

SEP 3:0 State of West Virginia Division of Environmental Protection Section of Oil and Gas WV Division at

Findrenmental Protection well Operator's Report of Well Work

Farm name: HORNBECK, LEMUEL V.

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Operator Well No.: HORNBECK #2

LOCATION:

Gladesville 7.5' Quadrangle:

District: CLINTON

Elevation: 1995'

District: CLINTON County: MONONGALIA Latitude: 11,620 Feet South of 39 Deg. 30 Min. 00 Sec. Longitude 1,720 Feet West of 79 Deg. 52 Min. 30 Sec.

Company: MID-PENN ENERGY CORPORATI 434 BEAVER STREET Casing | Used in Left Cement SEWICKLEY, PA 15143-0000 Fill Up| Tubing | Drilling in Well|Cu. Ft. Agent: Size Inspector: RANDAL MICK sanded Permit Issued: 04/22/93 11-3/4" Well work Commenced: 04/26/93 Well work Completed: 04/29/93 Verbal Plugging 8-5/8" 733' 733' 175 sx Permission granted on: Rotary X Cable Total Depth (feet) 4-1/2" 2201.381 2201.381 190 sx Fresh water depths (ft) None Salt water depths (ft) Is coal being mined in area (Y/N)? N Coal Depths (ft): 152', 400'

OPEN FLOW DATA

Bayard, Fifth sand ** see
Producing formation Upper Devonian 4th sand & Pay zone depth (ft) below Gas: Initial open flow _O - MCF/d Oil: Initial open flow _O - Final open flow 1361 MCF/d Final open flow _O - O -Bb1/d Final open flow ______ Bbl/d Time of open flow between initial and final tests -0-Static rock Pressure 400 _psig (surface pressure) after Hours Second producing formation

Second producing formation Pay zone depth (ft) Gas: Initial open flow MCF/d Oil: Initial open flow Bb1/d Final open flow MCF/d Final open flow Time of open flow between initial and final tests Bbl/d Hours Static rock Pressure____ __psig (surface pressure) after

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

**2085-2091' Bayard 1888-1898 For: MID PENN ENERGY 4th sand CORPORATION

1734-1744 5th sand IM6 Reviewed.

Shannon S. Johnson, President By:

June 30, 1993 Date:

Recorded

Perforated Bayard sand w/ 15 shots using hollow steel carriers (2085-2091'). Fraced w/ 10# linear gel (14,830 gallons) and 140 sx 20/40 Ottowa sand. Maximum concentration 2-PPG-4SIP 000 psig. Average injection rate 18 BPM. Average treating pressure 1800 psig. HHP 794.

Perforated 5th sand w/ 22 shots using hollow steel carriers (1888-1898'). Fraced 5th w/ 15,270 gallons 10# gel and 140 sx 20/40 Ottowa sand. Average injection rate 18 BPM. Average pressure 2000 psig. Maximum sand concentration 2 PPG. ISIP 1500 psig.

Perforated 4th sand w/ 34 shots using hollow steel carriers as follows: 1720-1730' (12 holes) and 1734-1744' (22 holes). Fraced formation w/ 29,410 gallons 30# premix gel and 434 sx 20/40 Ottowa sand. ISIP 1100 psig. Average treating pressure 1825 psig. Average injection rate 26 BPM. Maximum sand concentration 3 PPG. HHP 1163.

| Formation Sand Concentration S 11 | <u>Top</u> | Bottom | Comments |
|-----------------------------------|--------------|---------------|------------|
| Dirt & gravel | 0 | 15 | |
| Coal, black shale | 15 | 18 | |
| Shale | 18 | 32 | |
| Sandstone | 32 | 48 | |
| Sandy shale | 48 | 138 | |
| Shale | 138 | 142 | |
| Dark shale & coal | 142 | 142 | |
| Sand | 142 | 160 | |
| | 160 | 195 | |
| Sandy shale Shale | 195 | 214 | |
| Sand | 214 | 214 | |
| Shale, dark & coal | 220 | 224 | |
| Sand | 224 | 240 | |
| Shale, sandy | 240 | 266 | |
| Shale | 266 | 275 | |
| Dark shale, coal | 275 | 284 | |
| Shale, sandy | 284 | | • |
| Shale | 313 | 313 322 | |
| Sandstone | 322 | 363 | |
| Shale | | | |
| | 363 | 388 | |
| Sandstone Shale | 388 | 451 | |
| | 451 600 | 600 | |
| Lime | 600 | 850 | |
| Dark shale | 975 | 982 | |
| Lime | 982 | 1015 | |
| Sandstone | 1015 | 1019 | |
| Sandy shale | 1019 | 1028 | • |
| Shale | 1028 | 1142 | |
| Sandstone Shale | 1142 | 1159 | |
| Sandstone | 1159 1180 | 1180 | |
| Shale | 1198 | 1198 | |
| Sandstone | 1266 | 1266 1366 | |
| Shale | 1366 | 1466 | |
| Sandstone & shale | 1466 | 1648 | Sg @ 1469' |
| Shale & siltstone | 1648 | 1689 | 3y @ 1403 |
| Sandstone (4th sand) | 1689 | 1757 | Sg |
| Shale & siltstone | 1757 | 1885 | Sy |
| Sandstone S 45 | 1885 | 1904 | |
| Shale | 1904 | 2076 | |
| Sandstone Bayand | 2076 | 2099 | |
| Shale | 2099 | 2506 TQ | |
| DF 424 | | | |
| DFT H23 | | | • |
| UH 1100 | | | |

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061-1107 Issued 4/22/93

32255 @ 368

FORM WW-2B

Well Operator: Mid-Penn Energy Corporation

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Permitting

Per

| 2) Oper | ator's Well | Number: | Hornbeck : | #2 | 3) Ele | evation: | | |
|---|----------------------------------|------------|-------------------|-----------------|---------------|--------------------|--|--|
| 4) Well | type: (a) | 0il_/ | or · Gas | | | | | |
| (b) If Gas: Production/ Underground Storage/ Deep/ ShallowXX/ | | | | | | | | |
| 5) Prop | osed Target | Formation | (s): Upper | r Devonian 4th | n sand | | | |
| 6) Prop | Proposed Total Depth: 3,000 feet | | | | | | | |
| 7) Appr | oximate fres | sh water s | trata dept | hs: None | | P | | |
| 8) Appr | oximate sal | t water de | pths: None | 9 | | | | |
| 9) Appr | oximate coal | l seam dep | ths: 150' | , 186', 206' | | | | |
| 10) Does | land contai | in coal se | ams tribut | ary to acti | ve mine? Ye | es/ No_XX/ | | |
| 11) Prop | osed Well Wo | ork: Drill | and complet | te Upper Devor | nian 4th sand | | | |
| 12) | | | | | | | | |
| | | CASIN | G AND TUBI | NG PROGRAM | | · | | |
| TYPE | | SPECIFICAT | IONS | FOOTAGE IN | ITERVALS | CEMENT | | |
| | Size | Grade | Weight per ft. | For drilling | Left in well | Fill-up (cu. ft.) | | |
| Conductor | 11-3/4" | LS | 36# | 40' | 40' | sanded in | | |
| Fresh Wat | er | | | | | | | |
| Coal | 8–5/8" | ERW | 20# | 700' | 700 ' | cement to surface | | |
| Intermedi | ate | | | | | | | |
| Production | n 4-1/2" | J | 10.5# | 2500 ' | 2500' | cement to 1400' | | |
| Tubing | | | | | | | | |
| Liners | | | | | | | | |
| PACKERS : Kind | | | | | | | | |
| Sizes | | | | | | | | |
| For Divison of Oil and Gas Use Only | | | | | | | | |
| Fee(s) paid: Well Work Permit Reclamation Fund WPCP | | | | | | | | |
| Plat WW-9 WW-2B Bond | | | | | | | | |

| | | | | | | Aug. 1000 |
|----------------------|--|--|--|--|--|--|
| Page | 1 of | RECEIVE | • | 1) | Date: | April 20, 1993 |
| LOLIII | WW2-A 87) | and the second s | | 2) | Operator | 's well number |
| | • | • | • | 3) | API Well | No: 47 - <u>061 - 1107</u> |
| | | APR 2 2 92 | | J , | ALL WCII | State - County - Permit |
| | | , f | | | | _ |
| | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | STATE OF | ಬದ್ದು | VIDCINIA | |
| | | DEDARTMENT | OF EMERGA | MEDI. | TINGINIA | OIL AND GAS |
| | • | DEFARINERI | OF ENERGI | ., DI | VISION OF | OIL AND GAS |
| | | NOTICE AND | APPLICATI | ON F | OR A WELL | WORK PERMIT |
| 4) | Surface C | wner(s) to | be served: | | | oal Operator: |
| | | Lemuel V. Ho | | | Name | |
| | | Rt. 9, Box 1 | | | Address . | |
| | | Morgantown, | | | | |
| | (b) Name | | · · · · · · · · · · · · · · · · · · · | | (b) Coal | Owner(s) with Declaration |
| | Address | | | | Name | Lemuel V. Hornbeck |
| | | | | | | Rt. 9, Box 141B |
| | (c) Name | | | | | Morgantown, WV 26505 |
| | Address | | | | Name | |
| | - | | | | Address | |
| | | | | | | |
| 6) | Inspector | Randal Mic | k | | (c) Coal | Lessee with Declaration |
| - , | Address | 111 Blacks | here Drive | | | |
| | | Mannington | . WV 26582 | | Address | |
| | Telephone | (304) - 986 | -3324 | | Address . | |
| | rerephone | (304) | 332 1 | | | |
| Sect I ha | racts by ward included ion 8(d) of a certify we served mpanying of a certify C | which I hold is the info of the Code of that as recopies of the Code of the Co | the right rmation re of West Vi quired und his notice ges 1 throw (Postmarke | to equir irgin ler C e and ough vit a ed po | extract o ed by Chap ia (see pa hapter 22) applicat on the ttached) stal rece | B of the West Virginia Code ion, a location plat, and e above named parties, by: |
| fami atta resp | he terms a I certify liar with chments, a onsible for | and condition under pend the information that bas or obtaining tate, and co | ns of any lty of law tion submi ed on my inthe informplete. | permy than the distribution of the distributio | it issued t I have p on this a ry of thos on, I bel | 38 CSR 11-18, and I agree under this application. personally examined and am application form and all se individuals immediately ieve that the information ties for submitting false |
| info | rmation i | including th | a noseihil | 4 | de fina | nd imprisonment. |
| | | | | | | Energy Corporation |
| E | Notarial Seal Ilen J. Lowen, Notary | Pittin | - | | | |
| I Sev | VICKIEV Born Allenhon | N/County I | By: | | Fresident | , Shannon S. Johnson |
| | ommission Expires Ap | • | Address | | 434 Beaver | Stopet |
| Member, | Pennsylvania Associa | tion of Notaries | waaress — | | | |
| | | | Telephone | | <u>Sewickley, 1</u> (412) 741-70 | |
| Sub- | orihad | | Telephone | 20+1 | | |
| 2 4 D 2 | rined auc | sworn befo | re we this | 200 | $\overline{\mathbf{r}}$ day or. | <u>April</u> , 19 <u>93</u> |
| | | | ير | 000 | X X | 77.10 |
| W | | | | <u> </u> | ~ 1.010 | Notary Public |
| му С | ommission | expires | April 24, 1 | 995 | | Control of the Contro |