

UNITED PRODUCING COMPANY
 LASHLAND EXPLORATION INC.
 1-1454 YUKON-POCAHONTAS COAL COMPANY WELL

Buchanan County, Virginia

Location: 1.79 miles east of 82° 05',
 0.99 miles south of 37° 15'

Ground elevation: 1206

Total depth: 6271

Drilling commenced: June 20, 1947

Drilling completed: March 19, 1948

Water: 75, HFW; 644-526, 1105

Gas: 653, show; 748, show

Oil: None

Casing record: 13 3/8 at 44, 10 3/4 at 511, 7 at 3085

Depth corrections: None

Samples examined by David G. Bowen, 1958

POST-LEE FORMATION BEDS (PENNSYLVANIAN) UNDIVIDED

- 0 - 42 "Soil and gravel"
- 42 - 50 "Sand"
- 50 - 90 "Shale"
- 90 - 95 Coal

TOP LEE FORMATION 98

- 95 - 100 Shale, dark-gray, carbonaceous; some sandstone, white, medium-grained, subangular to subrounded, quartzose, slightly chloritic
- 100 - 110 Sandstone, same as above
- 110 - 115 Sandstone, same as above; some sandstone, same as above, but gray, dirty, carbonaceous, coal grains
- 115 - 120 Sandstone, same as 100-110
- 120 - 132 No sample
- 132 - 141 Sandstone, gray, medium-to fine-grained, subangular, quartzose, feldspathic, moderately micaceous, slightly chloritic, small amount of carbonaceous material
- 141 - 157 Sandstone, same as above, but mostly fine-grained, at 152-157 some coaly laminations

- 157 - 220 Shale, gray, at 190-200 slightly pyritic (at 177-183 20% of the sample is a dense, dark-reddish brown, hard rock)
- 220 - 226 Shale, gray, slightly pyritic; and shale, dull-red, silty
- 226 - 232 Siltstone, light-gray with a faint pinkish cast, siderite nodules
- 232 - 237 Siltstone, light-gray, laminated
- 237 - 249 Shale, gray, slightly silty at the bottom
- 249 - 256 Sandstone, light-gray to gray, fine-grained to silt, subangular, quartzose, feldspathic, slightly micaceous, small amount of carbonaceous material
- 256 - 268 Siltstone, gray, laminated, quartzose, feldspathic, slightly micaceous
- 268 - 286 Sandstone, light-gray, fine-grained to silt, subangular, quartzose, feldspathic, slightly micaceous and chloritic, at 274-286 faintly laminated
- 286 - 293 Siltstone, grayish-brown, quartzose, feldspathic, moderately micaceous, a little carbonaceous material
- 293 - 298 Sandstone, same as 268-286, but not laminated
- 298 - 306 Shale, gray to dark-gray, silty in part, moderately micaceous
- 306 - 322 Shale, dark-gray, very silty, carbonaceous
- 322 - 330 Shale, same as above; some shale, gray
- 330 - 336 No sample
- 336 - 402 Sandstone, light-gray, in the upper portion in part white, fine-grained, subangular, quartzose, very slightly feldspathic, chloritic, moderately micaceous; at 345-397 small amount of carbonaceous material, at 397-402 a little sandstone is brown with much argillaceous material
- 402 - 410 Shale, gray, silty; and coal
- 410 - 415 Shale, gray, in part silty, micaceous
- 415 - 420 Siltstone, light-gray to gray, quartzose, argillaceous, micaceous

- 420 - 479 Sandstone, white, medium- to fine-grained, subangular, quartzose, micaceous, slightly chloritic, at 455-457 a little coal, at 468-479 moderate amount of carbonaceous material
- 479 - 493 Sandstone, same as above, but mostly fine-grained, no carbonaceous material; at 485-490 a little coal
- 493 - 544 Sandstone, same as above, but medium- to fine-grained
- 544 - 546 Shale, dark-gray, slightly silty, slightly micaceous
- 546 - 548 No sample
- 548 - 551 Shale, same as 544-546 above; and sandstone, same as 493-544 above, but mostly medium-grained
- 551 - 566 Sandstone, same as above
- ✓ 566 - 572 Sandstone, same as above; and shale, gray, micaceous; a little chert, cream
- 572 - 577 No sample
- 577 - 579 Sandstone, same as 566-572 above
- 579 - 585 Siltstone, light-gray to light-tan, quartzose, moderately micaceous
- 585 - 589 No sample
- 589 - 595 Siltstone, same as 579-585 above
- 595 - 606 Siltstone, same as above; and shale, gray; some unidentified rock, reddish-brown, dense, amorphous, hard
- 606 - 616 Shale, light-gray, siderite nodules
- 616 - 625 Siltstone, light-gray to gray, quartzose; some shale, gray to light-gray
- 625 - 640 Sandstone, white, fine-grained with some medium grains, subangular, quartzose, very slightly feldspathic, micaceous, slightly chloritic; at 630-635 a little coal and a little underclay, dark-gray
- 640 - 648 Shale, gray to dark-gray and carbonaceous
- 648 - 653 Sandstone, light-tan, fine-grained, subangular, quartzose, feldspathic; some coal and shale, probably at the top

- 653 - 665 Shale, dark-gray, at the top silty, at the bottom carbonaceous
- 665 - 670 Sandstone, gray, fine-grained to silt, subangular, quartzose, slightly feldspathic, very micaceous, considerable carbonaceous material
- 670 - 700 Sandstone, white, medium-to fine-grained, subangular, quartzose, very slightly feldspathic, moderately micaceous and chloritic, at 690-700 slightly pyritic
- 700 - 715 Sandstone, same as above, but light-tan to brown with carbonaceous material, no pyrite
- 715 - 723 Sandstone, same as 670-700 above, no pyrite
- 723 - 744 Sandstone, same as above, but light-tan, small amount of carbonaceous material, at 730-744 mostly fine-grained
- 744 - 762 Sandstone, same as above, but light-gray, mostly fine-grained, no carbonaceous material, at 752-758 in part banded
- 762 - 768 Sandstone, same as above, but light-gray to brown with much carbonaceous material
- 768 - 814 Shale, gray, at 768-778 silty, at the top and bottom in part dark-gray, at the bottom in part carbonaceous
- 814 - 824 Shale, gray, in part silty; a little siltstone, gray, quartzose
- 824 - 834 Shale, light-gray, silty; some siltstone, light-gray, quartzose
- 834 - 844 Siltstone, gray to light-gray, quartzose, slightly feldspathic
- 844 - 848 Shale, gray, in part silty; a little siltstone, same as above; a little sandstone, white, fine-grained, quartzose
- 848 - 855 Shale, gray, silty
- 855 - 864 Shale, gray to light-gray; and sandstone, white, medium-to fine-grained, subangular, quartzose, in part very slightly feldspathic
- * 864 - 880 Sandstone, same as above, but clean and not feldspathic
- * 880 - 900 Sandstone, same as above, but mostly medium-grained, some pebble fragments of milky-white quartz

- * 900 - 911 Sandstone, same as 864-880 above
- * 911 - 925 Sandstone, same as 880-900 above
- * 925 - 934 Sandstone, same as above, but almost entirely pebble fragments
- * 934 - 939 Sandstone, same as 911-925 above
- * 939 - 958 Sandstone, same as 925-934 above
- * 958 - 962 Sandstone, same as 934-939 above
- * 962 - 973 Sandstone, white, medium-to coarse-grained, subangular to sub-rounded, quartzose, a very small amount of pebble fragments
- * 973 - 983 Sandstone, white, medium-to fine-grained, a few coarse grains, subangular to subrounded, quartzose
- 983 - 985 Shale, dark-gray, carbonaceous, moderately pyritic; and coal
- 985 - 994 Siltstone, gray, quartzose, in part argillaceous; some shale, gray to light-gray
- 994 - 1012 Sandstone, light-gray, medium-to fine-grained, subangular, quartzose, very slightly feldspathic, moderately micaceous and chloritic
- 1012-1035 Sandstone, same as above, but mostly medium-grained, some fine grains, a few coarse grains
- 1035-1041 Sandstone, same as above, but medium-to fine-grained, no coarse grains
- 1041-1050 Siltstone, gray, quartzose; a little coal
- 1050-1070 Sandstone, same as 1035-1041 above, but only very slightly micaceous and chloritic
- 1070-1075 Sandstone, same as above, but mostly medium-grained, moderately micaceous and chloritic
- 1075-1099 Sandstone, same as above, but fine-grained, at 1085-1094 white
- 1099-1105 Sandstone, same as lower portion above; some shale, gray
- 1105-1115 Coal; and shale, gray, carbonaceous, greasy

- 1115-1124 Shale, same as above; and siltstone, gray, quartzose, micaceous
- 1124-1144 Shale, gray, at 1124-1134 micaceous
- 1144-1151 Shale, gray; and siltstone, gray, quartzose, slightly micaceous
- 1151-1185 Sandstone, light-gray, fine-grained, some medium grains, subangular, quartzose, moderately feldspathic and micaceous, slightly chloritic
- (1185-1252) Sandstone, white, fine-grained, subangular, quartzose, (nearly clean), at 1227-1236 some interlaminated carbonaceous to argillaceous material
- 1252-1255 Sandstone, same as above, but with a few coarse grains; and siltstone, light-greenish gray, quartzose, very micaceous
- 1255-1267 Siltstone, gray to light-gray, quartzose, slightly micaceous
- 1267-1290 Shale, light-tannish gray to gray, in part with black nodules, at 1282-1290 becoming in part dark-gray and carbonaceous
- 1290-1320 Sandstone, white, mostly fine-grained, a few medium grains, subangular, quartzose, slightly micaceous and chloritic
- 1320-1334 Sandstone, same as above, but medium-to fine-grained
- TOP BLUESTONE FORMATION (MISSISSIPPIAN) 1334
- 1334-1359 Siltstone, light-green, quartzose; interbedded with shale, light-green, at the top in part containing orange siderite nodules
- 1359-1372 Sandstone, white with a faint green cast, fine-grained, subangular, quartzose, slightly micaceous, moderately chloritic, slightly calcareous, at 1366-1372 feldspathic
- 1372-1384 Shale, rusty-red and greenish-gray, soft, calcareous
- 1384-1397 Siltstone, green to light-gray with a small amount rusty-red, quartzose, finely micaceous, calcareous
- 1397-1408 Sandstone, greenish-gray, very fine grained to silt, subangular, quartzose, slightly feldspathic and micaceous, slightly calcareous

- 1408-1414 Siltstone, gray, quartzose, moderately micaceous, slightly calcareous; some shale, gray, slightly calcareous
- 1414-1420 Limestone, yellowish-tan to light-gray, fine-crystalline
- 1420-1434 Shale, pale-red with a little pale-green, very slightly calcareous
- 1434-1444 Siltstone and very fine grained sandstone, very light green to green, slightly micaceous, chloritic, very slightly calcareous; some shale, same as above; a little limestone, light-gray, fine-crystalline
- 1444-1462 Shale, dark-grayish green to gray, in part micaceous, in part with coaly specks, hard
- 1462-1470 Shale, gray with a little maroon, contains fine subrounded floating quartz grains, slightly pyritic, soft
- 1470-1488 Shale, gray to pale-green and maroon, soft, slightly calcareous; and interbedded limestone, gray to dark-gray, argillaceous, fossiliferous, silty, rare floating medium to coarse grains of quartz
- 1488-1497 Shale, brick-red with a little gray and pale-green, in part slightly calcareous, floating very fine quartz grains; a little sandstone, light-green, very fine grained, quartzose
- 1497-1503 Sandstone, cream to greenish-gray, very fine grained, quartzose, argillaceous, siderite nodules
- 1503-1506 Sandstone, green, fine-grained, subangular, quartzose, some is white and cemented with calcite
- 1506-1522 Sandstone, pale-green, fine-to very fine grained, subangular, quartzose, slightly micaceous, at 1517-1522 coaly laminations, slightly feldspathic, and very slightly calcareous
- 1522-1567 Sandstone, white to light-gray, fine-to very fine grained, subangular, quartzose, slightly feldspathic, slightly micaceous, very slightly calcareous
- 1567-1572 Sandstone, same as above, but light-gray to gray, calcareous; some shale, gray, unctuous
- 1572-1575 Sandstone, same as above, but dirty with coal and mica, not calcareous

- 1575-1582 Sandstone, white, fine-grained, subangular to subrounded, quartzose, clean, at 1580-1582 in part light-gray with a few coaly laminations
- 1582-1586 No sample
- 1586-1597 Sandstone, white to light-gray, fine-grained, subangular to subrounded, quartzose, slightly calcareous, at 1588-1597 feldspathic and slightly micaceous
- 1597-1695 Shale, dark-gray, moderately soft, at 1597-1664 micaceous, at 1620-1631 and 1685-1695 slightly silty
- 1695-1705 Siltstone, pale-green to white, quartzose, slightly feldspathic, finely micaceous, very slightly calcareous, at 1700-1705 in part sandstone, very fine grained
- 1705-1712 Siltstone, light-green, quartzose, siderite nodules
- 1712-1719 Sandstone, light-green, very fine grained to silt, quartzose
- 1719-1729 Shale, dark-gray, silty, hard; a little limestone, gray
- 1729-1750 Shale, same as above, but gray
- 1750-1758 Siltstone, light-gray, quartzose, very argillaceous, small amount of coaly material
- 1758-1765 Shale, light-gray, very silty, micaceous
- 1765-1774 Siltstone, light-gray, quartzose
- 1774-1783 Siltstone, same as above, but slightly darker, very micaceous, slightly calcareous
- 1783-1794 Siltstone, light-gray, quartzose, slightly calcareous; and shale, gray
- 1794-1800 Siltstone, same as above, but pyritic; and shale, same as above; some sandstone, white to light-gray, fine-to very fine grained, subangular, quartzose, slightly feldspathic and micaceous, slightly calcareous
- 1800-1810 Shale, gray, soft, small amount of coaly material; some sandstone, same as above, but with a faint greenish cast

TOP PRINCETON SANDSTONE 1810