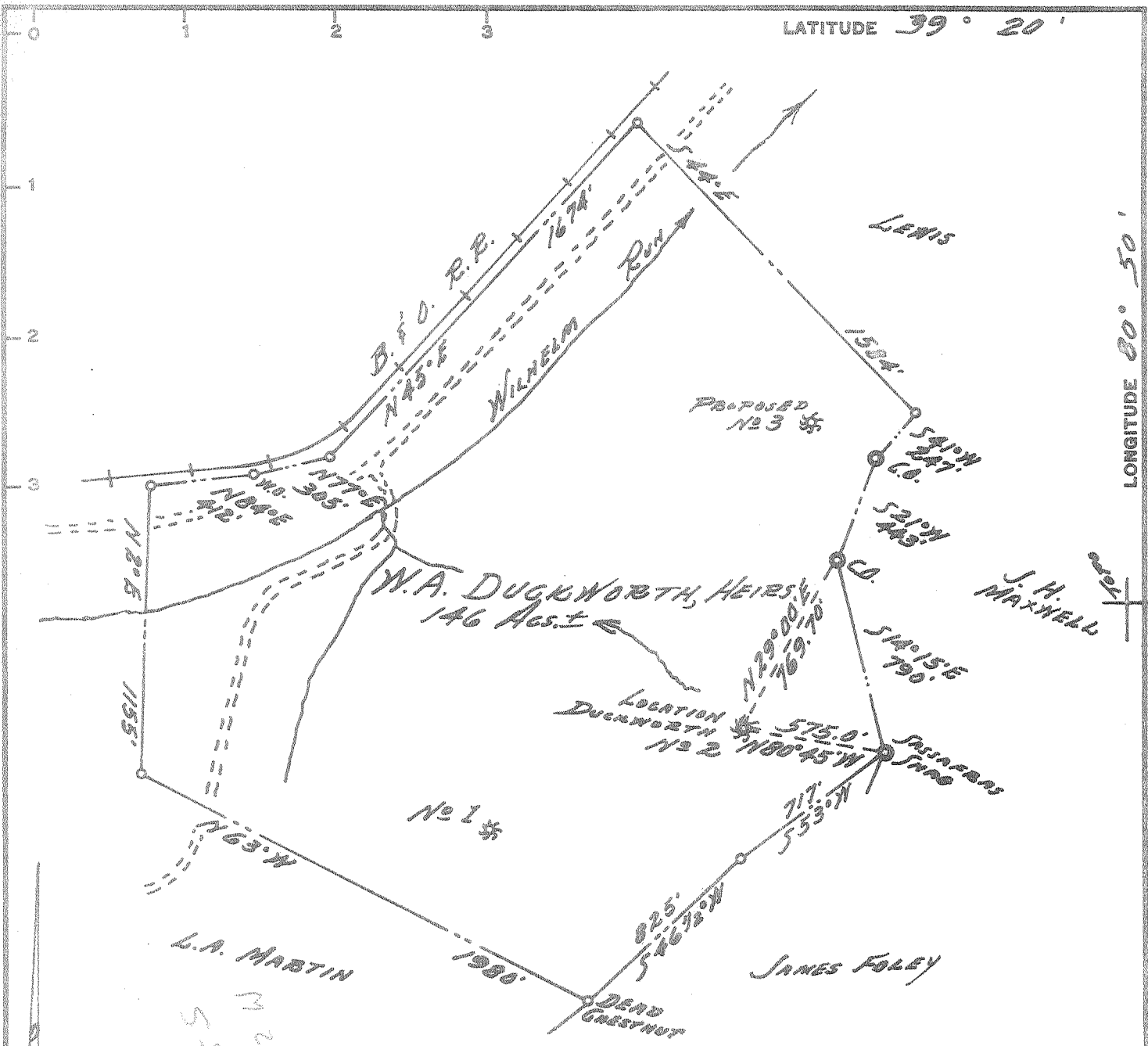


W P



"I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS MAP IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY PARAGRAPH 6 OF THE RULES AND REGULATIONS OF THE OIL AND GAS SECTION OF THE MINING LAWS OF WEST VIRGINIA."

By Paul G. Dean

New Location.....
 Drill Deeper.....
 Abandonment.....

B.M. REF. ROAD INTERSECTION AT CAYLICK SCHOOL 1/4 Mi. S.W. 200.
 MINIMUM ERROR OF CLOSURE 1/5,000

Company N. G. CLARK, ET AL.
 Address Box 427, CHARLESTON, 22, W.V.A.
 Farm W.A. DUCKWORTH, HEIRS
 Tract I Acres 146± Lease No. _____
 Well (Farm) No. (Two) Serial No. _____
 Elevation (Spirit Level) 1055
 Quadrangle WEST UNION - SC
 County DODDIDGE District CENTRAL
 Engineer Paul G. Dean
 Engineer's Registration No. 1856
 File No. 136-7-26 Drawing No. 65-45
 Date SEPT. 2, 1965 Scale 1" = 600'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON

WELL LOCATION MAP
 FILE NO. DOD-1313

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.

-- Denotes one inch spaces on border line of original tracing.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION 4

Quadrangle West Union

WELL RECORD

Permit No. Dod 1313

Oil or Gas Well Oil-Gas
(KIND)

Company Duckworth Well No. 2
Address P. O. Box 427 Charleston, W. Va.
Farm W. A. Duckworth Acres 146+
Location (waters) Wilhelm Run
Well No. 2 Elev. 1055
District Central County Doddridge
The surface of tract is owned in fee by Genora and Geo. W. Carney Address West Union, W. Va.
Mineral rights are owned by Same Address _____

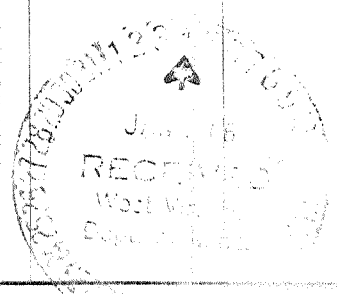
| Casing and Tubing | Used in Drilling | Left in Well | Packers |
|-------------------|------------------------|--------------|----------------|
| Size | | | Kind of Packer |
| 16 | | | |
| 13 | 10' | 10' | |
| 10 | 505' | None | Size of |
| 8 1/4 | 1102 | None | Depth set |
| 6 5/8 | | | |
| 5 3/16 | 1/2 2145 | 2145 | Perf. top |
| | <u>Perforated from</u> | | Perf. bottom |
| 2 | 2101 | tp 2111 | Perf. top |
| | | | Perf. bottom |

Drilling commenced Nov. 9, 1965
Drilling completed Dec. 17, 1965
Date Shot _____ From _____ To _____
With _____
Open Flow _____ /10ths Water in _____ Inch
_____ /10ths Merc. in _____ Inch
Volume Show of gas and oil Cu. Ft.
Rock Pressure None taken lbs. _____ hrs.
Oil Show bbls., 1st 24 hrs.
WELL ACIDIZED _____

CASING CEMENTED 5 1/2 SIZE 2145 No. Ft. 12-20-65 Date
54 sacks cement. Cemented by Dowell
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

WELL FRACTURED Dec. 30, 1965 with 600 bble water and 20,000 lbs sand from 2101 tp 2111 ft.
RESULT AFTER TREATMENT Approx. 200,000 cu ft. gas adn 20 bbls. oil = 137 nju
ROCK PRESSURE AFTER TREATMENT None taken
Fresh Water _____ Feet Salt Water _____ Feet

| Formation | Color | Hard or Soft | Top | Bottom | Oil, Gas or Water | Depth | Remarks |
|----------------------|--------------|--------------|------|--------|-------------------|-------|---------|
| Clay | Yellow | Soft | 0 | 10 | | | |
| Red Rock | Red | " | 10 | 75 | | | |
| Sand | White | Hard | 75 | 85 | Water | 80 | Fresh |
| Slate | Grey | Soft | 85 | 103 | | | |
| Sand | White | Hard | 103 | 159 | | | |
| Red Rock | Red | Soft | 159 | 176 | | | |
| Slate | Grey | Soft | 176 | 280 | | | |
| Sand | White | Hard | 280 | 295 | | | |
| Red Rock- and shells | Reddish Grey | Soft | 295 | 401 | | | |
| Slate | Grey | Soft | 401 | 500 | | | |
| Red Rock | Red | Soft | 500 | 552 | | | |
| Sand | White | Hard | 552 | 632 | Water | 620 | Fresh |
| S. Lime | White | Hard | 632 | 698 | | | |
| Sand | White | Hard | 698 | 711 | | | |
| Slate | Grey | Soft | 711 | 755 | | | |
| Sand | White | Hard | 755 | 798 | | | |
| Slate | Grey | Soft | 798 | 845 | | | |
| Red Rock | Red | Soft | 845 | 953 | | | |
| Lime | White | Soft | 953 | 1013 | | | |
| Red Rock | Red | Soft | 1013 | 1092 | | | |
| Lime | White | Soft | 1092 | 1110 | | | |
| Red Rock | Red | Soft | 1110 | 1120 | | | |
| Lime | White | Soft | 1120 | 1175 | | | |
| Slate | Grey | Soft | 1175 | 1179 | | | |
| Sand | White | Hard | 1179 | 1203 | | | |
| Slate | Grey | Soft | 1203 | 1208 | | | |
| Sand | White | Hard | 1208 | 1250 | | | |



| Formation | Color | Hard or Soft | Top 4 | Bottom | Oil, Gas or Water | Depth Found | Remarks |
|-------------|---------|--------------|-------|--------|-------------------|-------------------------------------|----------------------|
| Lime | White | Soft | 1250 | 1262 | | | |
| Slate | Grey | Soft | 1262 | 1281 | | | |
| Lime | White | Soft | 1281 | 1320 | | | |
| Slate | Grey | Soft | 1320 | 1340 | | | |
| Sand | White | Hard | 1340 | 1415 | | | |
| Slate | Grey | Soft | 1415 | 1480 | | | |
| Sand | White | Hard | 1480 | 1511 | | | |
| Lime | White | Soft | 1511 | 1526 | | | |
| Sand | White | Hard | 1526 | 1535 | | | |
| Slate | Grey | Soft | 1535 | 1541 | | | |
| Sand | White | Hard | 1541 | 1607 | | | |
| Slate | Grey | Soft | 1607 | 1617 | | | |
| Sand | White | Hard | 1617 | 1627 | | | |
| Slate | Grey | Soft | 1627 | 1698 | | | |
| Sand Maxon | White | Hard | 1698 | 1786 | | | |
| Slate | Grey | Soft | 1786 | 1788 | | | |
| Sand | White | Hard | 1788 | 1803 | | | |
| Slate | Grey | Soft | 1803 | 1809 | | | |
| Dark lime | Greyish | Soft | 1809 | 1848 | | | |
| Sand | White | Hard | 1848 | 1875 | | | |
| Slate | Grey | Soft | 1875 | 1885 | | | |
| Red Rock | Red | Soft | 1885 | 1899 | | | |
| Sand | White | Hard | 1899 | 1926 | | | |
| Slate | Grey | Soft | 1926 | 1939 | | | |
| Lime (Big) | White | Soft | 1939 | 2003 | | | |
| Lime-Sand | White | Hard | 2003 | 2022 | | | |
| Sandy Lime | White | Hard | 2022 | 2041 | | | |
| Sand (Big) | White | Hard | 2041 | 2123 | Oil | 2041-2148 2062-2072 2100-2108 | Show Show Show |
| Slate-Shell | Grey | Soft | 2123 | 2152 | | | |

Date Dec. 31, 1965, 19

APPROVED Duckworth Well No. 2, Owner

By N. G. Clark
(Title)