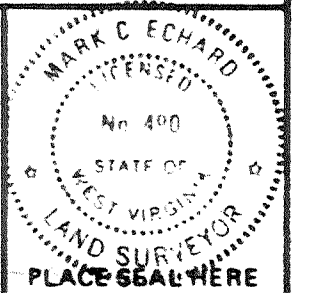


FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 500'  
 MINIMUM DEGREE OF ACCURACY 1/200  
 PROVEN SOURCE OF ELEVATION Jct. of Rd. Sec. 28 & 28/2  
1150' S.E. of Loc. Elev. = 862'

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



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

WELL TYPE: OIL \_\_\_ GAS  LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION  STORAGE \_\_\_ DEEP \_\_\_ SHALLOW   
 LOCATION: ELEVATION 1037 WATER SHED BRANCH OF NUTTER FORK  
 DISTRICT WEST UNION COUNTY DOODRIDGE  
 QUADRANGLE WEST UNION 7.5' J15 EC

SURFACE OWNER JOSEPH CORATHERS WAYNE RAVENSCHROFT ACREAGE 99.25  
 OIL & GAS ROYALTY OWNER THOMAS DOAK HRS. LEASE ACREAGE 99.25  
 LEASE NO. \_\_\_\_\_

PROPOSED WORK: DRILL  CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ OTHER PHYSICAL CHANGE W WELL (SPECIFY) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_  
 TARGET FORMATION BENSON-RILEY ESTIMATED DEPTH 5500' ±  
 WELL OPERATOR D.A.C. DESIGNATED AGENT KENNETH MASON  
 ADDRESS P.O. BOX 99 ADDRESS P.O. BOX 99  
ALMA, W.V. 26320 ALMA, W.V. 26320

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

DATE JUNE 8, 1990  
 OPERATOR'S WELL NO. TWO  
 API WELL NO. 47-017-3958  
 STATE WEST UNION COUNTY DOODRIDGE PERMIT

JUL 21 1992

6-6 Swiger (Flint Run) (1992)

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: RAVENSCROFT, WAYNE Operator Well No.: SWIGER #2

LOCATION: Elevation: 1037.00 Quadrangle: WEST UNION

District: WEST UNION County: DODDRIDGE  
Latitude: 13800 Feet South of 39 Deg. 22Min. 30 Sec.  
Longitude 1420 Feet West of 80 Deg. 45 Min. 0 Sec.

Company: DRILLING APPALACHIAN CORP  
P. O. BOX 99  
ALMA, WV 26320-0099

Agent: KENNETH R. MASON

Inspector: MIKE UNDERWOOD  
Permit Issued: 07/13/92  
Well work Commenced: 7/19/92  
Well work Completed: 7/30/92  
Verbal Plugging  
Permission granted on: N/A  
Rotary XX Cable Rig  
Total Depth (feet) 5218'  
Fresh water depths (ft) 200'

Salt water depths (ft) 1900'

Is coal being mined in area (Y/N)?  
Coal Depths (ft): No

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8-5/8"	1239'	1239'	275 sks
4-1/2"		5155'	300 sks

OPEN FLOW DATA

Producing formation Benson Pay zone depth (ft) 5097-5101  
Gas: Initial open flow 10 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 460 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 26 Hours  
Static rock Pressure 1575 psig (surface pressure) after 48 Hours

Second producing formation Pay zone depth (ft)  
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 pressure) after Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: DRILLING APPALACHIAN CORP.

By: Kenneth R. Mason  
Date: August 25, 1992

Perforated with 16 shots, at 5097'-5101'. Fraced with 10,000# 80/100 sand and 40,000# 20/40 sand in a 20# gel system. 74,000 SCF of nitrogen gas. Formation break was at 1973 psi, avg. psi, 2657, avg rate, 24.79 bbls/min. avg Nitrogen rate 3.75 MSCF/min. INSIP 1480 psi.

Permian Sands/Shales	0	500	
Pennsylvanian Sands/Shales	500	1900	
Big Lime	2002	2071	
Keener Sand	2072	2078	
Shale	2078	2090	
Big Injun Sand	2091	2209	
Shale	2210	2337	
Weir	2338	2411	
Shale/Siltstone	2412	2537	
Gantz Sands	2538	2556	
Shale/Siltstone	2557	2775	
Gordon Sands	2776	2794	
Shale/Siltstone	2795	3433	
Warren	3434	3464	
Shale/Siltstone	3465	4605	
Riley	4606	4665	
Shale/Siltstone	4666	5068	
Benson	5069	5079	show of gas
Shale/Siltstone	5080	5218	
Total Depth		5218	

017-3958  
Issued 7/13/92

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
WELL WORK PERMIT APPLICATION

Expires 7/13/94

- 1) Well Operator: DRILLING APPALACHIAN CORPORATION 14425 (8) 670
- 2) Operator's Well Number: Swiger #2 3) Elevation: 1037
- 4) Well type: (a) Oil  / or Gas  /  
(b) If Gas: Production  / Underground Storage  /  
Deep  / Shallow  /
- 5) Proposed Target Formation(s): Benson/Riley
- 6) Proposed Total Depth: 5500± feet
- 7) Approximate fresh water strata depths: \_\_\_\_\_
- 8) Approximate salt water depths: \_\_\_\_\_
- 9) Approximate coal seam depths: \_\_\_\_\_
- 10) Does land contain coal seams tributary to active mine? Yes  / No  /
- 11) Proposed Well Work: Drill, perforate, stimulate new formation
- 12) \_\_\_\_\_

**RECEIVED**  
Office of Oil & Gas  
Permitting  
JUL 13 92

CASING AND TUBING PROGRAM

*New Well*

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	11 3/4"	H-40	42#	30'	0	
Fresh Water						
Coal						
Intermediate	8 5/8"	J-55	20#	1150	1150	38CSR18-11.2
Production	4 1/2"	J-55	10 1/2#	5170	5170	38CSR18-11.1
Tubing						
Liners						

PACKERS : Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

008429

For Division of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond Blanket Letter  Agent  
 (Type)

13903

1) Date: July 8, 1992  
2) Operator's well number  
Swiger #2  
3) API Well No: 47 - 17 - 3958  
State - County Permit

Office  
Permit  
**JUL 13 92**  
WV Division of  
Environmental Protection

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name Wayne Ravenscroft  
Address 211 Riverton Road  
Baltimore, MD 21220  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_  
6) Inspector Mike Underwood  
Address Rte 2, Box 135  
Salem, WV 26426  
Telephone (304) - 782-1043

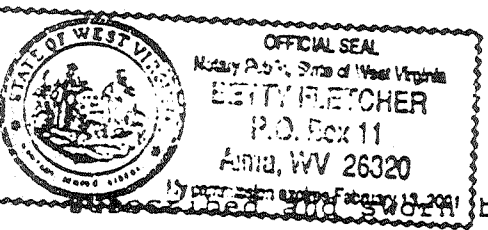
5) (a) Coal Operator:  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

\_\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR  
x Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)  
I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 5 on the above named parties, by:  
\_\_\_\_\_ Personal Service (Affidavit attached)  
\_\_\_\_\_ Certified Mail (Postmarked postal receipt attached)  
\_\_\_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.  
I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.  
I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator DRILLING APPALACHIAN CORPORATION  
By: Kenneth Mason  
Its: President  
Address P O Box 99  
Alma, WV 26320  
Telephone 304/758-4638



Subscribed and sworn before me this 7th day of July, 19 92  
Betty Fletcher Notary Public  
My commission expires February 13, 2001