



Confidentiality Requested:

Yes  No

KANSAS CORPORATION COMMISSION 1208733  
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: \_\_\_\_\_

1208733

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

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

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

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

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

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

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

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

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

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

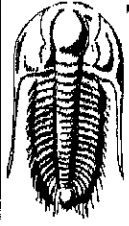
<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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Form	ACO1 - Well Completion
Operator	Trek AEC, LLC
Well Name	Clifford 2
Doc ID	1208733

Tops

Name	Top	Datum
Anhydrite	1854	-570
Topeka	3220	-797
Heebner	3599	-1176
Lansing	3636	-1213
Base/KC	3941	-1518
Cherokee	4171	-1748
Mississippian	4243	-1820
RTD	4334	
LTD	4331	





**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Trek AEC, LLC

**10-15s-27w Gove co.**

155 N. Market STE 710  
Wichita, KS 67202

**Clifford #2**

Job Ticket: 57073

**DST#: 1**

ATTN: Aaron Young

Test Start: 2014.05.25 @ 23:45:00

**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: 56.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.00 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2600.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
1575.00	Mud 100m	21.046

Total Length: 1575.00 ft      Total Volume: 21.046 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Hole in pipe MIS-RUN

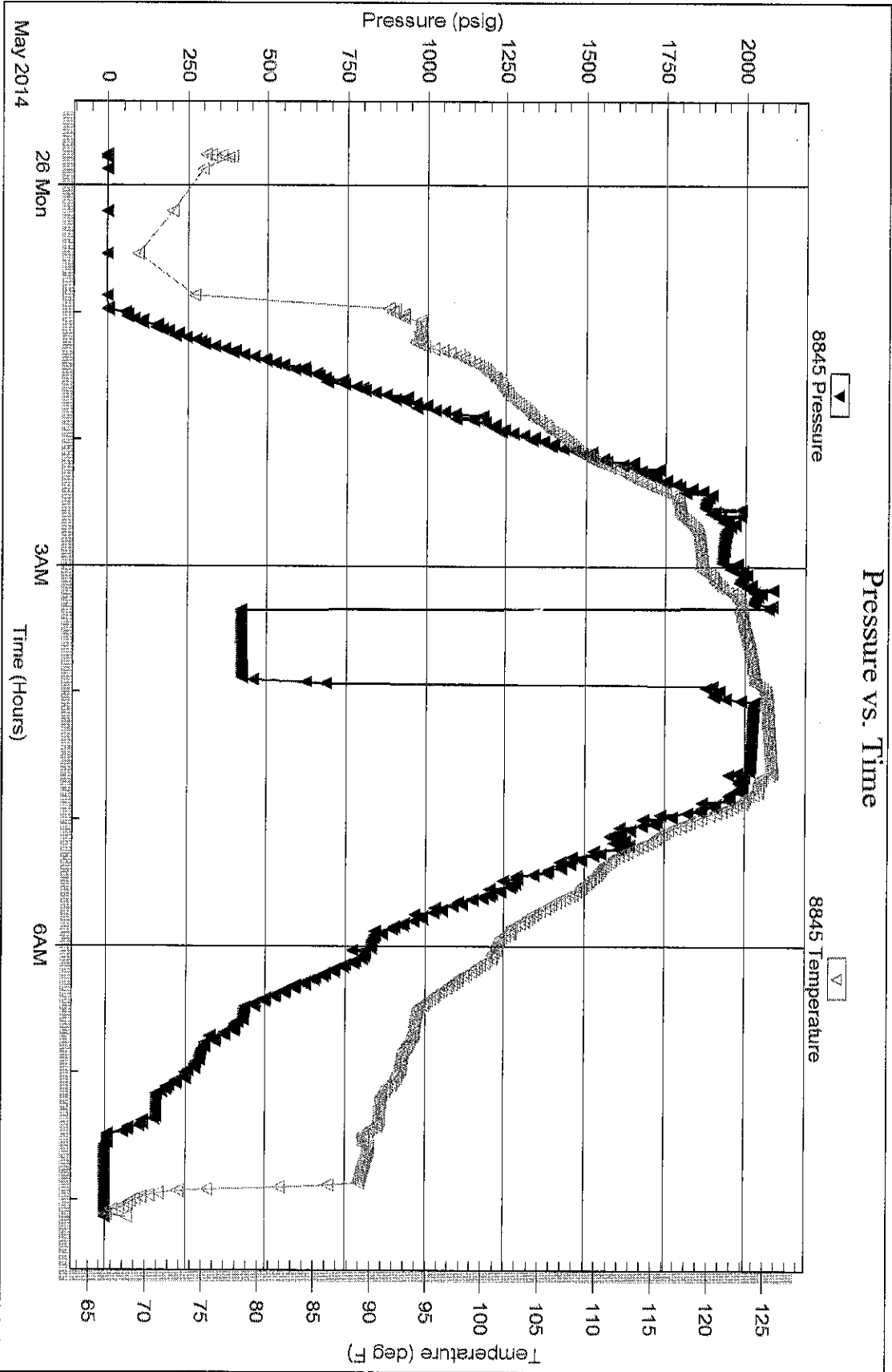
Serial #: 8845

Inside

Trek AEC, LLC

Clifford #2

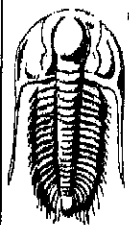
DST Test Number: 1



Tribble Testing, Inc

Ref. No: 57073

Printed: 2014.05.26 @ 10:50:10



**TRILOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

Trek AEC, LLC  
155 N. Market STE 710  
Wichita, KS 67202  
ATTN: Aaron Young

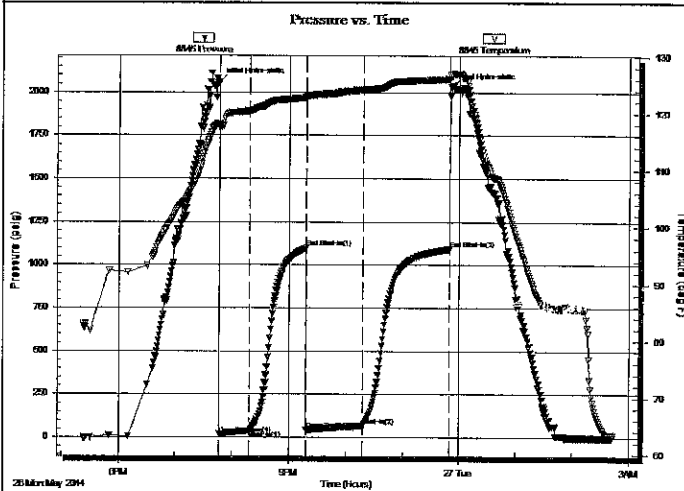
**10-15s-27w Gove co.**  
**Clifford #2**  
Job Ticket: 57074      **DST#: 2**  
Test Start: 2014.05.26 @ 17:23:00

### GENERAL INFORMATION:

Formation: **Ft. Scott- Cherokee**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 19:46:00  
 Time Test Ended: 02:42:00  
 Interval: **4122.00 ft (KB) To 4211.00 ft (KB) (TVD)**  
 Total Depth: 4211.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Bottom Hole (Reset)  
 Tester: Samuel Esparza  
 Unit No: 71  
 Reference Elevations: 2425.00 ft (KB)  
 2417.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8845**      **Inside**  
 Press@RunDepth: 65.23 psig @ 4123.00 ft (KB)      Capacity: 8000.00 psig  
 Start Date: 2014.05.26      End Date: 2014.05.27      Last Calib.: 2014.05.27  
 Start Time: 17:23:05      End Time: 02:42:00      Time On Btm: 2014.05.26 @ 19:45:45  
 Time Off Btm: 2014.05.26 @ 23:51:30

TEST COMMENT: IF: 4" Blow.  
 IS: No Return.  
 FF: 10 1/2" Blow.  
 FS: No Return.



### PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2058.90	118.08	Initial Hydro-static
1	18.98	117.45	Open To Flow (1)
33	38.19	120.42	Shut-In(1)
92	1098.18	122.76	End Shut-In(1)
93	42.76	122.60	Open To Flow (2)
152	65.23	124.16	Shut-In(2)
245	1093.91	126.05	End Shut-In(2)
246	2029.04	126.43	Final Hydro-static

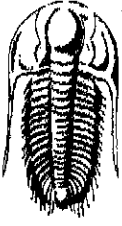
### Recovery

Length (ft)	Description	Volume (bbl)
120.00	GOCM 20g 10o 70m	0.64
0.00	180' GIP	0.00

\* Recovery from multiple tests

### Gas Rates

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



**TRILOBITE  
TESTING, INC.**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Trek AEC, LLC

**10-15s-27w Gove co.**

155 N. Market STE 710  
Wichita, KS 67202

**Clifford #2**

Job Ticket: 57074

**DST#: 2**

ATTN: Aaron Young

Test Start: 2014.05.26 @ 17:23:00

**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: 54.00 sec/qt

Cushion Volume:

bbbl

Water Loss: 7.20 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 2700.00 ppm

Filter Cake: 1.00 inches

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
120.00	GOCM 20g 10o 70m	0.636
0.00	180' GIP	0.000

Total Length: 120.00 ft      Total Volume: 0.636 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:



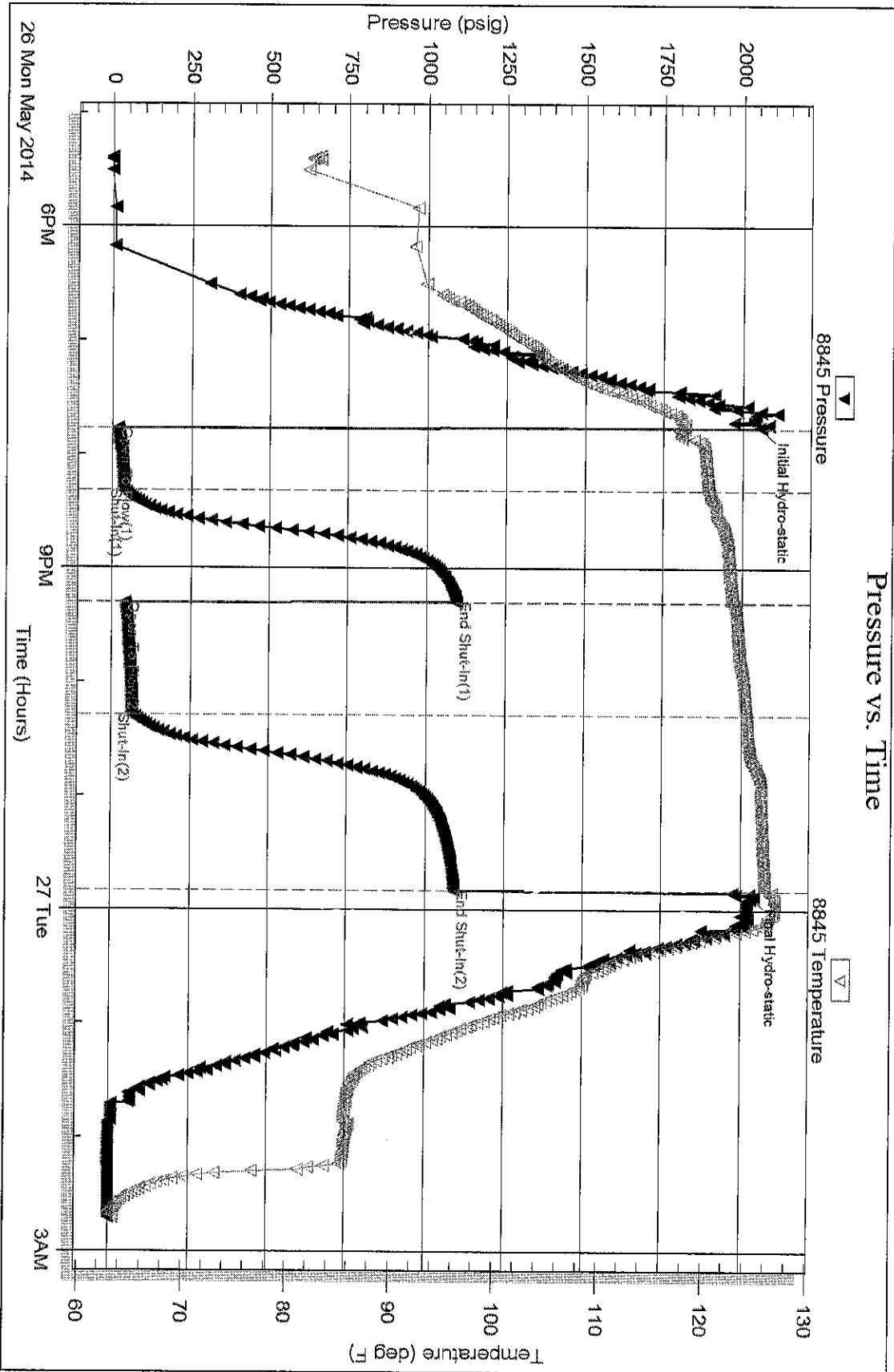
Serial #: 8845

Inside

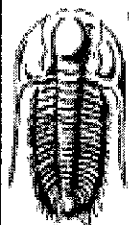
Trek AEC, LLC

Clifford #2

DST Test Number: 2







**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

**FLUID SUMMARY**

Trek AEC, LLC

**10-15s-27w Gove co.**

155 N. Market STE 710  
Wichita, KS 67202

**Clifford #2**

Job Ticket: 57075

**DST#: 3**

ATTN: Aaron Young

Test Start: 2014.05.27 @ 13:29:00

## 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: 7.60 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3200.00 ppm			
Filter Cake: 1.00 inches			

## Recovery Information

Recovery Table

Length ft	Description	Volume bbl
15.00	Mud 100m	0.074

Total Length: 15.00 ft      Total Volume: 0.074 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

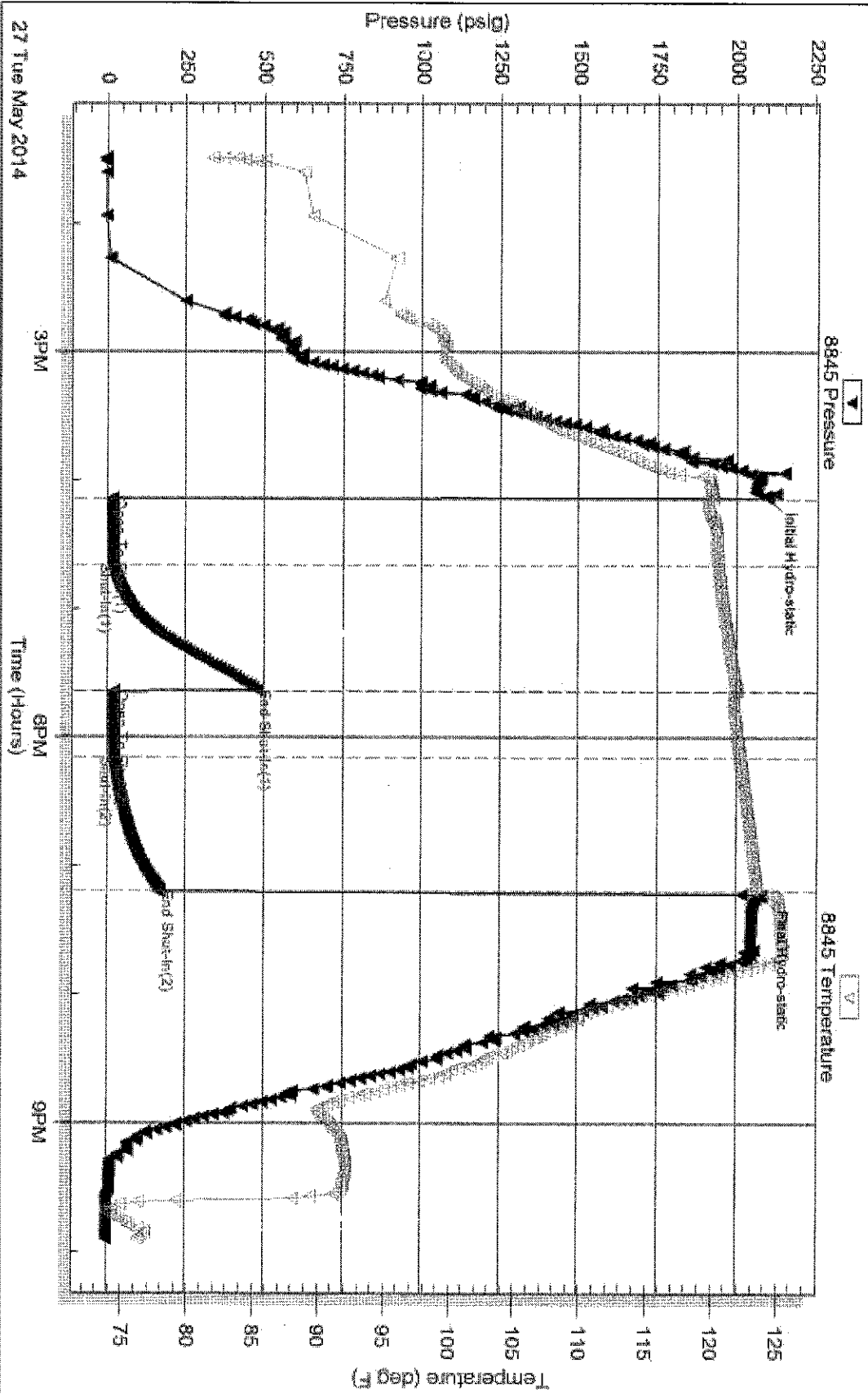
Serial #: 8845

Inside TRAK AEC, LLC

Clifford #2

DST Test Number: 3

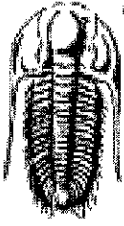
### Pressure vs. Time



Triacetic Testing, Inc

Ref. No: 57075

Printed: 2014.05.28 @ 08:00:32



**TRILOBITE  
TESTING, INC**

# DRILL STEM TEST REPORT

Trek AEC, LLC

**10-15s-27w Gove co.**

155 N. Market STE 710  
Wichita, KS 67202

**Clifford #2**

Job Ticket: 57326

**DST#: 4**

ATTN: Aaron Young

Test Start: 2014.05.28 @ 15:36:00

## GENERAL INFORMATION:

Formation: **Miss**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 18:04:30

Time Test Ended: 01:43:00

Test Type: Conventional Straddle (Reset)

Tester: Samuel Esparza

Unit No: 71

Interval: **4246.00 ft (KB) To 4265.00 ft (KB) (TVD)**

Total Depth: 4334.00 ft (KB) (TVD)

Hole Diameter: 7.88 inches Hole Condition: Good

Reference Elevations: 2425.00 ft (KB)

2417.00 ft (CF)

KB to GR/CF: 8.00 ft

**Serial #: 8845** Inside

Press@RunDepth: 1208.24 psig @ 4247.00 ft (KB)

Start Date: 2014.05.28

End Date:

2014.05.29

Capacity: 8000.00 psig

Last Calib.: 2014.05.29

Start Time: 15:36:05

End Time:

01:43:00

Time On Btm: 2014.05.28 @ 18:00:30

Time Off Btm: 2014.05.28 @ 21:07:30

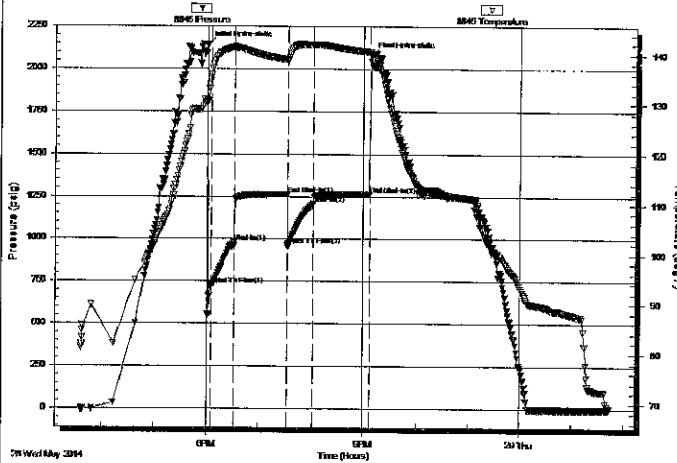
TEST COMMENT: IF: BOB @ 1 min.

IS: No Return.

FF: BOB @ 2 in.

FSI: No Return.

Pressure vs. Time



PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2140.28	130.76	Initial Hydro-static
4	731.10	135.45	Open To Flow (1)
31	977.81	141.50	Shut-In (1)
93	1262.76	138.93	End Shut-In (1)
93	961.24	138.76	Open To Flow (2)
122	1208.24	142.03	Shut-In (2)
186	1263.36	140.52	End Shut-In (2)
187	2076.14	140.50	Final Hydro-static

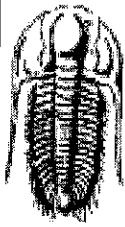
Recovery

Length (ft)	Description	Volume (bbl)
2820.00	MW 10m 90w	38.51

\* Recovery from multiple tests

Gas Rates

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



**TRILOBITE TESTING, INC**

# DRILL STEM TEST REPORT

Trek AEC, LLC  
 155 N. Market STE 710  
 Wichita, KS 67202  
 ATTN: Aaron Young

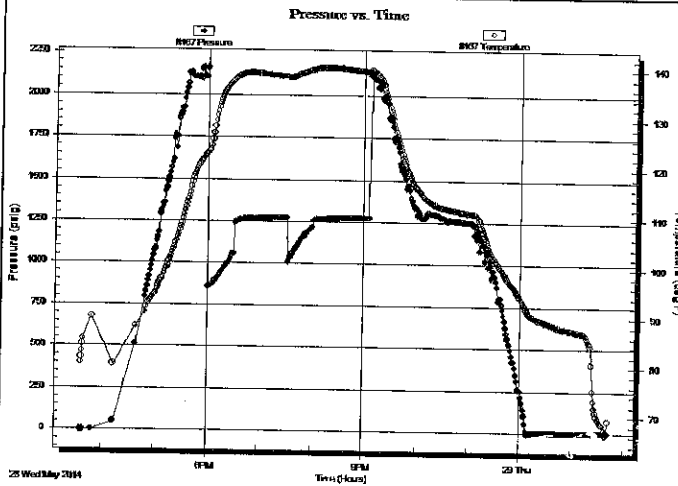
**10-15s-27w Gove co.**  
**Clifford #2**  
 Job Ticket: 57326      **DST#: 4**  
 Test Start: 2014.05.28 @ 15:36:00

**GENERAL INFORMATION:**

Formation: **Miss**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 18:04:30  
 Time Test Ended: 01:43:00  
 Interval: **4246.00 ft (KB) To 4265.00 ft (KB) (TVD)**  
 Total Depth: 4334.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches Hole Condition: Good  
 Test Type: Conventional Straddle (Reset)  
 Tester: Samuel Esparza  
 Unit No: 71  
 Reference Elevations: 2425.00 ft (KB)  
 2417.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8167 Below (Straddle)**  
 Press@RunDepth: psig @ 4267.00 ft (KB)  
 Start Date: 2014.05.28 End Date: 2014.05.29 Capacity: 8000.00 psig  
 Start Time: 15:36:05 End Time: 01:43:00 Last Calib.: 2014.05.29  
 Time On Btm:  
 Time Off Btm:

TEST COMMENT: IF: BOB @ 1 min.  
 IS: No Return.  
 FF: BOB @ 2 in.  
 FSI: No Return.



**PRESSURE SUMMARY**

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

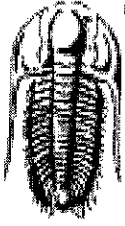
**Recovery**

Length (ft)	Description	Volume (bbl)
2820.00	MW 10m 90w	38.51

\* Recovery from multiple tests

**Gas Rates**

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



**TRILOBITE  
TESTING, INC**

**DRILL STEM TEST REPORT**

**FLUID SUMMARY**

Trek AEC, LLC  
155 N. Market STE 710  
Wichita, KS 67202  
ATTN: Aaron Young

**10-15s-27w Gove co.**  
**Clifford #2**  
Job Ticket: 57326      **DST#: 4**  
Test Start: 2014.05.28 @ 15:36:00

**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:	16000 ppm
Viscosity: 41.00 sec/qt	Cushion Volume: bbl		
Water Loss: 10.59 in <sup>3</sup>	Gas Cushion Type:		
Resistivity: 0.00 ohm.m	Gas Cushion Pressure: psig		
Salinity: 3200.00 ppm			
Filter Cake: 1.00 inches			

**Recovery Information**

Recovery Table

Length ft	Description	Volume bbl
2820.00	MW 10m 90w	38.510

Total Length: 2820.00 ft      Total Volume: 38.510 bbl  
Num Fluid Samples: 0      Num Gas Bombs: 0      Serial #:  
Laboratory Name:      Laboratory Location:  
Recovery Comments: Water Salinity: .386 @ 76 degrees= 16,000 ppm

Serial #: 8845

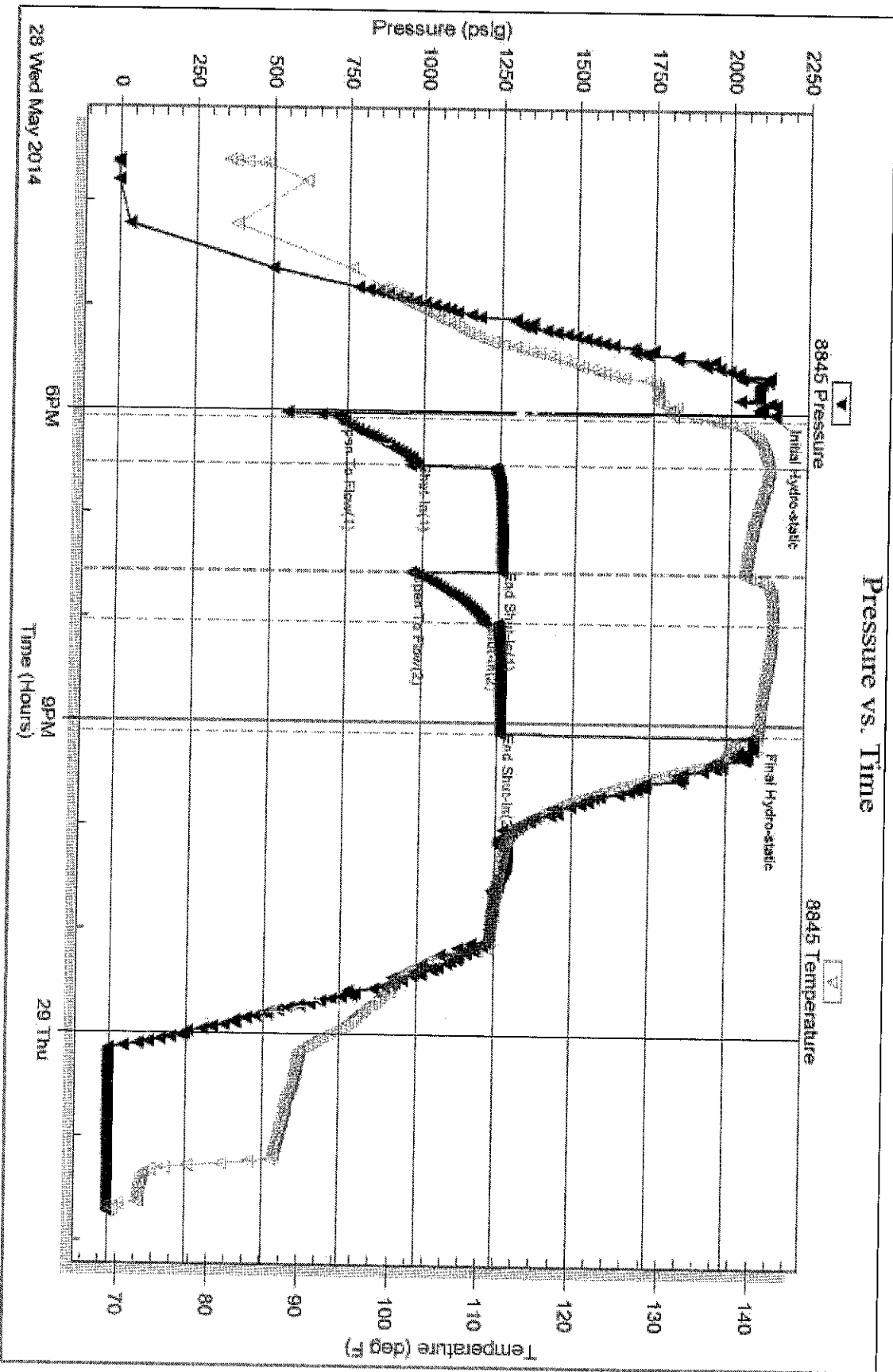
Inside

Trek AEC, LLC

Clifford #2

DST Test Number: 4

### Pressure vs. Time



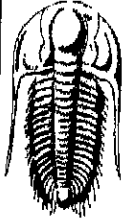
Tribologic Testing, Inc

Ref. No: 57326

Printed: 2014.05.29 @ 10:54:53







**TRILOBITE TESTING, INC.**

# DRILL STEM TEST REPORT

Trek AEC, LLC  
 155 N. Market STE 710  
 Wichita, KS 67202  
 ATTN: Aaron Young

**10-15s-27w Gove co.**  
**Clifford #2**  
 Job Ticket: 57327      **DST#: 5**  
 Test Start: 2014.05.29 @ 12:06:00

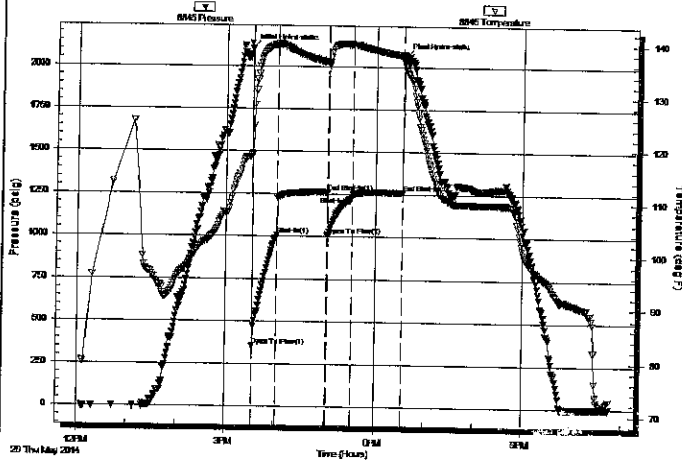
## GENERAL INFORMATION:

Formation: **Mississippian**  
 Deviated: No Whipstock: ft (KB)  
 Time Tool Opened: 15:32:30  
 Time Test Ended: 22:45:30  
 Interval: **4248.00 ft (KB) To 4266.00 ft (KB) (TVD)**  
 Total Depth: 4266.00 ft (KB) (TVD)  
 Hole Diameter: 7.88 inches-Hole Condition: Good  
 Test Type: Conventional Straddle (Reset)  
 Tester: CHUCK SMITH  
 Unit No: 71  
 Reference Elevations: 2425.00 ft (KB)  
 2417.00 ft (CF)  
 KB to GR/CF: 8.00 ft

**Serial #: 8845      Inside**  
 Press@RunDepth: 1233.70 psig @ 4249.00 ft (KB)  
 Start Date: 2014.05.29      End Date: 2014.05.29  
 Start Time: 12:06:05      End Time: 22:45:30  
 Capacity: 8000.00 psig  
 Last Calib.: 2014.05.29  
 Time On Btm: 2014.05.29 @ 15:30:30  
 Time Off Btm: 2014.05.29 @ 18:35:00

TEST COMMENT: 30- B.O.B. @ 1 1/4 min.  
 60- No return.  
 30- B.O.B. @ 2 min.  
 60- No return.

Pressure vs. Time



## PRESSURE SUMMARY

Time (Min.)	Pressure (psig)	Temp (deg F)	Annotation
0	2102.04	119.01	Initial Hydro-static
2	355.40	118.95	Open To Flow (1)
31	1009.51	139.82	Shut-In(1)
92	1262.99	136.56	End Shut-In(1)
92	1009.66	136.38	Open To Flow (2)
122	1233.70	139.84	Shut-In(2)
182	1264.36	137.87	End Shut-In(2)
185	2062.14	135.82	Final Hydro-static

## Recovery

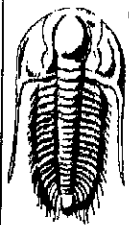
Length (ft)	Description	Volume (bbl)
0.00	RW: .310 @ 75 Degrees F = 19000 PPM	0.00
115.00	MW 25m 75w	0.57
2505.00	MW 20m 80w	35.14
175.00	M 100m	2.45

\* Recovery from multiple tests

## Gas Rates

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





**TRIOBITE  
TESTING, INC.**

## DRILL STEM TEST REPORT

**FLUID SUMMARY**

Trek AEC, LLC

**10-15s-27w Gove co.**

155 N. Market STE 710  
Wichita, KS 67202

**Clifford #2**

Job Ticket: 57327

**DST#: 5**

ATTN: Aaron Young

Test Start: 2014.05.29 @ 12:06:00

### 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:

19000 ppm

Viscosity: 70.00 sec/qt

Cushion Volume:

bbf

Water Loss: 7.60 in<sup>3</sup>

Gas Cushion Type:

Resistivity: 0.00 ohm.m

Gas Cushion Pressure:

psig

Salinity: 3300.00 ppm

Filter Cake: 1.00 inches

### Recovery Information

Recovery Table

Length ft	Description	Volume bbf
0.00	RW: .310 @ 75 Degrees F = 19000 PPM	0.000
115.00	MW 25m 75w	0.566
2505.00	MW 20m 80w	35.139
175.00	M 100m	2.455

Total Length: 2795.00 ft

Total Volume: 38.160 bbf

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

Serial #: 8845

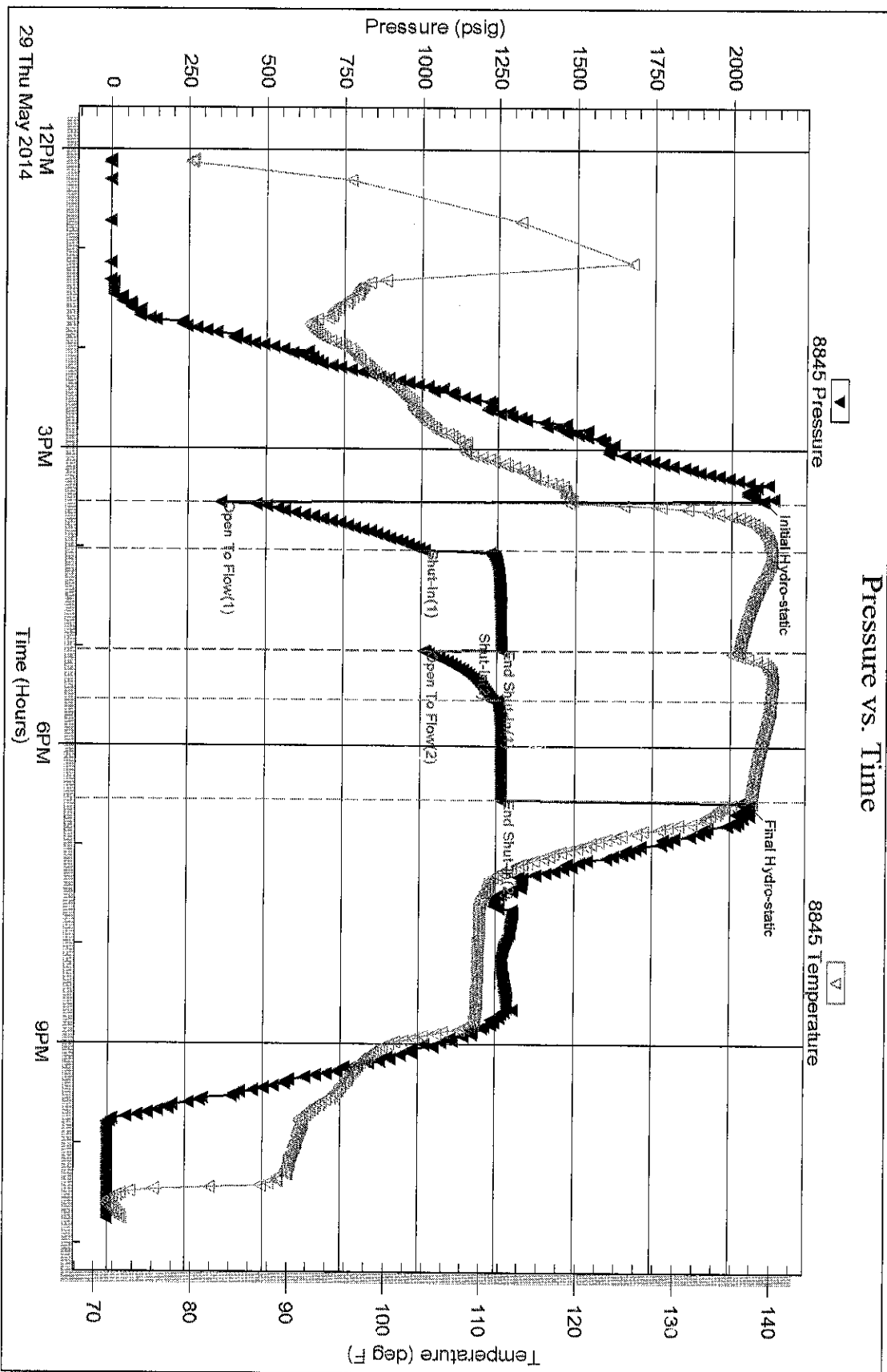
Inside

Trek AEC, LLC

Offroad #2

DST Test Number: 5

### Pressure vs. Time

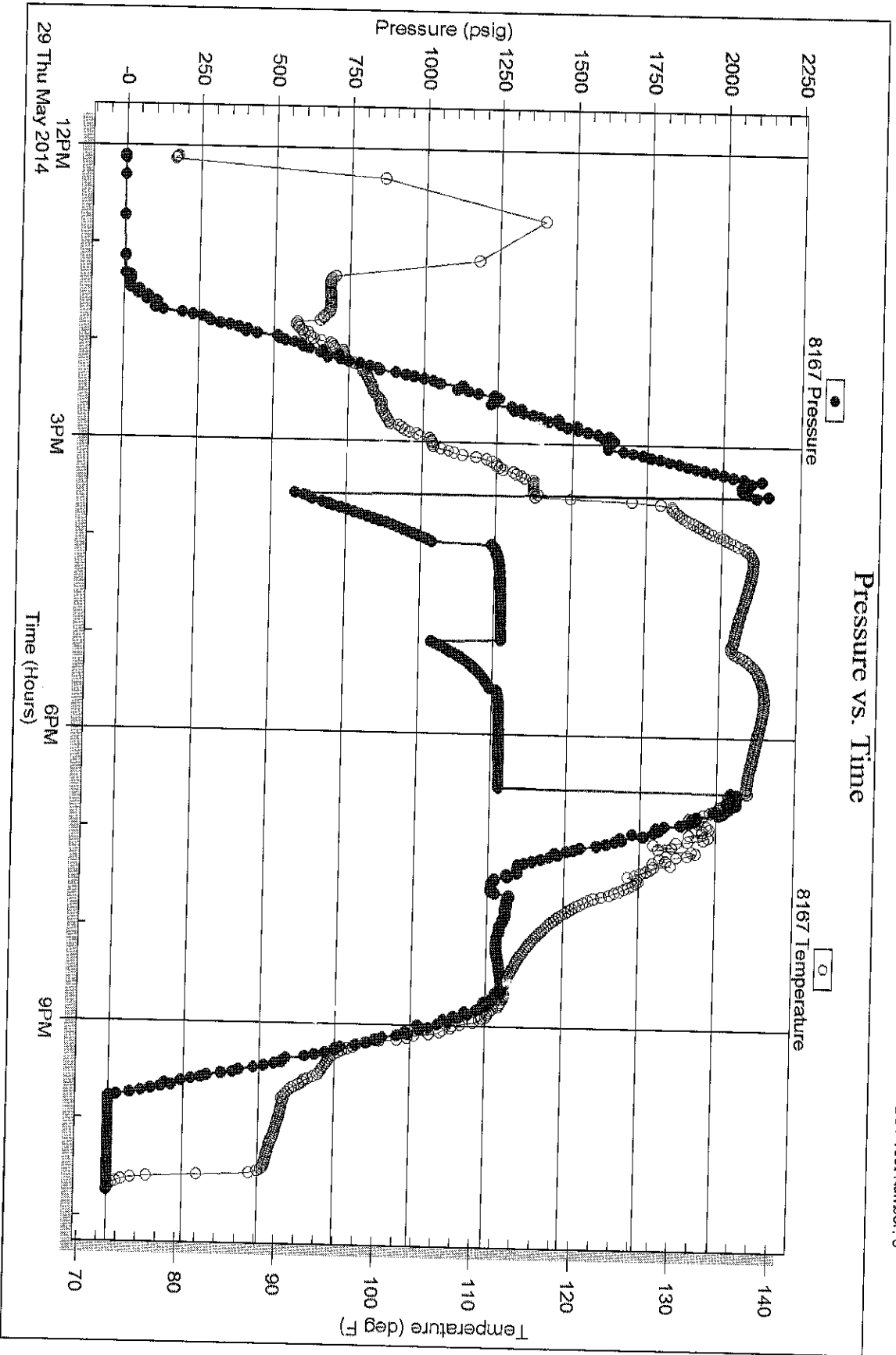


Serial #: 8167

Below (Straddling) EC, LLC

Clifford #2

DST Test Number: 5



Triobite Testing, Inc

Ref. No: 57327

Printed: 2014.05.30 @ 01:09:04

# ALLIED OIL & GAS SERVICES, LLC 063288

Federal Tax I.D. #20-3651475

REMIT TO P.O. BOX 93999 SOUTH LAKE, TEXAS 76092 316-263-1851 SERVICE POINT: Oshtemo, KS

DATE <u>5-20-14</u>	SEC. <u>10</u>	TWP. <u>15</u>	RANGE <u>27</u>	CALLED OUT	ON LOCATION <u>3:00am</u>	JOB START <u>8:30am</u>	JOB FINISH <u>9:00am</u>
LEASE <u>Clifford</u>	WELL # <u>2</u>	LOCATION <u>Gave 105, 22, 15, 5 E</u>			COUNTY <u>Gove</u>	STATE <u>KS</u>	
OLD OR NEW (Circle one)		<u>15 32 (Pd 64), 1 1/2 S, E 7/8 R 19</u>			7.9		

CONTRACTOR <u>Maverick #102</u>	OWNER <u>Same</u>	1.01
TYPE OF JOB <u>Surface</u>		
HOLE SIZE <u>12 1/4" ID 268'</u>		
CASING SIZE <u>8 7/8</u>	DEPTH <u>265.65</u>	CEMENT AMOUNT ORDERED <u>165 SK com 3% CC</u>
TUBING SIZE	DEPTH	<u>2% gel</u>
DRILL PIPE	DEPTH	
TOOL	DEPTH	
PRES. MAX	MINIMUM	COMMON <u>165 SK @ 17.90 2953.50</u>
MEAS. LINE	SHOE JOINT	POZMIX @
CEMENT LEFT IN CSG. <u>15'</u>		GEL <u>3% @ 23.90 70.20</u>
PERFS.		CHLORIDE <u>6.5% @ 64.00 384.00</u>
DISPLACEMENT <u>16.04</u>		ASC @

EQUIPMENT		Material load @ <u>3407.70</u>
PUMP TRUCK # <u>431</u>	CEMENTER <u>Richard E. Gentry</u>	
	HELPER <u>Wayne Mackguy</u>	
BULK TRUCK # <u>818/287</u>	DRIVER <u>Enrique Tancer (FAS)</u>	
BULK TRUCK #	DRIVER	
HANDLING <u>178.42 SK @ 2.48 442.98</u>		
MILEAGE <u>81.3 truck 55 x 2.60 116.545</u>		

REMARKS:  
Mix 165 SK cement  
Displace with water  
Cement did cement last  
105 SK to pit

448.25

TOTAL	
SERVICE	
DEPTH OF JOB <u>265.65</u>	
PUMP TRUCK CHARGE <u>1512.25</u>	
EXTRA FOOTAGE @	
MILEAGE <u>117.4 @ 3.50 412.50</u>	
MANIFOLD <u>Swage @ 275.00</u>	
<u>WCU 55 @ 4.40 242.00</u>	
TOTAL	<u>4060.60</u>

CHARGE TO: Trek Acc LLC  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

To: Allied Oil & Gas Services, LLC.  
 You are hereby requested to rent cementing equipment and furnish cementer and helper(s) to assist owner of 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 Robert Stevenson  
 SIGNATURE Robert Stevenson

SALES TAX (if Any) <u>2169.20</u>	
TOTAL CHARGES <u>7468.38</u>	
DISCOUNT <u>1867.09 / 25%</u>	IF PAID IN 30 DAYS
	<u>5,601.28 Net.</u>

# ALLIED OIL & GAS SERVICES, LLC 062942

Federal Tax I.D. # 20-8651475

REMIT TO P.O. BOX 93999  
SOUTH LAKE, TEXAS 76092

Job # 316-263-1851

SERVICE POINT: Greathorn

DATE <u>5-30-14</u>	SEC <u>10</u>	TWP <u>15</u>	RANGE <u>27</u>	CALLED OUT	ON LOCATION <u>3 Am</u>	JOB START <u>11:30pm</u>	JOB FINISH <u>12:30pm</u>
LEASE <u>Clifford</u>	WELL # <u>2</u>	LOCATION <u>10 South Cove, 2E, 1S, 5E,</u>		COUNTY <u>Howe</u>	STATE <u>TX</u>		
OLD OR NEW (Circle one)		<u>1S, E. to dead end, 1 1/2, Einar</u>					

CONTRACTOR <u>measick</u>	OWNER
TYPE OF JOB <u>Rotary Plug</u>	
HOLE SIZE <u>7 1/2</u>	T.D.
CASING SIZE	DEPTH
TUBING SIZE	DEPTH
DRILL PIPE <u>4 1/2</u>	DEPTH <u>1560</u>
TOOL	DEPTH
PRES. MAX	MINIMUM
MEAS. LINE	SHOE JOINT
CEMENT LEFT IN CSG. <u>All</u>	
PERFS.	
DISPLACEMENT <u>Fresh water</u>	
EQUIPMENT	
PUMP TRUCK CEMENTER <u>Josh Vigg</u>	
# <u>366</u> HELPER <u>Kelvin Eddy</u>	
BULK TRUCK	
# <u>610-170</u> DRIVER <u>Brian Lang</u>	
BULK TRUCK	
# DRIVER	

CEMENT	AMOUNT ORDERED <u>240 sk</u>	<u>6/4/14 4 1/2 yd</u>
COMMON	<u>144</u>	@ <u>17.90</u> <u>2,577.60</u>
POZMIX	<u>96</u>	@ <u>9.35</u> <u>897.60</u>
GEL	<u>8</u>	@ <u>23.40</u> <u>187.20</u>
CHLORIDE		@
ASC		@
<u>Materials Total</u>		@ <u>3,662.40</u>
<u>Disc</u>		@ <u>20%</u> <u>732.48</u>
Service		
HANDLING	<u>253.76</u>	@ <u>2.48</u> <u>629.32</u>
MILEAGE	<u>10.73 x 55 x</u>	<u>2.60</u> <u>1,534.39</u>

### REMARKS:

on location - rig up - had safety meeting  
run 4 1/2" drill pipe - full hole - 1560'  
#1 - 1360' - 50 sks  
#2 - 870 - 100 Rtl - 30 sks  
#3 - 300 - 50  
#4 - 40 - 10  
plug down 12pm  
plug down

DEPTH OF JOB	<u>1560</u>
PUMP TRUCK CHARGE	<u>2249.89</u>
EXTRA FOOTAGE	@
MILEAGE <u>Hum 55</u>	@ <u>2.70</u> <u>423.50</u>
MANHOLED <u>Hum 55</u>	@ <u>4.40</u> <u>242.00</u>
<u>Wait Time 3 hrs</u>	@ <u>440.00</u> <u>1320.00</u>
<u>6 hrs</u>	@ <u>Nc</u> <u>Nc</u>

CHARGE TO: Truck AEC  
 STREET \_\_\_\_\_  
 CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TOTAL 6,399.05  
 20% 1,279.81

### PLUG & FLOAT EQUIPMENT

<u>Wooden plug</u>	@ <u>131.04</u>	<u>131.04</u>
	@	
	@	
	@	
	@	

TOTAL 131.04  
 20% 26.21

To: Allied Oil & Gas Services, LLC.  
 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.

SALES TAX (If Any) \_\_\_\_\_  
 TOTAL CHARGES 10,192.49  
 20% 2,038.50 (20/20/20)  
 DISCOUNT \_\_\_\_\_ IF PAID IN 30 DAYS  
8,153.99

PRINTED NAME X David Yatt  
 SIGNATURE [Signature]  
Thank you!



Geologic Report  
**Aaron L. Young**

Drilling Time and Sample Log

Scale 1:240 (5"=100') Imperial  
Measured Depth Log

Well Name: Clifford #2  
Well Id:  
Location: Section 10 - T15S - R27W  
License Number: API: 15-063-22145  
Spud Date: 5 / 19 / 2014  
Surface Coordinates: 1485' FNL and 2310' FWL  
Bottom Hole Coordinates: Approx. N/2 - NE - SE - NW  
Region: Gove Co., KS  
Drilling Completed: 5 / 29 / 2014  
Ground Elevation (ft): 2417' K.B. Elevation (ft): 2424'  
Logged Interval (ft): 3200' To: 4334' Total Depth (ft): 4334'  
Formation: Mississippian  
Type of Drilling Fluid: Chemical - Mud-Co  
Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

**OPERATOR**

Company: TREK AEC, LLC  
Address: 155 N Market, Suite 710  
Wichita, KS 67202

**GEOLOGIST**

Name: Aaron L. Young  
Company:  
Address: 155 N. Market, Suite 710  
Wichita, Kansas 67202

**General Info**

CONTRACTOR: Maverick Drilling, Rig #102

**BIT RECORD:**

No.	Size	Make	Jets	Out	Feet	Hours
1	12-1/4	JZ	15-15-15	268	261	4.5
2	7-7/8	JZ	13-13-15	4334	4073	85.0

SURVEYS: 4211'-1, 4334'-1.

**GENERAL DRILLING AND PUMP INFORMATION:**

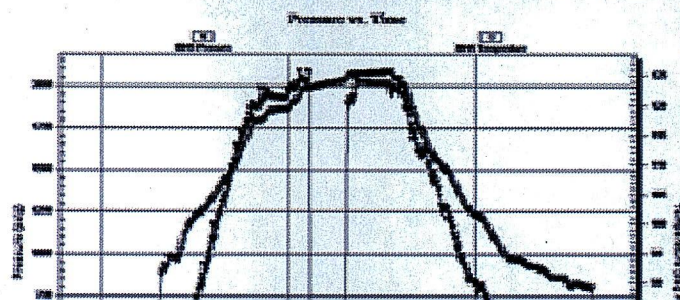
Drilling with 32,000 lbs. on bit and approx 80-85 RPM.  
Running 8 stands of collars; 465.68'  
Pumping approx 750-850 psi at standpipe.

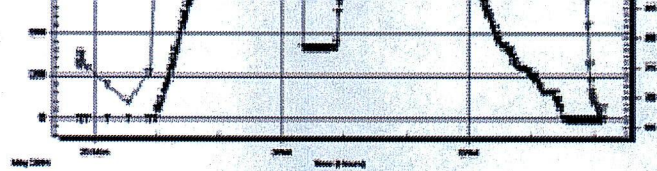
**Daily Status**

5/19/14 - Spud @ 11:00pm  
5/20/14 - @ 253' POH to run surface casing  
5/21/14 - Drilling, @ 1058'  
5/22/14 - Drilling, @ 2608'  
5/23/14 - Drilling, @ 3170'  
5/24/14 - Drilling, @ 3685'  
5/25/14 - Drilling, @ 4075', DST #1 - Misrun  
5/26/14 - @ 4211' POH for hole in the pipe, DST #2  
5/27/14 - Drilling @ 4211', DST #3  
5/28/14 - 4334' RTD, DST #4 - Straddle  
5/29/14 - DST #5 - Straddle  
5/30/14 - Plugged

DST #1: 4,122' - 4,211' Ft. Scott - Cherokee

Misrun due to hole in pipe



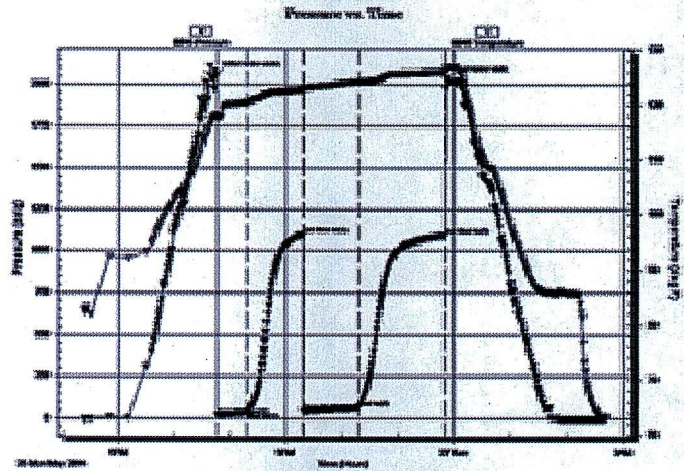


DST #2 4,122' - 4,211' Ft. Scott - Cherokee  
30"-60"-60"-90"

IF: 4" blow  
ISI: No return  
FF: 10 1/2" blow  
FSI: No return

Rec': 120' GOCM (20% G, 10% O, 70% M)

SIP: 1098-1094; FP: 19-38, 43-65 HP: 2059-2029

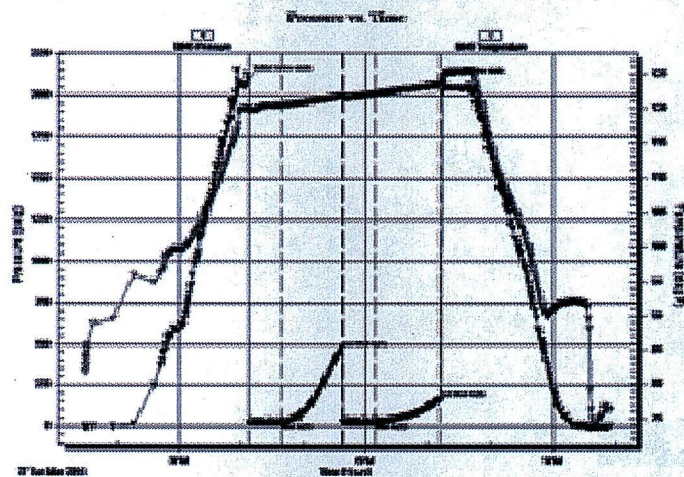


DST #3 4,191'-4,251' Johnson - Miss  
30"-60"-30"-60"

IF: Weak Surface Blow died in 20 min  
ISI: No return  
FF: No blow  
FSI: No return

Rec': 15' M

SIP: 477-168; FP: 17-20, 21-23; HP: 2103-2083

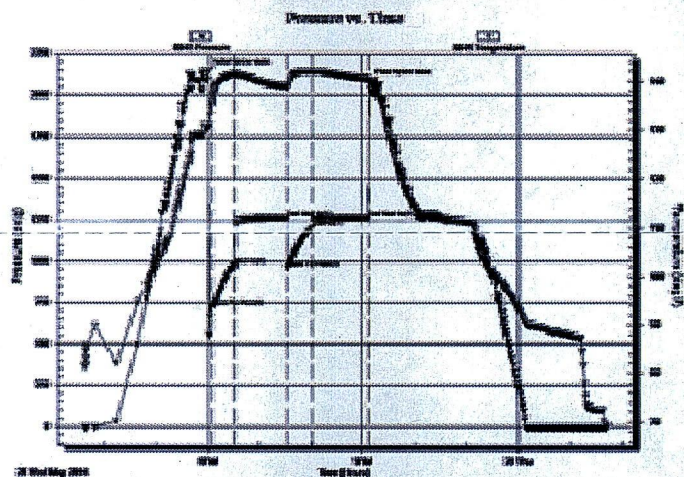


DST #4 4,246'-4,265' Mississippian  
30"-60"-30"-60"

IF: BOB in 1 min  
ISI: No return  
FF: BOB in 2 min  
FSI: No return

Rec': 2820' MW (10% M, 90% W)

SIP: 1263-1263; FP: 731-978, 961-1208; HP: 2140-2076

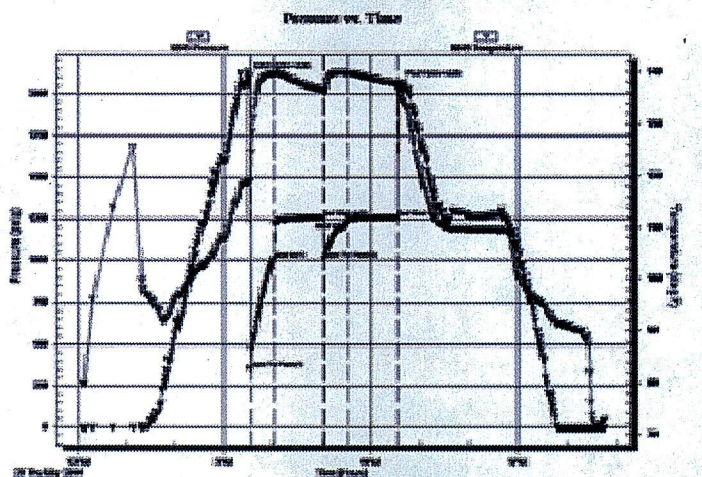


DST #5 4,248'-4,266' Mississippian  
30"-60"-30"-60"

IF: BOB in 1 1/4 min  
ISI: No return  
FF: BOB in 2 min  
FSI: No return

Rec': 115' MW (25%M, 75%W), 2505 MW (20%M, 80%W), 175' M

SIP: 1263-1264; FP: 355-1010, 1010-1234; HP: 2102-2062



### ROCK TYPES

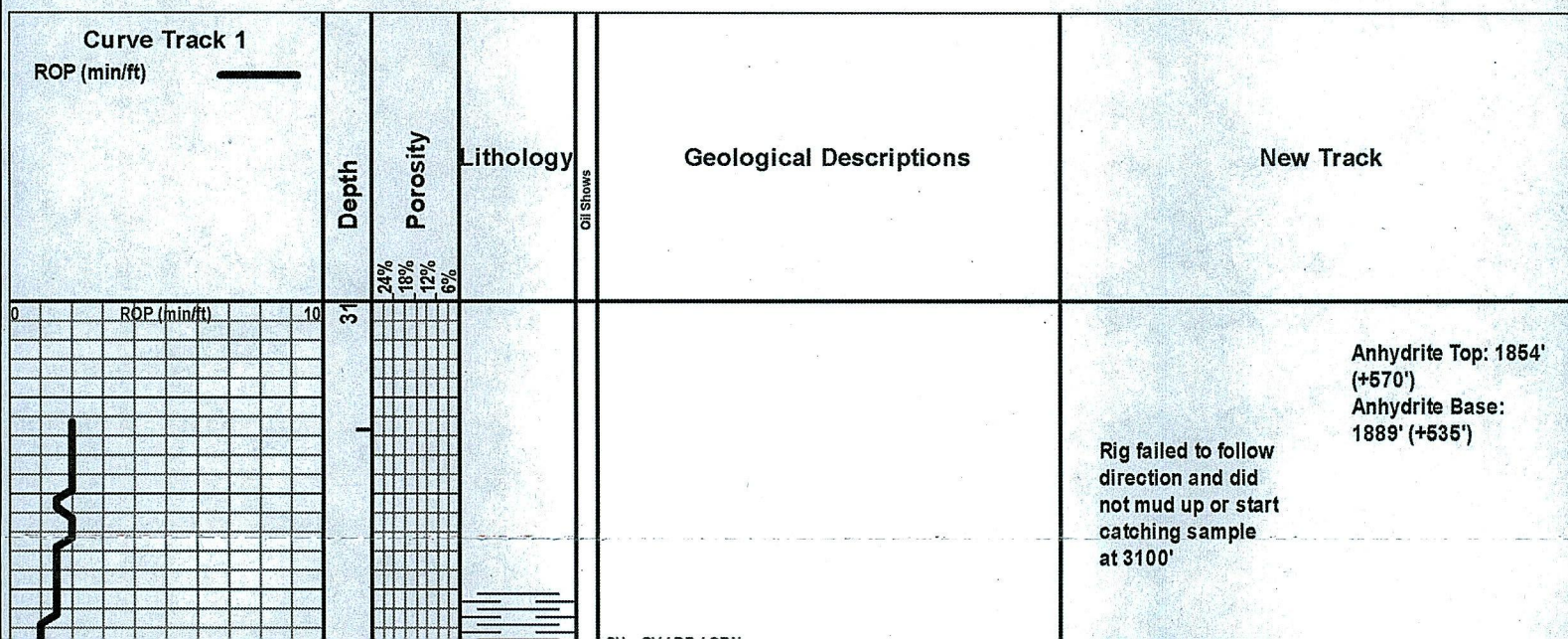
	Anhy		Gyp		Shgy		Sandylms
	Bent		Igne		Sltst		Shale
	Brec		Lmst		Ss		Sltstn
	Cht		Meta		Till		Shlyslts
	Clyst		Mrlst		Carb sh		Sitysh
	Coal		Salt		Dol		Lms
	Congl		Shale		Dtd		
	Dol		Shcol		Gry sh		

### ACCESSORIES

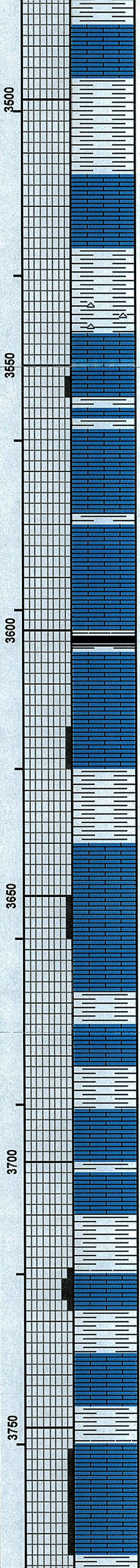
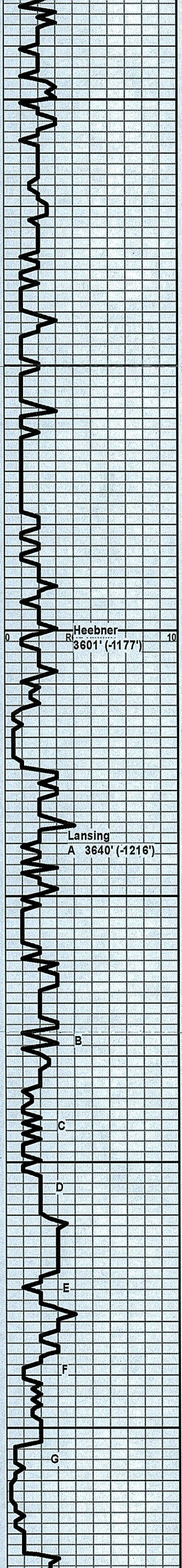
<b>MINERAL</b>		Salt		Fossil		Clystn	
	Anhy		Sandy		Gastro		Dol
	Arggrn		Silt		Oolite		Grysh
	Arg		Sil		Ostra		Gryslt
	Bent		Sulphur		Pelec		Lms
	Bit		Tuff		Pellet		Sandylms
	Brecfrag		Chlorite		Pisolite		Sh
	Calc		Dol		Plant		Sltstn
	Carb		Sand		Strom		
	Chtdk		Sity		Fuss	<b>TEXTURE</b>	
	Chtlt				Oomold		Boundst
	Dol	<b>FOSSIL</b>					Chalky
	Feldspar		Algae	<b>STRINGER</b>			Cryxln
	Ferrpel		Amph		Anhy		Earthy
	Ferr		Belm		Arg		Finexln
	Glau		Bioclst		Bent		Grainst
	Gyp		Brach		Coal		Lithogr
	Hvymin		Bryozoa		Dol		Microxln
	Kaol		Cephal		Gyp		Mudst
	Marl		Coral		Ls		Packst
	Minxl		Crin		Mrst		Wackest
	Nodule		Echin		Sltstrg		
	Phos		Fish		Ssstrg		
	Pyr		Foram		Carbsh		

### OTHER SYMBOLS

<b>POROSITY TYPE</b>	<b>SORTING</b>	<b>OIL SHOWS</b>		Dst	
	Earthy		Even	<b>EVENTS</b>	
	Fenest		Spotted		Rft
	Fracture		Ques		Sidewall
	Inter		Dead		Conn
	Moldic		Gas show		
	Organic	<b>INTERVALS</b>			
	Pinpoint		Core		
	Vuggy		Dst		
	<b>ROUNDING</b>				







LS - TAN / LT BRN, F XLN, DNS, FOSS IN PT, W/ SH - GY

SH - GY / GRN / RD

SH - GRN / RD / MAR

LS - CRM, F XLN, MOD DNS, ABUND FOSS

LS - CRM, VF / F XLN, SUBCHKY / CHKY

SH - GRN / GY, PYRITIZED IN PT

SH - GRN / RD, W/ CHT - WHT TRANLCNT / WHT OPQUE

LS - WHT / CRM, VF XLN, CHKY

LS - CRM / TAN, VF / F XLN, P INTXLN POR IN PT, NS, NO ODOR

LS - TAN / LT BRN, F XLN, DNS, FOSS IN PT, W/ SH - GY

SH - GY / BLK

LS - CRM / TAN, F XLN, MOD DNS / DNS, FOSS

SH - BLK, SLI CARB

LS - TAN / LT BRN, F XLN, DNS, FOSS

SH - GY, W/LS - WHT / CRM, VF / F XLN, P INTXLN POR IN PT, NS, NO ODOR

SH - GY / MAR

LS - CRM / TAN, VF / F XLN, PRED DNS, SUBCHKY / CHKY IN PT

LS - CRM / TAN, VF / F XLN, PRED SUBCHKY / CHKY, P INTXLN POR IN PT, NS NO ODOR

SH - GY

SH - GY / GRN / MAR

LS - CRM, F XLN, V DNS, FOSS

SH - MAR / GY / GRN

LS - CRM, F XLN, DNS, SLI SUBCHKY IN PT

SH - GY

LS - TAN / LT BRN, F XLN, P / F INTXLN POR, FSFO, LT BRN OIL, OOL, NO ODOR, V SLI YEL FLUOR

SH - GRN / GY, SLTY IN PT

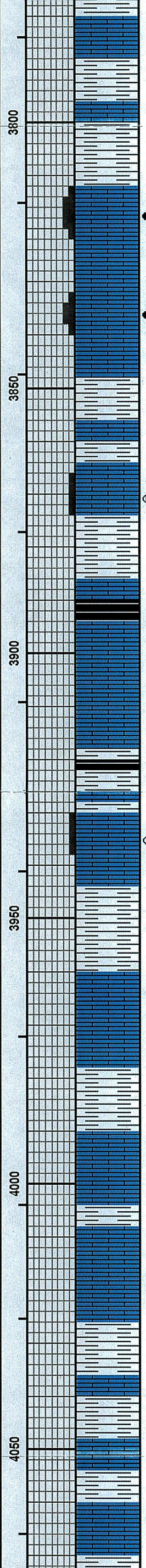
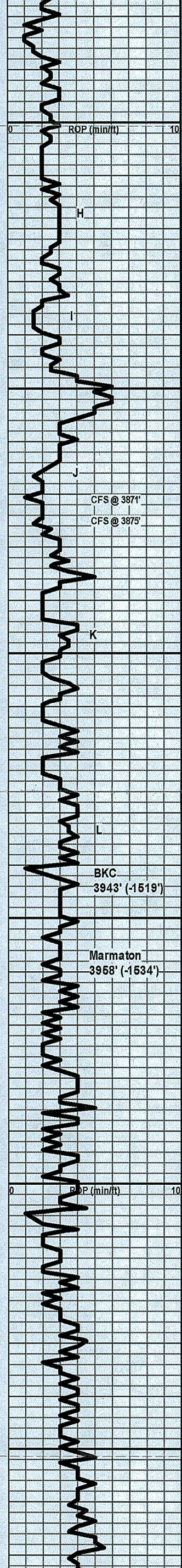
SH - BLK / GY

LS - TAN / LT BRN, F XLN, G OOMOLDIC + P INTXLN POR, P VIS PERM, ABUND OOL, NS, NO ODOR, NO FLUOR

SH - GY / GRN / RD

LS - TAN / LT BRN, F XLN, PRED DNS, P OOMOLDIC + INTXLN POR IN PT, NS, NO ODOR, NO FLUOR

WT 8.7  
VIS 45



LS - CRM / TAN, F XLN, DNS, ABUND FOSS, W/SH - GY

LS - WHT / CRM, VF / F XLN, SUBCHKY / CHKY, W/SH - GY

SH - MAR / GY / GRN

LS - WHT / CRM, VF / F XLN, F INTXLN POR, GSFO, LT BRN OIL, NO ODOR, NO FLUOR

LS - WHT, VF / F XLN, SUBCHKY / MOD DNS, NS

LS - CRM / TAN, F XLN, P / F INTXLN POR, GSFO, LT BRN OIL, SLI ODOR, NO FLUOR

SH - RD / GRN / GY

LS - WHT / CRM, VF XLN, DNS / SUBCHKY / CHKY

LS - CRM / TAN, VF / F XLN, P INTXLN POR, SSFO, NO ODOR, NO FLUOR

SH - GRN / GY / MAR / RD

LS - TAN / GY, F XLN, DNS

SH - BLK, CARB

LS - LT BRN / TAN / GY, F XLN, DNS, FOSS IN PT

LS - WHT / CRM, VF XLN, CHKY, W/SH - BLK, CARB

LS - TAN, F XLN, V DNS, ABUND OOL, ABUND FOSS

LS - TAN, F XLN, DNS, P INTXLN POR IN PT, SLI OIL STN, SSFO, SLI ODOR, NO FLUOR

SH - GRN / GY / RD

SH - MAR / GY / BLK

LS - TAN / LT BRN, F XLN, V DNS, FOSS, OOL

SH - GY

LS - WHT / CRM, VF / F XLN, CHKY / SUBCHKY

LS - TAN / LT BRN, F XLN, DNS, FOSS

SH - GRN / GY, W/LS - TAN, F XLN, DNS

LS - TAN / LT GY, VF / F XLN, SUBCHKY

SH - MAR / LT GRN

SH - GY, W/LS - CRM, VF / F XLN, SUBCHKY

LS - CRM / TAN, VF / F XLN, PRED DNS, SUBCHKY IN PT, W/SH - GY

LS - TAN / GY, F XLN, DNS

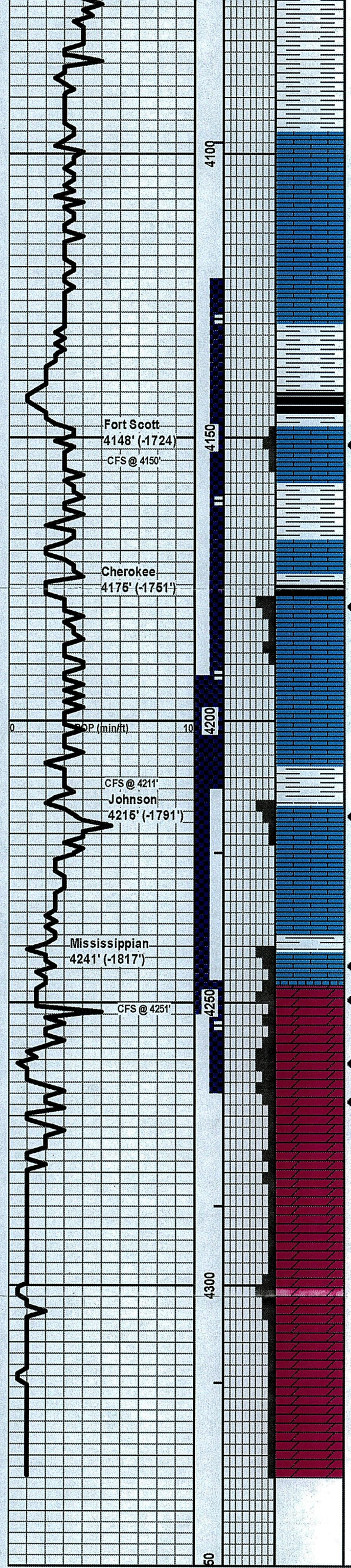
WT 9.0  
VIS 48  
LCM 1#

WT 9.2  
VIS 53  
LCM 1#

WT 9.2  
VIS 53  
LCM 1#

Drilling w/ 32,000#  
WOB @ 80-85 RPM  
w/ 8 stands of  
collars and 800  
psi at the  
standpipe

WT 9.3  
VIS 50  
LCM 1#



SH - GY / BLK  
 SH - GY  
 LS - CRM / TAN, VF / F XLN, SUBCHKY / DNS  
 LS - GY, VF XLN, CHKY, ARG IN PT  
 SH - MAR / GY / BLK  
 SH - BLK, CARB  
 LS - LT BRN, F XLN, P / F INTXLN POR, FSFO, LT BRN OIL, OOL, FOSS, NO FLUOR  
 SH - GY  
 LS - WHT / CRM, VF XLN, CHKY / SUBCHKY  
 LS - LT BRN, F XLN, F INTXLN POR, GSFO, LT BRN OIL, GAS BUBBLES, VG ODOR, NO FLUOR  
 LS - TAN / GY, VF / F XLN, SUBCHKY, FOSS, NS  
 LS - CRM / TAN, VF / F XLN, SUBCHKY, FOSS  
 SH - MAR / GY  
 LS - TAN, F XLN, PRED DNS, P / F INTXLN + FRAC POR, FSFO, DK BRN OIL, F ODOR, NO FLUOR  
 LS - WHT / CRM, VF / F XLN, SUBCHKY / CHKY  
 LS - CRM / TAN, VF / F XLN, SUBCHKY / MOD DNS, W / CHT - YEL / RD / CLR, TRANSLCNT  
 LS - CRM, VF / F XLN, P / F INTXLN POR IN PT, FSFO, LT BRN OIL, NO FLUOR, W / SH - GRN  
 DOLO - WHT / CRM, F XLN, P / F INTXLN POR, GSFO, LT BRN OIL, G ODOR, NO FLUOR  
 DOLO - TAN, F XLN, DNS IN PT, P INTXLN + VUG POR IN PT, FSFO, G ODOR, NO FLUOR  
 DOLO - TAN, F XLN, P / F INTXLN POR, GSFO, G ODOR, NO FLUOR  
 DOLO - TAN, F XLN, DNS, NS, NO ODOR  
 DOLO - CRM / TAN, VF / F XLN, PRED DNS, SUBCHKY / CHKY IN PT, NS  
 DOLO - WHT / CRM, VF XLN, SUBCHKY / CHKY  
 DOLO - CRM, VF / F XLN, SUBCHKY, F INTXLN POR IN PT, NS, NO ODOR, NO FLUOR

DST #1  
 Misrun - Hole in pipe

DST #2  
 Ft. Scott - Cherokee  
 4122'-4211'  
 30"-60"-60"-90"  
 IF: 4" blow  
 ISI: No return  
 FF: 10 1/2" blow  
 FSI: No return  
 Rec': 120 GOCM (20% G, 10% O, 70% M), 180' GIP  
 IH: 2059#  
 IF: 19#-38#  
 ISI: 1098#  
 FF: 43#-65#  
 FSI: 1094#  
 FH: 2029#

DST #3  
 Johnson - Mississippian  
 4191'-4251'  
 30"-60"-30"-60"  
 IF: Weak surface blow, died in 20 min  
 ISI: No return  
 FF: No blow  
 FSI: No return  
 Rec': 15' mud  
 IH: 2103#  
 IF: 17#-20#  
 ISI: 478#  
 FF: 21#-23#  
 FSI: 168#  
 FH: 2083#  
 WT 9.5  
 VIS 66  
 LCM 1#  
 WT 9.3  
 VIS 60  
 LCM 1#  
 WT 9.0  
 VIS 50

DST #4  
 Mississippian  
 4246'-4265'  
 30"-60"-30"-60"  
 IF: BOB in 1 min  
 ISI: No return  
 FF: BOB in 2 min  
 FSI: No return  
 Rec': 2820' MW (10% M, 90% W)  
 IH: 2140#  
 IF: 731#-978#  
 ISI: 1263#  
 FF: 962#-1208#  
 FSI: 1263#  
 FH: 2076#

DST #5  
 Johnson - Mississippian  
 4248'-4266'  
 30"-60"-30"-60"  
 IF: BOB in 1 1/4 min  
 ISI: No return  
 FF: BOB in 2 min  
 FSI: No return  
 Rec': 115' MW (25%M, 75%W), 2505 MW (20%M, 80%W), 175 M  
 IH: 2102#  
 IF: 355#-1010#  
 ISI: 1263#  
 FF: 1010#-1234#  
 FSI: 1264#  
 FH: 2062#  
 WT 9.2  
 VIS 70  
 LCM 1#

RTD 4334'

