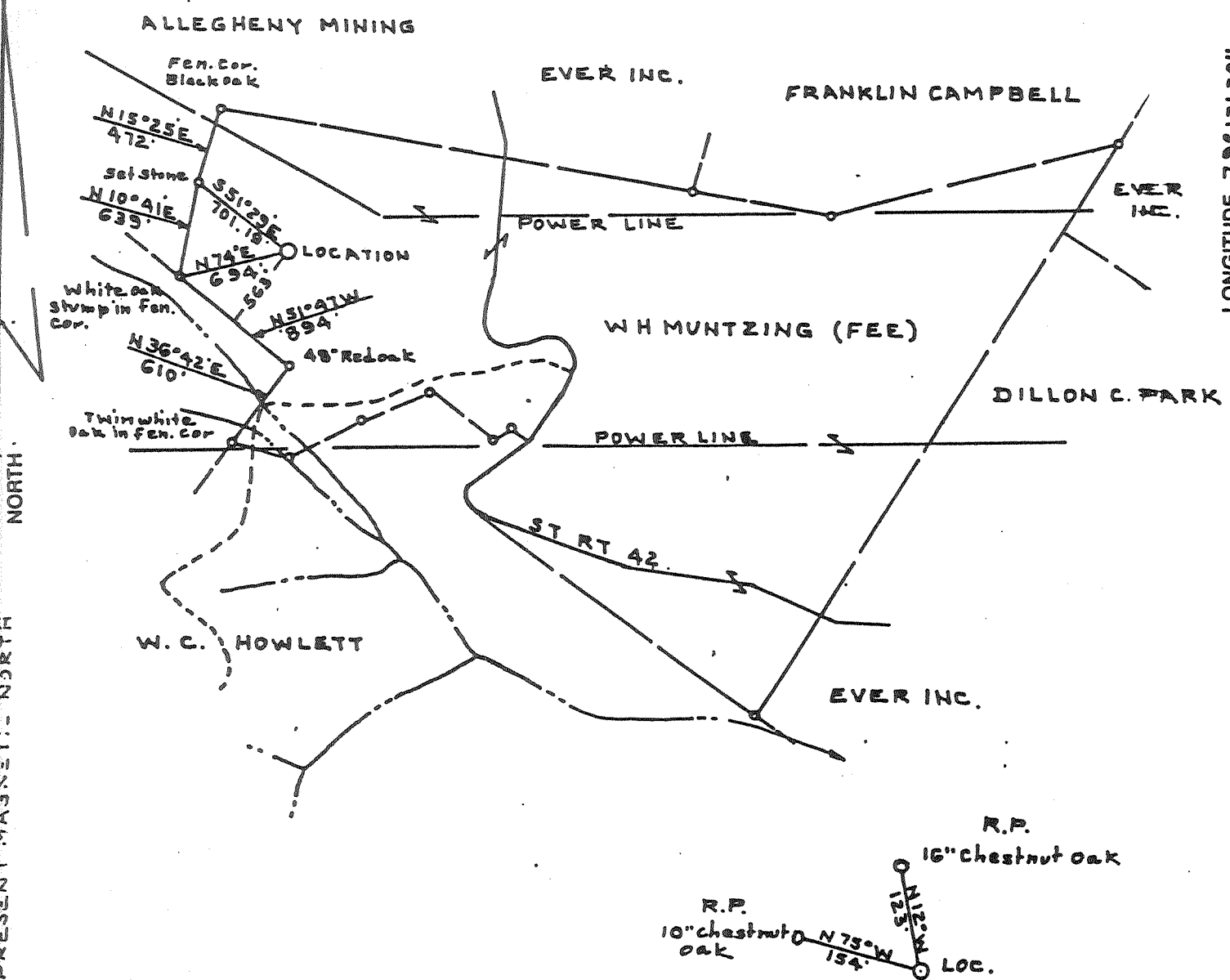


June 6/20/90
 u 5/6/91

LATITUDE 39°12'30"

01
 0091
 06.21.6L 3DQUIGNOT



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. BK 93 P 99
 DRAWING NO. 21491-P.I.
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200'
 PROVEN SOURCE OF ELEVATION USGS VE Point 2100 ± SW of location El 2517

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) C. J. Jolley
 R.P.E. _____ S. 92

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 RECEIVED
 MAY 10 1992
 PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE MAY 7, 1990
 OPERATOR'S WELL NO. 21491 P.I.
 API WELL NO. 47-023-00026-9
 STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW

LOCATION: ELEVATION 2894.25 WATERSHED ELK LICK RUN OF NORTH FORK PATTERSON CREEK
 DISTRICT UNION COUNTY GRANT
 QUADRANGLE GREENLAND GAP

SURFACE OWNER W.H. MUNTZING ACREAGE 298.60
 OIL & GAS ROYALTY OWNER W.H. MUNTZING LEASE ACREAGE 298.60
 LEASE NO. 180820

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON CLEAN OUT AND REPLUG

TARGET FORMATION ORISKANY ESTIMATED DEPTH 9241'
 WELL OPERATOR COLUMBIA NATURAL RESOURCES DESIGNATED AGENT J.E. CAMPBELL
 ADDRESS PO BOX 6070 CHARLESTON WY 25362 ADDRESS P.O. BOX 6070 CHARLESTON WY 25362

MAY 10 1991

GRANT
 COUNTY NAME
 PERMIT 0026

DEEP WELL 6-0 (370)

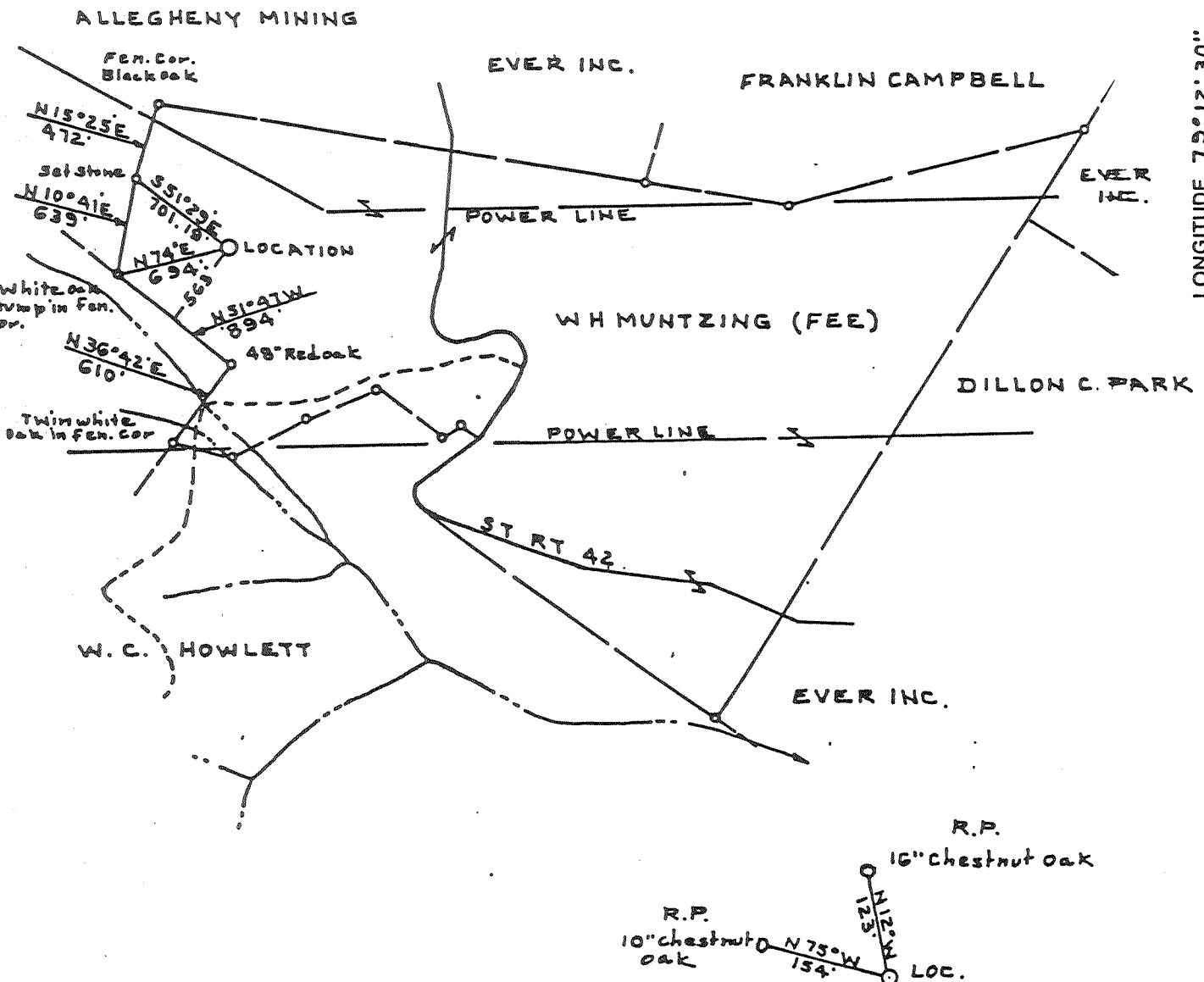
June 6/20/90

LATITUDE 39°12'30"

3915

0.24
0.02

LONGITUDE 79°12'30"



3.155 } calc. 15' loc.
2.25W }

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. BK 93 P 99
 DRAWING NO. 21491-P.I.
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1:200'
 PROVEN SOURCE OF ELEVATION USGS VE Point 2100 ± SW of location
EL 2317

I THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES.
 (SIGNED) C. J. Volley
 R.P.E. _____ L.S. 92

PLACE SEAL HERE

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE MAY 7, 1990
 OPERATOR'S WELL NO. 21491 P.I.
 API WELL NO. 47-023-00026

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP X SHALLOW ___

LOCATION: ELEVATION 2894.25 WATERSHED ELKCLICK RUN OF NORTH FORK PATTERSON CREEK
 DISTRICT UNION COUNTY GRANT
 QUADRANGLE GREENLAND GAP +15' NW

SURFACE OWNER W.H. MUNTZING ACREAGE 298.60
 OIL & GAS ROYALTY OWNER W.H. MUNTZING LEASE ACREAGE 298.60
 LEASE NO. 180820

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

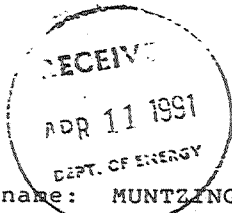
TARGET FORMATION ORISKANY ESTIMATED DEPTH 9241'

WELL OPERATOR COLUMBIA NATURAL RESOURCES DESIGNATED AGENT J.E. CAMPBELL
 ADDRESS PO BOX 6070 CHARLESTON WV 25362 ADDRESS PO BOX 6070 CHARLESTON WV 25362

JUN 29 1990

COUNTY NAME PERMIT

21491 P.I.



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

Well Operator's Report of Well Work

Farm name: MUNTZING, L. MANNING Operator Well No.: 21491

LOCATION: Elevation: 2894.25 Quadrangle: GREENLAND GAP

District: UNION County: GRANT
Latitude: 1400 Feet South of 39 Deg. 12Min. 30 Sec.
Longitude 100 Feet West of 79 Deg. 12 Min. 30 Sec.

Company: COLUMBIA NATURAL RESOURCE
P.O. BOX 6070
CHARLESTON, WV 25362-6070

Agent: JOSEPH E. CAMPBELL

Inspector: PHILLIP TRACY
Permit Issued: 06/25/90
Well work Commenced: Aug. 5, 1990
Well work Completed: Sept. 1, 1990
Verbal Plugging
Permission granted on: 12/6/90
Rotary X Cable Rig
Total Depth (feet) 9914
Fresh water depths (ft) --

Salt water depths (ft) --

Is coal being mined in area (Y/N)? N
Coal Depths (ft):

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
13-3/8	87	87	60
9-5/8	2942	2942	921
5-1/2	9914	9914	200

OPEN FLOW DATA Well P & A 12/6/90

Producing formation N/A Pay zone depth (ft) --
 Gas: Initial open flow 335 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 pressure) after -- Hours

Second producing formation -- Pay zone depth (ft) --
 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 pressure) after -- Hours

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: COLUMBIA NATURAL RESOURCES, INC.

By: Joseph E. Campbell
Date: _____

3/29/94

WR-38
06-May-
RECEIVED
MAY 20 1991
DEPT. OF ENERGY

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

AFFIDAVIT OF PLUGGING AND FILLING WELL

AFFIDAVIT SHOULD BE IN TRIPLICATE, one copy mailed to the Division, one copy to be retained by the Well Operator and the third copy (and extra copies if required) should be mailed to each coal operator at their respective addresses.

Farm name: MUNTZING, L. MANNING Operator Well No.: 21491

LOCATION: Elevation: 2894.25 Quadrangle: GREENLAND GAP
District: UNION County: GRANT
Latitude: 1400 Feet South of 39 Deg. 12 Min. 30 Sec.
Longitude 100 Feet West of 79 Deg. 12 Min. 30 Sec.

Well Type: OIL _____ GAS X Muntzing

Company: Columbia Natural Resources, Inc. Coal Operator L. Manning Muntzing & N.
P. O. Box 6070 or Owner P. O. Box 67
Charleston, WV 25362-0070 Baker, WV 26801 Muntzing

Agent: Joseph E. Campbell Coal Operator W. H. Muntzing, II & B.
Inspector: Phillip Tracy or Owner P. O. Box 67
Permit Issued: 05/06/91 Baker, WV 26801

AFFIDAVIT

STATE OF WEST VIRGINIA,
County of Kanawha ss:

Marvin Grayson and L. L. Friend being first duly sworn according to law depose and say that they are experienced in the work of plugging and filling oil and gas wells and were employed by Columbia Natural Resources, Inc., well operator, and participated in the work of plugging and filling the above well, that said work was commenced on the 6th day of December, 1990, and that the well was plugged and filled in the following manner:

TYPE	FROM	TO	PIPE REMOVED	LEFT
Fill hole w/gel.				
5½ Bridge Plug @ 9750 and 9470 w/LSK			13-3/8" csg. 87'	-
Cement on Top each Plug			9-5/8" csg. 2942'	-
5½ Bridge Plug @ 8960				
Cut 5½" @ 8755				
Cement Plug	8850	8740	5-1/2" csg. 8740'	1174
Cement Plug	4800	5000		
Cement Plug	2900	3000		

Description of monument: Per Inspector's Instructions

and that the work of plugging and filling said well was completed on the 15th day of December, 1990.

And further deponents saith not.

Sworn and subscribe before me this 15 day of May, 1991
My commission expires: May 28, 1998

Marvin Grayson
L. L. Friend

Stephen V. Solder
Notary Public

JUN 7 1991

023 26

WELL 21491

Formations

0 - 3174	(Red, Gray Sand and Shale) Fresh water at 119'
3174 - 4954	Foreknoks
4954 - 7015	Scherr
7015 - 8162	Brallier
8162 - 8302	Harrell
8302 - 8310	Tully
8310 - 8706	Mahantango
8706 - 8888	Upper Marcellus
8888 - 8970	Purcell
8970 - 9084	Lower Marcellus
9084 - 9122	Tioga Mehab.
9122 - 9456	Needmore
9456 - 9745	Oriskany
9745 - 9914	Helderberg
TD - 9914	

3/29/94

Rev. 6/13/90

023-0026
Issued 6/25/90

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

Expires 6/25/92

- 1) Well Operator: 1013 Columbia Natural Resources, Inc. 10460 (3) 383
- 2) Operator's Well Number: 21491 3) Elevation: 2894.25
- 4) Well type: (a) Oil / or Gas X/
(b) If Gas: Production X/ Underground Storage /
Deep X/ Shallow
- 5) Proposed Target Formation(s): Oriskany 475
- 6) Proposed Total Depth: 9241 feet
- 7) Approximate fresh water strata depths: 26', 106'
- 8) Approximate salt water depths: ?
- 9) Approximate coal seam depths: ?
- 10) Does land contain coal seams tributary to active mine? Yes / No X/
- 11) Proposed Well Work: Drill Gas Well & Stimulate
- 12) New Well
Drill Well

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT Fill-up (cu. ft.)
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	13-3/8	H	48	45	45	31
Fresh Water						38058/811.3
Coal						38058/811.2.2
Intermediate	9-5/8	J	40	3000	3000	940
Production	5-1/2	N	17	9241	9241	435
Tubing						38058/811.1
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 Security Blanket (Type) Agent

5017546

*Rec'd
6/13/90*

- 1) Date: June 4, 1990
- 2) Operator's well number 21491
- 3) API Well No: 47 - 023 - 0026
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 L. Manning Muntzing
Address P. O. Box 67
Baker, WV 26801
 - (b) Name William H. Muntzing, II
Address P. O. Box 67
Baker, WV 26801
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
 - Name _____
Address _____
 - (b) Coal Owner(s) with Declaration
Name Same as Land Owner
Address _____
 - Name _____
Address _____
 - (c) Coal Lessee with Declaration
Name _____
Address _____
- 6) Inspector Phillip Tracy
Address Route 2, Box 37-A
Montrose, WV 26283
Telephone (304)- 457-3219

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

X 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:

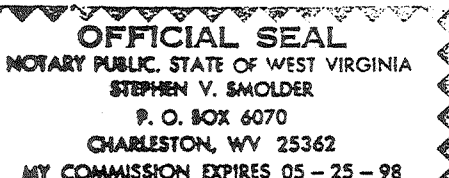
- _____ Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

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 Columbia Natural Resources, Inc.
 By: [Signature]
 Its: Vice President, Drilling and Production Operations
 Address P. O. Box 6070
Charleston, WV 25362
 Telephone 304/353-5000



Subscribed and sworn before me this 6 day of June, 1990

My commission expires May 25, 1998 [Signature] Notary Public