

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY 1 in 83200  
 PROVEN SOURCE OF ELEVATION USGS BM on R.R. Bridge on Armstrong Creek

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.  
 (SIGNED) Stephen N. Parks  
 R.P.E. 8982 L.L.S. \_\_\_\_\_

PLACE SEAL HERE

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



DATE Jan 10, 19 83  
 OPERATOR'S WELL NO. 82 - Ser #096441  
 API WELL NO. 47 - 039 3936-Permit  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

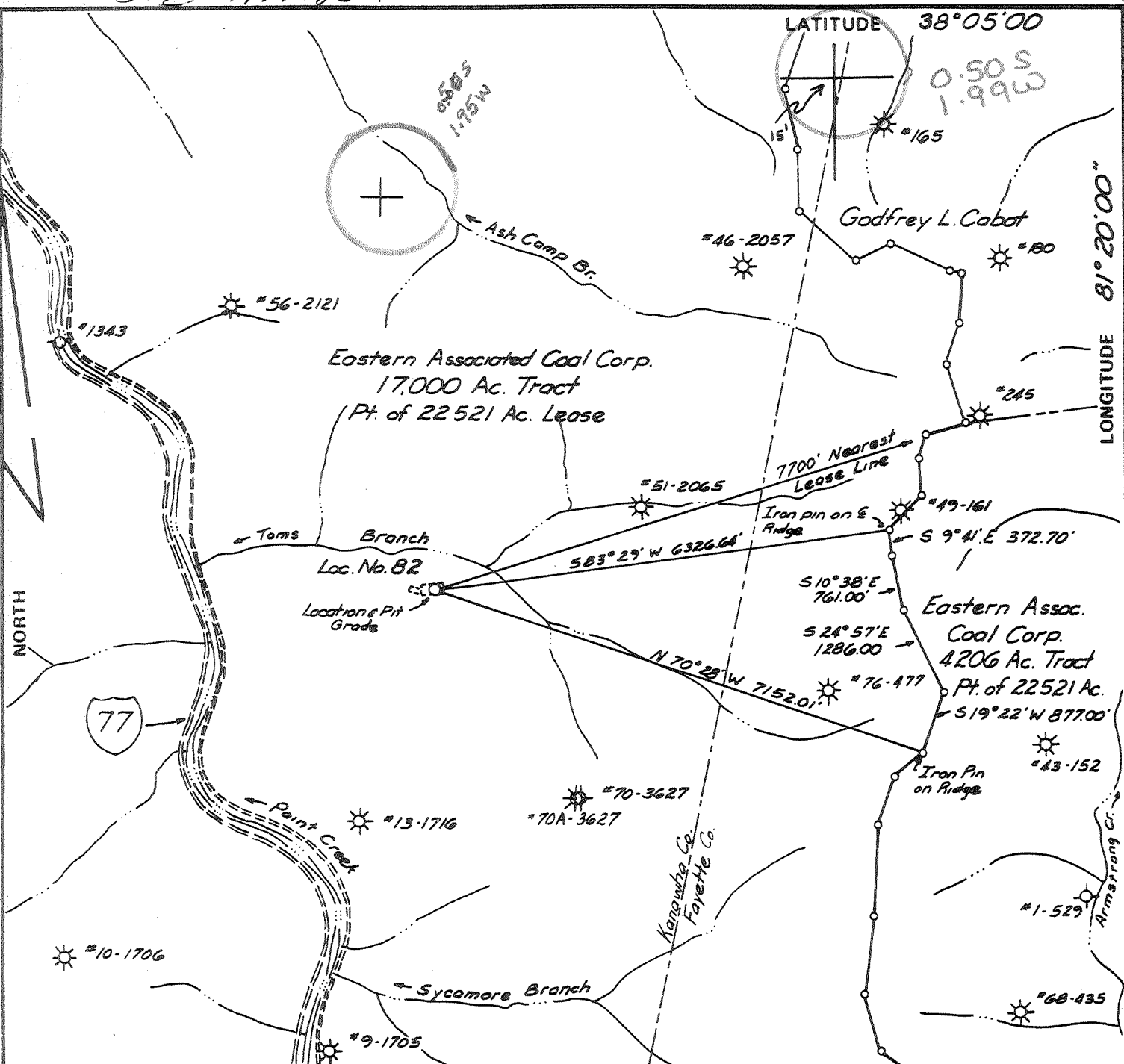
WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP X SHALLOW \_\_\_  
 LOCATION: ELEVATION 1203.6 WATERSHED Toms Branch of Point Creek of Kanawha River  
 DISTRICT Cabin Creek COUNTY Kanawha  
 QUADRANGLE Powellton  
 SURFACE OWNER Eastern Associated Coal Corp. ACREAGE 20,000 ±  
 OIL & GAS ROYALTY OWNER Eastern Associated Coal Corp. LEASE ACREAGE 22521  
 LEASE NO. 11909  
 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 \_\_\_  
 TARGET FORMATION Onondaga Lime ESTIMATED DEPTH 5964'  
 WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett  
 ADDRESS P.O. Box 391 Ashland Ky 41114 ADDRESS P.O. Box 156 Brenton WV 24818

OCT 22 1984

DEEP WELL (own) 6-6 Burnwell (262)

KAN. - 3936-Permit



FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 2000'  
 MINIMUM DEGREE OF ACCURACY 1 in 83200  
 PROVEN SOURCE OF ELEVATION USGS BM on R.R. Bridge on Armstrong Creek

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.

(SIGNED) Stephen N. Parks  
 R.P.E. 8982 L.L.S. \_\_\_\_\_

PLACE SEAL HERE

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

FORM IV-6 (8-78)



DATE Jan 10, 1983  
 OPERATOR'S WELL NO. 82 - Ser #096441  
 API WELL NO. \_\_\_\_\_  
47 - 039 - 3936  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

FEB 07 1983

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP X SHALLOW \_\_\_  
 LOCATION: ELEVATION 1203.6 WATER SHED Toms Branch of Paint Creek of Kanawha River  
 DISTRICT Cabin Creek COUNTY Kanawha  
 QUADRANGLE Powellton Montgomery 15' SC  
 SURFACE OWNER Eastern Associated Coal Corp. ACREAGE 20,000 ±  
 OIL & GAS ROYALTY OWNER Eastern Associated Coal Corp. LEASE ACREAGE 22521  
 LEASE NO. 11909  
 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 \_\_\_  
 TARGET FORMATION Onondago Lime ESTIMATED DEPTH 5964'  
 WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett  
 ADDRESS P.O. Box 391 Ashland Ky 41114 ADDRESS P.O. Box 156 Brenton WV 24818

DEEP WELL

IV-35  
(Rev 8-81)



RECEIVED  
DEC 10 1984

OIL & GAS DIVISION  
DEPT. OF MINES

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date 12/5/84  
Operator's  
Well No. 82  
Farm Eastern Associated Coal Corp.  
API No. 47 - 039 - 3936 FRAC

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

WELL TYPE: Oil      / Gas X / Liquid Injection      / Waste Disposal      /  
(If "Gas," Production X / Underground Storage      / Deep      / Shallow X /)

LOCATION: Elevation: 1203.6 Watershed Toms Branch of Paint Creek  
District: Cabin Creek County Kanawha Quadrangle Powellton

COMPANY Ashland Exploration, Inc.  
ADDRESS P. O. Box 391, Ashland, Ky. 41114  
DESIGNATED AGENT Forrest Burkett  
ADDRESS P. O. Box 156, Brenton, WV 25311  
SURFACE OWNER Eastern Associated Coal Corp.  
ADDRESS One PPG Place, Pittsburgh, PA 15219  
MINERAL RIGHTS OWNER Eastern Assoc. Coal Corp.  
ADDRESS One PPG Place, Pittsburgh, PA 15219  
OIL AND GAS INSPECTOR FOR THIS WORK Rodney  
Dillon ADDRESS Box 30, Scarbro, WV 25917  
PERMIT ISSUED 10/11/84  
RECOMPLETION DRILLING COMMENCED 10/31/84  
RECOMPLETION DRILLING COMPLETED 11/28/84

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.	30'	30'	20sks
13-10"	155'	155'	100sks
9 5/8			
8 5/8	1352'	1352'	350sks
7			
5 1/2			
4 1/2	4421'	4421'	150sks
3			
2		4690'	
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON     

GEOLOGICAL TARGET FORMATION Gordon, Weir, Maxton Depth      feet  
Depth of completed well 6033 feet Rotary X / Cable Tools       
Water strata depth: Fresh      feet; Salt      feet  
Coal seam depths:      Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Gordon (w/D. Shale) Pay zone depth 2977-2994 feet  
Gas: Initial open flow 762 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 3 hours  
Static rock pressure 515 psig (surface measurement) after 96 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation Weir/Maxton Pay zone depth 1841-2392 feet  
Gas: Initial open flow 1143 Mcf/d Oil: Initial open flow      Bbl/d  
Final open flow 762 Mcf/d Oil: Final open flow      Bbl/d  
Time of open flow between initial and final tests 3 hours  
Static rock pressure 415 psig (surface measurement) after 96 hours shut in

762  
220  
982  
MCF  
FOP

DEC 26 1984  
(Continue on reverse side)

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

Perf Gordon 20H/2981-2990. Dump 500 gal 15% HCl, 75 Q Foam Frac using 30,000# 20/40 sand, 212,000 SCF N2. 163 bbl. TL&FW, 113 bbl. TSLF. BD @ 1100#, ATP 1300# @ 20 B/M foam (8,500 SCF/min) N2. ISIP 650#.

Perf Upper Weir 20H/2376-2392. Dump 500 gal 15% HCl. 75 Q Foam Frac using 30,000# 20/40 sand, 166,000 SCF N2, 183 bbl. TL&FW, 133 bbl. TSLF. BD @ 850#, ATP 1000# @ 6,000 SCF/min, ISIP 775#.

Perf Lower Maxton 40H/1841-1901. Dump 500 gal 15% HCl - 75 Q Foam Frac using 50,000# 20/40 sand, 323,000 SCF N2, 278 bbl TL&FW, 219 bbl. TSLF. BD @ 2180#, ATP 2406# @ 30 B/M (12,000 SCF/min N2) MTP 2570#, ISIP 1710#.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Previously submitted on original report dated 2/22/84					

(Attach separate sheets as necessary)

ASHLAND EXPLORATION, INC.

Well Operator

By: Clayton J. Wina

Date: December 6, 1984

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."



IV-35  
(Rev 8-81)

Date 2/22/84  
Operator's  
Well No. 82  
Farm Eastern Gas & Fuel  
API No. 47 - 039 - 3936

State of West Virginia  
Department of Mines  
Oil and Gas Division

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

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production X / Underground Storage \_\_\_ / Deep X / Shallow \_\_\_ /)

LOCATION: Elevation: 1203.6 Watershed Toms Branch of Paint Creek of Kanawha River  
District: Cabin Creek County Kanawha Quadrangle Powellton

COMPANY Ashland Exploration, Inc.

ADDRESS P. O. Box 391, Ashland, Ky. 41114

DESIGNATED AGENT Forrest Burkett

ADDRESS P. O. Box 156, Brenton, WV 24818

SURFACE OWNER Eastern Associated Coal Corp.

ADDRESS 1701 Koppers Bldg., Pittsburgh, PA 15219

MINERAL RIGHTS OWNER Eastern Associated Coal Corp.

ADDRESS 1701 Koppers Bldg., Pittsburgh, PA 15219

OIL AND GAS INSPECTOR FOR THIS WORK Craig

Duckworth ADDRESS Box 454, Mt. Lookout, WV

PERMIT ISSUED 1/18/83 26678

DRILLING COMMENCED 1/3/84

DRILLING COMPLETED 1/16/84

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

Casing Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.	30'	30'	20 sks
13-10"	165'	165'	100sks
9 5/8			
8 5/8	1352'	1352'	350sks
7			
5 1/2			
4 1/2	4421'	4421'	150sks
3			
2		4749'	
Liners used			

GEOLOGICAL TARGET FORMATION Onondaga Lime Depth 5964 feet

Depth of completed well 6033 feet Rotary X / Cable Tools \_\_\_\_\_

Water strata depth: Fresh \_\_\_\_\_ feet; Salt 660 feet

Coal seam depths: 100' (Open mine) Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 4421 <sup>5337</sup> feet

Gas: Initial open flow 29 Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow 231 Mcf/d Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests 3 hours

Static rock pressure 840 psig (surface measurement) after 72 hours shut in

(If applicable due to multiple completion--)

Second producing formation Weir & Maxton Pay zone depth 2445 & 4827 feet

Gas: Initial open flow 268 Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d

Final open flow 386 (Natural) Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/d

Time of open flow between initial and final tests 3 hours

Static rock pressure 425 psig (surface measurement) after 72 hours shut in

86  
231  
617  
MCP  
FOF

MAR 12 1984

~~4421-47002~~  
4421-5337

Barby  
Rhinehart  
5337

**DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.**

Open Hole 90 Quality foam frac Devonian Shale 4421-5337 w/500 gal 28% acid,  
75,000# 20/40 sd, 1030 MSCF N<sub>2</sub>, 268 bbl TL&FW. BD @ 1860#, ATP 2858# @ 6.4  
BPM. MTP 3230#, ISIP 1860#, TSLF 210 bbl.

Maxton & Weir are producing naturally (without stimulation) between the outside  
of the 4 1/2" csg and inside of the 8 5/8" csg.

**WELL LOG**

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all free and salt water, coal, oil and c
Sand			0	176	
Shale			176	222	
Sand & Shale			222	356	
Shale			356	490	
Shale			490	756	Salt wtr @ 660'
Sand & Shale			756	800	
Shale			800	1336	
Lower Salt Sand			1336	1393	
Shale			1393	1404	
Ravencliff			1404	1410	
Shale			1404	1410	
Avis Limestone			1410	1438	
Shale			1438	1448	
Shale			1448	1468	
Stray Maxton			1468	1618	
Shale			1468	1618	
Middle Maxton			1618	1648	
Shale			1648	1827	
Lower Maxton			1827	1913	Show of gas
Little Lime			1913	1980	
Pencil Cave			1980	1999	
Big Lime			1999	2271	
Injun			2271	2318	
Shale			2318	2362	
Upper Weir			2362	2393	Show of gas
Shale			2393	2445	
Lower Weir			2445	2491	
Shale			2491	2730	
Coffee Shale			2730	2753	
Berea			2753	2798	Show of gas
Devonian Shale			2798	2927	
Gordon			2927	2994	
Devonian Shale			2994	5973	
Onondaga LS			5973	TD	

DTD 6033  
LTD 6013

4421 : 5337 @ 5973  
2798 2798 5337  
1623 2539 636

(Attach separate sheets as necessary)

5973  
2798  
3175

ASHLAND EXPLORATION, INC.  
Well Operator

By: Robert S. King

Date: 2/22/84

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic



1) Date: November 1, 1983  
 2) Operator's Serial #096441  
 Well No. Eastern Associated Coal #82  
 3) API Well No. 47 - 039 - 3936-Ren  
 State                      County                      Permit                     

NOV 8 - 1983

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

OIL & GAS DIVISION

DEPT. OF MINES

- 4) WELL TYPE: A Oil                      / Gas X /  
 B (If "Gas", Production X / Underground storage                      / Deep X / Shallow                     )
- 5) LOCATION: Elevation: 1203.6' Watershed: Toms Branch of Paint Creek of Kanawha River  
 District: Cabin Creek County: Kanawha Quadrangle: Powellton
- 6) WELL OPERATOR Ashland Exploration, Inc. 7) DESIGNATED AGENT Forrest Burkett  
 Address P.O. Box 391 Address Box 156  
Ashland, KY 41114 Brenton, WV 24818
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name Jerry Holcomb Name Ray Resources Drilling Company  
 Address Box 58 Address 2101 Washington St., East  
Indore, WV 25111 Charleston, WV 25311
- 10) PROPOSED WELL WORK: Drill X / Drill deeper                      / Redrill                      / Stimulate X /  
 Plug off old formation                      / Perforate new formation                       
 Other physical change in well (specify)
- 11) GEOLOGICAL TARGET FORMATION, Onondaga Lime
- 12) Estimated depth of completed well, 5964' feet top of
- 13) Approximate strata depths: Fresh,                      feet; salt, salt sand feet.
- 14) Approximate coal seam depths: 100' (open mine) Is coal being mined in the area? Yes                      / No X

15) 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	Left in well		
Conductor	16	H-40	54	X		30	30		Kinds
Fresh water									
Coal	11 3/4	H-40	42	X		150	150		Sizes
Intermediate	8 5/8	K-55	24	X		1330	1330	Circulate	<i>by rule 15.05</i>
Production	4 1/2	K-55	11.6	X		5964	5964	As Required	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-039-3936-Ren

November 28, 1983  
 Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires November 28, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>BB</u>	Agent: <u>mzj</u>	Plat: <u>mzj</u>	Casing: <u>mzj</u>	Fee: <u>699</u>
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Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

File



1) Date: September 11, 19 84  
 2) Operator's Serial No. 096441  
 Well No. Eastern Associated Coal Corp. #8  
 3) API Well No. 47 - 039 - 3936 Ren-FR  
 State County Permit

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

- 4) WELL TYPE: A Oil \_\_\_\_\_ / Gas X /  
 B (If "Gas", Production X / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow X /)
- 5) LOCATION: Elevation: 1203.6' Watershed: Toms Branch of Paint Creek K65J  
 District: Cabin Creek County: Kanawha Quadrangle: Powellton
- 6) WELL OPERATOR Ashland Exploration, Inc. 7) DESIGNATED AGENT Forrest Burkett  
 Address P. O. Box 391 Address Box 156  
Ashland, KY 41114 Brenton, WV 25311
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:  
 Name Rodney G. Dillon Name Tri-State Well Service  
 Address Box 30, Scarbro, WV 25917 Address Box 299, 1 Berea Plaza  
304/469-2015 Bridgeport, WV 26330
- 10) PROPOSED WELL WORK: Drill \_\_\_\_\_ / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Stimulate X /  
 Plug off old formation \_\_\_\_\_ / Perforate new formation X /  
 Other physical change in well (specify) \_\_\_\_\_
- 11) GEOLOGICAL TARGET FORMATION, Gordon, Weir, Maxton
- 12) ~~Estimated~~ depth of completed well, 6033 feet
- 13) Approximate trata depths: Fresh, \_\_\_\_\_ feet; salt, Wtr. @ 660' feet.
- 14) Approximate coal seam depths: Open Mine @ 95' Is coal being mined in the area? Yes \_\_\_\_\_
- 15) CASING AND TUBING PROGRAM

**RECEIVED**  
 SEP 13 1984  
 OIL & GAS DIVISION  
 DEPT. OF MINES

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS	
	Size	Grade	Weight per ft.	New	Used	For drilling			Left in well
Conductor	16	H-40	65	X		30	30	20 sks.	Kinds
Fresh water									
Coal	11 3/4	H-40	42	X		155	155	100 sks.	Sizes
Intermediate	8 5/8	K-55	24	X		1352	1352	350 sks.	
Production	4 1/2	K-55	10.5	X		4421	4421	<del>150</del> sks.	Depths set
Tubing	2 3/8	J-55	4.7	X		4750	4750		
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY  
 DRILLING PERMIT

Permit number 47-039-3936-FRAC October 11, 19 84  
 Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 8) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.  
 Permit expires October 11, 1986 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <u>10</u> BLANKET	Agent: <u>✓</u> <u>LS</u>	Plat: <u>MH</u>	Casing: <u>MH</u>	Fee: <u>500</u> <u>175</u>
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Margaret J. Hass  
 Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.





1) Date: January 10, 1983  
 2) Operator's Well No. 82, Serial No. 096441  
 3) API Well No. 47 State 039 County 33986 Permit

DRILLING CONTRACTOR:  
Ray Resources Drilling Co.  
2101 Washington St., East  
Charleston, WV 25311

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil          / Gas X /  
 B (If "Gas", Production          / Underground storage          / Deep X / Shallow         )
- 5) LOCATION: Elevation: 1203.6 Watershed: Lower branch of Paint Creek of Kanawha River  
 District: Cabin Creek County: Kanawha Quadrangle: Powellton
- 6) WELL OPERATOR Ashland Exploration, Inc. 11) DESIGNATED AGENT Forrest Burkett  
 Address P. O. Box 391 Address Box 136  
Ashland, KY 41114 Brenton, WV 24818
- 7) OIL & GAS ROYALTY OWNER Eastern Associated Coal Corp. 12) COAL OPERATOR None  
 Address 1701 Koppers Building Address           
Pittsburg, PA 15219  
 Acreage 22,521
- 8) SURFACE OWNER Eastern Associated Coal Corp. 13) COAL OWNER(S) WITH DECLARATION ON RECORD:  
 Address 1701 Koppers Building Name Eastern Associated Coal Corp.  
Pittsburg, PA 15219 Address 1701 Koppers Building  
 Acreage 20,000± Name F & F Mining Corp.  
 Address P. O. Box 405  
East Bank, WV 25057
- 9) FIELD SALE (IF MADE) TO:  
 Address
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED 14) COAL LESSEE WITH DECLARATION ON RECORD:  
 Name D. Craig Duckworth Name Riverton Coal Company  
 Address P. O. Box 454 Address 4701 MacCorkle Ave., S.E.  
Mt. Lookout, WV 26078 Charleston, WV 25304
- 15) PROPOSED WORK: Drill X / Drill deeper          / Redrill          / Fracture or stimulate X /  
 Plug off old formation          / Perforate new formation          /  
 Other physical change in well (specify)
- 16) GEOLOGICAL TARGET FORMATION, Onondaga Limestone
- 17) Estimated depth of completed well,          feet top of salt sand
- 18) Approximate water strata depths: Fresh,          feet; salt,          feet.
- 19) Approximate coal seam depths: 100' (open mine) Is coal being mined in the area? Yes          / No X

20) 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	Left in well		
Conductor	6"	K-40	34	X		30	30		Kinds
Fresh water									
Coal	2 3/4"	K-40	42	X		150	150		Sizes
Intermediate	3 5/8"	K-55	24	X		1330	1330	Circulate	Depths set
Production	4 1/2"	K-55	11.6	X		5964	5964	as required	
Tubing									
Liners									Perforations: Top Bottom

- 21) EXTRACTION RIGHTS  
 Check and provide one of the following:  
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.  
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)
- 22) ROYALTY PROVISIONS  
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes  No
- If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.
- 23) Required Copies (See reverse side.)
- 24) 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.

Notary: Wanda M. Korte  
 My Commission Expires September 23, 1986

Signed: John H. Burkett  
 Its: Regional Civil Engineer

OFFICE USE ONLY  
**DRILLING PERMIT**

Permit number          Date         

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector.** (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

Permit expires          unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
-------	--------	-------	--------	-----

\_\_\_\_\_  
 Administrator, Office of Oil and Gas