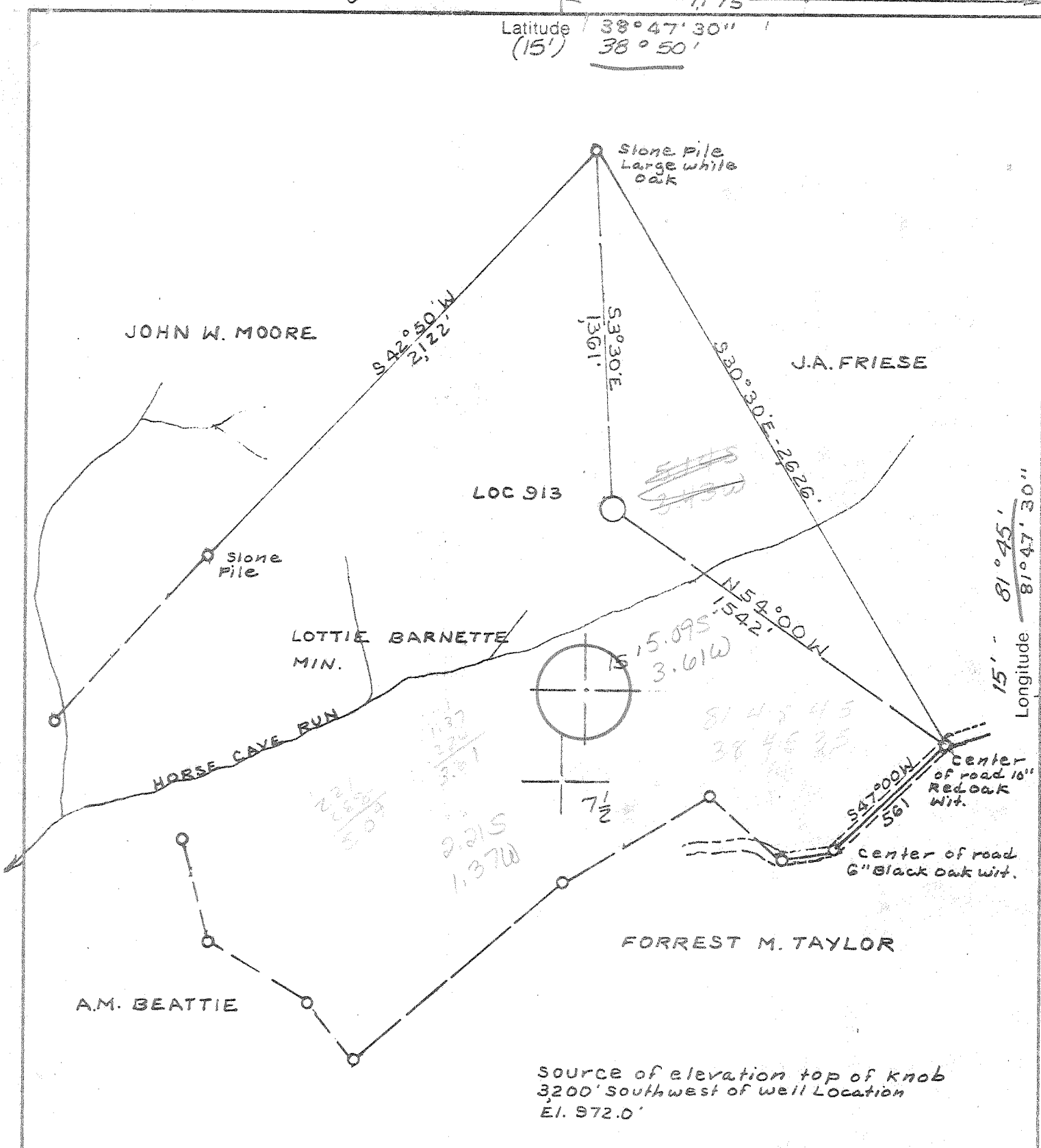


Latitude  $38^{\circ}47'30''$   
(15')  $38^{\circ}50'$

7,175'  
116,500'  
Longitude  $81^{\circ}47'30''$   
15' -  $81^{\circ}45'$



Source of elevation top of knob  
3200' southwest of well Location  
Ei. 972.0'

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 the rules and regulations of the oil and gas section of the mining laws of West Virginia.  
 Minimum degree of accuracy is one part in 200.  
 Land surveyors license No. 92 legg star Rt Box 549-B  
 Sissonville w.va  
 Signed C. J. Galley Jr.

Company DEVON CORP.  
 Address P.O. BOX 1433 CHARLESTON WV  
 Farm GRANT BARNETT / LOTTIE BARNETTE  
 Lease 2478 Acres 110  
 Well Farm No. 1 Ser. No. 913  
 Elevation - Spirit Level 820.0 SE  
 Quadrangle COTTAGEVILLE, RAVENSWOOD 15'  
 Township or District UNION  
 County MASON  
 Sec., Lot, Qr. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_  
 Coordinates \_\_\_\_\_  
 File No. \_\_\_\_\_ Dwg. No. \_\_\_\_\_  
 Date 5-25-78 Scale 1" = 500'

**WELL LOCATION MAP**  
THE STATE OF WEST VIRGINIA

(+) Denotes Values Of Well On United States Topographic Maps

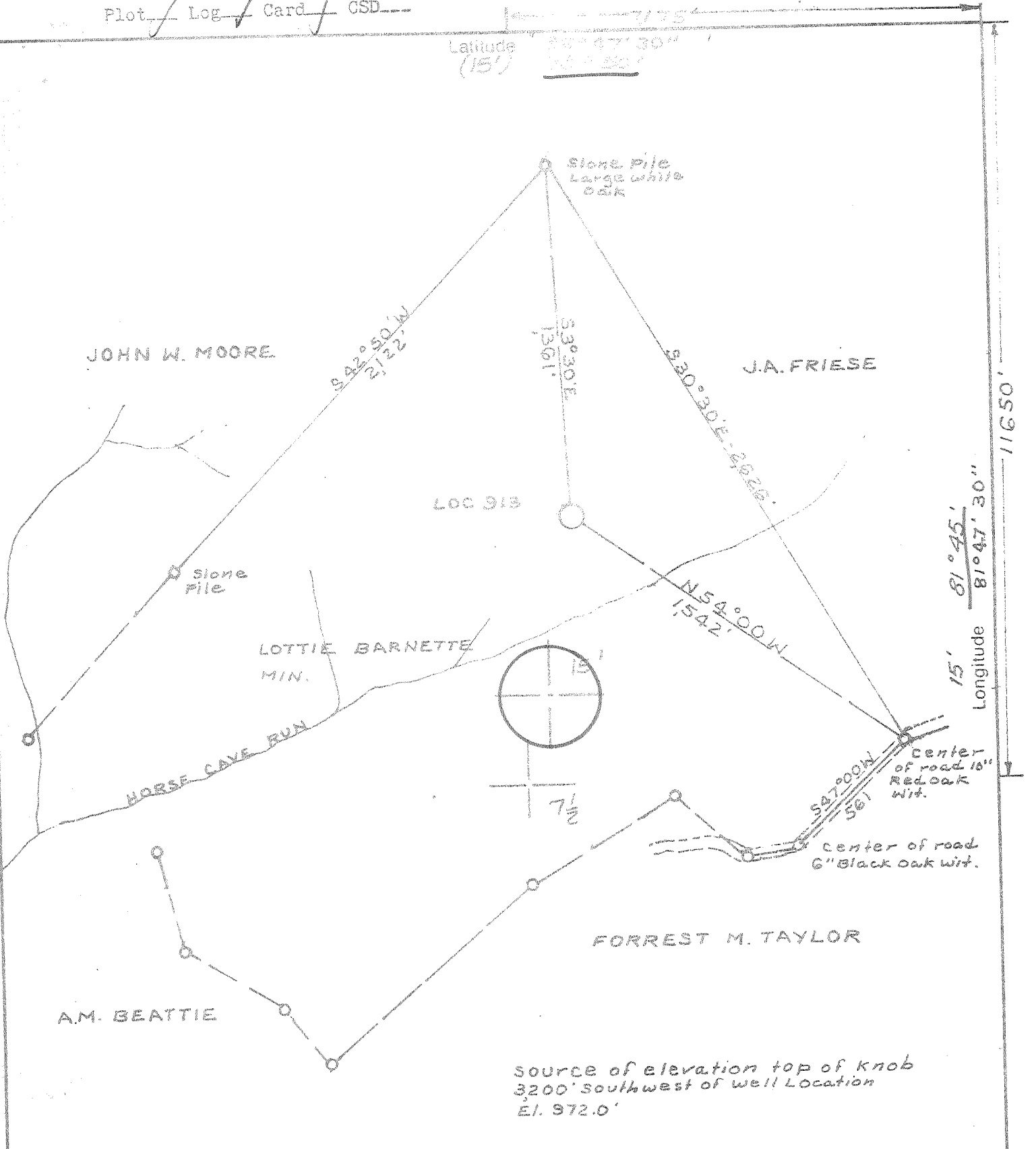
**MAS - 157 - DD**

Scale 15'  7 1/2'

47-053 NOV 30 1978

26... 66... (359)

Latitude  $38^{\circ}47'30''$   
 (15')



Longitude  $81^{\circ}47'30''$   
 15' 81°45'

"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 the rules and regulations of the oil and gas section of the mining laws of West Virginia.  
 Minimum degree of accuracy is one part in 200.  
 Land surveyors license No. 92 1899 Star Rt Box 549-B  
 Sissonville, W.Va.  
 Signed C. S. Galley Jr.

- New Location
- Storage
- Drill Deeper
- Abandonment
- Re-Drill/Fracture

Company DEVON CORP.  
 Address P.O. BOX 1433 CHARLESTON WV  
 Farm GRANT BARNETT / LOTTIE BARNETTE  
 Lease 247B Acres 110  
 Well Farm No. 1 Ser. No. 913  
 Elevation - Spirit Level 820.0 SE  
 Quadrangle COTTAGEVILLE, RAVENSWOOD 15'  
 Township or District UNION  
 County MASON  
 Sec., Lot, Gr. \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_  
 Coordinates \_\_\_\_\_  
 File No. \_\_\_\_\_ Dwg. No. \_\_\_\_\_  
 Date 5-25-78 Scale 1" = 500

**WELL LOCATION MAP**  
 THE STATE OF WEST VIRGINIA

(+) Denotes Values Of Well On United States Topographic Maps

**MAS - 157**

Scale 15'  7 1/2'

Deep Well 47-053

6-6 South Ripley (311)



SEP - 4 1979

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES  
**Oil and Gas Division**  
**WELL RECORD**<sub>35</sub>

OIL & GAS DIVISION  
DEPT. OF MINES  
**47-053-0157**  
Rotary XXX Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas XXX  
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind)

Quadrangle Cottageville

Permit No. MAS-157

Company DEVON CORPORATION  
Address PO Box 1433, Charleston, WV 25325  
Farm Lottie Barnett Hrs Acres 110 ac  
Location (waters) Little Horse Cave Run  
Well No. 913 Elev. 820  
District Union County Mason  
The surface of tract is owned in fee by Grant Barnett, Pt. Pleasant,  
Address W. Va.  
Mineral rights are owned by J. H. Barnett, et al  
Address Box 88, Evans, W. Va.  
Drilling Commenced October 18, 1978  
Drilling Completed November 12, 1978  
Initial open flow 1 MCFD ~~xxx xxx~~ bbls.  
Final production 165 M/D cu. ft. per day \_\_\_\_\_ bbls.  
Well open 4 hrs. before test 700 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	202	202	100 sax=to surface
8 5/8			
7	2581	2581	75 sax=625'
5 1/2			
4 1/2		4685	200 sax=2400'
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Perforated 4 1/2" casing 4478' to 4634' with 23 shots.

*165 MCF*

Fractured Marcellus with 344 BBLS water, 60,000# sand

Perforated 4 1/2" casing 3918'-4102' with 22 shots

Fractured Br. Shale with 284 BBLS water, 60,000# sand.

Coal was encountered at None reported Feet \_\_\_\_\_ Inches

Fresh water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_

Producing Sand Br. Shale & Marcellus Depth 3918-4102 & 4478-4634

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Surface			0	13		
Shale			13	29		
Sand			29	49		
Shale			49	89		
Sand			89	108		
Shale			108	260		
Sand			260	287		
Shale			287	421		
Sand			421	450		
Shale			450	463		
Sand			463	480		
Shale			480	610		
Sand			610	640		
Shale			640	710		
Sand			710	735		
Red Rock			735	860		
Sand			860	904		
Shale			904	934		
Sand			934	982		
Red Rock			982	1050		
Shale			1050	1140		
Sand			1140	1238		
Shale			1238	1306		

(over)

\* Indicates Electric Log tops in the remarks section.

47-053-0157

Formation	Color	Hard or Soft	Top Feet 35	Bottom Feet	Oil, Gas or Water	* Remarks
Sand			1306	1402		
Shale			1402	1440		
Sand			1440	1494		
Shale			1494	1655		
Sand			1655	1748		
Shale			1748	1874		
Big Lime			1874	1964		
Shale			1964	2030		
Injun Sand			2030	2156		
Shale			2156	2462		
Coffee Shale			2462	2484		
Berea Sand			2484	2496		
Shale			2496	3670		
Brown Shale			3670	4136		
Shale			4136	4542		
Marcellus Shale			4542	4700		
Log Total Depth				4700'		

GR log of 2283

Base 2483-2495

H 3670

J 4133

A 4268

Rh 4425

any more of net to top of Onondaga

4760  
2650  
2058

Date January 4, 19 79

APPROVED: A. C. Youse (Owner)  
By District Geologist (Title)



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

OCT 4 - 1978

OIL & GAS DIVISION  
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE October 4, 1978

Surface Owner Grant Barnett  
Address Pt. Pleasant, W. Va.  
Mineral Owner J. H. Barnett & Belle Freise  
Address Box 88, Evans, W. Va.  
Coal Owner Same as above 25241  
Address \_\_\_\_\_  
Coal Operator Not Operated  
Address \_\_\_\_\_

Company DEVON CORPORATION  
Address Box 1433, Charleston, W. Va.  
Farm Lottie Barnett, Hrs. Acres 110 ac  
Location (waters) Little Horse Cave Run  
Well No. 1-913 Elevation 820  
District Union County Mason  
Quadrangle Cottageville

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 2-5-79

Deputy Director - Oil & Gas Division

INSPECTOR TO BE NOTIFIED Kenneth Butcher  
PH: 736-4885 ADDRESS Barboursville, W. Va.

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 October 9 1968 by Lottie Barnett made to Commonwealth Gas and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19  , in Mason County, Book 31 Page 493  
XXX 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, W. Va. 26505

Address  
of  
Well Operator

Very truly yours,  
(Sign Name) A. C. Youse  
A. C. Youse, Dist. Geologist  
Box 1433  
Street  
Charleston  
City or Town  
West Virginia  
State 25325

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

MAS-157

PERMIT NUMBER

47-053

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

PROPOSED WORK ORDER TO XXX DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:  
 NAME FWA Drilling Co., Inc. NAME Bill Endicott  
 ADDRESS Box 448, Elkview, W. Va. ADDRESS Box 1433, Charleston, W. Va.  
 TELEPHONE 965-3379 TELEPHONE 342-3171  
 ESTIMATED DEPTH OF COMPLETED WELL: 2650 ROTARY XXX CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Berea Sand  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS XXX 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	200	200	100 sax = to surface
8 - 5/8			
7	2650	2650	75 sax=625'
5 1/2			
4 1/2			
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS \_\_\_\_\_ FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_  
 APPROXIMATE COAL DEPTHS None anticipated  
 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



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

RECEIVED  
NOV - 9 1978

OIL & GAS DIVISION  
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

DATE November 7, 1978

Surface Owner Grant Barnett

Company Devon Corporation

Address Point Pleasant, W. Va.

Address Box 1433, Charleston, WV

Mineral Owner J.H. Barnett & Belle Friese

Farm Lottie Barnett Hrs. Acres 110 ac.

Address Box 88, Evans, WV

Location (waters) Little Horse Cane Run

Coal Owner Same as above

Well No. 913 Elevation 820

Address \_\_\_\_\_

District Union County MASON

Coal Operator Not operated

Quadrangle Cottageville 7 1/2

Address \_\_\_\_\_

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 deepening. This permit shall expire if operations ~~have not commenced by~~ 3-9-79.

Deputy Director - Oil & Gas Division

INSPECTOR TO BE NOTIFIED Kenneth Butcher

PH: 736-4885 ADDRESS Barboursville, W. Va.

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 October 9 1968 by Lottie Barnett made to Commonwealth Gas and recorded on the \_\_\_\_\_ day of \_\_\_\_\_ 19\_\_\_\_, in Mason County, Book 31 Page 493

NEW WELL XXX 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.

DEVON CORPORATION

Very truly yours,

(Sign Name) A.C. Youse Well Operator Dist. Geologist

Box 1433

Street

Charleston

City or Town

West Virginia 25325

State

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

West Virginia Geological and Economic Survey  
P. O. Box 879  
Morgantown, W. Va. 26505

Address  
of  
Well Operator

\*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 BOARD

MAS-157 -DD

PERMIT NUMBER

47-053

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

PROPOSED WORK ORDER TO \_\_\_\_\_ DRILL XXX DEEPEN \_\_\_\_\_ FRACTURE-STIMULATE \_\_\_\_\_  
 DRILLING CONTRACTOR: (If Known) \_\_\_\_\_ RESPONSIBLE AGENT: \_\_\_\_\_  
 NAME \_\_\_\_\_ NAME Bill Endicott  
 ADDRESS \_\_\_\_\_ ADDRESS Box 1433, Charleston, WV  
 TELEPHONE \_\_\_\_\_ TELEPHONE 342-3171  
 ESTIMATED DEPTH OF COMPLETED WELL: 4750 ROTARY XXX CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Marcellus Shale  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS XXX COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

Present depth is 2650'

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8	200	200	100 sax- to surface
8 - 5/8			
7	2600	2600	75 sax= 625'
5 1/2			
4 1/2			
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS \_\_\_\_\_ FEET SALT WATER \_\_\_\_\_ FEET  
 APPROXIMATE COAL DEPTHS None Anticipated  
 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