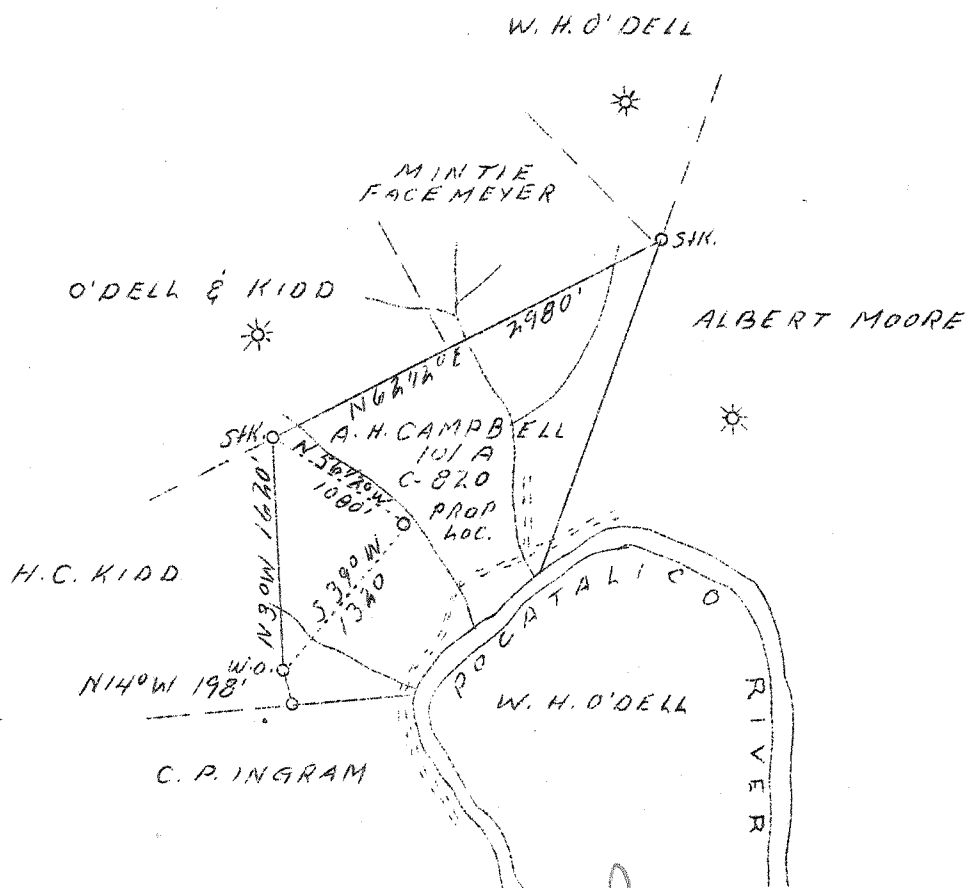


LATITUDE 38° 35'

LONGITUDE 81° 35'



New location

| | |
|-----------------|-----------------------------|
| Company | Columbian Carbon Co. |
| Address | Box 1240 Charleston, W. Va. |
| Farm# | A. H. Campbell |
| Acres | 101 |
| Lease No. | C - 820 |
| Well (Farm) No. | 1 |
| El. (S.L.) | 683.5 |
| Quadrangle | Kenna S.E. |
| County | Kanawha |
| District | Peca |
| Eng. | James N. Soll |
| Eng. Reg. No. | 772 |
| Date | 5/25/39 |
| Scale | 1" = 1320 |

STATE OF WEST VIRGINIA
 Department of Mines
 OIL AND GAS DIVISION
 Charleston

WELL LOCATION MAP

File No. Kan-637

x Denotes location of well on U.S. 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.



WEST VIRGINIA DEPARTMENT OF MINES

OIL & GAS DIVISION

WELL RECORD

Permit No. Kan-637

Gas Well

Kenna Quad.

CASING & TUBING

| | | | | |
|---------------------------|--|--------|--------|-----------|
| Company | Columbian Carbon Co. | 14 | 41-00 | 41-0 |
| Address | Box 1240, Charleston, W. Va. | 10-3/4 | 539-1 | 539-1 |
| Farm | A. H. Campbell ACRES 101 | 8-5/8 | 1762-6 | 1762-6 |
| Location | Pocatalico River | 6-5/8 | 4849-5 | 4849-5 |
| Well No. | 1 (GW-428) ELEV. 688.5 DF | 2-3/8 | 4972-5 | 4972-5 |
| District | Poca - Kanawha County | | | |
| Surface & Mineral Address | A. H. Campbell, et al Sissonville, W. Va. | | | No Packer |
| Commenced | June 12, 1939 | | | |
| Completed | Sept. 26, 1939 | | | |
| Shot | 9/27/39 - Depth 4928-4958 | | | |
| Volume | 5,692,000 c.f. | | | |
| Rock Pressure | 1455 lbs. 6 days | | | |
| Salt Water | 1150 hole full | | | |

| Formation | Color | H ₂ O | Top | Base | Result | Formation | Color | H ₂ O | Top | Base | Result |
|------------------|-------|------------------|------|------|----------|--|-------|------------------|------|------|--------|
| Red Rock | | | 0 | 30 | | Oriskany Sand | | | 4971 | 4995 | |
| Blue Slate | | | 30 | 43 | | Lime - 14 | | | 4995 | 5003 | SLM |
| Sand | | | 40 | 90 | | | | | | | |
| Slate | | | 90 | 155 | | Total Depth | | | | 5003 | |
| Red Rock | | | 155 | 245 | | | | | | | |
| Sand | | | 245 | 265 | | | | | | | |
| Red Rock | | | 265 | 400 | | CEMENT RECORD: | | | | | |
| Slate | | | 400 | 462 | | 7/19/39 - Ran 100 sacks Alpha cement | | | | | |
| Sand | | | 462 | 587 | | mixed with 2% Aquagel. 5 Sacks Aquagel | | | | | |
| Slate | | | 587 | 594 | | mixed with 4% mixture ahead of cement. | | | | | |
| Sand | | | 594 | 640 | | 10' spacer and two plugs. | | | | | |
| Slate | | | 640 | 655 | | 14' cement left in pipe | | | | | |
| Sand | | | 655 | 675 | | Pat Patterson, Cementer - Halliburton | | | | | |
| Slate | | | 675 | 683 | | Oil Well Cementing Company. | | | | | |
| Sand | | | 683 | 740 | | | | | | | |
| Slate & Shells | | | 740 | 775 | | 8/7/39 - Ran 25 sacks Alpha cement | | | | | |
| Sand | | | 775 | 800 | | with 10' spacer & plug on top of | | | | | |
| Slate | | | 800 | 810 | | spacer. Plug stopped 4815'. | | | | | |
| Sand | | | 810 | 847 | | 45' hard cement in pipe when started up. | | | | | |
| Slate | | | 847 | 915 | | Dick Allen, Cementer - Halliburton Oil | | | | | |
| Sand | | | 915 | 950 | | Well cementing Company. | | | | | |
| Slate | | | 950 | 1050 | | | | | | | |
| Sand | | | 1050 | 1100 | | | | | | | |
| Slate | | | 1100 | 1115 | | | | | | | |
| Salt Sand | | | 1115 | 1500 | HFV 1150 | | | | | | |
| Little Lime | | | 1500 | 1520 | | | | | | | |
| Slate | | | 1520 | 1523 | | | | | | | |
| Big Lime | | | 1523 | 1680 | | | | | | | |
| Big Injun Sand | | | 1680 | 1734 | | | | | | | |
| Slate | | | 1734 | 1740 | | | | | | | |
| Shell | SLM | | 1740 | 1753 | | | | | | | |
| Slate | | | 1753 | 1815 | | | | | | | |
| Shell | | | 1815 | 1825 | | | | | | | |
| Slate | | | 1825 | 2125 | | | | | | | |
| Brown Shale | | | 2125 | 2130 | | | | | | | |
| Berea Shell | | | 2130 | 2134 | | | | | | | |
| Slate & Shells | | | 2134 | 3360 | | | | | | | |
| Brown Shale | | | 3360 | 3430 | | | | | | | |
| Slate & Shells | | | 3430 | 3820 | | | | | | | |
| Brown Shale | | | 3820 | 4000 | | | | | | | |
| Slate & Shells | | | 4000 | 4445 | | | | | | | |
| Brown Shale | | | 4445 | 4720 | | | | | | | |
| White Slate | | | 4720 | 4740 | | | | | | | |
| Brown Shale | | | 4740 | 4809 | HSLM | | | | | | |
| Corniferous Lime | HSLM | | 4809 | 4917 | SLM | | | | | | |
| Oriskany Sand | SLM | | 4917 | 4964 | | | | | | | |
| Lime Break | | | 4964 | 4971 | | | | | | | |