

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 Recompletion Date \_\_\_\_\_ Date Reached TD \_\_\_\_\_ Completion Date or Recompletion Date \_\_\_\_\_

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

Spot Description: \_\_\_\_\_

\_\_\_\_\_ - \_\_\_\_\_ - \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

\_\_\_\_\_ Feet from  North /  South Line of Section

\_\_\_\_\_ Feet from  East /  West Line of Section

Footages Calculated from Nearest Outside Section Corner:

NE  NW  SE  SW

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

Datum:  NAD27  NAD83  WGS84

County: \_\_\_\_\_

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

Field Name: \_\_\_\_\_

Producing Formation: \_\_\_\_\_

Elevation: Ground: \_\_\_\_\_ Kelly Bushing: \_\_\_\_\_

Total Vertical Depth: \_\_\_\_\_ Plug Back Total Depth: \_\_\_\_\_

Amount of Surface Pipe Set and Cemented at: \_\_\_\_\_ Feet

Multiple Stage Cementing Collar Used?  Yes  No

If yes, show depth set: \_\_\_\_\_ Feet

If Alternate II completion, cement circulated from: \_\_\_\_\_

feet depth to: \_\_\_\_\_ w/ \_\_\_\_\_ sx cmt.

**Drilling Fluid Management Plan**

(Data must be collected from the Reserve Pit)

Chloride content: \_\_\_\_\_ ppm Fluid volume: \_\_\_\_\_ bbls

Dewatering method used: \_\_\_\_\_

Location of fluid disposal if hauled offsite:

Operator Name: \_\_\_\_\_

Lease Name: \_\_\_\_\_ License #: \_\_\_\_\_

Quarter \_\_\_\_\_ Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West

County: \_\_\_\_\_ Permit #: \_\_\_\_\_

**AFFIDAVIT**

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

Submitted Electronically

**KCC Office Use ONLY**

Confidentiality Requested

Date: \_\_\_\_\_

Confidential Release Date: \_\_\_\_\_

Wireline Log Received  Drill Stem Tests Received

Geologist Report / Mud Logs Received

UIC Distribution

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

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<br><i>(Attach Additional Sheets)</i><br><br>Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No<br>Geologist Report / Mud Logs <input type="checkbox"/> Yes <input type="checkbox"/> No<br><br>List All E. Logs Run: | <input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample<br><br>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<br><input type="checkbox"/> Protect Casing<br><input type="checkbox"/> Plug Back TD<br><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:<br><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:<br><input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease<br><i>(If vented, Submit ACO-18.)</i> | METHOD OF COMPLETION:<br><input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled<br><i>(Submit ACO-5) (Submit ACO-4)</i> | PRODUCTION INTERVAL:<br>Top Bottom |
|---|--|------------------------------------|

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

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

|           |                                |
|-----------|--------------------------------|
| Form      | ACO1 - Well Completion         |
| Operator  | O'Brien Energy Resources Corp. |
| Well Name | CLAYTON 7-28                   |
| Doc ID    | 1470365                        |

Tops

| Name                | Top  | Datum |
|---------------------|------|-------|
| Heebner             | 4428 | -1808 |
| Toronto             | 4458 | -1838 |
| Lansing             | 4582 | -1962 |
| Marmaton            | 4260 | -2640 |
| Cherokee            | 5448 | -2828 |
| Atoka               | 5640 | -3020 |
| Morrow              | 5773 | -3153 |
| Mississippi Chester | 5900 | -3280 |
| Ste. Genevieve      | 6168 | -3548 |
| St. Louis           | 6298 | -3678 |





Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

**PRESSURE PUMPING Job Log**

|                    |                           |                  |                             |                   |   |
|--------------------|---------------------------|------------------|-----------------------------|-------------------|---|
| Customer:          | O'Brien Energy            | Cement Pump No.: | 38750, 19919 3.5Hrs.        | Operator TRK No.: | 96816                                   |
| Address:           | 18 Congress St. Suite 207 | Ticket #:        | 1718 19447 L                | Bulk TRK No.:     | 14355, 37724 Angel<br>33021, 14284 Marc |
| City, State, Zip:  | Portsmouth NH 03801       | Job Type:        | Z42 - Cement Surface Casing |                   |   |
| Service District:  | 1718 - Liberal, Ks.       | Well Type:       | OIL                         |                   |   |
| Well Name and No.: | Clayton 7-28              | Well Location:   | 28,33,29                    | County:           | Meade State: Ks                         |

| Type of Cmt         | Sacks | Additives                                    | Truck Loaded On    |       |      |
|---------------------|-------|--|--------------------|-------|------|
| A-Con' Blend        | 375   | 3% Calcium Chloride, 1/4# Polyflake, .2%WCA1 | 14355, 37724 Angel | Front | Back |
| Premium Plus Cement | 150   | 2% Calcium Chloride, 1/4# Polyflake          | 33021, 14284 Marc  | Front | Back |
|                     |       |  |                    | Front | Back |

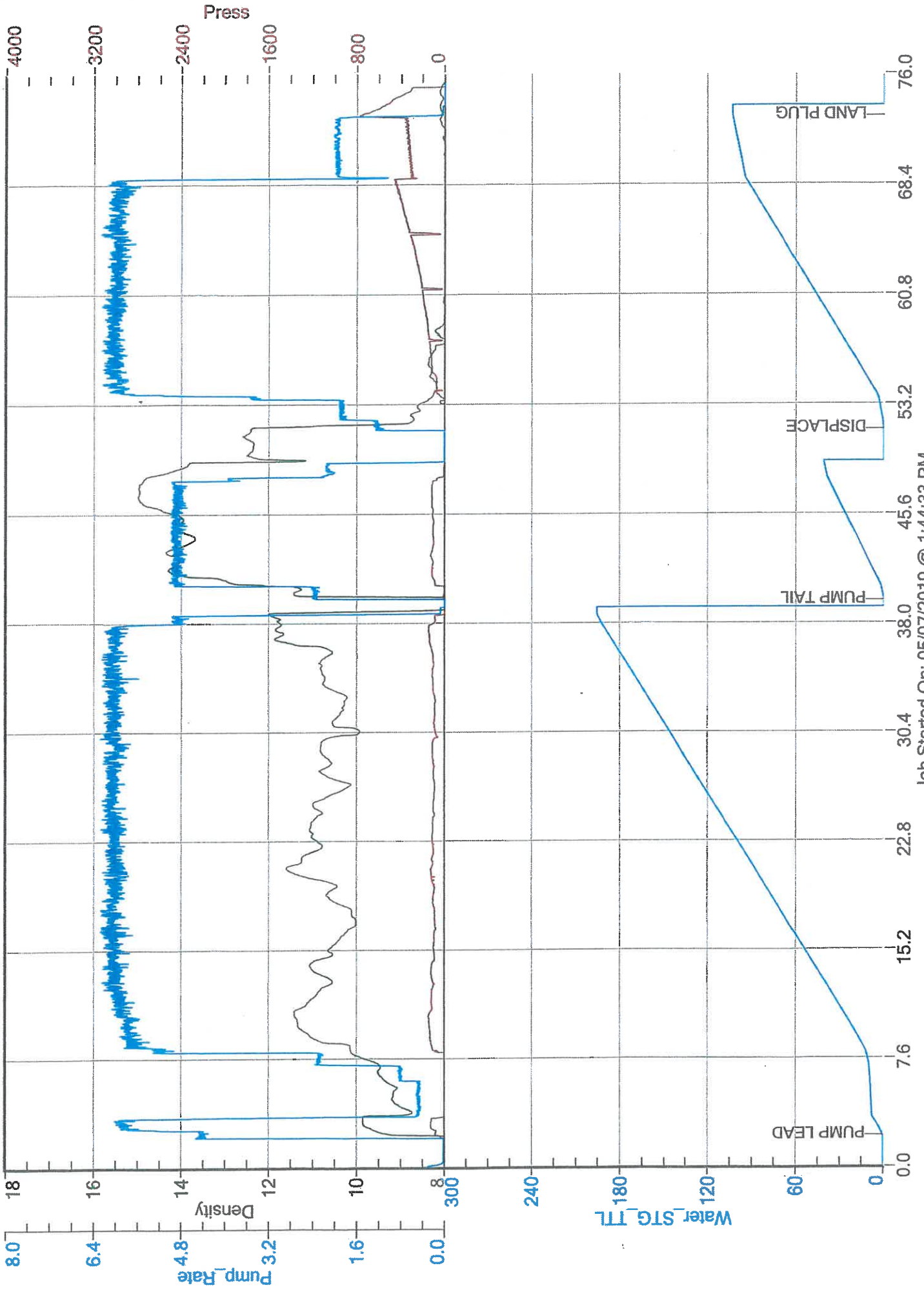
| Lead/Tail:   | Weight #1 Gal. | Cu/Ft/sk | Water Requirements | CU. FT. | Man Hours / Personnel |    |
|--------------|----------------|----------|--------------------|---------|-----------------------|----|
| <b>Lead:</b> | 11.4           | 2.95     | 18.1               | 1106.25 | TT Man Hours:         | 34 |
| <b>Tail:</b> | 14.8           | 1.34     | 6.33               | 201     | # of Men on Job:      | 5  |

| Time (am/pm) | BPM | Volume (BBLs) | Pumps |   | Pressure (PSI) |        | Description of Operation and Materials |
|--------------|-----|---------------|-------|---|----------------|--------|--|
|              |     |               | T     | C | Tubing         | Casing |  |
| 12:00        |     |               |       |   |                |        | ON LOCATION & SAFETY MEETING           |
| 12:15 PM     |     |               |       |   |                |        | RIG UP                                 |
| 1:00 PM      |     |               |       |   |                |        | RIG TO CIRCULATE                       |
| 1:30 PM      |     |               |       |   |                |        | RIG TO P.T.                            |
| 13:46        | 6   | 197.0 slurry  |       |   |                | 120    | PUMP 375SX LEAD @ 11.4#                |
| 2:24 PM      | 6   | 35.7 slurry   |       |   |                | 90     | PUMP 150SX TAIL @ 14.8#                |
| 14:34        |     |               |       |   |                |        | SHUTDOWN / DROP PLUG                   |
| 14:35        | 6   | 10            |       |   |                | 80     | DISPLACE                               |
| 14:41        | 6.1 | 20            |       |   |                | 120    | CEMENT RETURNS                         |
|              | 6   | 30            |       |   |                | 150    |  |
|              | 6   | 40            |       |   |                | 190    |  |
|              | 6   | 50            |       |   |                | 220    |  |
|              | 6   | 60            |       |   |                | 270    |  |
|              | 6   | 70            |       |   |                | 340    |  |
|              | 6   | 80            |       |   |                | 410    |  |
| 14:53        | 6   | 84            |       |   |                | 450    | SLOW RATE TO 2.0BPM @ 300PSI           |
|              | 2   | 90            |       |   |                | 320    |  |
| 14:58        | 2   | 94.7          |       |   |                | 360    | LAND PLUG / PRESSURE UP TO 770PSI      |
| 15:00        |     |               |       |   |                |        | RELEASE BACK --- FLOAT HELD            |
|              |     |               |       |   |                |        | JOB COMPLETE                           |

|                 |            |       |  |            |          |                |  |
|-----------------|------------|-------|--|------------|----------|----------------|--|
| Size Hole       | 12 1/4"    | Depth |  |            | TYPE     | Plug Container |  |
| Size & Wt. Csg. | 8 5/8" 24# | Depth |  | New / Used | Packer   | Depth          |  |
| Landing Press.  | 316.1 psi  | Depth |  |            | Retainer | Depth          |  |
| Shoe Jt.        | 41.07'     | Type  |  |            | Perfs    | CIBP           |  |

|                     |                       |             |
|---------------------|-----------------------|-------------|
| Customer Signature: | Basic Representative: | Daniel Beck |
|                     | Basic Signature:      |             |
|                     | Date of Service:      | 5/7/2019    |

O'Brien Energy  
Clayton#7-28



Job Started On: 05/07/2019 @ 1:44:33 PM



Liberal Yard #1717 - Phone 620-624-2277 - 1700 S. Country Estates Road, Liberal KS 67901

**PRESSURE PUMPING**

**Job Log**


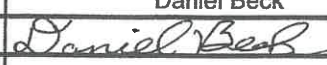
|                    |                           |                  |                                |                   |                                  |
|--------------------|---------------------------|------------------|--------------------------------|-------------------|----------------------------------|
| Customer:          | Obrien Energy             | Cement Pump No.: | 38750, 19919 4.5Hrs.           | Operator TRK No.: | 96816                            |
| Address:           | 18 Congress St. Suite 207 | Ticket #:        | 1718 19448 L                   | Bulk TRK No.:     | 27808, 19883 Sam<br>27808, 19883 |
| City, State, Zip:  | Portsmouth NH 03801       | Job Type:        | Z42 - Cement Production Casing |                   |                                  |
| Service District:  | 1718 - Liberal, Ks.       | Well Type:       | OIL                            |                   |                                  |
| Well Name and No.: | Clayton 7-28              | Well Location:   | 28,33,29                       | County:           | Meade                            |
|                    |                           |                  |                                | State:            | Ks                               |

| Type of Cmt | Sacks | Additives   | Truck Loaded On  |       |      |
|-------------|-------|---|------------------|-------|------|
| 60/40 Poz   | 50    |   | 27808, 19883 Sam | Front | Back |
| AA2         | 185   | 5% W-60, 10% Salt, .6% C-17, 1/4# Defoamer, 5# Gilsomite, 1/3#/Sk OWB | 27808, 19883     | Front | Back |
| 60/40 Poz   | 50    | Rat & Mouse   |                  | Front | Back |

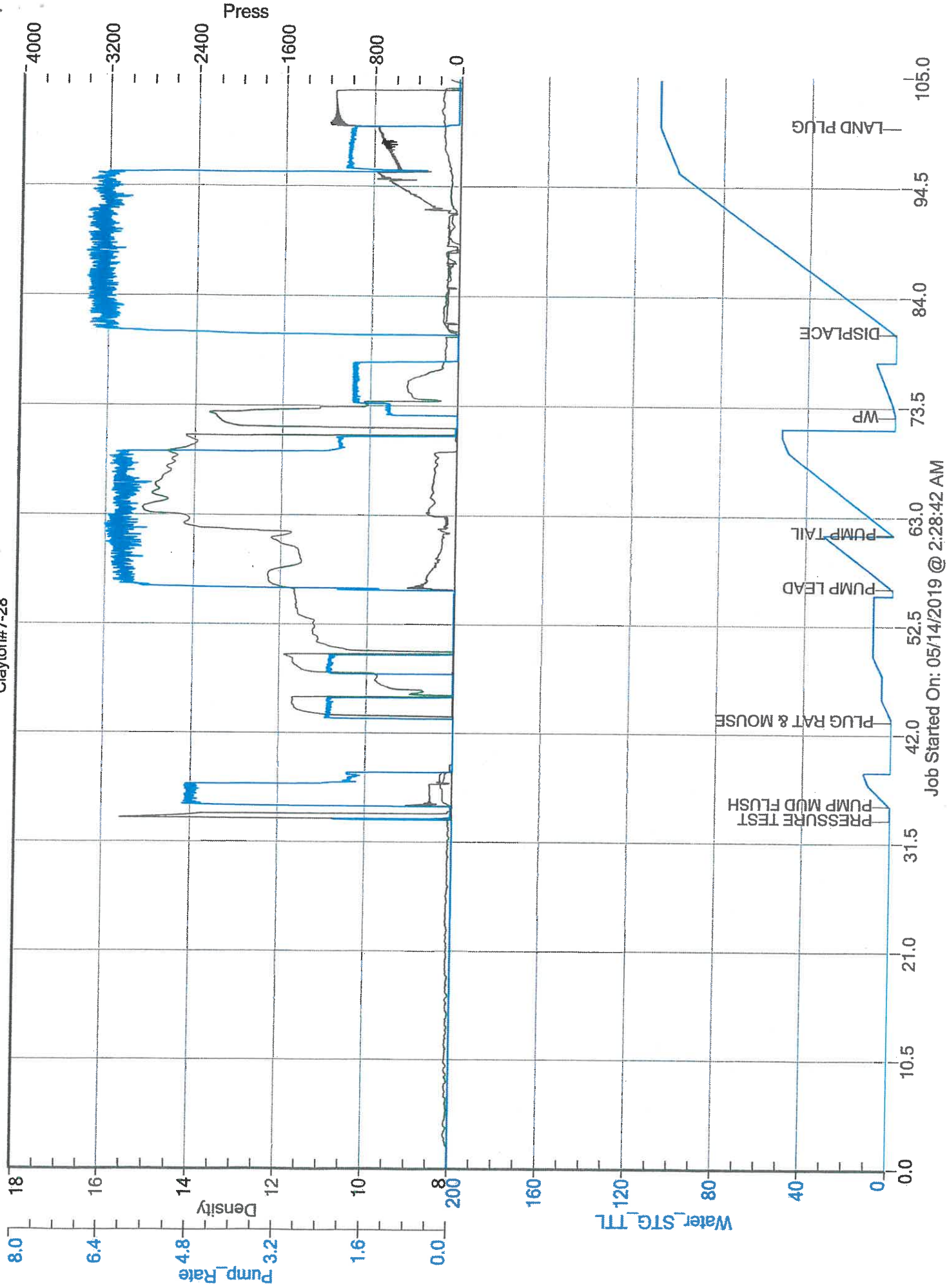
| Lead/Tail:   | Weight #1 Gal. | Cu/Ft/sk | Water Requirements | CU. FT. | Man Hours / Personnel |      |
|--------------|----------------|----------|--------------------|---------|-----------------------|------|
| <b>Lead:</b> | 12             | 2.08     | 11.89              | 104     | TT Man Hours:         | 25.5 |
| <b>Tail:</b> | 14.8           | 1.52     | 6.7                | 281.2   | # of Men on Job:      | 3    |

| Time (am/pm) | BPM | Volume (BBLS) | Pumps |   | Pressure(PSI) |        | Description of Operation and Materials |
|--------------|-----|---------------|-------|---|---------------|--------|--|
|              |     |               | T     | C | Tubing        | Casing |  |
| 1:40         |     |               |       |   |               |        | ON LOCATION & SAFETY MEETING           |
| 1:45         |     |               |       |   |               |        | RIG TO CIRCULATE                       |
| 3:00 AM      |     |               |       |   |               |        | RIG TO PT                              |
| 3:02 AM      |     |               |       |   |               |        | PRESSURE TEST TO 2870PSI               |
| 3:04 AM      | 5   | 11.9          |       |   |               | 140    | PUMP 500 GALLONS MUD FLUSH             |
| 3:12         | 2.3 | 18.5 slurry   |       |   | 10            |        | PLUG RAT & MOUSE W/ 50SX               |
| 3:24         | 6   | 18.5 slurry   |       |   |               | 290    | PUMP LEAD 50SX @ 12#                   |
| 3:30 AM      | 6   | 50.0 slurry   |       |   |               | 120    | ON LOCATION & SAFETY MEETING           |
| 3:39         |     |               |       |   |               |        | SHUTDOWN / DROP PLUG / WP              |
| 3:49         | 6.5 | 10            |       |   |               | 110    | DISPLACE W/ KCL WATER                  |
|              | 6.5 | 20            |       |   |               | 100    |  |
|              | 6.5 | 30            |       |   |               | 100    |  |
|              | 6.5 | 40            |       |   |               | 100    |  |
|              | 6.5 | 50            |       |   |               | 110    |  |
|              | 6.5 | 60            |       |   |               | 110    |  |
|              | 6.5 | 70            |       |   |               | 260    |  |
|              | 6.5 | 80            |       |   |               | 480    |  |
|              | 6.5 | 90            |       |   |               | 710    |  |
| 4:05         | 6.5 | 91            |       |   |               | 720    | SLOW RATE TO 2.0BPM @ 590PSI           |
|              | 2   | 100           |       |   |               | 760    |  |
| 4:09         | 2   | 101           |       |   |               | 790    | LAND PLUG PRESSURE UP TO 1200PSI       |
| 4:12         |     |               |       |   |               |        | RELEASE BACK --- FLOAT HELD            |
|              |     |               |       |   |               |        | JOB COMPLETE                           |

|                 |              |       |       |            |          |                |  |
|-----------------|--------------|-------|-------|------------|----------|----------------|--|
| Size Hole       | 7 7/8"       | Depth |       |            | TYPE     | Plug Container |  |
| Size & Wt. Csg. | 4 1/2" 10.5# | Depth | 6392' | New / Used | Packer   | Depth          |  |
| Landing Press.  | 727.1psi     | Depth |       |            | Retainer | Depth          |  |
| Shoe Jt.        | 21.25'       | Type  |       |            | Perfs    | CIBP           |  |

|   |                       |   |
|---|-----------------------|---|
| Customer Signature:  | Basic Representative: | Daniel Beck   |
|   | Basic Signature:      |  |
|   | Date of Service:      | 5/14/2019   |

# OBrein Energy Clayton#7-28



Job Started On: 05/14/2019 @ 2:28:42 AM



# **O'Brien Energy Resources, Inc.**

**Clayton No. 7-28**

**Section 28, T33S, R29W**

Meade County, Kansas

May, 2019

## **Well Summary**

The Clayton No. 7-28 was drilled to a total depth of 6385' in the Mississippian St. Louis. It offset the Clayton No. 6 by approximately 1000' to the Northwest. Formation tops came in high relative to this offset. The Heebner, Toronto and Lansing ran 7', 10' and 13' high respectively. The Cherokee came in 18' high and the Atoka and Morrow, 20' high.

Numerous hydrocarbon shows were documented during the drilling of this well. The Morrow "C" Sandstone(5831'-5842') consists of a Sandstone in 10% of the samples: Light brown, white, salt and pepper, speckled green, firm to very friable, fine lower to very fine upper, well sorted subround to round grains, siliceous cement, slightly calcareous, clean, glauconitic, good intergranular and occasional vuggy porosity, bright light yellow hydrocarbon fluorescence(all SS), excellent streaming cut, gas bubbles and slight oil sheen when crushed, slight gas/oil odor, excellent show. A 700 Unit gas increase was documented.

Shows were document in the Morrow "B" Sandstone also and with associated gas increases but of a much lesser quality with just a trace of very light mottled blue hydrocarbon fluorescence and weak streaming to bleeding cut in less 2% of the samples.

The primary objective Rickers Ranch Sandstone was developed(6011'-6014') and came in even with the productive zone in the Clayton No. 6. No sandstone was noted in samples due largely to the abundance of show sands still in samples from the Morrow. A 325 Unit gas increase was documented on the hotwire.

The St. Louis(6315'-6323') contained a subtle show along with an 80 Unit gas increase and consists of a Limestone: Light brown, buff, biomicrite, very brittle, clean fossiliferous, dull gold brown hydrocarbon fluorescence in less than 1% of the samples, good streaming cut, very light live oil stain and trace live oil. The porosity zone just above this interval(6299'-6312') did not contain a sample show or gas increase and consists largely of a very oomoldic Limestone.

An interesting show occurred in the Lansing from 4686' to 4691' and consists of a Limestone: Light mottled brown, microcrystalline, microsucrosic with trace intercrystalline and vuggy porosity, bright light blue to yellow hydrocarbon fluorescence in 2% of the samples, slow streaming to bleeding cut, very light mottled oil stain. A 40 Unit gas increase was noted.

Additional minor shows were documented in the Lansing and Chester.

4 ½" production casing was set on the Clayton No. 7-28 on 5/13/19.

Respectfully Submitted,

Peter Debenham

## WELL DATA

Operator: O'Brien Energy Resources, Inc., John Forma – Portsmouth, NH  
Geologist: Paul Wiemann – Denver, CO

Prospect Geologist: Ed Schuett and Dave Ward

Well: Clayton No. 7-28, Singley Field

API No.: 15-119-21434

Location: 2121'FSL & 692'FWL, SW NE NW SW, Section 28, 33S, R29W, Meade Co., KS – South of Meade.

Elevation: Ground Level 2608', Kelly Bushing 2620'

Contractor: Duke Drilling Rig No. 9, Type: Double jackknife, triple stand, Toolpusher Emidgio Rojas, Drillers: Victor Martinez, Alejandro V., Fernando Jurudo

Company Man: Dana Greathouse

Spud Date: 5/6/19

Total Depth: 5/13/2019, Driller 6385', Logger 6388', St. Louis Fm.

Casing Program: 39 joints of 8 5/8", J55 STC, 24Lbs/ft, set at 1575' with 375 sacks A-conblend(3%cc, ¼ lb Poly Flake), tail with 150 sacks Premium Plus(2%cc & ¼ lb PF) – did circulate. 4 ½" production casing to TD.

Mud Program: Sevice Mud engineer Justin Whiting, displaced 2618'.

Wellsite Consultant: Peter Debenham, Call depth 3000', Box 350, Drake, CO 80515, 720/220-4860.

Logging Trailer: MBC, Meade, KS

Samples: 30' to 4700', 20' to TD.

Electric Logs: Weatherford, engineer Terry Guthmueller, 1)Array Induction, 2) Density/Neurton, 3) Microlog – High Res. repeat section.

Status: 4 ½" production casing set to TD on 5/13/19.

**WELL CHRONOLOGY**

| <b><u>DATE</u></b> | <b><u>DEPTH</u></b> | <b><u>FOOTAGE</u></b> | <b><u>RIG ACTIVITY</u></b>   |
|--------------------|---------------------|-----------------------|--|
| 5/6                |                     |                       | Move in and rig up rotary tools. Mix spud mud. Drill rathole and mousehole. Spud in 12 1/4" surface hole(8:30 PM).   |
| 5/7                | 1270'               | 1270'                 | To 1270'. Survey(1/4 deg.).  |
| 5/8                | 1810'               | 540'                  | Surveys(3/4 deg.). Drill to 1583' and circulate and pump sweep. Drop survey(3/4 deg.)and trip for surface casing. Run and cement 39 joints of 8 5/8" 24 Lbs/ft J-55 STC set at 1575'. Cement with 375 sacks Class A-Con Blend, tail with 150 sacks Premium Plus. Good returns. Wait on cement. Nipple up BOP and pressure test to 500 psi/15 min. Drill plug and cement. |
| 5/9                | 3170'               | 1360'                 | 7 7/8" hole to to 3170'. Displace mud system at 2618. Surveys(3/4 - 1/2 deg.).   |
| 5/10               | 4618'               | 1448'                 |  |
| 5/11               | 5350'               | 732'                  | Survey(3/4 deg.). To 5025' and circulate and pump sweep. Wiper trip to casing and circulate. To 5350'.   |
| 5/12               | 5915'               | 565'                  | To 5438' and trip for Bit No. 3.   |
| 5/13               | 6385'TD             | 470'                  | To 6385'TD and circulate. Wiper trip and circulate. Drop survey(1 deg.) and trip for logs and run Elogs. Trip in and circulate. Trip out laying down and run and cement 4 1/2" production casing to TD. Rig down.  |

**BIT RECORD**

| <b><u>NO.</u></b> | <b><u>MAKE</u></b><br><b><u>HOURS</u></b> | <b><u>TYPE</u></b> | <b><u>SIZE</u></b> | <b><u>OUT</u></b> | <b><u>FOOTAGE</u></b> |        |
|-------------------|---|--------------------|--------------------|-------------------|-----------------------|--------|
| 1                 | PL 551                                    |                    | 12 1/4"            | 1583'             | 1583'                 | 8 3/4  |
| 2                 | TX 616                                    |                    | 7 7/8"             | 5438'             | 3855'                 | 62 3/4 |
| 3                 | PL 516                                    |                    | 7 7/8"             | 6385'             | 947'                  | 18     |

Total Rotating Hours: 89 1/2  
Average: 71.3 ft/hr

**DEVIATION RECORD - degree**

767' 1/4, 1583' 3/4, 2053' 1/2, 2618' 3/4, 3121' 1/2, 3711' 3/4, 4244' 3/4, 4743' 1/2, 5244' 3/4, 5438 3/4, 6385' 1

**MUD PROPERTIES**

| <b><u>DATE</u></b><br><b><u>LBS/BBL</u></b> | <b><u>DEPTH</u></b> | <b><u>WT</u></b> | <b><u>VIS</u></b> | <b><u>PV</u></b> | <b><u>YP</u></b> | <b><u>pH</u></b> | <b><u>WL</u></b> | <b><u>CL</u></b> | <b><u>LCM-</u></b> |
|---|---------------------|------------------|-------------------|------------------|------------------|------------------|------------------|------------------|--------------------|
| 5/6   | 0'                  | Make up water    |                   |                  |                  |                  |                  |                  |                    |
| 5/7   | 1583'               | 9.0              | 37                | 4                | 7                | 7.5              | nc               | 25.5K            | 3                  |
| 5/8   | 1901'               | 9.0              | 28                | 1                | 2                | 10.5             | nc               | 44.2K            | 0                  |
| 5/9   | 3252'               | 8.7              | 43                | 12               | 14               | 11.5             | 7.2              | 2.2K             | 2                  |
| 5/10  | 4719'               | 9.1              | 52                | 18               | 20               | 10.0             | 8.0              | 2.6K             | 4                  |
| 5/11  | 4910'               | 9.0              | 44                | 13               | 14               | 10.5             | 7.6              | 2.4K             | 3                  |
| 5/12  | 6000'               | 9.15             | 52                | 18               | 18               | 9.5              | 8.0              | 2.9K             | 4                  |
| 5/13  | 6385'               | 9.15             | 52                | 16               | 17               | 11.0             | 5.6              | 2.5K             | 6                  |

**ELECTRIC LOG FORMATION TOPS- KB Elev. 2620'**

| <b><u>FORMATION</u></b> | <b><u>DEPTH</u></b> | <b><u>DATUM</u></b> | <b><u>*Clayton No. 6</u></b> |                        |
|-------------------------|---------------------|---------------------|------------------------------|------------------------|
|                         |                     |                     | <b><u>DATUM</u></b>          | <b><u>POSITION</u></b> |
| Surface casing          | 1576'               |                     |                              |                        |
| Heebner                 | 4428'               | -1808'              | -1815'                       | +7'                    |
| Toronto                 | 4458'               | -1838'              | -1841'                       | +10'                   |
| Lansing                 | 4582'               | -1962'              | -1968'                       | +6'                    |
| Marmaton                | 4260'               | -2640'              | -2648'                       | +8'                    |
| Cherokee                | 5448'               | -2828'              | -2839'                       | +11'                   |
| Atoka                   | 5640'               | -3020'              | -3033'                       | +13'                   |
| Morrow                  | 5773'               | -3153'              | -3166'                       | +13'                   |
| "B" SS                  | 5815'               | -3195'              |                              |                        |
| "C" SS                  | 5832'               | -3212'              |                              |                        |
| Mississippi Chester     | 5900'               | -3280'              | -3280'                       | 0'                     |
| Basal Chester           | 6112'               | -3492'              | -3503'                       | +11'                   |
| Richers Ranch SS        | 6011'               | -3391'              | -3391'                       | 0'                     |
| Ste. Genevieve          | 6168'               | -3548'              | -3567'                       | +19'                   |
| St. Louis               | 6298'               | -3678'              | -3668'                       | +5'                    |
| TD                      | 6385'               |                     |                              |                        |

\*O'Brien Energy, Clayton No. 6, 1450'FSL & 1450'FWL, Section 28, 33S, 29W, K.B.  
Elevation 2607', app. 1000' to the SE.