



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION SPOT ELEV. JCT. OF SPRING RUN & INDIAN FORK RDS.

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. *Mark C. Echard*  
 (SIGNED) MARK C. ECHARD  
 R.P.E. \_\_\_\_\_ L.L.S. 490

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6  
 (8-78)



DATE MAY 15, 1980  
 OPERATOR'S WELL NO. ONE  
 API WELL NO. 47-017-2751  
 STATE \_\_\_\_\_ COUNTY \_\_\_\_\_ PERMIT \_\_\_\_\_

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION \_\_\_ STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 1027 WATERSHED ROBERTS FORK  
 DISTRICT NEW MILTON COUNTY DODDRIDGE  
 QUADRANGLE NEW MILTON 7.5' VADIS 15' C  
 SURFACE OWNER MR. EARL GUM ACREAGE 112  
 OIL & GAS ROYALTY OWNER MR. EARL GUM LEASE ACREAGE 112  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL X 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 DEV. SHALE (FLK) ESTIMATED DEPTH 5540'  
 WELL OPERATOR ROCKWELL PETROLEUM DESIGNATED AGENT MR. ROBERT R. JONES  
 ADDRESS P.O. BOX 86 SAND FORK, W.V. 26430 ADDRESS P.O. BOX 86 SAND FORK, W.V. 26430

[08-78]

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas", Production X / Underground storage \_\_\_ / Deep \_\_\_ / Shallow X /)  
Elevation: 1037 Watershed: Roberts Fork  
District: New Milton County: Doddridge Quadrangle: New Milton

OPERATOR Rockwell Petroleum Company DESIGNATED AGENT Robert R. Jones  
Address P O Box 86 Address P O Box 86  
Sand Fork, WV 26430 Sand Fork, WV 26430

INTENDED WORK: Drill X / Convert \_\_\_ / Drill deeper \_\_\_ / Redrill \_\_\_ / Fracture or stimulate \_\_\_  
Plug off old formation \_\_\_ / Perforate new formation \_\_\_ /  
Other physical change in well (specify) \_\_\_\_\_

PERMIT ISSUED ON June 4, 1980

OIL & GAS INSPECTOR FOR THIS WORK:  
Name Paul Garrett  
Address Clarksburg, WV 26301  
622-3871

APPLICABLE: PLUGGING OF DRY HOLE ON  
CONTINUOUS PROGRESSION FROM DRILLING OR  
REWORKING. VERBAL PERMISSION OBTAINED  
\_\_\_\_\_, 19\_\_\_\_

LOGICAL TARGET FORMATION: Devonian Shale Depth 5297 feet  
Depth of completed well, 5471 feet Rotary X / Cable Tools \_\_\_  
Water strata depth: Fresh, 81 feet; salt, \_\_\_ feet.  
Coal seam depths: None Is coal being mined in the area? No  
Work was commenced June 12, 1980, and completed June 27, 1980

LOGGING AND TUBING PROGRAM

LOGGING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling		
Production	8 5/8					1117	1117	To surface
Intermediate								
Production	4 1/2						5404	Depth set
DR								Perforations:
TS								Top Bottom

FLOW DATA

Producing formation Riley Pay Zone depth 4788 feet  
Gas: Initial open flow, \_\_\_ Mcf/d Oil: Initial open flow, \_\_\_ Bbl/d  
Final open flow, \_\_\_ Mcf/d 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  
[If applicable due to multiple completion--]  
Second producing formation Benson & Elk Pay zone depth 5297 feet  
Gas: Initial open flow, \_\_\_ Mcf/d Oil: Initial open flow, \_\_\_ Bbl/d  
Final open flow, 220 Mcf/d Final open flow, \_\_\_ Bbl/d  
Time of open flow between initial and final tests, 8 hours  
Static rock pressure, 1650 psig (surface measurement) after 49 hours shut in

COMBINED

AUG 20 1980

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

Fractured July 11, 1980

**ALEX**

~~Wick~~ & Benson - 20,000 lb. 80/100 sand  
 40,000 lb. 20/40 sand  
 2300 lb. breakdown  
 510 bbls. water  
 20.3 BPM at 2165 lb.

Riley - 20,000 lb. 80/100 sand  
 40,000 lb. 20/40 sand  
 2200 lb. breakdown  
 575 bbls. water  
 22 BPM at 1600 lb.

Perforations - 4995 - 5297, 7 holes

Perforations - 4786 - 4788, 6 holes

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks Including indication of all fresh and salt water, coal, oil and gas
Surface			0	81	
Sand			81	88	Water
Red Rock			88	101	
Shale			101	240	
Red Rock			240	280	
Slate			280	310	
Shale			310	640	
Sand			640	680	
Red Rock			680	745	
Shale			745	1240	
Red Rock			1240	1280	
Shale			1280	1420	
Sand			1420	1479	
Shale			1479	1840	
Sand			1840	1880	
Shale			1880	2065	
Lime			- 2065	2088	
Slate			2088	2110	
Lime			- 2110	2260	
Sandy Shale			2260	2380	
Shale			2380	2510	
Sand			2510	2546	
Shale			2546	3180	
Sand			3180	3200	
Shale			3200	3280	
Sand			3280	3390	
Shale			3390	3850	
Sand			3850	3870	
Shale			3870	4780	
Sand			4780	4798	
Shale			4798	4985	
Sandy Shale			4985	5000	
Shale			5000	5290	
Sandy Shale <b>ALEX</b>			5290	5304	
Shale			5304	5471	
Total Depth			5471		

(Attach separate sheets to complete as necessary)

Rockwell Petroleum Company

Well Operator

By Laura S. Cochran

Its Secretary

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."

[08-78]

**COPY**

OIL AND GAS WELL PERMIT APPLICATION

Operator's  
Well No. E. Gum #1

API Well No. 47 - 017 2751  
State County Pe

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

LOCATION: Elevation: 1037' Watershed: Roberts Fork  
District: New Milton County: Doddridge Quadrangle: New Milton

WELL OPERATOR Rockwell Petroleum Company  
Address P O Box 86  
Sand Fork, WV 26430

DESIGNATED AGENT Robert R. Jones  
Address P O Box 86  
Sand Fork, WV 26430

OIL & GAS  
ROYALTY OWNER Earl Gum  
Address New Milton, WV

COAL OPERATOR N/A

Address:     

Acreage 112

COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Earl Gum  
Address New Milton, WV

Name N/A

Address     

Acreage 112

Name N/A

FIELD SALE (IF MADE) TO:  
Name N/A  
Address     

Address     

COAL LESSEE WITH DECLARATION ON RECORD:

Name N/A

Address     

OIL & GAS INSPECTOR TO BE NOTIFIED  
Name Paul Garrett  
Address Clarksburg, WV 26301  
622-3871

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed      / lease X / other contract      / dated June 27, 1979, to the undersigned well operator from Earl Gum, widower

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

Recorded on July 3, 1979, in the office of the Clerk of the County Commission of Doddridge County, West Virginia, in Lease Book 109 at page 61. A permit is requested as follows:

PROPOSED WORK: Drill X / 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.

**BLANKET BOND**

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS  
CONSERVATION COMMISSION  
1015 WASHINGTON STREET EAST  
CHARLESTON, WV 25311

TELEPHONE: (304) 348-3092

Rockwell Petroleum Company  
Well Operator

By Mark R. Wood  
Its Partner

[08-78]

4700  
Y900

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) Union Drilling, Inc.  
Address Drawer 40  
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Devonian Shale

Estimated depth of completed well, 5540 feet Rotary X / Cable tools      /  
Approximate water strata depths: Fresh, 160 feet; salt, N/A feet.  
Approximate coal seam depths: N/A Is. coal being mined in the area? Yes      / No X

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								Kinds
Fresh water	8 5/8	-				1150'	1150'	To surface
Coal								Sizes
Intermediate								
Production	4 1/2						5540'	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.

**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 2-6-81.

*[Signature]*  
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