

Surface:  
 George Troutman  
 6406 Osborne Rd.  
 Upper Marlboro, Md. 20870

Minimum Error of Closure 1 in 200  
 Source of Elevation John Bode No. 4, Elev. 981.28'

Fracture.....   
 New Location.....   
 Drill Deeper.....  - 7/19/90  
 Abandonment.....

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia.

Signed: Curtis A. Lucas  
 Map No. 7      Squares: N S 20 E W 8

Company PENNZOIL Products Co. 673  
 Address P.O. Box 5519, Vienna, WV 26105  
 Farm John Bode  
 Tract \_\_\_\_\_ Acres 165 1/8 Lease No. 30162  
 Well (Farm) No. 10 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 1058.62'  
 Quadrangle NEW MILTON 7.5', Radis WC  
 County Doddridge District Cove 2  
 Surveyor CURTIS A. LUCAS  
 Surveyor's Registration No. 275  
 File No. 1685 Drawing No. \_\_\_\_\_  
 Date 10/11/79 Scale 1" = 800'

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION  
 CHARLESTON

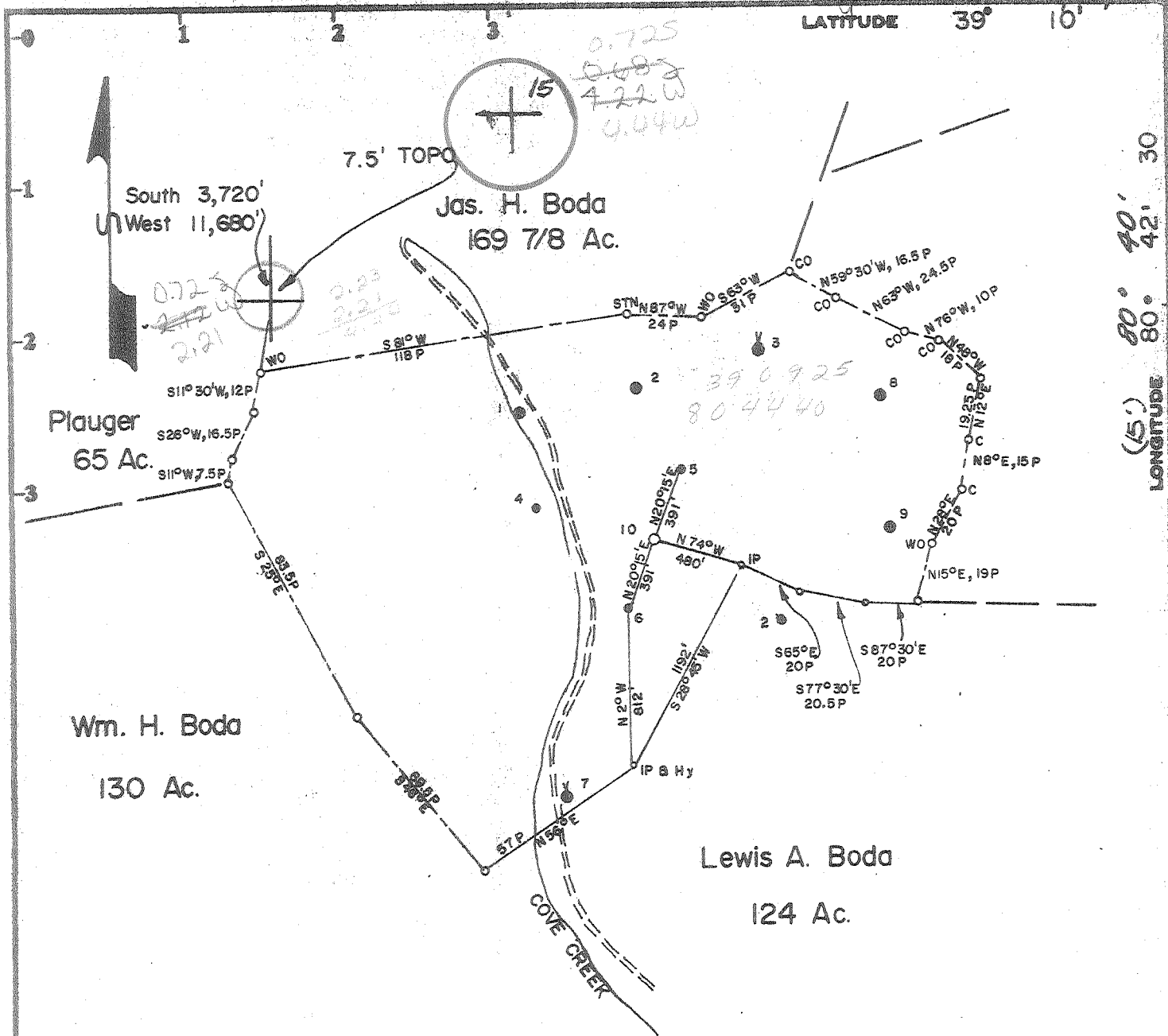
WELL LOCATION MAP  
 FILE NO. 47-017-2505 DD

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500, latitude and longitude lines being represented by border lines as shown.  
 - Denotes one inch spaces on border line of original tracing.

BRUNING 44-131 27198

owdd 6-0 Porto Rico (Stout) (134)

10/12/79



LATITUDE 39° 10'

LONGITUDE 80° 40' 42" 30

Surface:

George Troutman  
6406 Osborne Rd.  
Upper Marlboro, Md. 20870

Minimum Error of Closure 1 in 200

Source of Elevation John Bode No. 4, Elev. 981.28'

- Fracture
- New Location
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- Abandonment

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Signed: *Curtis A. Lucas*

Map No. 7 Squares: N S 20 E W 8

Company	PENNZOIL COMPANY	
Address	P. O. Box 1588, Parkersburg, W. Va. 26101	
Farm	John Bode	
Tract	Acres <u>165 1/8</u>	Lease No. <u>30162</u>
Well (Farm) No.	<u>10</u>	Serial No. _____
Elevation (Spirit Level)	<u>1058.62'</u>	<i>WC</i>
Quadrangle	<u>NEW MILTON 7.5', VADIS</u>	
County	<u>Doddridge</u>	District <u>Cove</u>
Surveyor	CURTIS A. LUCAS	
Surveyor's Registration No.	<u>275</u>	
File No.	<u>1685</u>	Drawing No. _____
Date	<u>10/11/79</u>	Scale <u>1" = 800'</u>

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
OIL AND GAS DIVISION  
CHARLESTON

WELL LOCATION MAP

FILE NO. 47-017-2505

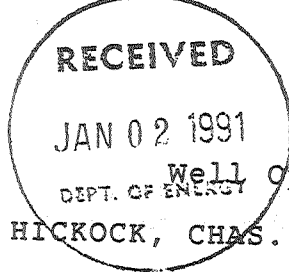
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OCT 25 1979

- Denotes one inch spaces on border line of original tracing.

BRUNING 44-131 27198

7-0 2750 PORTO RICO (STOUT) 134



State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: HICKOCK, CHAS. B & DIANE Operator Well No.: JOHN BODE 10

LOCATION: Elevation: 1058.62 Quadrangle: NEW MILTON

District: COVE County: DODDRIDGE  
Latitude: 3720 Feet South of 39 Deg. 10Min. 0 Sec.  
Longitude 11680 Feet West of 80 Deg. 42 Min. 30 Sec.

Company: PENNZOIL PRODUCTS COMPANY  
P. O. BOX 5519  
VIENNA, WV 26105-5519

Agent: JAMES A. CREWS

Inspector: MIKE UNDERWOOD  
Permit Issued: 07/09/90  
Well work Commenced: 7-12-90  
Well work Completed: 7-25-90  
Verbal Plugging \_\_\_\_\_  
Permission granted on: \_\_\_\_\_  
Rotary X Cable \_\_\_\_\_ Rig  
Total Depth (feet) 5580  
Fresh water depths (ft) N/A  
Salt water depths (ft) N/A  
Is coal being mined in area (Y/N)? N  
Coal Depths (ft): N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
SEE ORIGINAL WELL RECORD			
2-7/8"	5538.55'	5538.55'	90 Sk.

OPEN FLOW DATA

Producing formation Balltown/Benson/Alexander\* Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow Show MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 20 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure 780 psig (surface pressure) after 17 Hours

Second producing formation Warren/Speechley\* Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow Show MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 20 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure 780 psig (surface pressure) after 17 Hours

\* Production from all zones was commingled.

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.

For: PENNZOIL PRODUCTS COMPANY  
By: [Signature] Timothy P. Roush  
Date: December 27, 1990

Fracture Record

Perforated: Balltown, Benson, Alexander 5346-4396' 11 holes  
Treated w/607 Bbls. water 10,000# 80/100 sand and 25,000# 20/40 sand.

Perforated: Warren, Speechley 3341-3536' 12 holes  
Treated w/400 gal. 15% HCl, 576 Bbls. water, 10,000# 80/100 sand  
and 25,000# 20/40 sand.

Well Log

See Original Well Record	0-2760
Devonian Shale	2760-3338
Warren	3338-3384
Devonian Shale	3384-3446
Speechley	3446-3536
Devonian Shale	3536-4388
Balltown	4388-4404
Devonian Shale	4404-4970
Benson	4970-4978
Devonian Shale	4978-5234
Alexander	5234-5326
Devonian Shale	5326-5580
T.D.	5580'

new TO 5580  
orig TO 2772  

---

new Hg 2808

10843

10b-versa

WELL OPERATOR'S REPORT 13

John Bode 10

47-017-2505

WELL TYPE: Oil X / Gas \_\_\_ / Liquid Injection \_\_\_ Waste Disposal \_\_\_  
 IF "Gas". Production \_\_\_ Underground storage \_\_\_ / Deep \_\_\_ Shallow \_\_\_  
 LOCATION: Elevation: 1058.62' Watershed: Cove Creek  
 District: Cove County: Doddridge Quadrangle: New Milton 7.5'

WELL OPERATOR Pennzoil Company DESIGNATED AGENT Mr. James A. Crews  
 Address P. O. Box 1588 Address P. O. Box 1588  
Parkersburg, WV 26101 Parkersburg, WV 26101

PERMITTED WORK: Drill X / Convert \_\_\_ / Drill deeper \_\_\_  
 Plug off old formation \_\_\_ / Perforate new formation \_\_\_  
 Other physical change in well (specify) \_\_\_\_\_  
 MAR 26 1980

PERMIT ISSUED ON October 12, 19 79

(IF APPLICABLE: PLUGGING OF DRY HOLE OR CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED \_\_\_\_\_, 19 \_\_\_\_\_)

OIL & GAS DIVISION  
 OIL & GAS INSPECTOR

Name Paul Garrett  
 Address 321 Beech Street  
Clarksburg, WV

GEOLOGICAL TARGET FORMATION: Gordon Depth 2750 feet  
 Depth of completed well, 2772 feet Rotary X / Cable Tools \_\_\_  
 Water strata depth: Fresh, \_\_\_ feet; salt, \_\_\_ feet.  
 Coal seam depths: \_\_\_\_\_ Is coal being mined in the area? \_\_\_  
 Work was commenced November 30, 19 79, and completed December 7, 19 79

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft	New	Used	For drilling			Left in well
Conductor								Winds	
Fresh water									
Coal	<u>8-5/8</u>					<u>319.13</u>	<u>319.13</u>	<u>130 sks</u>	Sizes
Intermediate									
Production	<u>4-1/2</u>					<u>2770</u>	<u>2770</u>	<u>125 sks</u>	Booths set
Tubing									
Liners									Perforations:
									Top Bottom

OPEN FLOW DATA

Producing formation Exploratory Well Pay zone depth \_\_\_\_\_ feet

Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
 Final open flow, \_\_\_\_\_ Mcf/d Final open flow, \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests, \_\_\_\_\_ hours

Static rock pressure, \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

[If applicable due to multiple completion--]

Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet

Gas: Initial open flow, \_\_\_\_\_ Mcf/d Oil: Initial open flow, \_\_\_\_\_ Bbl/d  
 Final open flow, \_\_\_\_\_ Mcf/d Final open flow, \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests, \_\_\_\_\_ hours

Static rock pressure, \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

[08-78]

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fres and salt water, coal, oil and gas
Sand & Silt			0	69	
Sand			69	102	
Silt & Shale			102	169	
Sand			169	182	
Silt			182	266	
Sand			266	311	
Silt & Shale			311	863	
Sand			863	896	
Silt			896	942	
Silt & Sand			942	1010	
Silt & Shale			1010	1301	
Sand			1301	1352	
Shale & Silt			1352	1447	
Sand & Shale			1447	1568	
Sand & Silt			1568	1741	
Sand & Shale			1741	1886	
Silt & Shale			1886	1995	
Little Lime			1995	2009	
Pencil Cave			2009	2016	
Blue Monday			2016	2038	
Big Lime			2038	2087	
Loyalhanna			2087	2186	
Pocono Shale			2186	2300	
Siltstone			2300	2406	
Shale			2406	2723	
Gordon			2723	2729	
Shale			2729	2772	Show Oil
Total Depth				2772	
Plug Back Depth				2760	

(Attach separate sheets to complete as necessary)

Pennzoil Company  
Well Operator

By Carleton A. Lucas  
Civil Engineering Dept.

NOTE: Regulation 2.02-4(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic, detailed geological record of all formations, including coal, encountered in the drilling of a well."



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED  
OCT 2 1979

Oil and Gas Division OIL & GAS DIVISION  
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

TO THE DEPARTMENT OF MINES,  
Charleston, W. Va.

DATE October 11, 1979

Surface Owner George G. Troutman  
Address 6406 Osborne Rd. Upper Marlboro, MD  
Mineral Owner Edna Marine, Agent  
Address 464 Grant St. Galion, OH 44833  
Coal Owner \_\_\_\_\_  
Address \_\_\_\_\_  
Coal Operator NO COMMERCIAL COAL  
Address \_\_\_\_\_

Company PENNZOIL COMPANY  
Address P.O. Box 1588, Parkersburg, WV 26101  
Farm John Bode Acres 165 7/8  
Location (waters) Cove Creek  
Well No. 10 Elevation 1058.62  
District Cove County Doddridge  
Quadrangle New Milton 7.5'

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 6-12-80.

INSPECTOR  
TO BE NOTIFIED Paul Garrett  
ADDRESS 321 Beech Street, Clarksburg, WV  
PHONE \_\_\_\_\_

*Robert H. [Signature]*  
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated November 28 1974 by John A. Bode, et al made to South Penn Oil Company and recorded on the 28 day of November 1974 in Doddridge County, Book 41 Page 381

NEW WELL  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  
 OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. \*

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address \_\_\_\_\_ day \_\_\_\_\_ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND  
ECONOMIC SURVEY  
P. O. BOX 879  
MORGANTOWN, WEST VIRGINIA 26505  
AC-304 - 292-6331

Very truly yours, PENNZOIL COMPANY  
(Sign Name) *Curtis A. Lucas*  
Well Operator Curtis A. Lucas  
Civil Eng. Dept.  
Address P.O. Box 1588  
of \_\_\_\_\_  
Well Operator \_\_\_\_\_  
Parkersburg,  
City or Town \_\_\_\_\_  
West Virginia 26101  
State \_\_\_\_\_

\*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.

BLANKET BOND

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

PROPOSED WORK ORDER TO  DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR (If Known) \_\_\_\_\_ RESPONSIBLE AGENT \_\_\_\_\_  
 NAME Clint Hurt & Assoc. NAME PENNZOIL COMPANY  
 ADDRESS Charleston, WV ADDRESS P.O. Box 1588, Parkersburg, WV  
 TELEPHONE \_\_\_\_\_ TELEPHONE (304) 422-6565  
 ESTIMATED DEPTH OF COMPLETED WELL: 2750' ROTARY  CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Gordon Sand  
 TYPE OF WELL: OIL  GAS \_\_\_\_\_ COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT LIFT UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	300'	300'	cement to surface
7			
5 1/2			
4 1/2	2750'	2750'	100 sks
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS \_\_\_\_\_ FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_  
 APPROXIMATE COAL DEPTHS NO COAL  
 IS COAL BEING MINED IN THE AREA? \_\_\_\_\_ BY WHOM? \_\_\_\_\_

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for \_\_\_\_\_ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

We the \_\_\_\_\_ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

\_\_\_\_\_  
For Coal Company

\_\_\_\_\_  
Official Title



RECEIVED

Division of Energy

017-25057  
Issued 07/09/90

FORM WW-2B

JUN 18 90

Page 3 of 4

Permitting STATE OF WEST VIRGINIA  
Oil DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

Expires 07/09/92

- 1) Well Operator: Pennzoil Products Company 37450 (2) 510
- 2) Operator's Well Number: JOHN A. BODE NO. 10 3) Elevation: 1058.62'
- 4) Well type: (a) Oil X/ or Gas X/  
(b) If Gas: Production X/ Underground Storage     /  
Deep     / Shallow X/
- 5) Proposed Target Formation(s): Alexander
- 6) Proposed Total Depth: 5570 feet
- 7) Approximate fresh water strata depths: N/A
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes      / No X /
- 11) Proposed Well Work: Drill Deeper *Oil Existing well Deeper*
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						30 SKS
Fresh Water	8-5/8"			319.12'	319.13'	Existing Csg.
Coal						125 SK
Intermediate	4-1/2"			2270'	2270'	Existing Csg.
Production	2-7/8"			5570'	5570'	70 Skc
Tubing						38 C5118 1/2
Liners						

PACKERS : Kind \_\_\_\_\_  
Sizes \_\_\_\_\_  
Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
Plat  WW-9  WW-2B  Bond *Blanket one*  Agent

10136 #16

**RECEIVED**  
Division of Energy  
JUN 18 90

1) Date: June 15, 1990  
2) Operator's well number  
JOHN A. BODE NO. 10  
3) API Well No: 47 - 017 - 2505-DD  
State - County - Permit

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

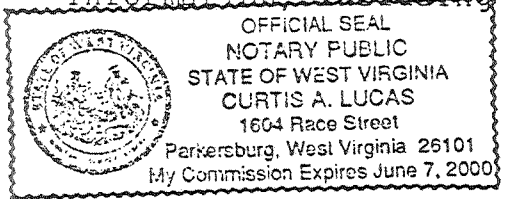
- 4) Surface Owner(s) to be served:
  - (a) Name Chas. B. & Diane R. Hickok  
Address 2924 South Buchanan St. A-2  
Arlington, VA 22206
  - (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 5) (a) Coal Operator:
  - Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (b) Coal Owner(s) with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector Mike Underwood  
Address Rt. 2, Box 135  
Salem, W. Va. 26426  
Telephone (304)- 782-1043

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

\_\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR  
 Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)  
 I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 4 on the above named parties, by:  
 \_\_\_\_\_ Personal Service (Affidavit attached)  
 Certified Mail (Postmarked postal receipt attached)  
 \_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.  
 I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Well Operator Pennzoil Products Company  
 By: [Signature] Timothy P. Roush  
 Its: Supervisor, Surveying/Mapping  
 Address P.O. Box 5519  
Vienna, W. Va. 26105-5519  
 Telephone 304-422-6565

Subscribed and sworn before me this 15th day of June, 1990

[Signature] Notary Public  
 My commission expires June 7, 2000