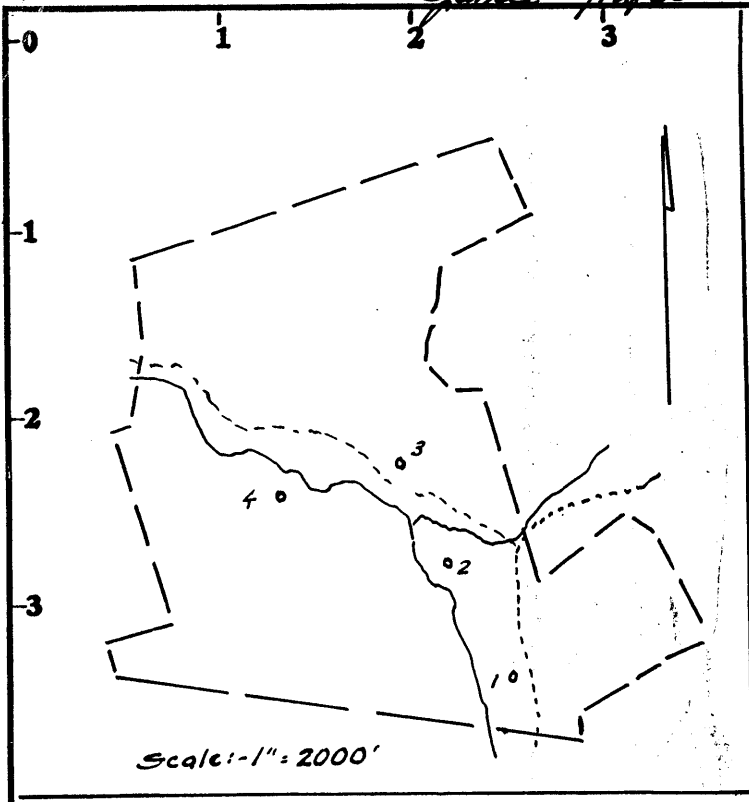


Helderberg

Jamie 5/12/88

1/200 10/2/1979



LATITUDE 39° 22' 30" 39° 25'

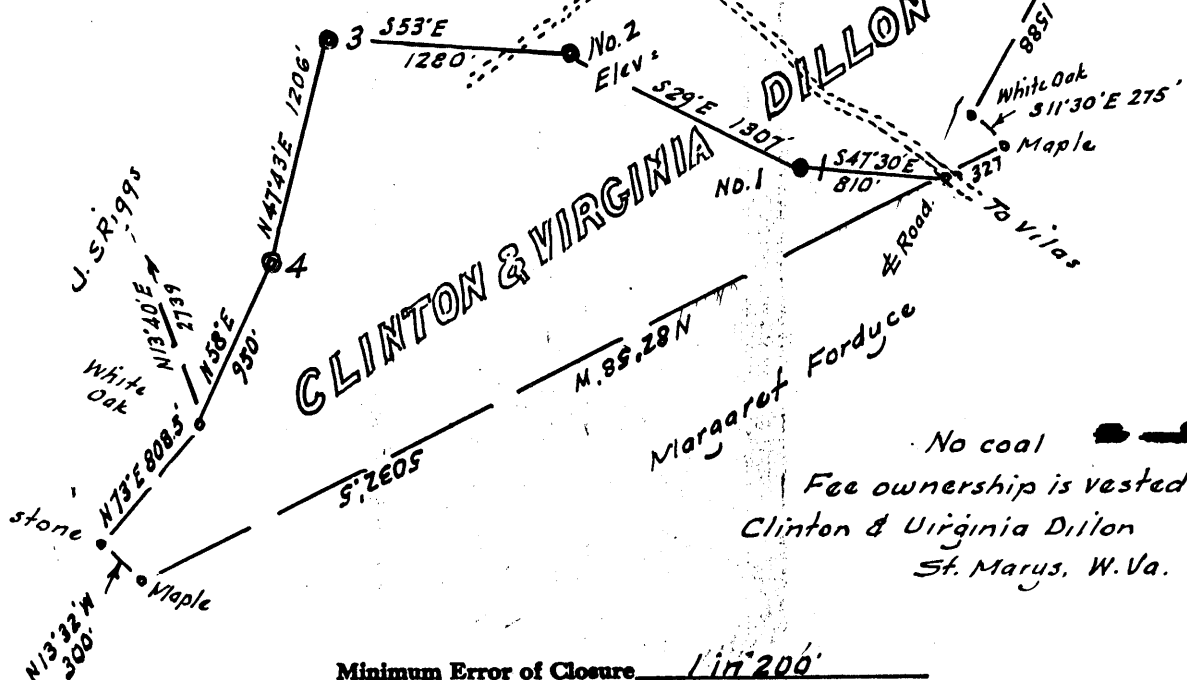
LONGITUDE 80° 55' 30" 80° 57'

(+7 1/2)

0305
0800

3209
3.042

Emerson Hill
S 26° 15' E



Minimum Error of Closure 1 in 200'

Source of Elevation USGS elev. (shown) = 812

Fracture..... -5/13/88
 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: Helderberg
Squares: N S E W

Company. Drilling Appalachian Corporation 311
 Address P.O. Box 99 - Alma, WVa. 26320-0099
 Farm Clinton S. & Virginia H. Dillon
 Tract _____ Acres 575 Lease No. _____
 Well (Farm) No. Two Serial No. _____
 Elevation (Spirit Level) 798'
 Quadrangle Pennshore 7 1/2, West Union 15
 County Tyler District Meade
 Engineer Helderberg
 Engineer's Registration No. _____
 File No. _____ Drawing No. _____
 Date Sept 24, 1979 Scale 1" = 1000'

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

WELL LOCATION MAP

FILE NO. 47-095-0735-Frac

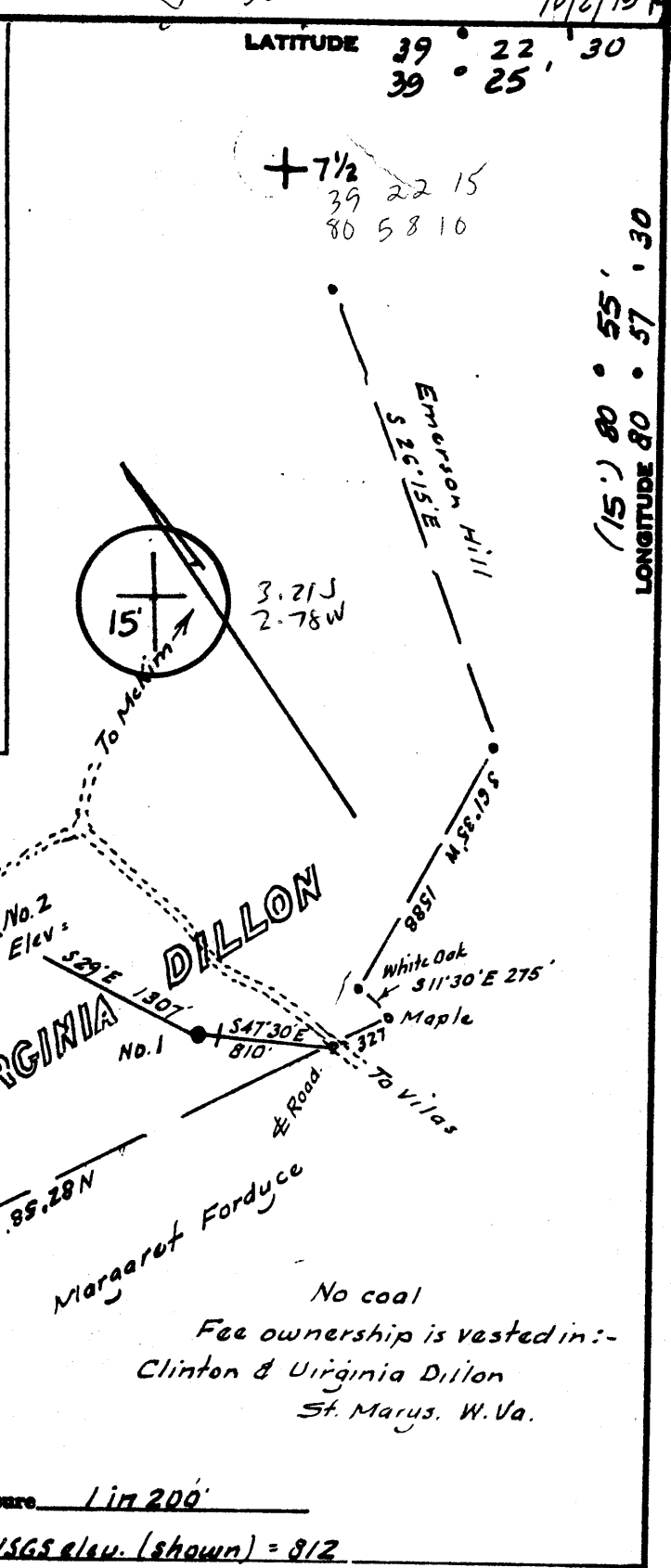
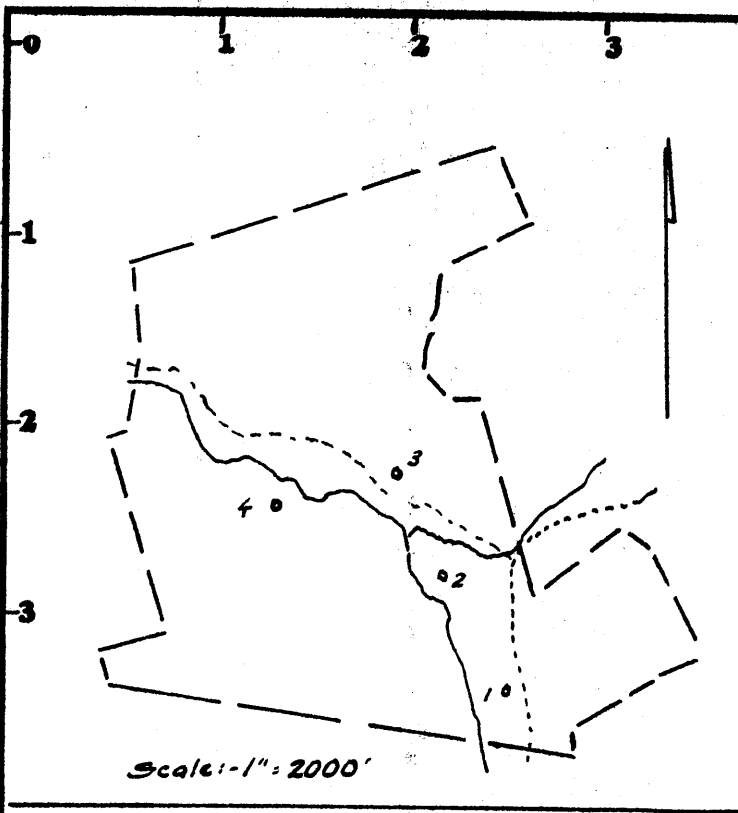
+ Denotes location of well on United States Topographic Maps, scale 1 to 25,000, latitude and longitude lines being represented by border lines as shown.

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

MAY 13 1988

TRASCO 200 8-78 MC 8298
DEEP WELL O.W.W. Helderberg 6-0 Shiloh-Wick (086) 7070

10/2/79



Minimum Error of Closure Lin 200'

Source of Elevation USGS elev. (shown) = 812

- 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: [Signature]
Squares: N S E W

Map No.

Company Security Gas & Oil INC.
 Address 417 1/2 2nd St. St Mary's W. Va. 26170
 Farm Clinton & Virginia H. Dillon
 Tract _____ Acres 575 Lease No. _____
 Well (Farm) No. Two Serial No. _____
 Elevation (Spirit Level) 798' WC
 Quadrangle Pennsboro 7 1/2, West Union 15
 County Tyler District Meade
 Engineer [Signature]
 Engineer's Registration No. _____
 File No. _____ Drawing No. _____
 Date Sept 24, 1979 Scale 1" = 1000'

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

WELL LOCATION MAP
FILE NO. 47-095-0735

+ Denotes location of well on United States Topographic Maps, scale 1 to 25,000, latitude and longitude lines being represented by border lines as shown.

NOV 6 1979

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

WR-35

RECEIVED
JAN 30 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY



State of West Virginia

DEPARTMENT OF ENERGY

Oil and Gas Division

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

Date January 27, 1989

Operator's

Well No. C.S. DILLON #2

Farm DILLON

API No. 40 - 095 - 0735 - F

WELL TYPE: Oil ___ / Gas xx / Liquid Injection ___ / Waste Disposal ___ /
(If "Gas," Production xx / Underground Storage ___ / Deep ___ / Shallow ___ /)

LOCATION: Elevation: 798 Watershed McKim Creek
District: Meade County Tyler Quadrangle Pennsboro

COMPANY Drilling Appalachia Corporation

ADDRESS P.O. Box 99 Alma, W.Va.

DESIGNATED AGENT Kenny Mason

ADDRESS P.O. Box 99 Alma, W.Va.

SURFACE OWNER C.S. & V. Dillon

ADDRESS St. Marys, West Virginia

MINERAL RIGHTS OWNER same

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK Glen

Robinson ADDRESS _____

PERMIT ISSUED _____

DRILLING COMMENCED 12-13-79

DRILLING COMPLETED 1-08-80

IF APPLICABLE: PLUGGING OF DRY HOLE ON
CONTINUOUS PROGRESSION FROM DRILLING OR
REWORKING. VERBAL PERMISSION OBTAINED
ON _____

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.			
13-10"		233	
9 5/8		2027	
8 5/8			
7			
5 1/2			
4 1/2		6502	
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Ohio Shale Depth 4704 feet

Depth of completed well 4704 feet Rotary xx / Cable Tools _____

Water strata depth: Fresh 0 feet; Salt 1890 feet

Coal seam depths: none Is coal being mined in the area? no

OPEN FLOW DATA

Producing formation Ohio Shale (Chemung) Pay zone depth 4700-4704 feet

Gas: Initial open flow 35 Mcf/d Oil: Initial open flow 0 Bbl/d

Final open flow 20 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 24 hours

Static rock pressure 400 psig (surface measurement) after 48 hours shut in

(If applicable due to multiple completion--)

Second producing formation none Pay zone depth _____ feet

Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d

Final open flow _____ Mcf/d Oil: 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

(Continue on reverse side)

FEB 3 1989

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

perforated from 4700 to 4704' gl with 12 .39" shots
stimulated May 13, 1988 as follows:
500 gallons 15% HCl
125,000 scf Nitrogen
ISIP = 500 psi
5 minute SIP = 475 psi

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Clay			0	20	
Sandstone & Shale			20	303	
Sandstone			303	360	
Sandstone & Shale			360	1220	
Sandstone			1220	1308	slight show gas
Sandstone & Shale			1308	1646	
Greenbrier Limestone			1646	1750	hard, lt. brown color salt water @ 1890'
Sandstone & Shale			1750	2210	
Cuyahoga Shale			2210	2556	med grey, silty
Ohio Shale			2256	6104	med & dk grey
Onodaga Limestone			6104	6331	
Oriskany Sandstone			6331	6410	show of gas
Limestone			6410	6533	
TD				6533	

RECEIVED
JAN 30 1989

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

(Attach separate sheets as necessary)

Drilling Appalachia Corporation

Well Operator

By: Paul Brown, geologist

Date: January 27, 1989

DEPARTMENT OF ENERGY
DIVISION OF OIL & GAS
JAN 30 1989

Note: Regulation 2.02(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."

7015



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD

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

Quadrangle Pennsboro 7.5 min.

Permit No. 47-095-0735

Company Security Gas & Oil, Inc.
Address 417 1/2 Second Street
Farm Clinton S. & Virginia Acres 575
Location (waters) Dillon MCKim Creek
Well No. C.S. Dillon #2 Elev. 798
District Meade County Tyler
The surface of tract is owned in fee by _____
C.S. & V. Dillon
Address St. Marys, WV 26170
Mineral rights are owned by same
Address _____
Drilling Commenced 12/13/79
Drilling Completed 1/8/80
Initial open flow 1,500,000 cu. ft. 0 bbls.
Final production 1,250,000 cu. ft. per day 0 bbls.
Well open 2 hrs. before test 2475 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10"		233	90 sacks
9 5/8		2027'	Cemented to 867 sack
8 5/8			
7			
5 1/2			
4 1/2		6502'	1245 sacks
3			
2			
Liners Used			

Well treatment details:

3500 gals. Hcl acid, 5 1/2 gals. HAT 50, 20,000 lbs. 20-40 sand
10 gal. Clay Sta (Acid Foam Frac) 49 gal. Pen 5, 11,256 gals. H2O
Attach copy of cementing record. 1,250 MCF

Coal was encountered at 0 Feet 0 Inches
Fresh water 0 Feet 0 Salt Water 1890 Feet
Producing Sand Oriskany Depth 6331-6410

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Clay	Yellow	Soft	0	20		
Sandstone	Brown	Hard	20	45		
Shale	Gray	Soft	45	85		
Shale	Red	Soft	85	150		
Sandstone	Brown	Hard	150	237		
Sand/Shale	Gray	Hard	237	308		
Sandstone	Brown	Hard	308	360		
Shale	Gray	Soft	360	450		
Sandstone	Brown	Hard	450	515		
Sand/Shale	Gray	Hard	515	700		
Sandstone	Brown	Hard	700	762		
Shale	Gray	Soft	762	834		
Sand	Brown	Hard	834	866		
Shale	Red	Soft	866	1040		
Sand	White	Hard	1040	1160		
Shale	Gray	Soft	1160	1220		

(over)

* Indicates Electric Log tops in the remarks section.

JUN 15 1981

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sand	White	Hard	1200	1308		
Shale	Gray	Soft	1308	1324		
Sand	White	Hard	1324	1373		
Shale	Gray	Soft	1373	1460		
Sand	Gray	Hard	1460	1510		
Shale	Gray	Soft	1510	1634		
Sand	Gray	Hard	1634	1646		
Lime ^{blk}	Brown	Hard	1646	1750		
Sand ^{blk}	Gray	Hard	1750	1920		
Shale	Gray	Soft	1920	2080		
Sand/Shale	Gray	Hard	2080	2210		
Shale	Gray	Soft	2210	2556		
Sand/Shale	Gray	Hard	2556	2614		
Shale	Gray	Soft	2614	2680		
Sand/Shale	Gray	Hard	2680	2700		
Shale	Gray	Soft	2700	3248		
Sand/Shale	Gray	Hard	3248	3300		
Shale	Gray	Soft	3300	3644		
Sand/Shale	Gray	Hard	3644	3682		
Shale	Gray	Soft	3682	3724		
Siltstone			3724	4124		
Shale	Cinnamon	Soft				
Sand/Shale	Gray	Hard	4124	4150		
Shale	Cinnamon	Soft	4150	4502		
Siltstone						
Shale	Gray	Hard	4502	4578		
Shale	Gray	Soft	4578	4700		
Sand	Gray	Hard	4700	4708		
Shale	Gray	Soft	4708	6104		
Lime	Brown	Hard	6104	6330		
Lime/Dolomite	Brown	Hard	6330	6533		

HOG TD

Date August 21, 19 80

APPROVED *W. E. [Signature]* Security Gas & Oil, Inc. Owner

By *[Signature]* Vice President

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. U. S. Dillon #2

API Well No. 47 - 095 - 073
State County Perm

WELL TYPE: Oil XXX / Gas XXX /
(If "Gas", Production / Underground storage / Deep / Shallow /)

LOCATION: Elevation: 700' Watershed: North
District: Roade County: Tyler Quadrangle: Fernsboro 72

WELL OPERATOR Security Gas & Oil Inc.
Address 417 1/2 Second Street
St. Marys, WV 26170

DESIGNATED AGENT Earl V. Smith
Address It. 30
St. Marys, WV 26170

OIL & GAS ROYALTY OWNER Clinton S. & Virginia Dillon
Address St. Marys, WV 26170

COAL OPERATOR None
Address

Acreage 575

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Same

Name None

Address

Address

Acreage

Name

FIELD SALE (IF MADE) TO:

Name

Address

Address

COAL LESSEE WITH DECLARATION ON RECORD:

Name

Address

OIL & GAS INSPECTOR TO BE NOTIFIED

Name Phillip Tracey

Address Middlebourne, WV

1-304-758-4573

OCT 1 - 1979

OIL & GAS DIVISION
DEPT. OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed / lease XXX / other contract / dated Aug. 1, 1979, to the undersigned well operator from Clinton S. & Virginia Dillon

[If said deed, lease, or other contract has been recorded:]

Recorded on Sept. 5, 1979, in the office of the Clerk of the County Commission of Tyler County, West Virginia, in 1000 Book 220 at page . A permit is requested as follows:

PROPOSED WORK: Drill XX / Drill deeper / Redrill / Fracture or stimulate /
Plug off old formation / Perforate new formation /
Other physical change in well (specify)

--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 objection they wish to make or are required to make by Code § 22-4-3 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 GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311

TELEPHONE: (304) 258-2000

Security Gas & Oil Inc.
Well Operator

By Frank E. Pittet
Its Field Agent

BLANKET BOND

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) _____

Address _____

GEOLOGICAL TARGET FORMATION, Helderberg

Estimated depth of completed well, 7000 feet Rotary _____ Cable tools _____

Approximate water strata depths: Fresh, 150 feet; salt, _____ feet.

Approximate coal seam depths: None 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	15"					30'		Kinds
Fresh water	1 1/2" 4040	42 lb.	xxx			800'	800'	To surface
Coal								Sizes
Intermediate	9 3/4"	1340	32 lb.	xxx		1800'	50 sacks	
Production	5"	180	17 lb.	xxx		7000'	9 1/2 sacks	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 fracturing or stimulating is to be part 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 drilling. This permit shall expire if operations have not commenced by 6-2-80.


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.

Date: _____, 19 _____

By _____

Its _____

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

- 1) Well Operator: ⁰³¹¹ Drilling Appalachian Corporation 14425, 4, 538
- 2) Operator's Well Number: Dillon #2 3) Elevation: 798'
- 4) Well type: (a) Oil / or Gas /
(b) If Gas: Production / Underground Storage /
Deep / Shallow /
- 5) Proposed Target Formation(s): Benson 435
- 6) Proposed Total Depth: 4,900 feet
- 7) Approximate fresh water strata depths: _____
- 8) Approximate salt water depths: _____
- 9) Approximate coal seam depths: none
- 10) Does land contain coal seams tributary to active mine? Yes / No /
- 11) Proposed Well Work: Re-enter and perforate; frac new formation
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT Fill-up (cu. ft.)
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	10"			233'	233'	ets OK
Fresh Water						EXISTING
Coal						
Intermediate	9-5/8"			2,027'	2,027'	ets OK
Production	4-1/2"		10 1/2 #	6,502'	6,502'	
Tubing	2"			4,500'	4,500'	
Liners						

PACKERS : Kind _____
Sizes _____
Depths set _____

RECEIVED
MAY 12 1988

For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

3/17/14 Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond 50 Blanket Agent
(Type)

7015-

RECEIVED
MAY 12 1988

Page 1 of 5
Form W2-A
(09/87)
File Copy

DIVISION OF OIL & GAS
DEPARTMENT OF ENERGY

1) Date: May 11, 1988
2) Operator's well number
Dillon #2
3) API Well No: 47 - 095 - 0735 -FRAC
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 C. S. Dillon
Address Dewey Avenue
St. Marys, WV 26170
(b) Name _____
Address _____
(c) Name _____
Address _____

5) (a) Coal Operator:
Name None
Address _____
(b) Coal Owner(s) with Declaration
Name _____
Address _____
Name _____
Address _____

6) Inspector Robert Lowther
Address General Delivery
Middlebourne, WV 26149
Telephone (304)-758-4764

(c) Coal Lessee with Declaration
Name _____
Address _____

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

X 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 5 on the above named parties, by:

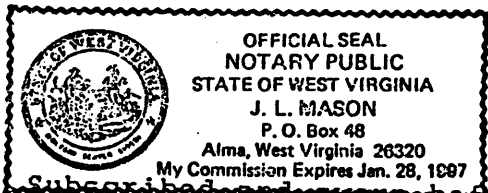
- _____ Personal Service (Affidavit attached)
- _____ Certified Mail (Postmarked postal receipt attached)
- _____ Publication (Notice of Publication attached)

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 Drilling Appalachian Corporation
By: Kenneth R. Mason
Its: President
Address PO Box 99
Alma, WV 26320-0099
Telephone (304) 758-4638



~~Subscribed and sworn to~~ before me this 11th day of May, 1988

My commission expires _____ Jan. 28, 1997 Notary Public