



FILE NO. 4-14-1980A
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/1000
 PROVEN SOURCE OF ELEVATION 2 OF ROADS 1 MILE SOUTH (93)

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) Walter P. Loput
 R.P.E. 7410 L.L.S. _____

PLATE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (6-79)



DATE _____ 19____
 OPERATOR'S WELL NO. _____
 API WELL NO. _____
47 - 033 - 2357
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS ___ LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS") PRODUCTION STORAGE ___ DEEP ___ SHALLOW ___
 LOCATION: ELEVATION 1221 WATER SHED MUDLUCK RUN
 DISTRICT CLAY COUNTY HARRISON
 QUADRANGLE SHANNON T42 CLARKSBURG 15'2C
 SURFACE OWNER G. HELEBRETH A.W. ANDERSON ACREAGE 90
 OIL & GAS ROYALTY OWNER SAMANTHA HARDESTY LEASE ACREAGE 90
 LEASE NO. _____
 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 BENSON ESTIMATED DEPTH 4850
 WELL OPERATOR DOREAN ASSOCIATES, INC. DESIGNATED AGENT A.E.V.N. SORAN
 ADDRESS 728 WASHINGTON RD TOW, PA. ADDRESS RT 4 BOX 444 BUCKHANNON, W.VA.

OG-10
Rev. 9-71



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
Oil and Gas Division

WELL RECORD ¹²

Quadrangle Shinnston 7 1/2
Permit No. 47-033-2357

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

Company Appalachian Energy, Inc. d/b/a LDR
Address 728 Washington Rd, Pgh, PA 15228
Farm Samantha Hardesty Acres 90
Location (waters) Mudlick Run
Well No. #1 A-A-1 Elev. 1221
District Clay County Harrison
The surface of tract is owned in fee by Leonard G. Heldreth & Vilery E. Heldreth
Address Fairmont, WV
Mineral rights are owned by (1/3) Mary Hardesty (no add.)
(2/3) David Hardesty Address 1212 East Ave., Shinnston, WV 26431
Drilling Commenced 5-21-80
Drilling Completed 5-27-80
Initial open flow -- cu. ft. -- bbls.
Final production 189 M cu. ft. per day -- bbls.
Well open 72 hrs. before test 300# RP.
Well treatment details:

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 12 1/2 11 3/4	20	20	
9 5/8			
8 5/8	1256	1256	295 Sks.
5 1/2			
4 1/2	2800	2800	270 Sks.
3			
2			
Liners Used			

Attach copy of cementing record.

Stimulation Record

Date:	Interval Perforated:	From	To	Amt. Fluid	Amt. Sand
6-6-80		2708	2602	500 Bbls.	56,000
1-27-81		2158	2174	390 Bbls.	12,000

Coal was encountered at 205' 996' Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet _____
Producing Sand Fifth Sand, 50 Ft. Sand Depth 2685, 2154

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Substructure			0	20		
Sand			20	165		
Sandy Shale			165	205		
Coal			205	208		
Sandy Shale			208	730		
Sand			730	800		
Sandy Shale			800	950		
Sand			950	996		
Coal			996	1000		
Sand			1000	1150		
Sandy Shale			1150	1200		
Sand			1200	1230		
Sandy Shale			1230	1245		
Sand			1245	1270		
Sandy Shale			1270	1465		
Sand			1465	1500		
Sandy Shale			1500	1560		
Little Lime			1560	1575		
Sandy Shale			1575	1605		
Big Lime			1605	1700		
Sand			1700	1760		
Sandy Shale			1760	1905		
Sand			1905	1955		
Sandy Shale			1955	2160		

RECEIVED

MAR 16 1981

OIL & GAS DIVISION
DEPT. OF MINES

(over)

* Indicates Electric Log tops in the remarks section.

MAR 23 1981

Formation	Color	Hard or Soft	Top Feet /-	Bottom Feet	Oil Gas or Water	Remarks
Sand			2160	2200		oil odor @ 2165'
Sandy Shale			2200	2530		
Sand			2530	2630		gas @ 2690'
Sandy Shale			2630	3060		
Sand			3060	3190		
Sandy Shale			3190	3350		
Sand			3350	3375		
Sandy Shale			3375	3900		
Sand			3900	4015		
Sandy Shale			4015	4605		
Sand			4605	4625		
Sandy Shale			4625	4832		
Driller's T.D.				4832		
Fifty Foot Sand			2154	2218		
Fifth Sand			2685	2730		
Upper Speechley			3168	3202		
Speechley			3354	3398		
Bradford			3750	3765		
Logger's T.D.				4825		

4825
 2218

 2607 ft.
 Exploratory

Date: March 12, 1981
 APPROVED: Donald R. Laughlin Owner
 By: Donald R. Laughlin, President
 (Title)



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

RECEIVED

MAY - 1 1980

Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

OIL AND GAS WELL PERMIT APPLICATION

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

35.774a :
Surface Owner Lenard G. Heldreth and Vilery E.
Address Heldreth, Fairmont, WV
Mineral Owner (1/3) Mary Hardesty
Address no address
Mineral Owner (2/3) David C. Hardesty
Address 1212 East Avenue, Shinnston, WV 26431
Coal Operator Clay Development Company
Address P. O. Box 630, Clarksburg, WV 26301

DATE April 23, 1980
Company Doran And Associates, Inc.
~~Appalachian Energy, Inc.~~
Address 728 Washington Road, Pgh.,
Farm Samantha Hardesty Acres 90
Location (waters) Mudlick Run
Well No. 1 Elevation 1221
District Clay County Harrison
Quadrangle Shinnston 7 1/2

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 1-13-81

INSPECTOR
TO BE NOTIFIED Paul Garrett
ADDRESS Clarksburg, WV 26301
PHONE 304-622-3871

Robert R. [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 June 1 19 79 by David C. Hardesty et al made to Appalachian Energy, Inc. and recorded on the 26th day of September 19 79, in Harrison County, Book 1083 Page 1108

XX 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 this 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

Very truly yours,
(Sign Name) Donald R. Laughlin
Well Operator
Donald R. Laughlin
728 Washington Road
Street
Pittsburgh, PA 15228
City or Town
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... 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.

47-033-2357

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

BLANKET BOND

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

PROPOSED WORK ORDER TO xx DRILL DEEPEN FRACTURE STIMULATE
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:
 NAME S. W. Jack Drilling Company NAME Alvin Sorcan
 ADDRESS P. O. Box 697, Indiana, PA 15701 ADDRESS Rt. 4, Box 444, Buckhannon, WV
 TELEPHONE 349-6800 TELEPHONE 304-472-9600 26201
 ESTIMATED DEPTH OF COMPLETED WELL: 4850 ROTARY xx CABLE TOOLS
 PROPOSED GEOLOGICAL FORMATION: DEWSON
 TYPE OF WELL: OIL xx GAS xx COMB. xx STORAGE xx DISPOSAL xx
 RECYCLING xx WATER FLOOD xx OTHER xx

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LIFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8	30	30	To Surface
8 - 5/8	1250	1250	To Surface
7			
5 1/2			
4 1/2	4850	4850	350 sks
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 40 FEET SALT WATER FEET
 APPROXIMATE COAL DEPTHS 180 245 670
 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.

Per Coal Company

Official Title

2006 FEBRUARY