



31-8-25

SIDE TWO

Operator Name Victor J. Leis Lease Name Heintzelman Well # 1

Sec. 23 Twp. 8 Rge. 21 East West County Leavenworth

## WELL LOG

INSTRUCTIONS: Show important tops and base of formations penetrated. Detail all cores. Report all drill stem 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 during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken ☐ Yes ☒ No  
 Samples Sent to Geological Survey ☐ Yes ☒ No  
 Cores Taken ☒ Yes ☐ No

Formation Description  
☒ Log ☐ Sample

Name Top Bottom

SEE ATTACHED

| CASING RECORD <input checked="" 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  |
| surface pipe long string                                                            | 9 7/8<br>6 1/2                                                                                                                                                                | 6 1/2<br>4 1/2            | 40             |                                                                                      | Portland       | 10<br>63                                                 | 40% Poc with 6% gel owc mix |
| PERFORATION RECORD                                                                  |                                                                                                                                                                               |                           |                | Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used) Depth |                |                                                          |                             |
| Shots Per Foot                                                                      | Specify Footage of Each Interval Perforated                                                                                                                                   |                           |                |                                                                                      |                |                                                          |                             |
| 41                                                                                  | 1376 - 1396                                                                                                                                                                   |                           |                | FRACKED with 15,000 lb sand - 320 bbls SW gel                                        |                |                                                          |                             |
| TUBING RECORD                                                                       |                                                                                                                                                                               | Size                      | Set At         | Packer at                                                                            | Liner Run      | <input type="checkbox"/> Yes <input type="checkbox"/> No |                             |
| Date of First Production                                                            | Producing Method <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (explain)..... |                           |                |                                                                                      |                |                                                          |                             |
| Estimated Production Per 24 Hours                                                   | Oil                                                                                                                                                                           | Gas                       | Water          | Gas-Oil Ratio                                                                        | Gravity        |                                                          |                             |
|                                                                                     | / Bbls                                                                                                                                                                        | MCF                       | 1/2 Bbls       |                                                                                      | CFPB           |                                                          |                             |

## METHOD OF COMPLETION

Production Interval

Disposition of gas: ☐ Vented  
☐ Sold  
☒ Used on Lease

☐ Open Hole ☒ Perforation  
☐ Other (Specify) .....

☐ Dually Completed  
☐ Conmingled

1376 - 1396

Set 40' of 7" Surface Pipe,  
Cemented with 10 sacks.

Commenced 11/16/86  
Completed 11/20/86

VICTOR J. LEIS  
O. HEINTZELMAN #1

23-821E

|     |                       |     |
|-----|-----------------------|-----|
| 3   | Clay                  | 3   |
| 2   | Rocks                 | 5   |
| 7   | Clay                  | 12  |
| 28  | Shale                 | 40  |
| 15  | Lime                  | 55  |
| 5   | Shale                 | 60  |
| 4   | Lime                  | 64  |
| 10  | Shale                 | 74  |
| 6   | Lime                  | 80  |
| 10  | Shale & Red Bed       | 90  |
| 2   | Shale Gray            | 92  |
| 3   | Lime                  | 95  |
| 123 | Shale                 | 218 |
| 5   | Lime                  | 223 |
| 95  | Shale                 | 318 |
| 1   | Lime                  | 319 |
| 23  | Shale                 | 342 |
| 5   | Lime                  | 347 |
| 4   | Shale                 | 351 |
| 11  | Lime                  | 362 |
| 4   | Shale Black           | 366 |
| 2   | Lime                  | 368 |
| 24  | Shale                 | 392 |
| 18  | Lime                  | 410 |
| 25  | Shale                 | 435 |
| 3   | Lime                  | 438 |
| 44  | Shale Sandy           | 482 |
| 24  | Lime                  | 506 |
| 12  | Shale                 | 518 |
| 8   | Lime                  | 526 |
| 16  | Shale                 | 542 |
| 12  | Lime Shaley           | 554 |
| 14  | Shale                 | 568 |
| 7   | Lime                  | 575 |
| 8   | Shale                 | 583 |
| 3   | Lime                  | 586 |
| 6   | Shale                 | 592 |
| 13  | Lime                  | 605 |
| 18  | Shale & Lime          | 623 |
| 18  | Lime                  | 641 |
| 3   | Shale                 | 644 |
| 4   | Lime                  | 648 |
| 5   | Shale                 | 653 |
| 12  | Lime Bottom K.C. Lime | 665 |
| 87  | Shale Sandy Gray      | 752 |
| 11  | Sand Gray no odor     | 763 |
| 6   | Shale Blue            | 769 |
| 13  | Sand                  | 782 |
| 10  | Shale                 | 792 |
| 22  | Lime & Shale          | 814 |
| 4   | Lime                  | 818 |
| 5   | Shale                 | 823 |
| 4   | Lime                  | 827 |
| 9   | Shale                 | 836 |

Con't.

O. Heintzelman #1  
Con't.

|    |                        |           |
|----|------------------------|-----------|
| 8  | Lime                   | 844       |
| 18 | Shale                  | 862       |
| 3  | Lime                   | 865       |
| 9  | Shale                  | 874       |
| 9  | Lime                   | 883       |
| 5  | Shale                  | 888       |
| 12 | Lime                   | 900       |
| 7  | Shale & Sand some lime | 907       |
| 5  | Lime                   | 912       |
| 20 | Sand Gray Shaley       | 932       |
| 95 | Shale limey            | 1027      |
| 4  | Lime                   | 1031      |
| 19 | Sandy Shale & Lime     | 1050      |
| 2  | Coal                   | 1052      |
| 42 | Shale Sandy            | 1094      |
| 12 | Lime                   | 1106      |
| 22 | Shale limey            | 1128      |
| 74 | Sand & Shale           | 1202      |
| 58 | Shale Limey            | 1260      |
| 13 | Shale Sand             | 1273      |
| 1  | Coal                   | 1274      |
| 47 | Shale Sandy & Limey    | 1317      |
| 12 | Sand & Shale           | 1329      |
| 44 | Shale                  | 1373      |
| 33 | Oil Sand Bleeding      | 1406      |
| 32 | Shale                  | 1438 T.D. |