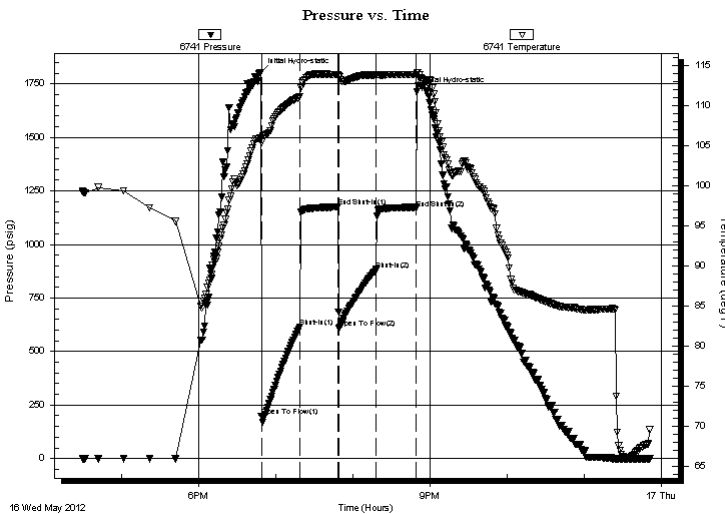
Serial #: 6741

Inside

Press @ Run Depth: 882.48 psig @ 3610.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2012.05.16 End Date: 2012.05.16 Last Calib.: 2012.05.16
 Start Time: 16:30:01 End Time: 23:51:00 Time On Btm: 2012.05.16 @ 18:48:30
 Time Off Btm: 2012.05.16 @ 20:50:00

TEST COMMENT: IFP - BOB in 1 min
 ISI - Surface blow built to 2" died in 20 min
 FFP - BOB in 1 min
 FSI - Surface blow built to 1"

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1801.20	106.02	Initial Hydro-static
1	198.71	105.48	Open To Flow (1)
31	614.04	111.17	Shut-In(1)
60	1175.23	113.93	End Shut-In(1)
61	610.67	113.76	Open To Flow (2)
90	882.48	113.82	Shut-In(2)
121	1168.28	113.89	End Shut-In(2)
122	1712.64	114.14	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
1000.00	GO 5%g 95%o	14.03
625.00	GO 25%g 75%o	8.77
189.00	GMMCO 40%g 10%m 10%w 40%o	2.65
189.00	GMMCO 25%g 5%m 35%w 35%o	2.65
170.00	OMCW 4%o 7%m 89%w	2.38
15.00	V/SOMCW 1%o 2%m 97%w	0.21

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: Herb Deines

10-15s-18w Ellis,KS
Richard #2
Job Ticket: 47129 **DST#: 1**
Test Start: 2012.05.16 @ 16:30:00

Tool Information

Drill Pipe:	Length: 3612.00 ft	Diameter: 3.80 inches	Volume: 50.67 bbl	Tool Weight: 2500.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 2.75 inches	Volume: 0.00 bbl	Weight set on Packer: 25000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose: 55000.00 lb
			<u>Total Volume: 50.67 bbl</u>	Tool Chased 0.00 ft
Drill Pipe Above KB:	24.00 ft			String Weight: Initial 38000.00 lb
Depth to Top Packer:	3608.00 ft			Final 47000.00 lb
Depth to Bottom Packer:	3649.00 ft			
Interval between Packers:	41.00 ft			
Tool Length:	162.00 ft			
Number of Packers:	2	Diameter: 6.75 inches		

Tool Comments:

Tool Description	Length (ft)	Serial No.	Position	Depth (ft)	Accum. Lengths
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Shut In Tool	5.00			3593.00	
Hydraulic tool	5.00			3598.00	
Packer	5.00			3603.00	20.00 Bottom Of Top Packer
Packer	5.00			3608.00	
Stubb	1.00			3609.00	
Perforations	1.00			3610.00	
Recorder	0.00	6741	Inside	3610.00	
Recorder	0.00	8734	Outside	3610.00	
Change Over Sub	1.00			3611.00	
Blank Spacing	31.00			3642.00	
Change Over Sub	1.00			3643.00	
Perforations	2.00			3645.00	
Blank Off Sub	4.00			3649.00	41.00 Tool Interval
Packer	1.00			3650.00	
Stubb	1.00			3651.00	
Perforations	1.00			3652.00	
Recorder	0.00	8365	Below	3652.00	
Change Over Sub	1.00			3653.00	
Blank Spacing	93.00			3746.00	
Change Over Sub	1.00			3747.00	
Bullnose	3.00			3750.00	101.00 Bottom Packers & Anchor

Total Tool Length: 162.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc
1310 Bison Rd
Hays KS 67601-9696
ATTN: Herb Deines

10-15s-18w Ellis,KS
Richard #2
Job Ticket: 47129 **DST#: 1**
Test Start: 2012.05.16 @ 16:30:00

Mud and Cushion Information

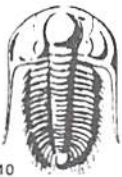
Mud Type: Gel Chem	Cushion Type:	Oil API: 26 deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity: ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.19 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2800.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
1000.00	GO 5%g 95%o	14.027
625.00	GO 25%g 75%o	8.767
189.00	GMWCO 40%g 10%m 10%w 40%o	2.651
189.00	GMWCO 25%g 5%m 35%w 35%o	2.651
170.00	OMCW 4%o 7%m 89%w	2.385
15.00	VSOMCW 1%o 2%m 97%w	0.210
0.00	150 GIP	0.000

Total Length: 2188.00 ft Total Volume: 30.691 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:



TRILOBITE TESTING INC.

P.O. Box 1733 • Hays, Kansas 67601

Test Ticket

NO. 47129

Well Name & No. Richard #2 Test No. 1 Date 5-16-12
 Company TPI Inc. Elevation 2032 KB 2022 GL
 Address 1310 Bison Rd Hays Ks. 67601-9696
 Co. Rep / Geo. Herb Reines Rig Southwind #1
 Location: Sec. 10 Twp. 15^s Rge. 18^w Co. Ellis State Ks

Interval Tested 3608-3649 + Zone Tested Arbuckle
 Anchor Length 41 ft. 10' Tailpipe Drill Pipe Run 3612 Mud Wt. 9.3
 Top Packer Depth 3603 Drill Collars Run 0 Vis 55
 Bottom Packer Depth 3608 Wt. Pipe Run 0 WL 7.2
 Total Depth 3649 ~~3749~~ ~~3750~~ Chlorides 2800 ppm System LCM 2

Blow Description ZFP - BOB 1 min
ISIP - Surface Blow Build to 2 in Dried in 20 min
FFP - BOB 1 min
FSIP - Surface Blow Building to 1 in.

Rec	Feet of	%gas	%oil	%water	%mud
1000	90	5	95		
625	90	25	75		
189	9m WCO	40	40	10	10
189	9m WCO	25	35	35	5
170	8m CW		4	89	7

Rec Total 2188 BHT 113 Gravity 26 API RW @ 1201 F Chlorides 95w ppm
 (A) Initial Hydrostatic 1801 Test 1150 T-On Location 13:30
 (B) First Initial Flow 198 Jars T-Started 16:30
 (C) First Final Flow 614 Safety Joint T-Open 18:50
 (D) Initial Shut-In 1175 Circ Sub T-Pulled 20:50
 (E) Second Initial Flow 610 Hourly Standby T-Out 23:47
 (F) Second Final Flow 882 Mileage 19 RT 29.45 Comments _____
 (G) Final Shut-In 1168 Sampler _____
 (H) Final Hydrostatic 1712 Straddle 600 Ruined Shale Packer _____

Initial Open 30 Shale Packer _____
 Initial Shut-In 30 Extra Packer _____
 Final Flow 30 Extra Recorder _____
 Final Shut-In 30 Day Standby _____
 Sub Total 1779.45 Accessibility _____
 Sub Total 1779.45 MP/DST Disc't _____

Approved By _____ Our Representative [Signature]

Trilobite Testing Inc. shall not be liable for damaged of any kind of the property or personnel of the one for whom a test is made, or for any loss suffered or sustained, directly or indirectly, through the use of its equipment, or its statements or opinion concerning the results of any test, tools lost or damaged in the hole shall be paid for at cost by the party for whom the test is made.

OPERATOR

Company: TDI, INC.
 Address: 1310 BISON ROAD
 HAYS, KANSAS 6601

Contact Geologist: TOM DENNING
 Contact Phone Nbr: 785-259-3141
 Well Name: RICHARDS # 2
 Location: SW NW NE NW
 Pool: INFIELD
 State: Kansas

API: 15-051-26291-00-00
 Field: DINGES
 Country: USA



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

Scale 1:240 Imperial

Well Name: RICHARDS # 2
 Surface Location: SW NW NE NW
 Bottom Location:
 API: 15-051-26291-00-00
 License Number: 4787
 Spud Date: 5/11/2012 Time: 11:00 AM
 Region: ELLIS COUNTY Time: 5:31 AM
 Drilling Completed: 5/16/2012
 Surface Coordinates: 545' FNL & 1485' FWL
 Bottom Hole Coordinates:
 Ground Elevation: 2024.00ft
 K.B. Elevation: 2034.00ft
 Logged Interval: 2900.00ft To: 3751.00ft
 Total Depth: 3750.00ft
 Formation: ARBUCKLE
 Drilling Fluid Type: Chemical/Fresh Water Gel

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: Latitude:
 N/S Co-ord: 545' FNL
 E/W Co-ord: 1485' FWL

LOGGED BY

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: 5/11/2012 Time: 11:00 AM
 TD Date: 5/16/2012 Time: 5:31 AM
 Rig Release: 5/17/2012 Time: 1:00 PM

ELEVATIONS

K.B. Elevation: 2034.00ft Ground Elevation: 2024.00ft
 K.B. to Ground: 10.00ft

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON FAVORABLE FORMATION STRUCTURE AND POSITIVE RESULTS OF STRADDLE TEST # 1

FORMATION TOPS SUMMARY AND DAILY PROGRESS REPORT OF DEPTH AND ACTIVITY

RICHARD # 2

<u>FORMATION</u>	<u>SAMPLE TOP</u>	<u>LOG TOP</u>
Anhydrite	1208+ 826	1209+ 825
B-Anhydrite	1242+ 792	1246+ 788
Topeka	3007- 973	3004- 970
Heebner Shale	3280-1246	3281-1247
Toronto	3300-1266	3301-1267
LKC	3325-1291	3327-1293
BKC	3550-1516	3553-1519
Arbuckle	3641-1607	3638-1604
RTD	3750-1716	
LTD		3751-1717

5-11-12 RU, Spud, set surface casing to 213.29' w/150 sxs. Common, 2%gel, 3%CC, Slope survey 3/4 degree, WOC 8 hrs. Plug down 4:15PM.

5-12-12 507' drilling

5-13-12 1994' drilling


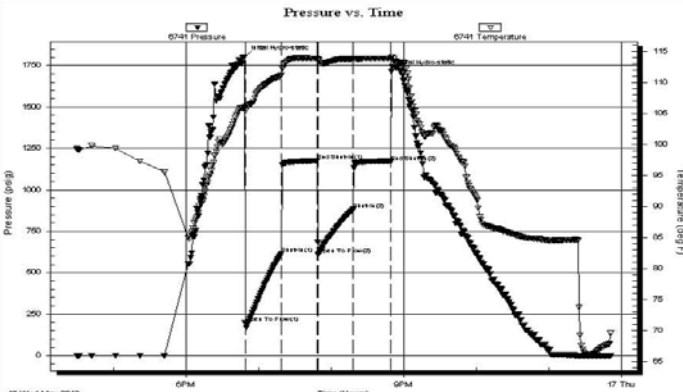
5-14-12 2730' drilling, displaced mud system 2863-2891'

5-15-12 3305' drilling

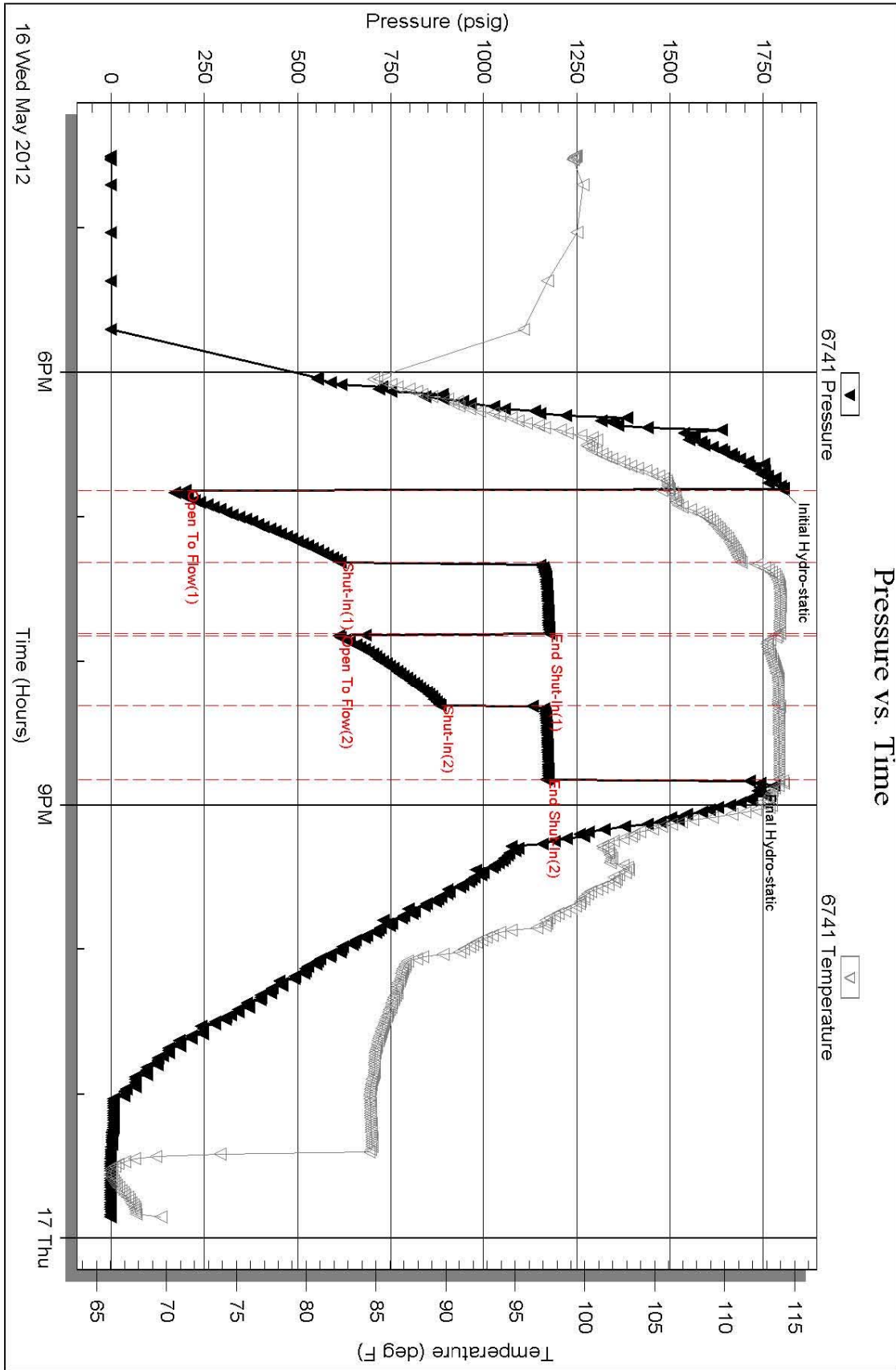
5-16-12 3750' drilling, short trip, logs, straddle test # 1

5-17-12 3750', lay down drill pipe, run 5 1/2" casing with DV in anhydrite, cement lower stage and DV to surface. Swift Services, Inc., RD

DST # 1 STRADDLE TEST- ARBUCKLE

	DRILL STEM TEST REPORT																																					
	TDI Inc 1310 Bison Rd Hays Ks 67601-9696 ATTN: Herb Deines	10 15s 18w Ellis Richard # 2 Job Ticket: 47129 DST#: 1 Test Start: 2012.05.16 @ 16:30:00																																				
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Gas Rates																																						
Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)																																				

EXPANDED CHART OF DST # 1



Serial #: 6741 Inside TDI Inc Richard # 2 DST Test Number: 1

Tribble Testing, Inc Ref. No: 47129 Printed: 2012.05.17 @ 08:06:08

ROCK TYPES

	Cht vari		Lmst fw7>		shale, grn		shale, red		Shgy
	Dolprim		Lscongl		Carbon Sh		Ss		

ACCESSORIES

MINERAL

- ▲ Chert, dark
- ∩ Glauconite
- Sandy
- △ Chert White
- ∕ Euhed rhombs of dol or

OTHER SYMBOLS

DST

- DST Int
- DST alt

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

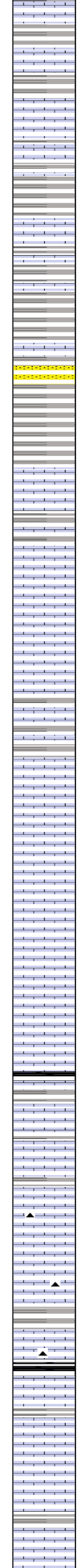
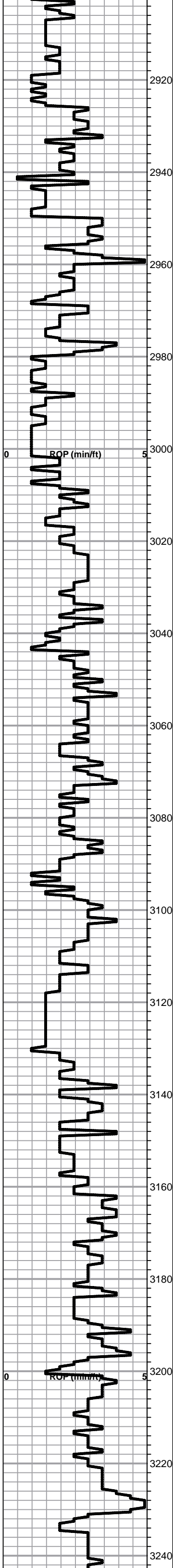
Curve Track #1 ROP (min/ft)	Depth Intervals	DST	Lithology	Oil Show	Geological Descriptions	Curve Track #3
1:240 Imperial ROP (min/ft)	Cored Interval DST Interval					1:240 Imperial
0	2900					

ANHYDRITE TOP Spl top 1208+826 ELog 1209+825
ANHYDRITE BASE Spl 1242+792 ELog 1246+788

1' DRILL TIME FROM 2900'-RTD
10' WET AND DRY SAMPLES FROM 3000' TO RTD

SLOPE SURVEY 213'
3/4 DEGREE

DISPLACE 2863'-2891''



Lime, brn-gray, fnxln, fossiliferous

shale, lt-med gray, soft blocky

sandstone, fine grained, poorly sorted, micaceous, glauconitic, NS

Shale, lt-med gray, soft

TOPEKA Spl top 3007-973 ELog 3004-970

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

Lime med-dark brn, fnxln, fossiliferous-fusulinids

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

Lime, lt-med brn, fnxln, with chalk in part, slightly fossiliferous

Lime, lt-med brn, fnxln, slightly chalky in part

Lime, brn-grayish brn, fnxln, slightly chalky

Lime, med brn-grayish brn, fnxln, fossiliferous

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

Lime, lt-med brn-grayish brn, fnxln-fine granular, slightly chalky, slightly fossiliferous, NS

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

Shale, black carbonaceous with scattered black chert

Shale, gray, calcareous
Lime lt-med brn, fnxln, fossiliferous

Lime, crm-lt brn, fnxln with lithographic lime in part

Lime, crm-tan-lt brn, fn-vfxln, slightly chalky in part

Lime, lt-med brn, fnxln, slightly chalky

Shale, lt gray, calcareous
Lime, crm-lt brn, fn-vfxln

Shale, black carbonaceous, pyritic

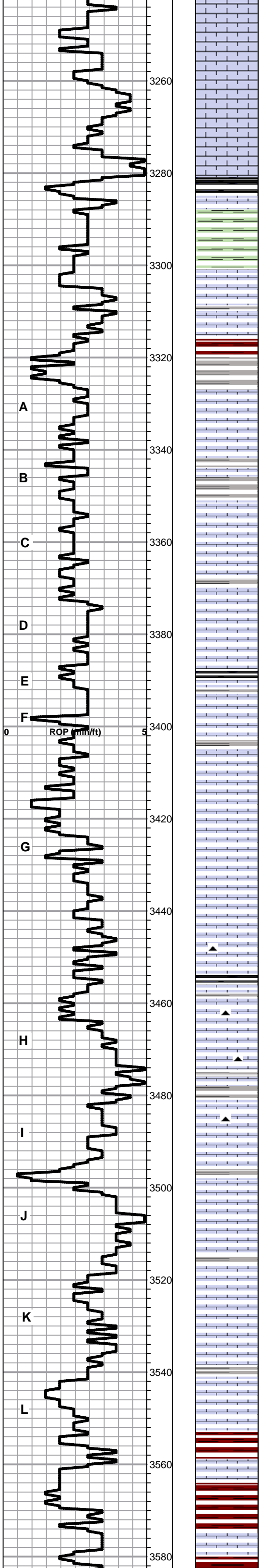
Lime, med-dark brn, fnxln, fossiliferous

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

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

Shale, grayish green, soft, blocky with pyrite clusters

Lime, grayish brn, fnxln



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

Lime, lt-med brn, fn-vfxln, chalk in part

HEEBNER SHALE Spl top 3280-1246 ELog 3281-

1247
Shale, black carbonaceous
Lime, med brn, fn-vfxln
Shale, lime grn, soft blocky

TORONTO Spl top 3300-1266 ELog 3301-1267

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

Shale, lt red wash, soft grading into lt gray, soft

LKC Spl top 3325-1291 ELog 3327-1293

Lime, lt-med brn, fnxln, slight bedded chalk in part, NS

Lime, lt-med brn, fnxln, bedded chalk in part, NS
Shale, lt grayish green, soft, sticky, pyritic in part

○ Lime, lt brn, mostly fnxln with few chips oolitic with light scattered stain, NFO, No Odor

○ Lime, crm, mostly fn-vfxln with light bedded chalk in part. few chips of oolitic-fossil fragment mix with light scattered stain, NFO

Shale, black carbonaceous
Lime, offwhite-pale green, fn-vfxln

Lime, tan-lt brn, fn-vfxln, bedded chalk in part, NS

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

Lime, lt brn, fnxln-granular, chalky, scattered oomoldic, NS

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

Shale, gray- black carbonaceous

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

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

Lime, crm-tan-lt gray, fn-vfxln, slight bedded chalk in part, NS

Lime, crm-lt brn, fnxln, brittle on crush, chalk in part, NS

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

BKC Spl top 3550-1516 ELog 3553-1519

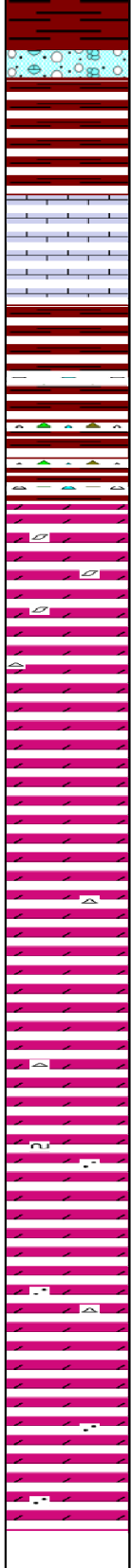
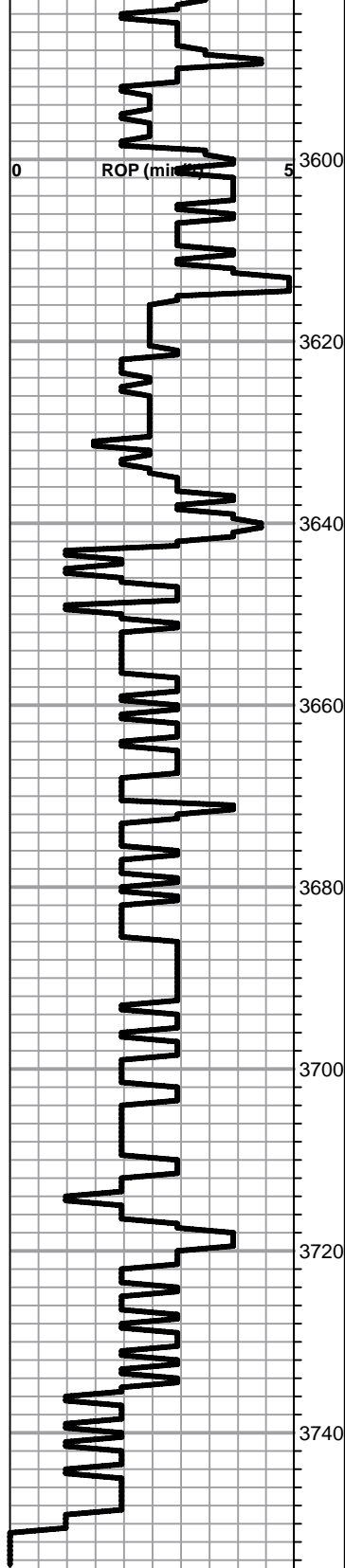
Shale, reddish brn, blocky
Lime, offwht, fn-vfxln

Shale, mostly reddish brn with grays and browns in part, soft and sticky in part.

Clastic lime mix with red shale staining, fnxln

Increasing volume of slough, mix mud treatment and added slowly to system.

SHOWS IN LKC LIGHT WITH SCATTERED STAIN IN NOTED BENCHES. ZONES THAT SHOW PERMEABILITY ON THE MICROLOG AND CALCULATE SHOULD BE PERFORATED AND TESTED PRIOR TO ABANDONMENT OF WELL



Clastic lime mix with reddish brown shale.

Lime, crm-lt brn, fnxn. remnant basal lime deposits of Marmaton-Pawnee section

Shale, reddish brn-gray, blocky

Shale, vari-colored with chert in part

ARBUCKLE Spl top 3641-1607 ELog 3638-1604

● Dolomite, ivory, fnxn with med-cxln rhombic development in part, poor-fair odor with light staining, Excellent intercrystalline porosity

● Dolomite, ivory, fn-cxln, fair-good odor, saturated staining, fnxn mixed with coarse crystalline with good visible rhombic development. Recommend perforating top of permeability from microlog due to past production from same zone in offset plugged out wells.

Dolomite, ivory, fn-cxln, milky white oolitic chert, sharp, fresh, very lite odor

Dolomite, crm-ivory, fn-cxln, NS

Dolomite, crm-ivory, fn-cxln

Dolomite, ivory-crm, mostly fnxn

Dolomite, ivory-crm, fn-cxln, specks of green glauconite and scattered clear qtz grains

Dolomite, crm-ivory, fn-cxln

Dolomite, ivory-pale salmon tint, fn-cxln

Dolomite, crm-tan, coarse crystalline, granular with qtz inclusions

RTD 3750-1716 LTD 3751-1717

**DST # 1 STRADDLE TEST
3608'-3649'
30-30-30-30**

**SEE CHARTS IN HEADER
FOR TEST SUMMARY**

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. 955

Date	Sec.	Twp.	Range	County	State	On Location	Finish
5-11-12	10	15	18	Ellis	Kansas		6:15 PM
Lease	Well No.		Location				
Richard	2		Hays 6S 1/4 E Sudo				
Contractor	Owner			To Quality Oilwell Cementing, Inc.			
Southwind Drilling Rig			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	T.D.		Charge To				
Surface	215		TDI				
Hole Size	Depth		Street				
12 1/4	213						
Csg.	Depth		City				
8 3/8 2 3/4			State				
Tbg. Size	Shoe Joint		The above was done to satisfaction and supervision of owner agent or contractor.				
			Cement Amount Ordered				
Tool	Displace		150 Com 3000 2800				
	12 1/2						
Cement Left in Csg.	EQUIPMENT						
10 1/2	No.		Cementer		Common		
	15		Helper		150		
	No.		Driver		Poz. Mix		
	14		150		3		
	No.		Driver		Gel.		
	14		Nick		5		
	JOB SERVICES & REMARKS						
Remarks:			Calcium				
Rat Hole			Hulls				
Mouse Hole			Salt				
Centralizers			Flowseal				
Baskets			Koi-Seal				
D/V or Port Collar			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				
			SPACE				
			Pumptrk Charge				
			Surface				
			Mileage				
			7 (25 min)				
			Tax				
			Discount				
			Total Charge				
Signature							
Derry							

JOB LOG

SWIFT Services, Inc.

DATE 5-17-12 PAGE NO. 1

CUSTOMER T.D.I. WELL NO. #2 LEASE Richard JOB TYPE Long String TICKET NO. 21751

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL)(GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0630							On Loc. Rig Laying down D.P.
	0750							Start 5 1/2" 14# Csg. Insert Float shoe Latch down Baffle Cmt. #1, #2, #5, #7, #9, #11, #13, #59 Basket #3, #12, #60, #80 D.V. tool Top #60 @ 1195'
	0930							Drop Ball
	0940							Circulate & Rotate Csg.
	10:55	5	12					Start 500 gal Mud Flush
		}	20					2000 2% KCL Flush
			36					Mix 150 slt EA-2 Cmt
								Finish mixing wash pump & Line
	11:15	6 1/2						Displace shut off plug Last 2000 KCL water
			905			1500		Plug down 1500psi Holding Release press. Dryed up
	11:35							Drop opening Plug Plug R.H. & M.H. 30x20
	11:55					1100		Open D.V. 1100psi Mix 125 slt SMD
	12:15		970					Finish mixing Release Closing Plug Displ.
	12:25		29			1500		Plug down 1500psi Release Press. D.V. closed Circulated 2000 to pit wash & Rack up truck
	1300							Job Complete

[Signature]

[Signature]

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

Sam Brownback, Governor

July 24, 2012

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

Re: ACO1
API 15-051-26291-00-00
Richard 2
NW/4 Sec.10-15S-18W
Ellis County, Kansas

Dear Production Department:

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

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

Respectfully,
Tom Denning