

Well location is on the area on which the coal has been removed

Surface owned by:
William J. Dwyer, Jr.
Glenville, W. Va.

Minimum Error of Closure 1 in 200'

Source of Elevation Elev Well No 7647 = 1035

- Fracture.....
- New Location.....
- Drill Deeper.....
- 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: *W. J. Dwyer, Jr.*
Squares: N S E W

Map No. _____

Company EASTERN AMERICAN ENERGY CORP. DBA PACIFIC STATES GAS and OIL, INC

Address PO Box 67, Glenville, W. Va. 26351

Farm L. B. Bonnett

Tract _____ Acres 250 Lease No. _____

Well (Farm) No. PS No 1 Serial No. _____

Elevation (Spirit Level) 1108

Quadrangle Glenville 7 1/2. Glenville 15

County Gilmer District Glenville

Engineer *W. J. Dwyer, Jr.*

Engineer's Registration No. 1227 LLS 200

File No. _____ Drawing No. _____

Date March 27, 1978 Scale 1" = 1000'

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

WELL LOCATION MAP

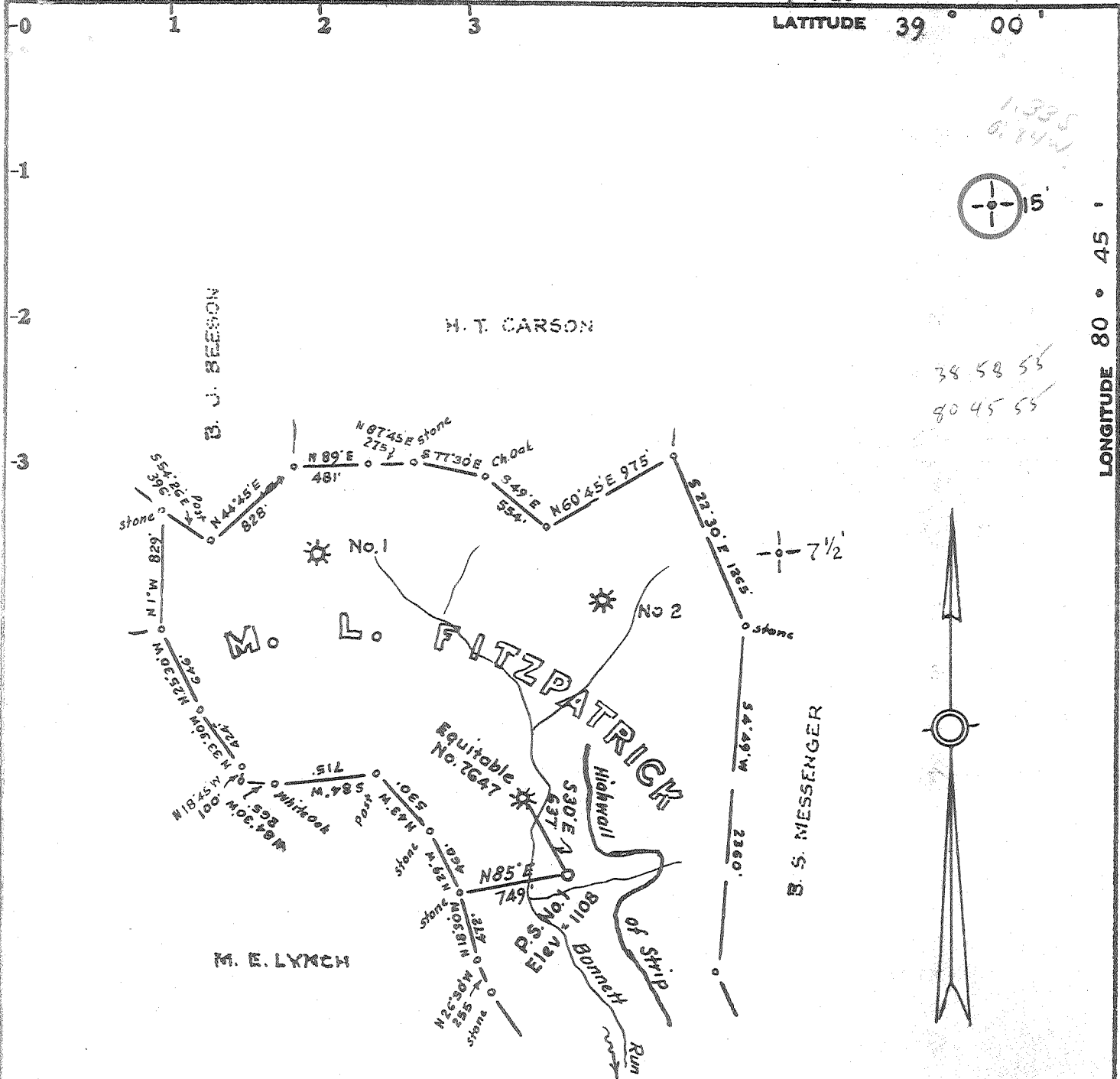
FILE NO. GIL-3012-Frac

+ Denotes location of well on United States Topographic Maps, scale 1 to ^{24,000}/_{62,500} latitude and longitude lines being represented by border lines as shown.

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

AUG 24 1981

47-021



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Signed: [Signature]
Squares: N S E W

Map No.

Company EASTERN AMERICAN ENERGY CORP. DBA PACIFIC STATES GAS and OIL, INC.
 Address P.O. Box 67, Glenville, W. Va. 26351
 Farm M. L. Fitzpatrick, WILLIAM J. Dwyer
 Tract _____ Acres 250 Lease No. _____
 Well (Farm) No. EA No 1 P.S. No 1 Serial No. _____
 Elevation (Spirit Level) 1108 NE
 Quadrangle Glenville 7 1/2, Glenville 15
 County Gilmer District Glenville
 Engineer [Signature]
 Engineer's Registration No. 1227 LLS 200
 File No. _____ Drawing No. _____
 Date March 27, 1978 Scale 1" = 1000'

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

WELL LOCATION MAP
FILE NO. GIL-3012

+ Denotes location of well on United States Topographic Maps, scale 1 to 24,000 latitude and longitude lines being represented by border lines as shown.

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

47-021 APR 21 1978



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NOV 15 1978

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

WELL RECORD 4

Quadrangle Glenville

Permit No. Gil-3012

Rotary X Oil _____
Cable _____ Gas X _____
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Company Eastern American Energy Corp. dba Pacific States Gas & Oil
Address P.O. Box N Glenville, W.Va. 26351
Farm L.B. Bonnett Acres 250
Location (waters) Barnett Run
Well No. E.A. #1 Elev. 1035
District Glenville County Gilmer
The surface of tract is owned in fee by William J. Dwyer, Jr.
Address Glenville, W.Va. 26351
Mineral rights are owned by L.B. Bonnett
Address Glenville, W.Va. 26351
Drilling Commenced 4-29-78
Drilling Completed 5-5-78
Initial open flow N/A cu. ft. _____ bbls.
Final production 60,000 cu. ft. per day _____ bbls.
Well open 4 hrs. before test 2300 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size			
20-16			
Cond.			
13-10"			
9 5/8			
8 5/8	596	596	Surface
7			
5 1/2			
4 1/2	6552	6552	450 SKS
3			
2			
Liners Used			

Well treatment details: Attach copy of cementing record.
Perf: 8-0.49" Holes @ 6377, 6390, 6465, 6474, 6482, 6489, 6495, 6501

Frac: 1,000 Gals. 15% HCL, 520 BBL H₂O, 750 Lbs. WG-12 Water Gel, 36 Gal. Pen-5, 36 Gal. GBW-3
√ 24 gal CLA-STA, 10,000 lbs. 80/100 sand, 40,000 lbs. 20/40 sand, 30.25 tons CO₂.
Injection Rate @ 16.9 BBL H₂O and 4 BBL CO₂ Per Minute.

Coal was encountered at 293-297 Feet 537-540 Inches
Fresh water @ 35' Feet _____ Salt Water _____ Feet _____
Producing Sand Devonian Shale MARC. + Gen. Depth 6377-6501

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Surface Fill			0	10		
Sand and Shale			10	66		
Sand			66	85		
Red Rock & Shale			85	98		
Sand			98	110		
Sand & Shale			110	160		
Sand			160	178		
Red Rock			178	202		
Sand & Shale			202	293		
Coal			293	297		
Sand & Shale			297	492		
Sand			492	537		
Coal			537	540		
Sand & Shale			540	970		
Shale			970	1015		
Sand & Shale			1015	1542		
Little Lime			1542	1577		E Log Top
Blue Monday			1577	1594		
Big Lime			1594	1673		
Big Injun			1673	1753		
Shale			1753	1887		
Weir			1887	1956		
Shale			1956	4554		
Benson			4554	4568		

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet \checkmark	Bottom Feet	Oil, Gas or Water	* Remarks
Shale*			4568	4786		
Elk			4786	4990		
Shale	Marcell.		4990	6509		
Chert	Huntersville	Chert	6509	6614		
TD			6614			
						$ \begin{array}{r} 6509 \\ 1035 \\ \hline -5474 \end{array} $
						$ \begin{array}{r} 6614 \\ -4990 \\ \hline 1624 \text{ Expl. H.} \end{array} $

Date November 13, 1978

APPROVED

Colman

Owner

By Executive Vice President
Title

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. L.B. Bonnett #1
API Well No. 47 - 021 - 3012
State County Permit "Fracture"

WELL TYPE: Oil ___ / Gas X /
(If "Gas", Production X / Underground storage ___ / Deep X / Shallow ___)
LOCATION: Elevation: 1108' Watershed: Barnett Run
District: Glenville County: Gilmer Quadrangle: Glenville 7 1/2

WELL OPERATOR Eastern American Energy Corp. DESIGNATED AGENT Donald C. Supcoe
Address P. O. Box N Address P. O. Box 67
Glenville, WV 26351 Glenville, WV 26351

OIL & GAS LEASE OWNER Mary & Joseph Fitzpatrick COAL OPERATOR NONE
Address Glenville, WV 26351 Address: _____

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name NONE
Address _____

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name _____
Address _____

COAL LESSEE WITH DECLARATION ON RECORD:
Name NONE
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Paul Goodnight
Address Smithville, WV 26178
477-3660

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease X / other contract ___ / dated August 21, 19 05.
Undersigned well operator from Mary L. & Joseph Fitzpatrick
of said deed, lease, or other contract has been recorded:
Recorded on January 15, 19 12, in the office of the Clerk of the County Commission of Gilmer County, West Virginia, in Deed Book 15 of page 369.

PROPOSED WORK: Drill ___ / Drill deeper ___ / Redrill ___ / Fracture or stimulate X
Plug off old formation ___ / Perforate new formation X
Other physical change in well (specify) Procedure: To set bridge plug at 5500' they perforate and frac the Benson.
--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any action they wish to make or are required to make by Code § 32-4-3 must be filed with the Department of Mines within fifteen (15) days after the receipt of this Application by the Department.

Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL PHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
5 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

Eastern American Energy Corporation
Well Operator
Richard Heffelfinger
By Richard Heffelfinger
Operations Manager

[08-78]

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) N/A
Address _____

GEOLOGICAL TARGET FORMATION, N/A *Benson*
Estimated depth of completed well, 4559-4568' feet Rotary ___ / Cable tools ___ /
Approximate water strata depths: Fresh, ___ feet; salt, ___ feet.
Approximate coal seam depths: _____ Is coal being mined in the area? Yes ___ / No ___

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		
Conductor	20	J-55	94 lb		X	25	-0-	Kinds
Fresh water	8 5/8	J-55	20 lb	X		595.9	595.9	Surface
Coal								Sizes
Intermediate								
Production	4 1/2	CW	10.5	X		6552	6552	655 450 sks. Depths set
Tubing								
Liners								Perforations: Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where the location of the well is the same as the well site of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for fracture. This permit shall expire if operations have not commenced by 4-12-82.

J. H. Arnsperger
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code § 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator ___ / owner ___ / lessee ___ of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided, the well operator has complied with all applicable requirements of the West Virginia Code and the governing regulations.

By _____
Its _____



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

APR 17 1978

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

OIL AND GAS WELL PERMIT APPLICATION

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

Surface Owner William J. Dwyer, Jr.
Address Glenville, WV
Mineral Owner Mary and Joseph Fitzpatrick
Address Glenville, WV
Coal Owner Mary and Joseph Fitzpatrick or assigns
Address Glenville, WV
Coal Operator None
Address _____

DATE April 7, 1978
Company Eastern American Energy Corp. DBA Pacific States Gas & Oil, Inc.
Address P.O. Box 67, Glenville WV
Farm ~~M.L. Fitzpatrick~~ L.B. Bonnett Acres 250
Location (waters) Barnett Run
Well No. E.A. #1 Elevation 1035
District Glenville County Gilmer
Quadrangle Glenville

Letter of Correction of farm name from Eastern American dated 4-20-78.

INSPECTOR TO BE NOTIFIED Paul Goodnight
ADDRESS Smithville, WV
PHONE 477-3660

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 8-17-78

John S. Basaw
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 August 21 1905 by Mary L. and Joseph Fitzpatrick made to J.M. Basaw and recorded on the 15 day of January 1912, in Gilmer County, Book 15 Page 369

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.

Very truly yours,
(Sign Name) *John S. Basaw*
Well Operator

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

W. VA. OIL & GAS CONSERVATION COMMISSION
1613 WASHINGTON STREET, EAST
CHARLESTON, WEST VIRGINIA 25311

Address of Well Operator

P.O. Box 67
Street
Glenville
City or Town
West Virginia
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

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Signed by *John S. Basaw*

GIL-3012 PERMIT NUMBER

47-021

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

PROPOSED WORK ORDER TO DRILL _____ DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME S.W. Jack Drilling NAME John Mork
 ADDRESS Buckhannon, WV ADDRESS P.O. Box N, Glenville, WV
 TELEPHONE 472-2161 TELEPHONE 462-8118
 ESTIMATED DEPTH OF COMPLETED WELL: 6250 ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Marcellus
 TYPE OF WELL: OIL _____ GAS COMB. _____ STORAGE _____ DISPOSAL _____
 RECYCLING _____ WATER FLOOD _____ OTHER _____

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	400	400	Surface
7			
5 1/2			
4 1/2	6500	6500	250 sks
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 100 FEET _____ SALT WATER _____ FEET _____
 APPROXIMATE COAL DEPTHS unknown
 IS COAL BEING MINED IN THE AREA? No 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