



New Location   
 Drill Deeper   
 Abandonment

Minimum Error of Closure ..... 1 IN 200  
 Source of Elevation ..... § OF ROADS 3/4 MI SE (985)  
Walter P. Leput  
 "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 APPALACHIAN ENERGY INC. dba LDR  
 Address PITTSBURGH, PA.  
 Farm C.T. HARBERT LANGFORD HARBERT  
 Tract \_\_\_\_\_ Acres 74 Lease No. 14249  
 Well (Farm) No. B-1160 Serial No. \_\_\_\_\_  
 Elevation (Spirit Level) 1130 C  
 Quadrangle WALLACE 7 1/2 Clarksburg 15'  
 County HARRISON District EAGLE  
 Engineer WALTER P. LEPUT  
 Engineer's Registration No. 7410  
 File No. \_\_\_\_\_ Drawing No. 4-29-78  
 Date 4-27-78 Scale 1"=500'

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

**WELL LOCATION MAP**  
 FILE NO. HAR-1720

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.  
 - Denotes one inch spaces on border line of original tracing.

47-033 AUG 18 1978

L-11 RROWN - LUMBERPORT 104



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

WELL RECORD 7

RECEIVED  
JAN 20 1979

OIL & GAS DIVISION  
DEPT. OF MINES

Quadrangle WALLACE

Permit No. HAR-1720

47-033

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. Pittsburgh, PA 15228  
Farm C.T. Harbert #1 Acres 74  
Location (waters) Jones Creek  
Well No. A-E-23 Elev. 1130'  
District Eagle County Harrison  
The surface of tract is owned in fee by Lanford Harbert  
Address Rt.1, Box 155, Lumberport, WV 26386  
Mineral rights are owned by A.E. Rogers, et al  
126 Winding Way, Clarksburg, WVA 26301  
Drilling Commenced August 7, 1978  
Drilling Completed August 13, 1978  
Initial open flow 59M cu. ft. \_\_\_\_\_ bbls.  
Final production 919 M cu. ft. per day \_\_\_\_\_ bbls.  
Well open 72 hrs. before test 1300# RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 13-10" 11 3/4"	36'	36'	
9 5/8			
8 5/8	1158'	1158'	380
7			
5 1/2			
4 1/2	4591'	4591'	380
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Stimulation Record:

Interval Perforated:	FROM	TO	AMT. FLUID	AMT. SAND
	4438	4444	511 BBLs.	45,000#
DATE: 9-8-78	4252	4280	535 BBLs.	27,000#
	3801	3807	365 BBLs.	23,000#
	3260	3313	660 BBLs.	80,000#

Coal was encountered at 400,472 Feet \_\_\_\_\_ Inches

Fresh water 15, 1445' Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_

Producing Sand Balltown, Bradford, Riley, Benson Depth 3296' - 3806' - 4280' - 4440'

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Substructure			0	10		
Sand			10	75		F.W. @ 15'
Shale			75	95		
Sand			95	130		
Sandy Shale & Red Rock			130	290		
Sand			290	310		
Sandy Shale			310	400		
Coal			400	402		
Sandy Shale			402	472		
Coal			472	475		
Sandy Shale			475	515		
Sand			515	545		
Sandy Shale			545	860		
Sand			860	1070		
Sandy Shale			1070	1100		
Sand			1100	1140		
Sandy Shale			1140	1310		
Little Lime			1310	1320		
Sandy Shale			1320	1340		
Big Lime			1340	1415		
Sand			1415	1490		F.W. @ 1445'
Sandy Shale			1490	2040		

(over)

\* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Sand			2040	2120		
Sandy Shale			2120	2205		
Sand			2205	2300		
Shale			2300	2575		
Sandy Shale			2575	2940		
Sand			2940	2975		
Sandy Shale			2975	3295		
Sand			3295	3315		
Sandy Shale			3315	4180		
Sand			4180	4220		
Sandy Shale			4220	4240		
Riley Sand			4240	4255		
Sandy Shale			4255	4435		
<u>Benson</u> Sand			4435	4465		
Shale			4465	4601		
Driller's T.D.				4601		
* Speechley			2804	3000		
* Balltown			3210	3325	Gas @ 3296'	
* Riley			4242	4310	Gas @ 4290'	
* Benson			4440	4458	Gas @ 4450'	
* Logger's T.D.				4603		

Date Jan. 15 1979

APPROVED Donald R. Laughlin Owner

By Donald R. Laughlin, President  
(Title)



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

RECEIVED

JUL 28 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 July 21, 1978

Surface Owner Langford Harbert  
Address Rt. 1, Box 155, Lumberport, WV 26386  
Mineral Owner A. E. Rogers, et al  
Address 126 Winding Way, Clarksburg, WV 26301  
Coal Owner Sewell River Coal & Land Co.  
Address 2412 Terminal Tower, Cleveland, OH 44113  
Coal Operator \_\_\_\_\_  
Address \_\_\_\_\_

Company Appalachian Energy, Inc. d/b/a LDR  
Address 728 Washington Road, Pittsburgh, PA 15228  
Farm C. T. Harbert #1 Acres 74  
Location (waters) Jones Creek  
Well No. A-E-23 Elevation 1130  
District Eagle County Harrison  
Quadrangle Wallace

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 12-1-78.

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

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 January 26, 1909 by C. T. Harbert, et al made to Hope Natural Gas Co. and recorded on the 20th day of Jan. 1910 in Harrison County, Book 183 Page 49

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

Address 728 Washington Road  
of Street  
Well Operator Pittsburgh  
City or Town  
Pennsylvania 15228  
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 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.



HAR-1720 PERMIT NUMBER

*Laughlin*

**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 26201  
 TELEPHONE (412) 463-9191 TELEPHONE (304) 472-0007  
 ESTIMATED DEPTH OF COMPLETED WELL: 4650' ROTARY XX CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Benson  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS X 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 11 3/4"	30'		
9 - 5/8			
8 - 5/8	1050	1050	250 Sks.
7			
5 1/2			
4 1/2	4650	4650	250 Sks.
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 100 FEET SALT WATER 800 FEET

APPROXIMATE COAL DEPTHS \_\_\_\_\_

IS COAL BEING MINED IN THE AREA? \_\_\_\_\_ 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