

Confidentiality Requested:

Yes  No

**KANSAS CORPORATION COMMISSION** 1264831  
**OIL & GAS CONSERVATION DIVISION**



Form ACO-1  
November 2016

**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

Gas  DH  EOR

OG  GSW

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 EOR  Conv. to SWD  
 Plug Back  Liner  Conv. to GSW  Conv. to Producer

Commingled Permit #: \_\_\_\_\_

Dual Completion Permit #: \_\_\_\_\_

SWD Permit #: \_\_\_\_\_

EOR Permit #: \_\_\_\_\_

GSW Permit #: \_\_\_\_\_

Spud Date or  
Recompletion Date

Date Reached TD

Completion Date or  
Recompletion Date

API No.: \_\_\_\_\_

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  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT  I  II  III Approved by: \_\_\_\_\_ Date: \_\_\_\_\_

1264831



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](mailto: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 Geologist Report / Mud Logs <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				

1. Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*
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)*

Date of first Production/Injection or Resumed Production/Injection:	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) (Submit ACO-4)</i>	PRODUCTION INTERVAL: Top Bottom
---	--	------------------------------------

Shots Per Foot	Perforation Top	Perforation Bottom	Bridge Plug Type	Bridge Plug Set At	Acid, Fracture, Shot, Cementing Squeeze Record <i>(Amount and Kind of Material Used)</i>

TUBING RECORD:	Size:	Set At:	Packer At:	
----------------	-------	---------	------------	--



**OPERATOR**

Company: TDI, INC.  
 Address: 1310 BISON ROAD  
 HAYS, KANSAS 67601

Contact Geologist: TOM DENNING  
 Contact Phone Nbr: 785-628-2593  
 Well Name: MARCOTTE # 1  
 Location: NE NE SW SW SEC. 29-T8S-R19W  
 API: 15-163-24,297-00-00  
 Pool:  
 State: KANSAS

Field: HAYDEN NORTHWEST  
 Country: USA



Scale 1:240 Imperial

Well Name: MARCOTTE # 1  
 Surface Location: NE NE SW SW SEC. 29-T8S-R19W  
 Bottom Location:  
 API: 15-163-24,297-00-00  
 License Number: 4787  
 Spud Date: 6/29/2015 Time: 7:00 AM  
 Region: ROOKS COUNTY  
 Drilling Completed: 7/10/2015 Time: 2:00 AM  
 Surface Coordinates: 1285' FSL & 1190' FWL  
 Bottom Hole Coordinates:  
 Ground Elevation: 2034.00ft  
 K.B. Elevation: 2044.00ft  
 Logged Interval: 2100.00ft To: 3580.00ft  
 Total Depth: 3580.00ft  
 Formation: ARBUCKLE  
 Drilling Fluid Type: CHEMICAL/FRESH WATER GEL

**SURFACE CO-ORDINATES**

Well Type: Vertical  
 Longitude: -99.4700096  
 Latitude: 39.3250726  
 N/S Co-ord: 1285' FSL  
 E/W Co-ord: 1190' FWL

**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: 6/29/2015 Time: 7:00 AM  
 TD Date: 7/10/2015 Time: 2:00 AM

**ELEVATIONS**

K.B. Elevation: 2044.00ft  
 K.B. to Ground: 10.00ft

Ground Elevation: 2034.00ft

**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, MICRO RESISTIVITY LOG

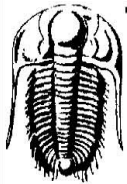
DRILL STEM TESTING BY TRILOBITE TESTING INC: ONE CONVENTIONAL TEST AND TWO (2) STRADDLE TESTS

<b>MARCOTTE # 1</b>	<b>ONDRASEK #7</b>	<b>WOLFENDON # 1</b>
<b>NE NE SW SW</b>	<b>SE NW NW</b>	<b>SW NW SW</b>
<b>SEC.29-8S-19W</b>	<b>SEC.32-8-19W</b>	<b>SEC.29-8-19W</b>
<b>2034'GL 2044'KB</b>	<b>KB 2040'</b>	<b>KB 2027'</b>

<u>FORMATION</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>	<u>LOG TOPS</u>
Anhydrite	1518 +526	+ 534	+ 528
B-Anhydrite	1550 +494		+ 491
Topeka	3009 - 965	- 952	- 963
Heebner Sh.	3216-1172	-1159	-1174
Toronto	3239-1195		-1195
LKC	3254-1210	-1199	-1212
BKC	3469-1425	-1415	
Arbuckle	3502-1458	-1442	
RTD	3580-1536	-1445	-1473

**SUMMARY OF DAILY ACTIVITY**

- 6-29-15 Spud 7:00 AM, set 8 5/8" surface casing to 229' w/150 sxs Common 2%Gel 3%CC, plug down 10:00 PM, slope 1/4 degree
- 6-30-15 231', shut down until 7-06-15
- 7-06-15 1008', drilling
- 7-07-15 2310', drilling
- 7-08-15 3000', drilling, CFS 3325'
- 7-09-15 3445', CFS 3445', DST # 1 3395' to 3445' "I-J" LKC, TIWB
- 7-10-15 3580', RTD 3580' @2:30 AM, CCH, TOWB, logs, TIWB, DST # 2 straddle test 3454' to 3508' Arbuckle, DST # 3 straddle test 3296' to 3320' "D" LKC
- 7-11-15 3580'. TIWB. LDDP. P&A



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

TDI  
1310 Bison Rd  
Hays KS, 67601  
ATTN: Herb Deines

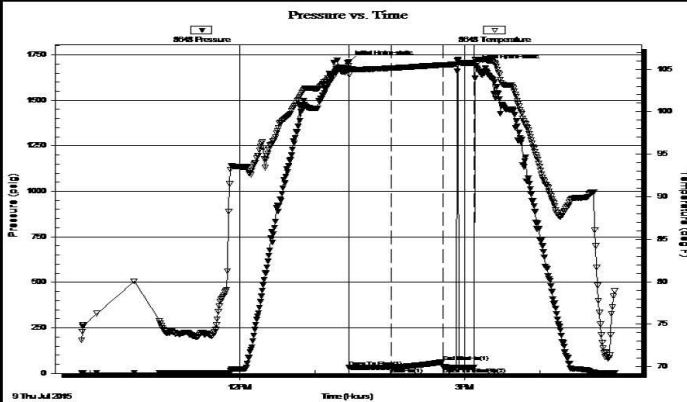
**29-8s-19w Rooks KS**  
**Marcotte #1**  
Job Ticket: 62719 **DST#: 1**  
Test Start: 2015.07.09 @ 09:53:00

**GENERAL INFORMATION:**

Formation: **LKC "I-J"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 13:27:15  
Time Test Ended: 17:00:15  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Cody Bloedorn  
Unit No: 73  
Interval: **3395.00 ft (KB) To 3445.00 ft (KB) (TVD)**  
Reference Elevations: 2044.00 ft (KB)  
Total Depth: 3445.00 ft (KB) (TVD)  
2039.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
KB to GR/CF: 5.00 ft

**Serial #: 8648 Inside**  
Press@RunDepth: 32.83 psig @ 3400.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.07.09 End Date: 2015.07.09 Last Calib.: 2015.07.09  
Start Time: 09:53:05 End Time: 17:00:14 Time On Btm: 2015.07.09 @ 13:27:00  
Time Off Btm: 2015.07.09 @ 15:08:30

**TEST COMMENT:** 30 - IF- Surged and died  
45 - IS- No return  
20 - FF- Surged and died, flushed tool after 10 minutes, surged and died, pulled tool after 10 minutes



**PRESSURE SUMMARY**

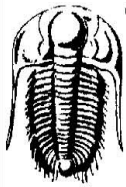
Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1710.60	105.44	Initial Hydro-static
1	32.64	104.38	Open To Flow (1)
34	32.83	105.13	Shut-In(1)
75	62.66	105.50	End Shut-In(1)
76	35.17	105.50	Open To Flow (2)
101	34.10	105.76	Shut-In(2)
102	1689.47	106.14	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
3.00	Mud, 100% M	0.04

**Gas Rates**

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



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

TDI  
1310 Bison Rd  
Hays KS, 67601  
ATTN: Herb Deines

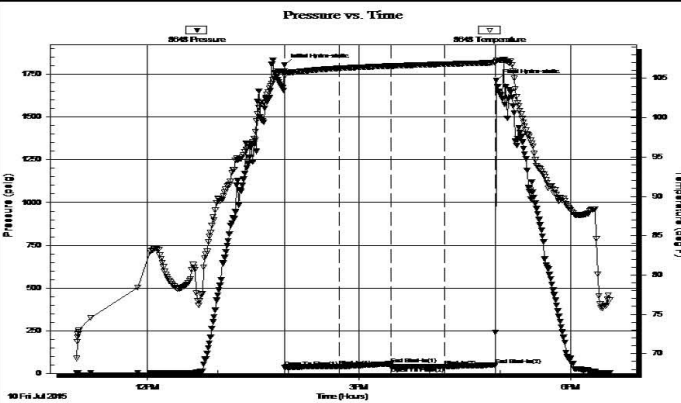
**29-8s-19w Rooks KS**  
**Marcotte #1**  
Job Ticket: 62720 **DST#: 2**  
Test Start: 2015.07.10 @ 11:00:00

**GENERAL INFORMATION:**

Formation: **Arbuckle**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 13:57:00  
Time Test Ended: 18:33:00  
Test Type: Conventional Straddle (Reset)  
Tester: Cody Bloedorn  
Unit No: 73  
Interval: **3454.00 ft (KB) To 3508.00 ft (KB) (TVD)**  
Reference Elevations: 2044.00 ft (KB)  
Total Depth: 3581.00 ft (KB) (TVD) 2039.00 ft (CF)  
Hole Diameter: 7.88 inches Hole Condition: Fair KB to GR/CF: 5.00 ft

**Serial #: 8648 Inside**  
Press@RunDepth: 40.66 psig @ 3491.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.07.10 End Date: 2015.07.10 Last Calib.: 2015.07.10  
Start Time: 11:00:05 End Time: 18:32:59 Time On Btm: 2015.07.10 @ 13:56:45  
Time Off Btm: 2015.07.10 @ 16:56:45

**TEST COMMENT:** 45 - IF- 1/4" blow , died in 24 minutes  
45 - IS- No return  
45 - FF- Surged and died  
45 - FS- No return



**PRESSURE SUMMARY**

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1805.81	105.92	Initial Hydro-static
1	35.96	105.33	Open To Flow (1)
46	39.37	106.28	Shut-In(1)
90	55.17	106.59	End Shut-In(1)
91	39.08	106.58	Open To Flow (2)
136	40.66	106.82	Shut-In(2)
179	48.46	107.01	End Shut-In(2)
180	1714.80	107.33	Final Hydro-static

**Recovery**

Length (ft)	Description	Volume (bbl)
5.00	Mud, 100% M	0.07

\* Recovery from multiple tests

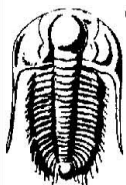
**Gas Rates**

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

Trilobite Testing, Inc

Ref. No: 62720

Printed: 2015.07.10 @ 23:47:37



**TRILOBITE TESTING, INC.**

**DRILL STEM TEST REPORT**

TDI  
1310 Bison Rd  
Hays KS, 67601  
ATTN: Herb Deines

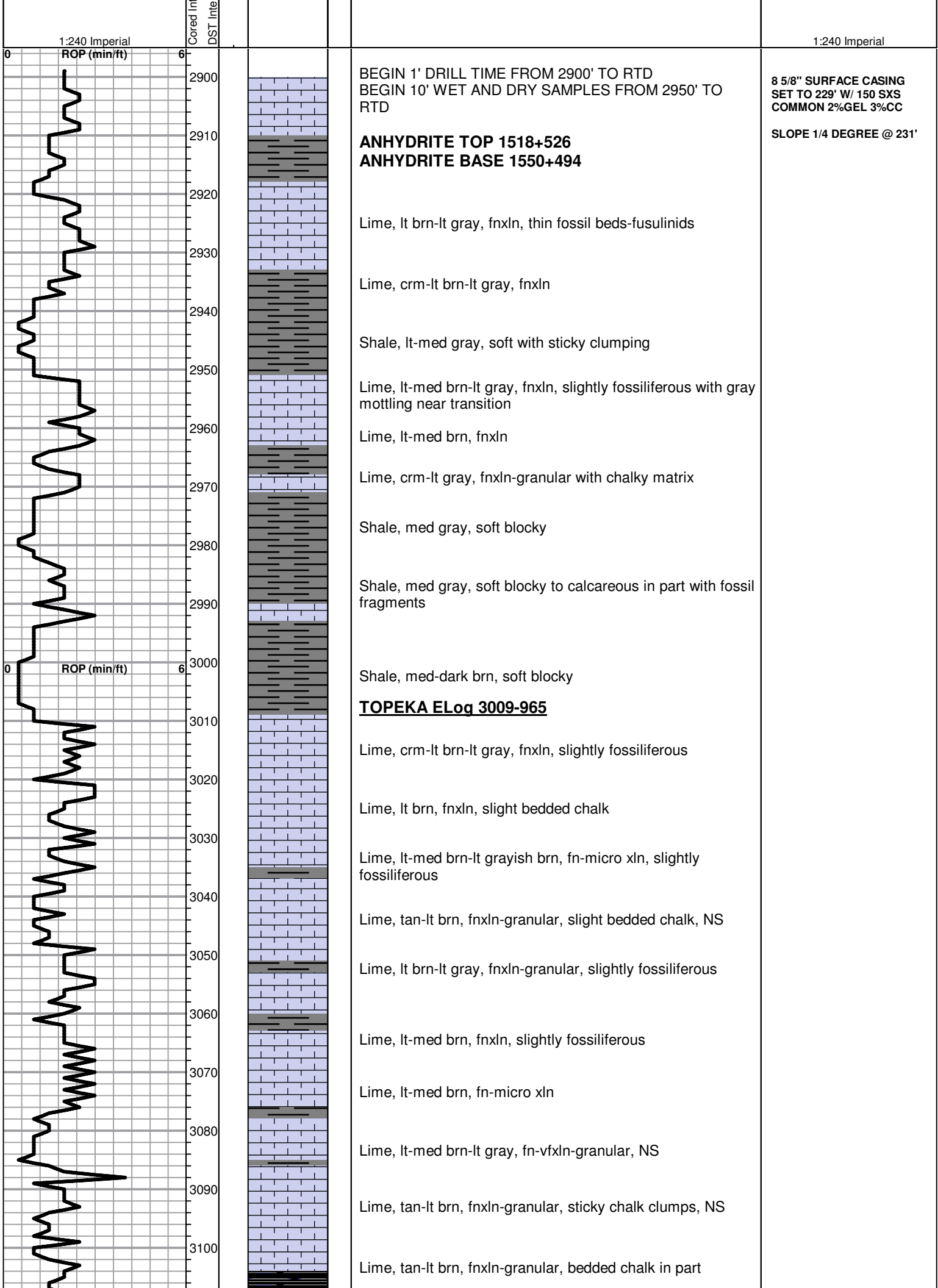
**29-8s-19w Rooks KS**  
**Marcotte #1**  
Job Ticket: 62721 **DST#: 3**  
Test Start: 2015.07.10 @ 19:00:00

**GENERAL INFORMATION:**

Formation: **LKC "D"**  
Deviated: No Whipstock: ft (KB)  
Test Type: Conventional Straddle (Reset)







1:240 Imperial  
ROP (min/ft)

Cored Int  
DST Int

1:240 Imperial

BEGIN 1' DRILL TIME FROM 2900' TO RTD  
BEGIN 10' WET AND DRY SAMPLES FROM 2950' TO RTD

8 5/8" SURFACE CASING  
SET TO 229' W/ 150 SXS  
COMMON 2%GEL 3%CC  
  
SLOPE 1/4 DEGREE @ 231'

**ANHYDRITE TOP 1518+526**  
**ANHYDRITE BASE 1550+494**

Lime, lt brn-lt gray, fnxln, thin fossil beds-fusulinids

Lime, crm-lt brn-lt gray, fnxln

Shale, lt-med gray, soft with sticky clumping

Lime, lt-med brn-lt gray, fnxln, slightly fossiliferous with gray mottling near transition

Lime, lt-med brn, fnxln

Lime, crm-lt gray, fnxln-granular with chalky matrix

Shale, med gray, soft blocky

Shale, med gray, soft blocky to calcareous in part with fossil fragments

Shale, med-dark brn, soft blocky

**TOPEKA ELog 3009-965**

Lime, crm-lt brn-lt gray, fnxln, slightly fossiliferous

Lime, lt brn, fnxln, slight bedded chalk

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

Lime, tan-lt brn, fnxln-granular, slight bedded chalk, NS

Lime, lt brn-lt gray, fnxln-granular, slightly fossiliferous

Lime, lt-med brn, fnxln, slightly fossiliferous

Lime, lt-med brn, fn-micro xln

Lime, lt-med brn-lt gray, fn-vfxln-granular, NS

Lime, tan-lt brn, fnxln-granular, sticky chalk clumps, NS

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

ROP (min/ft)

6

3000

3010

3020

3030

3040

3050

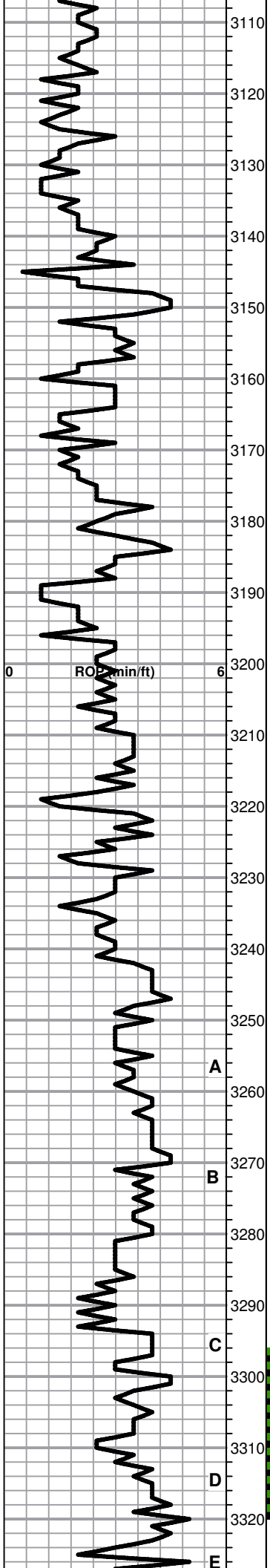
3060

3070

3080

3090

3100



Shale, black carbonaceous, blocky, fissile

Lime, lt brn, fnxln

Lime, lt brn, granular, lt white chalky wash

Lime, lt brn, fnxln-granular, lt chalk wash, NS

Lime, crm-lt brn, fnxln, soft of crush

Lime, crm-lt brn, fn-vfxln

Shale, black carbonaceous, blocky, fissile

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

Lime, lt brn-lt grayish brn, fnxln  
Chert, dark brn, fresh, sharp

Lime, lt-med brn, fnxln-granular, lt chalk wash

Lime, lt-med brn, fnxln

Lime, crm, fnxln

**HEEBNER SHALE ELog 3216-1172**

Shale, black carbonaceous, fissile, blocky  
Lime, med brn, fn-micro xln

Shale, lt gray, soft blocky

**TORONTO ELog 3239-1195**

Lime, white, mostly fnxln, few chips fine granular, interxln porosity, specks of stain, NFO, No Odor

**LKC ELog 3254-1210**

Lime, crm, fnxln  
Chert, fresh, sharp

Lime, crm, fnxln

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

Shale, med gray, moderately blocky

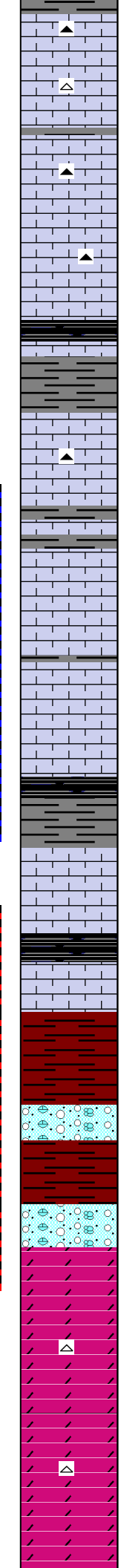
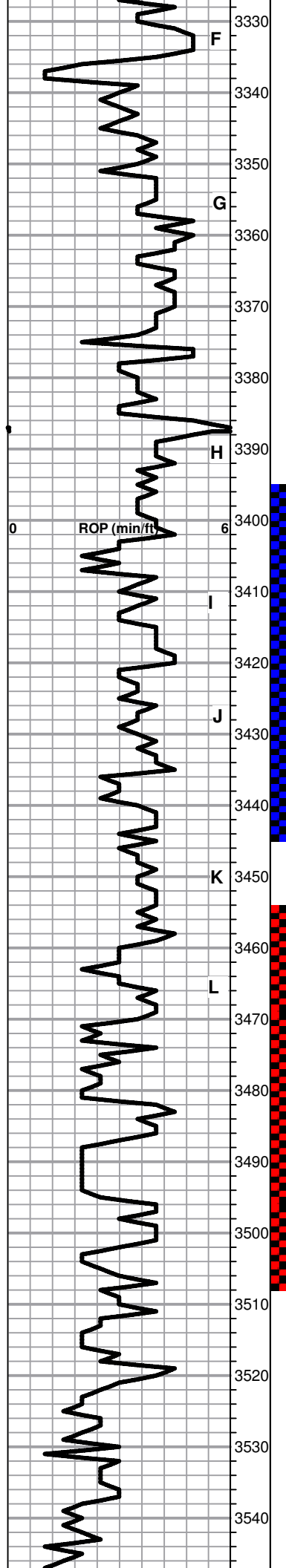
Lime, crm, fn-vfxln  
Chert, brn, oolitic, well cemented, NS

Shale, med gray, soft blocky

Lime, crm, mostly fnxln, few chips fine granular, spotty stain, NFO, No Odor, fair wet cut

Shale, gray-black carbonaceous, blocky  
Lime, tan, fn-vfxln

DST # 3 STRADDLE TEST  
3296' TO 3320' "D" ZONE  
SEE HEADER FOR TEST  
SUMMARY



3330 F Lime, crm-lt brn, fn-vfxln with oolitic chert, well cemented, NS

3340 Lime, crm-tan, fnxln, chert, white, fresh, sharp

3350 G Lime, crm, fn-micro xln, chert, tan, fresh, sharp

3360 Lime, crm-offwhite, fn-micro xln

3370 Lime, crm-lt gray-dark gray, fnxln  
Shale, black carbonaceous, blocky

3380 Shale, med gray-reddish brn, moderately firm, blocky

3390 H Lime, offwhite-crm-tan, fn-micro xln  
Chert, tan, fresh, sharp

3400 Lime, offwhite-lt brn, fn-micro xln, NS

3410 \* Lime, tan-lt brn, fn-micro xln, very lt odor, no stain, NFO

3420 Lime, tan-lt brn, fn-micro xln

3430 \* Lime, lt brn, fnxln, thin zone of fine granular lime with interxln porosity, lt spotty stain, lt odor

3440 Lime, crm-lt brn, fn-micro xln, lt oily sheen on some chips

3450 K Shale, lt-med gray, soft mud, calcareous in part

3460 Lime, crm-offwhite, fn-micro xln

3470 L Shale, lt gray-black carbonaceous, blocky  
**BKC ELog 3469-1425**

3480 Shale, red to reddish brn, soft mud with sticky clumps in part, lt red wash

3490 Shale, red, soft sticky  
Clastic lime mix, vari color, fn-vfxln

3500 O Lime, clastic mix, fnxln  
**ARBUCKLE ELog 3502-1458**

3510 D Dolomite, lt brn, fnxln-granular, dark stain, heavy oil globules, very lt odor, scattered staining in interxln porosity

3520 Dolomite, tan-lt brn, fnxln-granular, gilsonitic deposits

3530 Dolomite, crm-lt brn, fnxln-granular, dark stain with scattered heavy oil specks.

3540 Dolomite, crm-tan, fnxln, white chert, fresh, sharp

Dolomite, lt brn, fn-vfxln

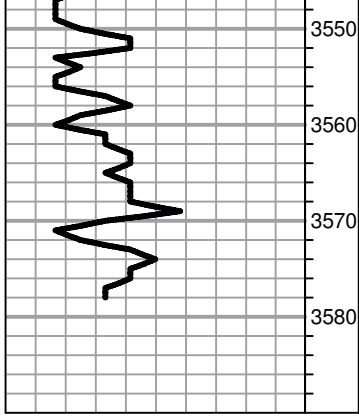
Dolomite, crm-lt brn, fn-vfxln, scattered interxln porosity, lt white shell wash

DST # 1 3395' TO 3445' SEE HEADER FOR TEST SUMMARY

SLOPE 3/4 DEGREE

DST #2 STRADDLE TEST 3454' TO 3508' ARBUCKLE SEE HEADER FOR TEST SUMMARY

CFS 3493'



3550  
3560  
3570  
3580



white chalk wash

Dolomite, crm-lt brn, fnxln-granular, few oomoldic chips

Dolomite, crm-lt brn, fnxln-granular

Dolomite, crm-lt brn, fnxln-granular

**RTD 3580-1536 LTD 3582-1538**

# GLOBAL CEMENTING, L.L.C.

1703

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT:

Russell, KS

DATE <u>6-29-15</u>	SEC. <u>29</u>	TWP. <u>8</u>	RANGE <u>19</u>	CALLED OUT	ON LOCATION	JOB START	JOB FINISH
LEASE <u>Marquette</u>	WELL #. <u>1</u>	LOCATION			COUNTY <u>ROOKS</u>	STATE <u>KS</u>	
OLD OR NEW (CIRCLE ONE) <u>NEW</u>							

CONTRACTOR Southwind Rig 1

TYPE OF JOB SurfAce

HOLE SIZE 12 1/4 T.D. 220'

CASING SIZE 8 5/8 DEPTH

TUBING SIZE DEPTH

DRILL PIPE 6" Drill collar DEPTH

TOOL DEPTH

PRES. MAX MINIMUM

MEAS. LINE SHOE JOINT

CEMENT LEFT IN CSG. 20'

PERFS

DISPLACEMENT 13 1/4 BBL

EQUIPMENT

OWNER

CEMENT AMOUNT ORDERED 150sk com 3%cc 2%gd

PUMP TRUCK CEMENTER Heath

# P2 HELPER

BULK TRUCK DRIVER Brandon

# B1

BULK TRUCK DRIVER

#

COMMON @

POZMIX @

GEL @

CHLORIDE @

ASC @

HANDLING @

MILEAGE @

REMARKS:

RTN 5 JIS 8 5/8 CSG, Hook UP  
2 circulate w/ Drilling Fluids.  
Hook UP Pump SK cement.  
Shut IN PSE cement  
circulate

TOTAL

SERVICE

DEPTH OF JOB

PUMP TRUCK CHARGE

EXTRA FOOTAGE @

MILEAGE @

MANIFOLD @

TOTAL

PLUG & FLOAT EQUIPMENT

@

@

@

@

@

TOTAL

CHARGE TO: TDF

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

SIGNATURE [Signature]

SALES TAX (If Any)

TOTAL CHARGES

DISCOUNT

IF PAID IN 30 DAYS

# GLOBAL CEMENTING, L.L.C.

1732

REMIT TO 18048 170RD  
RUSSELL, KS 67665

SERVICE POINT: RUSSELL, KS

DATE <u>7-11-15</u>	SEC. <u>29</u>	TWP. <u>3</u>	RANGE <u>19</u>	CALLED OUT	ON LOCATION <u>4AM</u>	JOB START <u>9:30 AM</u>	JOB FINISH <u>10:30 AM</u>
LEASE <u>MARSH</u>	WELL #. <u>1</u>	LOCATION			COUNTY <u>Rooks</u>	STATE <u>KS</u>	
OLD OR <u>NEW</u> (CIRCLE ONE)							

CONTRACTOR <u>SOUTHWIND DRILLING RIG #1</u>		OWNER
TYPE OF JOB <u>DRY HOLE PLUG</u>		
HOLE SIZE <u>7 7/8"</u>	T.D.	CEMENT
CASING SIZE <u>8 5/8"</u>	DEPTH <u>229'</u>	AMOUNT ORDERED <u>305 SY 60/40 POZ</u>
TUBING SIZE	DEPTH	<u>4 1/2 GFL 1/4 FLOATE</u>
DRILL PIPE <u>1 1/2"</u>	DEPTH	
TOOL	DEPTH	
PRES. MAX	MINIMUM	
MEAS. LINE	SHOE JOINT	
CEMENT LEFT IN CSG.		
PERFS		
DISPLACEMENT		
EQUIPMENT		
PUMP TRUCK	CEMENTER <u>BRAD</u>	
# <u>P1</u>	HELPER <u>BANDON</u>	
BULK TRUCK		
# <u>B1</u>	DRIVER <u>NATHAN</u>	
BULK TRUCK		
#	DRIVER	

COMMON	@	
POZMIX	@	
GEL	@	
CHLORIDE	@	
ASC	@	
	@	
	@	
	@	
	@	
	@	
	@	
	@	
	@	
HANDLING	@	
MILEAGE		

### REMARKS:

1st - 3180' - 50 SY  
2ND - 1530' - 50 SY  
3rd - 860' - 100 SY  
4th - 230' - 50 SY  
5th - 40' - 10 SY RAT - 30 SY MOUSE - 15 SY

TOTAL \_\_\_\_\_

### SERVICE

DEPTH OF JOB	
PUMP TRUCK CHARGE	
EXTRA FOOTAGE	@
MILEAGE	@
MANIFOLD	@
	@
	@

TOTAL \_\_\_\_\_

### PLUG & FLOAT EQUIPMENT

	@
	@
	@
	@
	@

TOTAL \_\_\_\_\_

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 LARRY BEAVERS  
 SIGNATURE Larry Beavers

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES \_\_\_\_\_  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS



## DRILL STEM TEST REPORT

Prepared For: **TDI**

1310 Bison Rd  
Hays KS 67601

ATTN: Herb Deines

### **Marcotte #1**

### **29-8s-19w Rooks,KS**

Start Date: 2015.07.09 @ 09:53:00

End Date: 2015.07.09 @ 17:00:15

Job Ticket #: 62719                      DST #: 1

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.13 @ 13:37:37

TDI  
29-8s-19w Rooks,KS  
Marcotte #1  
DST # 1  
LKC "I-J"  
2015.07.09





**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

TDI  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

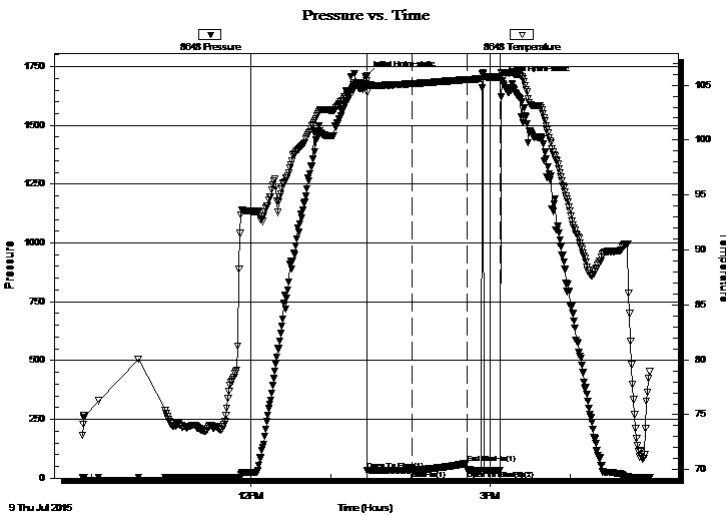
**29-8s-19w Rooks, KS**  
**Marcotte #1**  
Job Ticket: 62719 **DST#: 1**  
Test Start: 2015.07.09 @ 09:53:00

## GENERAL INFORMATION:

Formation: **LKC "I-J"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 13:27:15  
 Time Test Ended: 17:00:15  
 Interval: **3395.00 ft (KB) To 3445.00 ft (KB) (TVD)**  
 Total Depth: 3445.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Bottom Hole (Initial)  
 Tester: Cody Bloedorn  
 Unit No: 73  
 Reference Elevations: 2044.00 ft (KB)  
 2039.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8648** **Inside**  
 Press@RunDepth: 32.83 psig @ 3400.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.07.09 End Date: 2015.07.09 Last Calib.: 2015.07.09  
 Start Time: 09:53:05 End Time: 17:00:14 Time On Btm: 2015.07.09 @ 13:27:00  
 Time Off Btm: 2015.07.09 @ 15:08:30

TEST COMMENT: 30 - IF- Surged and died  
 45 - IS- No return  
 20 - FF- Surged and died, flushed tool after 10 minutes, surged and died, pulled tool after 10 minutes



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1710.60	105.44	Initial Hydro-static
1	32.64	104.38	Open To Flow (1)
34	32.83	105.13	Shut-In(1)
75	62.66	105.50	End Shut-In(1)
76	35.17	105.50	Open To Flow (2)
101	34.10	105.76	Shut-In(2)
102	1689.47	106.14	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud, 100%M	0.04

## Gas Rates

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





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

TDI  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

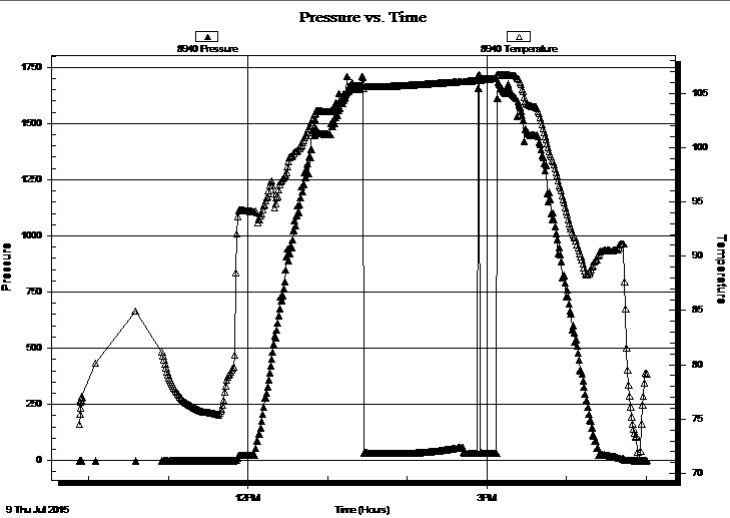
**29-8s-19w Rooks, KS**  
**Marcotte #1**  
Job Ticket: 62719      **DST#: 1**  
Test Start: 2015.07.09 @ 09:53:00

## GENERAL INFORMATION:

Formation: **LKC "I-J"**  
Deviated: No Whipstock:                      ft (KB)  
Time Tool Opened: 13:27:15  
Time Test Ended: 17:00:15  
**Interval: 3395.00 ft (KB) To 3445.00 ft (KB) (TVD)**  
Total Depth: 3445.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Test Type: Conventional Bottom Hole (Initial)  
Tester: Cody Bloedorn  
Unit No: 73  
Reference Elevations: 2044.00 ft (KB)  
2039.00 ft (CF)  
KB to GR/CF: 5.00 ft

**Serial #: 8940      Outside**  
Press@RunDepth:                      psig @ 3400.00 ft (KB)      Capacity: 8000.00 psig  
Start Date: 2015.07.09      End Date: 2015.07.09      Last Calib.: 2015.07.09  
Start Time: 09:53:05      End Time: 17:00:29      Time On Btm:  
Time Off Btm:

**TEST COMMENT:** 30 - IF- Surged and died  
45 - IS- No return  
20 - FF- Surged and died, flushed tool after 10 minutes, surged and died, pulled tool after 10 minutes



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
3.00	Mud, 100%M	0.04

## Gas Rates

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



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

TDI  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

**29-8s-19w Rooks,KS**  
**Marcotte #1**  
Job Ticket: 62719      **DST#: 1**  
Test Start: 2015.07.09 @ 09:53:00

**Tool Information**

Drill Pipe:	Length: 3395.00 ft	Diameter: 3.80 inches	Volume: 47.62 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	46000.00 lb
			<u>Total Volume: 47.62 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	20.00 ft			String Weight: Initial	42000.00 lb
Depth to Top Packer:	3395.00 ft			Final	42000.00 lb
Depth to Bottom Packer:	ft				
Interval between Packers:	50.00 ft				
Tool Length:	70.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3376.00	
Shut In Tool	5.00			3381.00	
Hydraulic tool	5.00			3386.00	
Packer	5.00			3391.00	20.00      Bottom Of Top Packer
Packer	4.00			3395.00	
Stubb	1.00			3396.00	
Anchor	3.00			3399.00	
Change Over Sub	1.00			3400.00	
Recorder	0.00	8648	Inside	3400.00	
Recorder	0.00	8940	Outside	3400.00	
Drill Pipe	31.00			3431.00	
Change Over Sub	1.00			3432.00	
Anchor	10.00			3442.00	
Bullnose	3.00			3445.00	50.00      Bottom Packers & Anchor

**Total Tool Length: 70.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

TDI **29-8s-19w Rooks,KS**  
 1310 Bison Rd **Marcotte #1**  
 Hays KS 67601 Job Ticket: 62719 **DST#: 1**  
 ATTN: Herb Deines Test Start: 2015.07.09 @ 09:53:00

### Mud and Cushion Information

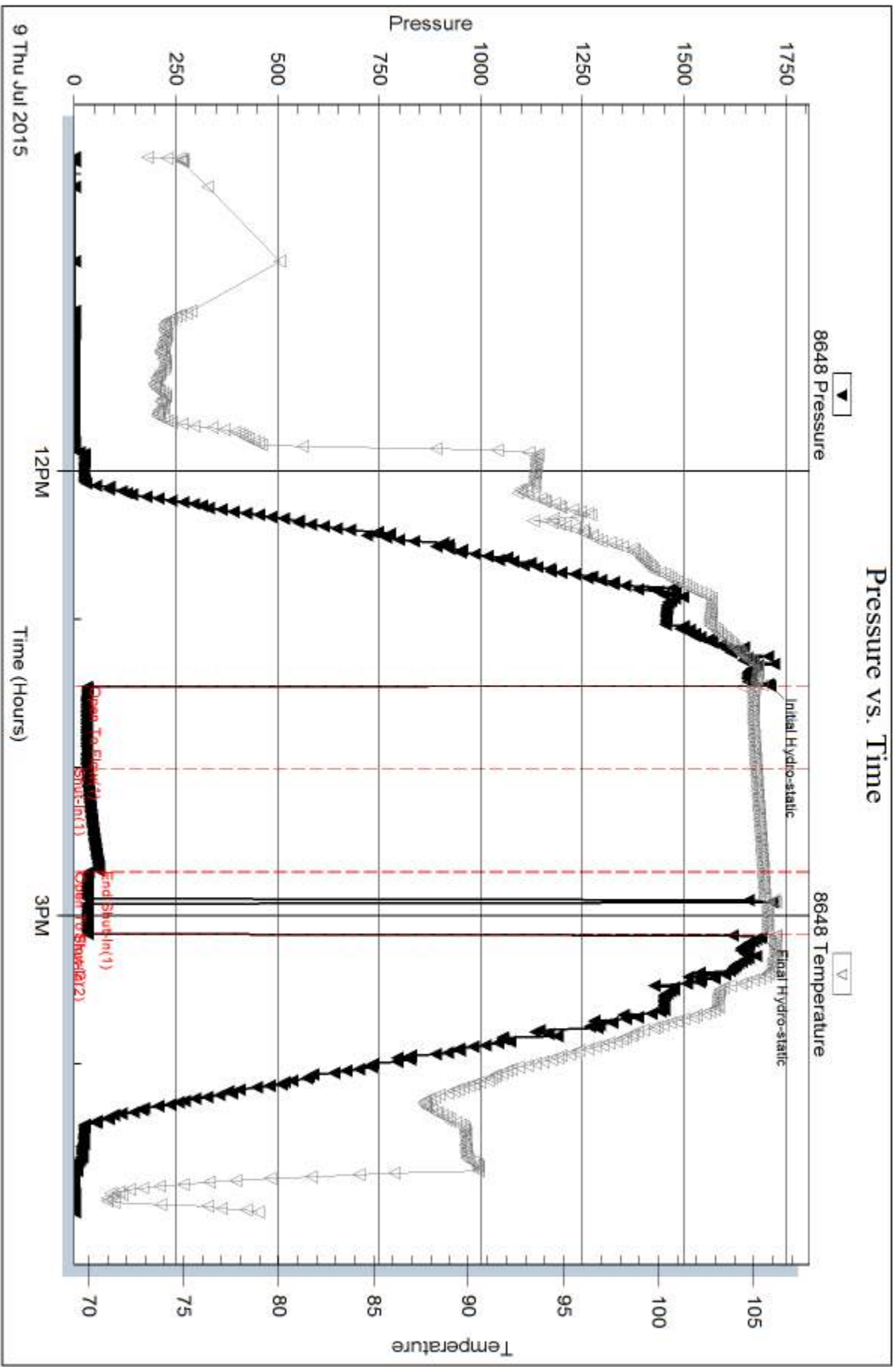
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 55.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.19 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1200.00 ppm			
Filter Cake: 1.00 inches			

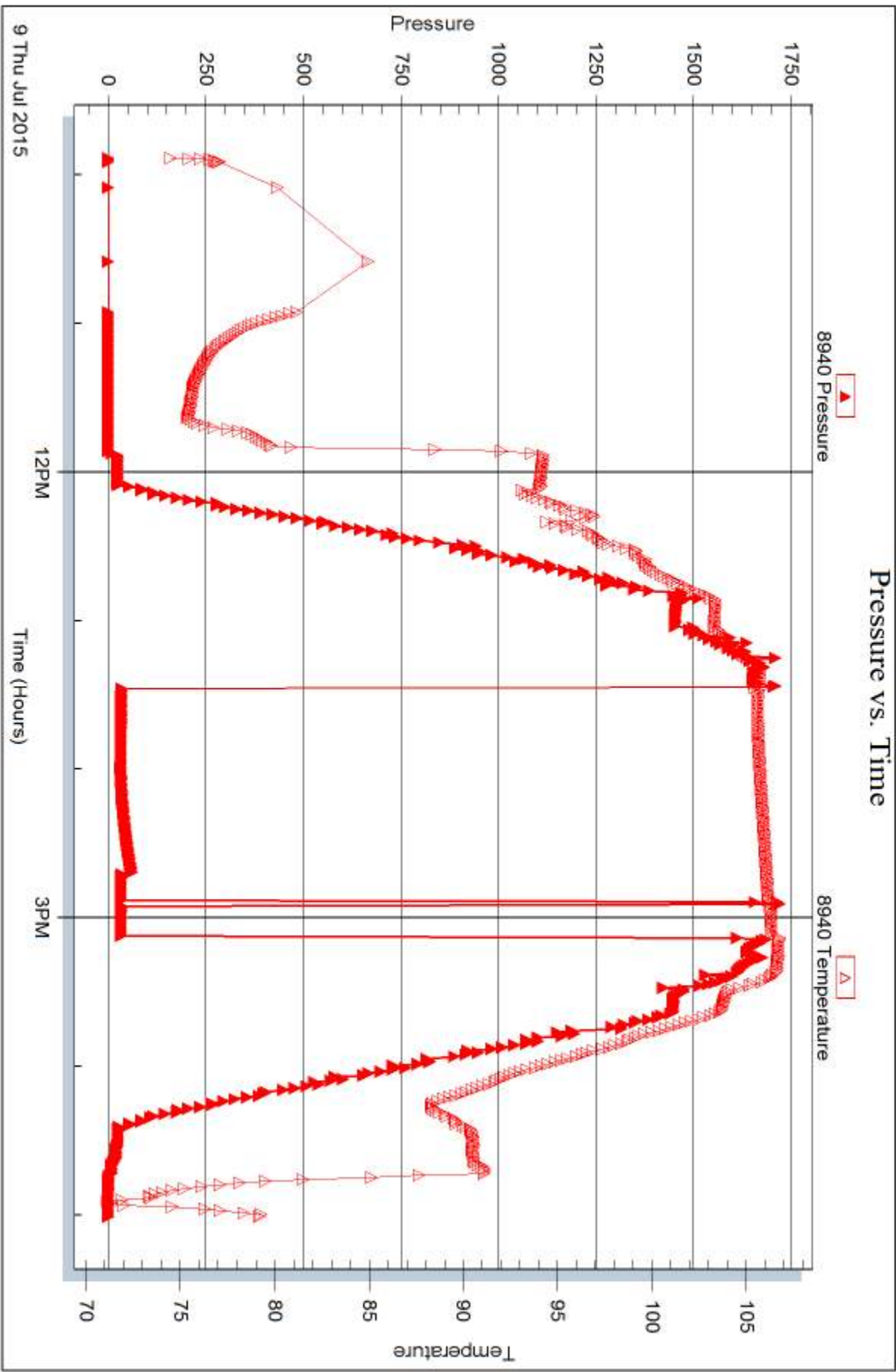
### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
3.00	Mud, 100%M	0.042

Total Length: 3.00 ft      Total Volume: 0.042 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:







## DRILL STEM TEST REPORT

Prepared For: **TDI**

1310 Bison Rd  
Hays KS 67601

ATTN: Herb Deines

### **Marcotte #1**

### **29-8s-19w Rooks,KS**

Start Date: 2015.07.10 @ 11:00:00

End Date: 2015.07.10 @ 18:33:00

Job Ticket #: 62720                      DST #: 2

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.13 @ 13:37:10

TDI  
29-8s-19w Rooks,KS  
Marcotte #1  
DST # 2  
Arbuckle  
2015.07.10



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

TDI  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

**29-8s-19w Rooks, KS**  
**Marcotte #1**  
Job Ticket: 62720 **DST#: 2**  
Test Start: 2015.07.10 @ 11:00:00

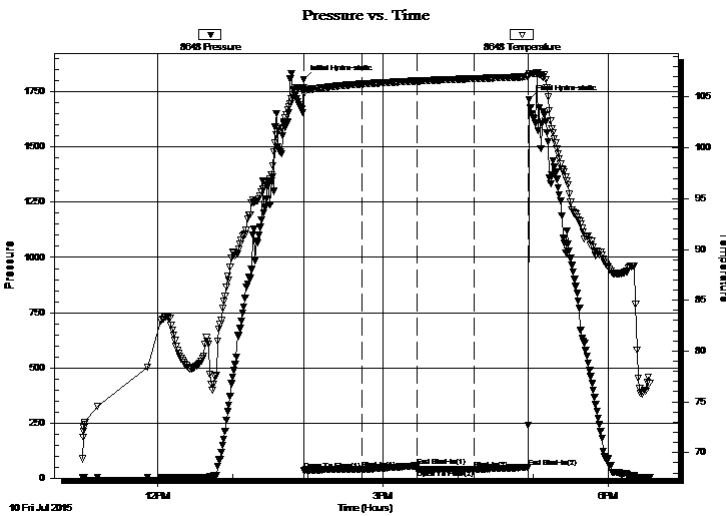
## GENERAL INFORMATION:

Formation: **Arbuckle**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 13:57:00  
Time Test Ended: 18:33:00  
Interval: **3454.00 ft (KB) To 3508.00 ft (KB) (TVD)**  
Total Depth: 3581.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 2044.00 ft (KB)  
2039.00 ft (CF)  
KB to GR/CF: 5.00 ft  
Test Type: Conventional Straddle (Reset)  
Tester: Cody Bloedorn  
Unit No: 73

**Serial #: 8648** **Inside**  
Press@RunDepth: 40.66 psig @ 3491.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.07.10 End Date: 2015.07.10 Last Calib.: 2015.07.10  
Start Time: 11:00:05 End Time: 18:32:59 Time On Btm: 2015.07.10 @ 13:56:45  
Time Off Btm: 2015.07.10 @ 16:56:45

TEST COMMENT: 45 - IF- 1/4" blow , died in 24 minutes  
45 - IS- No return  
45 - FF- Surged and died  
45 - FS- No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1805.81	105.92	Initial Hydro-static
1	35.96	105.33	Open To Flow (1)
46	39.37	106.28	Shut-In(1)
90	55.17	106.59	End Shut-In(1)
91	39.08	106.58	Open To Flow (2)
136	40.66	106.82	Shut-In(2)
179	48.46	107.01	End Shut-In(2)
180	1714.80	107.33	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud, 100%M	0.07

\* Recovery from multiple tests

## Gas Rates

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



# DRILL STEM TEST REPORT

TDI  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

**29-8s-19w Rooks, KS**  
**Marcotte #1**  
Job Ticket: 62720                      **DST#: 2**  
Test Start: 2015.07.10 @ 11:00:00

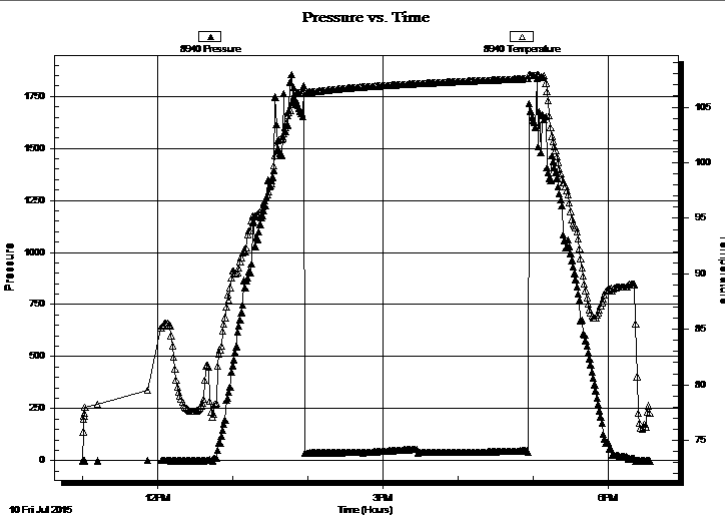
### GENERAL INFORMATION:

Formation: <b>Arbuckle</b>		
Deviated: No Whipstock:	ft (KB)	Test Type: Conventional Straddle (Reset)
Time Tool Opened: 13:57:00		Tester: Cody Bloedorn
Time Test Ended: 18:33:00		Unit No: 73
<b>Interval: 3454.00 ft (KB) To 3508.00 ft (KB) (TVD)</b>		Reference Elevations: 2044.00 ft (KB)
Total Depth: 3581.00 ft (KB) (TVD)		2039.00 ft (CF)
Hole Diameter: 7.88 inches	Hole Condition: Fair	KB to GR/CF: 5.00 ft

**Serial #: 8940                      Outside**

Press@RunDepth:	psig @ 3491.00 ft (KB)	Capacity:	8000.00 psig
Start Date:	2015.07.10                      End Date:	2015.07.10	Last Calib.: 2015.07.10
Start Time:	11:00:05                      End Time:	18:32:59	Time On Btm:
			Time Off Btm:

TEST COMMENT: 45 - IF- 1/4" blow , died in 24 minutes  
45 - IS- No return  
45 - FF- Surged and died  
45 - FS- No return



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud, 100%M	0.07

### Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

TDI  
1310 Bison Rd  
Hays KS 67601

ATTN: Herb Deines

**29-8s-19w Rooks, KS**

**Marcotte #1**

Job Ticket: 62720

**DST#: 2**

Test Start: 2015.07.10 @ 11:00:00

## GENERAL INFORMATION:

Formation: **Arbuckle**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 13:57:00

Time Test Ended: 18:33:00

Test Type: Conventional Straddle (Reset)

Tester: Cody Bloedorn

Unit No: 73

**Interval: 3454.00 ft (KB) To 3508.00 ft (KB) (TVD)**

Total Depth: 3581.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Fair

Reference Elevations: 2044.00 ft (KB)

2039.00 ft (CF)

KB to GR/CF: 5.00 ft

**Serial #: 8958 Below (Straddle)**

Press@RunDepth: psig @ 3572.00 ft (KB)

Start Date: 2015.07.10

End Date:

2015.07.10

Capacity: 8000.00 psig

Last Calib.:

2015.07.10

Start Time: 11:00:05

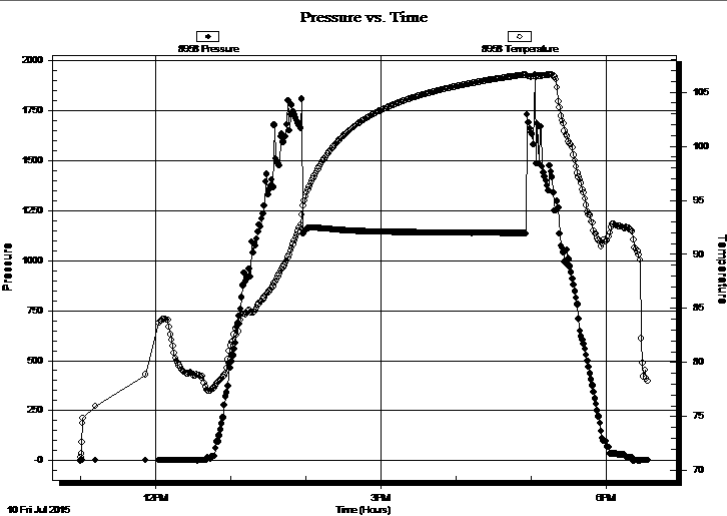
End Time:

18:32:59

Time On Btm:

Time Off Btm:

TEST COMMENT: 45 - IF- 1/4" blow , died in 24 minutes  
45 - IS- No return  
45 - FF- Surged and died  
45 - FS- No return



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
5.00	Mud, 100%M	0.07

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

TDI  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

**29-8s-19w Rooks,KS**  
**Marcotte #1**  
Job Ticket: 62720      **DST#: 2**  
Test Start: 2015.07.10 @ 11:00:00

**Tool Information**

Drill Pipe:	Length: 3460.00 ft	Diameter: 3.80 inches	Volume: 48.53 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 48.53 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	27.00 ft			String Weight: Initial	46000.00 lb
Depth to Top Packer:	3454.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	3504.00 ft				
Interval between Packers:	50.00 ft				
Tool Length:	148.00 ft				
Number of Packers:	2	Diameter: 6.75 inches			

Tool Comments:

<b>Tool Description</b>	<b>Length (ft)</b>	<b>Serial No.</b>	<b>Position</b>	<b>Depth (ft)</b>	<b>Accum. Lengths</b>
-------------------------	--------------------	-------------------	-----------------	-------------------	-----------------------

Change Over Sub	1.00			3434.00	
Shut In Tool	5.00			3439.00	
Hydraulic tool	5.00			3444.00	
Packer	5.00			3449.00	21.00      Bottom Of Top Packer
Packer	5.00			3454.00	
Stubb	1.00			3455.00	
Perforations	3.00			3458.00	
Change Over Sub	1.00			3459.00	
Drill Pipe	31.00			3490.00	
Change Over Sub	1.00			3491.00	
Recorder	0.00	8648	Inside	3491.00	
Recorder	0.00	8940	Outside	3491.00	
Perforations	12.00			3503.00	
Blank Off Sub	1.00			3504.00	50.00      Tool Interval
Packer	5.00			3509.00	
Change Over Sub	1.00			3510.00	
Drill Pipe	62.00			3572.00	
Recorder	0.00	8958	Below	3572.00	
Perforations	6.00			3578.00	
Bullnose	3.00			3581.00	77.00      Bottom Packers & Anchor

**Total Tool Length: 148.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

TDI **29-8s-19w Rooks,KS**  
 1310 Bison Rd **Marcotte #1**  
 Hays KS 67601 Job Ticket: 62720 **DST#: 2**  
 ATTN: Herb Deines Test Start: 2015.07.10 @ 11:00:00

### Mud and Cushion Information

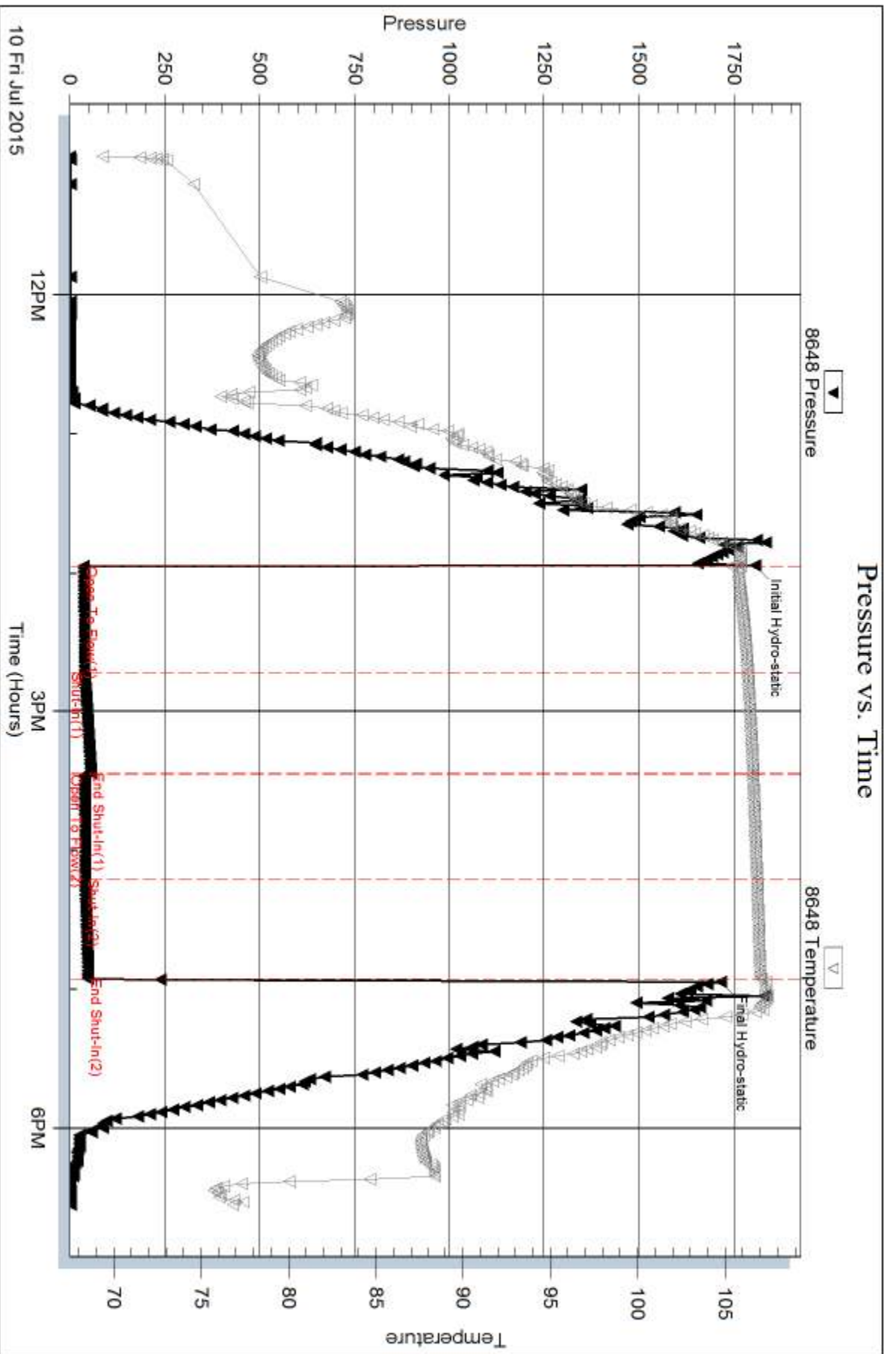
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.98 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
5.00	Mud, 100%M	0.070

Total Length: 5.00 ft      Total Volume: 0.070 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

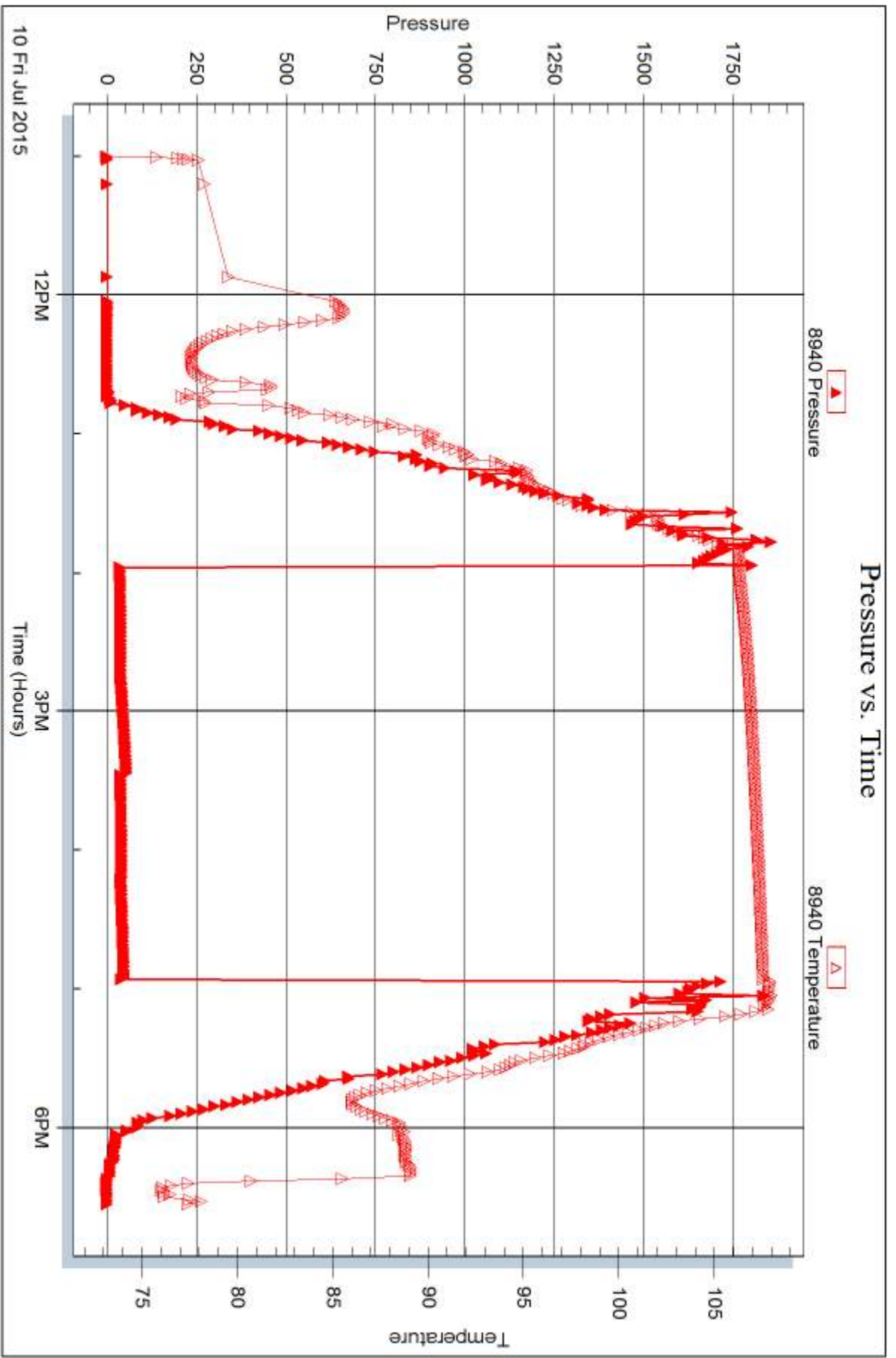


Serial #: 8940

Outside TDI

Marcotte #1

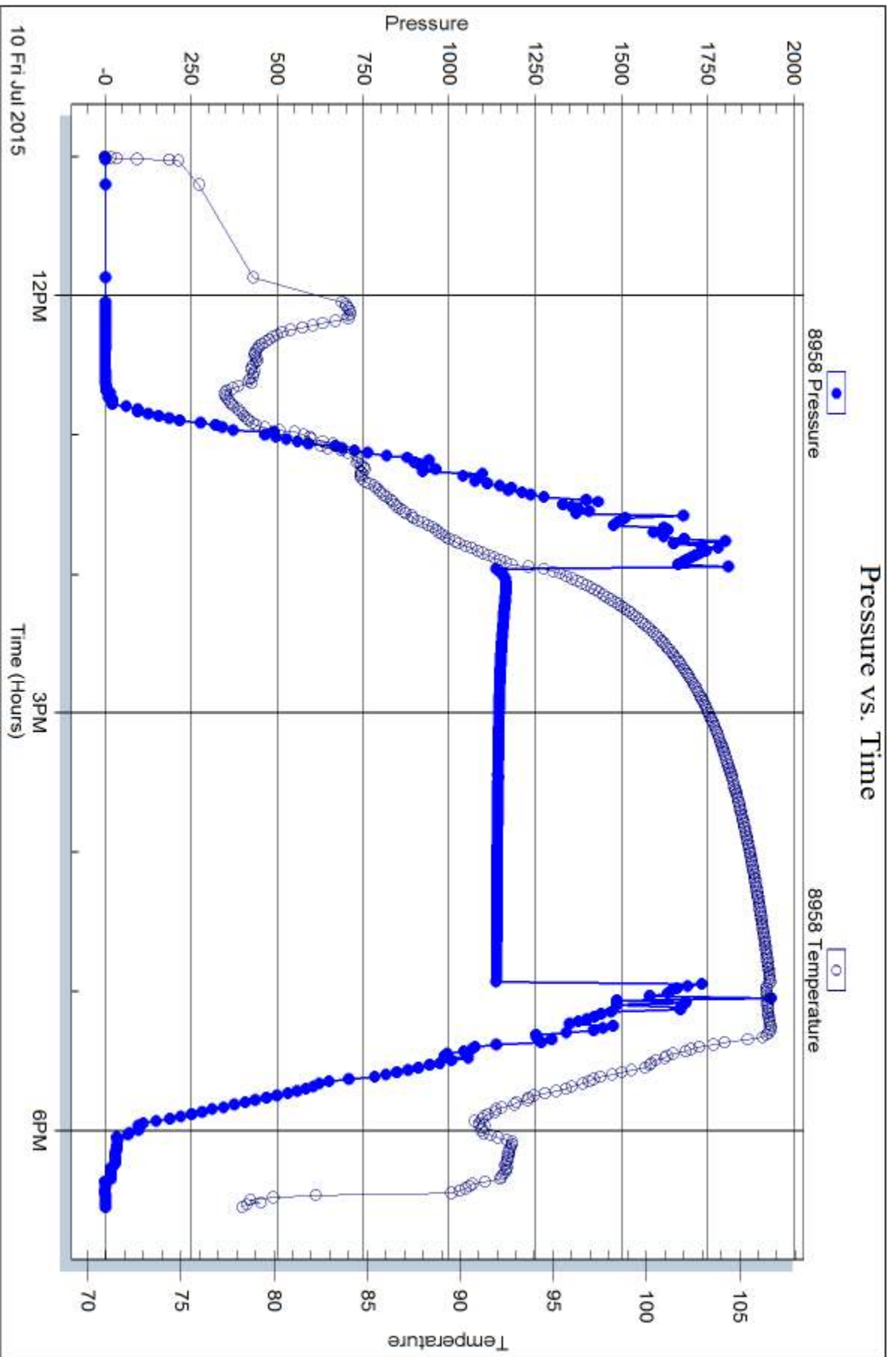
DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 62720

Printed: 2015.07.13 @ 13:37:12





## DRILL STEM TEST REPORT

Prepared For: **TDI**

1310 Bison Rd  
Hays KS 67601

ATTN: Herb Deines

### **Marcotte #1**

### **29-8s-19w Rooks,KS**

Start Date: 2015.07.10 @ 19:00:00

End Date: 2015.07.11 @ 01:17:30

Job Ticket #: 62721                      DST #: 3

Trilobite Testing, Inc  
1515 Commerce Parkway Hays, KS 67601  
ph: 785-625-4778 fax: 785-625-5620

Printed: 2015.07.13 @ 13:36:35

TDI 29-8s-19w Rooks,KS Marcotte #1 DST # 3 LKC "D" 2015.07.10



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

TDI  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

**29-8s-19w Rooks, KS**  
**Marcotte #1**  
Job Ticket: 62721 **DST#: 3**  
Test Start: 2015.07.10 @ 19:00:00

## GENERAL INFORMATION:

Formation: **LKC "D"**  
Deviated: No Whipstock: ft (KB)  
Time Tool Opened: 20:32:45  
Time Test Ended: 01:17:30  
Interval: **3296.00 ft (KB) To 3320.00 ft (KB) (TVD)**  
Total Depth: 3581.00 ft (KB) (TVD)  
Hole Diameter: 7.88 inches Hole Condition: Fair  
Reference Elevations: 2044.00 ft (KB)  
2039.00 ft (CF)  
KB to GR/CF: 5.00 ft  
Test Type: Conventional Straddle (Reset)  
Tester: Cody Bloedorn  
Unit No: 73

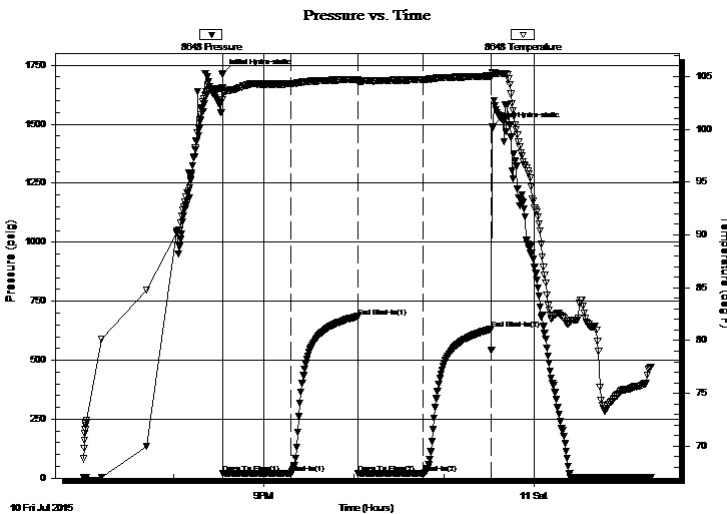
## Serial #: 8648

Inside

Press@RunDepth: 21.27 psig @ 3300.00 ft (KB) Capacity: 8000.00 psig  
Start Date: 2015.07.10 End Date: 2015.07.11 Last Calib.: 2015.07.11  
Start Time: 19:00:05 End Time: 01:17:29 Time On Btm: 2015.07.10 @ 20:32:30  
Time Off Btm: 2015.07.10 @ 23:31:45

TEST COMMENT: 45 - IF- 1/2" blow , surging in and out throughout blow  
45 - IS- No return  
45 - FF- Surged and died  
45 - FS- No return

## PRESSURE SUMMARY



Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	1713.36	103.90	Initial Hydro-static
1	20.10	102.79	Open To Flow (1)
46	20.36	104.30	Shut-In(1)
90	684.57	104.73	End Shut-In(1)
91	21.51	104.50	Open To Flow (2)
134	21.27	104.70	Shut-In(2)
179	631.61	105.04	End Shut-In(2)
180	1489.22	105.38	Final Hydro-static

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud - Oil spots, 100%M	0.21

## Gas Rates

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

\* Recovery from multiple tests





**TRILOBITE TESTING, INC.**

## DRILL STEM TEST REPORT

<b>TDI</b>	<b>29-8s-19w Rooks,KS</b>
1310 Bison Rd Hays KS 67601	<b>Marcotte #1</b>
ATTN: Herb Deines	Job Ticket: 62721 <b>DST#: 3</b>
	Test Start: 2015.07.10 @ 19:00:00

### GENERAL INFORMATION:

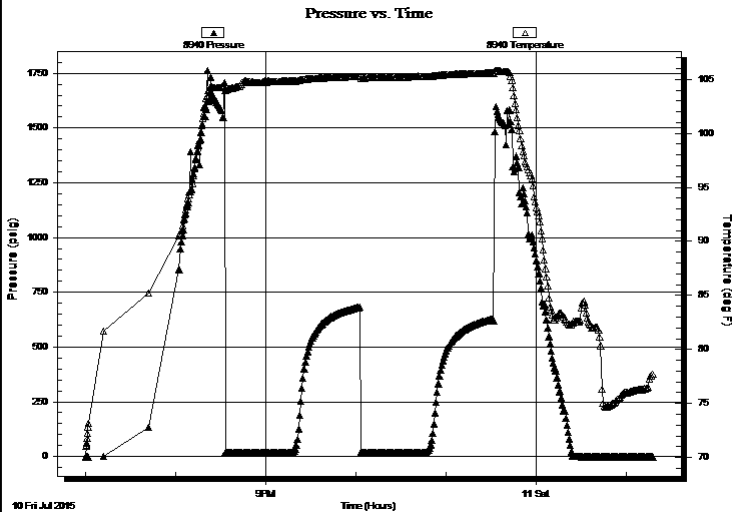
<b>Formation:</b>	<b>LKC "D"</b>				
<b>Deviated:</b>	No	<b>Whipstock:</b>		<b>ft (KB)</b>	
<b>Time Tool Opened:</b>	20:32:45			<b>Test Type:</b>	Conventional Straddle (Reset)
<b>Time Test Ended:</b>	01:17:30			<b>Tester:</b>	Cody Bloedorn
				<b>Unit No:</b>	73
<b>Interval:</b>	<b>3296.00 ft (KB) To</b>	<b>3320.00 ft (KB) (TVD)</b>		<b>Reference Elevations:</b>	2044.00 ft (KB)
<b>Total Depth:</b>	3581.00 ft (KB) (TVD)				2039.00 ft (CF)
<b>Hole Diameter:</b>	7.88 inches	<b>Hole Condition:</b>	Fair	<b>KB to GR/CF:</b>	5.00 ft

**Serial #: 8940**

**Outside**

<b>Press@RunDepth:</b>	psig @	3300.00 ft (KB)	<b>Capacity:</b>	8000.00 psig	
<b>Start Date:</b>	2015.07.10	<b>End Date:</b>	2015.07.11	<b>Last Calib.:</b>	2015.07.11
<b>Start Time:</b>	19:00:05	<b>End Time:</b>	01:17:29	<b>Time On Btm:</b>	
				<b>Time Off Btm:</b>	

**TEST COMMENT:** 45 - IF- 1/2" blow , surging in and out throughout blow  
 45 - IS- No return  
 45 - FF- Surged and died  
 45 - FS- No return



### PRESSURE SUMMARY

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

### Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud - Oil spots, 100%M	0.21

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

TDI  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

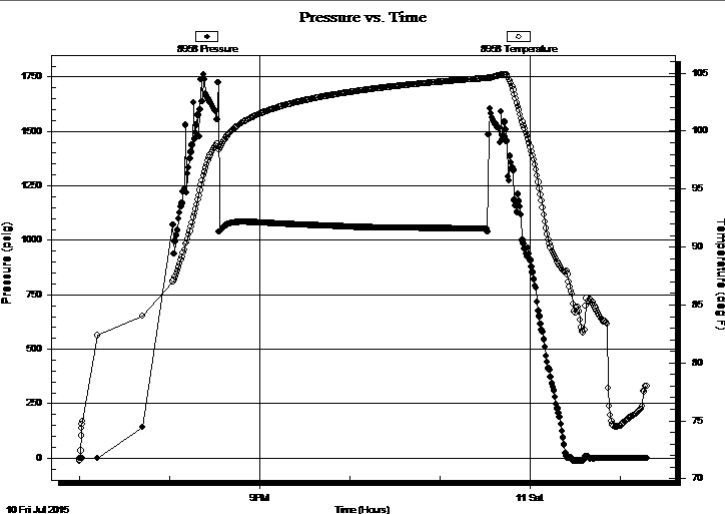
**29-8s-19w Rooks, KS**  
**Marcotte #1**  
Job Ticket: 62721 **DST#: 3**  
Test Start: 2015.07.10 @ 19:00:00

## GENERAL INFORMATION:

Formation: **LKC "D"**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 20:32:45  
 Time Test Ended: 01:17:30  
 Interval: **3296.00 ft (KB) To 3320.00 ft (KB) (TVD)**  
 Total Depth: 3581.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Fair  
 Test Type: Conventional Straddle (Reset)  
 Tester: Cody Bloedorn  
 Unit No: 73  
 Reference Elevations: 2044.00 ft (KB)  
 2039.00 ft (CF)  
 KB to GR/CF: 5.00 ft

**Serial #: 8958 Below (Straddle)**  
 Press@RunDepth: psig @ 3577.00 ft (KB) Capacity: 8000.00 psig  
 Start Date: 2015.07.10 End Date: 2015.07.11 Last Calib.: 2015.07.11  
 Start Time: 19:00:05 End Time: 01:17:29 Time On Btm:  
 Time Off Btm:

TEST COMMENT: 45 - IF- 1/2" blow , surging in and out throughout blow  
 45 - IS- No return  
 45 - FF- Surged and died  
 45 - FS- No return



## PRESSURE SUMMARY

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

## Recovery

Length (ft)	Description	Volume (bbl)
15.00	Mud - Oil spots, 100%M	0.21

## Gas Rates

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

\* Recovery from multiple tests



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**TOOL DIAGRAM**

TDI  
1310 Bison Rd  
Hays KS 67601  
ATTN: Herb Deines

**29-8s-19w Rooks,KS**  
**Marcotte #1**  
Job Ticket: 62721      **DST#: 3**  
Test Start: 2015.07.10 @ 19:00:00

**Tool Information**

Drill Pipe:	Length: 3303.00 ft	Diameter: 3.80 inches	Volume: 46.33 bbl	Tool Weight:	2000.00 lb
Heavy Wt. Pipe:	Length: 0.00 ft	Diameter: 0.00 inches	Volume: 0.00 bbl	Weight set on Packer:	30000.00 lb
Drill Collar:	Length: 0.00 ft	Diameter: 2.25 inches	Volume: 0.00 bbl	Weight to Pull Loose:	50000.00 lb
			<u>Total Volume: 46.33 bbl</u>	Tool Chased	0.00 ft
Drill Pipe Above KB:	28.00 ft			String Weight: Initial	46000.00 lb
Depth to Top Packer:	3296.00 ft			Final	46000.00 lb
Depth to Bottom Packer:	3320.00 ft				
Interval between Packers:	24.00 ft				
Tool Length:	311.00 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			3276.00	
Shut In Tool	5.00			3281.00	
Hydraulic tool	5.00			3286.00	
Packer	5.00			3291.00	21.00      Bottom Of Top Packer
Packer	5.00			3296.00	
Stubb	1.00			3297.00	
Perforations	3.00			3300.00	
Recorder	0.00	8648	Inside	3300.00	
Recorder	0.00	8940	Outside	3300.00	
Perforations	19.00			3319.00	
Blank Off Sub	1.00			3320.00	24.00      Tool Interval
Packer	5.00			3325.00	
Change Over Sub	1.00			3326.00	
Drill Pipe	250.00			3576.00	
Change Over Sub	1.00			3577.00	
Recorder	0.00	8958	Below	3577.00	
Perforations	6.00			3583.00	
Bullnose	3.00			3586.00	266.00      Bottom Packers & Anchor

**Total Tool Length: 311.00**



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

## FLUID SUMMARY

TDI **29-8s-19w Rooks,KS**  
 1310 Bison Rd **Marcotte #1**  
 Hays KS 67601 Job Ticket: 62721 **DST#: 3**  
 ATTN: Herb Deines Test Start: 2015.07.10 @ 19:00:00

### Mud and Cushion Information

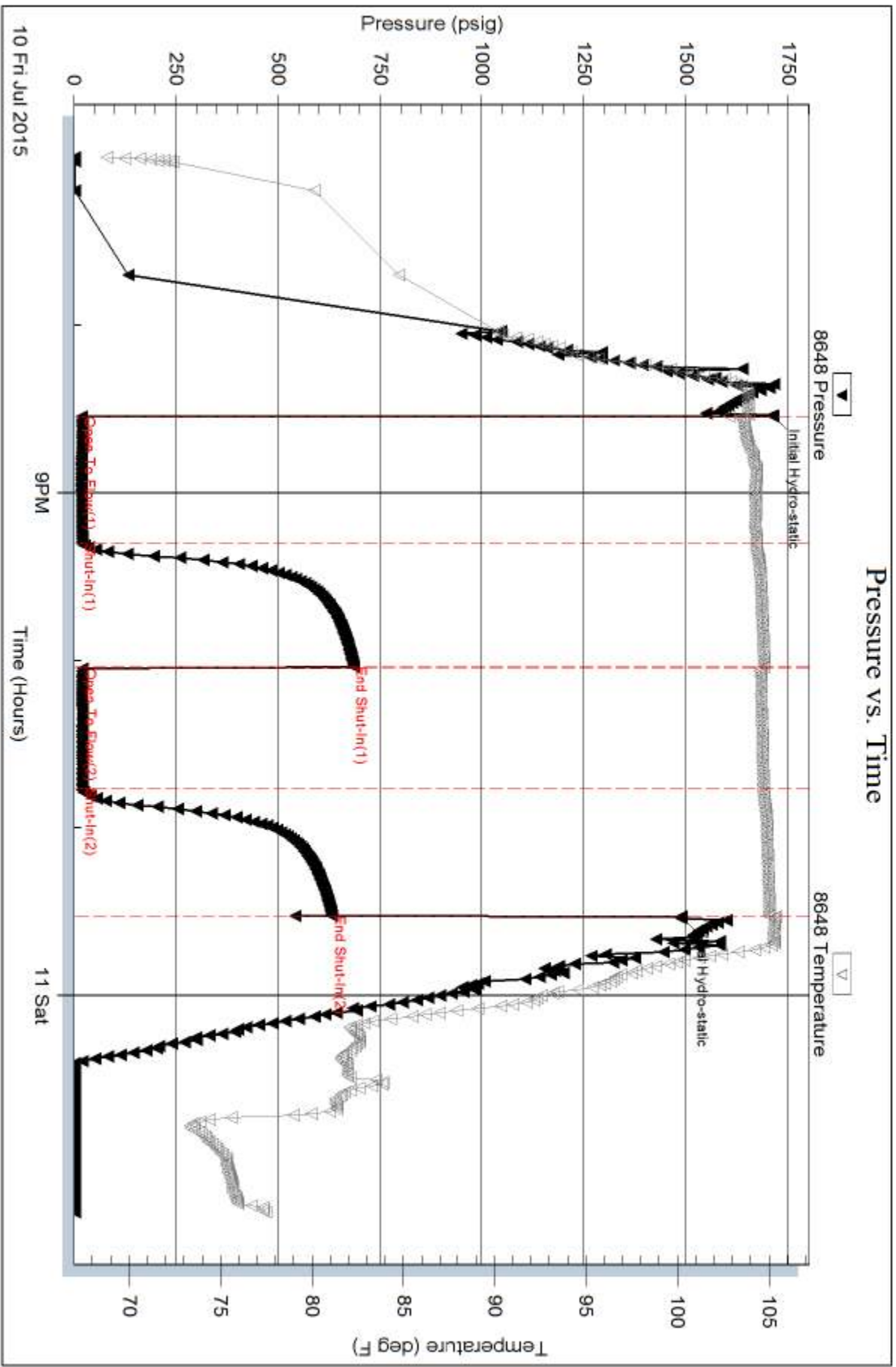
Mud Type: Gel Chem	Cushion Type:	Oil API:	deg API
Mud Weight: 9.00 lb/gal	Cushion Length: ft	Water Salinity:	ppm
Viscosity: 51.00 sec/qt	Cushion Volume: bbl		
Water Loss: 7.99 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: ohm.m	Gas Cushion Pressure: psig		
Salinity: 1500.00 ppm			
Filter Cake: 1.00 inches			

### Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud - Oil spots, 100%M	0.210

Total Length: 15.00 ft      Total Volume: 0.210 bbl  
 Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
 Laboratory Name:      Laboratory Location:  
 Recovery Comments:

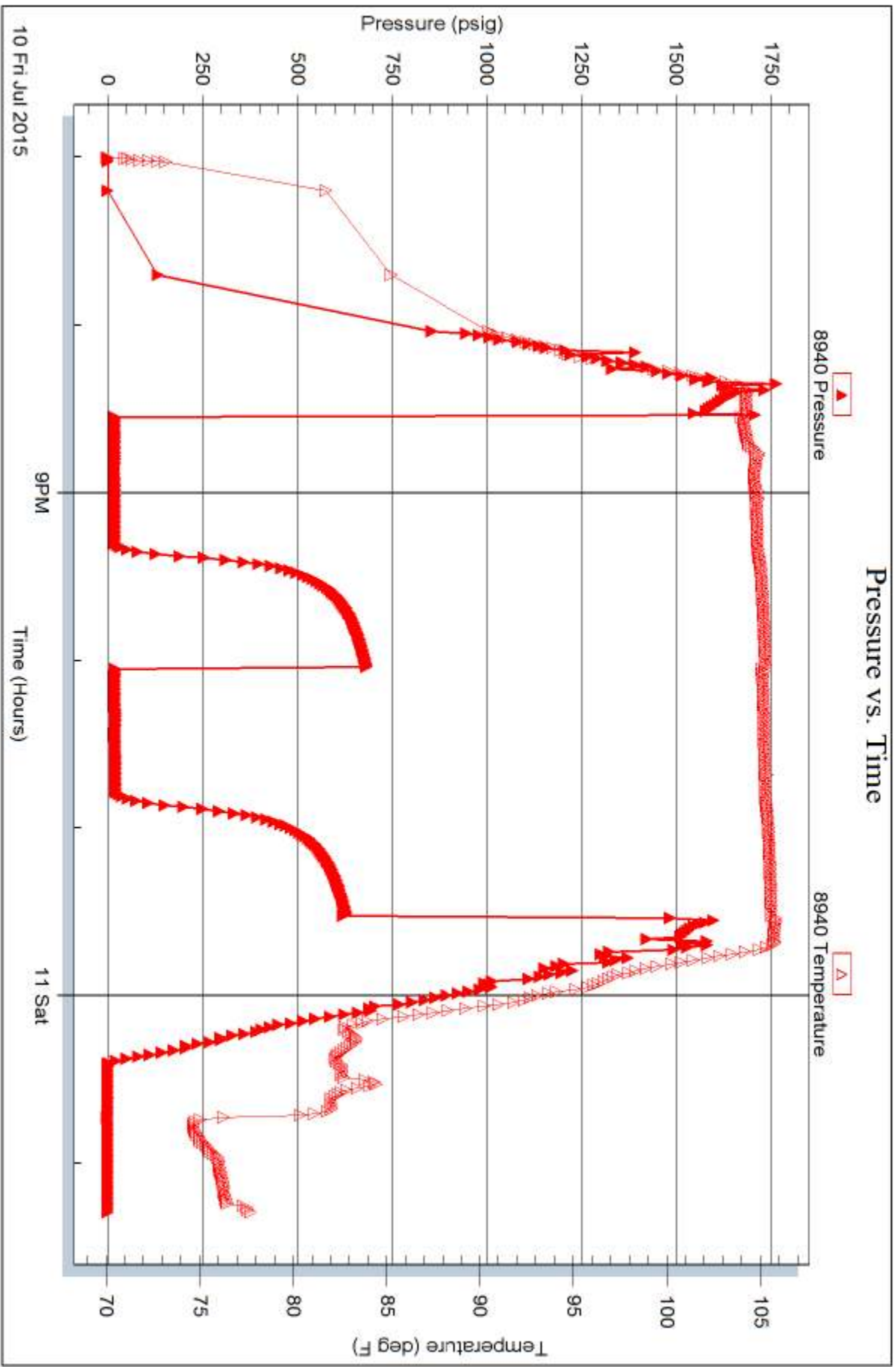


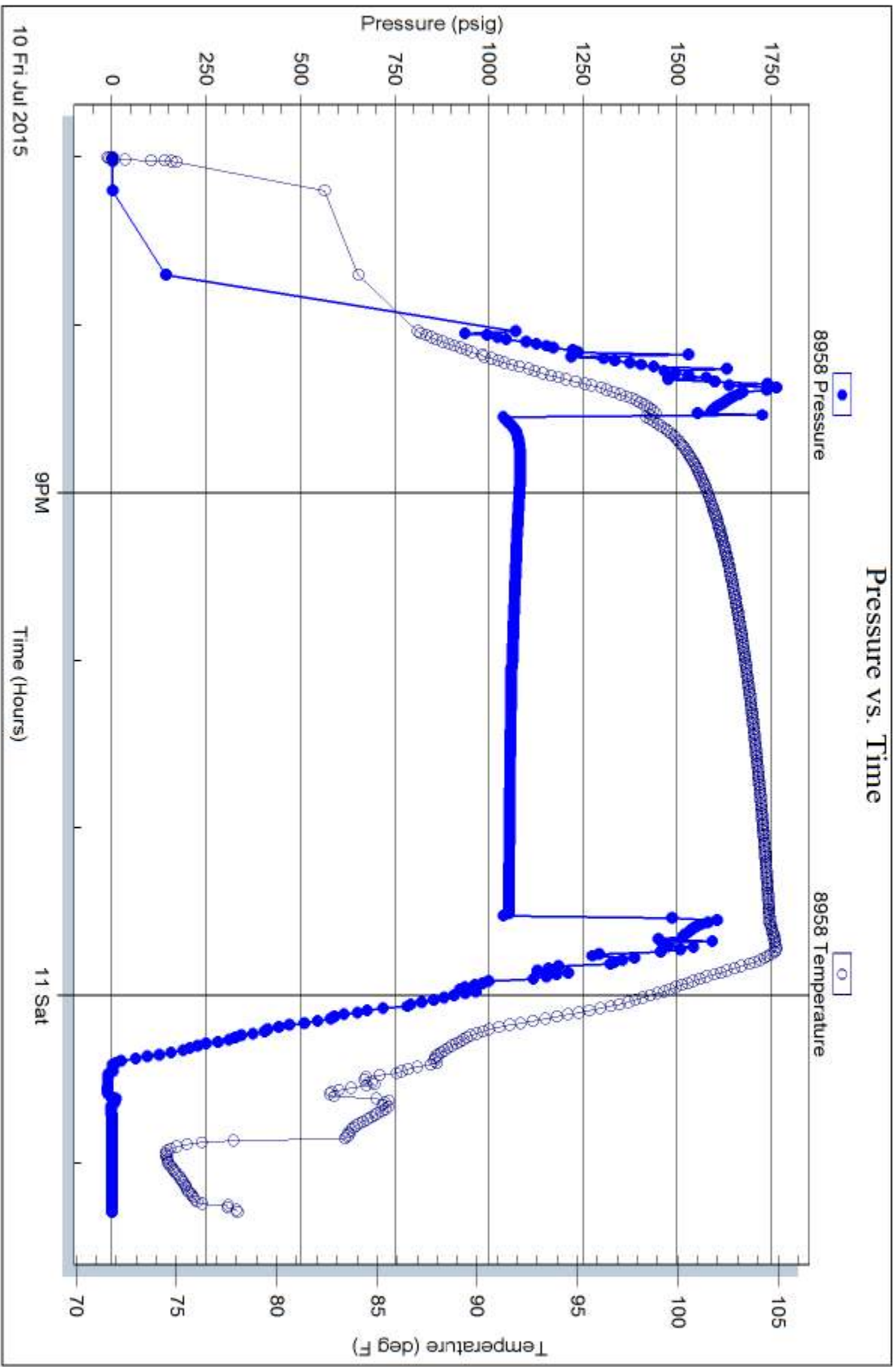
Serial #: 8940

Outside TDI

Marcotte #1

DST Test Number: 3









# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62719

Well Name & No. Marcotte #1 Test No. 1 Date 07-09-15  
 Company TDI Elevation 2039 KB 2044 GL  
 Address 1310 Bison Rd, Hays KS, 67601  
 Co. Rep / Geo. Herb Deines Rig Southwind Rig 1  
 Location: Sec. 29 Twp. 8s Rge. 19w Co. Rooks State KS

Interval Tested 3395-3445 Zone Tested LKC I-J  
 Anchor Length 50' Drill Pipe Run 3395' Mud Wt. 9.4  
 Top Packer Depth 3390 Drill Collars Run — Vis 55  
 Bottom Packer Depth 3395 Wt. Pipe Run — WL 7.2  
 Total Depth 3445 Chlorides 1200 ppm System LCM 1

Blow Description IF - Surged & died  
ISI - No return  
FF - surged & died flushed tool @ 10 minutes. surged & died. Pulled tool @ 20 minutes  
F&I -

Rec	Feet of	%gas	%oil	%water	%mud
<u>3</u>	<u>Mud</u>			<u>100</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

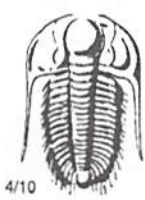
Rec Total 3' BHT \_\_\_\_\_ Gravity \_\_\_\_\_ API RW \_\_\_\_\_ @ \_\_\_\_\_ °F Chlorides \_\_\_\_\_ ppm

(A) Initial Hydrostatic 1710  Test 1050 T-On Location 0932  
 (B) First Initial Flow 32  Jars \_\_\_\_\_ T-Started 0953  
 (C) First Final Flow 32  Safety Joint \_\_\_\_\_ T-Open 1333  
 (D) Initial Shut-In 62  Circ Sub \_\_\_\_\_ T-Pulled 1520  
 (E) Second Initial Flow 35  Hourly Standby \_\_\_\_\_ T-Out 1706  
 (F) Second Final Flow 34  Mileage 91 RT 84 Comments Suppose to be on  
 (G) Final Shut-In —  Sampler \_\_\_\_\_ bank @ 10:30am on bank  
 (H) Final Hydrostatic 1689  Straddle \_\_\_\_\_ @ 11:45  
 Ruined Shale Packer \_\_\_\_\_  
 Ruined Packer \_\_\_\_\_  
 Extra Copies \_\_\_\_\_  
 Initial Open 30  Extra Packer \_\_\_\_\_  
 Initial Shut-In 45  Extra Recorder \_\_\_\_\_  
 Final Flow 20  Day Standby \_\_\_\_\_  
 Final Shut-In \_\_\_\_\_  Accessibility \_\_\_\_\_  
 Sub Total 1134

Approved By \_\_\_\_\_ Our Representative Cody B...

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. 62720

Well Name & No. Marcotte #1 Test No. 2 Date 7-10-15  
 Company TDI Elevation 2039 KB 2044 GL  
 Address 1310 Bison Rd. Hays KS, 67601  
 Co. Rep / Geo. Arb Deines Rig Southwind Rig 1  
 Location: Sec. 29 Twp. 8s Rge. 9w Co. Rooks State KS

Interval Tested 3454-3508 3581TD Zone Tested Arbuckle  
 Anchor Length 54' anchor 73' tail Drill Pipe Run 3460' Mud Wt. 9.4  
 Top Packer Depth 3449 Drill Collars Run — Vis 51  
 Bottom Packer Depth 3454 Wt. Pipe Run — WL 8.0  
 Total Depth 3508 Chlorides 1500 ppm System LCM 1  
 Blow Description IF - 1/4" blow. died in 24 minutes  
ISI - No return  
FF - surged & died  
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>5</u>	<u>Mud</u>			<u>100</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 5' BHT 107° Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic <u>1805</u>	<input checked="" type="checkbox"/> Test <u>1050</u>	T-On Location <u>1033</u>
(B) First Initial Flow <u>35</u>	<input type="checkbox"/> Jars	T-Started <u>1100</u>
(C) First Final Flow <u>39</u>	<input type="checkbox"/> Safety Joint	T-Open <u>1358</u>
(D) Initial Shut-In <u>55</u>	<input type="checkbox"/> Circ Sub	T-Pulled <u>1658</u>
(E) Second Initial Flow <u>39</u>	<input type="checkbox"/> Hourly Standby	T-Out <u>1833</u>
(F) Second Final Flow <u>40</u>	<input checked="" type="checkbox"/> Mileage <u>91RT</u> 84	Comments
(G) Final Shut-In <u>48</u>	<input type="checkbox"/> Sampler	
(H) Final Hydrostatic <u>1714</u>	<input checked="" type="checkbox"/> Straddle <u>600</u>	<input type="checkbox"/> Ruined Shale Packer
Initial Open <u>45</u>	<input type="checkbox"/> Shale Packer	<input type="checkbox"/> Ruined Packer
Initial Shut-In <u>45</u>	<input type="checkbox"/> Extra Packer	<input type="checkbox"/> Extra Copies
Final Flow <u>45</u>	<input type="checkbox"/> Extra Recorder	Sub Total <u>0</u>
Final Shut-In <u>45</u>	<input type="checkbox"/> Day Standby	Total <u>1734</u>
	<input type="checkbox"/> Accessibility	MP/DST Disc't
	Sub Total <u>1734</u>	

Approved By \_\_\_\_\_ Our Representative Cody [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.



# TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

## Test Ticket

NO. 62721

Well Name & No. MarCotte #1 Test No. 3 Date 7-10-15  
 Company TDI Elevation 2039 KB 2044 GL  
 Address 1310 Bison Rd, Hays ks, 67601  
 Co. Rep / Geo. Herb Deines Rig Southwind I  
 Location: Sec. 29 Twp. 8s Rge. 19w Co. Rooks State KS

Interval Tested 3296-3320 261' fail Zone Tested LKC "D"  
 Anchor Length 24' TD 3581 Drill Pipe Run 3303' Mud Wt. 9.4  
 Top Packer Depth 3291 Drill Collars Run — Vis 51  
 Bottom Packer Depth 3296 Wt. Pipe Run — WL 8.0  
 Total Depth 3320 Chlorides 1500 ppm System LCM 1  
 Blow Description IF - 1/2" blow, surging in & out throughout blow  
ISI - No return  
FF - Surged & died  
FSI - No return

Rec	Feet of	%gas	%oil	%water	%mud
<u>15</u>	<u>Mud-oil spots</u>			<u>100</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 15' BHT 1050 Gravity — API RW — @ — °F Chlorides — ppm

(A) Initial Hydrostatic 1713  Test 1050 T-On Location 18:45  
 (B) First Initial Flow 20  Jars — T-Started 19:00  
 (C) First Final Flow 20  Safety Joint — T-Open 20:33  
 (D) Initial Shut-In 684  Circ Sub — T-Pulled 23:33  
 (E) Second Initial Flow 21  Hourly Standby — T-Out 01:18  
 (F) Second Final Flow 21  Mileage 91RT 84 Comments —  
 (G) Final Shut-In 631  Sampler —  
 (H) Final Hydrostatic 1489  Straddle 600  
 Shale Packer —  
 Shale Packer —  
 Extra Packer —  
 Extra Recorder —  
 Day Standby —  
 Accessibility —  
 Sub Total 1734

Initial Open 45  
 Initial Shut-In 45  
 Final Flow 45  
 Final Shut-In 45

Sub Total 0  
 Total 1734  
 MP/DST Disc't —

Approved By \_\_\_\_\_ Our Representative Cody [Signature] 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.