

Confidentiality Requested:

Yes No

KANSAS CORPORATION COMMISSION 1260620
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 |
|-----------------------------------|-----------------|---|

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: _____

1260620



Operator Name: _____ Lease Name: _____ Well #: _____

Sec. _____ Twp. _____ S. R. _____ East West County: _____

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

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

| | |
|--|---|
| Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i> Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: _____ | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum |
|--|---|

| CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used | | | | | | | |
|---|-------------------|---------------------------|-------------------|---------------|----------------|--------------|----------------------------|
| Report all strings set-conductor, surface, intermediate, production, etc. | | | | | | | |
| Purpose of String | Size Hole Drilled | Size Casing Set (In O.D.) | Weight Lbs. / Ft. | Setting Depth | Type of Cement | # Sacks Used | Type and Percent Additives |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

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

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

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

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

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

TUBING RECORD: Size: _____ Set At: _____ Packer At: _____ Liner Run: Yes No

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

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

| | | |
|--|---|---|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____ | PRODUCTION INTERVAL: _____ _____ |
|--|---|---|

| | |
|-----------|---------------------------|
| Form | ACO1 - Well Completion |
| Operator | Murfin Drilling Co., Inc. |
| Well Name | O'Neill 1-14 |
| Doc ID | 1260620 |

All Electric Logs Run

| |
|------|
| |
| DIL |
| DUCP |
| MEL |
| BHCS |



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc**

250 N Water STE #300
Wichita, KS 67206

ATTN: Rocky Milford

O'Niell #1-14

14-3s-32w Rawlins,KS

Start Date: 2015.06.12 @ 23:00:00

End Date: 2015.06.13 @ 06:38:30

Job Ticket #: 53432 DST #: 1

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

Printed: 2015.06.16 @ 10:02:50



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS

O'Niell #1-14

Job Ticket: 53432

DST#: 1

Test Start: 2015.06.12 @ 23:00:00

GENERAL INFORMATION:

Formation: **LKC "A-D"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 01:23:00

Time Test Ended: 06:38:30

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 3907.00 ft (KB) To 3962.00 ft (KB) (TVD)

Reference Elevations: 2918.00 ft (KB)

Total Depth: 3962.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8653 Outside

Press@RunDepth: 33.63 psig @ 3908.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.12

End Date:

2015.06.13

Last Calib.: 2015.06.13

Start Time: 23:01:00

End Time:

06:38:30

Time On Btm: 2015.06.13 @ 01:20:30

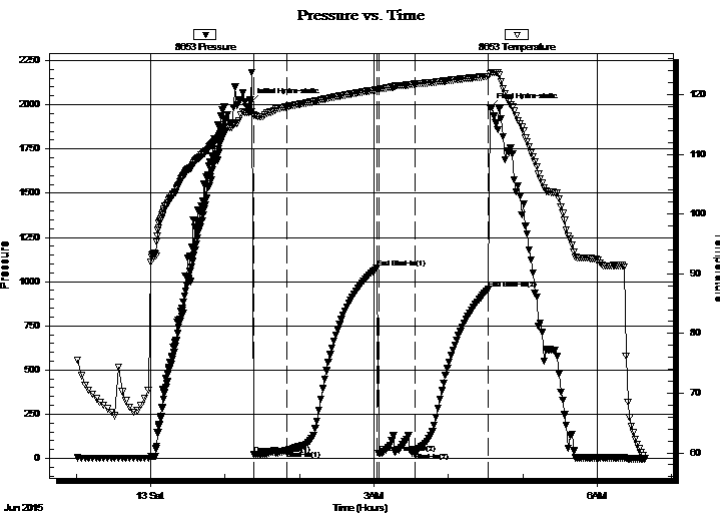
Time Off Btm: 2015.06.13 @ 04:33:30

TEST COMMENT: 30 - IF- 1/4" Blow built to 1"

60 - IS- No Return

30 - FF- No Blow

60 - FS- No Return



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2012.41 | 117.18 | Initial Hydro-static |
| 3 | 22.38 | 116.66 | Open To Flow (1) |
| 30 | 46.07 | 118.00 | Shut-In(1) |
| 102 | 1075.64 | 120.80 | End Shut-In(1) |
| 103 | 27.74 | 120.89 | Open To Flow (2) |
| 133 | 33.63 | 121.79 | Shut-In(2) |
| 192 | 956.13 | 123.08 | End Shut-In(2) |
| 193 | 1981.19 | 123.49 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 15.00 | Mud 100M | 0.07 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53432 **DST#: 1**
Test Start: 2015.06.12 @ 23:00:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3639.00 ft | Diameter: 3.80 inches | Volume: 51.05 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 248.00 ft | Diameter: 2.25 inches | Volume: 1.22 bbl | Weight to Pull Loose: 60000.00 lb |
| | | | <u>Total Volume: 52.27 bbl</u> | Tool Chased ft |
| Drill Pipe Above KB: | 8.00 ft | | | String Weight: Initial 58000.00 lb |
| Depth to Top Packer: | 3907.00 ft | | | Final 58000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 55.00 ft | | | |
| Tool Length: | 83.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3880.00 | |
| Shut In Tool | 5.00 | | | 3885.00 | |
| Hydraulic tool | 5.00 | | | 3890.00 | |
| Jars | 5.00 | | | 3895.00 | |
| Safety Joint | 3.00 | | | 3898.00 | |
| Packer | 5.00 | | | 3903.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3907.00 | |
| Stubb | 1.00 | | | 3908.00 | |
| Recorder | 0.00 | 8653 | Outside | 3908.00 | |
| Recorder | 0.00 | 8874 | Inside | 3908.00 | |
| Perforations | 15.00 | | | 3923.00 | |
| Change Over Sub | 1.00 | | | 3924.00 | |
| Drill Pipe | 32.00 | | | 3956.00 | |
| Change Over Sub | 1.00 | | | 3957.00 | |
| Bullnose | 5.00 | | | 3962.00 | 55.00 Bottom Packers & Anchor |

Total Tool Length: 83.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53432 **DST#: 1**
Test Start: 2015.06.12 @ 23:00:00

Mud and Cushion Information

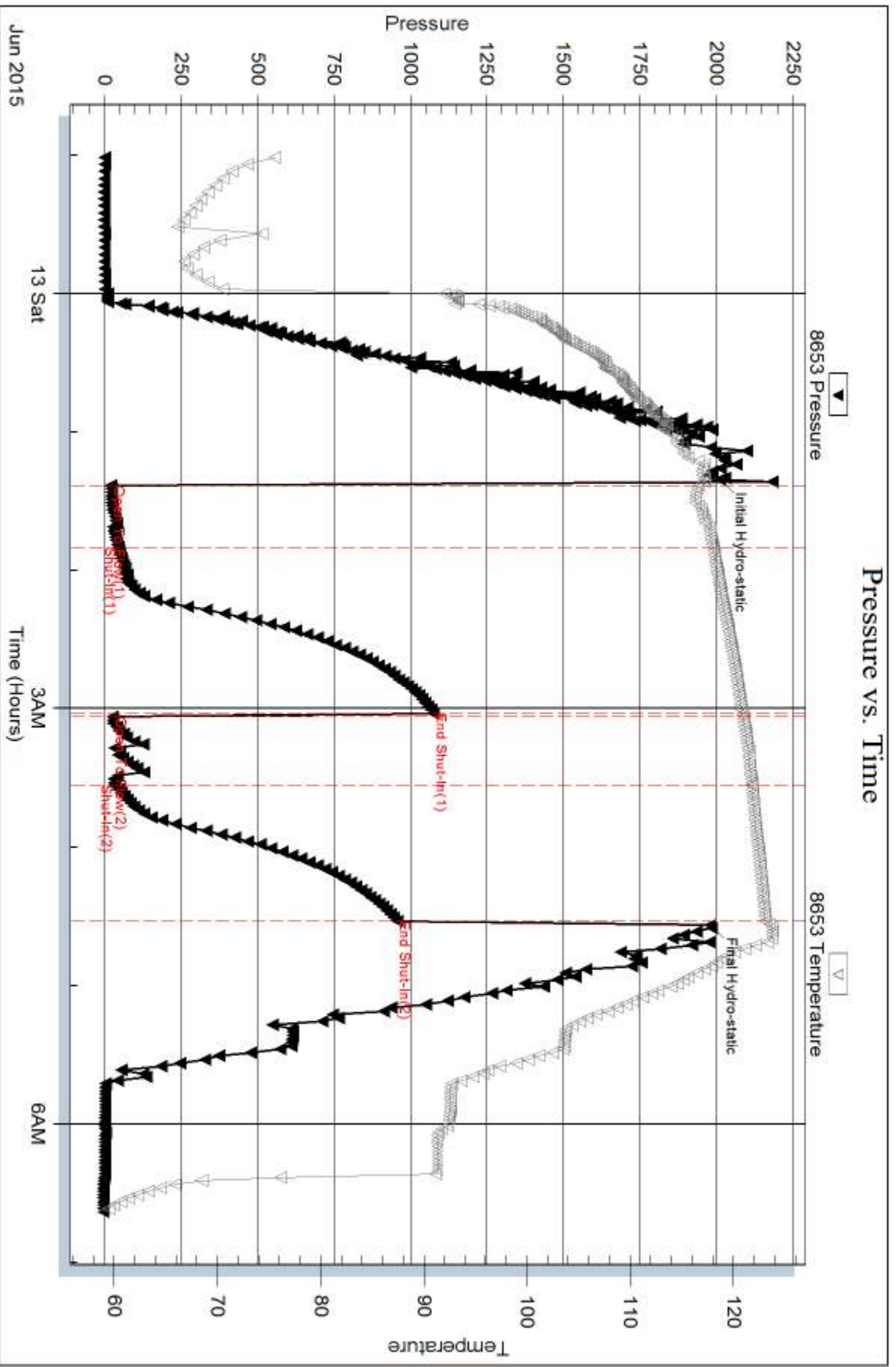
| | | | |
|----------------------------------|----------------------------|-----------------|---------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: | deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: | ppm |
| Viscosity: 55.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.19 in ³ | Gas Cushion Type: | | |
| Resistivity: 0.00 ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 1000.00 ppm | | | |
| Filter Cake: 2.00 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:



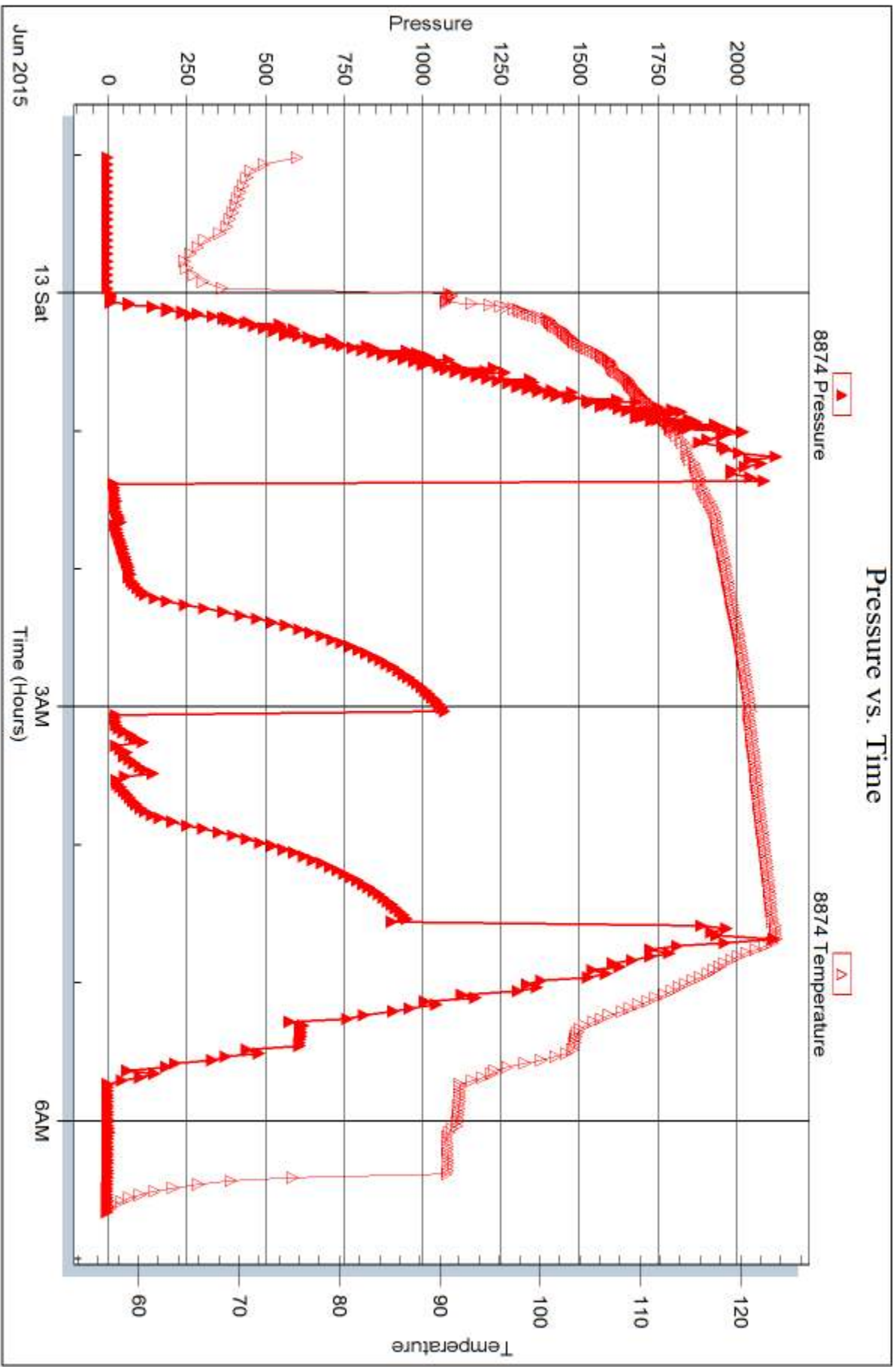
Serial #: 8874

Inside

Murfin Drilling Co., Inc

O'Neil #1-14

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 53432

Printed: 2015.06.16 @ 10:02:52



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc**

250 N Water STE #300
Wichita, KS 67206

ATTN: Rocky Milford

O'Niell #1-14

14-3s-32w Rawlins,KS

Start Date: 2015.06.13 @ 13:41:00

End Date: 2015.06.13 @ 22:05:30

Job Ticket #: 53433 DST #: 2

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

Printed: 2015.06.16 @ 10:02:26



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS

O'Niell #1-14

Job Ticket: 53433

DST#: 2

Test Start: 2015.06.13 @ 13:41:00

GENERAL INFORMATION:

Formation: **LKC "G"**
 Deviated: No Whipstock: ft (KB)
 Test Type: Conventional Bottom Hole (Initial)
 Time Tool Opened: 16:05:30
 Tester: Kevin Mack
 Time Test Ended: 22:05:30
 Unit No: 82
 Interval: **3956.00 ft (KB) To 4005.00 ft (KB) (TVD)**
 Reference Elevations: 2918.00 ft (KB)
 Total Depth: 4005.00 ft (KB) (TVD)
 2913.00 ft (CF)
 Hole Diameter: 7.88 inches
 Hole Condition: Good
 KB to GR/CF: 5.00 ft

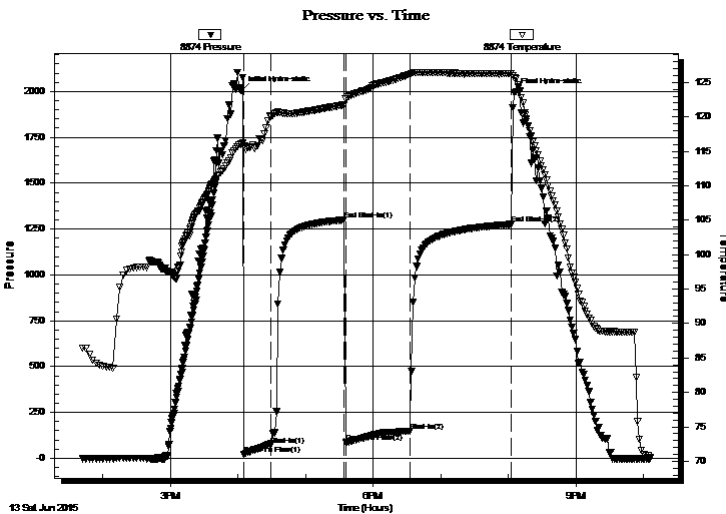
Serial #: 8874

Inside

Press@RunDepth: 149.18 psig @ 3957.00 ft (KB) Capacity: 8000.00 psig
 Start Date: 2015.06.13 End Date: 2015.06.13 Last Calib.: 2015.06.13
 Start Time: 13:42:00 End Time: 22:05:30 Time On Btm: 2015.06.13 @ 16:03:00
 Time Off Btm: 2015.06.13 @ 20:05:30

TEST COMMENT: 30 - IF- 1/4" Blow built to 4 3/4"
 60 - IS- No Return
 60 - FF- Surface Blow started at 4 min. Built 5 1/4"
 90 - FS- No Return

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 2004.42 | 116.06 | Initial Hydro-static |
| 3 | 23.51 | 115.80 | Open To Flow (1) |
| 26 | 73.20 | 120.07 | Shut-In(1) |
| 91 | 1300.09 | 121.70 | End Shut-In(1) |
| 93 | 86.93 | 122.55 | Open To Flow (2) |
| 150 | 149.18 | 126.16 | Shut-In(2) |
| 240 | 1276.52 | 126.30 | End Shut-In(2) |
| 243 | 1994.91 | 125.71 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 60.00 | MW 50M 50W | 0.30 |
| 60.00 | MW 20M 80W | 0.30 |
| 150.00 | WM 30W 70M | 0.94 |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53433 **DST#: 2**
Test Start: 2015.06.13 @ 13:41:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3705.00 ft | Diameter: 3.80 inches | Volume: 51.97 bbl | Tool Weight: 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 25000.00 lb |
| Drill Collar: | Length: 248.00 ft | Diameter: 2.25 inches | Volume: 1.22 bbl | Weight to Pull Loose: 60000.00 lb |
| | | | <u>Total Volume: 53.19 bbl</u> | Tool Chased ft |
| Drill Pipe Above KB: | 25.00 ft | | | String Weight: Initial 54000.00 lb |
| Depth to Top Packer: | 3956.00 ft | | | Final 56000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 49.00 ft | | | |
| Tool Length: | 77.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3929.00 | |
| Shut In Tool | 5.00 | | | 3934.00 | |
| Hydraulic tool | 5.00 | | | 3939.00 | |
| Jars | 5.00 | | | 3944.00 | |
| Safety Joint | 3.00 | | | 3947.00 | |
| Packer | 5.00 | | | 3952.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 3956.00 | |
| Stubb | 1.00 | | | 3957.00 | |
| Recorder | 0.00 | 8653 | Outside | 3957.00 | |
| Recorder | 0.00 | 8874 | Inside | 3957.00 | |
| Perforations | 9.00 | | | 3966.00 | |
| Change Over Sub | 1.00 | | | 3967.00 | |
| Drill Pipe | 32.00 | | | 3999.00 | |
| Change Over Sub | 1.00 | | | 4000.00 | |
| Bullnose | 5.00 | | | 4005.00 | 49.00 Bottom Packers & Anchor |

Total Tool Length: 77.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53433 **DST#: 2**
Test Start: 2015.06.13 @ 13:41:00

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: | 50000 ppm |
| Viscosity: 56.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.19 in ³ | Gas Cushion Type: | | |
| Resistivity: 0.00 ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 1200.00 ppm | | | |
| Filter Cake: 2.00 inches | | | |

Recovery Information

Recovery Table

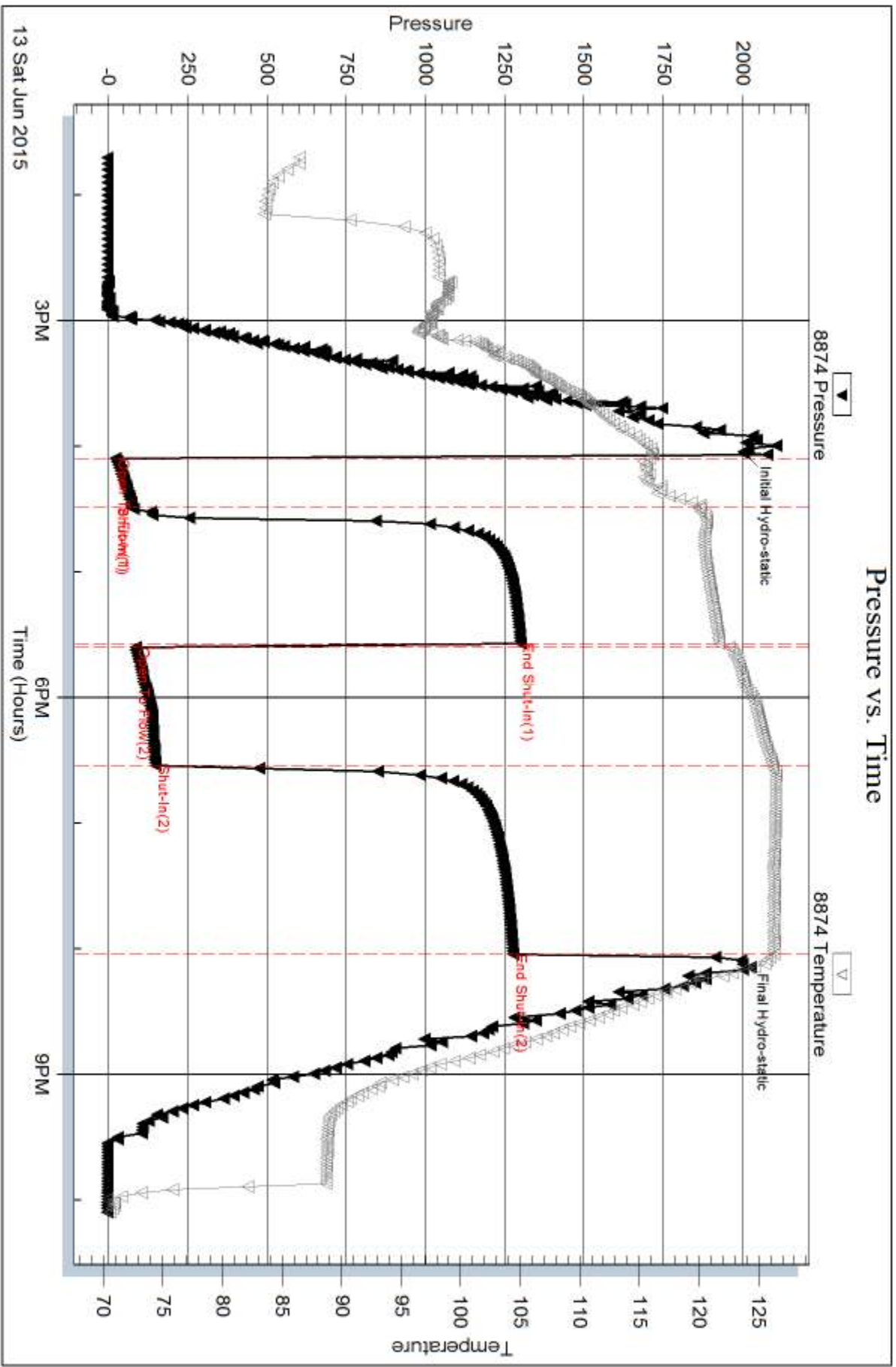
| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 60.00 | MW 50M 50W | 0.295 |
| 60.00 | MW 20M 80W | 0.295 |
| 150.00 | WM 30W 70M | 0.938 |

Total Length: 270.00 ft Total Volume: 1.528 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW .14 @ 76 deg = 50000ppm



13 Sat Jun 2015

3PM

6PM

9PM

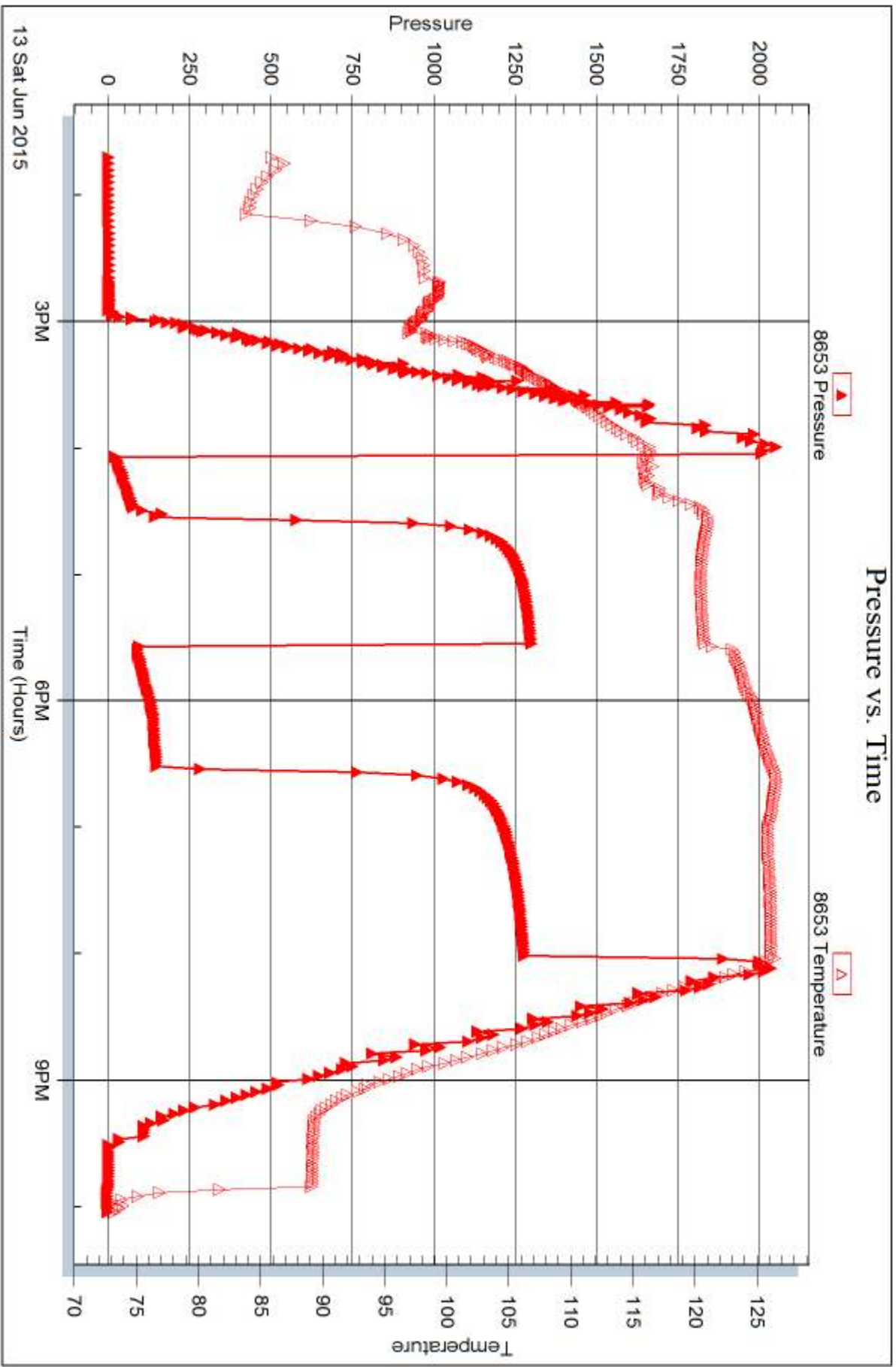
Time (Hours)

Serial #: 8653

Outside Murfin Drilling Co., Inc

O'Neill #1-14

DST Test Number: 2



Trilobite Testing, Inc

Ref. No: 53433

Printed: 2015.06.16 @ 10:02:28



DRILL STEM TEST REPORT

Prepared For: **Murfin Drilling Co., Inc**

250 N Water STE #300
Wichita, KS 67206

ATTN: Rocky Milford

O'Niell #1-14

14-3s-32w Rawlins,KS

Start Date: 2015.06.14 @ 10:07:00

End Date: 2015.06.14 @ 18:18:00

Job Ticket #: 53434 DST #: 3

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

Printed: 2015.06.16 @ 09:54:27



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS

O'Niell #1-14

Job Ticket: 53434

DST#: 3

Test Start: 2015.06.14 @ 10:07:00

GENERAL INFORMATION:

Formation: **LKC "H-J"**

Deviated: No Whipstock: ft (KB)

Time Tool Opened: 12:06:10

Time Test Ended: 18:18:00

Test Type: Conventional Bottom Hole (Initial)

Tester: Kevin Mack

Unit No: 82

Interval: 4003.00 ft (KB) To 4085.00 ft (KB) (TVD)

Reference Elevations: 2918.00 ft (KB)

Total Depth: 4085.00 ft (KB) (TVD)

2913.00 ft (CF)

Hole Diameter: 7.88 inches Hole Condition: Good

KB to GR/CF: 5.00 ft

Serial #: 8874

Inside

Press@RunDepth: 204.69 psig @ 4004.00 ft (KB)

Capacity: 8000.00 psig

Start Date: 2015.06.14

End Date:

2015.06.14

Last Calib.:

2015.06.14

Start Time: 10:08:00

End Time:

18:18:00

Time On Btm:

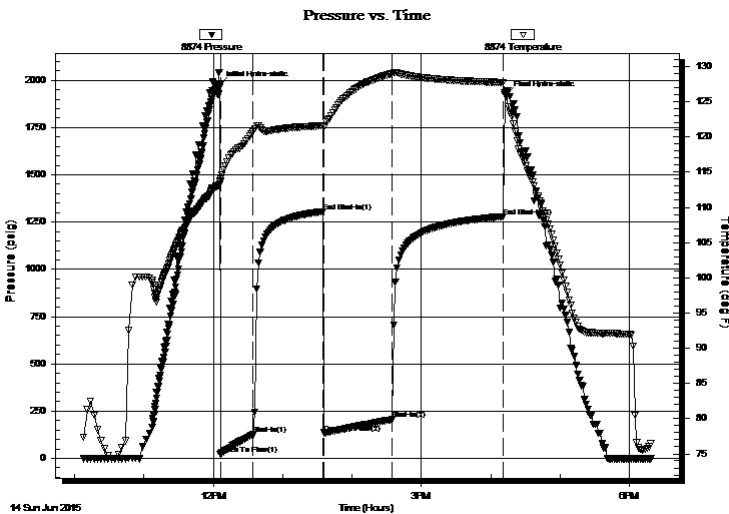
2015.06.14 @ 12:05:50

Time Off Btm:

2015.06.14 @ 16:13:30

TEST COMMENT: 30 - IF- 1/4" Blow built to 9"
60 - IS- No Return
60 - FF- Surface Blow built to BoB in 45 min.
90 - FS- No Return

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1974.90 | 113.76 | Initial Hydro-static |
| 1 | 21.80 | 113.63 | Open To Flow (1) |
| 29 | 125.19 | 120.76 | Shut-In(1) |
| 89 | 1305.12 | 121.58 | End Shut-In(1) |
| 91 | 134.47 | 121.49 | Open To Flow (2) |
| 149 | 204.69 | 129.01 | Shut-In(2) |
| 245 | 1279.17 | 127.74 | End Shut-In(2) |
| 248 | 1921.61 | 125.70 | Final Hydro-static |

Recovery

Gas Rates

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------------|--------------|
| 5.00 | Mud (Heavy) 100M | 0.02 |
| 306.00 | OSMW 5M 95W (oil spots) | 2.08 |
| 93.00 | OCMW 5o 40M 55W | 1.30 |
| 2.00 | Free Oil 100o | 0.03 |
| | | |
| | | |

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



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53434
Test Start: 2015.06.14 @ 10:07:00

DST#: 3

Tool Information

| | | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------|-------------|
| Drill Pipe: | Length: 3733.00 ft | Diameter: 3.80 inches | Volume: 52.36 bbl | Tool Weight: | 2500.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: | 25000.00 lb |
| Drill Collar: | Length: 248.00 ft | Diameter: 2.25 inches | Volume: 1.22 bbl | Weight to Pull Loose: | 65000.00 lb |
| | | | <u>Total Volume: 53.58 bbl</u> | Tool Chased | ft |
| Drill Pipe Above KB: | 6.00 ft | | | String Weight: Initial | 58000.00 lb |
| Depth to Top Packer: | 4003.00 ft | | | Final | 62000.00 lb |
| Depth to Bottom Packer: | ft | | | | |
| Interval between Packers: | 82.00 ft | | | | |
| Tool Length: | 110.00 ft | | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|-------------------------------|
| Change Over Sub | 1.00 | | | 3976.00 | |
| Shut In Tool | 5.00 | | | 3981.00 | |
| Hydraulic tool | 5.00 | | | 3986.00 | |
| Jars | 5.00 | | | 3991.00 | |
| Safety Joint | 3.00 | | | 3994.00 | |
| Packer | 5.00 | | | 3999.00 | 28.00 Bottom Of Top Packer |
| Packer | 4.00 | | | 4003.00 | |
| Stubb | 1.00 | | | 4004.00 | |
| Recorder | 0.00 | 8653 | Outside | 4004.00 | |
| Recorder | 0.00 | 8874 | Inside | 4004.00 | |
| Perforations | 11.00 | | | 4015.00 | |
| Change Over Sub | 1.00 | | | 4016.00 | |
| Drill Pipe | 63.00 | | | 4079.00 | |
| Change Over Sub | 1.00 | | | 4080.00 | |
| Bullnose | 5.00 | | | 4085.00 | 82.00 Bottom Packers & Anchor |

Total Tool Length: 110.00



**TRILOBITE
TESTING, INC**

DRILL STEM TEST REPORT

FLUID SUMMARY

Murfin Drilling Co., Inc
250 N Water STE #300
Wichita, KS 67206
ATTN: Rocky Milford

14-3s-32w Rawlins,KS
O'Niell #1-14
Job Ticket: 53434 **DST#: 3**
Test Start: 2015.06.14 @ 10:07:00

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: | 48000 ppm |
| Viscosity: 58.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 7.59 in ³ | Gas Cushion Type: | | |
| Resistivity: 0.00 ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 1300.00 ppm | | | |
| Filter Cake: 2.00 inches | | | |

Recovery Information

Recovery Table

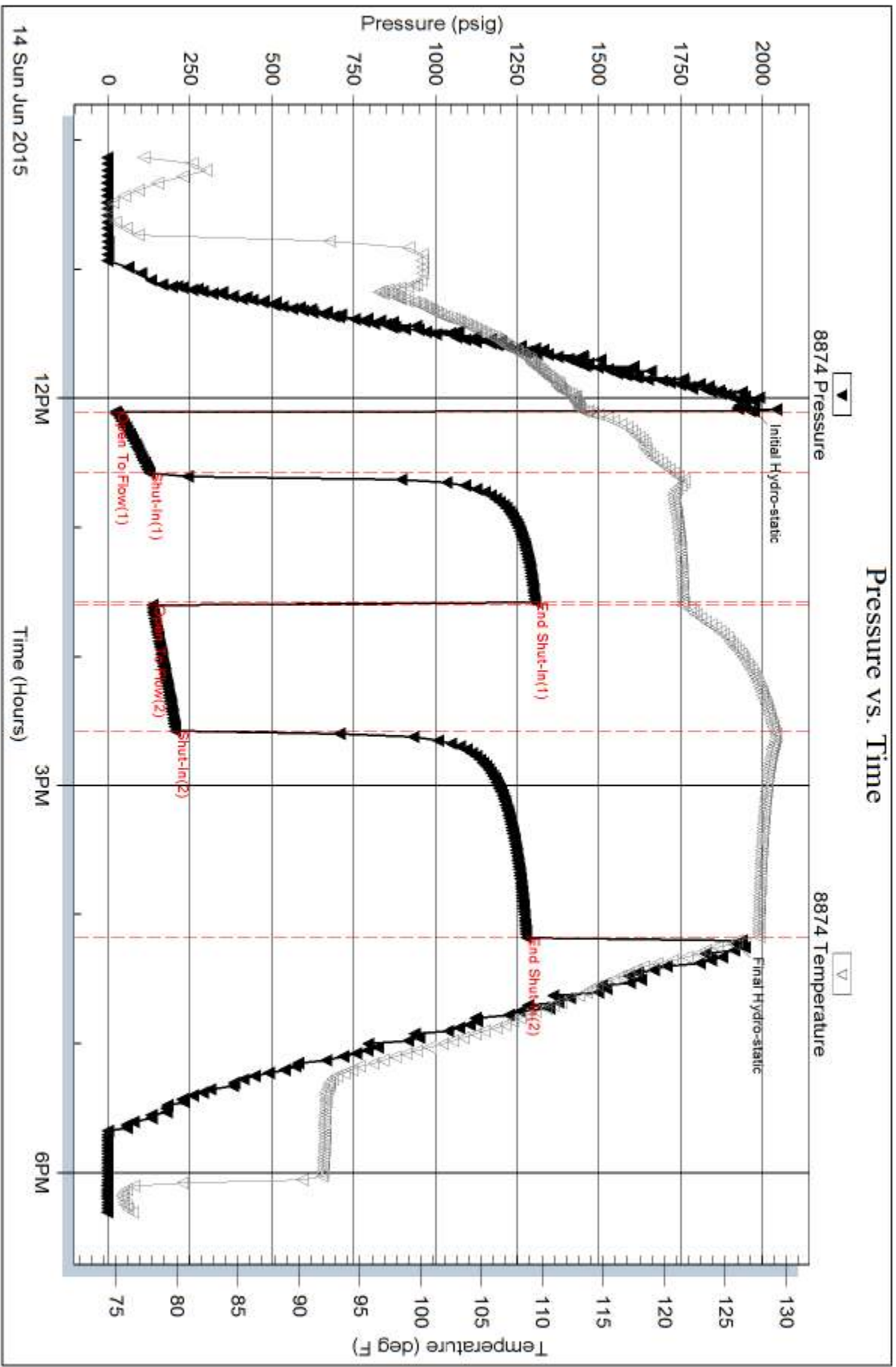
| Length ft | Description | Volume bbl |
|--------------|-------------------------|---------------|
| 5.00 | Mud (Heavy) 100M | 0.025 |
| 306.00 | OSMW 5M 95W (oil spots) | 2.079 |
| 93.00 | OCMW 5o 40M 55W | 1.305 |
| 2.00 | Free Oil 100o | 0.028 |

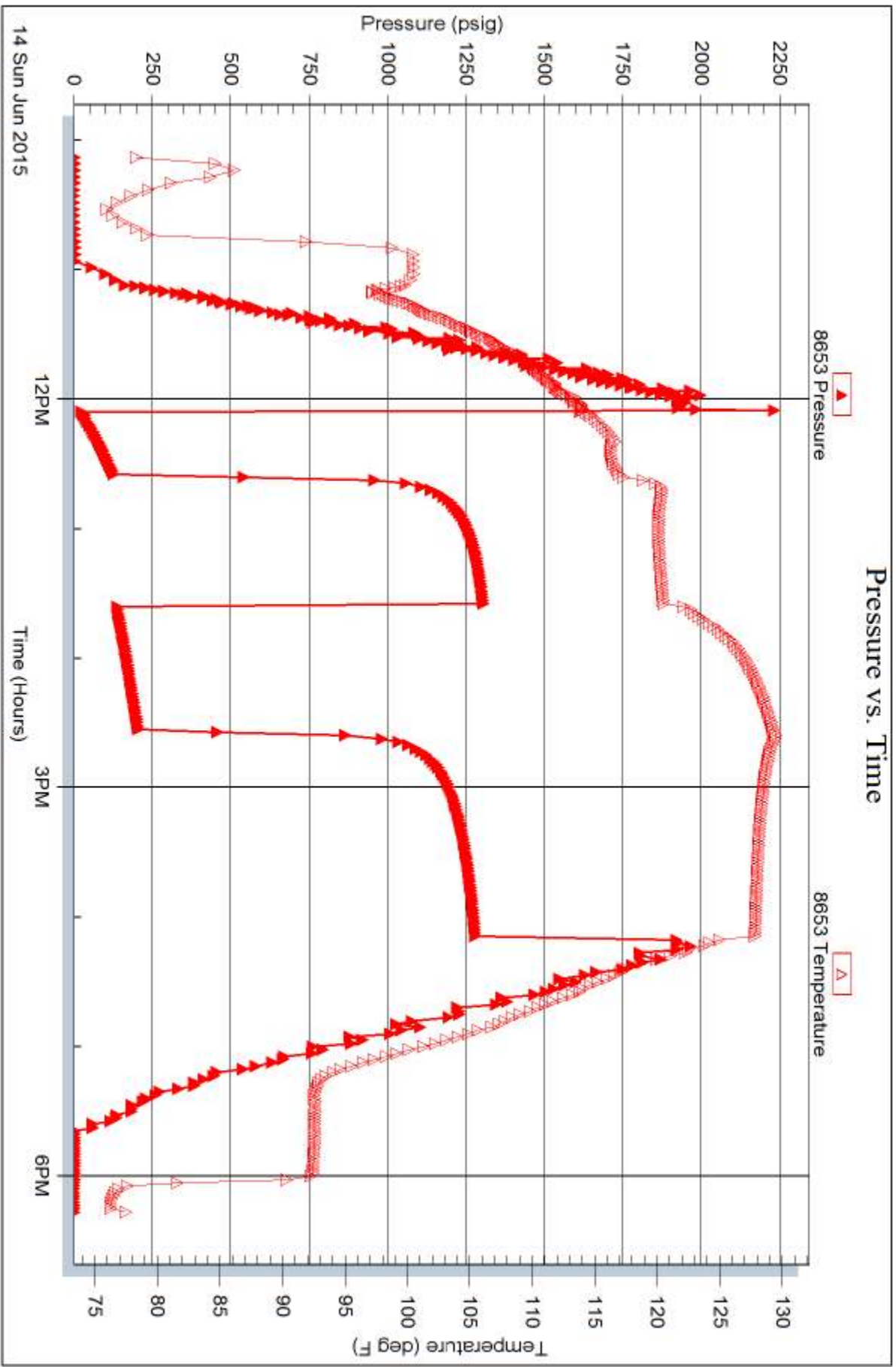
Total Length: 406.00 ft Total Volume: 3.437 bbl

Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:

Laboratory Name: Laboratory Location:

Recovery Comments: RW = .13 @ 86 deg = 48000ppm







TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53432

4/10

Well Name & No. O'Neill #1-14 Test No. 1 Date 6-12-15
 Company Murfin Drilling Co., Inc Elevation 2918 KB 2913 GL
 Address 250 N Water STE #300 Wichita, KS 67206
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 14 Twp. 3S Rge. 32W Co. Rawlins State KS

Interval Tested 3907-3962 Zone Tested LKC "B-D"
 Anchor Length 55 Drill Pipe Run 3639' Mud Wt. 9.2
 Top Packer Depth 3903 Drill Collars Run 248' Vis 55
 Bottom Packer Depth 3907 Wt. Pipe Run 0 WL 7.2
 Total Depth 3962 Chlorides 1,0000 ppm System LCM 4#

Blow Description IF- 1/4" Blow built to 1"
ISI- No Return
FF- NO Blow
FSI- No Return

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|------------|------|------|------------|------|
| <u>15</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 Total 15 BHT 123 Gravity - API RW - @ - °F Chlorides - ppm

(A) Initial Hydrostatic 2012 Test 1050 T-On Location 9:55 pm
 (B) First Initial Flow 22 Jars 250 T-Started 11:00 pm
 (C) First Final Flow 46 Safety Joint 75 T-Open 1:22 AM
 (D) Initial Shut-In 1075 Circ Sub _____ T-Pulled 4:22 AM
 (E) Second Initial Flow 27 Hourly Standby _____ T-Out 6:46 AM
 (F) Second Final Flow 33 Mileage 44 RT 44
 (G) Final Shut-In 956 Sampler _____
 (H) Final Hydrostatic 1981 Straddle _____

Initial Open 30 Shale Packer _____ Ruined Shale Packer _____
 Initial Shut-In 60 Shale Packer _____ Ruined Packer _____
 Final Flow 30 Extra Packer _____ Extra Copies _____
 Final Shut-In 60 Extra Recorder _____ Sub Total 0
 Day Standby _____ Total 1419
 Accessibility _____ MP/DST Disc't _____
 Sub Total 1419

Approved By _____ Our Representative [Signature]

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



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53433

Well Name & No. O'Neill #1-14 Test No. 2 Date 6-13-15
 Company Murfin Drilling Co., Inc. Elevation 2918 KB 2913 GL
 Address 250 N Water STE #3000 Wichita, KS 67206
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 14 Twp. 3S Rge. 32 W Co. Rawlins State KS

Interval Tested 3956-4005 Zone Tested LKC "G"
 Anchor Length 49' Drill Pipe Run 3705 Mud Wt. 9.2
 Top Packer Depth 3952 Drill Collars Run 248' Vis 56
 Bottom Packer Depth 3956 Wt. Pipe Run 0 WL 7.2
 Total Depth 4005 Chlorides 1200 ppm System LCM 4#

Blow Description IF- 1/4" Blow built to 4 3/4"
ISI- no Return
FF- Surface Blow started at 4 min. Built to 5 1/4"
FSI- no Return

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|-----------|------|-----------|-----------|------|
| <u>150</u> | <u>WM</u> | | <u>30</u> | <u>70</u> | |
| <u>60</u> | <u>MW</u> | | <u>80</u> | <u>20</u> | |
| <u>60</u> | <u>MW</u> | | <u>50</u> | <u>50</u> | |
| | | | | | |
| | | | | | |

Rec Total 270 BHT 126 Gravity - API RW 14 @ 76 °F Chlorides 500000 ppm

(A) Initial Hydrostatic 2004 Test 1150 T-On Location 1:20 PM
 (B) First Initial Flow 23 Jars 250 T-Started 1:41 PM
 (C) First Final Flow 73 Safety Joint 75 T-Open 4:05 PM
 (D) Initial Shut-In 1300 Circ Sub _____ T-Pulled 8:05 PM
 (E) Second Initial Flow 86 Hourly Standby _____ T-Out 10:05 PM
 (F) Second Final Flow 149 Mileage 44 RT ⁴⁴ Comments _____
 (G) Final Shut-In 1276 Sampler _____
 (H) Final Hydrostatic 1994 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____

Initial Open 30
 Initial Shut-In 60
 Final Flow 60
 Final Shut-In 90

Sub Total 0
 Total 1519
 MP/DST Disc't _____

Sub Total 1519

Approved By _____ Our Representative

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TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 53434

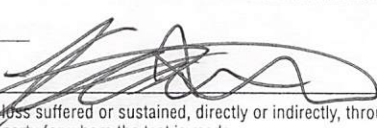
4/10

Well Name & No. O'Neill #1-14 Test No. 2 Date 6-14-15
 Company Murfin Drilling Co., Inc. Elevation 2918 KB 2913 GL
 Address 250 N Water STE #300 Wichita, KS 67206
 Co. Rep / Geo. Rocky Milford Rig Murfin #7
 Location: Sec. 17 Twp. 35 Rge. 32W Co. Rawlins State KS

Interval Tested 4003 - 4085 Zone Tested LSC "H-J"
 Anchor Length 82' Drill Pipe Run 3733' Mud Wt. 9.1
 Top Packer Depth 3999 Drill Collars Run 248' Vis 58
 Bottom Packer Depth 4003 Wt. Pipe Run 0 WL 7.6
 Total Depth 4085 Chlorides 1,300 ppm System LCM 4#
 Blow Description IF - 1/4" Blow built to 9"
ISI - No Return
FF - Surface Blow built to BoB in 45 min.
FSI - No Return

| Rec | Feet of | %gas | %oil | %water | %mud |
|-------------|----------------------------|--------------|-----------|------------|----------|
| <u>2</u> | <u>Feet of Free Oil</u> | <u>100</u> | <u>0</u> | <u>0</u> | <u>0</u> |
| <u>93</u> | <u>Feet of CX MW</u> | <u>5</u> | <u>55</u> | <u>40</u> | <u>0</u> |
| <u>306</u> | <u>Feet of BS MW</u> | <u>SPOTS</u> | <u>95</u> | <u>5</u> | <u>0</u> |
| <u>5</u> | <u>Feet of Mud (heavy)</u> | <u>0</u> | <u>0</u> | <u>100</u> | <u>0</u> |
| <u> </u> | <u>Feet of</u> | <u>0</u> | <u>0</u> | <u>0</u> | <u>0</u> |

Rec Total 406 BHT 128 Gravity - API RW 13 @ 88 °F Chlorides 48,000 ppm
 (A) Initial Hydrostatic 1974 Test 1150 T-On Location 9:45 AM
 (B) First Initial Flow 21 Jars 250 T-Started 10:07 AM
 (C) First Final Flow 125 Safety Joint 75 T-Open 12:05 PM
 (D) Initial Shut-In 1305 Circ Sub _____ T-Pulled 4:05 PM
 (E) Second Initial Flow 134 Hourly Standby _____ T-Out 6:18 PM
 (F) Second Final Flow 204 Mileage 44 RT X 2 44 Comments 100000 tools
 (G) Final Shut-In 1279 Sampler _____ 6:30 PM 6-15-15
 (H) Final Hydrostatic 1921 Straddle _____ Ruined Shale Packer _____
 Shale Packer _____ Ruined Packer _____
 Extra Packer _____ Extra Copies _____
 Initial Open 30 Extra Recorder _____ Sub Total 0
 Initial Shut-In 60 Day Standby _____ Total 1563
 Final Flow 60 Accessibility _____ MP/DST Disc't _____
 Final Shut-In 90 Sub Total 1563

Approved By _____ Our Representative 

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Robert L. Milford

PETROLEUM GEOLOGIST
Wichita, Kansas

GEOLOGISTS' REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR **Murfin Drilling Company, Inc.**
LEASE **O'Neill #1-14**
LOC SPOT **120 S & 20 E of C SE NW**

LOC FOOTAGE **2,100' FNL 2,000' FWL**

SEC. **14** TWPSP **3S** RANG **32W**

COUNTY **Rawlins** STATE **KANSAS**

API **15-153-21152-00-00**

CONTRACTOR **Murfin Drilling Co., Inc.** RIG NO. **7**

DRILLING STARTED **6-9-2015** COMPLETED **6-16-2015**

MUD DISPLACED **3,004** MUD TYPE **Chemical**

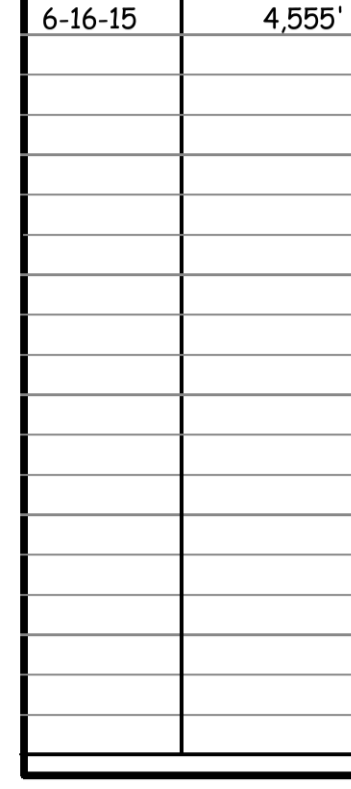
DRILLING TIME KEPT FROM **3,550'** TO **RTD**

SAMPLES SAVED FROM **3,550'** TO **RTD**

SAMPLES EXAMINED FROM **3,550'** TO **RTD**

GEOLOGICAL SUPERVISION FROM **3,550'** TO **RTD**

| FORMATION NAME | LOG TOP | DATUM | SAMPLE TOP | DATUM |
|----------------|------------|--------|------------|--------|
| Stone Corral | 2,689' | -229' | 2,687' | +231' |
| Topeka | 3,690' | -772' | 3,690' | -772' |
| Heebner | 3,893' | -935' | 3,893' | -935' |
| Drilling | 3,898' | -980' | 3,898' | -980' |
| Stark | 4,083' | -1165' | 4,083' | -1165' |
| Pawnee | 4,245' | -1327' | 4,245' | -1327' |
| Cherokee | 4,322' | -1404' | 4,322' | -1404' |
| Mississippi | 4,446' | -1528' | 4,446' | -1527' |
| Arbuckle | not on log | | 4,545' | -1627' |
| Total Depth | 4,558' | -1640' | 4,555' | -1637' |



FORMATION NAME LOG
Poreosity Log
Microresistivity Log
Borehole Compensated Sonic Log

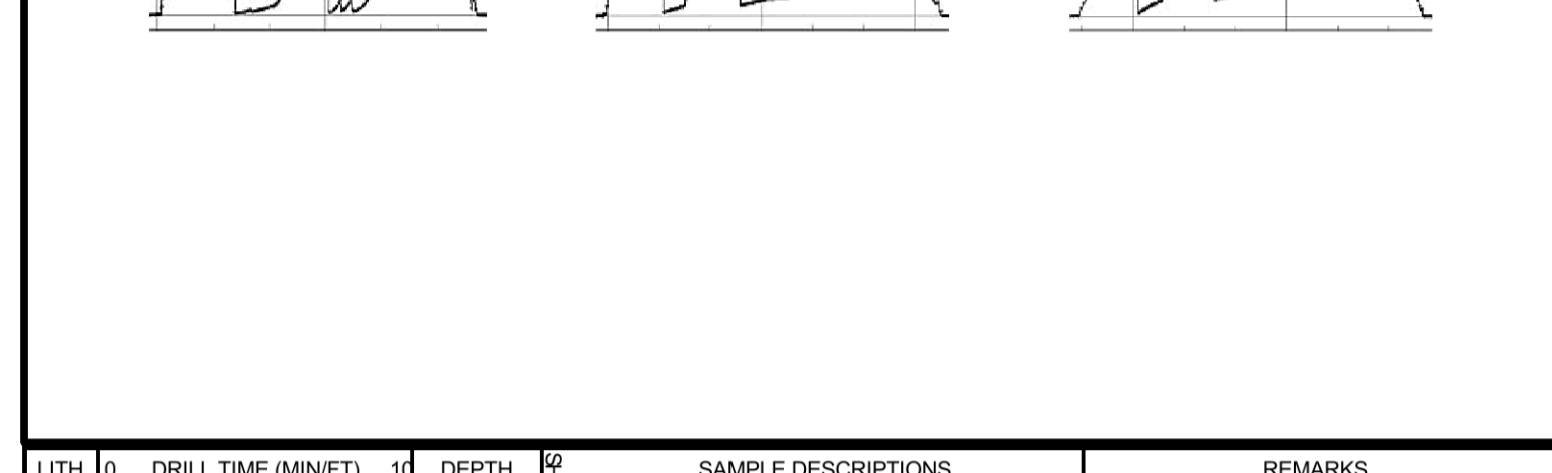
MESS/REMARKS FROM LOG
CASINIG RECORD
Conductor
Surface **8.5' @ 221'**
w/ 160 sacks cement
Production none

| DATE | 7:00 AM DEPTH | REMARKS |
|---------|---------------|---|
| 6-9-15 | 0' | Spud @ 3:30 pm. Plug down @ 8:00 pm. Drilled out plug @ 4:00 am on 6-10-15 w/ PDC bit |
| 6-11-15 | 700' | Cut 730' in last 24 hrs. (Cut 479' in 3 drlg hrs w/ PDC bit) |
| 6-11-15 | 3,060' | Cut 2,360' in last 24 hrs; 21.25 hrs drlg. Bit trip @ 3503' (ran button bit) |
| 6-12-15 | 3,745' | Cut 685' in last 24 hrs; 17.5 hrs drlg (6 hrs w/ PDC bit). DST #1 @ 3962' |
| 6-13-15 | 3,962' | Cut 217' in last 24 hrs; 9.5 hrs drlg. DST #2 @ 4005' |
| 6-14-15 | 4,085' | Cut 123' in last 24 hrs; 6 hrs drlg. DST #3 @ 4085' |
| 6-15-15 | 4,265' | Cut 180' in last 24 hrs; 8.75 hrs drlg. RTD 4555' @ 12:21 am on 6-16-15 |
| 6-16-15 | 4,555' | Cut 290' in last 24 hrs; 14 hrs drlg. P&A |

Remarks
The electric log measurements correlate from 1' to 2' lower to the drilling measurements.
Formation tops and lithology on this report have been corrected to the electric log.
The drilling samples were deposited at the Kansas Geological Survey office in Wichita.
Respectfully submitted,
Robert L. Milford

Drill Stem Test Charts

Drill Stem Test by **Trilobite Testing, Inc.**



| LITH | DRILL TIME (MIN/FT) | DEPTH | SAMPLE DESCRIPTIONS | REMARKS |
|------|---------------------|-------|---------------------|--------------------------------|
| | | 2650 | | Stone Corral 2689' (+229) EL |
| | | 2700 | | B/Stone Corral 2719' (+199) EL |
| | | 2750 | | |

| | | | | |
|--|--|------|---|--|
| | | 3550 | LS: crm-gry, fxl, fos, sub chky-prtly dns, pr por, NS Sh: red-brn (some soft & gummy) & gry-grn Sh: A.A. w/ some lt gry (some soft & gummy) | Morgan Mud check @ 3235': 62 Vis, 8.7 Wt, 6.4 WL, 800 ppm Chl, 1.5# LCM Call depth 3250' @ 10:14 am on 6-11-15 Bit trip at 3503'. Replaced PDC bit with button bit (1:15 pm to 7:15 pm) Pipe Strap @ 3503': Strap short 2.88' Straight Hole Survey @ 3503': 0.25° Dev. Samples start 3550' @ 9:27 pm on 6-11-15 |
| | | 3600 | LS: crm-gry, fxl, fos, some shly, sub chky-prtly dns, pr por, NS Sh: gry & red-brn LS: A.A., pr por, NS Sh: red-brn & gry-grn LS: crm-gry, fxl, fos, some shly, sub chky-prtly dns, pr por, NS LS: crm-It gry, fxl, fos in prt, sub chky-prtly dns w/ some chky, pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: crm-It gry, fxl, fos in prt, sub chky-prtly dns w/ some chky, pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: crm-It gry, fxl, fos in prt, sub chky-prtly dns w/ some chky, pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: crm-tan, fxl, fos in prt, some ool (crs), some shly (red-brn, mottled), sub chky-prtly dns w/ some chky, pr por, NS LS: A.A., pr por, NS Sdy LS-Calc Sd: crm-It gry, fn-vry fn grain sd, semi fri-brittle, pr vis por, NS Shly Sd: red-brn, calc, w/ Sh: red-brn (some sdy, some soft & gummy) Sh: red-brn, some soft & gummy, some sdy LS: crm-tan, fxl, fos in prt, sub chky-prtly dns w/ some chky, pr por, NS LS: crm-It gry, fxl, fos in prt, some shly (red-brn, mottled), sub chky-prtly dns w/ some chky, pr por, NS LS: wh-It gry, fxl, fos in prt, some shly (red-brn, mottled), sub chky-prtly dns w/ some chky-vry chky, pr por, NS Sh: Blk Carb Sh: red-brn, gry, grn (some soft & gummy) Sh: red-brn (some soft & gummy), some gry & grn LS: crm-It gry, fxl, fos in prt, sub chky-prly dns, pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: crm-It gry, fxl, fos in prt, sub chky-prly dns, pr por, NS LS: A.A., pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: wh-It gry, fxl, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, vry scat blk spdt-patchy stn, mstly tarry-asp w/ cpl pcs thk-hvy live oil stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn SD: It grn, fn-vry fn grain, calc, soft-semi brittle, pr vis por, tr blk patchy dead stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, tr blk tarry-aspd patchy stn, NSFO, no odor LS: wh-tan, fxl, sli fos sub chky-dns w/ some chky-vry chky, pr por, vry scat blk spdt-patchy stn, mstly tarry-asp w/ cpl pcs thk-hvy live oil stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos sub chky-dns w/ some chky-vry chky, pr por, vry scat blk spdt-patchy stn, mstly tarry-asp w/ cpl pcs thk-hvy live oil stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: A.A. pr fos por, tr med-drk brn patchy stn, 4 pcs w/ SFO, no odor (found 1st pc in 3960' 20' Circ after resuming drlg, then Circ at 3962') LS: crm-brn, fxl, sli fos, sub chky-prtly dns, pr por, tr blk tarry-aspd stn, NSFO, no odor (stn may be cavings) Sh: red-brn, gry, grn, brn LS: wh-It gry, fxl, ool (small)-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, tr blk tarry-aspd stn, NSFO, no odor Sh: Blk Carb Sh: red-brn & gry, some grn LS: wh-brn, fxl, fos-ool (small) in prt, sub chky-prtly dns w/ some chky-vry chky, pr w/ some fr intrprtcl & tr small vug por, vry scat lt-drk brn spdt-sub sat stn, tr blk spdt stn, S-FSFO, no odor, tr barren por LS: gry-brn, fxl, fos, prtly dns, pr por, NS Sh: red-brn, gry, grn Sh: red-brn, gry, grn Sh: A.A. LS: wh-It gry, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, NS Sh: red-brn & gry-grn Sh: A.A. LS: crm-gry, fxl, sli fos, some shly, sub chky-prtly dns, pr por, NS Sh: It gry (some calc)-med gry & red-brn LS: crm-med gry, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, gry, grn LS: crm-brn, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: It gry (some calc), med-drk gry, red-brn, grn Sh: red-brn & gry, some grn Sh: A.A. Calc Sd-Sdy LS: crm-It gry, fn grain sd, semi fri-brittle, pr vis por, NS Sh: red-brn (some sdy), gry, some grn LS: crm-tan, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, fxl, sli fos, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: wh-tan, fxl, ool-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS Sh: crm-gry, fxl, sli fos, some shly (red-brn, mottled), sub chky-prtly dns, pr por, NS LS: wh-tan, fxl, ool-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS Sh: crm-gry, fxl, sli fos, some shly (red-brn, mottled), sub chky-prtly dns w/ some chky-vry chky, pr por, NS Sh: gry, red-brn, grn (no Blk Carb) LS: wh-brn, fxl, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: gry-brn, fxl, sli fos, some shly, sub chky-prtly dns, pr por, NS Sh: It-gry (some calc) w/ small amnt red-brn & grn Sh: gry, some red-brn (no Blk Carb) LS: wh-tan, fxl, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, tr questionble brn spdt dead stn, NSFO, no fluor, no cut, no odor Sh: red-brn, gry, grn (some soft & gummy) LS: crm-tan, fxl, some shly (red-brn, mottled), sub chky-prtly dns, pr por, NS Sh: red-brn, gry, grn, w/ tr yell & brn LS: crm-tan, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, NS Sh: gry, grn, red-brn, & tr Sd: It gry, fn-vry fn grain, sli calc, semi brittle, pr vis por, NS Sh: gry-grn & red-brn LS: crm-tan, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, gry, grn, some yell Sd: clr-crm, fn-med grain, calc, semi fri-brittle, pr-fr vis por, NS Sh: red-brn, gry, grn Sh & Sd: A.A. w/ incrs amnt of sd, pr vis por, NS Sh: gry-grn & red-brn, w/ Sd: clr-crm, fn-med grain, calc, semi fri-brittle, pr-fr vis por, NS A.A. Sh: red-brn & gry-grn, w/ Sd: A.A. Sh: red-brn, gry, grn, w/ Sd: clr-crm, fn-med w/ some crs grains, sli calc, semi fri-brittle, pr-fr por, NS, & some loose crs Sd grains, clr-yell, sub md-sub ang A.A. Cht: wh-crm w/ some yell, fresh & weathered, fr pin-point por in weathered cht, NS Cht: A.A. LS: crm-It tan, fxl, some sli dolomitic, sub chky-prtly dns, pr por, NS, w/ good amount of Cht: wh-crm, some transl, mstly fresh w/ some weathered, NS LS: crm-tan, fxl, some dolomitic, sub chky-prtly dns, pr por, NS, w/ Cht: wh-crm w/ some yell, mstly fresh w/ some sli weathered, NS LS: wh-tan, fxl, sub chky-prtly dns w/ some chky-vry chky, pr por, NS, w/ Cht: clr-crm & some yell & some transl, mstly fresh w/ some sli weathered, NS LS: A.A. w/ Cht: crm-tan, some transl, mstly fresh w/ some sli weathered, NS LS: wh-tan, fxl, chky (wh-crm), sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: A.A. LS: crm-tan, fxl, ool in prt, sub chky-prtly dns, pr por, NS Dol: tan-It brn, fxl, prtly dns, pr por, NS Dol: crm-tan, fn w/ some med xln, prtly dns, fr w/ some gd pin point-vug por, NS | |
| | | 3850 | LS: crm-gry, fxl, fos, sub chky-prtly dns, pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: crm-It gry, fxl, fos in prt, sub chky-prly dns, pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: crm-It gry, fxl, fos in prt, sub chky-prly dns, pr por, NS LS: A.A., pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: wh-It gry, fxl, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, vry scat blk spdt-patchy stn, mstly tarry-asp w/ cpl pcs thk-hvy live oil stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn SD: It grn, fn-vry fn grain, calc, soft-semi brittle, pr vis por, tr blk patchy dead stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, tr blk tarry-aspd patchy stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos sub chky-dns w/ some chky-vry chky, pr por, vry scat blk spdt-patchy stn, mstly tarry-asp w/ cpl pcs thk-hvy live oil stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn SD: It grn, fn-vry fn grain, calc, soft-semi brittle, pr vis por, tr blk patchy dead stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, tr blk tarry-aspd patchy stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: A.A. pr fos por, tr med-drk brn patchy stn, 4 pcs w/ SFO, no odor (found 1st pc in 3960' 20' Circ after resuming drlg, then Circ at 3962') LS: crm-brn, fxl, sli fos, sub chky-prtly dns, pr por, tr blk tarry-aspd stn, NSFO, no odor (stn may be cavings) Sh: red-brn, gry, grn, brn LS: wh-It gry, fxl, ool (small)-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, tr blk tarry-aspd stn, NSFO, no odor Sh: Blk Carb Sh: red-brn & gry, some grn LS: wh-brn, fxl, fos-ool (small) in prt, sub chky-prtly dns w/ some chky-vry chky, pr w/ some fr intrprtcl & tr small vug por, vry scat lt-drk brn spdt-sub sat stn, tr blk spdt stn, S-FSFO, no odor, tr barren por LS: gry-brn, fxl, fos, prtly dns, pr por, NS Sh: red-brn, gry, grn Sh: red-brn, gry, grn Sh: A.A. LS: wh-It gry, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, NS Sh: red-brn & gry-grn Sh: A.A. LS: crm-gry, fxl, sli fos, some shly, sub chky-prtly dns, pr por, NS Sh: It gry (some calc)-med gry & red-brn LS: crm-med gry, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, gry, grn LS: crm-brn, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: It gry (some calc), med-drk gry, red-brn, grn Sh: red-brn & gry, some grn Sh: A.A. Calc Sd-Sdy LS: crm-It gry, fn grain sd, semi fri-brittle, pr vis por, NS Sh: red-brn (some sdy), gry, some grn LS: crm-tan, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, fxl, sli fos, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: wh-tan, fxl, ool-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS Sh: crm-gry, fxl, sli fos, some shly (red-brn, mottled), sub chky-prtly dns, pr por, NS LS: wh-tan, fxl, ool-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS Sh: gry, red-brn, grn (no Blk Carb) LS: wh-brn, fxl, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: gry-brn, fxl, sli fos, some shly, sub chky-prtly dns, pr por, NS Sh: It-gry (some calc) w/ small amnt red-brn & grn Sh: gry, some red-brn (no Blk Carb) LS: wh-tan, fxl, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, tr questionble brn spdt dead stn, NSFO, no fluor, no cut, no odor Sh: red-brn, gry, grn (some soft & gummy) LS: crm-tan, fxl, some shly (red-brn, mottled), sub chky-prtly dns, pr por, NS Sh: red-brn, gry, grn, w/ tr yell & brn LS: crm-tan, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, NS Sh: gry, grn, red-brn, & tr Sd: It gry, fn-vry fn grain, sli calc, semi brittle, pr vis por, NS Sh: gry-grn & red-brn LS: crm-tan, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, gry, grn, some yell Sd: clr-crm, fn-med grain, calc, semi fri-brittle, pr-fr vis por, NS Sh: red-brn, gry, grn Sh & Sd: A.A. w/ incrs amnt of sd, pr vis por, NS Sh: gry-grn & red-brn, w/ Sd: clr-crm, fn-med grain, calc, semi fri-brittle, pr-fr vis por, NS A.A. Sh: red-brn & gry-grn, w/ Sd: A.A. Sh: red-brn, gry, grn, w/ Sd: clr-crm, fn-med w/ some crs grains, sli calc, semi fri-brittle, pr-fr por, NS, & some loose crs Sd grains, clr-yell, sub md-sub ang A.A. Cht: wh-crm w/ some yell, fresh & weathered, fr pin-point por in weathered cht, NS Cht: A.A. LS: crm-It tan, fxl, some sli dolomitic, sub chky-prtly dns, pr por, NS, w/ good amount of Cht: wh-crm, some transl, mstly fresh w/ some weathered, NS LS: crm-tan, fxl, some dolomitic, sub chky-prtly dns, pr por, NS, w/ Cht: wh-crm w/ some yell, mstly fresh w/ some sli weathered, NS LS: wh-tan, fxl, sub chky-prtly dns w/ some chky-vry chky, pr por, NS, w/ Cht: clr-crm & some yell & some transl, mstly fresh w/ some sli weathered, NS LS: A.A. w/ Cht: crm-tan, some transl, mstly fresh w/ some sli weathered, NS LS: wh-tan, fxl, chky (wh-crm), sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: A.A. LS: crm-tan, fxl, ool in prt, sub chky-prtly dns, pr por, NS Dol: tan-It brn, fxl, prtly dns, pr por, NS Dol: crm-tan, fn w/ some med xln, prtly dns, fr w/ some gd pin point-vug por, NS | |
| | | 3900 | LS: crm-gry, fxl, fos, sub chky-prtly dns, pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: crm-It gry, fxl, fos in prt, sub chky-prly dns, pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: crm-It gry, fxl, fos in prt, sub chky-prly dns, pr por, NS LS: A.A., pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: wh-It gry, fxl, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, vry scat blk spdt-patchy stn, mstly tarry-asp w/ cpl pcs thk-hvy live oil stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn SD: It grn, fn-vry fn grain, calc, soft-semi brittle, pr vis por, tr blk patchy dead stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, tr blk tarry-aspd patchy stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos sub chky-dns w/ some chky-vry chky, pr por, vry scat blk spdt-patchy stn, mstly tarry-asp w/ cpl pcs thk-hvy live oil stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn SD: It grn, fn-vry fn grain, calc, soft-semi brittle, pr vis por, tr blk patchy dead stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, tr blk tarry-aspd patchy stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: A.A. pr fos por, tr med-drk brn patchy stn, 4 pcs w/ SFO, no odor (found 1st pc in 3960' 20' Circ after resuming drlg, then Circ at 3962') LS: crm-brn, fxl, sli fos, sub chky-prtly dns, pr por, tr blk tarry-aspd stn, NSFO, no odor (stn may be cavings) Sh: red-brn, gry, grn, brn LS: wh-It gry, fxl, ool (small)-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, tr blk tarry-aspd stn, NSFO, no odor Sh: Blk Carb Sh: red-brn & gry, some grn LS: wh-brn, fxl, fos-ool (small) in prt, sub chky-prtly dns w/ some chky-vry chky, pr w/ some fr intrprtcl & tr small vug por, vry scat lt-drk brn spdt-sub sat stn, tr blk spdt stn, S-FSFO, no odor, tr barren por LS: gry-brn, fxl, fos, prtly dns, pr por, NS Sh: red-brn, gry, grn Sh: red-brn, gry, grn Sh: A.A. LS: wh-It gry, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, NS Sh: red-brn & gry-grn Sh: A.A. LS: crm-gry, fxl, sli fos, some shly, sub chky-prtly dns, pr por, NS Sh: It gry (some calc)-med gry & red-brn LS: crm-med gry, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, gry, grn LS: crm-brn, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: It gry (some calc), med-drk gry, red-brn, grn Sh: red-brn & gry, some grn Sh: A.A. Calc Sd-Sdy LS: crm-It gry, fn grain sd, semi fri-brittle, pr vis por, NS Sh: red-brn (some sdy), gry, some grn LS: crm-tan, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, fxl, sli fos, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: wh-tan, fxl, ool-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS Sh: crm-gry, fxl, sli fos, some shly (red-brn, mottled), sub chky-prtly dns, pr por, NS LS: wh-tan, fxl, ool-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS Sh: gry, red-brn, grn (no Blk Carb) LS: wh-brn, fxl, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: gry-brn, fxl, sli fos, some shly, sub chky-prtly dns, pr por, NS Sh: It-gry (some calc) w/ small amnt red-brn & grn Sh: gry, some red-brn (no Blk Carb) LS: wh-tan, fxl, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, tr questionble brn spdt dead stn, NSFO, no fluor, no cut, no odor Sh: red-brn, gry, grn (some soft & gummy) LS: crm-tan, fxl, some shly (red-brn, mottled), sub chky-prtly dns, pr por, NS Sh: red-brn, gry, grn, w/ tr yell & brn LS: crm-tan, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, NS Sh: gry, grn, red-brn, & tr Sd: It gry, fn-vry fn grain, sli calc, semi brittle, pr vis por, NS Sh: gry-grn & red-brn LS: crm-tan, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, gry, grn, some yell Sd: clr-crm, fn-med grain, calc, semi fri-brittle, pr-fr vis por, NS Sh: red-brn, gry, grn Sh & Sd: A.A. w/ incrs amnt of sd, pr vis por, NS Sh: gry-grn & red-brn, w/ Sd: clr-crm, fn-med grain, calc, semi fri-brittle, pr-fr vis por, NS A.A. Sh: red-brn & gry-grn, w/ Sd: A.A. Sh: red-brn, gry, grn, w/ Sd: clr-crm, fn-med w/ some crs grains, sli calc, semi fri-brittle, pr-fr por, NS, & some loose crs Sd grains, clr-yell, sub md-sub ang A.A. Cht: wh-crm w/ some yell, fresh & weathered, fr pin-point por in weathered cht, NS Cht: A.A. LS: crm-It tan, fxl, some sli dolomitic, sub chky-prtly dns, pr por, NS, w/ good amount of Cht: wh-crm, some transl, mstly fresh w/ some weathered, NS LS: crm-tan, fxl, some dolomitic, sub chky-prtly dns, pr por, NS, w/ Cht: wh-crm w/ some yell, mstly fresh w/ some sli weathered, NS LS: wh-tan, fxl, sub chky-prtly dns w/ some chky-vry chky, pr por, NS, w/ Cht: clr-crm & some yell & some transl, mstly fresh w/ some sli weathered, NS LS: A.A. w/ Cht: crm-tan, some transl, mstly fresh w/ some sli weathered, NS LS: wh-tan, fxl, chky (wh-crm), sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: A.A. LS: crm-tan, fxl, ool in prt, sub chky-prtly dns, pr por, NS Dol: tan-It brn, fxl, prtly dns, pr por, NS Dol: crm-tan, fn w/ some med xln, prtly dns, fr w/ some gd pin point-vug por, NS | |
| | | 3950 | LS: crm-gry, fxl, fos, sub chky-prtly dns, pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: crm-It gry, fxl, fos in prt, sub chky-prly dns, pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: crm-It gry, fxl, fos in prt, sub chky-prly dns, pr por, NS LS: A.A., pr por, NS Sh: red-brn (some soft & gummy), some gry & grn LS: wh-It gry, fxl, fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, vry scat blk spdt-patchy stn, mstly tarry-asp w/ cpl pcs thk-hvy live oil stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn SD: It grn, fn-vry fn grain, calc, soft-semi brittle, pr vis por, tr blk patchy dead stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, tr blk tarry-aspd patchy stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos sub chky-dns w/ some chky-vry chky, pr por, vry scat blk spdt-patchy stn, mstly tarry-asp w/ cpl pcs thk-hvy live oil stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn SD: It grn, fn-vry fn grain, calc, soft-semi brittle, pr vis por, tr blk patchy dead stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: wh-tan, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, tr blk tarry-aspd patchy stn, NSFO, no odor Sh: red-brn (some soft & gummy), some gry & grn LS: A.A. pr fos por, tr med-drk brn patchy stn, 4 pcs w/ SFO, no odor (found 1st pc in 3960' 20' Circ after resuming drlg, then Circ at 3962') LS: crm-brn, fxl, sli fos, sub chky-prtly dns, pr por, tr blk tarry-aspd stn, NSFO, no odor (stn may be cavings) Sh: red-brn, gry, grn, brn LS: wh-It gry, fxl, ool (small)-fos in prt, sub chky-prtly dns w/ some chky-vry chky, pr por, tr blk tarry-aspd stn, NSFO, no odor Sh: Blk Carb Sh: red-brn & gry, some grn LS: wh-brn, fxl, fos-ool (small) in prt, sub chky-prtly dns w/ some chky-vry chky, pr w/ some fr intrprtcl & tr small vug por, vry scat lt-drk brn spdt-sub sat stn, tr blk spdt stn, S-FSFO, no odor, tr barren por LS: gry-brn, fxl, fos, prtly dns, pr por, NS Sh: red-brn, gry, grn Sh: red-brn, gry, grn Sh: A.A. LS: wh-It gry, fxl, sli fos, sub chky-prtly dns w/ some chky, pr por, NS Sh: red-brn & gry-grn Sh: A.A. LS: crm-gry, fxl, sli fos, some shly, sub chky-prtly dns, pr por, NS Sh: It gry (some calc)-med gry & red-brn LS: crm-med gry, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, gry, grn LS: crm-brn, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: It gry (some calc), med-drk gry, red-brn, grn Sh: red-brn & gry, some grn Sh: A.A. Calc Sd-Sdy LS: crm-It gry, fn grain sd, semi fri-brittle, pr vis por, NS Sh: red-brn (some sdy), gry, some grn LS: crm-tan, fxl, sli fos, sub chky-prtly dns, pr por, NS Sh: red-brn, fxl, sli fos, sub chky-prtly dns w/ some chky-vry chky, pr por, NS LS: wh-tan, fxl, ool-fos | |

acc
Prod-MG

Date: 6/9/2015
Invoice # 1455

P.O.#:

Due Date: 7/9/2015

Division: Russell



QUALITY OILWELL CEMENTING, INC.
PO Box 32 - 740 West Wichita Ave, Russell KS 67665
Phone: 785-324-1041 fax: 785-483-1087
Email: cementing@ruraltel.net

Invoice

Contact:
Murfin Drilling Company
Address/Job Location:
Murfin Drilling Company
P.O. Box 288
Russell Ks 67665

USED FOR _____

OPERATOR PAY MDC
LEASE: O'Neill 1-14
/n

APPROVED _____

Reference:
O NEAIL 1-14

Description of Work:
SURFACE

| Services / Items Included: | Quantity | Price | Taxable | Item | Quantity | Price | Taxable |
|--|----------|-------------|---------|------|----------|-------|---------|
| Labor | | \$ 840.02 | No | | | | |
| Common-Class A | 165 | \$ 2,098.91 | Yes | | | | |
| Pump Truck Mileage-Job to Nearest Camp | 58 | \$ 244.45 | No | | | | |
| Calcium Chloride | 5 | \$ 213.26 | Yes | | | | |
| Bulk Truck Mileage-Job to Nearest Bulk Plant | 58 | \$ 155.56 | No | | | | |
| Bulk Truck Matl-Material Service Charge | 170 | \$ 130.27 | No | | | | |

Invoice Terms:

Net 30

SubTotal: \$ 3,682.48
Discount Available ONLY if Invoice is Paid & Received within listed terms of invoice: \$ (92.06)

SubTotal for Taxable Items: \$ 2,254.37
SubTotal for Non-Taxable Items: \$ 1,336.05

7.90% Rawlins County Sales Tax

Total: \$ 3,590.42
Tax: \$ 178.10
Amount Due: \$ 3,768.52
Applied Payments:
Balance Due: \$ 3,768.52

Thank You For Your Business!

Past Due Invoices are subject to a service charge (annual rate of 24%)
This does not include any applicable taxes unless it is listed.
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QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

Home Office P.O. Box 32 Russell, KS 67665

No. 1455

Phone 785-483-2025
Cell 785-324-1041

| | | | | | | | | | | | | | | | |
|---------|--------|------|----|------|---|-------|----|--------------------------------|---------|-------|----|-------------|--|--------|--------|
| Date | 6-9-15 | Sec. | 14 | Twp. | 3 | Range | 32 | County | Rawlins | State | KS | On Location | | Finish | 8:00pm |
| Lease | | | | | | | | Location | | | | | | | |
| O'Neill | | | | | | | | A Wood Lot 29 RD 1 3/4s E into | | | | | | | |

| | | | | | |
|---------------------|-----------|------------|-----------------|--|--|
| Contractor | Murphy #7 | Well No. | 1-14 | Owner | To Quality Oilwell Cementing, Inc. You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. |
| Type Job | Surface | Charge To | Murphy Drilling | | |
| Hole Size | 12 1/4 | T.D. | 221 | | |
| Csg. | 8 5/8 | Depth | 220 | | |
| Tbg. Size | | Depth | | | |
| Tool | | Depth | | | |
| Cement Left in Csg. | 15' | Shoe Joint | | The above was done to satisfaction and supervision of owner agent or contractor. | |
| Meas Line | | Displace | 13 BCL | Cement Amount Ordered 165com 31-CC | |

| EQUIPMENT | | | | Common | |
|-----------|----|-----|---------------|--------|-----------|
| Pumptrk | 20 | No. | Cement Helper | 163 | Poz. Mix |
| Bulktrk | | No. | Driver | | Gel. |
| Bulktrk | 9 | No. | Driver | | Calcium 5 |

JOB SERVICES & REMARKS

Remarks:

Rat Hole

Mouse Hole

Centralizers

Baskets

D/V or Port Collar

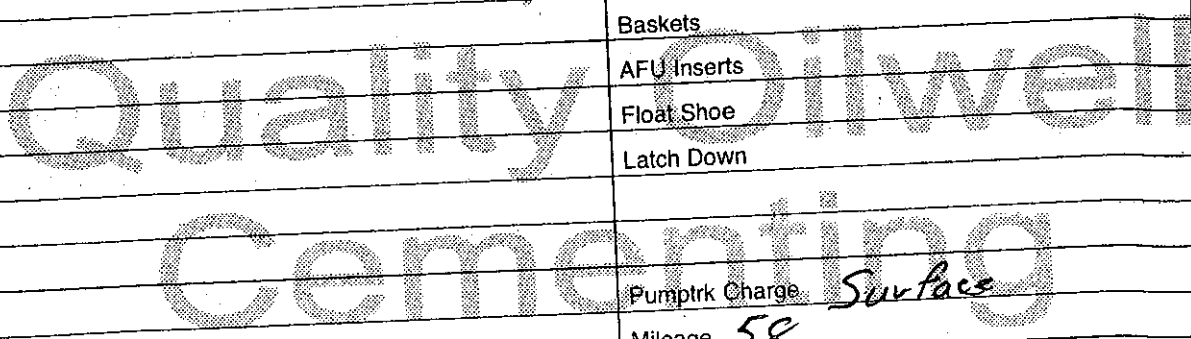
8 5/8 on Bottom Est. Circulation.

Mix 165 SR & Displace

Cement Circulated!

| FLOAT EQUIPMENT | |
|-----------------|-----|
| Handling | 170 |
| Mileage | |
| Guide Shoe | |
| Centralizer | |
| Baskets | |
| AFU Inserts | |
| Float Shoe | |
| Latch Down | |

| | | | |
|------------------------|---------|--------------|--|
| Pumptrk Charge | Surface | Tax | |
| Mileage | 58 | Discount | |
| Signature Kelly Wilson | | Total Charge | |



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Home Office P.O. Box 32 Russell, KS 67665

No. 1163

| | | | | | | | | | | | | | | | |
|------|---------|------|----|------|---|-------|----|--------|---------|-------|----|-------------|--|--------|------|
| Date | 6-16-15 | Sec. | 14 | Twp. | 3 | Range | 32 | County | Rawlins | State | Ks | On Location | | Finish | 1800 |
|------|---------|------|----|------|---|-------|----|--------|---------|-------|----|-------------|--|--------|------|

Lease Dwell Well No. 1-14 Location Wood E to 29rd 1 3/4 S E into

Contractor Murfin 7 Owner To Quality Oilwell Cementing, Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed.

Type Job Plug Charge To Murfin Dwy

Hole Size 7 7/8 T.D. 4555 Street _____ City _____ State _____

Csg. D-7 4 1/2 Depth 4535 The above was done to satisfaction and supervision of owner agent or contractor.

Tbg. Size _____ Depth _____ Cement Amount Ordered 30.5 sk 60/40 4% gel 1/4 # flow

Tool _____ Depth _____ Cement Left in Csg. _____ Shoe Joint _____

Meas Line _____ Displace mud/water Common 183

EQUIPMENT Poz. Mix 122

| | | | |
|----------------------------|----------------|---------------------|----------------|
| Pumptrk <u>5</u> No. _____ | Cementer _____ | Helper <u>Cody</u> | Gel. <u>11</u> |
| Bulktrk <u>4</u> No. _____ | Driver _____ | Driver <u>Dwy</u> | Calcium _____ |
| Bulktrk <u>2</u> No. _____ | Driver _____ | Driver <u>Billy</u> | Hulls _____ |

JOB SERVICES & REMARKS Salt _____

Remarks: _____ Flowseal 76#

Rat Hole 30 sk Kol-Seal _____

Mouse Hole 15 sk Mud CLR 48 _____

Centralizers _____ CFL-117 or CD110 CAF 38 _____

Baskets _____ Sand _____

D/V or Port Collar _____ Handling 316

4th 4535' 50 sks Mileage _____

2nd 2700' 50 sks **FLOAT EQUIPMENT**

3rd 2025' 100 sks Guide Shoe _____

4th 275' 50 sks Centralizer 1 Dwy hole

5th 40' 10 sks Baskets _____

Rat hole 30 sks AFU Inserts _____

mouse 15 sks Float Shoe _____

_____ Latch Down _____

_____ Pumptrk Charge plug

_____ Mileage 58

_____ Tax _____

_____ Discount _____

_____ Total Charge _____

X Signature Kelly Wilson

MDCI
 O'Neill #1-14
 2100' FNL 2000' FWL
 Sec. 14-3S-32W
 2918' KB

| Formation | Sample top | Datum | Ref | Log tops | Datum | Ref |
|-------------|------------|-------|-------|----------|-------|------|
| Anhydrite | 2687 | +231 | -13 | 2689 | +229 | -15 |
| B/Anhydrite | 2718 | +200 | -13 | 2719 | +199 | -14 |
| Topeka | 3687 | -769 | -21 | 3690 | -772 | -24 |
| Heebner | 3850 | -932 | -20 | 3854 | -936 | -24 |
| Lansing | 3896 | -978 | -22 | 3898 | -980 | -24 |
| Stark | 4081 | -1163 | -23 | 4083 | -1165 | -25 |
| BKC | 4132 | -1214 | -24 | 4131 | -1213 | -23 |
| Pawnee | 4244 | -1326 | -18 | 4246 | -1328 | -20 |
| Cherokee | 4319 | -1401 | -15 | 4322 | -1404 | -18 |
| Mississippi | 4451 | -1533 | +2 | 4445 | -1527 | +8 |
| Arbuckle | 4545 | -1627 | ----- | 4470 | -1552 | ---- |
| RTD | 4555 | -1637 | | | | |
| LTD | | | | 4558 | -1640 | |