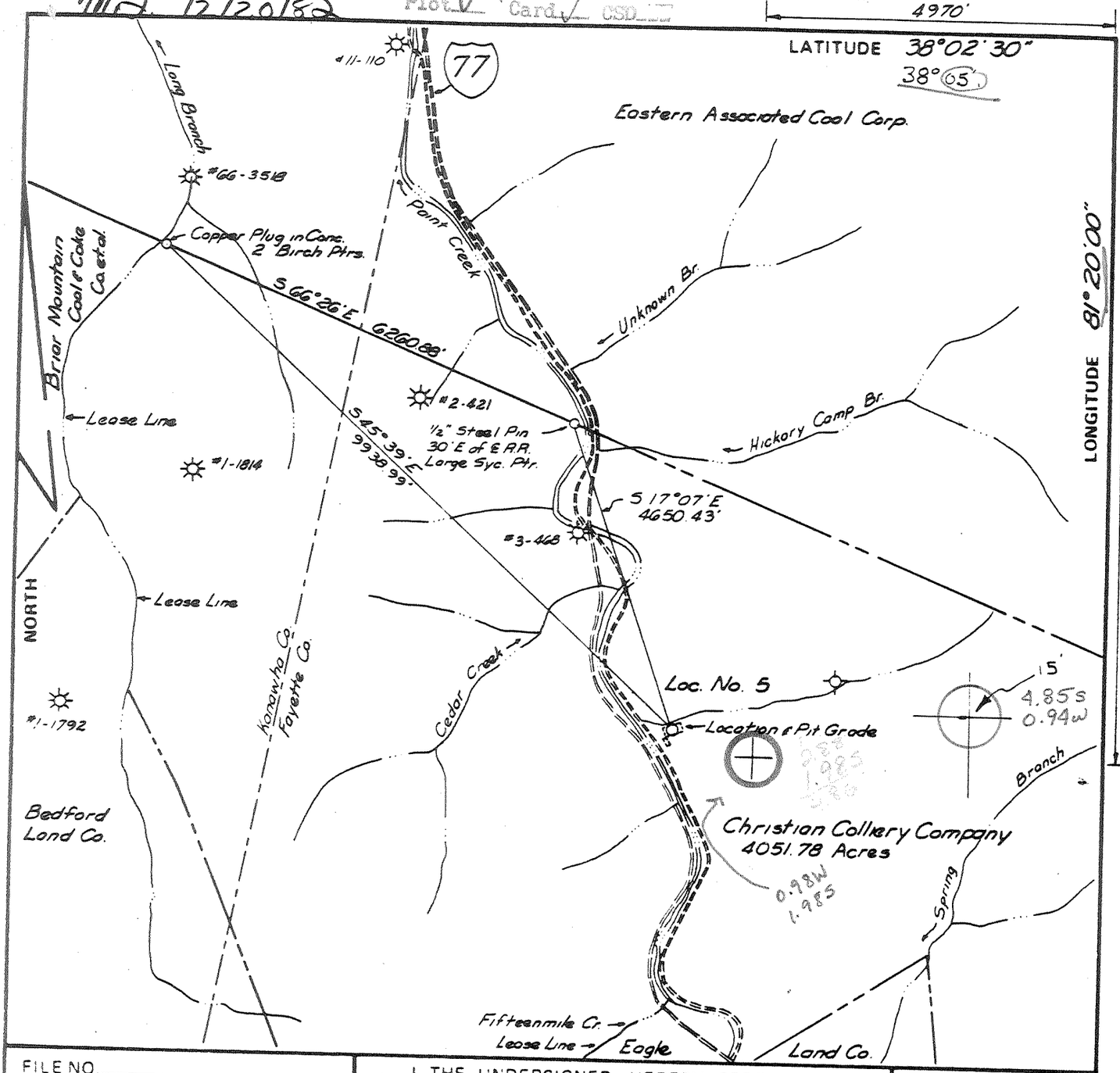
MLJ 12/20/82 Plot ✓ Card ✓ CSD



FILE NO.
DRAWING NO.
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1 in 27300
PROVEN SOURCE OF ELEVATION USGS metal disk in bridge abutment at Mahan

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 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 Dec 16, 1982
OPERATOR'S WELL NO. 5-Ser #096561
API WELL NO.
47 - 019 - 0511
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 1008.5 WATER SHED Lost Branch of Paint Creek
DISTRICT Valley COUNTY Fayette
QUADRANGLE ~~Powellton~~ Montgomery 15' SC
SURFACE OWNER Christian Colliery Company ACREAGE 4051.78
OIL & GAS ROYALTY OWNER Christian Colliery Company LEASE ACREAGE 4051.78
LEASE NO. 9968
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 5728'
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

JAN 03 1983

Deepwell

H. T. HALL

C-6 Burnwell (268)

IV-35
(Rev 8-81)

Date 3/26/84
Operator's
Well No. 5
Farm Christian Colliery
API No. 47 - 019 - 0511-REN

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: 1008.5 Watershed Lost Branch of Paint Creek
District: Valley County Fayette 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 Christian Colliery Co.
ADDRESS 214 Orchard Way, Wayne, PA 10987
MINERAL RIGHTS OWNER Christian Colliery Co.
ADDRESS 214 Orchard Way, Wayne, PA 10987
OIL AND GAS INSPECTOR FOR THIS WORK Rue Schoolcraft ADDRESS Box 706, Pineville, WV 24874
PERMIT ISSUED 11/23/83
DRILLING COMMENCED 1/18/84
DRILLING COMPLETED 2/1/84
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"	325'	325'	180 sks
9 5/8			
8 5/8	1021'	1021'	200 sks
7			
5 1/2			
4 1/2	4233'	4233'	150 sks
3			
2		4426'	
Liners used			

GEOLOGICAL TARGET FORMATION Onondaga Lime Depth 5728 feet
Depth of completed well 5819 feet Rotary X / Cable Tools ___
Water strata depth: Fresh 30' & 260 feet; Salt 407' feet
Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA
Producing formation Devonian Shale Pay zone depth 5592-4233 feet
Gas: Initial open flow 16 Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow 133 Mcf/d Final open flow ___ Bbl/d
Time of open flow between initial and final tests 3 hours
1739
133 Static rock pressure 630 psig (surface measurement) after 144 hours shut in
1872 MCF FOF (If applicable due to multiple completion--)
Second producing formation Gordon & Weir 2108-2124 Pay zone depth 2697-2712 feet
Gas: Initial open flow 37 Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow 1739 Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests 3 hours
Static rock pressure 650 psig (surface measurement) after 144 hours shut in

APR 9 1984

FORM IV-35
(REVERSE)

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

75 Q open hole foam frac Devonian Shale 5592-4233 using 90,000# 20/40 sand, 1,050,000 SCF N_2, 412 bbl TL&FW, 380 bbl TSLF. BD @ 2800#, ATP 3000# @ 16 B/M. MTP 3100#, ISIP 1600#, 15 min 1500#.

75 Q foam frac Gordon thru 20H/2696-2712 using 500 gal 15% HCl, 50,000# 20/40 sand, 297,000 SCF N_2 @ 9000 SCF/min. BD @ 1100#, ATP 1150#, MTP 1150#, ISIP 600#, 15 min 600#, TL&FW 212 bbl, TSLF 172 bbl.

75 Q foam frac Weir thru 24H/2108-2124 using 12,000# 20/40 sand, 130,000 SCF N_2, 134 bbl TL&FW, 84 bbl TSLF (screened out - soap pump failure.)

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fres and salt water, coal, oil and ga
Sand	0	196	Fresh wtr @ 30'
Shale	196	307	Fresh wtr @ 260'
Salt Sand	307	858	Salt water @ 407'
Shale	858	982	
Sand & Shale	982	1030	
Avis Limestone	1030	1060	
Shale & Sand	1060	1540	
Lower Maxton	1540	1568	
Shale	1568	1606	
Little Lime	1606	1675	
Pencil Cave	1675	1702	
Big Lime	1702	2002	
Shale	2002	2019	
Injun	2019	2053	
Shale	2053	2094	
Upper Weir	2094	2125	
Shale	2125	2170	
Middle Weir	2170	2184	
Shale	2184	2202	
Lower Weir	2202	2235	Show of gas
Shale	2235	2468	
Coffee Shale	2468	2490	
Berea	2490	2524	
Devonian Shale	2524	2692	
Gordon	2692	2713	Show of gas
Devonian Shale	2713	5735	Show of gas
Onondaga LS	5735	TD	

DTD 5815
LTD 5786

(Attach separate sheets as necessary)

ASHLAND EXPLORATION, INC.
Well Operator

By: Derek S. Winn

Date: March 26, 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

FORM IV-2(B)
(Obverse)
7-83

FILE COPY

1) Date: November 7, 1983
2) Operator's Well No. Serial #096561 Christian Colliery #5
3) API Well No. 47 - 019 - 0511-Ren
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 X / Shallow ____ /)

5) LOCATION: Elevation: 1008.5 Watershed: Lost Branch of Paint Creek
District: Valley County: Fayette Quadrangle: Powellton

6) WELL OPERATOR Ashland Exploration, Inc.
Address P.O. Box 391
Ashland, KY 41114

7) DESIGNATED AGENT Forrest Burkett
Address Box 156
Brenton, WV 24818

8) OIL & GAS INSPECTOR TO BE NOTIFIED
Name Rue Schoolcraft
Address P.O. Box 706
Pineville, WV 24874

9) DRILLING CONTRACTOR:
Name Ray Resources Drilling Company
Address 2101 Washington St., East
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, 5728' feet top of

13) Approximate trata depths: Fresh, ____ feet; salt, salt sand feet.

14) Approximate coal seam depths: None Is coal being mined in the area? Yes ____ No ____ /

RECEIVED
NOV 8 - 1983
OIL & GAS DIVISION
DEPT. OF MINES

15) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS Size	Grade	Weight per ft.	New	Used	FOOTAGE INTERVALS For drilling	Left in well	CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
Conductor	11 3/4	H-40	43	X		40	40	20 sks	Kinds
Fresh water									
Coal									Sizes
Intermediate	8 5/8	K-55	24	X		994	994	Circ to surface by rule 15.05	
Production	4 1/2	K-55	10.5	X		5728	5728	As needed by rule 15.01	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-019-0511-Ren

November 23, 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 23, 1985 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
BLANKET BOND	LO	MH MH	713	

Margaret I. Hasse
Administrator, Office of Oil and Gas

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

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.