KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION

1070657

Form ACO-1
June 2009
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:

- [x] New Well
- [ ] Re-Entry
- [ ] Workover

- [x] 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
- [ ] Conv. to GSW
- [ ] Plug Back: Plug Back Total Depth
- [ ] Commingled Permit #:
- [ ] Dual Completion Permit #:
- [ ] SWD Permit #:
- [ ] ENHR Permit #:
- [ ] GSW Permit #:

08/30/2011	09/05/2011	10/04/2011
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 15-051-26172-00-00
Spot Description:
SE - NW - NW - NE Sec. 22 Twp. 15 S. R. 18 [ ] East [x] West
480 Feet from [x] North / [ ] South Line of Section
2190 Feet from [x] East / [ ] West Line of Section
Footages Calculated from Nearest Outside Section Corner:

- [x] NE
- [ ] NW
- [ ] SE
- [ ] SW

County: Ellis
Lease Name: Willard Well #: 1
Field Name: Schoenchen
Producing Formation: Arbuckle
Elevation: Ground: 2028 Kelly Bushing: 2038
Total Depth: 3744 Plug Back Total Depth: 3622
Amount of Surface Pipe Set and Cemented at: 223 Feet
Multiple Stage Cementing Collar Used? [x] Yes [ ] No
If yes, show depth set: 1203 Feet
If Alternate II completion, cement circulated from: 1203
feet depth to: 0 w/ 125 sx cmt.

Drilling Fluid Management Plan
(Data must be collected from the Reserve Pit)

Chloride content: 42000 ppm Fluid volume: 900 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

- [x] **Letter of Confidentiality Received**
  Date: 01/10/2012
- [ ] **Confidential Release Date:**
- [x] **Wireline Log Received**
- [x] **Geologist Report Received**
- [ ] **UIC Distribution**

ALT [ ] I [x] II [ ] III **Approved by:** Deanna Garrisor **Date:** 01/13/2012

Side Two

1070657

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

Sec. 22 Twp. 15 S. R. 18 ☐ East ☑ West County: Ellis

INSTRUCTIONS: Show important tops and base 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. Attach complete copy of all Electric Wire-line Logs surveyed. Attach final geological well site report.

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

Electric Log Submitted Electronically ☑ Yes ☐ No
(If no, Submit Copy)

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	1195'	+843'
Topeka	2993'	-955'
Heebner	3271'	1233'
Lansing/KC	3321'	-1283'
Base KC	3544'	-1506'
Arbuckle	3596'	-1558'

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	20	223	Common	140	2% gel, 3% CC
Production	7.85	5.5	14	3742	EA-2	150	

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	0-1203	SMD	125	DV Tool
	-			

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
2	3625'-26'		
2	3614-19'		
2	3598'-3606'		
	3622' Bridge Plug		

TUBING RECORD: Size: 2.875" Set At: 3558' Packer At:

Liner Run: ☐ Yes ☑ No

Date of First, Resumed Production, SWD or ENHR. 10/24/2011

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

Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
	40		30		30

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:
Arbuckle

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

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 09, 2012

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

Re: ACO1
API 15-051-26172-00-00
Willard 1
NE/4 Sec.22-15S-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

DRILL STEM TEST REPORT

TDI Inc

1310 Bison Rd
Hays Ks 67601-9696

ATTN: Tom Denning

Willard #1

22-15s-18w Ellis

Job Ticket: 44555 **DST#: 1**

Test Start: 2011.09.04 @ 00:45:15

GENERAL INFORMATION:

Formation: **Arbuckle**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:51:40
Time Test Ended: 08:02:39

Test Type: Conventional Bottom Hole
Tester: Ray Schwager
Unit No: 42

Interval: 3530.00 ft (KB) To 3612.00 ft (KB) (TVD)
Total Depth: 3612.00 ft (KB) (TVD)
Hole Diameter: 7.85 inches Hole Condition: Fair

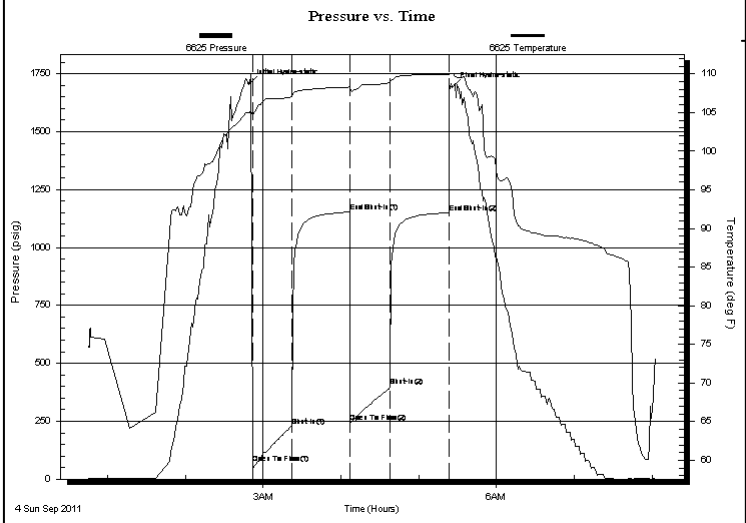
Reference Elevations: 2038.00 ft (KB)
2026.00 ft (CF)
KB to GR/CF: 12.00 ft

Serial #: 6625 **Inside**

Press@RunDepth: 402.34 psig @ 3544.00 ft (KB)
Start Date: 2011.09.04 End Date: 2011.09.04
Start Time: 00:45:15 End Time: 08:02:39

Capacity: 8000.00 psig
Last Calib.: 2011.09.04
Time On Btm: 2011.09.04 @ 02:49:10
Time Off Btm: 2011.09.04 @ 05:26:09

TEST COMMENT: 30-IFP-strg bl in 4 min
45-ISIP-1/2"bl bk
30-FFP-strg bl in 6 min
45-FSIP-surface bl



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1706.73	105.03	Initial Hydro-static
3	66.31	104.75	Open To Flow (1)
33	230.70	107.07	Shut-In(1)
78	1152.89	108.30	End Shut-In(1)
78	245.94	108.09	Open To Flow (2)
109	402.34	108.86	Shut-In(2)
154	1149.48	109.87	End Shut-In(2)
157	1693.93	110.04	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
0.00	350'GIP	0.00
425.00	CO	5.96
280.00	MGO 15%G40%M45%O	3.93
250.00	MGO 25%G15%M60%O	3.51

Gas Rates

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

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc

1310 Bison Rd
Hays Ks 67601-9696

ATTN: Tom Denning

Willard #1

22-15s-18w Ellis

Job Ticket: 44555 **DST#: 1**

Test Start: 2011.09.04 @ 00:45:15

Mud and Cushion Information

Mud Type:	Gel Chem	Cushion Type:		Oil API:	32 deg API
Mud Weight:	9.00 lb/gal	Cushion Length:	ft	Water Salinity:	ppm
Viscosity:	52.00 sec/qt	Cushion Volume:	bbl		
Water Loss:	6.80 in³	Gas Cushion Type:			
Resistivity:	ohm.m	Gas Cushion Pressure:	psig		
Salinity:	2900.00 ppm				
Filter Cake:	1.00 inches				

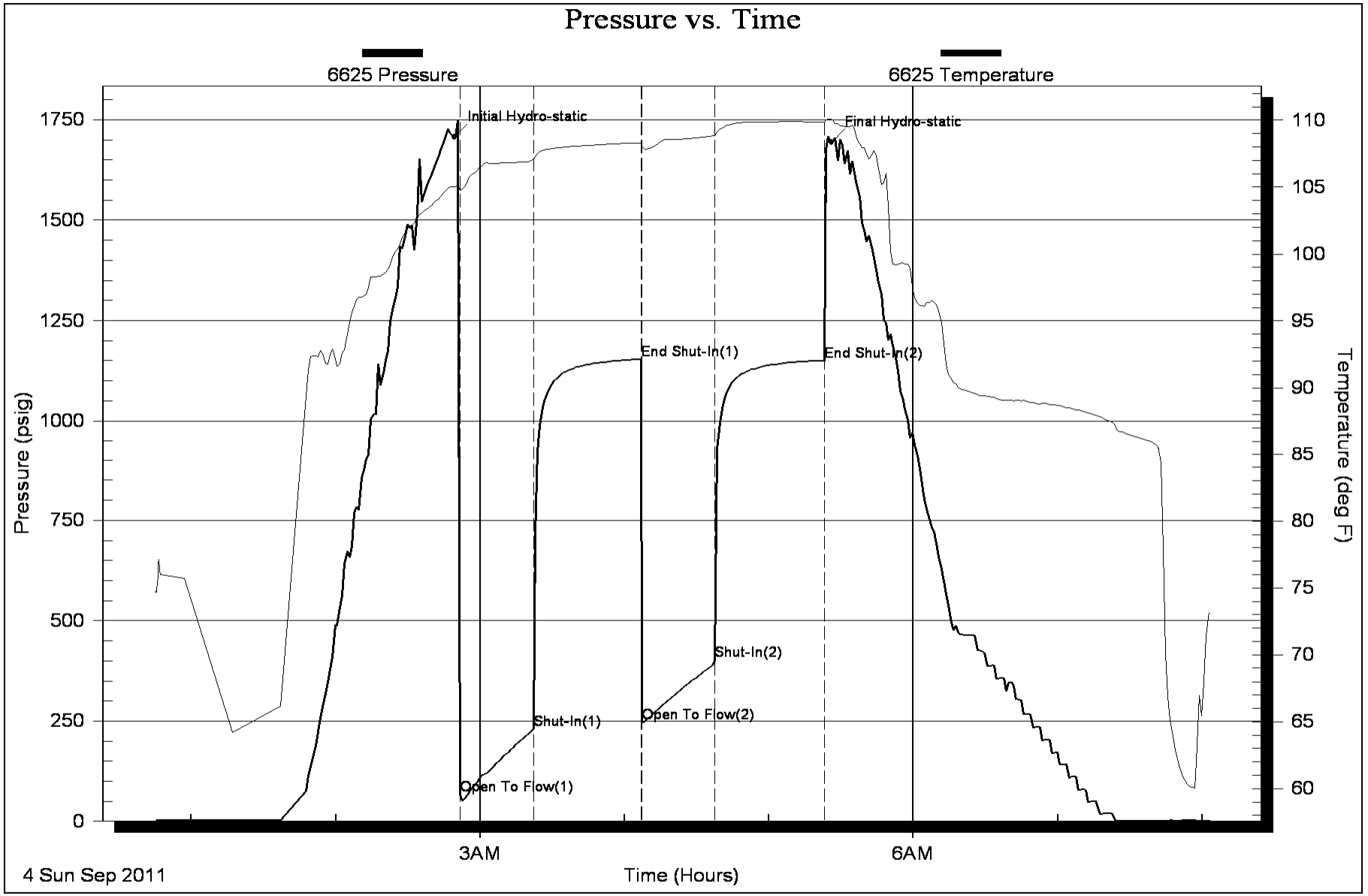
Recovery Information

Recovery Table

Length ft	Description	Volume bbl
0.00	350'GIP	0.000
425.00	CO	5.962
280.00	MGO 15%G40%M45%O	3.928
250.00	MGO 25%G15%M60%O	3.507

Total Length: 955.00 ft Total Volume: 13.397 bbl

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


Pressure vs. Time
6625 Pressure
6625 Temperature
Initial Hydro-static
Final Hydro-static
End Shut-In(1)
End Shut-In(2)
Shut-In(1)
Shut-In(2)
Open To Flow(1)
Open To Flow(2)
Pressure (psig)
Temperature (deg F)
1750
1500
1250
1000
750
500
250
0
110
105
100
95
90
85
80
75
70
65
60
3AM
6AM
4 Sun Sep 2011
Time (Hours)

HERB DENES
CONSULTING GEOLOGIST
PH. 785-625-3390
HAYS, KS 67601
108 W. 39th ST.

COMPANY TDI Inc.
WELL Hillyard # 1
FIELD Schoenchen
COUNTY Ellis STATE Kansas
Loggers Top 3200 Bottom 3400
Logged by Herb Denes
Witnessed by Mike Hillyard
Drilling Contractor Shelton Drlg Co. Rig # 2
Spud Date 10-25-2012 Comp. Date 10-30-2012
Elevations KB 2174 DF 2172 GL 2164
Casing Record Surface Size 8 5/8" Wt. 23# Set @ 220' Sxs Cmt 150 60/40 poz 2%gel 3%cc
Production Size 4½" Wt. 10.5# Set @ 3400' Sxs Cmt 175 60/40 poz 2%gel 3/4%CFR
Rotary Total Depth 3400 Driller 3400 Logger
Type Electric Log Run DIL CNL/CDL MEL
Date 10-30-2012
Elevation 2174 KB 2172 DF 2164 GL
Date Finished 10-30-2012
Geological Report Yes
Mud Up 3200 Type Chemical
Samples Saved From 3200 To 3400
Drilling Time Kept From 3200 To 3400
Samples Examined From 3200 To 3400
Contractor Shelton Drlg Co. Rig # 2
Spud Date 10-25-2012 Comp. Date 10-30-2012
Elevation 2174 KB 2172 DF 2164 GL
Rotary Total Depth 3400 Driller 3400 Logger
Type Electric Log Run DIL CNL/CDL MEL
Date 10-30-2012
Elevation 2174 KB 2172 DF 2164 GL
Date Finished 10-30-2012
Geological Report Yes
Mud Up 3200 Type Chemical
Samples Saved From 3200 To 3400
Drilling Time Kept From 3200 To 3400
Samples Examined From 3200 To 3400

Bit Record

Bits	Type	Serial No.	Inches	Depth In	Depth Out	Hours

REMARKS Recommended to run production casing based on favorable structure and position north of DST#1

Mud Co. Mud Co.

15-051-26,172-00-00

Formation	Sample	Log	Datum	H.
Heebner Sh	3274	3272	-1098	
Toronto	3296	3291	-1117	
LKC	3313	3312	-1138	
BKC	3367	3366	-1192	
Arbuckle	3378	3376	-1202	
RTD	3385			
LTD		3384	-1210	

Formation	Sample	Log	Datum	H.
Anhydrite Top	1174	1172	+1002	
Anhydrite Base	1215	1210	+964	
Topeka	2998	2995	-856	
Heebner Shale	3274	3272	-1133	
Toronto	3296	3291	-1153	
LKC	3313	3312	-1173	
BKC	3367	3366	-1227	
Arbuckle	3378	3376	-1238	
RTD	3385			
LTD		3384	-1236	

If Structural Position to:

LEGEND

Anhydrite | Salt | Sandstone | Shale | Cob sh | Limestone | Oolitic Lms | Chert | Dolomite

SCALE " = 100'

Utility | Drilling time in minutes | DEPTH | Sample Description | Remarks, drill stem tests, etc.

Mud Co. Mud Co.

Slope Survey 3/4°

Anhydrite Top 1174 +1002
Anhydrite Base 1215 +964

Topeka 2998 -856

Heebner Sh 3274 -1098

Toronto 3296 -1117

LKC 3313 -1138

BKC 3367 -1192

Arbuckle 3378 -1202

RTD 3385

LTD 3384 -1210

DST#1 3330'-3410'
30-45-30-45
Rec 330' GIP
180' MCO-10%o, 45%G, 45%O
240' MGO-25%G, 60%O
935' TOTAL Fluid
Gravity 32
DPT 1049#
ISIP: 1132#
FSIP: 1143#
IFP: 62-230, 293-902

1st Open: Strong BOB 1 min
12" blow back
2nd Open: Strong BOB 6 min
No blow back

Slope Survey 3/4°

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Phone 785-483-2025 Home Office P.O. Box 32 Russell, KS 67665 No. 5084

Cell 785-324-1041

Date	Sec.	Twp.	Range	County	State	On Location	Finish
8-30-11	22	15	18	Ellis	Kansas		5:45PM

Lease Willard Well No. 1 Location Hays 9S 1/2E

Contractor Southwind Drilling Rig 1 Owner

Type Job Surface 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.

Hole Size 12¼ T.D. 225

Csg. 8⅝ 23# Depth Charge To TDI

Tbg. Size Depth Street

Tool Depth City State

Cement Left in Csg. 10-15' Shoe Joint The above was done to satisfaction and supervision of owner agent or contractor.

Meas Line Displace 13⅓ Bbl Cement Amount Ordered 150 Common 3%CC 2%Gel

EQUIPMENT

Pumptrk 5 No. Cementer / Helper Steve

Bulktrk 14 No. Driver / Driver Chris

Bulktrk No. Driver / Driver Michael

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

Cement did Circulate

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

FLOAT EQUIPMENT

Guide Shoe	
Centralizer	
Baskets	
AFU Inserts	
Float Shoe	
Latch Down	
Surface	
Pumptrk Charge	Surface
Mileage	10
Tax	
Discount	
Total Charge	

X Signature Frank Rance

JOB LOG — **SWIFT Services, Inc.** — DATE 7-5-11 — PAGE NO. 1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
TDI	#1	Willard	2-stage	20339

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS T	PUMPS C	PRESSURE (PSI) TUBING	PRESSURE (PSI) CASING	DESCRIPTION OF OPERATION AND MATERIALS
	0545							on loc w/ FE
								RTD 3745' LTD 3744'
								5½" X 14# X 3745' X 39'
								Cent 1, 3, 5, 7, 9, 11, 13, 59, 29
								Baskets 2, 13, 60, 80
								DV 60 @ 1205'
	0900							Start FE
	1045							Break Circulation
	1155	4.5	0				150	Start Preflushes 500 gal Mud Flush 20 bbl KCL Flush
	1202	5.5	32/0				200	Start Cement 150 sks EA-2
	1210		36					End Cement
								Wash P/L
								Drop LD Plug
	1214	6.5	0				150	Start Displacement
	1224	5	68				200	Catch Cement KCL in last 20 bbl
	1230		90.5				600/1200	Land Plug
								Release Pressure
								Float Held
								Drop Opening Plug
	1235	2.5	7/5					Plug RH + MH 30/20 sks SMD
	1245						1100	Open DV
	1247	6	0				100	Start Cement 125 sks SMD
	1259		70					End Cement
								Drop Closing Plug
	1302	6	0				100	Start Displacement
	1307	4	26				350	Circ Cement
	1308		29.5				450/1400	Land Plug
								Close DV
								Release Pressure
								DV Closed
								Circ 25 sks to pit
								Thank you
								Nick, Josh E. & Rob

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 10, 2012

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

Re: ACO-1
API 15-051-26172-00-00
Willard 1
NE/4 Sec.22-15S-18W
Ellis County, Kansas

Dear Tom Denning:

K.A.R. 82-3-107 provides for all completion information to be filed within 120 days of the spud date. Subsection(e)(2) of that regulation states "All rights to confidentiality shall be lost if the filings are not timely."

The above referenced well was spudded on 08/30/2011 and the ACO-1 was received on January 10, 2012 (not within the 120 days timely requirement).

Therefore, your request for confidential treatment of data contained within the ACO-1 filing cannot be granted at this time.

If you should have any questions, please do not hesitate to contact me at (316)337-6200.

Sincerely,

Production Department