

Dietz Colliery Company No. 4(3) Well

100 feet per sec.

Falls District, Payette County, W. Va.

By Northeastern Oil and Gas Company, Charleston, W. Va.

Located 1.33 mi. W. of 81°10' and 1.77 mi. S. of 88°15' -SW-Payetteville Quadrangle.
½ mi. N. W. of Wyndal on east side of Canley River.

Elevation, 696 feet.

Permit, Fay-36.

Drilling commenced, April 4, 1939; completed July 13, 1939.

Gas well in Big Injun; 16,600 cu. ft. per day before shot, 771,000 cu. ft.
per day after shot.Casing, 16" wood conductor, 14'; 10", 220'; 5" (failed to shut off water);
8½", 395'; 4"; 6 5/8", 1443'; 3" tubing 1707'; 11"

Top Bottom Thickness

Recent Alluvium 55 feet

0 55 55 River sand and gravel

Pottsville Formation 970 feet

55 40 10 Sandstone, gray and brown, medium-grained (fresh water)

40 70 25 Sandstone, light-gray, medium-grained; contains
muscovite, chlorite and siderite

70 75 5 Sandstone, gray, very fine, shaly, micaceous

75 150 55 Sandstone, gray with some brown, medium-grained; besides
quartz it contains muscovite, chlorite, partly
altered siderite, and a little kaolin or other clay
mineral

120 150 22 Shale, dark-gray, with some brownish, partly silty

120 175 25 Sandstone, light-gray, with small green and brown specks,
medium-to fine-grained

175 190 15 Shale, very dark gray, with a little coal

190 207 17 Sandstone, gray, very fine; with considerable gray shale
and siltstone near top207 295 88 Sandstone, white to light-gray with small amounts of
yellow iron rust stains; mostly fine-, some medium-
grained; except for two samples fromfrom 229 to 254 there are few chips and rock is broken
up mostly into individual grains (steel line
measurement at 301; hole full of water at 254)

Top	Bottom	Thickness	Description
295	303	13	Siltstone, gray, shaly, massive
309	313	4	No sample
313	360	47	Sandstone, light-gray to white; very fine near top, becoming a little coarser downward; medium-grained from 361 to 360; samples contain a little black shale
360	368	8	Shale, dark-gray, mostly silty
368	409	41	Siltstone, gray, shaly; with varying amounts of darker gray shale and a few pieces of siderite concretions
409	414	5	Sandstone, white, fine, 90%; dark-gray silty shale, 10%
414	419	5	Sandstone, gray, very fine
419	424	5	Shale, dark-gray, with abundant siderite
424	434	10	Sandstone, gray, very fine; with some gray shale
434	439	6	Sandstone, white, fine 70%; gray shale, 30%
439	464	25	Sandstone, white, medium-grained, nearly all quartz; many of quartz grains have crystal faces; about 20% black shale, 443 to 449' (trace of gas at 464)
464	493	9	Sandstone, white, very coarse, poorly sorted
493	513	20	Sandstone, light-gray with some black and brown specks; mostly fine-grained
513	535	22	Sandstone, white, fine- to medium-grained, nearly all quartz; some grains have crystal faces
556	560	6	Sandstone, white, very coarse
560	574	14	Shale, dark-gray, mostly silty
574	736	162	Sandstone, white, mostly medium-grained, some fine near top; nearly all quartz, with slight traces of muscovite and kaolin
756	803	47	Sandstone, white, coarse to very coarse, nearly all quartz
803	824	21	Sandstone, light-gray, fine, with dark shaly streaks
824	840	16	Sandstone, light-gray to medium-gray; about 30% shale in lower 7 feet
840	864	24	Siltstone, dark-gray, pyritic; a little white sandstone near bottom
864	903	64	Shale, dark-gray to black; a little sandstone between 866 and 864'
903	935	7	Shale and siltstone, darkgray; with a little coal
935	947	12	Sandstone, light-gray, fine, 80%; dark-gray siltstone, 40%

Top Bottom Thickness

947	952	5	Sandstone, light-gray, fine 70%; black shale and coal 30%
952	958	10	Shale and siltstone each about 40%; and limestone, 20%;
			all gray
958	977	19	Sandstone, white, medium-grained; with 10 to 20% of
			dark-gray shale
977	989	12	Shale, gray, soft, slightly calcareous, 70% fine
			white sandstone, 30%
989	1021	32	Sandstone, white, medium-grained; four of the eight
			samples contain about 15% of shale (water, 1 bailed
			per hour at 1015')
1021	1036	5	Sandstone, nearly white, coarse
1036	1038	7	Sandstone, white, broken fine, 60% calcareous shale, 40%

Kepach Chuguk Group, 300' foot

1038	1047	14	Shale and siltstone, gray, calcareous and dolomitic; carbonate seems to be partly dolomite in sample 1038 to 1039 and about all dolomite in sample 1039 to 1047 (some water, 1038 to 1039)
1047	+ 1071	24	Shale, red, slightly calcareous; bright-red to 1056' and mixed with gray below that
1071	1078	4	Sandstone, white, fine
1078	1079	4	Sandstone, gray, fine to very fine; with about 20% of gray limestone and a little shale
1079	1084	5	Shale, gray, 80% calcareous siltstone, 20%
1084	1094	10	Shale, red, with some gray, calcareous
1094	1101	7	Shale, grayish-green
1101	1107	6	Shale, red
1107	1110	3	Sandstone, light-green, very fine, calcareous; contains mica and chlorite
1110	1204	94	Shale, red, dolomitic; a little fine-textured dolomitic limestone in samples from 1141 to 1143 and 1199 to 1204'
1204	1208	4	Siltstone, gray, dolomitic
1208	1214	6	Shale, red, dolomitic
1214	1224	10	Siltstone, gray, partly calcareous
1224	+ 1236	18	Siltstone, gray, 50% gray shale 50% gray limestone, 20%
1236	1243	7	Shale, gray

Top Bottom Thickness

1245	1251	8	Siltstone, light-green; with some red and gray shale
1251	1276	26	Shale, red, silty, micaceous, dolomitic
1276	1281	6	Shale, red and gray, dolomitic
1281	1291	10	Siltstone, gray
1291	1301	10	Sandstone, light-gray, very fine, 50% gray, shaly siltstone, 50%
1301	1312	11	Siltstone, gray
1312	1340	36	Shale, gray, partly silty
1340	1376	30	Limestone, dark brownish gray with a few white spots (Little Mine)
1376	1392	14	Shale, gray, highly calcareous ("Pencil Cave" or Lillydale Shale from 1376 to 1417)
1392	1408	11	Siltstone light-gray, highly calcareous, 60% gray shale 30%; smooth, fine-textured limestone, 10%
1408	1417	16	Shale, gray, calcareous, with some siltstone at top
<u>Greenbrier Limestone 215 feet</u>			
1417	1437	20	Limestone, very dark-gray, fossiliferous; some gray shale at top
1437	1445	8	Limestone, gray, oölitic, fossiliferous
1445	1460	45	Limestone, light-brown, nearly gray when dry; several samples contain some oölites, which do not show plainly because of being thoroughly cemented together
1460	1497	9	Limestone, light yellowish-gray, oölitic, slightly sandy
1497	1503	66	Limestone, light brownish gray, somewhat sandy; oölitic from 1540 to 1563
1503	1607	47 ⁷	Limestone, gray with a little red; sample 1563 to 1670 is distinctly sandy and oölitic; the rest is only slightly sandy with few oölites
1607	1622	15 ⁵	Limestone, light-gray, oölitic, somewhat sandy; sand is nearly all fine to very fine; sample from 1619 to 1622 is somewhat dolomitic and oölites are indistinct
1622	1632	10	Limestone, light-gray, dolomitic, more distinctly crystalline than limestone above

Top Bottom Thickness

Pecos Formation, 40+ feet

1632	1640	8	Sandstone, mixed red and light-gray to green; a few pieces of darkened material which seems to be largely hematite (show of gas at 1632)
1640	1664	24	Sandstone, light-gray with some green spots, medium- to fine-grained; mostly broken fine; grains are angular; not calcareous except for limestone fragments from above (gas at 1668)
1664	1679	15	Sandstone, light-gray, medium-grained, like that above, 50% green, very fine sandstone in small chips, 50%
1679	1698	19	Sandstone, red and green, very fine; cement appears to be micaceous
1698	1706	7	Shale, red and gray; with some siltstone
	1708		Total depth, 64.6 ft before shot
	1711		Total depth, 64.6 ft after column cut