

## UNITED PRODUCING COMPANY

## 6-1671 YUKON-POCAHONTAS COAL COMPANY WELL

Buchanan County, Virginia

Location: 1.95 miles west of  $81^{\circ} 55'$ ,  
1.24 miles south of  $37^{\circ} 15'$ 

Ground elevation: 1781

Total depth: 4536

Drilling commenced: November 7, 1949

Drilling completed: April 13, 1950

Water: 50, HFW

Gas: 934, show; 1555-1558, show; 1611-1616, show

Oil: 347, show

Casing record: 13 3/8 at 23, 10 3/4 at 555, 8 5/8 at 2249, 7 at 3764

Depth corrections: None

Samples examined by David G. Bowen, 1958

## POST-LEE FORMATION BEDS (PENNSYLVANIAN) UNDIVIDED

- 0 - 102 No sample
- 102 - 108 Sandstone, white, medium-to fine-grained, subangular to subrounded, quartzose, slightly micaceous, small amount of green mineral and dark mineral, slightly calcareous
- 108 - 115 Sandstone, same as above, but coarse-grained, moderate amount of pebble fragments of milky-white quartz
- 115 - 153 Sandstone, same as above, but medium-to fine-grained, moderate amount of coarse grains, slightly chloritic, not calcareous, no pebble fragments, at 115-130 a little coaly material
- 153 - 158 Sandstone, same as lower part above; and shale, gray, silty, micaceous, slightly pyritic, hard
- 158 - 163 Sandstone, same as above; some shale, same as above
- 163 - 169 Sandstone, light-gray, very fine grained to silt, quartzose, feldspathic, micaceous, argillaceous laminations
- 169 - 188 Siltstone, gray, quartzose, feldspathic, micaceous, laminated, argillaceous; at 184-188 some shale, dark-brownish gray, silty, carbonaceous
- 188 - 193 Siltstone, same as above, but tan, calcite cement,

not argillaceous

- 193 - 199 Siltstone, light-gray, similar to 169-188, but not laminated, not argillaceous; and siltstone, same as above
- 199 - 216 Shale, dark-gray, silty, micaceous; laminated with siltstone, same as 188-193
- 216 - 223 Shale, gray, finely micaceous, moderately hard; a little siltstone, same as above, but in part clean
- 223 - 229 Siltstone laminated with some shale, both same as 199-216
- 229 - 299 Shale, dark-gray, finely micaceous, locally silty, locally carbonaceous; locally laminated to interbedded with a little siltstone, gray, quartzose
- 299 - 314 Siltstone, grading downward to in part very fine grained sandstone, light-gray, quartzose, feldspathic, micaceous, slightly argillaceous, dirty, at the base a little coaly material and slightly calcareous
- 314 - 321 Shale, tan, unctuous, soft; a little siltstone, same as above
- 321 - 326 Shale, gray, silty, finely micaceous; a little siltstone, same as above
- 326 - 338 Sandstone, white, mostly medium-grained, some coarse grains and fine grains, subangular to subrounded, quartzose, slightly micaceous and chloritic, small amount of green mineral and hematite (?)
- 338 - 340 No sample
- 340 - 350 Sandstone, same as 326-338
- 350 - 355 Sandstone, same as above, but medium-to coarse-grained, a few very coarse grains
- 355 - 360 Sandstone, same as above, but medium-to fine-grained, occasional coarse to very coarse grains
- 360 - 371 Sandstone, same as above, but medium-grained with some coarse grains
- 371 - 377 Shale, black to dark-gray

- 377 - 385 Shale, dark-gray, silty, micaceous
- 385 - 392 Shale, gray, finely micaceous
- 392 - 409 Sandstone, white, fine-grained, subangular to subrounded, quartzose, slightly micaceous and chloritic, small amount of green mineral and hematite (?)
- 409 - 439 Sandstone, same as above, but medium-to fine-grained, occasional coarse grain, cleaner, no hematite (?), at 416-421 a little coaly material
- 439 - 444 Sandstone, same as above, but fine-grained, slightly calcareous
- 444 - 454 Sandstone, same as above, but a few medium grains
- 454 - 462 Shale, gray, silty, micaceous
- 462 - 528 Shale, same as above; laminated with a little siltstone, gray, quartzose; at 471-504 both types slightly calcareous; at 471-504 shale is rather dark-gray; at 487-492 and 517-528 siltstone becomes in part sandy, feldspathic, and chloritic

## TOP LEE FORMATION 528

- 528 - 533 Sandstone, white, medium-to fine-grained, subangular to subrounded, quartzose, slightly micaceous and chloritic, small amount of dark mineral and green mineral, nearly clean
- 533 - 560 Sandstone, same as above, but with some coarse grains and occasional very coarse grains, at 541-545 some fragments of clear to milky quartz pebbles, at 550-560 occasional pebble fragment, at 541-545 cemented in part with tan calcite, at 545-560 increase of accessory minerals
- 560 - 564 Sandstone, same as lower portion above, but medium-to coarse-grained, some fine grains, no pebble fragments, decrease of accessory minerals
- 564 - 570 Sandstone, same as above, but light-gray, mostly fine-to very fine grained, dirty with coaly material
- 570 - 588 Sandstone, same as above, but very fine grained to silt, at 580-582 slightly calcareous

- 588 - 600 Sandstone, same as lower portion above; and interbedded shale, gray, micaceous
- 600 - 654 Shale, dark-gray, rather carbonaceous, moderately hard, at 637-654 in part sandy with many fine quartz grains; at 618-622 and 646-654 a little interbedded siltstone, gray, quartzose
- 654 - 669 Shale, same as above; and interbedded siltstone, same as above
- 669 - 704 Sandstone, light-gray, very fine grained to silt, quartzose, slightly feldspathic, slightly micaceous; at 669-689 a little interbedded shale, gray, and a trace of coal; at 689-704 banded with gray argillaceous material
- 704 - 718 Shale, dark-gray, carbonaceous, finely micaceous
- 718 - 728 Siltstone, gray, quartzose; laminated with shale, gray, micaceous
- 728 - 738 Shale, dark-gray
- 738 - 756 Sandstone, light-gray, very fine grained, subangular, quartzose, feldspathic, micaceous, dark mineral, at 746-756 in part fine-grained; at 746-756 a little interbedded shale, gray
- 756 - 762 Shale, gray, micaceous
- 762 - 768 Shale, same as above; and sandstone, same as lower portion of 738-756
- 768 - 776 Sandstone, same as above, but all very fine grained; some interbedded shale, same as above, and siltstone, gray, quartzose
- 776 - 794 Sandstone, same as above; at 783-794 some shale, dark-gray, silty, carbonaceous
- 794 - 806 Siltstone, gray, quartzose, feldspathic; and interbedded shale, dark-gray, silty, in part carbonaceous
- 806 - 813 Siltstone, same as above; some interbedded shale, gray, micaceous
- 813 - 828 Sandstone, light-gray, very fine grained to silt, quartzose,

feldspathic, micaceous, slightly chloritic, at 822-828 almost white

- 828 - 850 Sandstone, same as above, but tan, coaly to argillaceous laminations
- 850 - 857 Sandstone, same as above; and shale, dark-gray
- 857 - 864 Shale, gray, greasy; and shale, dark-gray, in part micaceous, in part carbonaceous
- 864 - 896 Sandstone, white, fine-grained, a few medium grains, angular, quartzose, trace of mica and dark mineral, at 864-875 in part slightly dirty with coaly material
- 896 - 902 Sandstone, same as lower part above, but medium-to fine-grained
- 902 - 914 Sandstone, same as above, but mostly medium-grained, an occasional coarse grain, subangular to subrounded
- 914 - 927 Sandstone, same as above, but medium-to fine-grained
- 927 - 932 No sample
- 932 - 955 Sandstone, essentially same as 914-927, but very fine to fine-grained, dirty; and interbedded siltstone, tannish-gray, quartzose, dirty; and interbedded shale, gray, silty, micaceous
- 955 - 961 Sandstone, same as above; and shale, gray, micaceous
- 961 - 973 Sandstone, light-gray, very fine grained, quartzose, feldspathic, slightly micaceous and dirty, laminated with a little gray argillaceous material
- 973 - 983 Sandstone, same as above, but very fine grained to silt; laminated with some shale, gray, micaceous
- 983 - 990 Shale, gray, finely micaceous; some siltstone, light-gray, quartzose, feldspathic, slightly micaceous and dirty
- 990 -1039 Shale, gray, finely micaceous; at 1037-1039 a little sandstone, white, very fine to fine-grained, quartzose, slightly micaceous, calcareous
- 1039-1047 Shale, gray to tan, silty; some siltstone, tan, feldspathic;

and some sandstone, same as above, but not calcareous

- 1047-1055 Siltstone, tan, feldspathic; and shale, gray to tan, silty; a little coal
- 1055-1063 Siltstone, same as above; a little shale, light-gray, greasy
- 1063-1071 Siltstone, light-gray, quartzose, sandy, micaceous, gray argillaceous laminations
- 1071-1108 Sandstone, white, medium-to fine-grained, angular to sub-angular, quartzose, slightly micaceous, small amount of green mineral and dark mineral, nearly clean, at 1086-1091 a small amount of coaly material, at 1096-1108 somewhat dirtier
- 1108-1117 Sandstone, same as above, but light-tan; a little shale, gray, finely micaceous
- 1117-1124 Siltstone, gray, quartzose, feldspathic; laminated with shale, gray, silty, micaceous
- 1124-1128 Sandstone, light-gray, very fine to fine-grained, quartzose, slightly feldspathic, micaceous, slightly chloritic
- 1128-1134 Shale, gray, finely micaceous; a little sandstone, same as above, but cemented with tan calcite
- 1134-1161 Sandstone, white, very fine grained, quartzose, few tan grains, clean, at 1156-1161 slightly calcareous
- 1161-1181 Siltstone, gray, quartzose, feldspathic, very argillaceous, at 1171-1181 coaly laminations
- 1181-1200 Siltstone, gray, quartzose, feldspathic, argillaceous laminations, at 1191-1200 somewhat carbonaceous
- 1200-1249 Sandstone, light-gray, very fine to fine-grained, quartzose, very slightly feldspathic, micaceous, chloritic, at 1200-1206 a few medium grains, at 1213-1221 and 1237-1242 a few gray argillaceous laminations; at 1200-1206 a little shale, dark-gray, silty
- 1249-1258 Shale, gray to dark-gray, in part silty and micaceous; a little siltstone, tan, quartzose, dirty
- 1258-1283 Siltstone, gray to tan, quartzose, feldspathic, argillaceous;

at 1266-1275 a little shale, gray, silty

- 1283-1293 Shale, gray, finely micaceous; some siltstone, same as above
- 1293-1309 Siltstone, gray, quartzose, feldspathic, argillaceous
- 1309-1321 Sandstone, white, very fine grained to silt, quartzose, feldspathic, clean, at 1314-1321 slightly calcareous
- 1321-1340 Shale, gray, occasional silty lamination
- 1340-1353 Shale, gray, claystone
- 1353-1369 Shale, gray, silty, silty laminations
- 1369-1374 Shale, same as above; and sandstone, light-tan, very fine grained to silt, quartzose, slightly feldspathic, few dark grains
- 1374-1377 Sandstone, same as above, but in part white, some fine grains, occasional light-colored quartz pebble fragment
- 1377-1395 Sandstone, white, very fine to fine-grained, quartzose, clean, at 1384-1395 a few light-colored quartz pebble fragments, at 1389-1395 a few medium grains
- 1395-1401 Shale, gray, very silty; and siltstone, gray, quartzose
- 1401-1406 Shale, same as above; and sandstone, same as lower part of 1377-1395
- 1406-1411 Shale, same as above; and sandstone, same as above; and siltstone, gray, quartzose
- 1411-1416 Shale, same as above; and siltstone, same as above
- 1416-1420 Siltstone, same as above; and sandstone, same as 1406-1411
- 1420-1425 Sandstone, white, medium-to fine-grained, occasional coarse grain, subangular to subrounded, quartzose, clean, some fragments of milky-white quartz pebbles
- 1425-1430 Conglomerate, represented by pebble fragments same as above; some sandstone, same as above, mostly cemented with tan calcite

- 1430-1435 Sandstone, same as above, but only a few pebble fragments
- 1435-1442 Sandstone, same as above, but slightly micaceous and chloritic, small amount of green mineral, white calcite cement, no pebble fragments
- 1442-1468 Sandstone, same as above, but no coarse grains, no accessory minerals, at 1442-1446 white to tan calcite cement, at 1446-1450 slightly calcareous
- 1468-1476 Siltstone, light-gray, quartzose, dirty; and shale, light-gray, greasy, poorly developed siderite nodules; some coal
- 1476-1497 Sandstone, light-gray, fine-grained to silt, quartzose, micaceous, chloritic, dirty, slightly calcareous
- 1497-1505 Sandstone, same as above; some shale, gray, greasy, plant fossils, a little is dark-gray and carbonaceous
- 1505-1512 Shale, gray, finely micaceous; some sandstone, same as above, but gray, very fine grained to silt, slightly feldspathic, not calcareous
- 1512-1516 Sandstone, same as above
- 1516-1526 Sandstone, same as above, but in part medium-to fine-grained and somewhat cleaner
- 1526-1547 Sandstone, light-gray, medium-to fine-grained, some very fine grains, quartzose, slightly feldspathic, micaceous, chloritic, at 1536-1547 decrease of accessory minerals
- 1547-1563 Shale, gray, micaceous; laminated with siltstone, gray, quartzose
- 1563-1569 Shale, gray, silty, micaceous
- 1569-1585 Siltstone, gray, quartzose, micaceous, dirty, argillaceous
- 1585-1606 Siltstone, same as above; and interbedded shale, gray, silty, micaceous
- 1606-1631 Shale, gray, finely micaceous; at 1624-1631 a little coal
- 1631-1638 Shale, same as above; and siltstone, gray, quartzose, micaceous, argillaceous
- 1638-1641 Sandstone, grayish-brown, very fine grained to silt, few



- fine grains, quartzose, dirty, slightly calcareous
- 1641-1657 Shale, gray, finely micaceous; and interbedded siltstone, gray, quartzose, micaceous, argillaceous, at 1649-1657 in part with a light-greenish cast
- 1657-1665 Shale, light-gray, silty, micaceous; and siltstone, light-gray to white, quartzose, in part argillaceous
- 1665-1691 Sandstone, white, medium-to fine-grained, subangular to subrounded, quartzose, slightly feldspathic, micaceous, slightly chloritic, at 1673-1691 moderate amount of dark mineral and not feldspathic, at 1676-1683 cemented with tan calcite
- 1691-1708 Sandstone, same as basal part above; and interbedded shale, dark-gray, silty
- 1708-1714 Sandstone, same as above, but light-gray, medium-to very fine grained; some interbedded shale, gray, finely micaceous
- 1714-1729 Sandstone, same as above; at 1721-1729 some interbedded shale, gray, silty, micaceous
- 1729-1744 Sandstone, same as above, but slightly laminated, at 1736-1744 calcareous
- 1744-1758 Sandstone, same as above, but not laminated, at 1750-1758 not calcareous, at 1754-1758 mostly fine-grained
- 1758-1781 Sandstone, same as lower part above, but medium-to fine-grained, at 1769-1781 essentially clean
- 1781-1855 Sandstone, same as lower part above, but mostly fine-grained, at 1788-1817 few accessory minerals, at 1781-1788 slightly calcareous; at 1817-1832 a little interbedded shale, very light gray, underclay; at 1841-1847 a little interbedded shale, gray, micaceous
- 1855-1896 Sandstone, same as above, but medium-to fine-grained, an occasional coarse grain, at 1881-1889 slightly calcareous
- 1896-1900 No sample
- 1900-1922 Sandstone, same as above, but light-gray, at 1908-1914 increase in amount of coarse grains, at 1904-1908 some

laminations of coaly material; at 1908-1916 some interbedded shale, gray, micaceous

TOP BLUESTONE FORMATION (MISSISSIPPIAN) 1922

- 1922-1928 Shale, gray, in part finely micaceous, moderately hard
- 1928-1933 Shale, gray, a little pale-green, in part very silty; some limestone, light-tan, earthy, argillaceous
- 1933-1938 Shale, brick-red and pale-green; and sandstone, pale-green, very fine to fine-grained, angular to subangular, quartzose
- 1938-1942 Shale, brick-red; and sandstone, same as above, but slightly calcareous
- 1942-1950 Shale, brick-red to maroon
- 1950-1958 Shale, same as above, and pale-green; some limestone, light-tan, earthy, in part silty
- 1958-1963 Shale, same as above; and limestone, same as above; and sandstone, light-gray, very fine grained to silt, slightly calcareous
- 1963-1970 Shale, light-gray, silty, slightly calcareous
- 1970-1988 Siltstone, light-gray grading downward to gray, quartzose, very argillaceous, slightly calcareous grading downward to very calcareous; a little interbedded shale, maroon
- 1988-1995 Siltstone, same as above, but slightly calcareous
- 1995-2010 Siltstone, same as above, but calcareous; and interbedded sandstone, light-tan to white, fine-grained, quartzose, calcareous
- 2010-2020 Siltstone, same as above
- 2020-2027 Siltstone, same as above, but very argillaceous, slightly calcareous; a little shale, gray
- 2027-2034 Shale, gray to dark-gray and carbonaceous
- 2034-2046 Shale, dark-gray, slightly silty, carbonaceous

- 2046-2048 Sandstone, white, very fine grained, quartzose, clean, slightly calcareous
- 2048-2108 Siltstone, light-gray, quartzose, feldspathic; laminated with shale, gray, silty
- 2108-2111 Siltstone, tan to brown, quartzose, feldspathic, tan to brown calcite cement
- 2111-2123 Siltstone, same as 2048-2108, but only slightly laminated
- 2123-2141 No sample
- 2141-2158 Siltstone, same as 2111-2123, but somewhat lighter, not laminated, at 2141-2145 slightly calcareous
- 2158-2183 Shale, dark-gray, silty; laminated with siltstone, gray, quartzose, feldspathic, slightly calcareous
- 2183-2201 Shale, same as above, a few silty laminations
- 2201-2230 Shale, same as above, in part very slightly silty, not laminated
- 2230-2238 Shale, same as above; some sandstone, white, fine-to very fine grained, angular to subangular, quartzose, few dark specks, clean, calcareous
- 2238-2273 Sandstone, same as above, but very fine grained, not calcareous, at 2247-2255 very slightly micaceous
- 2273-2280 Sandstone, same as above, but gray; and interbedded shale, dark-gray, micaceous
- 2280-2289 Shale, same as above; a little sandstone, gray, fine-grained, angular to subangular, quartzose, cemented with gray calcareous and argillaceous material
- 2289-2295 Shale, dark-gray, coaly plant fossils; some sandstone, same as above, interstitial pyrite
- 2295-2301 Sandstone, gray, fine-grained to silt, angular to subangular, quartzose, dirty; some shale, gray, silty, micaceous
- 2301-2308 Siltstone, light-gray, quartzose; laminated with a little shale, same as above
- 2308-2315 Shale, light-olive gray, moderately hard

- 2315-2321 Shale, light-gray, in part silty and micaceous, in part calcareous
- 2321-2330 Shale, dark-gray, in part silty, finely micaceous
- 2330-2349 Shale, same as above, but gray
- 2349-2370 Shale, light-gray, pasty, floating quartz grains, few earthy coal inclusions
- 2370-2383 Shale, very light greenish gray, silty, in part very calcareous; grades downward to siltstone, white, quartzose, sandy, argillaceous, calcareous

TOP PRINCETON SANDSTONE 2383