



New Location
 Drill Deeper
 Abandonment

Minimum Error of Closure 1 : 200
 Source of Elevation Road forks southeast of well location El. 951.0'
 "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 paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia."

Company DEVON CORP
 Address P.O. BOX 1433 CHARLESTON WV
 Farm HELEN JIVIDEN
 Tract _____ Acres 90 Lease No. 2374
 Well (Farm) No. 1 Serial No. 948
 Elevation (Spirit Level) 907.0' SE
 Quadrangle ELMWOOD 7.5 Winfield 15'
 County MASON District UNION
 Surveyor C. Y. Valley Jr.
 Surveyor's Registration No. 92
 File No. BK 50 PG 1 Drawing No. _____
 Date 12-15-79 Scale 1" = 500'

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION
 CHARLESTON
WELL LOCATION MAP
 FILE NO. 053-0211

+ 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.

Deep Well 16-6 Rock Castle (346) JAN 15 1980



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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OCT 10 1980

Oil and Gas Division

**OIL & GAS DIVISION
DEPT. OF MINES**

WELL RECORD¹⁷

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

Quadrangle Elmwood

Permit No. MAS 211

53

Company DEVON CORPORATION
Address P. O. Box 1433, Charleston, WV
Farm Helen Jividen Acres 90
Location (waters) Mudlick Fork
Well No. 948 Elev. 908
District Union County Mason
The surface of tract is owned in fee by _____
Lannes Williamson, et ux
Address Southside, WV 25187
Mineral rights are owned by Helen Jividen
Address Rt 3, Leon, WV 25123
Drilling Commenced 6-17-80
Drilling Completed 6-25-80
Initial open flow 2500 cu. ft. XXX
Final production 163,000 cu. ft. per day XXX
Well open 4½ hrs. before test 1670 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	338	338	150 sx (Surf)
8 5/8			
7	2588	2588	100 sx (850')
5 1/2			
4 1/2		4837	225 sx (2200')
3			
2 3/8		4721	
Liners Used			

Well treatment details:

Attach copy of cementing record.

Well fractured with 671 bbls water, 15,000# 80/100 sand & 22,000# 20/40 sand.

Ave. PSI 4059#, ave. rate 9.1 bbls/min. 170,000 SCF, Total N₂

163 MCF

Coal was encountered at None Feet _____ Inches _____
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Oriskany Sand Depth 4742-4744

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	9		
Sand			9	68		
Shale			68	87		
Sand			87	345		
Shale			345	448		
Sand			448	496		
Shale			496	668		
Sand			668	684		
Shale			684	696		
Sand			696	714		
Shale			714	758		
Sand			758	775		
Shale			775	1000		
Sand			1000	1035		
Shale			1035	1096		
Sand			1096	1130		
Shale			1130	1150		
Sand			1150	1162		
Shale			1162	1302		
Sand			1302	1323		
Shale			1323	1331		
Sand			1331	1343		
Shale			1343	1348		
Sand			1348	1478		

Tops probably from KB - ABOUT 916'

(over)

* Indicates Electric Log tops in the remarks section.

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Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Shale			1478	1679		
Sand			1679	1695		
Shale			1695	1736		
Sand			1736	1745		
Shale			1745	1770		
Sand			1770	1824		
Shale			1824	1844		
Sand			1844	1863		
Big Lime			1863	2045		
Shale			2045	2082		
Injun Sand			2082	2215		
Shale			2215	2513		
Coffee Shale			2513	2530		
Berea Sand			2530	2554		
Shale			2554	3700		
Brown Shale			3700	4126		
Shale			4126	4498		
Marcellus Shale			4498	4650		
Onondaga L. S.			4650	4730		
Oriskany Sand			4730	4752		
Helderberg L. S.			4752	4839		
T. D.			4839			

Date August 14, 1980

DEVON CORPORATION

APPROVED

Paul Wiemann,

Owner

By Geologist

(Title)



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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 Lannes Williamson, et ux
Address Southside, WV 25187
Mineral Owner Helen Jividen
Address Rt. 3, Leon, W. Va. 25123
Coal Owner Same as above
Address _____
Coal Operator Not operated
Address _____

DATE December 17, 1979
Company DEVON CORPORATION
Address Box 1433, Charleston, W. Va.
Farm Helen Jividen Acres 90
Location (waters) Mudlick Fork of 13 Mile Creek
Well No. 948 Elevation 907
District Union County Mason
Quadrangle Elmwood

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 8-21-80.

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

Robert L. [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 July 21 1974 by Helen Jividen, et al made to Devon & Eason and recorded on the _____ day of _____ 19____, in Mason County, Book 28 Page 473

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, WEST VIRGINIA 26505
AC-304 - 292-6331

Address
of
Well Operator

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

BLANKET BOND

*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.

"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 _____

47-053-0211
PERMIT NUMBER

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. 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: 4850 ROTARY XXX CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Oriskany 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	350	350	150 sax=to surface
8 - 5/8			
7	2625	2625	75 sax=625 feet
5 1/2			
4 1/2		4850	225 sax=2400 feet
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