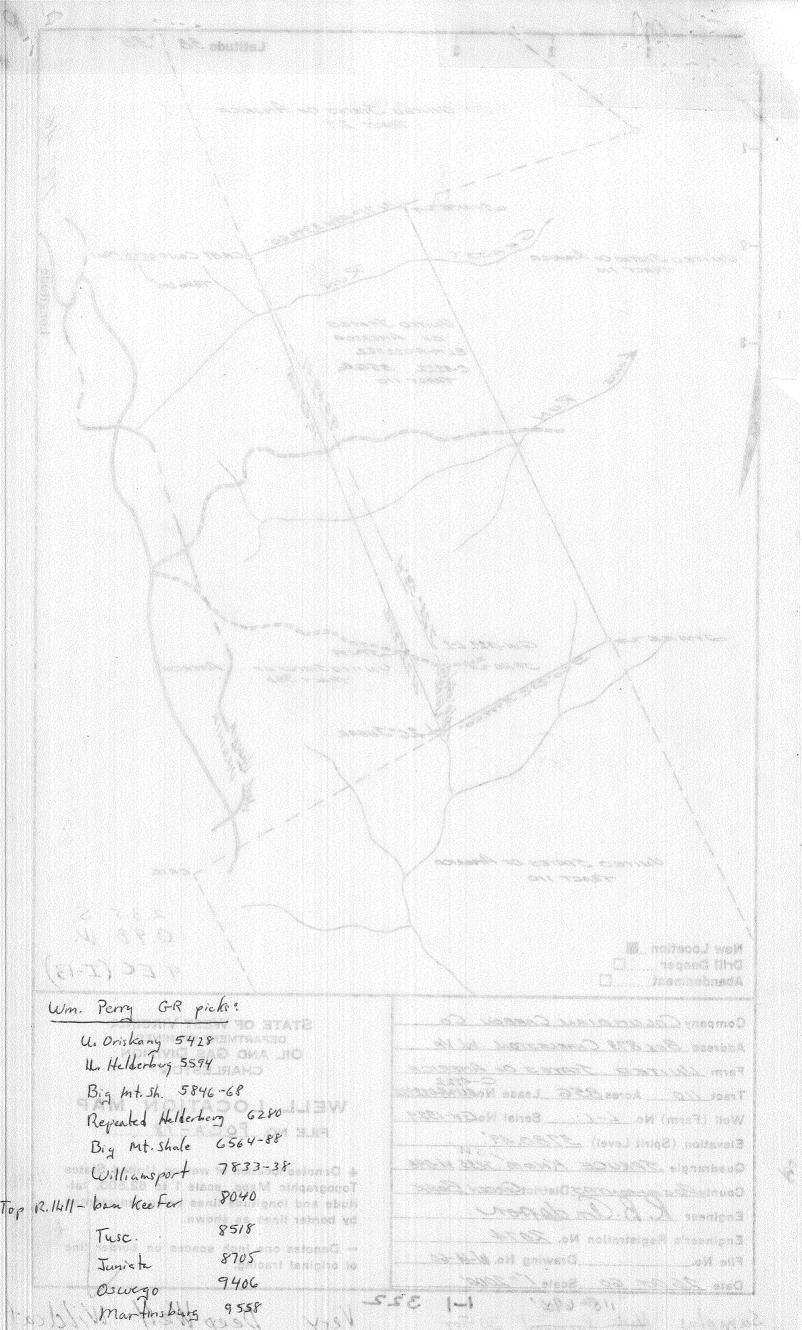


Samples





STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION / 8

Quadrangle Spruce Knob SW

Permit No. POCA-18

WELL RECORD

Gas Oil or Gas Well\_

(Title)

Calumbian Carbon Company, Opey.com.

| Columbian Carbo  |                         |  |  |  |   |  |
|--|-------------------------|--|--|--|---|--|
|  |                         | y, Oper.   | Casing and   | Used in  | Left in                                 | 0.623 2.641.1  |
| Address Box 873, Charlest<br>Farm United States of Am  |                         |  | Tubing   | Drilling   | Well                                    | Packers  |
| Location (waters) Long Run   | top of Sen              | G ore on si  | Size   | MG 180, 900  | oc esta                                 | Section of miles   |
| Well No. GW-1329, L-1  | CSBIII A.               | Flow 3780. 4910  | G xx201194#  | 951311   | 9513"                                   | ea <u>l</u> out proposes.  |
| District Green Bank  | ounty Poca              | hontas   | 13/8"48#   |  | 1606'                                   | Kind of Packer<br>none   |
| District Green Bank C  | Directo                 | r, Bureau<br>Managemen   | txx9=5/8"4   | d# 5754'10'  | 5754'10'                                | Size of  |
| Interior Bldg. Ad  |                         |  |  | o giro e e e   | 100000                                  | Size of  |
| Mineral rights are owned by-   | same                    |  | ×5571128#  | 9162'8!'   | 139415"                                 | Depth set  |
| Ad   | dress                   | [  | 5 3/16   |  | No.                                     | E Caranto de Caranto d<br>Escripto de Caranto de   |
|  | y 17, 196               | 1 ;  | 3  | -<br> # 5650'1''   |   | Perf. top  |
| rining compicion   | 6, 1961                 |  | 23/8"4.7   |  | 5650'1"                                 | Perf. bottom   |
| Date Shot not shot From_   | <del>langen a</del> T   | O to the second second second second   | Liners Used_   | with 2" ca   | ge                                      | Perf. top  |
| Vith:  | <del>pinga Ba</del>     | <del>Personal States of the States</del> | 10 " 00 10 40 CM   | en en en en en en en en  | 1300000000                              | Perf. bottom   |
| pen Flow / 10ths Water in_   | The second section is   | Inch   | * <del>***********************************</del>   | alegers y  |   | position of the state of the st |
| /10ths Merc in_  | ACTION COSTS            | Inch   | CASING CEN   | MENTED .   | SIZE                                    | No. Ft T   |
| olume recent in the second of the second   | where the               | Cu: Ft.  |  |  |   | No. Ft. I  |
| lock Pressure  | Albs:4 sure             | <u>resistancia i</u> hrs.  | rd will b.   | ee reverse   | PIRG.                                   | · · · · · · · · · · · · · · · · · · ·  |
| Dil  |                         | _bbls., 1st 24 hrs.  | COAL WAS   | ENCOUNTEREI  | AT HOUSE                                | FEETINCH   |
| VELL ACIDIZED not acidi  | zed                     | Sec. 19. 19. 1   | <b>FĖ</b> 1  | etinc  | HES                                     | FEETINCI   |
|  |                         |  | FEI  | ETINC  | HES                                     | FEETINCI   |
| VELL FRACTURED see reve  | erse sidë               | Mary transferred states from the states states   | otono.   |  |   |  |
| OCK PRESSURE AFTER TREA  |                         | 18 days  | Salt Water 2   | 367' 8371'   | Fee                                     | atmospher  |
| Formation Color  | Hard or                 | Elastop  | Water  |  | T                                       |  |
|  |                         | l lan  | Battam   | Oil, Gas   | Denth                                   | Remarke  |
| Surface Stone T  | Soft                    | and the second   | Bottom 138   | or Water   | Depth                                   | Remarks  |
|  | SOIL                    | 08 12 <b>0</b>   | 138  | F. water   | 1381                                    | Remarks  |
| Sandstone-gray   | 5011                    | 064.0<br>0∮138   | 138<br>- 143   | or Water   | 1381                                    | Remarks  |
| Sandstone-gray<br>Lime   | Soft                    | 08 10<br>0138<br>0143  | 138<br>143<br>180  | F. water   | 1381                                    | Remarks  |
| Sandstone-gray<br>Lime<br>Sand   | Soft                    | 138<br>143<br>180  | 138<br>0143<br>0180<br>0360  | F. water   | 1381                                    | Remarks  |
| Sandstone-gray<br>Lime<br>Sand<br>Sandy Lime   | Soft                    | 138<br>143<br>180<br>360   | 138<br>0143<br>180<br>360<br>399   | or Water F. water Chemung  | 1381                                    |  |
| Sandstone-gray<br>Lime<br>Sand<br>Sandy Lime<br>Sand   | Soft                    | 138<br>143<br>180<br>360   | 138<br>143<br>180<br>360<br>399<br>605   | or Water F. water Chemung F. Water                                   | 1381                                    | 00*  |
| Sandstone-gray<br>Lime<br>Sand<br>Sandy Lime<br>Sand   | Soft                    | 138<br>143<br>180<br>360<br>399<br>605   | 138<br>0143<br>180<br>360<br>399   | or Water F. water Chemung  | 1381                                    | 00*  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand  | Soft                    | 138<br>143<br>180<br>360   | 138<br>143<br>180<br>360<br>399<br>605<br>2360   | or Water F. water Chemung F. Water                                   | 1381                                    | 00*  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Sandy Lime  | Caesa                   | 138<br>143<br>180<br>360<br>399<br>605<br>2360   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440   | or Water F. water Chemung F. Water                                   | 1381                                    | 00*  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Sandy Lime  |                         | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355   | F. Water F. Water Chemung F. Water S. Water                          | 1381                                    | 00*  |
| Sandstone-gray Lime Sand Sand Sand Sand Sand Sand and Lime Sand Shale and Shells Sandy Lime Shale  |                         | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625   | or Water F. water Chemung F. Water S. Water                          | 830-90<br>2367                          | 619  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Shale Shale Shale and Lime Shale  |                         | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437   | F. Water F. Water Chemung F. Water S. Water                          | 1381                                    | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Shale Shale Shale and Lime Shale  |                         | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465   | or Water F. water Chemung F. Water S. Water                          | 830-90<br>2367                          | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Shale Shale Shale and Lime Sand Sandy Lime Shale Shale and Lime Shale Shale and Lime Shale Shale and Lime   | -/695                   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590   | F. Water F. Water Chemung F. Water S. Water                          | 830-90<br>2367                          | 00° (6/9° 3° 3° 3° 3° 3° 3° 3° 3° 3° 3° 3° 3° 3°   |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Shale Shale Shale and Lime Sand Shale and Lime Shale Shale and Lime Shale Shale and Lime Shale Shale and Lime   |                         | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066   | F. Water F. Water Chemung F. Water S. Water                          | 830-90<br>2367                          | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Shale and Lime Shale Shale and Lime Shale and Lime Shale and Lime Sand Sandy Lime Sand Sandy Lime Sand Sandy Lime Sand  | -1685<br>(Guinn, 1964)  | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193   | F. Water  F. Water  Chemung  F. Water  S. Water  5.137  3.780  -1657 | 1381<br>830-90<br>23671<br>5465<br>7685 | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Shale Shale Shale and Lime Shale Shale and Lime Sand Sand Sand Sand Sand Sand Lime Shale Sand Lime Sand Lime Sand Lime Sand Lime Sand Lime Sand   | -1685<br>(Govern, 1969) | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503   | F. Water  F. Water  Chemung  F. Water  S. Water  5.137  3.780  -1657 | 1381<br>830-90<br>23671<br>5465<br>7685 | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Shale and Shells Shale and Lime Shale Shale and Lime Shale Shale and Lime Sand Sandy Lime Shale Sand Sand Sandy Lime Sand Sand Sand Sand Sand Sand Sand Sand  | -1685<br>(Govern, 1969) | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525   | F. Water  F. Water  Chemung  F. Water  S. Water  5.137  3.780  -1657 | 1381<br>830-90<br>23671<br>5465<br>7685 | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Shale and Lime Shale Shale and Lime Shale Sind Sand Sandy Lime Chart and Lime Sand Sand Lime Chert and Lime Sand Sand Origin repeated Lime and Sand Sand and Chert Sand Sand and Chert  | -1685<br>(Govern, 1969) | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6503   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975   | F. Water F. Water Chemung F. Water S. Water 5.137 3780 -1657         | 1381<br>830-90<br>23671<br>5465<br>7685 | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Shale and Lime Shale Shale and Lime Shale Sind Sand Sand Sand Sand Sand Sand Sand Lime Sa | -1685<br>(Govern, 1969) | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975<br>7080   | F. Water F. Water Chemung F. Water S. Water 5.137 3780 -1657         | 1381<br>830-90<br>23671<br>5465<br>7685 | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Shale and Lime Sand Sandy Lime Shale and Lime Sand Sandy Lime Shale and Lime Sand Sand - Origin repeated Sand and Chert Mant-Origin Siltstone Sand and Dolomite Sand - Nathagan   | -1685<br>(Govern, 1969) | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975<br>7080   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975<br>7080<br>7152                                 | F. Water F. Water Chemung F. Water S. Water 5.137 3780 -1657         | 1381<br>830-90<br>23671<br>5465<br>7685 | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Shale Shale and Lime Shale Shale and Lime Sand Sandy Lime Shale Sand A Chert Mad-One Siltstone Sand and Dolomite Sand - Mad-One Sand, Shale & Siltstone   | -1685<br>(Govern, 1969) | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975<br>7080<br>7152   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975<br>7080<br>7152<br>7185                         | F. Water F. Water Chemung F. Water S. Water 5.137 3780 -1657         | 1381<br>830-90<br>23671<br>5465<br>7685 | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Sand and Lime Sand Shale and Shells Shale and Lime Shale   | -1685<br>(Govern, 1969) | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975<br>7080<br>7152<br>7185   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6525<br>6975<br>7080<br>7152<br>7185<br>7244                         | F. Water F. Water Chemung F. Water S. Water 5.137 3780 -1657         | 1381<br>830-90<br>23671<br>5465<br>7685 | 001  |
| Sandstone-gray Lime Sand Sandy Lime Sand Shale and Shells Shale and Lime Shale Shale and Lime Shale Shale and Lime Sand Sandy Lime Shale Shale and Lime Sand Sand A Chert Mark One Shale & Siltstone Sand A Shale & Siltstone Sound Sand Siltstone Shale Shale Shale   | -1685<br>(Govern, 1969) | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6525<br>6975<br>7080<br>7152<br>7185<br>7244   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975<br>7080<br>7152<br>7185<br>7244<br>7434         | F. Water F. Water Chemung F. Water S. Water 5.137 3780 -1657         | 1381<br>830-90<br>23671<br>5465<br>7685 | 001  |
| Shale Shale and Lime Sand Sandy Lime Chert and Lime Sand - Original repeated Lime and Sand Sand and Chert Siltstone Sand and Dolomite Sand - Manager Sand, Shale & Siltstone Dolomite and Sand   | -1685<br>(Govern, 1969) | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975<br>7080<br>7152<br>7185<br>7244<br>7434   | 138<br>143<br>180<br>360<br>399<br>605<br>2360<br>2440<br>4355<br>4625<br>5437<br>5465<br>5590<br>6066<br>6193<br>6503<br>6525<br>6975<br>7080<br>7152<br>7185<br>7244<br>7434<br>7556 | F. Water F. Water Chemung F. Water S. Water 5.137 3780 -1657         | 1381<br>830-90<br>23671<br>5465<br>7685 |  |

| Luci | 1   |     |     | 1.3 | Ó |  |
|------|-----|-----|-----|-----|---|--|
|      | 100 | 100 | 1 1 | ()  | 1 |  |

| Siltstone  | Color  | Ifard or<br>Soft   | Top 18   | Bottom  | Oil, Gas<br>or Water   | Depth<br>Found   | Remarks  |
|--|--|--|--|---|--|--|--|
| a la companya di salah di sala |  |  | 7672   | 7743  |  |  | -  |
| Dark Shale a   | nd Sand  |  | 7,743  | 7786  |  |  |  |
| Siltstone  |  |  | 7786   | 7931  |  |  |  |
| Sand A   | g processor  | -4151  | 7931   | 7960  |  |  |  |
| Siltstone  | o or   |  | 7960   | 8118  |  |  |  |
| Green Shale  | 10000  |  | 81/18  | 8125  |  |  |  |
| Shale and Silt   |  |  | 8125   | 8274  |  |  |  |
| Green Shale  | and Sand   |  | 8274   | 8298  |  |  |  |
| Green Shale  | and $RedS$   | and  | 8298   | 8350  |  |  |  |
| Red Shale  |  |  | 8350   | 8405  | S. Water   |  | 1/2 ga1/min.   |
| Ned Sand   |  |  | 8405   | 8416  | Gas  | 8,4901   | \$5/10 W. 1''=62)  |
| Sand and SVIIt   | stone  | -4636  | 8416   | 8561  |  |  |  |
| Sand   | a analysis   | - 4913   | 8561   | 8693*   |  |  | The second secon |
| Sandy Shale  | (space) 3839   | -4712  | 8693   | 8769  |  |  |  |
| Shale, Red a   |  |  | 8769   | 8980  |  |  |  |
| Siltstone & Sl   |  | & Green  | 89,80  | 9052  |  |  |  |
| Sand and Silt  |  |  | 9052   | 9100  |  |  |  |
| Red Shale and  |  |  | 9100   | 9412  |  | and the contract   |  |
| Sand, White  |  | -0sw893  | 9412   | 9439  | TO ACCOUNT   | 4643   | 10823  |
| Siltstone and  | Sand   | Lina   | 9439   | 9459  | TA ALEXAN  | CAN NUMBER   | 3780   |
| Sand   |  | 186° (1871)  | 9459   | 9695  |  | 2/8 4  | and the second s |
| Siltstone, Gr  | ey   |  | 9695   | 9737  |  | 119/3  | 10823  |
| Sand   | or and   |  | 9737   | 9759  | 100000000000000000000000000000000000000  | 4  |  |
| Sandy Shale  | en e   |  | 9759   | 9837  | N. WORKS   | 1000   |  |
| Siltstone  | and the second second second second  | enterenten er en   | 9837   | 9881  | on America   |  | e proposition de la company  |
| Sand and Silt  |  | Marij en   | 9881   | 10074   | - 645 Sec.   | 165018   | Remarks  |
| Siltstone, Sa  |  |  | 10074  | 10546   |  | nazani mendakan anti-dapat sarap terbahan<br>Bahan   |  |
| Shale and Sh   | SITE   | and the second   | 10546  | 10805   | 964, 8323  |  |  |
| Total depth-   |  | 1  |  | 108051 Pa   | tary Measur  | ement -  | CONSTRUCTION OF  |
| Total depui-   | 1 mg (rd pd pd md md md md md  |  |  |   | hlumberger   |  | Card an  |
| Plugged back   | - <b>Fa</b>  |  | and the first of the second  | 5,600   | Turnous gor  |  |  |
| Flugged back   | - 10   |  |  | J, 000  | and a communication of the com |  |  |
| FRACTURE   | THE OR   | ISKANY 6-2   | 4-61   | \$20.000<br>Alternative printer contain 100 (200)   |  |  |  |
| TRACTORES  | J IIII OIC   | IDIGIIVI O-D   | TOTAL  | 30,00   | illa inci  | (8.9) (8.9)  |  |
|  | ດດດ ແລງໄດ້   | ns MCA and   | displaced a  | cid with B.   | W open until   | top of acid  | was 54401.   |
| Dumned in 1  |  | AND TATOLE GILL  | arp bracea a   |   |  |  |  |
| Put 1 000# r   | PACCUPA O  |  |  |   |  |  |  |
| Put 1,000# p   |  | n tubing. Sta  | iged MCA at  | 1500#. Br   | oke down at  | 4200#-broke  | to 3500#.  |
| Put 1,000# p<br>Started sand   | 1/2#/gall  | n tubing. Sta<br>on-increase   | iged MCA at<br>d to 3/4#- 1  | 1500#. Br<br># - 1-1/4#.  | oke down at After 3,000  | 1200#-broke<br>gallons ran   | to 3500#.  |
| Put 1,000# p<br>Started sand<br>6,000 gallons  | 1/2#/ga11<br>s 25 balls.   | n tubing, Sta<br>on-increase<br>Pressure 3   | iged MCA at<br>d to 3/4#= 1<br>3400=3700#=   | 1500#. Br<br># - 1-1/4#.<br>ran last 25   | oke down at d<br>After 3,000<br>palls. Press   | 4200#-broke<br>gallons ran<br>ure went to  | to 3500#.<br>25 balls-<br>4500# at   |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm   | 1/2#/ga11<br>s 25 ba11s,<br>nent. Use  | n tubing. Sta<br>on-increase<br>Pressure 3<br>d 45,000 gal   | aged MCA at<br>d to 3/4#- 1<br>3400-3700#-<br>lons water,  | 1500#. Br<br># - 1-1/4#.<br>ran last 25<br>30,000# 20   | oke down at d<br>After 3,000<br>palls. Press   | 4200#-broke<br>gallons ran<br>ure went to  | to 3500#.<br>25 balls-<br>4500# at   |
| Put 1,000# p<br>Started sand<br>6,000 gallons  | 1/2#/ga11<br>s 25 ba11s,<br>nent. Use  | n tubing. Sta<br>on-increase<br>Pressure 3<br>d 45,000 gal   | aged MCA at<br>d to 3/4#- 1<br>3400-3700#-<br>lons water,  | 1500#. Br<br># - 1-1/4#.<br>ran last 25<br>30,000# 20   | oke down at d<br>After 3,000<br>palls. Press   | 4200#-broke<br>gallons ran<br>ure went to  | to 3500#.<br>25 balls- 1000<br>4500# at<br>5 - 55  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatr<br>gallon drums   | 1/2#/gall<br>s 25 balls,<br>nent. Used<br>s TMN. 10  | n tubing. Sta<br>on-increase<br>Pressure 3<br>d 45,000 gal   | aged MCA at<br>d to 3/4#- 1<br>3400-3700#-<br>lons water,  | 1500#. Br<br># - 1-1/4#.<br>ran last 25<br>30,000# 20   | oke down at a After 3,000 palls. Press   | 4200#-broke<br>gallons ran<br>ure went to  | to 3500#.<br>25 balls-<br>4500# at   |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm   | 1/2#/gall<br>s 25 balls,<br>nent. Used<br>s TMN. 10  | n tubing. Sta<br>on-increase<br>Pressure 3<br>d 45,000 gal   | aged MCA at<br>d to 3/4#- 1<br>3400-3700#-<br>lons water,  | 1500#. Br<br># - 1-1/4#.<br>ran last 25<br>30,000# 20<br>n 1150#.   | oke down at a After 3,000 balls. Press 40 sand, 75   | 4200#-broke<br>gallons ran<br>ture went to<br>perf balls,  | to 3500#.<br>25 balls- 1000<br>4500# at<br>5 - 55  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC   | 1/2#/galls.com. Useds TMN. 10  | n tubing. State on-increase. Pressure 3 d 45,000 gal 3 minutes aft   | aged MCA at<br>d to 3/4#- 1<br>3400-3700#-<br>lons water,<br>er shut dow   | 1500#. Br<br># - 1-1/4#.<br>ran last 25<br>30,000# 20<br>n 1150#.   | oke down at a After 3,000 palls. Press-40 sand, 75   | 4200#-broke<br>gallons ran<br>sure went to<br>perf balls,  | to 3500#. 25 balls- 4500# at 5 - 55  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatr<br>gallon drums   | 1/2#/galls.com. Useds TMN. 10  | n tubing. State on-increase. Pressure 3 d 45,000 gal 3 minutes aft   | aged MCA at<br>d to 3/4#- 1<br>3400-3700#-<br>lons water,<br>er shut dow   | 1500#. Br<br># - 1-1/4#.<br>ran last 25<br>30,000# 20<br>n 1150#.   | oke down at a After 3,000 balls. Press 40 sand, 75   | 4200#-broke<br>gallons ran<br>sure went to<br>perf balls,  | to 3500#. 25 balls- 4500# at 5 - 55  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC<br>1-21-61  | 1/2#/gall<br>s 25 balls,<br>nent. Used<br>s TMN. 10<br>CORD  | n tubing. Sta<br>on-increase<br>Pressure 3<br>d 45,000 gal<br>minutes aft<br>drive pipe.   | aged MCA at<br>d to 3/4#- 1<br>3400-3700#-<br>lons water,<br>eer shut dow  | 1500#. Br<br># - 1-1/4#.<br>ran last 25<br>30,000# 20<br>n 1150#.<br>th 125 sack  | oke down at a After 3,000 palls. Press-40 sand, 75   | 1200#-broke gallons ran ture went to perf balls,   | to 3500#.  25 balls- 4500# at  5 - 55  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC   | 1/2#/galls. s 25 balls. nent. Uses s TMN. 10 CORD  Ran 20"   | n tubing. Sta<br>on-increase<br>Pressure d<br>d 45,000 gal<br>minutes aft<br>drive pipe.   | aged MCA at<br>d to 3/4#- 1<br>3400-3700#-<br>lons water,<br>er shut dow<br>Cemented wi  | 1500#. Br # - 1-1/4#. ran last 25 30,000# 20 n 1150#. th 125 sack   | oke down at a After 3,000 palls. Press-40 sand, 75   | 4200#-broke gallons ran sure went to perf balls, on and returnation. Ceme  | to 3500#.  25 balls- 4500# at  5 - 55  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC<br>1-21-61  | 1/2#/galls. s 25 balls. nent. Uses s TMN. 10 CORD  Ran 20"   | n tubing. Sta<br>on-increase<br>Pressure d<br>d 45,000 gal<br>minutes aft<br>drive pipe.   | aged MCA at<br>d to 3/4#- 1<br>3400-3700#-<br>lons water,<br>er shut dow<br>Cemented wi  | 1500#. Br # - 1-1/4#. ran last 25 30,000# 20 n 1150#. th 125 sack   | After 3,000 palls. Press 40 sand, 75   | 4200#-broke gallons ran sure went to perf balls, on and returnation. Ceme  | to 3500#.  25 balls- 4500# at  5 - 55  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC<br>1-21-61<br>2-15-61   | 1/2#/gall<br>s 25 balls,<br>nent. Used<br>s TMN. 10<br>CORD<br>Ran 20" o<br>Ran 13=3<br>300 sack                                       | n tubing. State on-increase Pressure 3 d 45,000 gall minutes aft drive pipe. (4/8" casing a s-last 100 sa  | aged MCA at d to 3/4#= 1 3400-3700#= lons water, er shut down the 1600! with acks mixed to the short of the s | 1500#. Br # - 1-1/4#. ran last 25 30,000# 20 n 1150#.  th 125 sack  Baker Guic  | After 3,000 palls. Press 40 sand, 75 cs. Circulation de Shoe on botacks Calcium  | 4200#-broke gallons ran ture went to perf balls, on and return thom. Cement Chloride.  | to 3500#. 25 balls- 4500# at 5 - 55  ns. ented with  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC<br>1-21-61<br>2-15-61   | 1/2#/gall<br>s 25 balls,<br>nent. Used<br>s TMN. 10<br>CORD<br>Ran 20" d<br>Ran 13=3<br>300 sack                                       | n tubing. State on-increase Pressure of 45,000 gall minutes after drive pipe.  (48" casing a s-last 100 salls casing with the pipe.  | aged MCA at d to 3/4#- 1 3400-3700#- lons water, cer shut down the 1600! with acks mixed with Whirler (  | 1500#. Br # - 1-1/4#. ran last 25 30,000# 20 n 1150#. th 125 sack Baker Buic with 1-1/2 s   | After 3,000 palls. Press-40 sand, 75 de Shoe on beacks Calcium on bottom-5   | 1200#-broke gallons ran ture went to perf balls, on and return them. Ceme Chloride.  | to 3500#. 25 balls- 4500# at 5 - 55  ns. ented with  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC<br>1-21-61<br>2-15-61   | 1/2#/galls. 25 balls. hent. Useds TMN. 10 CORD  Ran 20" Ran 13-3 300 sack Ran 9-5/ middle as   | n tubing. State on-increase Pressure of 45,000 gall minutes after drive pipe.  (8/8" casing a s-last 100 same of 1 | aged MCA at d to 3/4#- 1 3400-3700#- lons water, cer shut down the 1600! with acks mixed with Whirler (  | 1500#. Br # - 1-1/4#. ran last 25 30,000# 20 n 1150#. th 125 sack Baker Buic with 1-1/2 s   | After 3,000 palls. Press 40 sand, 75 cs. Circulation de Shoe on botacks Calcium  | 1200#-broke gallons ran ture went to perf balls, on and return them. Ceme Chloride.  | to 3500#. 25 balls- 4500# at 5 - 55  ns. ented with  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC<br>1-21-61<br>2-15-61   | 1/2#/gall<br>s 25 balls,<br>nent. Used<br>s TMN. 10<br>CORD<br>Ran 20" d<br>Ran 13=3<br>300 sack                                       | n tubing. State on-increase Pressure of 45,000 gall minutes after drive pipe.  (8/8" casing a s-last 100 same of 1 | aged MCA at d to 3/4#- 1 3400-3700#- lons water, cer shut down the 1600! with acks mixed with Whirler (  | 1500#. Br # - 1-1/4#. ran last 25 30,000# 20 n 1150#. th 125 sack Baker Buic with 1-1/2 s   | After 3,000 palls. Press-40 sand, 75 de Shoe on beacks Calcium on bottom-5   | 1200#-broke gallons ran ture went to perf balls, on and return them. Ceme Chloride.  | to 3500#. 25 balls- 4500# at 5 - 55  ns. ented with  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC<br>1-21-61<br>2-15-61   | 1/2#/gall<br>s 25 balls,<br>nent. Used<br>s TMN. 10<br>CORD<br>Ran 20" of<br>Ran 13-3<br>300 sack<br>Ran 9-5/<br>middle at<br>300 sack | n tubing. Sta<br>on-increase<br>Pressure<br>d 45,000 gal<br>minutes aft<br>drive pipe.<br>drive pipe.<br>(8/8" casing a<br>s-last 100 sa<br>8" casing wind top of San<br>s.  | aged MCA at d to 3/4#- 1 3400-3700#- lons water, ter shut down the 1600! with acks mixed with Whirler ad, one 60! a  | 1500#. Br # - 1-1/4#. ran last 25 30,000# 20 n 1150#.  th 125 sack  Baker Buic with 1-1/2 s  Guide Shoe bove sand-                        | After 3,000 palls. Press-40 sand, 75 de Shoe on botacks Calcium on bottom-5 one 120 abo  | 1200#-broke gallons ran gare went to perf balls, on and retur ottom. Ceme a Chloride. centralizers ve sand. Cen                          | to 3500#. 25 balls- 4500# at 5 - 55  ns. ented with son bottom, nented with  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC<br>1-21-61<br>2-15-61   | 1/2#/galls 25 balls nent. Used TMN. 10 CORD  Ran 20" (Ran 13=3 300 sack)  Ran 9-5/middle at 300 sack                                   | n tubing. State on-increase. Pressure of 45,000 gall minutes after of the first manner | aged MCA at d to 3/4#- 1 3400-3700#- lons water, er shut down the 1600! with acks mixed with Whirler (ad, one 60! a hirler Guide   | 1500#. Br # - 1-1/4#. ran last 25 30,000# 20 n 1150#.  th 125 sack  Baker Guid with 1-1/2 s  Guide Shoe bove sand-                        | After 3,000 palls. Press-40 sand, 75 de Shoe on bottom-5 one 120 about tom-7 cer   | 1200#-broke gallons ran gallons ran gare went to perf balls, on and retur ottom. Ceme a Chloride. centralizers ve sand. Cen tralizers on | to 3500#. 25 balls- 4500# at 5 - 55  ns. ented with s on bottom, hented with   |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC<br>1-21-61<br>2-15-61   | 1/2#/galls 25 balls nent. Used TMN. 10 CORD  Ran 20" (Ran 13=3 300 sack)  Ran 9-5/middle at 300 sack                                   | n tubing. Sta<br>on-increase<br>Pressure<br>d 45,000 gal<br>minutes aft<br>drive pipe.<br>drive pipe.<br>(8/8" casing a<br>s-last 100 sa<br>8" casing wind top of San<br>s.  | aged MCA at d to 3/4#- 1 3400-3700#- lons water, er shut down the 1600! with acks mixed with Whirler (ad, one 60! a hirler Guide   | 1500#. Br # - 1-1/4#. ran last 25 30,000# 20 n 1150#.  th 125 sack  Baker Guic with 1-1/2 s  Guide Shoe bove sand- Shoe on both 150 sacks | After 3,000 palls. Press-40 sand, 75 cs. Circulation on bottom-5 one 120 about tom-7 cer.  | 1200#-broke gallons ran gare went to perf balls, on and retur ottom. Ceme a Chloride. centralizers ve sand. Cen                          | to 3500#. 25 balls- 4500# at 5 - 55  ns. ented with son bottom, nented with  |
| Put 1,000# p<br>Started sand<br>6,000 gallons<br>end of treatm<br>gallon drums<br>CASING REC<br>1-21-61<br>2-15-61   | 1/2#/galls. 25 balls. nent. Useds TMN. 10 CORD  Ran 20" of Ran 13-3 300 sack  Ran 9-5/middle at 300 sack  Ran 7" was 17 and 20         | n tubing. State on-increase. Pressure of 45,000 gall minutes after of the first manner | aged MCA at d to 3/4#- 1 3400-3700#- lons water, er shut down the 1600! with acks mixed with Whirler (ad, one 60! a hirler Guide   | 1500#. Br # - 1-1/4#. ran last 25 30,000# 20 n 1150#.  th 125 sack  Baker Guid with 1-1/2 s  Guide Shoe bove sand-                        | After 3,000 palls. Press-40 sand, 75 cs. Circulation on bottom-5 one 120 about tom-7 cer.  | 1200#-broke gallons ran gallons ran gare went to perf balls, on and retur ottom. Ceme a Chloride. centralizers ve sand. Cen tralizers on | to 3500#. 25 balls- 4500# at 5 - 55  ns. ented with 2, 5, 8, 11, 14,   |

SERVE OF PERSON PROPERTY.

Date August /6, , 19 61

APPROVED Columbian Carbon Company, Oper, Owner

By W. S. Moore, Mgr. of Prod. (Title)

WR-38

DATE: November 11, 2009

API # 47-075-00018

DENISE H. PULLIAM

## STATE OF WEST VIRGINIA DIVISION OF ENVIRONMENTAL PROTECTION OFFICE OF OIL AND GAS

## AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

| Farm name:  | USA                             |  |  | Operator We  | ll No.: <u>L–1</u>   |  | <u> </u>  |
|---|---------------------------------|--|--|--|--|--|---|
| LOCATION:   | Elevatio                        | n:<br>Greenban   | k  | Quadrangle:  | Spruce Knob<br>Pocahontas                                  | SW   |   |
|   | Latitude:                       | •  | Feet South o   | fDeg   | MinMin   | Sec.   | _   |
| Well Type: 0  | OIL                             | GAS X  | and the same of th |  |  |  |   |
| Agent:Ta  | PO Box<br>Oklaho<br>al Oden     | peake Appal<br>18496<br>The City OK<br>1 08/14/200     | 73154  | or Owner  Coal Operator  | 200 Sycamor<br>Elkins, WV<br>US Dept of                    | e Street<br>26241<br>the Interio   |   |
|   |                                 |  |  | AFFIDAVIT  |  |  | NUV 1 8 21165   |
| Alvin<br>law depose<br>employed by<br>and<br>work was d | n Sorca<br>and say<br>y the abo | that they are<br>ove named we                          | and hills experienced of ell operator, and 14th c  | n the work of p<br>d participated in<br>dGas Inspecto            | olugging and filli<br>the work of plug<br>r = representing | ng first duly 130<br>ing oil and ga<br>gging and filling<br>the Director | WV Department of<br>wispamental Protection<br>s wells and were<br>ng the above well,<br>, say that said<br>well was plugged |
| TYPE  | <del></del>                     | FROM   | TO   | PIPE R   | EMOVED   | LE   | EFT   |
| Gel   |                                 | 580'   | surface  | None   |  | 5748' 9  | 5/8"  |
| Cement  | <del></del>                     | 5580'  | 5239'  |  |  | 45051 40   | 2 / 11  |
| Cement  |                                 | 8281   | 3680'  |  |  | 1606 <b>'</b> 13   | 3/4"  |
| Cement<br>Cement  |                                 | 658'<br>400'   | 1390'<br>0'  |  |  | 104' 20"   |   |
|   |                                 | 1  |  |  |  |  |   |
|   |                                 |  |  |  |  |  |   |
| plugging an   | d filling s                     | nument: Under aid well was conents saith not before me | ompleted on the  | x 6" aluminu<br>e 26th day of<br>hun Sa<br>allian<br>ay of Aoven | m plate with October  Lan  ber 200                         | , <u>2009</u> .  | the work of <b>DEC 0 4 2009</b>   |
|   |                                 |  | e 12, 2016<br>Desuse H   | Pallian  | J  | A VIII   | OFFICIAL SEAL NOTARY PUBLIC STATE OF WEST VIRGINIA  |

Oil and Gas Inspector: