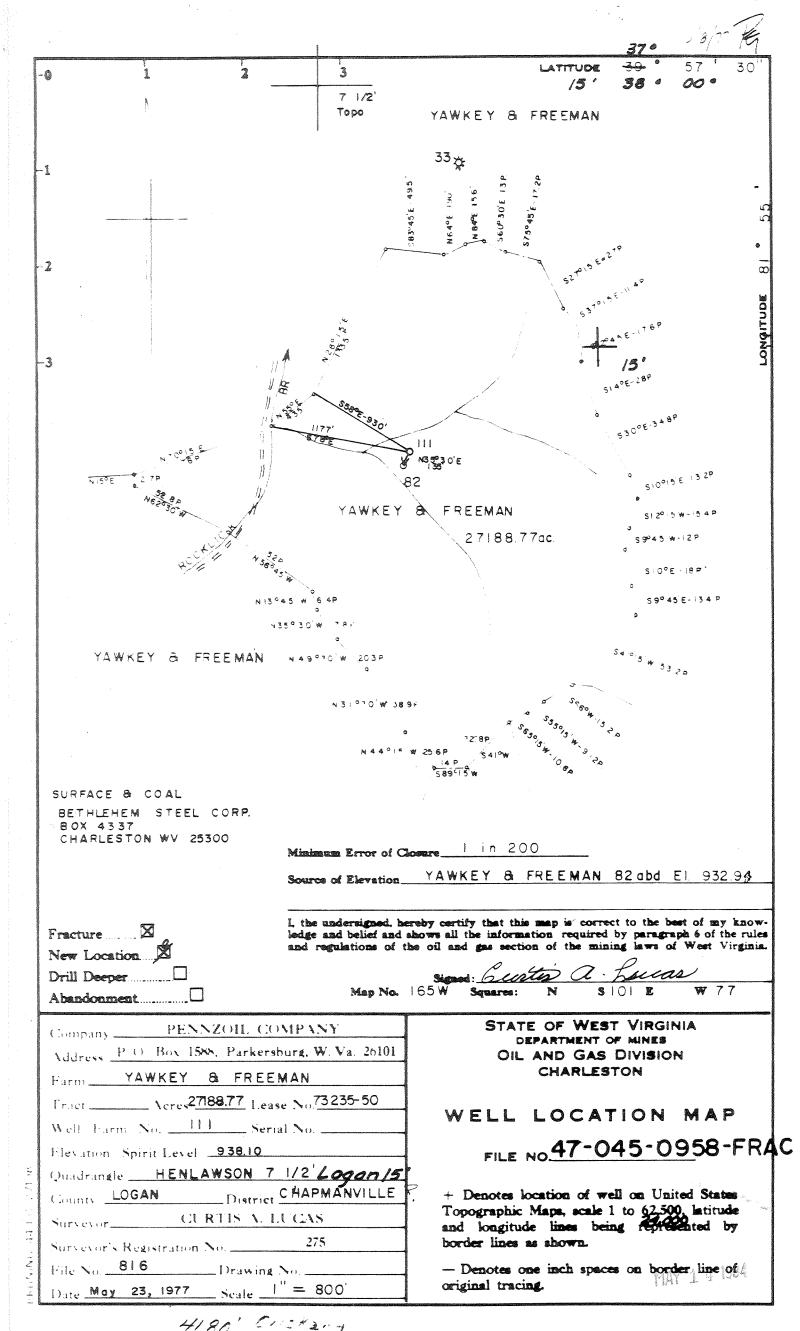
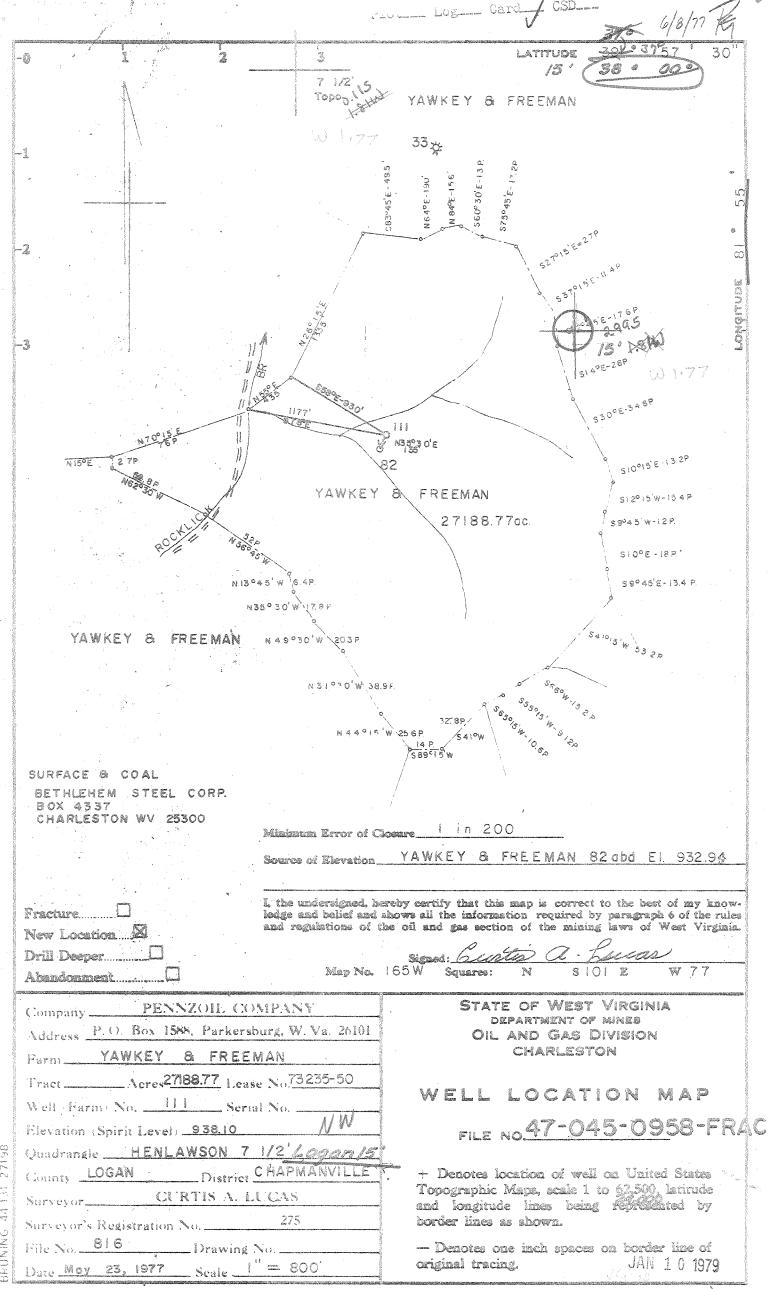


4180' CHORANY DEEP WELL

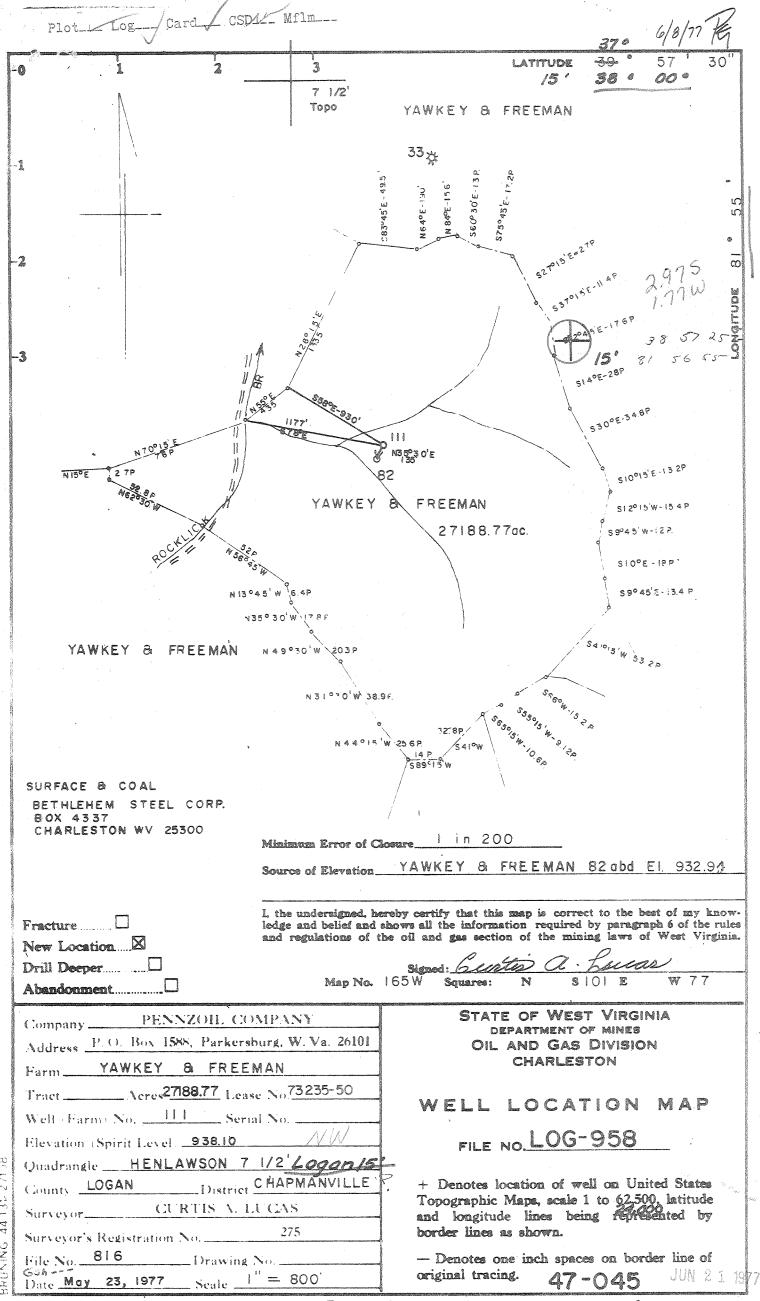




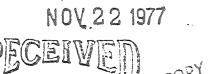
419A' OHSKany

DEEPWELL 3-

Curry Ithrey (246)



DEEP WELL 4180' CHISKANY3-0 CURRY JEFFREY



NOV 3 - 19770 FFICE

STATE OF WEST VIRGINIA GAS EVISION NOV 3 - 19/1071.

DEPARTMENT OF MINES OF LABOR OF MINES

Oil and Gas Division

| | ` | VV ELL | RECORD | Rotary A | Oil |
|--------------------------|---|--------|--------|-------------|---------|
| | | | | Cable | Gas |
| Quadrangle Henlawson Qd. | | | 4 | Recycling | Comb. |
| Permit No. Log-958 | | | | Water Flood | Storage |
| remmt No | | | | Dispesal | (Kind) |
| | | | | | |

| | | £ | (o | |
|---|------------------------|------------------|-----------------|--|
| Company PENNZOIL COMPANY Address P. O. Box 1588, Parkersburg, W. Va. Farm Yawkey-Freeman Acres 27, 188.77 | Casing and 26101. | Used in Drilling | Left in Well | Cement fill up Cu. ft. (Sks.) |
| Location (waters) Lick Br. of Garrett Fork Well No. 111 Elev. 938.10 District Guyan County Logan | Size 20-16 Cond. | | | |
| · · · · · · · · · · · · · · · · · · · | 13-10" | 52 | 52 | 60 sks. |
| Bethlehem Steel Corp. | 9 5/8 | 412 | 412 | 300 sks. |
| Address P.O.Box 4337, Charleston, W. Va. | 8 5/8 | | | |
| Mineral rights are owned by Wm. A. Gardner | 7 | 2029 | 2029 | 120 sks. |
| Address Suite 100, 5330 S. Third S | t5 1/2 | | | £ |
| Drilling Commenced 6-23-77 Louisville, KY | •4 1/2 | | | Constant of the Constant of th |
| Drilling Completed 7-4-77 | 3 | | | |
| Initial open flow 19,000 cu. ft. bbls. | 2 | | | Some edition |
| Final production cu. ft. per daybbls. | Liners Used | | | To Opposite the Control of the Contr |
| Well openhrs. before test RP. | | | | |
| 687 at | | | _ | |

Well treatment details: Attach copy of cementing record.

7-2-77 Shot w/18,050# 80% nitroglycerin gel 2326-4135 w/8000# pea gravel--detonated Shut in without pipeline connection

Coal was encountered at _ Inches Fresh water_ Feet. _Salt Water__ _ Feet _ Producing Sand_ Depth _

| Formation Color Hard or Soft | Top Feet | Bottom Feet | Oil, Gas or Water | * Remarks |
|------------------------------|-------------|-------------|-------------------|-----------|
| Substructure | 0 | 10 | | |
| Sand | 10 | 46 | | |
| Shale | 46 | 162 | | |
| Sand | 162 | 226 | | |
| Shale | 226 | 248 | | |
| Sand | 248 | 458 | | |
| Shale | 458 | 472 | | |
| Sand | 472 | 498 | | |
| Shale | 498 | 550 | | |
| Sand | 550 - | 568 | | |
| Shale | 568 | 596 | | |
| Salt Sand | 596 | 686 | | |
| Shale | 68 6 | 691 | | |
| Salt Sand | 691 | 776 | | |
| Shale | 776 | 966 | | |
| Sand | 966 | 986 | | • |
| Shale | 986 | 1112 | | |
| Sand | 1112 | 1130 | | |
| Shale | 1130 | 1137 | | |
| Little Lime | 1137 | 1192 | | |
| Pencil Cave | 1192 | 1196 | • • | |
| Big Lime | 1196 | 1383 | | |
| McCrady Shale | 1333 | 1435 | | |
| Big Injun | 1435 | 1477 | | |
| | 1 | | | |

(over)

* Indicates Electric Log tops in the remarks section.

| | * | | |
|---|--|--|--|
| Formation Color Hard or Soft | Top Feet 25 | Bottom Feet | Oil, Gas or Water |
| Shale Wier Shale Coffee Shale Berea Shale Marcellus Shale Onondaga Lime | 1477 1555 1610 1911 1934 1955 3990 • | 1555 1610 1911 1934 1955 3990 4018 4135 | |
| Total Depth | reference de constitue de const | 4135 | |
| | The state of the s | | |
| • | | • | |
| | | | |
| | | | mental to the state of the stat |
| | | | |
| | - | | |
| | | | |
| | | | |
| | distribution of the state of th | - | |
| | | ender describerations describe | |
| | | | |
| | | | |

Date November 2, 77 APPROVED PENNZOIL COMPANY

Billetio G. Lecar



STATE OF WEST VIRGINIA DEPARTMENT OF MINES

PECEIVED NOV 3 - 1977

OIL & GAS DIVISION DEPT. OF MINES

Oil and Gas Division

| Quadrangle Henlawson Qd. Permit No. Log-958 | RECORD 2 | S | Cable Recycling | Oil Gas Saw Comb. Storage (Kind) |
|--|--|--|--------------------|----------------------------------|
| Company PENNZOIL COMPANY Address P. O. Box 1588, Parkersburg, W. Va. Farm Yavkey-Freeman Acres 27, 188.7 | 3 2 3 574 4 575 579 | Used in Drilling | Left in Well | Cement fill up Cu. ft. (Sks.) |
| Location (waters) Lick Br. of Garrett Fork Well No. 111 Elev 938.10° District Guyan County Logan | Size 20-16 Cond. | Committee and the committee of the commi | | |
| The surface of tract is owned in fee by | 13-765, | 52 | 52 | 60 sks. |
| Bethlehem Steel Corp. | 9 5/8 | 412 | 412 | 300 sks. |
| Address P.O.Box 4337. Charleston, W. Va. | 8 5/8 | All Sirk Antiller on Shield Strokenson the Opposite Stroke Stroke | | |
| Mineral rights are owned by Wm. A. Gardner | 7 | 2029 | 2029 | 120 sks. |
| Address Suite 100, 5330 S. Third | | ett että tiin tenattyvista ankinnista päymitty viitaksi ettamisen yy en | | |
| Drilling Commenced 6-23-77 Louisville, K | Y • 4 1/2 | Application of the control of the co | | |
| Drilling Completed 7-4-77 | The state of the s | A HARMONIA PROGRAM PROCESSOR AND A STATE OF THE STATE OF | | |
| Initial open flow 19.000 cu. ft. bbls. | 2 | | | |
| Final production cu. ft. per daybbis. | Liners Used | actelutanteetoro, o consenso a popularimo a popularimo a popularimo a popularimo a popularimo a popularimo a p | | |
| Well openhrs. before testRP. Well treatment details: 7-2-77 Shot w/18,050# 80% nitroglycerin g Shut in without pipeline connection | Attach copy of c | | | detonated |
| | ender (1.545 p. andrei de Constante (1.555 p. andrei angre angre angre angre angre angre angre angre angre ang Sentengan pangre angre | HAROS STORMS BEST STORMS OF RESERVOIS AND ASSESSMENT OF THE SECOND STORMS OF THE SECOND STORM | * | |
| | | | | |
| | anthropological and the contraction of the contract | Market NO Chicago Company of the Com | | |
| Coal was encountered atFeetFeetFeetFeetFeetFeetFeetFeetFeetFeetFeetFeetFeetFeetFeetFeetFeetFeetFeet | | | | Feet |

| Formation Color | Hard or Soft | Top Feet | Bottom Feet | Oil, Gas or Water | * Remarks |
|-----------------|--------------------------------|----------|-------------|-------------------|--|
| Substructure | | 0 | 10 | | |
| Sand | | 10 | 46 | | |
| Shale | | 46 | 162 | | |
| Sand | | 162 | 226 | | |
| Shale. | | 226 | 248 | | |
| Sand | | 248 | 458 | | |
| Shale | | 458 | 472 | | |
| Sand | | 472 | 498 | | |
| Shale | | 498 | 550 | | |
| Sand | | 550 | 568 | | |
| Shale | | 568 | 596 | | |
| Salt Sand | | 596 | 686 | • | |
| Shale | | 686 | 691 | | |
| Salt Sand | | 691 | 776 | | |
| Shale | | 776 | 966 | | |
| Sand | | 966 | 986 | | |
| Shale | | 986 | 1112 | | |
| Sand | | 1112 | 1130 | | |
| Shale | | 1130 | 1137 | | |
| Little Lime | er e e e e e e e e e e e e e e | 1137 | 1192 | | |
| Pencil Cave | | 1192 | 1196 | | |
| Big Lime | | 1196 | 1383 | | |
| McCrady Shale | | 1333 | 1435 | | |
| Big Injun | A Maria de Paris. | 1435 | 1477 | | |
| | · · · | (OVP | | | De Antonio Control Statem e servico, maior amo e mopo, e es presente de entre de antonio de Composições de Antonio |

(over)

^{*} Indicates Electric Log tops in the remarks section.

| Formation Color | Hard or Soft | Top Feet 25 | Bottom Feet | Oil, Gas or Water * Remarks |
|---|--------------|--|--|-----------------------------|
| Shale Wier Shale Coffee Shale Berea Shale Marcellus Shale Onondaga Lime | | 1477 1555 1610 1911 1934 1955 3990 4018 | 1555 1610 1911 1934 1955 3990 4018 4135 | |
| Total Depth | | | 4135 | |
| | | | | |
| | | | | |
| | | | | |
| | | | | 4018 939 -3080 |
| | | | e e e e e e e e e e e e e e e e e e e | |
| | | | | |
| | | | | |
| | | | | |

Date November 2,

APPROVED PENNZOIL COMPANY



| 1) | Date: | April | 16 | | 19 <u>84</u> |
|----|-------|-------|----|--|--------------|
|----|-------|-------|----|--|--------------|

2) Operator's Well No. Yawkey-Freeman #111

3) API Well No. 47 - 045 - 0958-FRAC

State County Permit

STATE OF WEST VIRGINIA DEPARTMENT OF MINES, OIL AND GAS DIVISION APPLICATION FOR A WELL WORK PERMIT

| | PE: A C | | | | | | | | |
|--|---|--------------------|--|-----------------|--|---------------------|--|---|--|
| | B (| If "Gas", | Productio | n | _X | / Underground | storage | / Deep | _/ Shallow/) |
|) LOCATIO | N: Ele | evation: _ | 938 | _10_ | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | Watershed: _ | Lick Br | anch of Garre | tt Fork |
| | Di | strict: <u>C</u> l | ıa pman | ville | 2 | County: | _Logan | Quadrangle: | <u>Henlawson</u> |
|) WELL OPE | ERATOR. | P6 | ⊇nnzoi | I_Cor | npany | | 7) DESIGNATE | D AGENTJ | ames A. Crews |
| Address | | P_ | OB | ox l' | 88 | | Address | P | 0. Box 1588 |
| - | | Pē | ırkers | burg | WV | _26101 | | Pa | arkersburg, WV 26 |
| OIL & GAS | S INSPEC | | | | | | 9) DRILLING C | ONTRACTOR: | |
| Name | | <u> </u> | <u>thur S</u> | t. C | air | | Name | | |
| Address | | Р. | 0. Bo | x_{157} | 7 | | Address | | |
| | | Bre | enton. | W. | /a | 24818 | | | 200000000 |
| PROPOSEI | D WELL | WORK: | Drill | | _/ Drill | deeper | / Redrill | Stimula | F GELVIFIII |
| | | | | | | • | rate new formation | 1 3 4 1 | |
| | | | - | | | | | 1 2 1 10 | 1 .00 1 0 109.5 |
| GEOLOGIC | CALTAR | GET FOR | • | • | • | | le | | AVKISIM |
| | | | | | | 5feet | | | IL & GAS DIVISION |
| | | - | | | | _ | | foot | IL & GAS DITTO |
| 14) Approx | vimate coa | il seam den | the | | *************************************** | Is co | al hains minad in th | e orang Van DE | PT. OF MINES |
| CASING A | ND TUR | NG PRO | GRAM | | *************************************** | 13 00 | oar oching minica mi tii | carea: res | PT. OF MINES |
| ASING OR | II | | OK IVI DIFICATION | | 58 | | INTERVALS | | |
| JBING TYPE | | I | Weight | 8 | | | 1 | CEMENT FILL-UP OR SACKS | PACKERS |
| _ | Size | Grade | per ft. | New | Used | For drilling | Left in well | (Cubic feet) | |
| ductor | 1356 | | | <u> </u> | | | 9,2 | 60 SKS. | Kinds |
| h water | 7-10 | | | | - | | 412 | 300 SKS. | |
| <u>:</u> | 90 | | | | | | 2000 | 10000 | Sizes |
| rmediate | -/ - | | | - | | | 2029 | 120 SKS | |
| luction | | ļ | | <u> </u> | - | | | | Depths set |
| ing | 4-1/2 | - VEE | - | , | | 7.070 | 0500 | | |
| rs Poling Cally | 4-1/2 | K55 | 9.5 | X | | 1979 | - 3500 | | Perforations: |
| | | <u> </u> | | | ├ | | | into 7" csg | Top Bottom |
| | | | | | | | | | |
| | 1 | <u> </u> | L | <u> </u> | <u> </u> | | | <u>II</u> | |
| | | | | | | | | | |
| | *************************************** | | | | | OFFICE LIGE | ONT 1/ | | |
| | | | | | | OFFICE USE (| | | |
| | | | | | j | DRILLING PE | KMII | • | |
| nit number | 47- | <u>045-09</u> | 58 | | | | | Mav 4. | 19 84 |
| | | | | | | | | Date | |
| permit cover | ring the w | ell operato | or and well | l location | n shown | below is evidence | of permission grant | ed to drill in accordant | ce with the pertinent legal re- |
| | ct to the c | onditions c | contained | herein a | ind on the | reverse hereof. No | otification must be g | iven to the District Oil | and Gas Inspector, (Refer to |
| ements subjec | ie constru | ction of ro | ads, locat | ions and | l pits for | any permitted work | ر. In addition, the w | ell operator or his cont | tractor shall notify the proper |
| ements subject 8) Prior to th | is inspecto | 1 27 110410 | | | | | | | |
| ements subject 8) Prior to the diction of the dict | as inspecto | ** 1 * | | e and A | pplication | n, plat, and reclam | ation plan, subject t | o any modifications ar | nd conditions specified on the |
| ements subject 8) Prior to the cict oil and gate permitted wo | as inspecto | escribed in | me Nome | | | | | | |
| ements subject 8) Prior to the sict oil and gate permitted wo rse hereof. | as inspecto | | | | | unless wall | work is somman | neige to that data and | management with the state of the state |
| ements subject 8) Prior to the rict oil and ga | is inspecto ork is as de | | | | · · · · · · · · · · · · · · · · · · · | unless well | work is commenced | prior to that date and p | prosecuted with due diligence. |
| ements subject 8) Prior to the rict oil and gas permitted wo berse hereof. | is inspecto ork is as de | 4, 19 | 86 | | | unless well | work is commenced | prior to that date and p | prosecuted with due diligence. |
| ements subject 8) Prior to the rict oil and gate permitted wo arse hereof. | is inspecto ork is as de | 4, 19 | | Casin | <u>ş</u> | unless well | work is commenced | prior to that date and p | prosecuted with due diligence. |
| ements subject 8) Prior to the cict oil and gar permitted worse hereof. | ns inspectors is as de May | 4, 19 | 86 | | | Fee | work is commenced | prior to that date and | prosecuted with due diligence. |
| ements subject 8) Prior to the cict oil and gar permitted worse hereof. | ns inspectors is as de May | 4, 19 | 86 | | | | work is commenced | prior to that date and | prosecuted with due diligence. |
| ements subject 8) Prior to the cict oil and gar permitted worse hereof. | ns inspectors is as de May | 4, 19 | 86 | | | Fee | T | prior to that date and prior to the | |

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.

File





Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

| TO THE DEPARTMENT OF MINES, | | | |
|--|--|--|---|
| Charleston, W. Va. | D | ATE December 7, | 1978 |
| Surface Owner Bethlehem Steel Cor | <u>p.</u> C | ompany PENNZOIL COM | PANY |
| Address P. O. Box 4337, Charleston, | WV 25304 A | ddress P. O. Box 158 | 8, Parkersburg, WV 26101 |
| Mineral Owner Wm. A. Gardner | | | Acres27,188.77 |
| Address Suite 100, 5330 S. Third St | | | |
| Coal Owner | 7/ | | Elevation 938.10 |
| Address | | | County Logan |
| Coal Operator <u>Bethlehem Steel Co</u> | | | • |
| J. F. Wildey, Mgr. P. O. Box 4337 | | | |
| | | | |
| THIS PERMIT MUST BE POSTED SEPTEMENT WELL 2 | 5304 | | |
| All provisions being in accordance with Chapter | | A. 1.515 | |
| of the W. Va. Code, the location is hereby appro- | INSPI | ECTOR Ar | thur St. Clair |
| or <u>fracturing</u> . This permit shall expir | TO BE | E NOTIFIED | |
| perations have got commenced by 4-23-79 | '● #『 ADDRI | Brenton, | W.Va. |
| The state of the s | noods/sto. § | | |
| and the second s | PHONE | ₃ 732–6227 | |
| Deputy Director - Oil & Gas Division GENTLEMEN: | | | |
| The undersigned well operator is entitled to | drill upon the abo | ve named form or treat of | lond for all and a state of |
| title thereto, (or as the case may be) under gra | | | |
| | | | |
| Coal Co. made to South Pen | 5 | and recorded on the _ _ 427 | day of |
| | | | |
| NEW WELLDRILL I | DEEPER | REDRILL X | |
| OIL AND GAS WELL ORIGINAL | | | FRACTURE OR STIMULATE |
| | LY DRILLED BE | | FRACTURE OR STIMULATE |
| The enclosed plat was prepared by a register have been notified as of the above date. | | FORE JUNE 5, 1969. | |
| The enclosed plat was prepared by a register have been notified as of the above date. The above named coal owners and/or operate to make by Section 3 of the Code, must be received. | ed engineer or lice | FORE JUNE 5, 1969. ensed land surveyor and a | ll coal owners and/or operators |
| The above named coal owners and/or operate to make by Section 3 of the Code, must be rece Copies of this notice and the enclosed plat wor coal owners at their above shown respective | or are hereby notifice the control of the control o | FORE JUNE 5, 1969. ensed land surveyor and a second second second surveyor and a second seco | wish to make, or are required nes within ten (10) days. * the above named coal operators |
| The above named coal owners and/or operate to make by Section 3 of the Code, must be received to this notice and the enclosed plat we | or are hereby notification or are hereby notification of the decided by, or filed were mailed by regis address | ensed land surveyor and a set that any objection they with the Department of Mittered mail, or delivered to day day ent of Mines at Charleston | wish to make, or are required nes within ten (10) days. * the above named coal operators before, or on the West Virginia. |
| The above named coal owners and/or operate to make by Section 3 of the Code, must be rece Copies of this notice and the enclosed plat wor coal owners at their above shown respective | or are hereby notifice ived by, or filed we registed by registed by the Department of the Department o | ensed land surveyor and a seed that any objection they with the Department of Mittered mail, or delivered to day day day truly yours, PENNZOIL | wish to make, or are required nes within ten (10) days. * the above named coal operators before, or on the West Virginia. |
| The above named coal owners and/or operate to make by Section 3 of the Code, must be rece Copies of this notice and the enclosed plat wor coal owners at their above shown respective same day with the mailing or delivery of this co | or are hereby notifice ived by, or filed we registed by registed by the Department of the Department o | ensed land surveyor and a seed that any objection they with the Department of Mittered mail, or delivered to day lent of Mines at Charleston truly yours, PENNZOIL | wish to make, or are required nes within ten (10) days. * the above named coal operators before, or on the West Virginia. COMPANY |
| The above named coal owners and/or operate to make by Section 3 of the Code, must be received to coal owners at their above shown respective same day with the mailing or delivery of this coefficient of the Copies of the Copies and the enclosed plat we or coal owners at their above shown respective same day with the mailing or delivery of this coefficient of the Copies of the Co | or are hereby notifice ived by, or filed we registed by registed by the Department of the Department o | ensed land surveyor and a seed that any objection they with the Department of Mittered mail, or delivered to day lent of Mines at Charleston truly yours, PENNZOIL Name | wish to make, or are required nes within ten (10) days. * the above named coal operators before, or on the West Virginia. COMPANY perator Curtis A. Lucas, Civil Eng. Dept. |
| The above named coal owners and/or operate to make by Section 3 of the Code, must be received to coal owners at their above shown respective same day with the mailing or delivery of this could be completed. The coal owners at their above shown respective same day with the mailing or delivery of this coal owners at their above shown respective same day with the mailing or delivery of this coal coal coal coal coal coal coal coal | or are hereby notifice ived by, or filed vere mailed by regis address | ensed land surveyor and a seed that any objection they with the Department of Mittered mail, or delivered to day lent of Mines at Charleston truly yours, PENNZOIL Name Well O P. O. Box | wish to make, or are required nes within ten (10) days. * the above named coal operators before, or on the West Virginia. COMPANY perator Curtis A. Lucas, Civil Eng. Dept. |
| The above named coal owners and/or operate to make by Section 3 of the Code, must be received to make by Section 3 of the Code, must be received to make by Section 3 of the Code, must be received to make by Section 3 of the Code, must be received to make by Section 3 of the Code, must be received to make by Section 3 of the Code, must be received to make by Section 3 of the Code, must be received to make by Section 3 of the Code, must be received to make by Section 3 of the above date. Copies of this notice and the enclosed plat we or coal owners at their above shown respective same day with the mailing or delivery of this cooperate. PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO: WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY | or are hereby notificatived by, or filed were mailed by regis address | ensed land surveyor and a seed that any objection they with the Department of Mittered mail, or delivered to day lent of Mines at Charleston truly yours, PENNZOIL Name | wish to make, or are required nes within ten (10) days. * the above named coal operators before, or on the West Virginia. COMPANY perator Curtis A. Lucas, Civil Eng. Dept. |
| The above named coal owners and/or operate to make by Section 3 of the Code, must be received to coal owners at their above shown respective same day with the mailing or delivery of this complete Submit Copies of All Geophysical Logs directly To: | or are hereby notifice ived by, or filed vere mailed by regis address | ensed land surveyor and a seed that any objection they with the Department of Mittered mail, or delivered to day lent of Mines at Charleston truly yours, PENNZOIL Name P. O. Box Street Parkersbu | wish to make, or are required nes within ten (10) days. * the above named coal operators before, or on the West Virginia. COMPANY perator Curtis A. Lucas, Civil Eng. Dept. |
| The above named coal owners and/or operate to make by Section 3 of the Code, must be received to make by Sec | or are hereby notificatived by, or filed were mailed by regis address | ensed land surveyor and a seed that any objection they with the Department of Mittered mail, or delivered to day ent of Mines at Charleston truly yours, PENNZOIL Name P. O. Box Streen | wish to make, or are required nes within ten (10) days. * the above named coal operators before, or on the West Virginia. COMPANY perator Curtis A. Lucas, Civil Eng. Dept. |
| The above named coal owners and/or operate to make by Section 3 of the Code, must be received to make by Sec | or are hereby notificatived by, or filed were mailed by regis address | ensed land surveyor and a seed that any objection they with the Department of Mittered mail, or delivered to day lent of Mines at Charleston truly yours, PENNZOIL Name P. O. Box Street Parkersbu | wish to make, or are required nes within ten (10) days. * the above named coal operators before, or on the West Virginia. COMPANY perator Curtis A. Lucas, Civil Eng. Dept. 1588 et rg, own inia 26101 |

*SECTION 3 If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

BLANCE ELED

47-045-0958-FRAC.

PERMIT NUMBER

THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

| PROPOSED WORK ORDER TO | DRILL | DEEPENA FR. | ACTURE-STIMULATE | | | |
|---|---|--|---|--|--|--|
| DRILLING CONTRACTOR: (If | Known) | RESPONSIBLE AGENT: | | | | |
| NAME | | NAME Pennzoil Company | | | | |
| ADDRESS | | | | | | |
| TELEPHONE | NAMES AND ADDRESS OF THE PARTY | TELEPHONE 422-6565 | | | | |
| ESTIMATED DEPTH OF COMPL | ETED WELL: 4135 | ROTARY | CABLE TOOLSX | | | |
| PROPOSED GEOLOGICAL FORM | IATION: Shale | | | | | |
| TYPE OF WELL: OIL_ | GAS X C | COMB STORAGE | DISPOSAL | | | |
| | | | ODOTHER | | | |
| TENTATIVE CASING PROGRAM | : : | | | | | |
| CASING AND TUBING SIZE | USED FOR DRILLING | LEFT IN | CEMENT FILL UP OR SACKS - CUBIC FT. | | | |
| 20 - 16 : : | | · | 3 3 | | | |
| 13 = 10 | | 52 * | a + | | | |
| 9 - 5/8 | | · 412 *- | | | | |
| 8 - 5/8 | | | | | | |
| 7 | | 2029 * | | | | |
| 5 ½ | | | | | | |
| 4 ½ | | • | | | | |
| 2 | | | Perf. Top | | | |
| Liners | | | Perf. Top | | | |
| | | | Perf. Bottom | | | |
| | | | | | | |
| IS COAL BEING MINED IN THE TO DRILL: SUBMIT FIVE (5) COPIES OF PLAT. TO DRILL DEEPER OR REDRIL SUBMIT FIVE (5) COPIES OF WELLS DRILLED PRIOR TO MUST ALSO BE SUBMITTE TO FRACTURE - STIMULATE: OIL AND/OR GAS WELL OF BOND, PERMANENT PLAT OIL AND/OR GAS WELL OF ING ORIGINAL PERMIT NUT | OF OG - 1, \$100.00 PERMIL L: OF OG - 1, SHOWING ORIG O 1929, A PERMANENT COD. RIGINALLY DRILLED BEFO AND ORIGINAL WELL REC RIGINALLY DRILLED ON A MBER, AND PERFORMANCE | BY WHOM? IT FEE, PERFORMANCE BO INAL PERMIT NUMBER AND OPY OF THE PLAT AND THE OPY | PEET ND AND PERMANENT COPY PERFORMANCE BOND. ON HE ORIGINAL WELL RECORD OPIES OG - 1, PERFORMANCE , FIVE COPIES OG - 1, SHOW- Inspector to be notified twenty- | | | |
| four (24) hours in advance. | | | | | | |
| The following waiver must be thereof. | pe completed by the coal op- | erator if the permit is to be is | sued within ten days of receipt | | | |
| WAIVER: I the undersigned, Agen | | Coal Company, Owner of this proposed well location | | | | |
| We the | Coal Company | have no objections to said we | ll being drilled at this location, Chapter 22 of the West Virginia | | | |
| | | | Top . | | | |
| | | For | r Coal Company | | | |
| • | | | , MAM. | | | |
| | | | Official Title | | | |

Signed by Caccalla Ci-



DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

| TO THE DEPARTMENT OF MINES, | |
|--|--|
| Charleston, W. Va. | DATE May 23, 1977 |
| Surface Owner Bethlehem Steel Corporation | Company PENNZOIL COMPANY |
| Address J. F. Wildey, Mgr., P. O. Box 4337 | Address P. O. Box 1588, Parkersburg, W. Va. |
| Mineral Owner Wm. A. Gardner Charleston, W. Va | Farm Yawkey - Freeman Acres 27,188.77 |
| Address Suite 100, 5330 S. Third Street, | Location (waters) Rock Lick Branch of Garrett For |
| Coal Owner Louisville, Ky. | Well No. 111 * Elevation 938.10* |
| Address | District Chapmanville County Logan |
| Coal Operator Bethlehem Steel Corporation | Ouadranda Henlawson 73° |
| Address J. F. Wildey, Mgr. | |
| • P. O. Box 4337 | |
| Charleston, W. Va. | |
| THIS PERMIT MUST BE POSTED AT THE WELL SITE | en e |
| All provisions being in accordance with Chapter ZNS of the W. Va. Code, the location is hereby approv E0 | BE NOTIFIED Arthur St. Clair |
| for <u>drilling</u> . This permit shall expire if | DRESS Brenton W. Va. |
| operations have not commenced by 10-8-77 | 6 |
| PHO | ONE |
| GENTLEMENeputy Director - Oil & Gas Division | *\$ |
| The undersigned well operator is entitled to drill upon the a | shove named form or tract of land for oil and goe having fee |
| title thereto, (or as the case may be) under grant or lease dat | |
| Coal Co. made to South Penn Oil Co. | |
| 19 in County, Book5 | |
| | and the second s |
| | REDRILL FROTURE OR STIMULATE |
| OIL AND GAS WELL ORIGINALLY DRILLED | BEFORE JUNE 5, 1969. |
| The enclosed plat was prepared by a registered engineer or have been notified as of the above date. | licensed land surveyor and all coal owners and/or operators |
| The above named coal owners and/or operator are hereby no to make by Section 3 of the Code, must be received by, or file | |
| Copies of this notice and the enclosed plat were mailed by reor coal owners at their above shown respective addresssame day with the mailing or delivery of this copy to the Department. | day before, or on the |
| | |
| PLEASE SUBMIT COPIES OF ALL | ery truly, yours, PENNZOIL COMPANY |
| GEOPHYSICAL LOGS DIRECTLY TO: (S | Sign Name) Well Operator Curtis A. Lucas, |
| THOM TITROTATA OPEN COTOAT AND | Civil Eng. Dept. |
| WEST VIRGINIA GEOLOGICAL AND ECONOMIC SURVEY Address | O. BOX 1588 |
| P. O. BOX 879 Of Well Operation 1750 Well Ope | Parkersburg, |
| MORGANIOWN, WEST VINGINIA 20000 | City or Town |
| AC-304 - 292-6331 | West Virginia 26101 |
| | West Virginia Zolot |
| | |
| *SECTION 3 If no objections are filed or found by the Do- | partment of mines, within said period of ten days from the receipt of |
| notice and plat by the department of mines, to said proposed location, the filing of such plat, that no objections have been made by the coal oper and the well operator authorized to proceed. | e department shall forthwith issue to the well operator a permit reciting |
| The state of the s | LOG-958 PERMIT NUMBER |
| "I have read and understand the reclamation requirements as set for | |

THIS IS AN ESTIMATE ONLY ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION

| PROPOSED WORK ORDER TO X DRILL DRILLING CONTRACTOR: (If Known) NAME Ray Bros. ADDRESS | | DEEPENF | DEEPENFRACTURE-STIMULATE | | | | | |
|--|--|--|--|----------------------------|---|----------|--------------------|--|
| | | RESPONSIBLE AGENT: NAME Pennzoil Company ADDRESS Parkersburg, West Virginia 26101 | | | | | | |
| | | | | TELEPHONE | - | | TELEPHONE 422-6565 | |
| | | | | ESTIMATED DEPTH OF COMPLET | | ROTARY X | CABLE TOOLS | |
| PROPOSED GEOLOGICAL FORMA | TION: Oriskany | | | | | | | |
| TYPE OF WELL: OIL | GAS X C | OMBSTORAGE | E DISPOSAL | | | | | |
| | RECYCLI | NG WATER FLO | OODOTHER | | | | | |
| | | | | | | | | |
| TENTATIVE CASING PROGRAM: | | | | | | | | |
| CACINIC AND TUNING | USED FOR | LEFT IN | CALANTE PER EUD | | | | | |
| CASING AND TUBING SIZE | DRILLING | WELL | OR SACKS - CUBIC FT. | | | | | |
| 20 - 16 | ungagustur varannung varan sagrekster bestät aus auch ein aus ein som kommen vor er för eine sat her verklach der Amerikanne vor ein kan | and the state of t | a mention de description mention consideration de consideration des consideration de consid | | | | | |
| 13 - 10 | | | | | | | | |
| 9 - 5/8 | 440 * | 4401 | Cement to surface | | | | | |
| 8 - 5/8 | | | | | | | | |
| 7 | 2026 | 2026 | 75 sks. | | | | | |
| 5 ½ | | | | | | | | |
| 4 1/2 | | | | | | | | |
| 3 | | | Perf. Top | | | | | |
| 2 F 1/29 -1-4-1 | | 20051 +- 41001 | Perf. Bottom | | | | | |
| Liners 5-1/2" slotted | | 2005 to 4180 | Perf. Top: | | | | | |
| | | | Perf. Bottom | | | | | |
| 3 8 | | | | | | | | |
| APPROXIMATE FRESH WATER D | DEPTHSFEET | SALT WATER | FEET_ | | | | | |
| APPROXIMATE COAL DEPTHS | · · · · · · · · · · · · · · · · · · · | | • | | | | | |
| IS COAL BEING MINED IN THE | AREA? Yes | BY WHOM? | | | | | | |
| TO DRILL: | | | | | | | | |
| | F OG - 1, SHOWING ORIG | | ND PERFORMANCE BOND. ON | | | | | |
| MUST ALSO BE SUBMITTED | | OPY OF THE PLAT AND | THE ORIGINAL WELL RECORD | | | | | |
| TO FRACTURE - STIMULATE: | | | | | | | | |
| OIL AND/OR GAS WELL ORI BOND, PERMANENT PLAT A | | | COPIES OG - 1, PERFORMANCE | | | | | |
| OIL AND/OR GAS WELL ORI ING ORIGINAL PERMIT NUM | | | 29, FIVE COPIES OG - 1, SHOW- | | | | | |
| Required forms must be filed four (24) hours in advance. | within ninety (90) days of | completion for bond release. | Inspector to be notified twenty- | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| • | . • • | | | | | | | |
| ` | | | | | | | | |
| The following waiver must be thereof. | completed by the coal op | erator if the permit is to be | issued within ten days of receipt | | | | | |
| WAIVER: I the undersigned, Agent | | Coal Company, Owners this proposed well loca | • | | | | | |
| | - | | | | | | | |
| | | | well being drilled at this location, | | | | | |
| | mplied with all rules and reg | gulations in Articles 4, 5, and | 7, Chapter 22 of the West Virginia | | | | | |
| Code. | | | | | | | | |
| | | | The second secon | | | | | |
| | | | For Coal Company | | | | | |
| in the second se | | | | | | | | |
| | | | Official Title | | | | | |