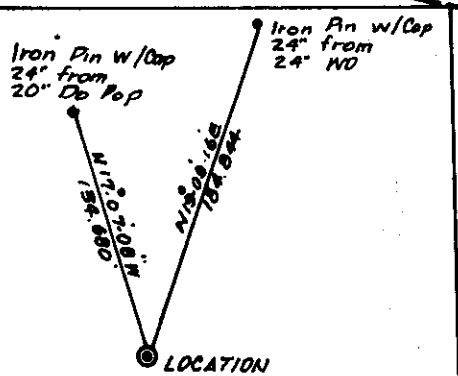


COURSES

(A)	N 42° 52' 00" E	1,642.100'
(B)	S 38° 31' 30" E	655.500'
(C)	N 45° 58' 17" E	2,551.323'
(D)	S 63° 05' 35" W	2,602.202'

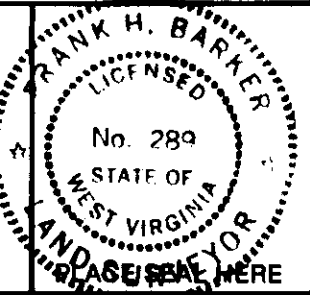


5.09
1.49

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1:5000
PROVEN SOURCE OF ELEVATION BM Shown Above
EL 2042

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 ENERGY.
(SIGNED) Frank H. Barker
R.P.E. _____ L.L.S. 289



STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION



DATE MAR 18, 19 92
OPERATOR'S WELL NO. 19A
API WELL NO. 47-081-0938
STATE COUNTY PERMIT

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
(IF "GAS,") PRODUCTION STORAGE DEEP SHALLOW
LOCATION: ELEVATION 2176 WATER SHED LAUREL BR.
DISTRICT TRAP HILL 7 COUNTY RALEIGH
QUADRANGLE ECCLES 66
SURFACE OWNER BEAVER COAL CO. LTD. ACREAGE 1461.51
OIL & GAS ROYALTY OWNER SAME LEASE ACREAGE 12,616.95

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 BIG LIME ESTIMATED DEPTH 2800 FT.
WELL OPERATOR PEAKE OPERATING CO. DESIGNATED AGENT TOM LIBERATORE
ADDRESS 1401 CHARLESTON NATIONAL PLAZA ADDRESS 1401 CHARLESTON NATIONAL PLAZA
CHARLESTON, WV. 25301 1669 CHARLESTON, WV. 25301

6-6 Slab Fork (249)

FORM WW-6
HALLS INC. 068065

COUNTY NAME PERMIT



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

Well Operator's Report of Well Work

Farm Name: BEAVER COAL CO Operator Well No.: BEAVER 19 A

LOCATION: Elevation: 2176.00 Quadrangle: ECCLES

District: TRAP HILL County: RALEIGH
Latitude: 11600 Feet South of 37 Deg. 47Min. 30 Sec.
Longitude 7700 Feet West of 81 Deg. 15 Min. 0 Sec.

Company: PEAKE OPERATING COMPANY
1401 CHARLESTON NAT'L PLAZA
CHARLESTON, WV 25301-0000

Agent: THOMAS S. LIBERATORE

Inspector: RODNEY G. DILLON
Permit Issued: 04/24/92
Well work Commenced: 05/27/93
Well work Completed: 06/09/93
Verbal Plugging _____
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 2785
Fresh water depths (ft) 19, 175
Salt water depths (ft) none

Is coal being mined in area (Y/N) N
Coal Depths (ft): see reverse side

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
20"	17'	17'	conductor
13 3/8"	100'	100'	100 sks Class A
7"	1290'	1290'	440 sks Class A
4 1/2"	2731'	2731'	155 sks 50/50 poz

OPEN FLOW DATA

Producing formation Ravencliff, Mid. Maxton Pay zone depth (ft) 1438-1482
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

Second producing formation Big Lime Pay zone depth (ft) 2652-2658
Gas: Initial open flow - - MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 984 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final test est. 6 Hours
Static rock Pressure 260 psig (surface pressure) after 60 Hours

* Rock pressure and open-flow are combined

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: PEAKE OPERATING COMPANY

By: Thomas Liberatore
Date: 08/03/93

Reviewed TM6
Recorded _____

APR 10 1993

FORM WR-35
(Reverse)

PERMIT #: 47-081-938
CO. WELL #: 19-B, Beaver
ELEVATION: 2176 GL 2186 KB

DETAILS OF PERFORATIONS, FRACTURING, OR PHYSICAL CHANGE, ETC.

6/25/93: PERFORATED THE BIG LIME FROM 2652-2658. ACIDIZED WITH 8,000 GAL. ACID & 130,000 SCF OF NITROGEN.
6/29/93: PERFORATED MID. MAXTON FROM 2140-50 WITH 34 HOLES.
6/30/93: FOAM-FRAC'D MAX. USING 63,000# SAND, 750,000 SCF OF NITROGEN, 349 BBL OF WATER. PERFORATED RAVENCLIFF FROM 1438-82 USING 48 HOLES. FOAM-FRAC'D RAVENCLIFF USING 61,900# OF SAND, 570,000 SCF OF NITROGEN, 342 BBL OF WATER.

WELL LOG (all depths taken from KB)

ROCK TYPE OR FORMATION	TOP	BOTTOM	REMARKS
SAND	0	21	WTR. @ 19'
COAL	21	23	
SANDY SHALE	23	32	
COAL	32	35	
SHALE	35	125	
COAL	125	129	
SHALE & SAND	129	200	WTR. @ 175'
SAND	200	332	
SHALE	332	417	
COAL	417	422	
SHALE & SAND	422	696	
SAND	696	746	
SHALE	746	1054	
RED ROCK	1054	1075	
SHALE & SAND	1075	1392	
RAVENCLIFF SAND	1392	1500	S/GAS
AVIS LIME	1500	1539	
SHALE	1539	2128	
MIDDLE MAXTON SAND	2128	2156	S/GAS
SHALE & LIME STRINGERS	2156	2272	
LOWER MAXTON SAND	2272	2396	
LITTLE LIME (REYNOLDS)	2396	2490	
PENCIL CAVE	2490	2537	
BIG LIME (GREENBRIER)	2537	2785*	S/GAS
TOTAL DEPTH	2785		

*NOTE: Base of Big Lime not drilled. ✓

DF }
DFT } 345

13544

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WV Division of Environmental Protection

FORM WW-2B

APR 08 92

081-0938

Issued 4/24/92

Page 3 of 7

Expires 4/24/94

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

Office of Oil & Gas WELL WORK PERMIT APPLICATION

- 1) Well Operator: PEAKE OPERATING COMPANY 37100 (7) 331
- 2) Operator's Well Number: Beaver #19A 3) Elevation: 2176
- 4) Well type: (a) Oil or Gas
 - (b) If Gas: Production Underground Storage
 - Deep Shallow
- 5) Proposed Target Formation(s): Big Lime
- 6) Proposed Total Depth: 2800 feet
- 7) Approximate fresh water strata depths: 85'
- 8) Approximate salt water depths: 470'
- 9) Approximate coal seam depths: open-mine (Sewell) at 101-105; Beckley @ 426
- 10) Does land contain coal seams tributary to active mine? Yes No
- 11) Proposed Well Work: to drill a new well; stimulate by fracturing.
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	12 3/4"	- -	42	30'	30'	38CSR181.3
Fresh Water	9 5/8"	J-55	36	200'	200'	C.T.S. 38CSR18 11.2.2
Coal						
Intermediate	7"	J-55	20	1275'	1275'	C.T.S.
Production	4 1/2"	J-55	10.5	2800'	2800'	100sx 38CSR18 11.1
Tubing						
Liners						

13544

PACKERS : Kind _____ Sizes _____ Depths set _____

For Division of Oil and Gas Use Only

8903
15

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

RECEIVED

WV Division of Environmental Protection

Page 1 of 7
Form WW2-A
(09/87)

APR 08 92

Permitting
Office of Oil & Gas

- 1) Date: April 6, 1992
- 2) Operator's well number Beaver #19A
- 3) API Well No: 47 - 081 - 0938
State - County - Permit

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 Beaver Coal Company
Address P.O. Box 1537
Beckley, WV 25801
 - (b) Name _____
Address _____
 - (c) Name _____
Address _____
- 5) (a) Coal Operator:
 - Name Shenandoah Minerals Corp /W.P.P
Address P.O. Box 2827
Huntington, WV 25727-2827
 - (b) Coal Owner(s) with Declaration
 - Name Pocahontas Land Corporation
Address Box 1517
Bluefield, WV 24701
 - Name _____
Address _____
 - (c) Coal Lessee with Declaration
 - Name Shenandoah Minerals Corp /W.P.P.
Address P.O. Box 2827
Huntington, WV 25727-2827
- 6) Inspector Rodney Dillon
Address P.O. Box 131
Bradley, WV 25818
Telephone (304)- 877-2912

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
xx 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 ____ on the above named parties, by:

- ____ Personal Service (Affidavit attached)
- xx 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 BEAKE OPERATING COMPANY
 By: [Signature]
 Its: _____ Designated Agent
 Address 1401 Charleston National Plaza
Charleston, WV 25301
 Telephone (304) 342-6970

before me this 6th day of April, 1992

Carolyn A. Radford Notary Public
March 29, 1992

