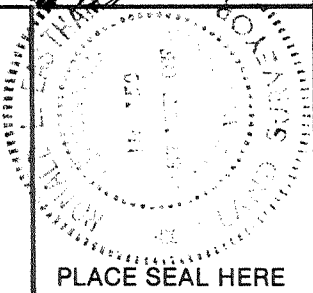


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2,000'
 MINIMUM DEGREE OF ACCURACY 1:33,611
 PROVEN SOURCE OF ELEVATION U.S.G.S. B.M. "65 SKS"
 Elev. 700.809

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) Ronald L. East
 R.P.E. _____ L.L.S. 150



STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION

DATE June 20, 19 91
 OPERATOR'S WELL NO. Eastern Assoc. Coal Corp. No. 94
 API WELL NO. S.N. 135421



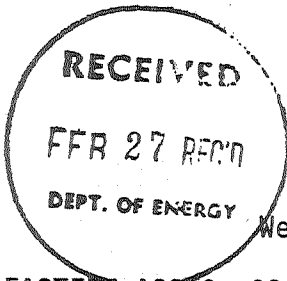
WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 1767.20 WATER SHED Fourmile Fork of Paint Creek
 DISTRICT Cabin Creek 2 COUNTY Kanawha
 QUADRANGLE Cedar Grove M.M.C.
 SURFACE OWNER Eastern Associated Coal Corporation ACREAGE 22,000 +
 OIL & GAS ROYALTY OWNER Eastern Associated Coal Corporation LEASE ACREAGE 22,521
 LEASE NO. 11,909

PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___ DEEP WELL
 TARGET FORMATION Devonian Shale ESTIMATED DEPTH 6,487' KB D-B Slaughter Creek (24)
 WELL OPERATOR Ashland Exploration Inc. DESIGNATED AGENT Forrest Burkett
 ADDRESS P.O. Box 391, Ashland, Ky. 41114 ADDRESS P.O. Box 379, Branton, WV. 24818

COUNTY NAME
 PERMIT

AUG 12 1991



State of West Virginia DEPARTMENT OF ENERGY Division of Oil and Gas

Reviewed TMG Recorded _____

Well Operator's Report of Well Work

Farm name: EASTERN ASSOC. COAL CORP.

Operator Well No.: EACC 94 S135421

LOCATION: Elevation: 1767.20

Quadrangle: CEDAR GROVE

District: CABIN CREEK
Latitude: 14400 Feet South of 38
Longitude: 6750 Feet West of 81

County: KANAWHA
Deg. 10 Min. 0 Sec.
Deg. 22 Min. 30 Sec.

Company: ASHLAND EXPLORATION, INC.
P. O. BOX 391, A1-6
ASHLAND, KY 41114-0391

Agent: FORREST BURKETT

Inspector: CARLOS W. HIVELY

Permit Issued: 08/09/91
Well work Commenced: 10/06/91
Well work Completed: 02/03/92
Verbal Plugging:
Permission granted on: _____
Rotary X Cable _____ Rig _____
Total Depth (feet) 6595
Fresh water depths (ft) 290'
Damp _____
Salt water depths (ft) 1221'
Damp _____
Is coal being mined in area (Y/N)? N
Coal Depths (ft): 94-98, 171-174, _____
237-240 Open mine 413-416

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
16"	35'	35'	17.7
11 3/4"	503'	503'	263
8 5/8"	2632'	2632'	832
5 1/2"	6550'	6550'	724
1.9" @ 1.9" @	6135'KB w/ 3085'	ADL-1 pkr @	3113'KB

OPEN FLOW DATA

Producing formation Devonian Shale/Gordon Pay zone depth (ft) 3592-6285
Gas: Initial open flow -0- MCF/d Oil: Initial open flow -0- Bbl/d
Final open flow *1425 MCF/d Final open flow -0- Bbl/d
Time of open flow between initial and final tests 3 Hours
Static rock pressure 450# psig (surface pressure) after 72 Hours

Second producing formation U. Weir Pay zone depth (ft) 3009-3079
Gas: Initial open flow 21 MCF/d Oil: Initial open flow -0- Bbl/d
Final open flow *403 MCF/d Final open flow -0- Bbl/d
Time of open flow between initial and final tests 3 Hours
Static rock Pressure 470# psig (surface pressure) after 72 Hours

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

For: ASHLAND EXPLORATION, INC.

By: James L. Stephens James L. Stephens, Eng. Tech.
Date: 2-26-92

<u>Formation on Rock Type</u>	<u>TOP</u>	<u>BASE</u>
Sand and Shale (Base Lee Fm)	0	1954
Pennington formation	1954	2592
Ravenscliff 2099-2125		
L. Maxton 2582-2592		
Little Lime	2592	2655
Big Lime	2655	2912
Borden formation	2912	3373
Injun 2912-2952		
U. Weir 3005-3081		
L. Weir 3095-3173		
Sunbury Shale	3373	3384
Berea	3384	3450
Devonian Shale	3450	6571
Onondaga Ls	6571	TD
LTD 6589		
DTD 6595		

Well Treatment

Perf Rhinestreet 20H/5969-6285. N₂ frac using 500 gal. 8% inh. fe acid, 800,000 scf N₂ @ 79,800 scf/min. BD 3000#, MTP 3677, ATP 3577 and ISIP 2700#.

Perf Huron 20H/4940-5334. N₂ frac using 500 gal. 7 1/2% inh. fe acid, 800,000 scf N₂ @ 100,400 scf/min. BD @ 2829, ATP 3339, MTP 3450, ISIP 1785 and 15 min. 1413.

Perf U. Shale/Gordon 20H/3592-4105. N₂ frac using 500 gal. 7 1/2% inh. fe acid, 800,000 scf N₂ @ 98,000 scf/min. BD @ 2090#, ATP 2860#, MTP 2937# and ISIP 1753#.

Perf U. Weir 16H/3009-3079. Breakdown using 1000 gal. 15% fe inh acid and 100000 scf N₂ @ 6000 scf/min. BD @ 1620#, MTP 1620#, ATP @ 1550#, ISIP 1440#. 75 quality foam frac using 435,000 scf N₂ @ 13,000 scf/min. and 76,000# 20/40 sand @ 40 BPM foam rate. ATP 1200#, MTP 1514#, ISIP 860# and TF 378 bbls.

Gordon ~ 3635

404 - 3450 - 4500

813 - 4500 - 5380

5822 5380 - 5560

5560 - 5570 Pipe Wash

5570 - 5900 Angula

5900 - 6200 RS

6200 - 6400 Snyden (Castroville M.)

6400 - 6410 Middle M Snyden Fm

6410 - 6460 West River M Goussier F

6460 - 6475 Marcellus Sh

6475 - Onondaga

B' 4094 →

12665-

039-4833
 Issued 8/9/91
 Page 1 of 1
 Expires 8/9/93

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

- 1) Well Operator: Ashland Exploration, Inc. 2750 (2) 284
 Eastern Associated Coal Corp.
- 2) Operator's Well Number: 94, Serial #135421 3) Elevation: 1767.2'
- 4) Well type: (a) Oil / or Gas X/
 (b) If Gas: Production X/ Underground Storage /
 Deep / Shallow X/
- 5) Proposed Target Formation(s): Devonian Shale
- 6) Proposed Total Depth: 6487'KB feet
- 7) Approximate fresh water strata depths: 767'KB (Map WV-12)
- 8) Approximate salt water depths: 1117'KB (Map WV-12)
- 9) Approximate coal seam depths: Coalburg (6½' thick) Elev. 1370' Mined Out
- 10) Does land contain coal seams tributary to active mine? Yes / No X/
- 11) Proposed Well Work:
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling		Left in well
Conductor	16	LS	36.0	30	30	CTS
Fresh Water						
Coal	11 3/4	H-40	42.0	457	457	CTS
Intermediate	8 5/8	J-55	24.0	2052	2052	CTS
Production	5 1/2	J-55	15.5	6487	6487	As Needed
Tubing	1.9	J-55	2.76	-	6437	Siphon
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

RECEIVED
 Div. of Energy
 JUL 24 91

For Division of Oil and Gas Use Only

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

12665
 506273
 20

1) Date: July 23, 1991
2) Operator's well number Serial #135421
Eastern Associated Coal Corp. #94
3) API Well No: 47 - 039 - 4833
State - County - Permit

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

DEPARTMENT OF ENERGY
DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

JUL 24 91

4) Surface Owner(s) to be served:

(a) Name Eastern Associated Coal Corp.
Address P.O. Box 1233
Charleston, WV 25324

(b) Name _____
Address _____

(c) Name _____
Address _____

5) (a) Coal Operator: _____
Name None
Address _____

(b) Coal Owner(s) with Declaration
Name Same as No. 4(a)
Address _____

(c) Coal Lessee with Declaration
Name _____
Address _____

6) Inspector Carlos Hively
Address 223 Pinch Ridge Road
Elkview, WV 25071
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

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 2 on the above named parties, by:

_____ Personal Service (Affidavit attached)

X _____ 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 Ashland Exploration, Inc.
By: W. Mark Parks
Its: Operations Manager
Address P.O. Box 391
Ashland, KY 41114
Telephone 606-329-5989

Subscribed and sworn before me this 23rd day of July, 1991

Thick W. South Notary Public
My commission expires November 23, 1994