

Confidentiality Requested:

Yes No

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

Form ACO-1

January 2018

Form must be Typed

Form must be Signed

All blanks must be Filled

**WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

OPERATOR: License # _____

Name: _____

Address 1: _____

Address 2: _____

City: _____ State: _____ Zip: _____ + _____

Contact Person: _____

Phone: (_____) _____

CONTRACTOR: License # _____

Name: _____

Wellsite Geologist: _____

Purchaser: _____

Designate Type of Completion:

New Well Re-Entry Workover

Oil WSW SWD

Gas DH EOR

OG GSW

CM (Coal Bed Methane)

Cathodic Other (Core, Expl., etc.): _____

If Workover/Re-entry: Old Well Info as follows:

Operator: _____

Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____

Deepening Re-perf. Conv. to EOR Conv. to SWD

Plug Back Liner Conv. to GSW Conv. to Producer

Commingled Permit #: _____

Dual Completion Permit #: _____

SWD Permit #: _____

EOR Permit #: _____

GSW Permit #: _____

Spud Date or _____ Date Reached TD _____ Completion Date or
Recompletion Date _____ Recompletion Date _____

API No.: _____

Spot Description: _____

_____ - _____ - _____ Sec. _____ Twp. _____ S. R. _____ East West

_____ Feet from North / South Line of Section

_____ Feet from East / West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE NW SE SW

GPS Location: Lat: _____, Long: _____
(e.g. xx.xxxxx) (e.g. -xxx.xxxxx)

Datum: NAD27 NAD83 WGS84

County: _____

Lease Name: _____ Well #: _____

Field Name: _____

Producing Formation: _____

Elevation: Ground: _____ Kelly Bushing: _____

Total Vertical Depth: _____ Plug Back Total Depth: _____

Amount of Surface Pipe Set and Cemented at: _____ Feet

Multiple Stage Cementing Collar Used? Yes No

If yes, show depth set: _____ Feet

If Alternate II completion, cement circulated from: _____

feet depth to: _____ w/ _____ sx cmt.

Drilling Fluid Management Plan

(Data must be collected from the Reserve Pit)

Chloride content: _____ ppm Fluid volume: _____ bbls

Dewatering method used: _____

Location of fluid disposal if hauled offsite:

Operator Name: _____

Lease Name: _____ License #: _____

Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West

County: _____ Permit #: _____

AFFIDAVIT

I am the affiant and I hereby certify that all requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Submitted Electronically

KCC Office Use ONLY

Confidentiality Requested

Date: _____

Confidential Release Date: _____

Wireline Log Received Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

ALT I II III Approved by: _____ Date: _____

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 Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample Name Top Datum |
|--|---|

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

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

1. Did you perform a hydraulic fracturing treatment on this well? Yes No *(If No, skip questions 2 and 3)*
2. Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons? Yes No *(If No, skip question 3)*
3. Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry? Yes No *(If No, fill out Page Three of the ACO-1)*

| | | | | |
|---|--|---------|-------------|-----------------------|
| Date of first Production/Injection or Resumed Production/Injection: | Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____ | | | |
| Estimated Production Per 24 Hours | Oil Bbls. | Gas Mcf | Water Bbls. | Gas-Oil Ratio Gravity |

| | | |
|---|---|------------------------------------|
| DISPOSITION OF GAS: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION: <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <i>(Submit ACO-4)</i> | PRODUCTION INTERVAL: Top Bottom |
|---|---|------------------------------------|

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

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

| | |
|-----------|--------------------------|
| Form | ACO1 - Well Completion |
| Operator | Mai Oil Operations, Inc. |
| Well Name | RICHARDS 15 |
| Doc ID | 1462290 |

Tops

| Name | Top | Datum |
|--------------|------|-------|
| Anhydrite | 1557 | 541 |
| Topeka | 3140 | -1042 |
| Heebner | 3350 | -1252 |
| Toronto | 3370 | -1272 |
| Lansing | 3388 | -1290 |
| Base KC | 3622 | -1524 |
| Marmaton | 3630 | -1532 |
| Conglomerate | 3655 | -1556 |
| Arbuckle | 3703 | -1605 |

| | |
|-----------|--------------------------|
| Form | ACO1 - Well Completion |
| Operator | Mai Oil Operations, Inc. |
| Well Name | RICHARDS 15 |
| Doc ID | 1462290 |

Perforations

| Shots Per Foot | Perforation Top | Perforation Bottom | BridgePlugType | BridgePlugSet At | Material Record |
|----------------|-----------------|--------------------|----------------|------------------|-----------------|
| 4 | 3398 | 3402 | | | |
| 4 | 3428 | 3432 | | | |
| 4 | 3470 | 3474 | | | |
| 4 | 3482 | 3486 | | | |
| 4 | 3522 | 3526 | | | |
| 4 | 3560 | 3568 | | | |
| 4 | 3576 | 3580 | | | |

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 1175

| | | | | | | | | | | | | | | | |
|-----------------------------------|------------|------|------------|------------|-------|--|------------------------------------|------------------------------------|--|-------|----|-------------|--|--------------|--------|
| Date | 1-14-19 | Sec. | 6 | Twp. | 11 | Range | 20 | County | Ellis | State | Ks | On Location | | Finish | 5:00PM |
| Lease | Richards | | Well No. | 15 | | Location | | Ellis - N to C.L., West curve 1W | | | | | | | |
| Contractor | Southwind | | # | 3 | | Owner | | to 100th Rd, 15, 1/2 E, N+E to Rig | | | | | | | |
| Type Job | Surface | | | | | | To Quality Oilwell Cementing, Inc. | | You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. | | | | | | |
| Hole Size | 12 1/4" | | T.D. | 261' | | Charge To | | Main oil operations | | | | | | | |
| Csg. | 8 5/8" | | Depth | 261' | | Street | | | | | | | | | |
| Tbg. Size | | | Depth | | | City | | State | | | | | | | |
| Tool | | | Depth | | | The above was done to satisfaction and supervision of owner agent or contractor. | | | | | | | | | |
| Cement Left in Csg. | 15' | | Shoe Joint | 15' | | Cement Amount Ordered | | 180 60/40 4 1/2 cc 2% Gel | | | | | | | |
| Meas Line | | | Displace | 15 1/2 BLS | | | | | | | | | | | |
| EQUIPMENT | | | | | | | | | | | | | | | |
| Pumptrk | 17 | No. | Cementer | | David | | Common | | 110 | | | | | | |
| | | | Helper | | | | Poz. Mix | | 70 | | | | | | |
| Bulktrk | 14 | No. | Driver | | Jack | | Gel. | | 3 | | | | | | |
| Bulktrk | piu | No. | Driver | | Rick | | Calcium | | 8 | | | | | | |
| JOB SERVICES & REMARKS | | | | | | | | | | | | | | | |
| Remarks | Cement did | | Circulate | | | | Hulls | | | | | | | | |
| Rat Hole | | | | | | | Salt | | | | | | | | |
| Mouse Hole | | | | | | | Flowseal | | | | | | | | |
| Centralizers | | | | | | | Kol-Seal | | | | | | | | |
| Baskets | | | | | | | Mud CLR 48 | | | | | | | | |
| DAV or Port Collar | | | | | | | CFL-117 or CD110 CAF 38 | | | | | | | | |
| | | | | | | | Sand | | | | | | | | |
| | | | | | | | Handling | | | | | | | | |
| | | | | | | | Mileage | | | | | | | | |
| QUALITY OILWELL CEMENTING | | | | | | | | | | | | | | | |
| | | | | | | | Guide Shoe | | | | | | | | |
| | | | | | | | Centralizer | | | | | | | | |
| | | | | | | | Baskets | | | | | | | | |
| | | | | | | | AFU Inserts | | | | | | | | |
| | | | | | | | Float Shoe | | | | | | | | |
| | | | | | | | Latch Down | | | | | | | | |
| | | | | | | | Pumptrk Charge | | Surface | | | | | | |
| | | | | | | | Mileage | | 35 | | | | | | |
| | | | | | | | | | | | | | | Tax | |
| | | | | | | | | | | | | | | Discount | |
| | | | | | | | | | | | | | | Total Charge | |
| X Signature | Jay Davis | | | | | | | | | | | | | | |

QUALITY OILWELL CEMENTING, INC.

Federal Tax I.D.# 20-2886107

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

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

No. 1181

| | | | | | | | | | | | | | | | |
|------------------------------------|---------|----------------|---|------------|----|--------------------------------|----|--|-------|-------|----|-------------|--|--------|--------|
| Date | 1-22-19 | Sec. | 6 | Twp. | 11 | Range | 20 | County | Ellis | State | Ks | On Location | | Finish | 8:15AM |
| Lease | | | | | | | | Location | | | | | | | |
| Richards | | | | | | | | EMOS - N to C.L., West Curve 1 1/4 | | | | | | | |
| Contractor | | Southwind | | Well No. | | #15 | | Owner | | | | | | | |
| Type Job | | Longstring | | #3 | | 15 1/2 E N 1/4 Int N + E - 1/4 | | | | | | | | | |
| Hole Size | | 7 7/8" | | T.D. | | 3770' | | 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. | | | | | | | |
| Csg. | | 5 1/2" New 14# | | Depth | | 3768.64' | | Charge To Major oil operations | | | | | | | |
| Tbg. Size | | | | Depth | | | | Street | | | | | | | |
| Tool | | Port Collar | | Depth | | 1543.20' | | City | | | | | | | |
| Cement Left in Csg. | | 23.01' | | Shoe Joint | | 23.01' | | State | | | | | | | |
| Meas Line | | | | Displace | | 9 1/4 BLS | | The above was done to satisfaction and supervision of owner agent or contractor. | | | | | | | |
| | | | | | | | | Cement Amount Ordered 160 6 3/4 10% Salt 2% Gel | | | | | | | |
| | | | | | | | | 1/4# Flo Seal - 1000 gal Mud Clr 48 | | | | | | | |
| EQUIPMENT | | | | | | | | Common | | | | | | | |
| Pumptrk | | 17 | | No. | | Cementer | | Brett | | | | | | | |
| Bulktrk | | 15 | | No. | | Driver | | Doug | | | | | | | |
| Bulktrk | | P.H. | | No. | | Driver | | Rick | | | | | | | |
| JOB SERVICES & REMARKS | | | | | | | | Hulls | | | | | | | |
| Remarks: | | | | | | | | Salt | | | | | | | |
| Rat Hole 30sx | | | | | | | | Flowseal | | | | | | | |
| Mouse Hole | | | | | | | | Kol-Seal | | | | | | | |
| Centralizers 1-11, 52 | | | | | | | | Mud CLR 48 | | | | | | | |
| Baskets 53 | | | | | | | | CFL-117 or CD110 CAF 38 | | | | | | | |
| D/V on Port Collar 53 1543.20' | | | | | | | | Sand | | | | | | | |
| Pipe on bottom break Circulation | | | | | | | | Handling | | | | | | | |
| Pump 1000 gal mud clear 48 plug | | | | | | | | Mileage | | | | | | | |
| Rathole w/ 30sx. Hook to 5 1/2" | | | | | | | | FLOAT EQUIPMENT | | | | | | | |
| Casing + mix 130x Cement, shut | | | | | | | | Guide Shoe Port Collar | | | | | | | |
| down + wash pump + lines Displaced | | | | | | | | Centralizer 12 | | | | | | | |
| plug w/ 9 1/4 BLS of H2O. | | | | | | | | Baskets 1 | | | | | | | |
| Released + held. | | | | | | | | AFU Inserts | | | | | | | |
| Left pressure 120 # | | | | | | | | Float Shoe 1 | | | | | | | |
| Laid plug to 1200 # | | | | | | | | Latch Down 1 | | | | | | | |
| | | | | | | | | Pumptrk Charge | | | | | | | |
| | | | | | | | | Mileage | | | | | | | |
| | | | | | | | | Tax | | | | | | | |
| | | | | | | | | Discount | | | | | | | |
| X Signature | | | | | | | | Total Charge | | | | | | | |

QUALITY OILWELL CEMENTING, INC.

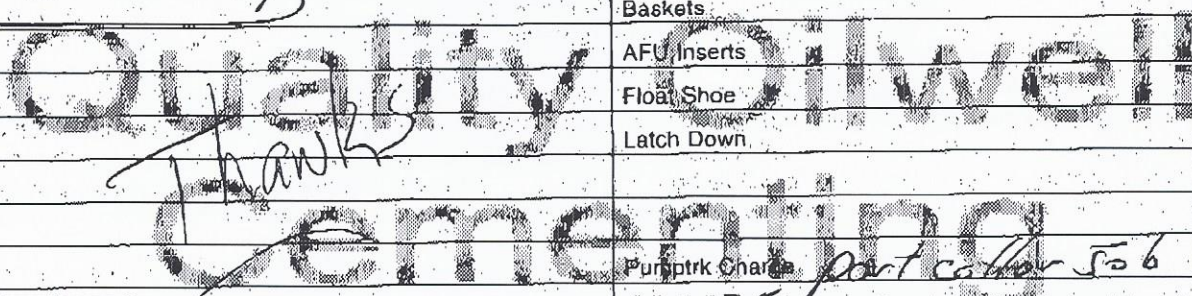
Federal Tax I.D.# 20-2886107

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

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

No. 1224

| Date | Sec. | Twp. | Range | County | State | On Location | Finish | |
|--|----------------------|----------|--|--------|-------|-------------|----------|--|
| 2-18-19 | | | | Ellis | KS | | 11:00 AM | |
| Location <i>Palco S Coline 3w 400 1/2 NE 1/4</i> | | | | | | | | |
| Lease <i>Richard's</i> | | | Well No. <i>15</i> | | Owner | | | |
| Contractor <i>Express</i> | | | To Quality Oilwell Cementing, Inc. | | | | | |
| Type Job <i>Port Calar</i> | | | You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as listed. | | | | | |
| Hole Size <i>7 7/8</i> | T.D. | | Charge To <i>Mai Oil</i> | | | | | |
| Csg. <i>5 1/2</i> | Depth | | Street | | | | | |
| Tbg. Size <i>2 7/8</i> | Depth | | City State | | | | | |
| Tool <i>Port Calar</i> | Depth <i>1543</i> | | The above was done to satisfaction and supervision of owner agent or contractor. | | | | | |
| Cement Left in Csg. | Shoe Joint | | Cement Amount Ordered <i>275 @ 2 QMDC 1/4 #10</i> | | | | | |
| Meas Line | Displace <i>7 BL</i> | | Common <i>6 gal 140 @ 2 QMDC</i> | | | | | |
| EQUIPMENT | | | | | | | | |
| Pumptrk <i>17</i> | No. | Cementor | Poz. Mix | | | | | |
| | | Helper | Gel. | | | | | |
| Bulktrk | No. | Driver | Calcium | | | | | |
| Bulktrk <i>14</i> | No. | Driver | Hulls | | | | | |
| JOB SERVICES & REMARKS | | | | | | | | |
| Remarks: <i>KCC Pat Stand</i> | | | Salt | | | | | |
| Rat Hole | | | Flowseal <i>50#</i> | | | | | |
| Mouse Hole | | | Kol-Seal | | | | | |
| Centralizers | | | Mud CLR 48 | | | | | |
| Baskets | | | CFL-117 or CD110 CAF 38 | | | | | |
| DN or Port Collar | | | Sand | | | | | |
| <i>Test 5 1/2 to 500 50T 3 gal to</i> | | | Handling <i>75</i> | | | | | |
| <i>Port Calar Open Tool MA 3 1/2</i> | | | Mileage | | | | | |
| <i>Est. Cementer and 140 @ 2 QMDC</i> | | | PORT EQUIPMENT | | | | | |
| <i>Close Test Test 20 gal. by 5 gal. wash</i> | | | Guide Shoe | | | | | |
| <i>(USED) 140SK 6 gal</i> | | | Centralizer | | | | | |
| | | | Baskets | | | | | |
| | | | AFU Inserts | | | | | |
| | | | Float Shoe | | | | | |
| | | | Latch Down | | | | | |
| | | | Pumptrk Charge <i>port collar 506</i> | | | | | |
| | | | Mileage <i>35</i> | | | | | |
| | | | Tax | | | | | |
| | | | Discount | | | | | |
| | | | Total Charge | | | | | |
| Signature <i>[Signature]</i> | | | | | | | | |





Mudgrove

Petroleum Geology
212 Main Street, Claflin KS

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

COMPANY Mai Oil Operations, Inc.

LEASE Richards #15

FIELD Mendota

LOCATION SW-NE-SW-SE(680' FSL& 1915' FEL)

SEC 6 TWSP 11S RGE 20W

COUNTY Ellis STATE Kansas

CONTRACTOR Southwind Drilling, inc. (Rig # 3)

SPUD 1/12/2018 COMP 1/22/2018

RTD 3770' LTD 3770'

MUD UP 2900' TYPE MUD Chemical

ELEVATIONS

KB 2098'

DF _____

GL 2090'

Measurements Are All
From KB

CASING

SURFACE 8 5/8" @ 1'

PRODUCTION 5 1/2" @ 3768'

ELECTRICAL SURVEYS

ELI Wireline ;
DIL, Micro, CDL/CNL

SAMPLES SAVED FROM _____ 3000'

TO RTD

DRILLING TIME KEPT FROM _____ 3000'

TO RTD

SAMPLES EXAMINED FROM _____ 3000'

TO RTD

GEOLOGICAL SUPERVISION FROM 3040'

TO RTD

GEOLOGIST ON WELL Wyatt Urban

| FORMATION TOPS | LOG | | SAMPLES |
|----------------|------|---------|-----------------------|
| Anhydrite | 1558 | +540 | Congl. 3655 (-1556) |
| B. Anhydrite | 1609 | +489 | Arbuckle 3703 (-1605) |
| Topeka | 3140 | (-1042) | RTD 3770 (-1672) |
| King Hill | 3228 | (-1190) | LTD 3770 (-1672) |
| Queen Hill | 3288 | (-1190) | |

| | | | |
|--|--|--|--|
| | | | |
| | | | |

| | | | | | | |
|----------|------|---------|--|--|---|--|
| Lansing | 3388 | (-1290) | | | | |
| Base KC | 3622 | (-1524) | | | X | |
| Marmaton | 3630 | (-1532) | | | | |

LEGEND

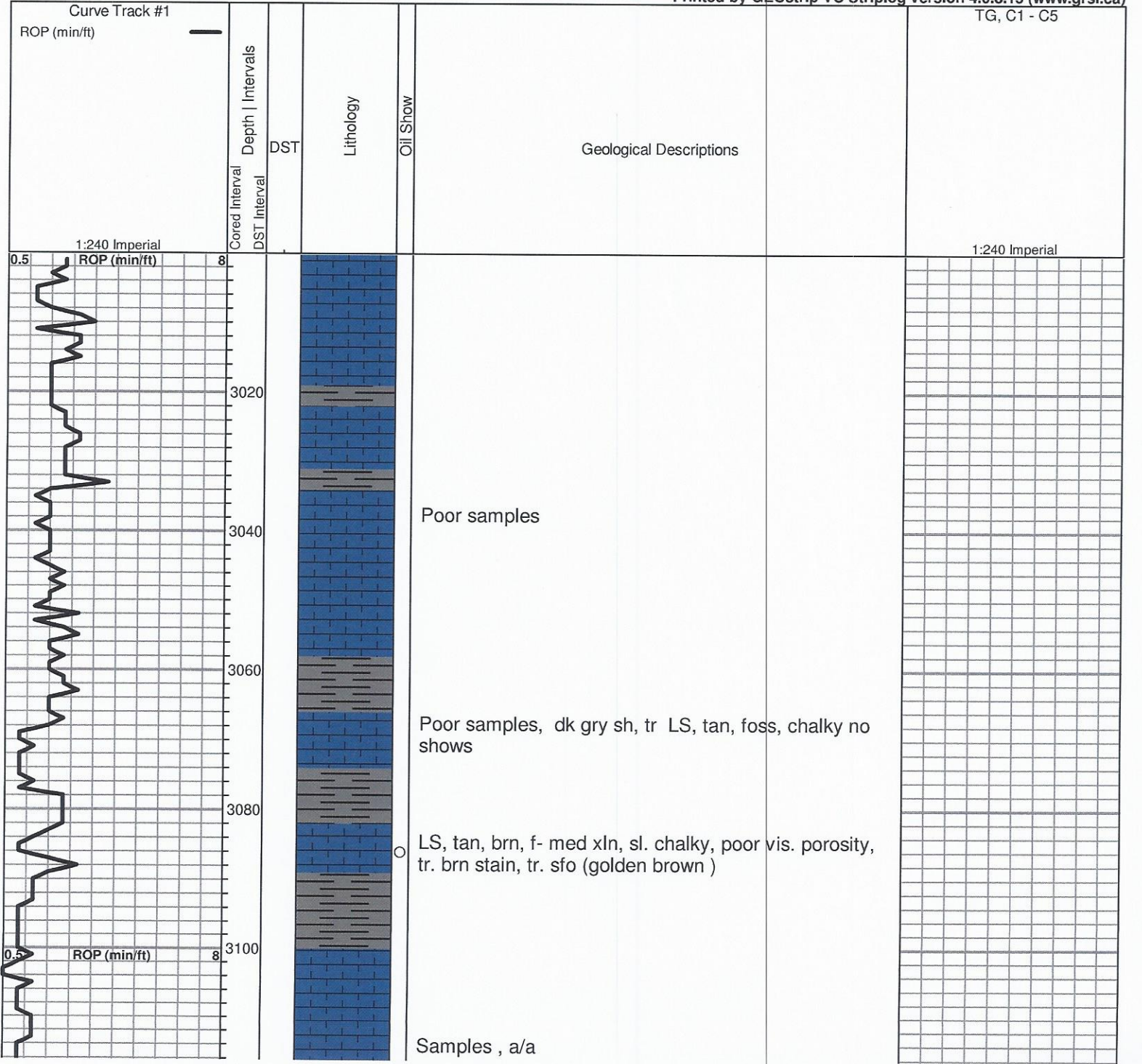
Oil Show

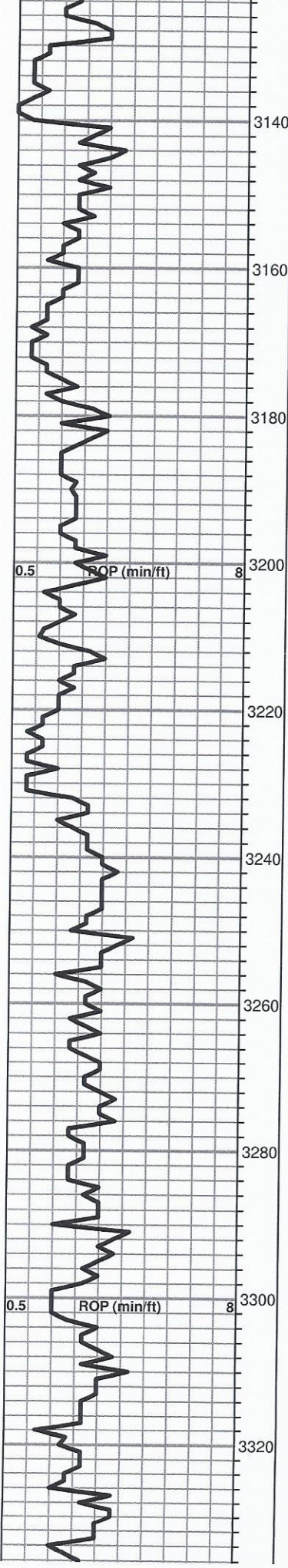
- Good Show
- Fair Show
- Poor Show
- Spotted or Trace
- Questionable Stn
- D Dead Oil Stn
- Fluorescence
- * Gas

DST

- DST Int
- DST alt
- Core
- || tail pipe

Printed by GEOstrip VC Striplog version 4.0.8.15 (www.grsi.ca)





Sh, dk gry, tr. sd. f-med grain, sub rounded, good porosity, friable , no shows

Topeka 3141.0 (-1043.0)

LS, tan, buff, brn, fxl, foss, cherty, poor vis. porosity, no shows

LS, tan, dol. fair inxln porosity, tr. sppty brn stain, tr. sfo (heavy, viscous), no odor

Sh. gry, silty

LS, white, cream, poor porosity, chalky, no shows

LS, white, scattered p.p porosity, chalky no shows

Sh black carb

LS, tan, cream ,poor scattered p.p. porosity, tr. golden -brn stain, nsfo, no odor

LS cream, gry, fxl, dense, cherty, nsfo, no odor

LS, a/a tr. white, tan chert

Sh, black carb

LS, cream, white, poor vis. porosity, chalky,no shows

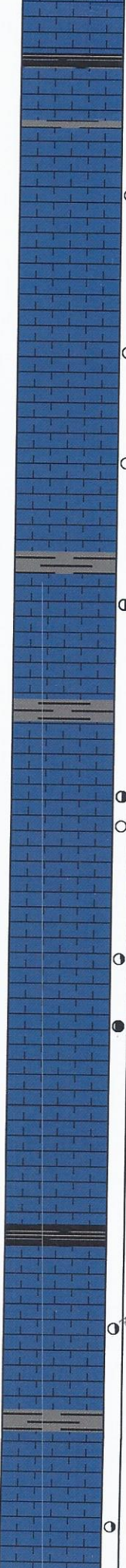
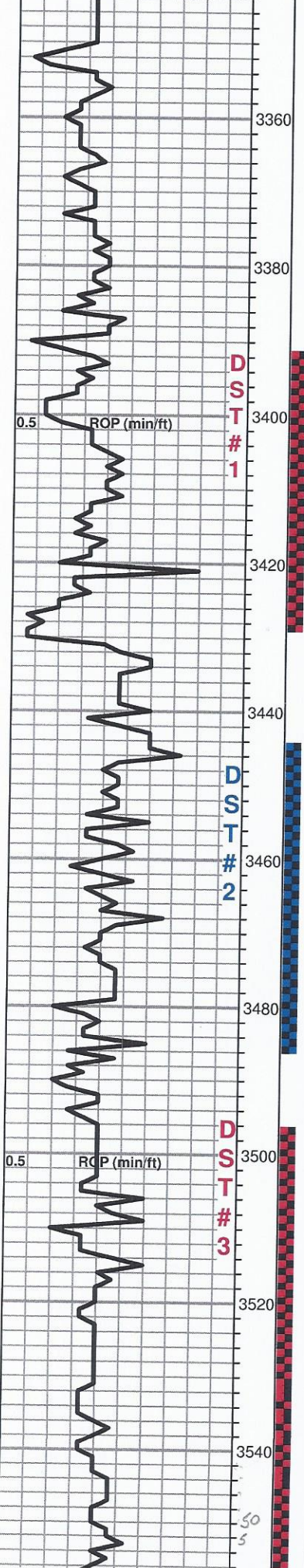
LS, tan, fxl, dense, poor vis. porosity, cherts, tan/ brn / cream

DST#1 3395-3430
30-30-45-45

1st Open
BOB 11 mins.

1st Close:
1.5" return

2nd Open:
BOB 15mins



Heebner 3350.0 (-1252.0)

Sh, black carb
Tr. LS, brn fxl, dense, poor vis. porosity, cherty

Toronto 3366.0 (-1268.0)

LS, cream, gry, poor porosity, chalky, tr. brn stain, nsfo, no odor

Lansing 3382.0 (-1284.0)

LS, white, f-med xln, foss, ool, poor vis. porosity, tr. brn stain, nsfo, no odor, tr. white, boney chert

LS, white, cream, few foss, poor - fair vis. porosity, sl. cherty inpts, tr. brn stain, nsfo,

LS, a/a, scattered vis.p.p type porosity, chalky, brn lt. brn stain, sfo, odor ??

Slg gry, silty sh.

LS, tan, cream, poor scattered p.p. porosity, tr. sfo, ??? odor

LS, dolomitic, tan, buff, poor vis. porosity, chalky, no shows

LS, tan cream, ool, poorly developed ool. porosity, lt. sfo, odor

LS, tan, brn fxl, fair p.p. type porosity, foss, dk brn stain, dark brn sfo, odor

LS, white, cream, pr. scattered vuggy porosity, chalky, no shows, well developed ool poor porosity, no show no odor

Sh black carb, abd. sh gry silty

LS, tan, buff, scattered p.p., vuggy porosity, golden brn sppty stain, sfo, fair odor, tr. pyrite

LS, a/a/, + white boney chert, inc. pyrite inclus. poor black stain, nsfo,

LS, tan, off white, scattered vuggy porosity, Lt. golden brn stain. lt brn sfo. odor

Recovery:

243' GIP

67' MCWO
(5%M, 15%W, 80%O)

248' OCMW
(5%O, 5%M, 90%W)

67' MCWO
(5%M, 15%W, 80%O)

Pressures:

ISIP 650 psi
FSIP 643 psi
IFP 17-85 psi
FFP 89-161 psi
HSH 1671-1641 psi

DST#2 3444-3486
30-30-30

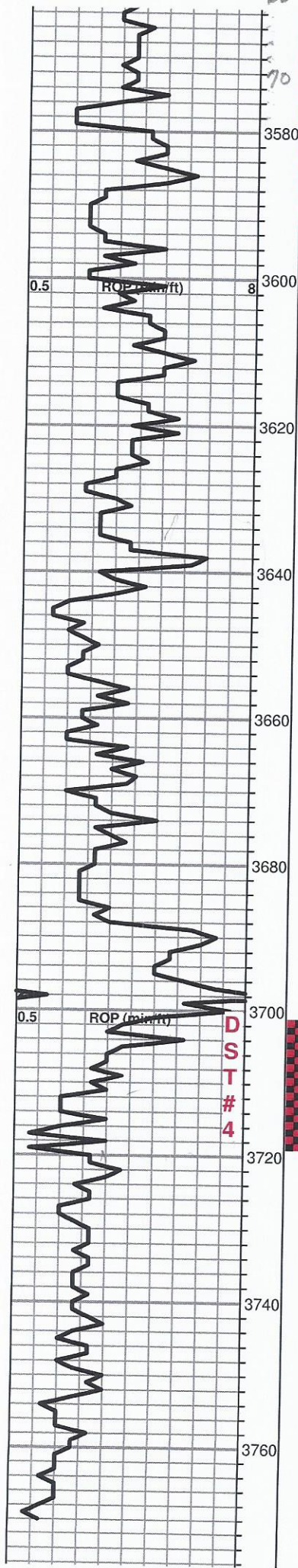
1st open:
Weak 2" blow

2nd Open:
Dead, Flushed tool surface blow 2 mins. dead : pulled test

Recovery:
8' Drilling Mud

Pressures:

ISIP 457 psi
IFP 11-13 psi
FFP 13-15 psi
HSH 1685-70 psi



LS, tan, cream, scattered vuggy type porosity, lt. golden br stain, sfo, fair odor

LS, a/a, sl. dolomitic, scattered p.p. porosity, brn stain/sat. , vis. gas bubbles in few

Sh, black carb

LS, tan, fxl, dense, cherty, tr. lt. spty brn stn/sat., Spty sfo, ??? odor

Sh, maroong, gray, soft tr. chert white, boney,+ LS, tan, buff, poor scattered porosity, no shows

BKC 3620.0 (-1522.0)

Sh,maroon, tr. grreen sh. nsfo

Sh, maroon, green, soft, tr. white, tan, chert, poor scattered porosity, spty sfo, no odor

Marmaton 3630.0 (-1532.0)

Tan, brn, white, cherts tr. spty sfo, no odor

Sh, a/a, w/ tr. cherts

Conglomerate 3652.0 (-1554.0)

Cherts, tan, crm, opaque, tr. sd. f- med. grain, poorly sorted, tr. blk stain, sfo (v. wk) , ??? odor

Sh, maroon blocky/ waxey, banded color, + Chert white, boney, scattered vuggy type porosity, tr. blk stain, nsfo , no odor

Sh,/a , white, yellowish ,cherty , (trip)?? scattered vuggy porosity, nsfo, no odor inc. cherts

Slug of soft aqua green sh.

Arbuckle 3698.0 (-1600.0)

Dol. tan, brn med xln, sdy, sptt sfo, faint odor

Dol. tan, buff, med xln, suc. good inxln porosity, sfo, odor , blk stain

Dol. tan, fxl, dense, poor vis. porosity brn stain, spty sfo.

Dol. tan,buff, f-medxln , good ln-xln porosity, tr. pyrite blk stain tr. spty sfo, odor

Dol. white, tan fxl, dense, poor vis. porosity, tr. white, chalk, tr. tan orange, red cherts, no shows

Dol. white, suc. med xln, poor vis. porosity, no shows no odor

Dol white, tan, fxl, few suc. fair inner xln porosity, tr. brn stain, nsfo , no odo

LTD 3770.0 (-1672.0)

DST # 4

00-40-40-00

1st Open:
Fair build to 6.5"

2nd Open:
Blow built to 8.5"

Recovery:
62' OCM
(20%O, 60%M)

Pressures:
ISIP 917 psi
FSIP 845psi
IFP 14-26 psi
FFP 30-40 psi
HSH 1702-1698 psi

DST#4 3701-3720
30-30-45-45

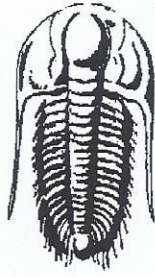
1st Open:
BOB 20 mins.

2nd Open:
BOB 35 Mins.

Recovery:
5' Clean Oil

230' Muddy Water
w/ skim of oil
(15%M , 85%W)

Pressures:
ISIP 935 psi
FSIP 875 psi
IFP 16-64 psi
FFP 67-119 psi
HSH 1807-1803 psi



TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc**

8411 Preston Rd Suite 800
Dallas TX 75225+5520

ATTN: Wyatt Urban

Richards #15

6-11S-20W Ellis,KS

Start Date: 2019.01.18 @ 12:37:00

End Date: 2019.01.18 @ 18:49:02

Job Ticket #: 65084 DST #: 1

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.01.22 @ 11:33:37

Mai Oil Operations Inc 6-11S-20W Ellis,KS Richards #15 DST # 1 LKC A-C 2019.01.18



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mai Oil Operations Inc
8411 Preston Rd Suite 800
Dallas TX 75225+5520
ATTN: Wyatt Urban

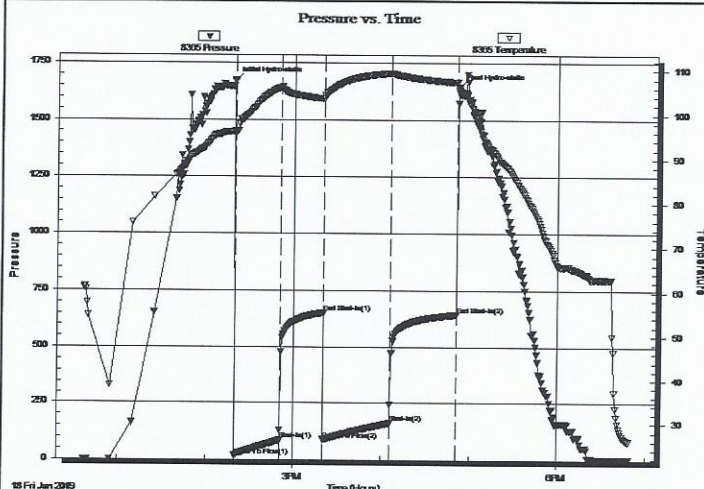
6-11S-20W Ellis,KS
Richards #15
Job Ticket: 65084 **DST#: 1**
Test Start: 2019.01.18 @ 12:37:00

GENERAL INFORMATION:

Formation: **LKC A-C**
Deviated: No Whipstock: ft (KB)
Time Tool Opened: 14:20:02
Time Test Ended: 18:49:02
Interval: **3395.00 ft (KB) To 3430.00 ft (KB) (TVD)**
Total Depth: 3395.00 ft (KB) (TVD)
Hole Diameter: 7.88 inches Hole Condition: Fair
Test Type: Conventional Bottom Hole (Initial)
Tester: Ken Swinney
Unit No: 72
Reference Elevations: 2098.00 ft (KB)
2090.00 ft (CF)
KB to GR/CF: 8.00 ft

Serial #: 8365 Inside
Press@RunDepth: 161.70 psig @ 3396.00 ft (KB) Capacity: psig
Start Date: 2019.01.18 End Date: 2019.01.18 Last Calib.: 2019.01.18
Start Time: 12:37:01 End Time: 18:49:02 Time On Btm: 2019.01.18 @ 14:19:32
Time Off Btm: 2019.01.18 @ 16:51:47

TEST COMMENT: IFP 30 Minutes Blow built to BOB in 11 min/ Total build 27"
ISI 30 Minutes 1 1/2" blow back
FFP 45 Minutes Blow built to BOB in 15 min/ Total build 32 1/2"
FSI 45 Minutes 5" blow back



PRESSURE SUMMARY

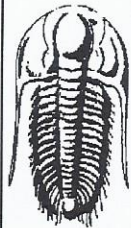
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1671.39 | 96.43 | Initial Hydro-static |
| 1 | 17.73 | 95.89 | Open To Flow (1) |
| 31 | 85.51 | 106.24 | Shut-In(1) |
| 61 | 650.18 | 103.74 | End Shut-In(1) |
| 61 | 89.63 | 103.81 | Open To Flow (2) |
| 106 | 161.70 | 109.46 | Shut-In(2) |
| 152 | 643.39 | 107.44 | End Shut-In(2) |
| 153 | 1641.33 | 105.50 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------------------------|--------------|
| 67.00 | Mud Cut Watery Oil/ M 5 W 15 O 80 | 0.94 |
| 248.00 | S Oil cut Muddy Water/ O 5 M 5 W 90 | 3.48 |
| 0.00 | 243 feet GIP | 0.00 |
| | | |
| | | |

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations Inc
 8411 Preston Rd Suite 800
 Dallas TX 75225+5520
 ATTN: Wyatt Urban

6-11S-20W Ellis,KS
Richards #15
 Job Ticket: 65084 **DST#: 1**
 Test Start: 2019.01.18 @ 12:37:00

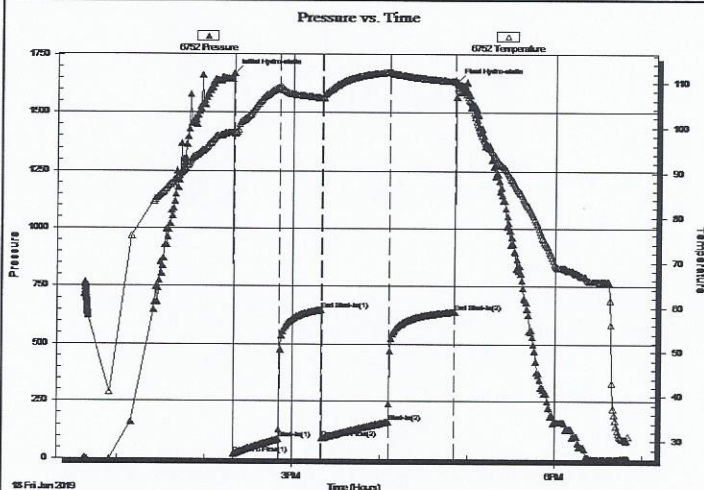
GENERAL INFORMATION:

Formation: **LKC A-C**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 14:20:02
 Time Test Ended: 18:49:02
 Interval: **3395.00 ft (KB) To 3430.00 ft (KB) (TVD)**
 Total Depth: 3395.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: 72
 Reference Elevations: 2098.00 ft (KB)
 2090.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6752 Outside
 Press@RunDepth: 641.83 psig @ 3397.00 ft (KB) Capacity: psig
 Start Date: 2019.01.18 End Date: 2019.01.18 Last Calib.: 2019.01.18
 Start Time: 12:37:01 End Time: 18:50:02 Time On Btm: 2019.01.18 @ 14:19:32
 Time Off Btm: 2019.01.18 @ 16:51:47

TEST COMMENT: IFP 30 Minutes Blow built to BOB in 11 min/ Total build 27"
 ISI 30 Minutes 1 1/2" blow back
 FFP 45 Minutes Blow built to BOB in 15 min/ Total build 32 1/2"
 FSI 45 Minutes 5" blow back

PRESSURE SUMMARY



| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1671.09 | 98.96 | Initial Hydro-static |
| 1 | 18.92 | 98.71 | Open To Flow (1) |
| 31 | 86.54 | 108.97 | Shut-In(1) |
| 61 | 649.82 | 106.61 | End Shut-In(1) |
| 61 | 88.98 | 106.53 | Open To Flow (2) |
| 106 | 161.56 | 112.34 | Shut-In(2) |
| 152 | 641.83 | 110.31 | End Shut-In(2) |
| 153 | 1634.38 | 109.76 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------------------------------|--------------|
| 67.00 | Mud Cut Watery Oil/ M 5 W 15 O 80 | 0.94 |
| 248.00 | S Oil cut Muddy Water/ O 5 M 5 W 90 | 3.48 |
| 0.00 | 243 feet GIP | 0.00 |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc
8411 Preston Rd Suite 800
Dallas TX 75225+5520
ATTN: Wyatt Urban

6-11S-20W Ellis,KS
Richards #15
Job Ticket: 65084 **DST#: 1**
Test Start: 2019.01.18 @ 12:37:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3385.00 ft | Diameter: 3.80 inches | Volume: 47.48 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 20000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 50000.00 lb |
| | | | <u>Total Volume: 47.48 bbl</u> | Tool Chased 2.00 ft |
| Drill Pipe Above KB: | 10.00 ft | | | String Weight: Initial 42000.00 lb |
| Depth to Top Packer: | 3395.00 ft | | | Final 45000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 35.00 ft | | | |
| Tool Length: | 55.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |
| Tool Comments: | | | | |

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|---------------------------------|
| Shut-In Tool | 5.00 | | | 3380.00 | |
| Hydraulic tool | 5.00 | | | 3385.00 | |
| Top Packer | 5.00 | | | 3390.00 | |
| Packer | 5.00 | | | 3395.00 | 20.00 Bottom Of Top Packer |
| Recorder | 1.00 | 8365 | Inside | 3396.00 | |
| Recorder | 1.00 | 6752 | Outside | 3397.00 | |
| Anchor | 30.00 | | | 3427.00 | |
| Bullnose | 3.00 | | | 3430.00 | 35.00 Anchor Tool |

Total Tool Length: 55.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc
8411 Preston Rd Suite 800
Dallas TX 75225+5520
ATTN: Wyatt Urban

6-11S-20W Ellis,KS
Richards #15
Job Ticket: 65084 **DST#: 1**
Test Start: 2019.01.18 @ 12:37:00

Mud and Cushion Information

| | | |
|----------------------------------|----------------------------|---------------------------|
| Mud Type: Gel Chem | Cushion Type: | Oil API: 37 deg API |
| Mud Weight: 9.00 lb/gal | Cushion Length: ft | Water Salinity: 24000 ppm |
| Viscosity: 57.00 sec/qt | Cushion Volume: bbl | |
| Water Loss: 6.19 in ³ | Gas Cushion Type: | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | |
| Salinity: 1500.00 ppm | | |
| Filter Cake: 1.00 inches | | |

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------------------------------|---------------|
| 67.00 | Mud Cut Watery Oil/ M 5 W 15 O 80 | 0.940 |
| 248.00 | S Oil cut Muddy Water/ O 5 M 5 W 90 | 3.479 |
| 0.00 | 243 feet GIP | 0.000 |

Total Length: 315.00 ft Total Volume: 4.419 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments: Recovery Resistivity .515 ohms @ 37 deg.

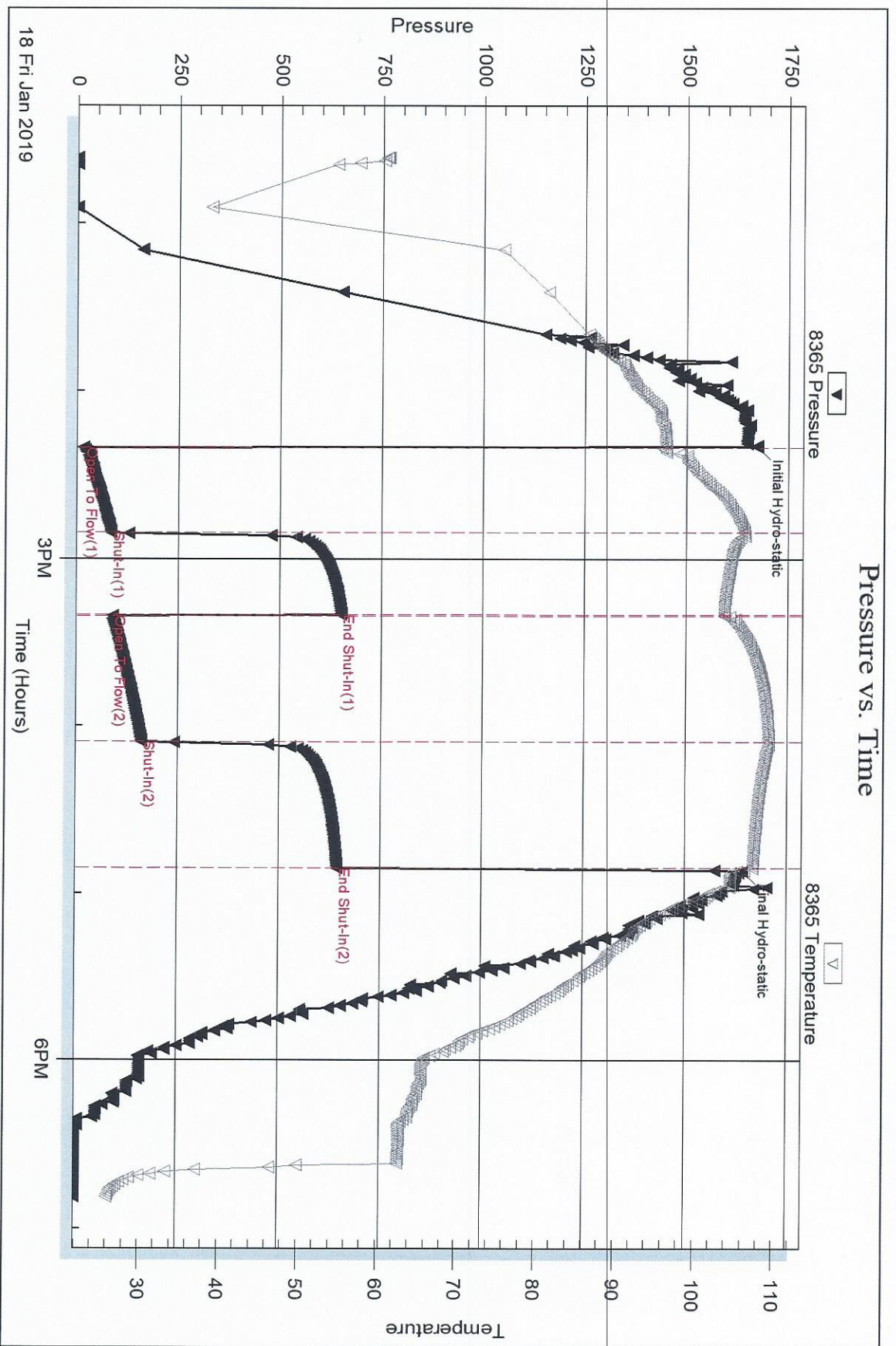
Serial #: 8365

Inside

Mai Oil Operations Inc

Richards #15

DST Test Number: 1



Trilobite Testing, Inc

Ref. No: 65084

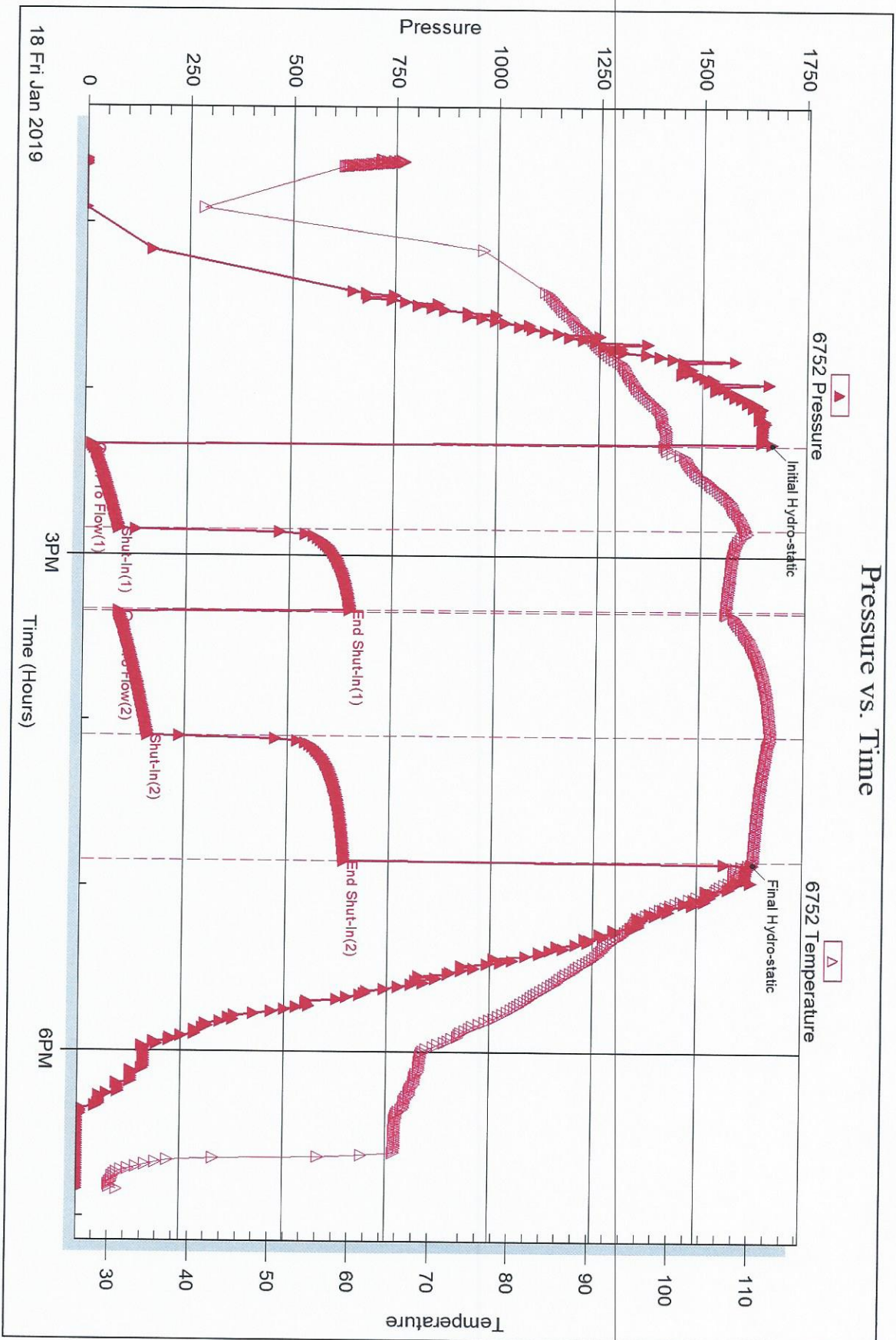
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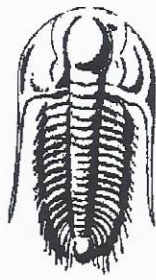
Serial #: 6752

Outside Mai Oil Operations Inc

Richards #15

DST Test Number: 1





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc**

8411 Preston Rd Suite 800
Dallas TX 75225+5520

ATTN: Wyatt Urban

Richards #15

6-11S-20W Ellis,KS

Start Date: 2019.01.19 @ 05:15:00

End Date: 2019.01.19 @ 09:57:17

Job Ticket #: 65085 DST #: 2

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.01.22 @ 11:32:47



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations Inc
 8411 Preston Rd Suite 800
 Dallas TX 75225+5520
 ATTN: Wyatt Urban

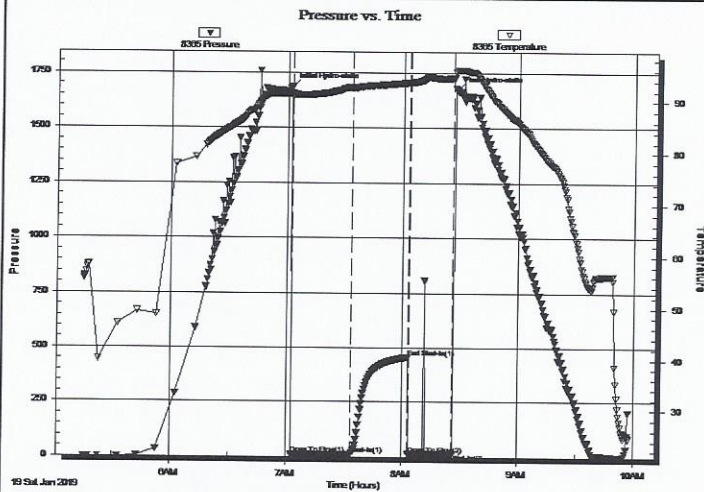
6-11S-20W Ellis,KS
Richards #15
 Job Ticket: 65085 **DST#: 2**
 Test Start: 2019.01.19 @ 05:15:00

GENERAL INFORMATION:

Formation: **LKC D - G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:02:47
 Time Test Ended: 09:57:17
 Interval: **3444.00 ft (KB) To 3486.00 ft (KB) (TVD)**
 Total Depth: 3486.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: 72
 Reference Elevations: 2098.00 ft (KB)
 2090.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8365 Inside
 Press@RunDepth: 13.69 psig @ 3445.00 ft (KB) Capacity: psig
 Start Date: 2019.01.19 End Date: 2019.01.19 Last Calib.: 2019.01.19
 Start Time: 05:15:01 End Time: 09:57:17 Time On Btm: 2019.01.19 @ 07:02:17
 Time Off Btm: 2019.01.19 @ 08:27:32

TEST COMMENT: IFP 30 Minutes Blow built to 2"
 ISI 30 Minutes No blow back
 FFP 30 Minutes Dead - Flush tool - Surface blow 2 minutes then dead - pull test



PRESSURE SUMMARY

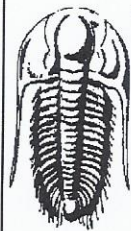
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1685.91 | 91.64 | Initial Hydro-static |
| 1 | 11.55 | 91.30 | Open To Flow (1) |
| 32 | 13.69 | 92.72 | Shut-In(1) |
| 61 | 457.05 | 93.76 | End Shut-In(1) |
| 61 | 13.35 | 93.58 | Open To Flow (2) |
| 84 | 15.67 | 94.73 | Shut-In(2) |
| 86 | 1670.06 | 96.13 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 8.00 | Mud 100% | 0.11 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations Inc
 8411 Preston Rd Suite 800
 Dallas TX 75225+5520
 ATTN: Wyatt Urban

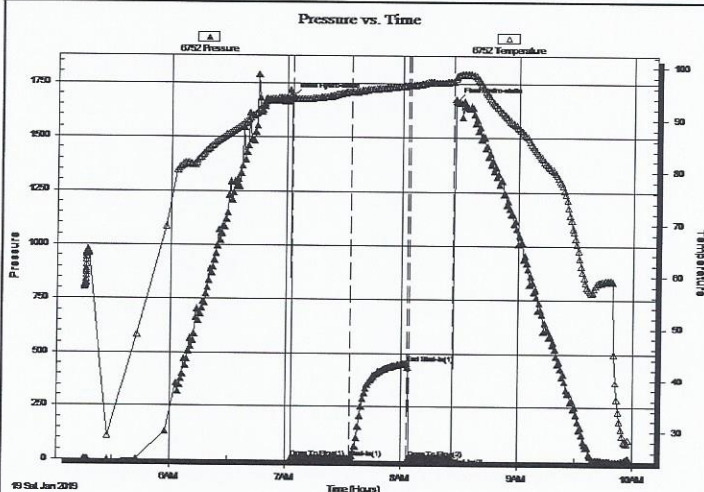
6-11S-20W Ellis,KS
Richards #15
 Job Ticket: 65085 **DST#: 2**
 Test Start: 2019.01.19 @ 05:15:00

GENERAL INFORMATION:

Formation: **LKC D - G**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 07:02:47
 Time Test Ended: 09:57:17
 Interval: **3444.00 ft (KB) To 3486.00 ft (KB) (TVD)**
 Total Depth: 3486.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: 72
 Reference Elevations: 2098.00 ft (KB)
 2090.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6752 Outside
 Press@RunDepth: 455.89 psig @ 3446.00 ft (KB) Capacity: psig
 Start Date: 2019.01.19 End Date: 2019.01.19 Last Calib.: 2019.01.19
 Start Time: 05:15:01 End Time: 09:58:02 Time On Btm: 2019.01.19 @ 07:02:32
 Time Off Btm: 2019.01.19 @ 08:27:32

TEST COMMENT: IFP 30 Minutes Blow built to 2"
 ISI 30 Minutes No blow back
 FFP 30 Minutes Dead - Flush tool - Surface blow 2 minutes then dead - pull test



PRESSURE SUMMARY

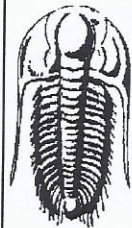
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1686.62 | 94.24 | Initial Hydro-static |
| 1 | 12.36 | 94.12 | Open To Flow (1) |
| 31 | 13.98 | 95.34 | Shut-In(1) |
| 61 | 455.89 | 96.60 | End Shut-In(1) |
| 61 | 14.72 | 96.62 | Open To Flow (2) |
| 84 | 16.44 | 97.44 | Shut-In(2) |
| 85 | 1670.21 | 98.30 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|-------------|--------------|
| 8.00 | Mud 100% | 0.11 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc
8411 Preston Rd Suite 800
Dallas TX 75225+5520
ATTN: Wyatt Urban

6-11S-20W Ellis,KS
Richards #15
Job Ticket: 65085 **DST#: 2**
Test Start: 2019.01.19 @ 05:15:00

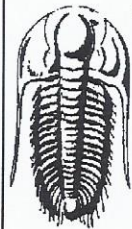
Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3448.00 ft | Diameter: 3.80 inches | Volume: 48.37 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 20000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 45000.00 lb |
| | | | <u>Total Volume: 48.37 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 24.00 ft | | | String Weight: Initial 43000.00 lb |
| Depth to Top Packer: | 3444.00 ft | | | Final 43000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 42.00 ft | | | |
| Tool Length: | 62.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |
| Tool Comments: | | | | |

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|---------------------------------|
| Shut-In Tool | 5.00 | | | 3429.00 | |
| Hydraulic tool | 5.00 | | | 3434.00 | |
| Top Packer | 5.00 | | | 3439.00 | |
| Packer | 5.00 | | | 3444.00 | 20.00 Bottom Of Top Packer |
| Recorder | 1.00 | 8365 | Inside | 3445.00 | |
| Recorder | 1.00 | 6752 | Outside | 3446.00 | |
| Anchor | 37.00 | | | 3483.00 | |
| Bullnose | 3.00 | | | 3486.00 | 42.00 Anchor Tool |

Total Tool Length: 62.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc
8411 Preston Rd Suite 800
Dallas TX 75225+5520
ATTN: Wyatt Urban

6-11S-20W Ellis,KS
Richards #15
Job Ticket: 65085 **DST#: 2**
Test Start: 2019.01.19 @ 05:15:00

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: 57.00 sec/qt | Cushion Volume: bbl | | |
| Water Loss: 6.19 in ³ | Gas Cushion Type: | | |
| Resistivity: ohm.m | Gas Cushion Pressure: psig | | |
| Salinity: 1400.00 ppm | | | |
| Filter Cake: 1.00 inches | | | |

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|-------------|---------------|
| 8.00 | Mud 100% | 0.112 |

Total Length: 8.00 ft Total Volume: 0.112 bbl
 Num Fluid Samples: 0 Num Gas Bombs: 0 Serial #:
 Laboratory Name: Laboratory Location:
 Recovery Comments:

Serial #: 8365

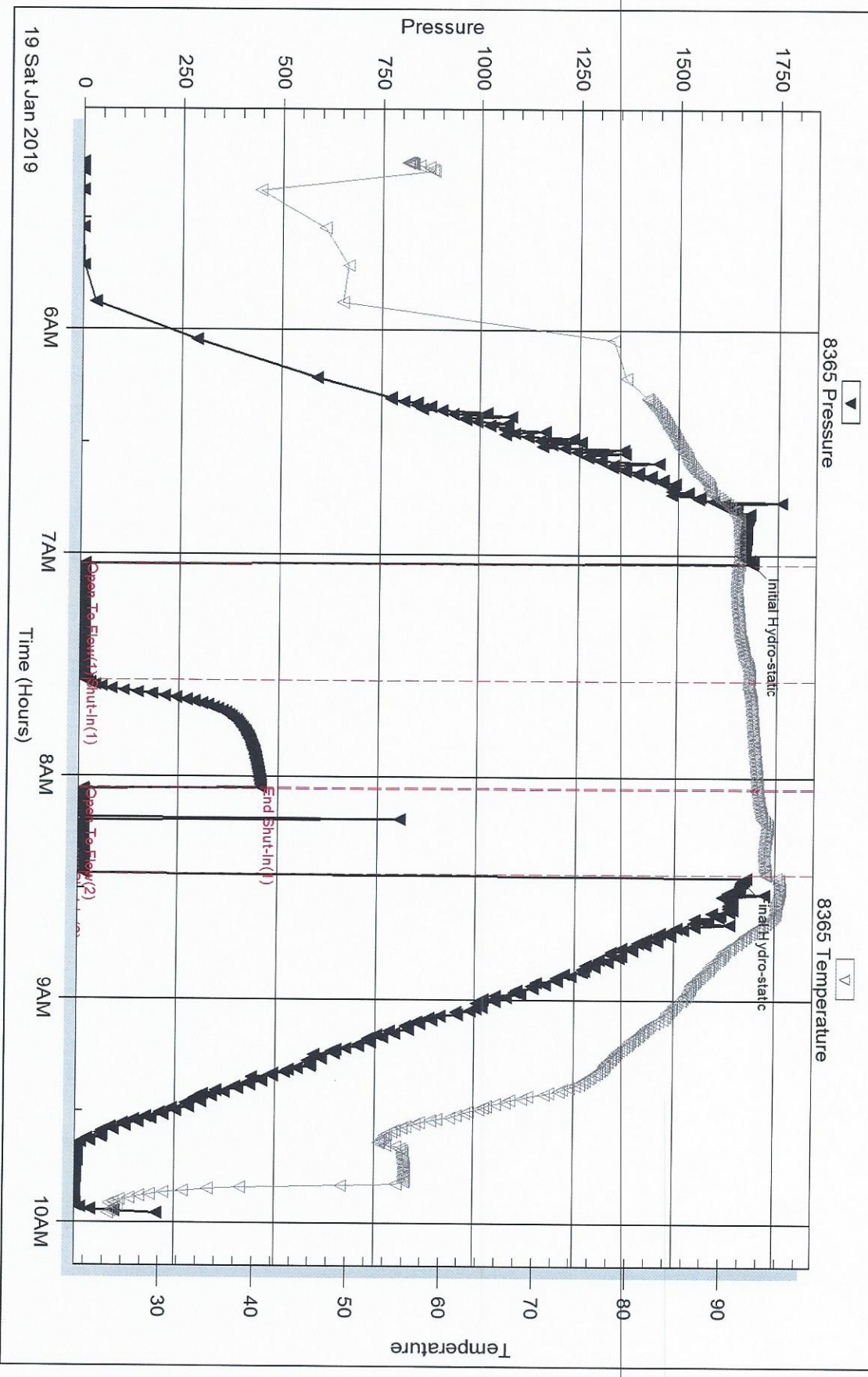
Inside

Mai Oil Operations Inc

Richards #15

DST Test Number: 2

Pressure vs. Time



Tribolite Testing, Inc

Ref. No: 65085

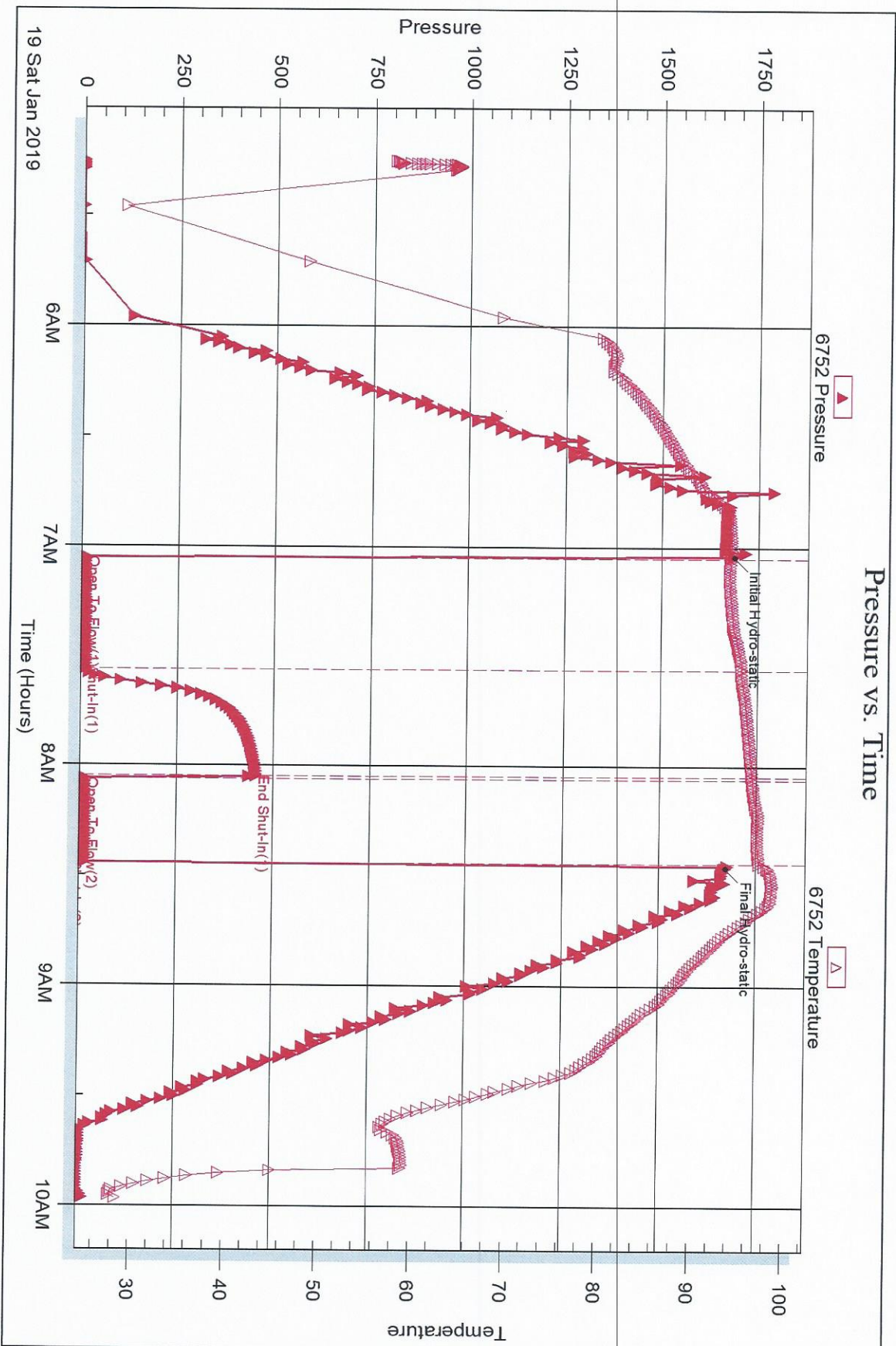
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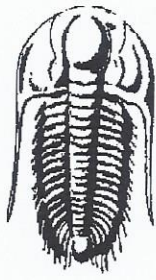
Serial #: 6752

Outside Mai Oil Operations Inc

Richards #15

DST Test Number: 2





TRILOBITE
TESTING, INC.

DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc**

8411 Preston Rd Suite 800
Dallas TX 75225+5520

ATTN: Wyatt Urban

Richards #15

6-11S-20W Ellis,KS

Start Date: 2019.01.19 @ 23:21:00

End Date: 2019.01.20 @ 05:49:02

Job Ticket #: 65086 DST #: 3

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.01.22 @ 11:32:06



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations Inc
 8411 Preston Rd Suite 800
 Dallas TX 75225+5520
 ATTN: Wyatt Urban

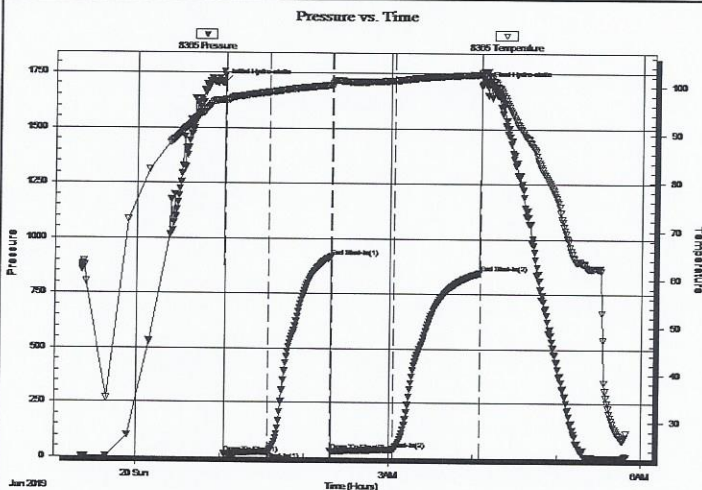
6-11S-20W Ellis,KS
Richards #15
 Job Ticket: 65086 **DST#: 3**
 Test Start: 2019.01.19 @ 23:21:00

GENERAL INFORMATION:

Formation: **LKC H - L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:03:02
 Time Test Ended: 05:49:02
 Interval: **3497.00 ft (KB) To 3600.00 ft (KB) (TVD)**
 Total Depth: 3600.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: 72
 Reference Elevations: 2098.00 ft (KB)
 2090.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8365 Inside
 Press@RunDepth: 40.27 psig @ 3498.00 ft (KB) Capacity: psig
 Start Date: 2019.01.19 End Date: 2019.01.20 Last Calib.: 2019.01.20
 Start Time: 23:21:01 End Time: 05:49:02 Time On Btm: 2019.01.20 @ 01:01:32
 Time Off Btm: 2019.01.20 @ 04:07:47

TEST COMMENT: IFP 30 Minutes Blow built to 6 1/2"
 ISI 45 Minutes No blow back
 FFP 45 Minutes Blow built to 8 1/2"
 FSI 60 Minutes No blow back



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1702.89 | 96.98 | Initial Hydro-static |
| 2 | 14.77 | 97.02 | Open To Flow (1) |
| 33 | 26.93 | 98.72 | Shut-In(1) |
| 77 | 917.83 | 100.21 | End Shut-In(1) |
| 78 | 30.06 | 100.11 | Open To Flow (2) |
| 122 | 40.27 | 101.21 | Shut-In(2) |
| 183 | 845.67 | 102.59 | End Shut-In(2) |
| 187 | 1698.89 | 103.19 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------------------|--------------|
| 62.00 | Oil cut Mud/ Oil 20% Mud 80% | 0.87 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations Inc
 8411 Preston Rd Suite 800
 Dallas TX 75225+5520
 ATTN: Wyatt Urban

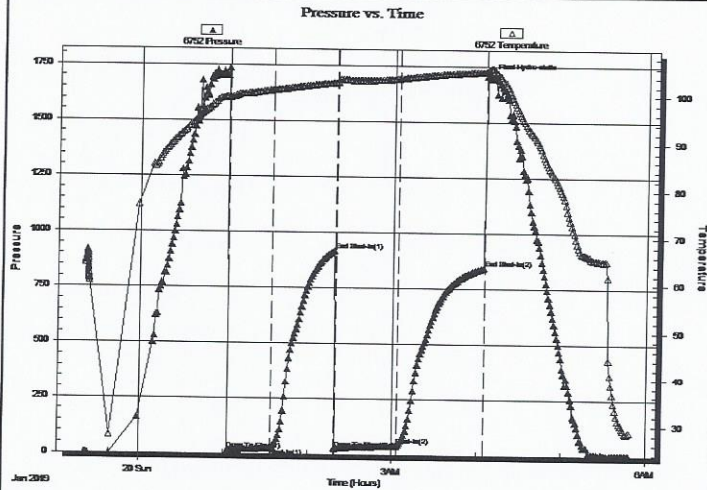
6-11S-20W Ellis,KS
Richards #15
 Job Ticket: 65086 **DST#: 3**
 Test Start: 2019.01.19 @ 23:21:00

GENERAL INFORMATION:

Formation: **LKC H-L**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 01:03:02
 Time Test Ended: 05:49:02
 Interval: **3497.00 ft (KB) To 3600.00 ft (KB) (TVD)**
 Total Depth: 3600.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: 72
 Reference Elevations: 2098.00 ft (KB)
 2090.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 6752 Outside
 Press@RunDepth: 845.41 psig @ 3499.00 ft (KB) Capacity: psig
 Start Date: 2019.01.19 End Date: 2019.01.20 Last Calib.: 2019.01.20
 Start Time: 23:21:01 End Time: 05:48:02 Time On Btm:
 Time Off Btm: 2019.01.20 @ 04:07:32

TEST COMMENT: IFP 30 Minutes Blow built to 6 1/2"
 ISI 45 Minutes No blow back
 FFP 45 Minutes Blow built to 8 1/2"
 FSI 60 Minutes No blow back



PRESSURE SUMMARY

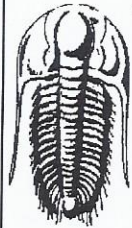
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|--------------------|
| 0 | 14.87 | 99.57 | Open To Flow (1) |
| 31 | 26.50 | 101.13 | Shut-In(1) |
| 76 | 918.47 | 102.72 | End Shut-In(1) |
| 77 | 26.27 | 102.97 | Open To Flow (2) |
| 121 | 40.42 | 103.71 | Shut-In(2) |
| 182 | 845.41 | 105.28 | End Shut-In(2) |
| 185 | 1699.85 | 105.93 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------------------|--------------|
| 62.00 | Oil cut Mud/ Oil 20% Mud 80% | 0.87 |
| | | |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc
8411 Preston Rd Suite 800
Dallas TX 75225+5520
ATTN: Wyatt Urban

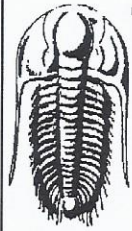
6-11S-20W Ellis,KS
Richards #15
Job Ticket: 65086 **DST#: 3**
Test Start: 2019.01.19 @ 23:21:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3510.00 ft | Diameter: 3.80 inches | Volume: 49.24 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 20000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 75000.00 lb |
| | | | <u>Total Volume: 49.24 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 33.00 ft | | | String Weight: Initial 46000.00 lb |
| Depth to Top Packer: | 3497.00 ft | | | Final 46000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 102.67 ft | | | |
| Tool Length: | 122.67 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |
| Tool Comments: | | | | |

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|---------------------------|---------------|------------|----------|------------|----------------------------|
| Shut-In Tool | 5.00 | | | 3482.00 | |
| Hydraulic tool | 5.00 | | | 3487.00 | |
| Top Packer | 5.00 | | | 3492.00 | |
| Packer | 5.00 | | | 3497.00 | 20.00 Bottom Of Top Packer |
| Recorder | 1.00 | 8365 | Inside | 3498.00 | |
| Recorder | 1.00 | 6752 | Outside | 3499.00 | |
| Anchor | 32.00 | | | 3531.00 | |
| Change Over Sub | 1.00 | | | 3532.00 | |
| Drill Pipe | 63.67 | | | 3595.67 | |
| Change Over Sub | 1.00 | | | 3596.67 | |
| Bullnose | 3.00 | | | 3599.67 | 102.67 Anchor Tool |
| Total Tool Length: | 122.67 | | | | |



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc

6-11S-20W Ellis,KS

8411 Preston Rd Suite 800
Dallas TX 75225+5520

Richards #15

Job Ticket: 65086

DST#: 3

ATTN: Wyatt Urban

Test Start: 2019.01.19 @ 23:21:00

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: 53.00 sec/qt

Cushion Volume: bbl

Water Loss: 7.19 in³

Gas Cushion Type:

Resistivity: ohm.m

Gas Cushion Pressure: psig

Salinity: 2800.00 ppm

Filter Cake: 1.00 inches

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|------------------------------|---------------|
| 62.00 | Oil cut Mud/ Oil 20% Mud 80% | 0.870 |

Total Length: 62.00 ft Total Volume: 0.870 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

Recovery Comments:

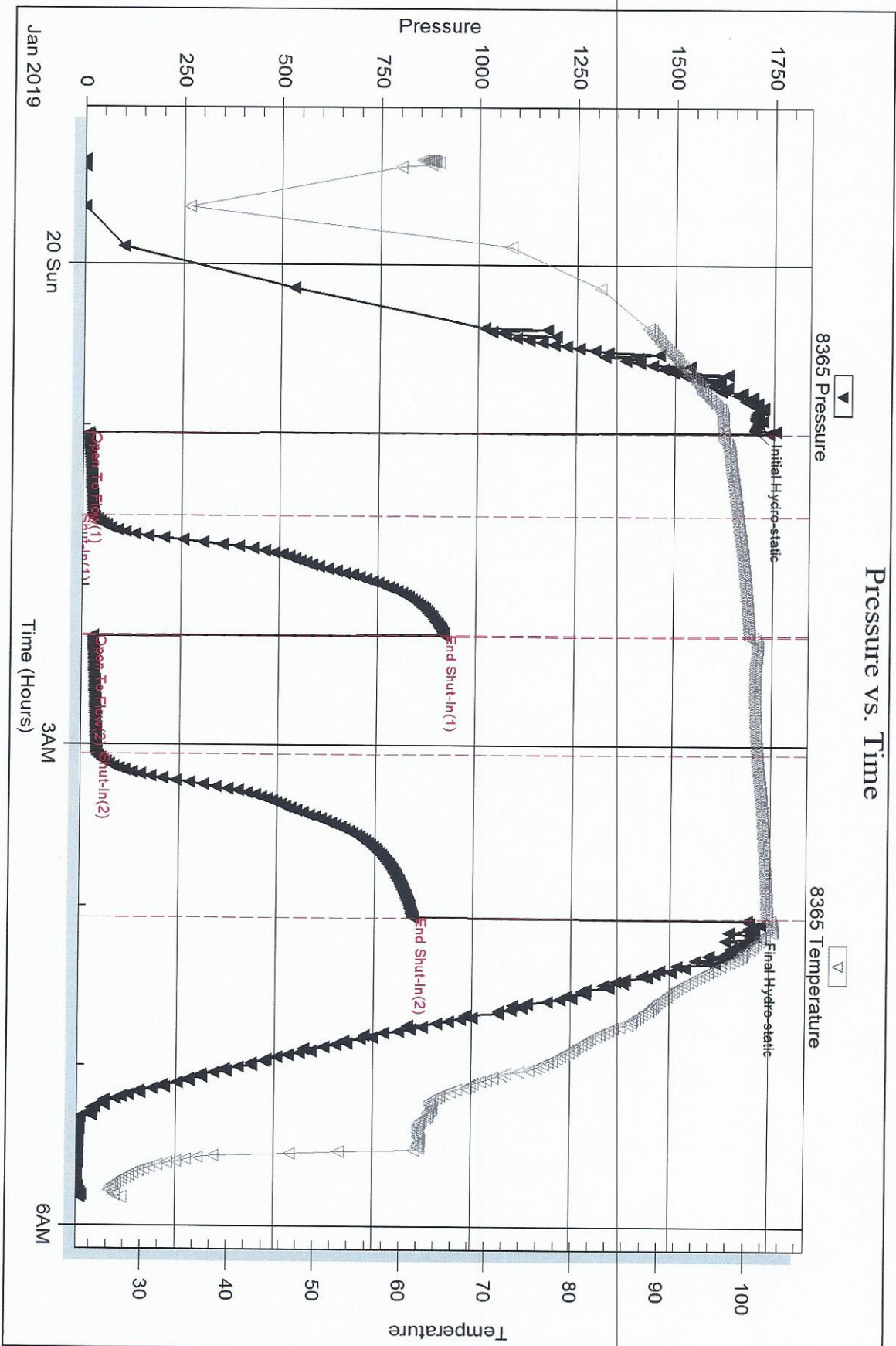
Serial #: 8365

Inside

Mai Oil Operations Inc

Richards #15

DST Test Number: 3

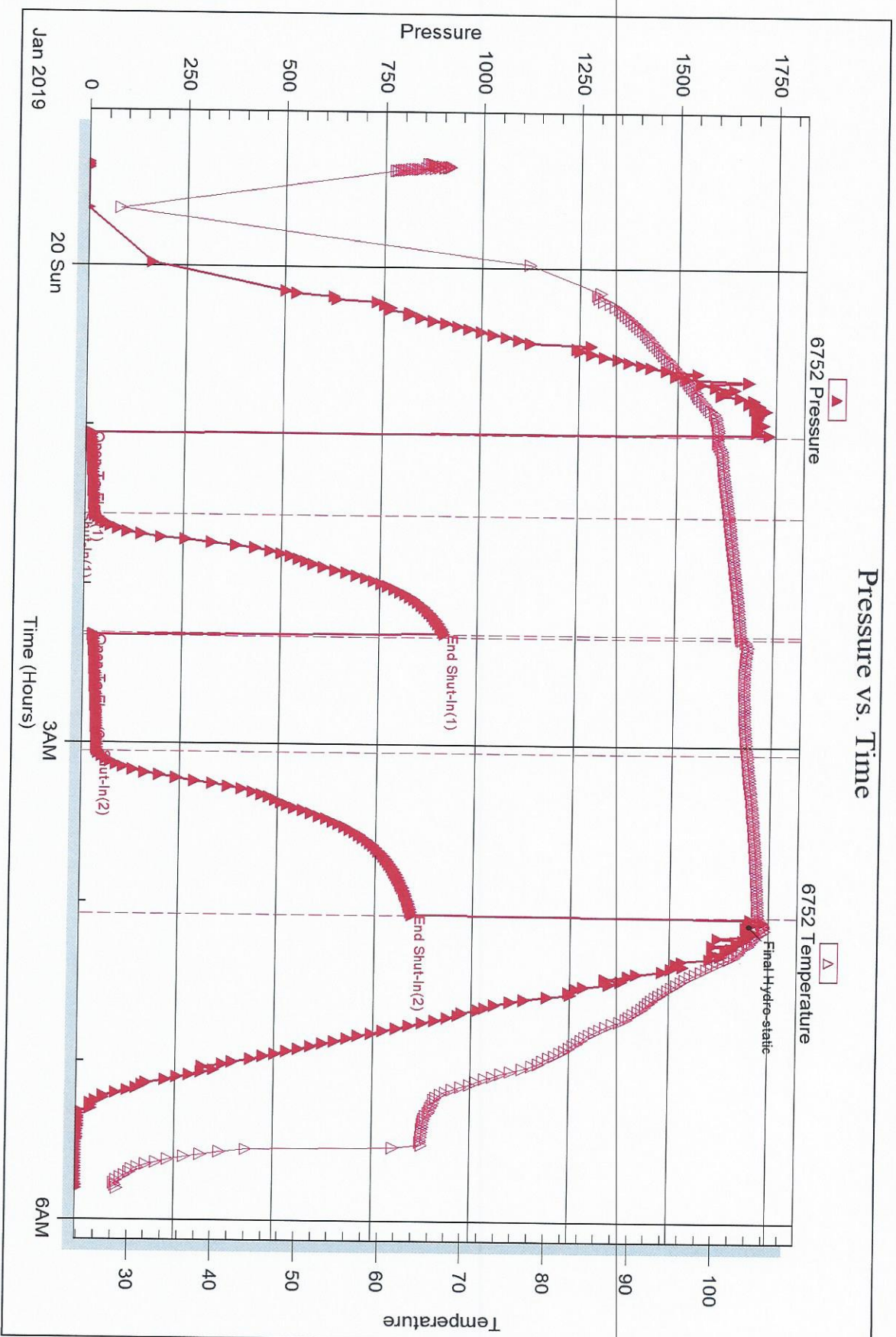


Serial #: 6752

Outside Mai Oil Operations Inc

Richards #15

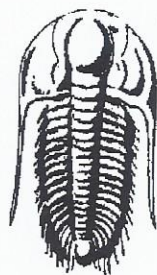
DST Test Number: 3



Trilobite Testing, Inc

Ref. No: 65086

Printed: 2019.01.22 @ 11:32:07



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Prepared For: **Mai Oil Operations Inc**

8411 Preston Rd Suite 800
Dallas TX 75225+5520

ATTN: Wyatt Urban

Richards #15

6-11S-20W Ellis,KS

Start Date: 2019.01.21 @ 02:55:00

End Date: 2019.01.21 @ 08:53:02

Job Ticket #: 65087 DST #: 4

Trilobite Testing, Inc

1515 Commerce Parkway Hays, KS 67601

ph: 785-625-4778 fax: 785-625-5620

Printed: 2019.01.22 @ 11:29:12

Mai Oil Operations Inc
6-11S-20W Ellis,KS
Richards #15
DST # 4
Arbuckle
2019.01.21



TRILOBITE TESTING, INC.

DRILL STEM TEST REPORT

Mai Oil Operations Inc
 8411 Preston Rd Suite 800
 Dallas TX 75225+5520
 ATTN: Wyatt Urban

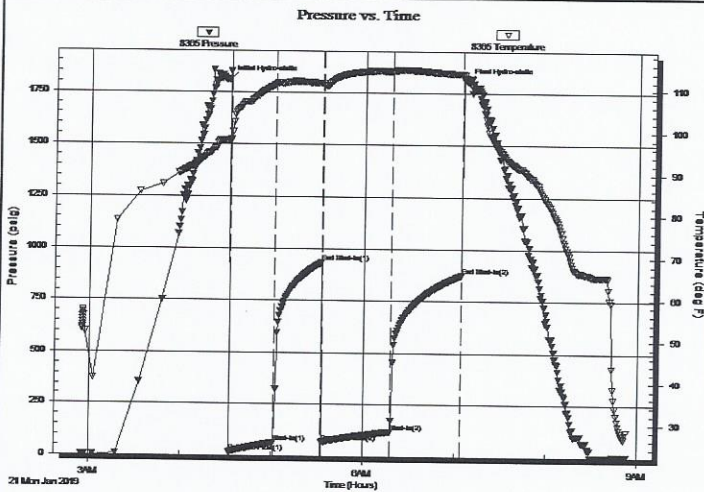
6-11S-20W Ellis,KS
Richards #15
 Job Ticket: 65087 **DST#: 4**
 Test Start: 2019.01.21 @ 02:55:00

GENERAL INFORMATION:

Formation: **Arbuckle**
 Deviated: No Whipstock: ft (KB)
 Time Tool Opened: 04:32:02
 Time Test Ended: 08:53:02
 Interval: **3701.00 ft (KB) To 3720.00 ft (KB) (TVD)**
 Total Depth: 3720.00 ft (KB) (TVD)
 Hole Diameter: 7.88 inches Hole Condition: Fair
 Test Type: Conventional Bottom Hole (Initial)
 Tester: Ken Swinney
 Unit No: 72
 Reference Elevations: 2098.00 ft (KB)
 2090.00 ft (CF)
 KB to GR/CF: 8.00 ft

Serial #: 8365 Inside
 Press@RunDepth: 119.78 psig @ 3702.00 ft (KB) Capacity: psig
 Start Date: 2019.01.21 End Date: 2019.01.21 Last Calib.: 2019.01.21
 Start Time: 02:55:01 End Time: 08:53:02 Time On Btm: 2019.01.21 @ 04:30:47
 Time Off Btm: 2019.01.21 @ 07:06:17

TEST COMMENT: IFP 30 Minutes Blow built to BOB in 20 minutes - Total build 14"
 ISI 30 Minutes No blow back
 FFP 45 Minutes Blow built to BOB in 35 minutes - Total build 13 1/2"
 FSI 45 Minutes No blow back



PRESSURE SUMMARY

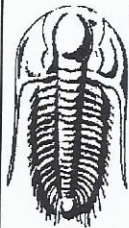
| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1807.06 | 97.84 | Initial Hydro-static |
| 2 | 16.02 | 97.88 | Open To Flow (1) |
| 31 | 64.82 | 111.38 | Shut-In(1) |
| 62 | 935.72 | 111.57 | End Shut-In(1) |
| 62 | 67.68 | 111.21 | Open To Flow (2) |
| 107 | 119.78 | 114.57 | Shut-In(2) |
| 153 | 875.75 | 113.88 | End Shut-In(2) |
| 156 | 1803.73 | 112.73 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------------------------|--------------|
| 5.00 | Oil 100% | 0.07 |
| 230.00 | Muddy Water w /skim oil/ M 15 W 85 | 3.23 |
| | | |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

Mai Oil Operations Inc
8411 Preston Rd Suite 800
Dallas TX 75225+5520

ATTN: Wyatt Urban

6-11S-20W Ellis, KS

Richards #15

Job Ticket: 65087

DST#: 4

Test Start: 2019.01.21 @ 02:55:00

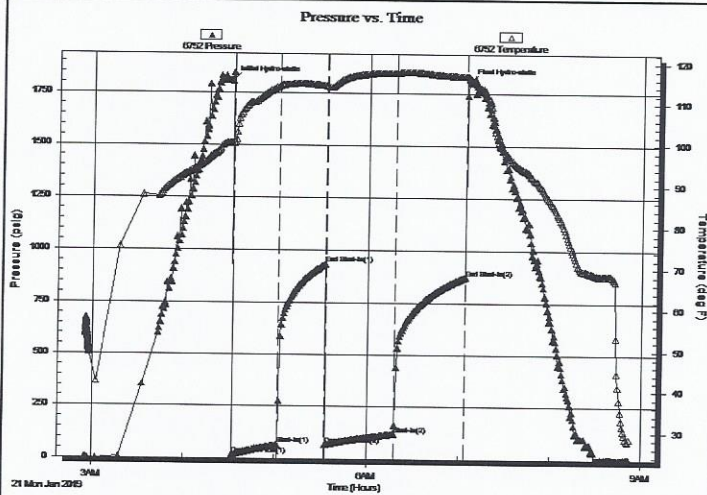
GENERAL INFORMATION:

| | |
|---|---|
| Formation: Arbuckle | Test Type: Conventional Bottom Hole (Initial) |
| Deviated: No Whipstock: ft (KB) | Tester: Ken Swinney |
| Time Tool Opened: 04:32:02 | Unit No: 72 |
| Time Test Ended: 08:53:02 | Reference Elevations: 2098.00 ft (KB) |
| Interval: 3701.00 ft (KB) To 3720.00 ft (KB) (TVD) | 2090.00 ft (CF) |
| Total Depth: 3720.00 ft (KB) (TVD) | KB to GR/CF: 8.00 ft |
| Hole Diameter: 7.88 inches | Hole Condition: Fair |

Serial #: 6752 Outside

| | |
|--|-------------------------------------|
| Press@RunDepth: 874.23 psig @ 3703.00 ft (KB) | Capacity: psig |
| Start Date: 2019.01.21 End Date: 2019.01.21 | Last Calib.: 2019.01.21 |
| Start Time: 02:55:01 End Time: 08:52:02 | Time On Btm: 2019.01.21 @ 04:30:47 |
| | Time Off Btm: 2019.01.21 @ 07:05:47 |

TEST COMMENT: IFP 30 Minutes Blow built to BOB in 20 minutes - Total build 14"
 ISI 30 Minutes No blow back
 FFP 45 Minutes Blow built to BOB in 35 minutes - Total build 13 1/2"
 FSI 45 Minutes No blow back



PRESSURE SUMMARY

| Time (Min.) | Pressure (psig) | Temp (deg F) | Annotation |
|-------------|-----------------|--------------|----------------------|
| 0 | 1806.26 | 100.49 | Initial Hydro-static |
| 2 | 16.17 | 100.47 | Open To Flow (1) |
| 31 | 66.40 | 114.40 | Shut-In(1) |
| 62 | 934.89 | 114.43 | End Shut-In(1) |
| 62 | 68.36 | 114.24 | Open To Flow (2) |
| 107 | 119.87 | 117.56 | Shut-In(2) |
| 153 | 874.23 | 116.80 | End Shut-In(2) |
| 155 | 1802.13 | 116.28 | Final Hydro-static |

Recovery

| Length (ft) | Description | Volume (bbl) |
|-------------|------------------------------------|--------------|
| 5.00 | Oil 100% | 0.07 |
| 230.00 | Muddy Water w /skim oil/ M 15 W 85 | 3.23 |
| | | |
| | | |

Gas Rates

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



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

TOOL DIAGRAM

Mai Oil Operations Inc
8411 Preston Rd Suite 800
Dallas TX 75225+5520
ATTN: Wyatt Urban

6-11S-20W Ellis,KS
Richards #15
Job Ticket: 65087 **DST#: 4**
Test Start: 2019.01.21 @ 02:55:00

Tool Information

| | | | | |
|---------------------------|--------------------|-----------------------|--------------------------------|------------------------------------|
| Drill Pipe: | Length: 3704.00 ft | Diameter: 3.80 inches | Volume: 51.96 bbl | Tool Weight: 2000.00 lb |
| Heavy Wt. Pipe: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight set on Packer: 20000.00 lb |
| Drill Collar: | Length: 0.00 ft | Diameter: 0.00 inches | Volume: 0.00 bbl | Weight to Pull Loose: 48000.00 lb |
| | | | <u>Total Volume: 51.96 bbl</u> | Tool Chased 0.00 ft |
| Drill Pipe Above KB: | 23.00 ft | | | String Weight: Initial 46000.00 lb |
| Depth to Top Packer: | 3701.00 ft | | | Final 46000.00 lb |
| Depth to Bottom Packer: | ft | | | |
| Interval between Packers: | 19.00 ft | | | |
| Tool Length: | 39.00 ft | | | |
| Number of Packers: | 2 | Diameter: 6.75 inches | | |

Tool Comments:

Tool Description

| Tool Description | Length (ft) | Serial No. | Position | Depth (ft) | Accum. Lengths |
|------------------|-------------|------------|----------|------------|---------------------------------|
| Shut-In Tool | 5.00 | | | 3686.00 | |
| Hydraulic tool | 5.00 | | | 3691.00 | |
| Packer - Shale | 5.00 | | | 3696.00 | |
| Packer | 5.00 | | | 3701.00 | 20.00 Bottom Of Top Packer |
| Recorder | 1.00 | 8365 | Inside | 3702.00 | |
| Recorder | 1.00 | 6752 | Outside | 3703.00 | |
| Anchor | 14.00 | | | 3717.00 | |
| Bullnose | 3.00 | | | 3720.00 | 19.00 Anchor Tool |

Total Tool Length: 39.00



**TRILOBITE
TESTING, INC.**

DRILL STEM TEST REPORT

FLUID SUMMARY

Mai Oil Operations Inc
8411 Preston Rd Suite 800
Dallas TX 75225+5520
ATTN: Wyatt Urban

6-11S-20W Ellis,KS
Richards #15
Job Ticket: 65087 **DST#: 4**
Test Start: 2019.01.21 @ 02:55:00

Mud and Cushion Information

Mud Type: Gel Chem
Mud Weight: 9.00 lb/gal
Viscosity: 60.00 sec/qt
Water Loss: 7.19 in³
Resistivity: ohm.m
Salinity: 3000.00 ppm
Filter Cake: 1.00 inches

Cushion Type:
Cushion Length: ft
Cushion Volume: bbl
Gas Cushion Type:
Gas Cushion Pressure: psig

Oil API: deg API
Water Salinity: 17000 ppm

Recovery Information

Recovery Table

| Length ft | Description | Volume bbl |
|--------------|------------------------------------|---------------|
| 5.00 | Oil 100% | 0.070 |
| 230.00 | Muddy Water w /skim oil/ M 15 W 85 | 3.226 |

Total Length: 235.00 ft Total Volume: 3.296 bbl

Num Fluid Samples: 0

Num Gas Bombs: 0

Serial #:

Laboratory Name:

Laboratory Location:

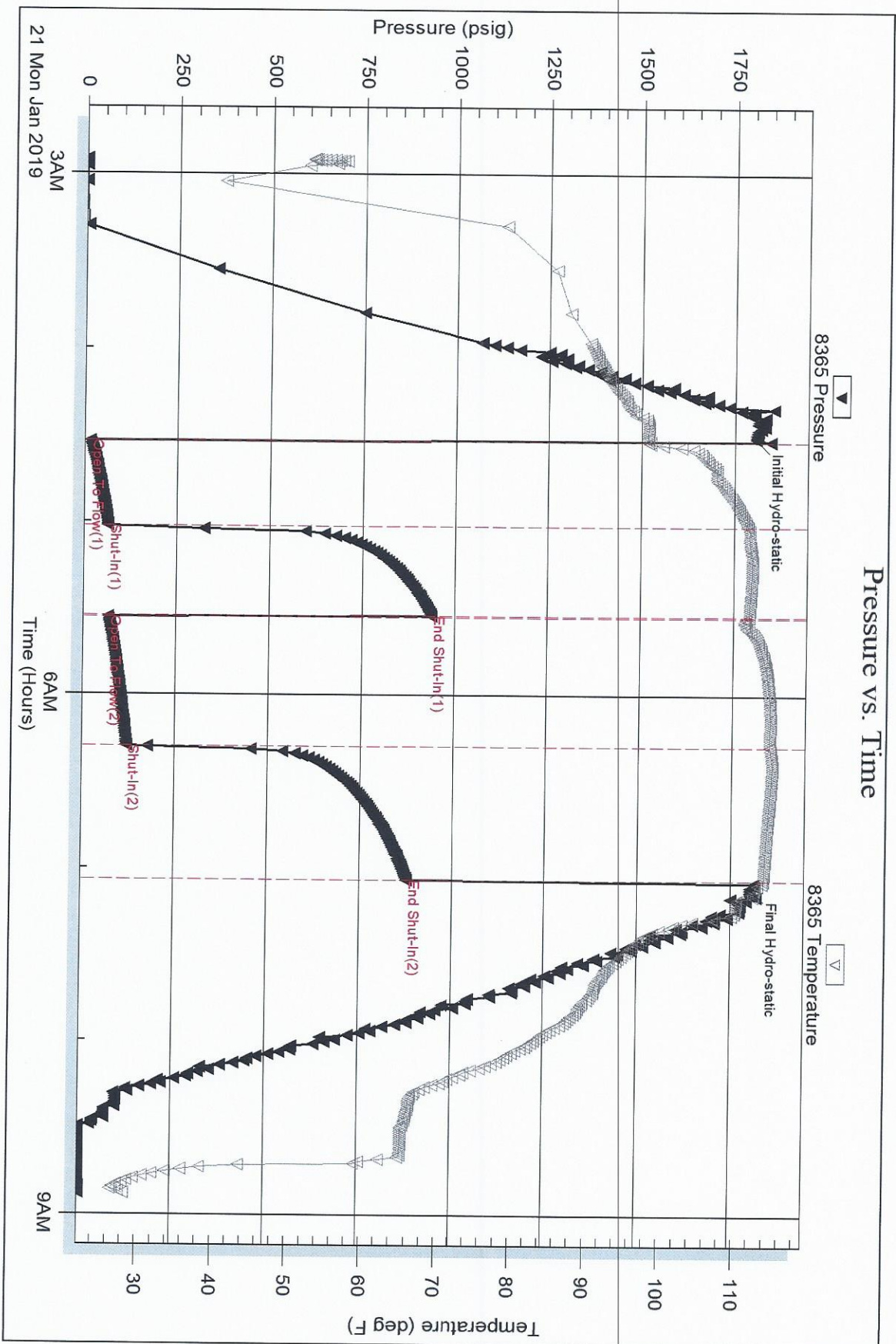
Recovery Comments: Recovery Resistivity .780 ohms @ 34 deg.

Serial #: 8365

Inside Mai Oil Operations Inc

Richards #15

DST Test Number: 4



Triobite Testing, Inc

Ref. No: 65087

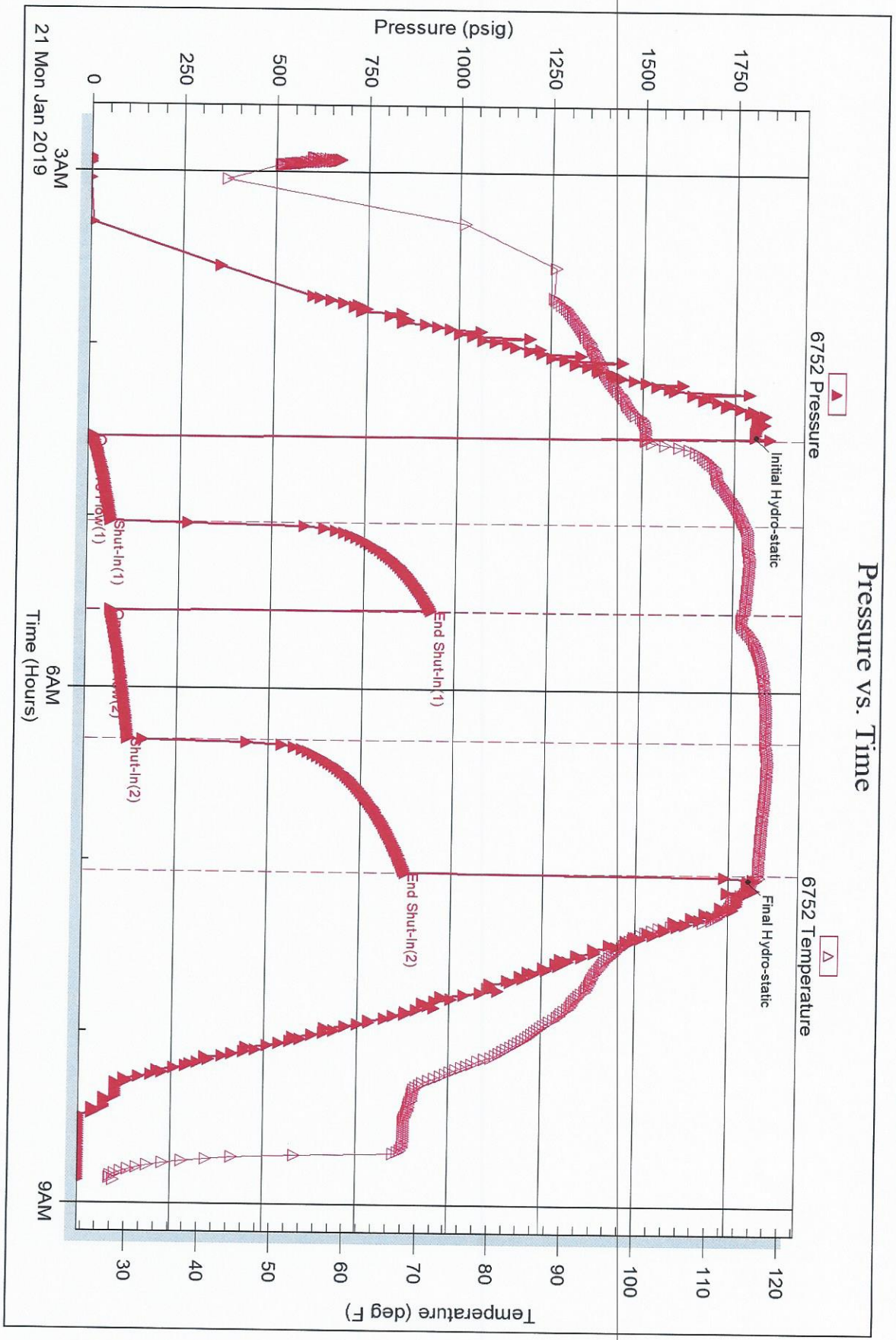
Printed: 2019.01.22 @ 11:29:13

Serial #: 6752

Outside Mai Oil Operations Inc

Richards #15

DST Test Number: 4



TriLOBITE Testing, Inc

Ref. No: 65087

Printed: 2019.01.22 @ 11:29:13



TRILOBITE TESTING INC.

1515 Commerce Parkway • Hays, Kansas 67601

Test Ticket

NO. 65084

Well Name & No. Richards #15 Test No. 1 Date 18 JAN 19
 Company Mari Oil Operations Inc Elevation 2098 KB 2090 GL
 Address 8411 Preston Rd Suite 800 Dallas Texas 75225-5520
 Co. Rep / Geo. Wyst+ Urban Rig Southwind Rig 3
 Location: Sec. 6 Twp 11S Rge. 20W Co. Ellis State KS

Interval Tested 3395-3430 Zone Tested Lansing A-C
 Anchor Length 35 Drill Pipe Run 338.5 Mud Wt. 9.1
 Top Packer Depth 3390 Drill Collars Run - Vis 57
 Bottom Packer Depth 3395 Wt. Pipe Run - WL 6.2
 Total Depth 3430 Chlorides 1500 ppm System LCM 2#

Blow Description I.F. Blow to BOB 11 min / Total build 27 inches
I.S.I. 1.5 inch blow back
F.F. Blow built to BOB 15 min / Total build 32 1/2 inches
I.S.I. 5 inch blow back

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|--------------------------|------------|-----------|----------|------|
| <u>67</u> | <u>Mud Cut Water Oil</u> | <u>90</u> | <u>15</u> | <u>5</u> | |
| <u>248</u> | <u>Oil cut Mud Water</u> | <u>5</u> | <u>90</u> | <u>5</u> | |
| <u>243</u> | <u>GIP</u> | <u>100</u> | | | |
| | | | | | |
| | | | | | |

Rec Total _____ BHT 109 Gravity 37 API RW .515 @ 37 °F Chlorides 24000 ppm

- (A) Initial Hydrostatic 1671 Test 1050
 - (B) First Initial Flow 17 Jars _____
 - (C) First Final Flow 85 Safety Joint _____
 - (D) Initial Shut-In 650 Circ Sub _____
 - (E) Second Initial Flow 89 Hourly Standby _____
 - (F) Second Final Flow 161 Mileage 62 62
 - (G) Final Shut-In 643 Sampler _____
 - (H) Final Hydrostatic 1641 Straddle _____
 - Shale Packer _____
 - Extra Packer _____
 - Extra Recorder _____
 - Day Standby _____
 - Accessibility _____
- Sub Total 1112

T-On Location 9:58 am
 T-Started 12:37 pm
 T-Open 2:20 pm
 T-Pulled 4:50 pm
 T-Out 6:51 pm

Comments _____
 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1112
 MP/DST Disc't _____

Approved By _____ Our Representative _____

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. 65085

Well Name & No. Richards #15 Test No. 2 Date 19 JAN 19
 Company Mo. Oil Operations Inc Elevation 2098 KB 2090 GL
 Address 8411 Preston Rd Suite 800 Dallas TX 75225-5520
 Co. Rep / Geo. Wyatt Urban Rig Southwind Rig 3
 Location: Sec. 6 Twp 11S Rge. 20W Co. Ellis State KS

Interval Tested 3444-3485 Zone Tested Lansing/Kansas City D-6
 Anchor Length 42 Drill Pipe Run 3448 Mud Wt. 9.1
 Top Packer Depth 3439 Drill Collars Run - Vis 57
 Bottom Packer Depth 3444 Wt. Pipe Run - WL 6.2
 Total Depth 3485 Chlorides 1500 ppm System LCM 2A

Blow Description IF Blw built to 2 inches
Z.S.I. No blow back
E.F. Dead Flush tool surface blow 2 min then dead Pull test

| Rec | Feet of | %gas | %oil | %water | %mud |
|----------|------------|------|------|--------|------------|
| <u>8</u> | <u>Mud</u> | | | | <u>100</u> |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 8 BHT 94 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 168.5 Test 1050
 (B) First Initial Flow 11 Jars _____
 (C) First Final Flow 13 Safety Joint _____
 (D) Initial Shut-In 4.57 Circ Sub _____
 (E) Second Initial Flow 13 Hourly Standby _____
 (F) Second Final Flow 15 Mileage 62 62
 (G) Final Shut-In _____ Sampler _____
 (H) Final Hydrostatic 1670 Straddle _____
 Initial Open 30 Shale Packer _____
 Initial Shut-In 30 Extra Packer _____
 Final Flow 23 Extra Recorder _____
 Final Shut-In _____ Day Standby _____
 Accessibility _____
 Sub Total 1112

T-On Location 4:32 am
 T-Started 5:15 am
 T-Open 7:02 am
 T-Pulled 8:26 am
 T-Out 9:58 am

Comments _____
 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1112
 MP/DST Disc't _____

Approved By _____ Our Representative _____

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. 65086

Well Name & No. Richards #15 Test No. 3 Date 19 JAN 19
 Company Maj Oil Operations Inc Elevation 2018 KB 2090 GL
 Address 8411 Preston Rd Suite 800 Dallas Texas 7522515520
 Co. Rep / Geo. Wyatt Urban Rig Southwind Rig 3
 Location: Sec. 6 Twp 11S Rge. 20W Co. Ellis State KS

Interval Tested 3497-3600 Zone Tested Leasing/Kansas City H-L
 Anchor Length 103 Drill Pipe Run 3510 Mud Wt. 9.0
 Top Packer Depth 3492 Drill Collars Run - Vis 53
 Bottom Packer Depth 3497 Wt. Pipe Run - WL 7.2
 Total Depth 3600 Chlorides 2800 ppm System LCM 1#

Blow Description I.F. Blow built to 6 1/2 inches
I.S.I. No blow back
F.F. Blow built to 8 1/2 inch
F.S.I. No blow back

| Rec | Feet of | %gas | %oil | %water | %mud |
|-----------|--------------------|-----------|-----------|--------|------|
| <u>62</u> | <u>Oil cut mud</u> | <u>20</u> | <u>80</u> | | |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |
| Rec | Feet of | %gas | %oil | %water | %mud |

Rec Total 62 BHT 102 Gravity _____ API RW _____ @ _____ °F Chlorides _____ ppm

(A) Initial Hydrostatic 1702 Test 1050
 (B) First Initial Flow 14 Jars _____
 (C) First Final Flow 26 Safety Joint _____
 (D) Initial Shut-In 917 Circ Sub _____
 (E) Second Initial Flow 30 Hourly Standby _____
 (F) Second Final Flow 40 Mileage 62
 (G) Final Shut-In 845 Sampler _____
 (H) Final Hydrostatic 1698 Straddle _____
 Shale Packer _____
 Extra Packer _____
 Extra Recorder _____
 Day Standby _____
 Accessibility _____
 Sub Total 1112

T-On Location 10:11 pm
 T-Started 11:21 am
 T-Open 1:02 am
 T-Pulled 4:02 am
 T-Out 5:50 am
 Comments _____
 EM Tool _____
 Ruined Shale Packer _____
 Ruined Packer _____
 Extra Copies _____
 Sub Total 0
 Total 1112
 MP/DST Disc't _____

Approved By _____ Our Representative _____

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. 65087

Well Name & No. Richards #15 Test No. 4 Date 21 JAN 19
 Company Mai Oil Operations Inc Elevation 2098 KB 2090 GL
 Address 8411 Preston Rd Suite 800 Dallas Texas 75225 + 5520
 Co. Rep / Geo. Wyatt Urban Rig Southwind Rig 3
 Location: Sec. 6 Twp 11S Rge. 20W Co. Ellis State KS

Interval Tested 3701-3720 Zone Tested Arbuckle
 Anchor Length 19 Drill Pipe Run 3704 Mud Wt. 9.3
 Top Packer Depth 3696 Drill Collars Run - Vis 60
 Bottom Packer Depth 3701 Wt. Pipe Run - WL 7.2
 Total Depth 3720 Chlorides 3000 ppm System LCM 1#

Blow Description I.F. Blow built to BCB in 20 min / Total build 14"
I.S.I. No blow back
F.F. Blow built to BCB in 35 min / Total build 13 1/2"
F.S.I. No blow back

| Rec | Feet of | %gas | %oil | %water | %mud |
|------------|-----------------------------|------------|-----------|-----------|------|
| <u>5</u> | <u>Oil</u> | <u>100</u> | | | |
| <u>230</u> | <u>Muddy Water skin oil</u> | | <u>85</u> | <u>15</u> | |
| | | | | | |
| | | | | | |
| | | | | | |

Rec Total 235 BHT 114 Gravity 1.050 API RW .780 @ 34 °F Chlorides 17000 ppm

- (A) Initial Hydrostatic 1807 Test 1050
- (B) First Initial Flow 16 Jars
- (C) First Final Flow 64 Safety Joint
- (D) Initial Shut-In 93.5 Circ Sub
- (E) Second Initial Flow 67 Hourly Standby
- (F) Second Final Flow 119 Mileage 124 62
- (G) Final Shut-In 87.5 Sampler
- (H) Final Hydrostatic 1803 Straddle
- Shale Packer 250
- Extra Packer
- Extra Recorder
- Day Standby
- Accessibility
- Sub Total 1424

T-On Location 2:00 a.m.
 T-Started 2:55 a.m.
 T-Open 4:32 a.m.
 T-Pulled 7:02 a.m.
 T-Out 6:54 a.m.

Comments loaded tools 1/21 23:00

EM Tool
 Ruined Shale Packer
 Ruined Packer
 Extra Copies
 Sub Total 0
 Total 1424
 MP/DST Disc't

Approved By _____ Our Representative _____

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June 07, 2019

Brent Homeier
Mai Oil Operations, Inc.
8411 PRESTON RD STE 800
DALLAS, TX 75225-5520

Re: ACO-1
API 15-051-26943-00-00
RICHARDS 15
SE/4 Sec.06-11S-20W
Ellis County, Kansas

Dear Brent Homeier:

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

The above referenced well was spudded on 1/14/2019 and the ACO-1 was received on June 06, 2019 (not within the 120 days timely requirement).

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

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

Sincerely,

Production Department