



Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1209665
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: _____

1209665

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 <i>(Attach Additional Sheets)</i>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
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:				

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: Yes No

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

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

DISPOSITION OF GAS: <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. <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	PRODUCTION INTERVAL: _____ _____
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DRILL STEM TEST REPORT

Prepared For: **TDI Inc.**

1310 Bison Rd
Hays KS 67601

ATTN: Herb Deines

Stackhouse Ranch #1

13-12s-19w Ellis,KS

Start Date: 2014.05.21 @ 00:35:00

End Date: 2014.05.21 @ 07:14:45

Job Ticket #: 58961 DST #: 1

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

Printed: 2014.05.22 @ 11:56:58



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

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

13-12s-19w Ellis,KS
Stackhouse Ranch #1
Job Ticket: 58961 **DST#: 1**
Test Start: 2014.05.21 @ 00:35:00

GENERAL INFORMATION:

Formation: **Toronto - KC "D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:48:00
Time Test Ended: 07:14:45
Interval: **3446.00 ft (KB) To 3560.00 ft (KB) (TVD)**
Total Depth: 3560.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Brett Dickinson
Unit No: 59
Reference Elevations: 2208.00 ft (KB)
2200.00 ft (CF)
KB to GR/CF: 8.00 ft

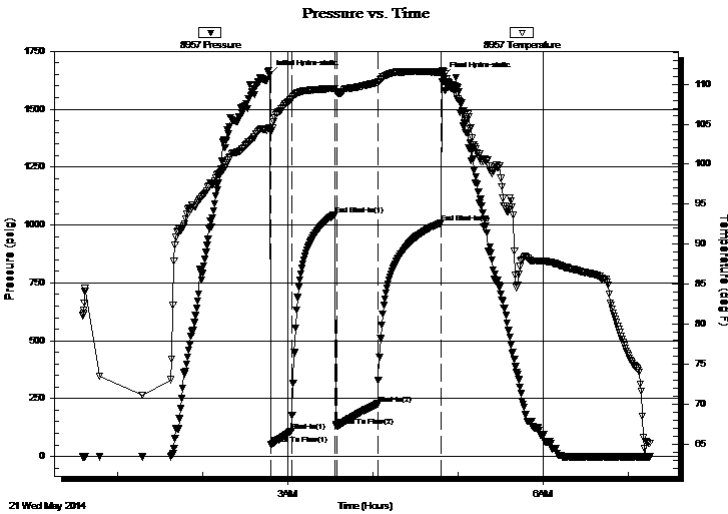
Serial #: 8957

Inside

Press@RunDepth: 227.40 psig @ 3447.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.05.21 End Date: 2014.05.21 Last Calib.: 2014.05.21
Start Time: 00:35:05 End Time: 07:14:44 Time On Btm: 2014.05.21 @ 02:46:45
Time Off Btm: 2014.05.21 @ 04:49:00

TEST COMMENT: IF-BOB in 2 min
IS-BOB in 19 1/2 min
FF-BOB in 3 min
FS-BOB in 22 min

PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1650.90	104.56	Initial Hydro-static
2	52.61	104.17	Open To Flow (1)
16	110.94	108.11	Shut-In(1)
47	1045.14	109.43	End Shut-In(1)
48	129.94	109.07	Open To Flow (2)
77	227.40	110.21	Shut-In(2)
121	1009.23	111.49	End Shut-In(2)
123	1642.66	111.72	Final Hydro-static

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VGO 40%G 60%O	0.84
500.00	GO 20%G 80%O	7.01
0.00	620ft GIP	0.00

Gas Rates

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



TRILOBITE TESTING, INC

DRILL STEM TEST REPORT

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

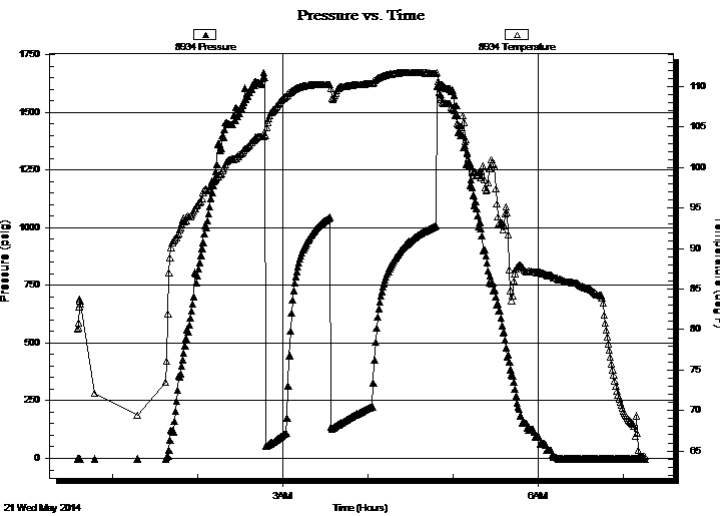
13-12s-19w Ellis,KS
Stackhouse Ranch #1
Job Ticket: 58961 **DST#: 1**
Test Start: 2014.05.21 @ 00:35:00

GENERAL INFORMATION:

Formation: **Toronto - KC "D"**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 02:48:00
Time Test Ended: 07:14:45
Interval: **3446.00 ft (KB) To 3560.00 ft (KB) (TVD)**
Total Depth: 3560.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Reference Elevations: 2208.00 ft (KB)
2200.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8934 Outside
Press@RunDepth: psig @ 3447.00 ft (KB) Capacity: 8000.00 psig
Start Date: 2014.05.21 End Date: 2014.05.21 Last Calib.: 2014.05.21
Start Time: 00:35:05 End Time: 07:14:44 Time On Btm:
Time Off Btm:

TEST COMMENT: IF-BOB in 2 min
IS-BOB in 19 1/2 min
FF-BOB in 3 min
FS-BOB in 22 min



PRESSURE SUMMARY

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

Recovery

Length (ft)	Description	Volume (bbl)
60.00	VGO 40%G 60%O	0.84
500.00	GO 20%G 80%O	7.01
0.00	620ft GIP	0.00

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
ATTN: Herb Deines

13-12s-19w Ellis,KS
Stackhouse Ranch #1
Job Ticket: 58961 **DST#: 1**
Test Start: 2014.05.21 @ 00:35:00

Tool Information

Drill Pipe:	Length: 3435.00 ft	Diameter: 3.80 inches	Volume: 48.18 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: ft	Diameter: 2.70 inches	Volume: - 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:	60000.00 lb
			<u>Total Volume:</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	9.00 ft			String Weight: Initial	45000.00 lb
Depth to Top Packer:	3446.00 ft			Final	48000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	114.00 ft				
Tool Length:	134.00 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			3431.00	
Hydraulic tool	5.00			3436.00	
Packer	5.00			3441.00	20.00 Bottom Of Top Packer
Packer	5.00			3446.00	
Stubb	1.00			3447.00	
Recorder	0.00	8957	Inside	3447.00	
Recorder	0.00	8934	Outside	3447.00	
Perforations	3.00			3450.00	
Change Over Sub	1.00			3451.00	
Drill Pipe	95.00			3546.00	
Change Over Sub	1.00			3547.00	
Perforations	10.00			3557.00	
Bullnose	3.00			3560.00	114.00 Bottom Packers & Anchor

Total Tool Length: 134.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

TDI Inc. **13-12s-19w Ellis,KS**
 1310 Bison Rd **Stackhouse Ranch #1**
 Hays KS 67601 Job Ticket: 58961 **DST#: 1**
 ATTN: Herb Deines Test Start: 2014.05.21 @ 00:35:00

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: 43.00 sec/qt	Cushion Volume: bbl	
Water Loss: 7.98 in ³	Gas Cushion Type:	
Resistivity: ohm.m	Gas Cushion Pressure: psig	
Salinity: 2300.00 ppm		
Filter Cake: inches		

Recovery Information

Recovery Table

Length ft	Description	Volume bbl
60.00	VGO 40%G 60%O	0.842
500.00	GO 20%G 80%O	7.014
0.00	620ft GIP	0.000

Total Length: 560.00 ft Total Volume: 7.856 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

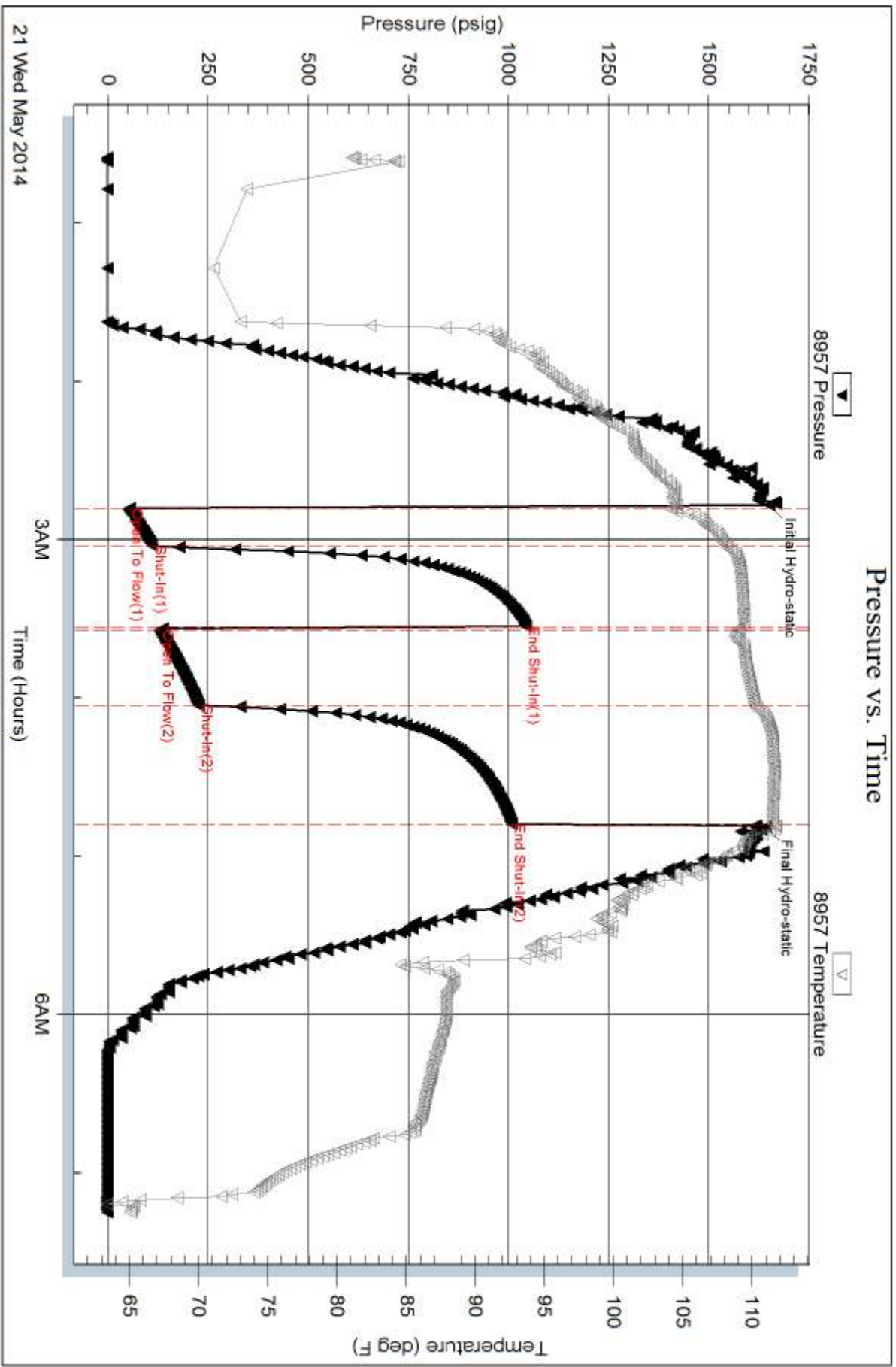
Serial #: 8957

Inside

TDI Inc.

Stackhouse Ranch #1

DST Test Number: 1



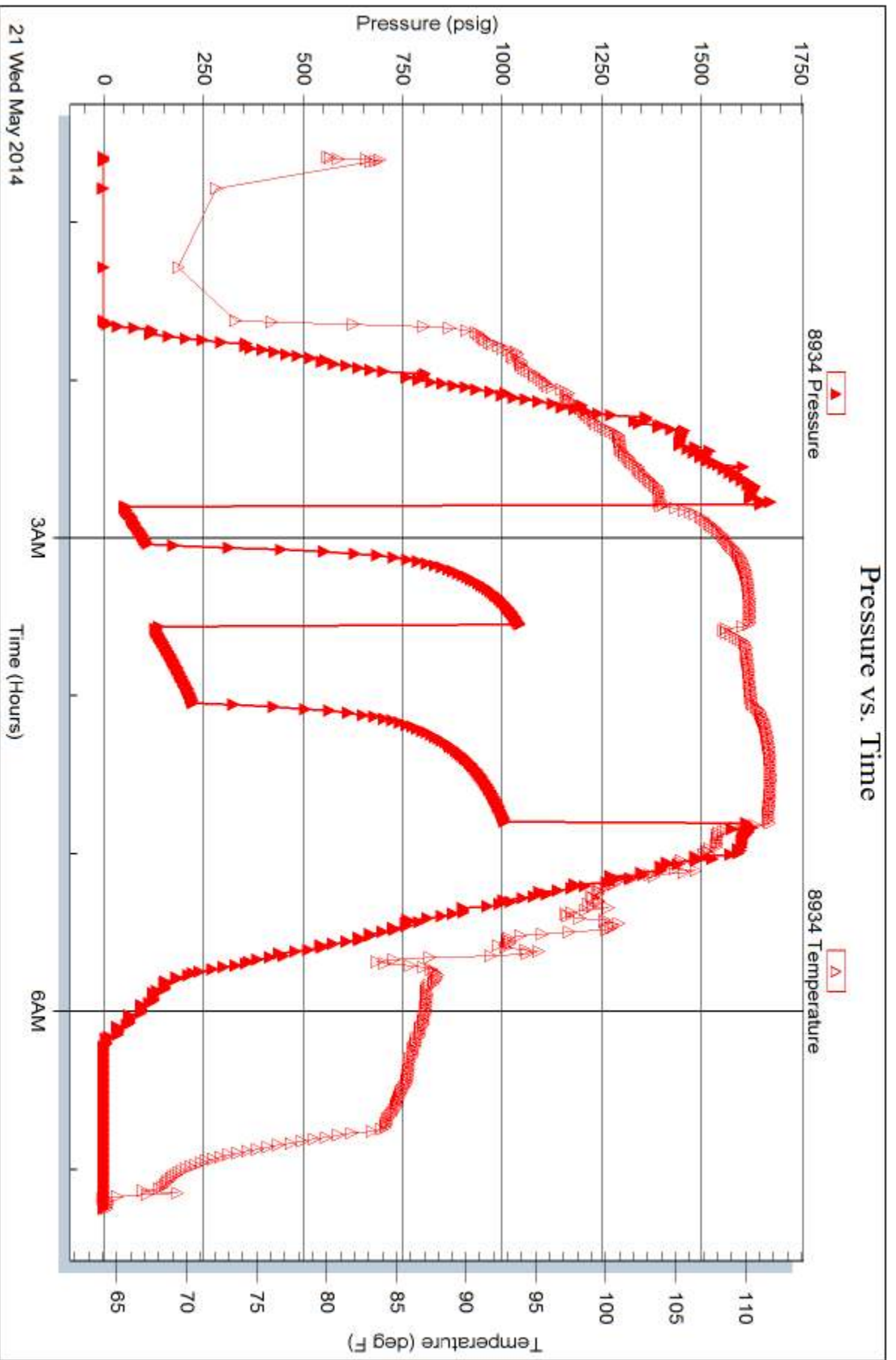
Serial #: 8934

Outside

TDI Inc.

Stackhouse Ranch #1

DST Test Number: 1

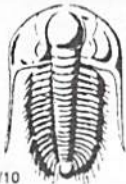


21 Wed May 2014

Trilobite Testing, Inc

Ref. No: 58961

Printed: 2014.05.22 @ 11:56:59



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 58961

4/10

Well Name & No. Stags & house #1 Test No. 1 Date 5/21/14
 Company TDI Inc Elevation 2208 KB ~~2208~~ 2208 GL
 Address 1310 Bison Rd Hays KS 67601
 Co. Rep / Geo. Herb D Rig Southwind #1
 Location: Sec. 13 Twp. 12 Rge. 19 Co. Ellis State KS

Interval Tested 3446-3560 Zone Tested Toronto - KC⁹D⁰
 Anchor Length 114 Drill Pipe Run _____ Mud Wt. 8.8
 Top Packer Depth 3441 Drill Collars Run _____ Vis 43
 Bottom Packer Depth 3446 Wt. Pipe Run _____ WL 8.0
 Total Depth 3560 Chlorides 2,300 ppm System LCM _____

Blow Description IF - BOB in 2 min
ISF - BOB in 19 1/2 min
FF - BOB in 3 min
FSF - BOB in 22 min

Rec	Feet of	%gas	%oil	%water	%mud
<u>60</u>	<u>UGG</u>	<u>40</u>	<u>60</u>		
<u>300</u>	<u>60</u>	<u>20</u>	<u>80</u>		
Rec _____	Feet of <u>6204 GAP</u>	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud
Rec _____	Feet of _____	%gas	%oil	%water	%mud

Rec Total 560 BHT 111 Gravity 26 API RW _____ @ _____ °F Chlorides _____ ppm
 (A) Initial Hydrostatic 1,651 Test 1150 T-On Location 00:10
 (B) First Initial Flow 53 Jars _____ T-Started 00:35
 (C) First Final Flow 111 Safety Joint _____ T-Open 2:48
 (D) Initial Shut-In 1,045 Circ Sub _____ T-Pulled 4:48
 (E) Second Initial Flow 130 Hourly Standby _____ T-Out 7:15
 (F) Second Final Flow 227 Mileage 30 RT x 2 93 Comments _____
 (G) Final Shut-In 1,009 Sampler _____ bedded tools
 (H) Final Hydrostatic 1,643 Straddle _____ 6:00 22nd
 Ruined Shale Packer _____
 Shale Packer _____
 Ruined Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1243 Sub Total _____
 Initial Open 15
 Initial Shut-In 30
 Final Flow 30
 Final Shut-In 45
 Sub Total 1243
 Approved By _____ Our Representative Butt 19

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: STACKHOUSE RANCH # 1
 Location: SW SE NE NE Sec.13-12s-19w
 Pool: WILDCAT
 State: KANSAS
 API: 15-051-26,676-00-00
 Field: UNNAMED
 Country: USA



Scale 1:240 Imperial

Well Name: STACKHOUSE RANCH # 1
 Surface Location: SW SE NE NE Sec.13-12s-19w
 Bottom Location:
 API: 15-051-26,676-00-00
 License Number: 4787
 Spud Date: 5/16/2014
 Region: ELLIS COUNTY
 Drilling Completed: 5/22/2014
 Surface Coordinates: 1060' FNL & 360' FEL
 Bottom Hole Coordinates:
 Ground Elevation: 2198.00ft
 K.B. Elevation: 2208.00ft
 Logged Interval: 2500.00ft
 Total Depth: 3899.00ft
 Formation: LANSING-KANSAS CITY
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

Time: 1:30 PM
 Time: 6:48 AM
 To: 3899.00ft

SURFACE CO-ORDINATES

Well Type: Vertical
 Longitude: -99.3723553
 N/S Co-ord: 1060' FNL
 E/W Co-ord: 360' FEL
 Latitude: 39.0129995

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
 Spud Date: 5/16/2014
 TD Date: 5/22/2014
 Rig Release: 5/23/2014
 Time: 1:30 PM
 Time: 6:48 AM
 Time: 4:00 AM

ELEVATIONS

K.B. Elevation: 2208.00ft
 K.B. to Ground: 10.00ft
 Ground Elevation: 2198.00ft

NOTES

RECOMMENDATION TO RUN PRODUCTION CASING BASED ON FAVORABLE STRUCTURE AND RESULTS OF DST # 1

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

DRILL STEM TESTING BY TRILOBITE TESTING INC: ONE (1) CONVENTIONAL TEST

FORMATION TOPS COMPARISON CHART AND CHRONOLOGY OF DAILY ACTIVITY


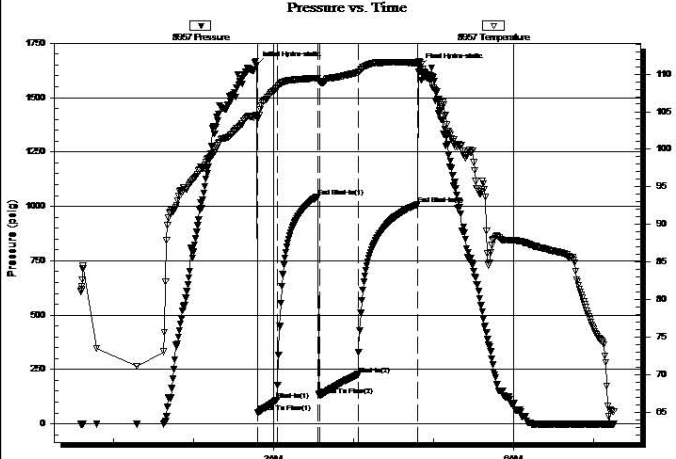
	STACKHOUSE RANCH # 1	JOY # 1	GEORGE # 1
	SW SE NE NE	SE SE NW NE	NW SW SE NW
	SEC.13-12S-19W	SEC.13-12-19W	SEC.18-12-18W
	2198'GL 2208'KB	KB 2218'	KB 2217'
	<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
	Anhydrite	1535 +673	+ 669
	B-Anhydrite	1564 +644	+ 634
	Topeka	3220-1012	-1022
			+684
			+650
			-1011

Heebner Sh.	3450-1242	-1251	-1242
Toronto	3468-1260	-1270	-1262
LKC	3494-1286	-1295	-1286
BKC	3726-1518	-1528	-1532
Arbuckle	3818-1610	-1656	NR
RTD	3899-1691	-1682	-1683

SUMMARY OF DAILY ACTIVITY

- 5-16-14 RU, Spud 1:30 PM, set 8 5/8" surface casing to 223.51' w/ 150 sxs
Common 2%Gel 3%CC, slope 1/2 degree, plug down 6:30 PM
- 5-17-14 495', drill plug 2:30 AM
- 5-18-14 2240', drilling
- 5-19-14 2910', drilling, displaced 3015' to 3039'
- 5-20-14 3350', CFS 3560', short trip, TOWB, DST #1 3446'-3560'
- 5-21-14 3560', drilling
- 5-22-14 3890', RTD 3899' @6:48AM, mini trip, TOWB, logs, TIWB, LDDP
- 5-23-14 3899', finish running production casing and cementing, RD

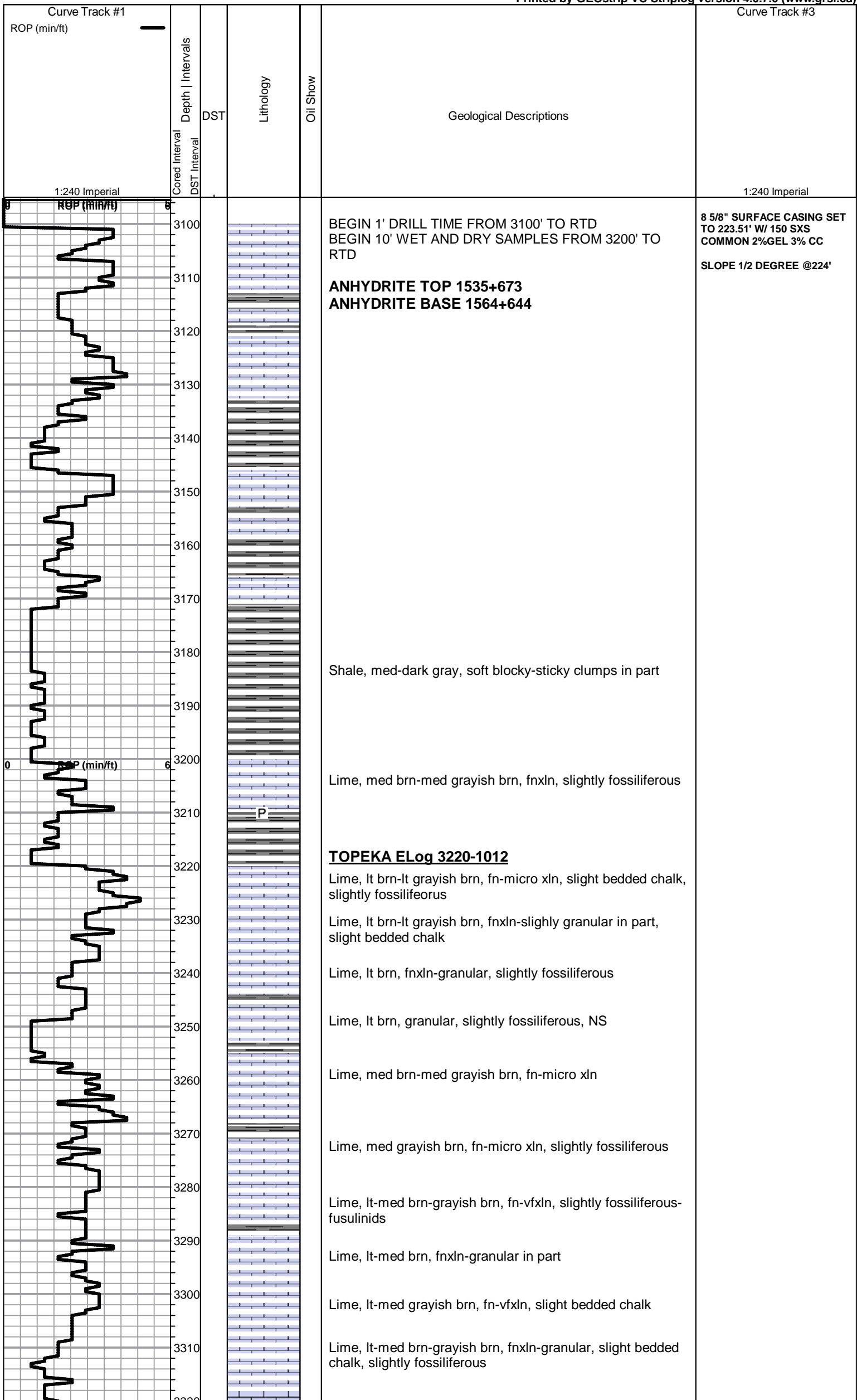
DST # 1 3446' TO 3560' TORONTO TO "D" LKC

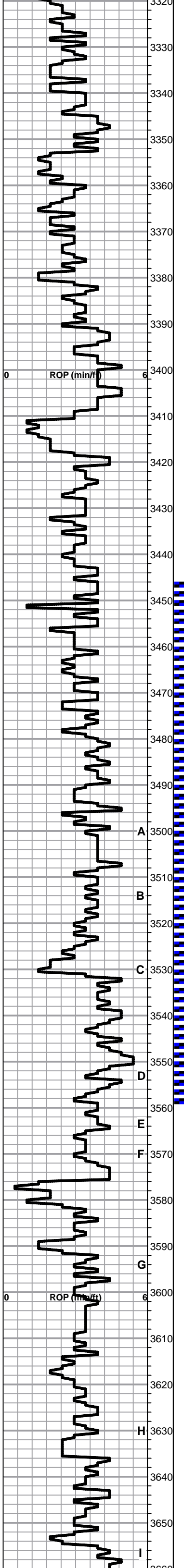
 TRILOBITE TESTING, INC.	DRILL STEM TEST REPORT			
	TDI Inc. 1310 Bison Rd Hays KS 67601 ATTN: Herb D	13-12-19, Ellis, KS Stackhouse #1 Job Ticket: 58961 DST#: 1 Test Start: 2014.05.21 @ 00:35:00		
GENERAL INFORMATION: Formation: Toronto-KC "D" Deviated: No Whipstock: ft (KB) Time Tool Opened: 02:48:00 Time Test Ended: 07:14:45 Interval: 3446.00 ft (KB) To 3560.00 ft (KB) (TVD) Total Depth: 3560.00 ft (KB) (TVD) Hole Diameter: 7.88 inches Hole Condition: Fair Test Type: Conventional Bottom Hole (Initial) Tester: Brett Dickinson Unit No: 59 Reference Elevations: 2208.00 ft (KB) 2200.00 ft (CF) KB to GR/CF: 8.00 ft				
Serial #: 8957 Inside Press@RunDepth: 227.40 psig @ 3447.00 ft (KB) Capacity: 8000.00 psig Start Date: 2014.05.21 End Date: 2014.05.21 Last Calib.: 2014.05.21 Start Time: 00:35:05 End Time: 07:14:44 Time On Btm: 2014.05.21 @ 02:46:45 Time Off Btm: 2014.05.21 @ 04:49:00				
TEST COMMENT: IF-BOB in 2min ISI-BOB in 19 1/2min FF-BOB in 3min FSI-BOB in				
	PRESSURE SUMMARY			
	Time (Mn.)	Pressure (psig)	Temp (deg F)	Annotation
	0	1650.90	104.56	Initial Hydro-static
	2	52.61	104.17	Open To Flow (1)
	16	110.94	108.11	Shut-In(1)
	47	1045.14	109.43	End Shut-In(1)
	48	129.94	109.07	Open To Flow (2)
	77	227.40	110.21	Shut-In(2)
	121	1009.23	111.49	End Shut-In(2)
	123	1642.66	111.72	Final Hydro-static
Recovery		Gas Rates		
Length (ft)	Description	Choke (inches)	Pressure (psig)	Gas Rate (Mcf/d)
60.00	VGO 40%G 60%O			0.84
500.00	GO 20%G 80%O			7.01
0.00	620ft GIP			0.00

ROCK TYPES					
	Cht vari		Lmst fw<7		Lscongl
	Dolprim		Lmst fw7>		shale, grn
					shale, gry
					Carbon Sh
					shale, red

ACCESSORIES	
MINERAL	FOSSIL
▲ Chert, dark	○ Oolite
P Pyrite	⊕ Oomoldic
△ Chert White	

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





Shale, black carbonaceous-gray, blocky

Lime, med brn, fnxln, slightly fossiliferous

Lime, crm-tan, fn-vfxln, lithographic

Lime, crm-tan-lt brn, fnxln, bedded chalk, slightly fossiliferous

Lime, lt-med brn, fnxln, slightly fossiliferous

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

Lime, lt-med brn, fn-micro xln

Shale, black carbonaceous, fissile, blocky

Lime, crm-tan, fnxln, few chips with oil stained fossil casts, NFO, No Odor

Lime, crm-tan, fn-vfxln, white fresh chert

Lime, med brn-med grayish brn, fn-vfxln

Lime, med brn-grayish brn, granular with bedded chalk, NS

Lime, lt-med brn, fnxln

Lime, med brn, fn-micro xln, slightly fossiliferous

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

HEEBNER SHALE ELog 3450-1242
 Shale, black carbonaceous, fissile, blocky
 Lime, lt-med brn, vf-micro xln

Shale, lime green, soft blocky-soft mud

TORONTO ELog 3468-1260
 Lime, crm-tan, fnxln, zone of oolitic with scattered vugs with calcite recrystallization, scattered-saturated stain, NSO, No Odor

Lime, lt brn, fn-vfxln

Shale, red wash, soft mud

LKC ELog 3494-1286

Lime, tan, fn-vfxln-micro xln

Shale, med gray, calcareous with crinoid segments

Lime, med gray, fnxln, shaley in part, slight fossiliferous with specks of glauconite in part

Lime, tan-lt brn, fnxln grading into oolitic-oomoldic with fossil fragments, scattered to saturated stain, NFO, very lt odor, interparticle porosity

Lime, tan-lt brn, fnxln, slightly fossiliferous

Lime, tan-lt gray, thin bed oolitic with fossil fragments, scattered-saturated staining, NOF, No Odor, interparticle porosity

Shale, black carbonaceous
 Lime, lt gray with green tint, fn-vfxln

Lime, crm-tan, fnxln

Lime, crm-tan, fnxln-granular, vuggy, lt scattered staining, NFO, very lt odor, dolomitic in part with vuggy porosity

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

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

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

Shale, lt gray-black, blocky

Shale, lt gray-lime green, firm blocky to soft mud

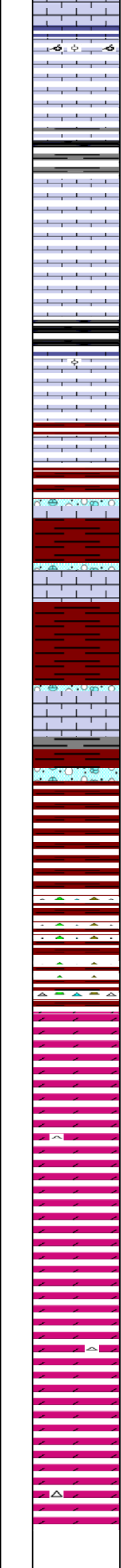
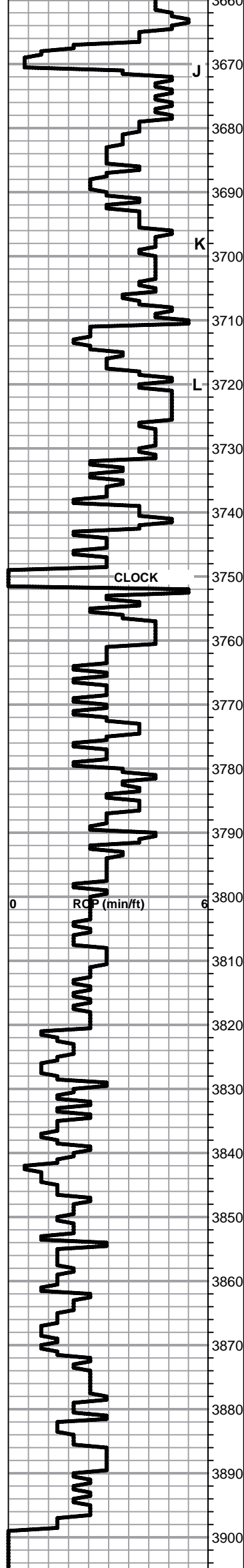
Lime, tan-lt brn, fnxln with zone of oolitic-fossil fragments with interfossil porosity with scattered vugs, scattered to saturated staining, NFO, lt odor

Lime, tan-lt brn, fn-vfxln, tan chert

Lime, med brn, vfxln
 Shale, lt gray, calcareous

Lime, crm-tan, fn-vfxln with zone of oolitic with fossil fragments, scattered dark stain, NFO, No Odor, fine inter xln porosity with scattered pinpoint vuggy porosity

DST #1 3446' TO 3560' SEE
 HEADER FOR TEST
 SUMMARY



Lime, crm, fn-micro xln, slight bedded chalk

Lime, tan-crm, oolitic-oomoldic, scattered to saturated staining, lt odor with specks of free oil.

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

Shale, gray-black carbonaceous

Lime, crm, fn-micro xln, slight bedded chalk

Lime, crm-tan, fn-micro xln, slight bedded chalk

Lime, crm-lt gray near shale boundary, fn-micro xln

Shale, black carbonaceous, fissile, blocky

Lime, tan-lt brn, fnxln with thin bed oolitic, spotty stain, NFO, no odor, not well developed

BKC ELog 3726-1518

Shale, red, blocky

Lime, tan, oolitic and well cemented

Shale, red wash

Lime, crm-tan, partial clastic mix with red shale staining

Shale, red wash

Lime, crm-tan, fnxln-granular, bedded chalk, NS, clastics in part

Shale, red -vari colored, no red wash

Lime, tan-lt brn, fnxln, clastic mix in part

Lime, vari color mix with yellow tint, granular

Shale, red-dark brn, soft-firm blocky

Shale, red wash with red cherts

Shale, red with increasing chert content

ARBUCKLE ELog 3818-1610

Dolomite, crm, fnxln-fine granular, scattered gilsonite and heavy dark oil specks in fine interxln with scattered vugs and micro fractures, No Odor. Oil appears to be very low gravity

Dolomite, crm-tan, fnxln with increasing granular with interxln porosity, few chips of white chert, fresh, sharp

Dolomite, crm-lt brn, fnxln, scattered oolitic chert

Dolomite, crm-lt brn, fnxln-granular

Dolomite, crm-tan-lt brn with scattered salmon, fnxln

Dolomite, crm-med brn, increasing grain size to cxln, few quartz grain recrystallizations in voids

RTD 3899-1691 LTD 3902-1694

GLOBAL CEMENTING, L.L.C.

1334

REMIT TO 18048 170RD
RUSSELL, KS 67665

SERVICE POINT:

Russell, KS

DATE <u>5-16-14</u>	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START <u>6:00pm</u>	JOB FINISH <u>6:30pm</u>
LEASE <u>Stakehouse Ranch</u>	WELL #. <u>1</u>	LOCATION			COUNTY <u>Ellis</u>	STATE <u>KS</u>	
OLD OR <input checked="" type="radio"/> NEW (CIRCLE ONE)							

CONTRACTOR Southwind #1

TYPE OF JOB Surface

HOLE SIZE 12 1/4 T.D.

CASING SIZE 8 5/8 DEPTH

TUBING SIZE DEPTH

DRILL PIPE DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 20ft

PERFS

DISPLACEMENT 13 bbl

EQUIPMENT

PUMP TRUCK CEMENTER Heath

P1 HELPER Cody

BULK TRUCK

B3 DRIVER Eric

BULK TRUCK

DRIVER

OWNER

CEMENT

AMOUNT ORDERED 150sr com 3%CC 2%gel

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

TOTAL

REMARKS:

Ran 5 jts of 8 5/8 casing and landing it

Est Circulation with mud pump

Hook up and mix 150sr and disp 13 bbl of

120 - shot in @ 150ps.

Cement did circulate

CHARGE TO: TOI

STREET

CITY STATE ZIP

Global Cementing, L.L.C.,
You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read and understand the "GENERAL TERMS AND CONDITIONS" listed on the reverse side.

PRINTED NAME L. Army Bean

SIGNATURE L. Army Bean

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE @

MANIFOLD @

TOTAL

PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT

IF PAID IN 30 DAYS

JOB LOG

SWIFT Services, Inc.

DATE 5-22-14 PAGE NO. 1

CUSTOMER T.D.Z. WELL NO. #1 LEASE STACKHOUSE RANCH JOB TYPE 5 1/2" 2-STAGE LONGSTRING TICKET NO. 25966

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL) (GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	2230							ON LOCATION
	2330							START 5 1/2" CASING IN WELL
								TD-3899 SET = 3897
								TP-3897 5 1/2" #14
								ST-42'
								CENTRALIZERS - 1, 3, 4, 6, 8, 10, 11, 56
								CMT BSKTS - 2, 15, 57
								DV TOOL - 1495' TOP JT # 57
	0110							DROP BALL - CIRCULATE ROTATE
	0215	6	12		✓		400	PUMP 500 GAL MUD FLUSH
	0217	6	20		✓		400	PUMP 20 BBS KCL - FLUSH
	0220	4 1/2	36		✓		200	MIX CEMENT - 150 SKS EA-2 @ 15.4 PPG
	0228							WASH OUT PUMP - LINES
	0228							RELEASE 1ST STAGE LATCH DOWN PLUG
	0230	7	0		✓			DISPLACE PLUG
		6 1/2	65					SHUT OFF ROTATE
	0245	6	94				1500	PLUG DOWN - PSE UP LATCH TO PLUG
	0248						OK	RELEASE PSE - HELD
	0255							DROP DV OPENING PLUG
	0310				✓		1300	OPEN DV TOOL - CIRCULATE
	0310	6	20		✓		350	PUMP 20 BBS KCL - FLUSH
	0315		7-5					PLUG RH (30SKS) MH (20SKS)
	0320	6	83		✓		300	MIX CEMENT - 150 SKS SMD @ 11.2 PPG
	0338							WASH OUT PUMP - LINES
	0338							RELEASE DV CLOSING PLUG
	0340	6 1/2	0		✓			DISPLACE PLUG
	0345	5	36 1/2				1500	PLUG DOWN - PSE UP CLOSE DV TOOL
	0350						OK	RELEASE PSE - HELD
								CIRCULATED 35 SKS CEMENT TO PSE
								WASH TRUCK
	0430							JOB COMPLETE

THANK YOU
WAYNE, DAVID E., JOHN J.