



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 1,000'
 MINIMUM DEGREE OF ACCURACY 1 in 4429
 PROVEN SOURCE OF ELEVATION U.S.C. & G.S. B.M. at Artie
Elev. = 1331.22

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) John H. Burnett
 R.E. 1442 L.L.S. _____

PLACE SEAL HERE

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



DATE March 25, 19 85
 OPERATOR'S WELL NO. 7-5er #104721
 API WELL NO. _____
47 - 081 - 0680
 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 ___ STORAGE ___ DEEP X SHALLOW ___
 LOCATION: ELEVATION 2024 WATER SHED White Oak Creek of Clear Fork of Big Coal River
 DISTRICT Clear Fork 1 COUNTY Raleigh 081
 QUADRANGLE Pox 537 Eccles 15' NCZ 036
 SURFACE OWNER Eagle Land Company ACREAGE 6000
 OIL & GAS ROYALTY OWNER Eagle Land Company LEASE ACREAGE 6000
 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 043 ESTIMATED DEPTH 6779'
 WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett
 ADDRESS P.O. Box 391, Ashland, Ky. 41114 ADDRESS P.O. Box 379, Brenton, W.V. 24818

APR 22 1985

deep well

RECEIVED
DEPARTMENT OF ENERGY
OIL AND GAS

WR-35



State of West Virginia
DEPARTMENT OF ENERGY
Oil and Gas Division

Date 12/6/85
Operator's _____
Well No. 7
Farm Eagle Land Co.
API No. 47 - 081 - 0680

JAN 2 1986

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 ___ /)

LOCATION: Elevation: 2024' Watershed White Creek of Clear Fork of Big Coal River
District: Clear Fork County Raleigh Quadrangle Pax

COMPANY Ashland Exploration, Inc
ADDRESS P. O. Box 391, Ashland, KY 41114
DESIGNATED AGENT Forrest Burkett
ADDRESS Box 379, Brenton, WV 24818
SURFACE OWNER Eagle Land Co.
ADDRESS Box 88, Charleston, WV 25321
MINERAL RIGHTS OWNER Eagle Land Co.
ADDRESS Box 88, Charleston, WV 25321
OIL AND GAS INSPECTOR FOR THIS WORK Rodney
Dillon ADDRESS Box 30, Scarbro, WV
PERMIT ISSUED April 12, 1985
DRILLING COMMENCED 8/23/85
DRILLING COMPLETED 9/6/85
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.	38'	38'	20sks
13-10"			
9 5/8	1716'	1716'	600sks
8 5/8			
7			
5 1/2			
4 1/2	6738'	6738'	390sks
3			
2		5330'	w/R-4 pkr
Liners used			@ 3670'

GEOLOGICAL TARGET FORMATION Onondaga Lime Depth 6779 feet
Depth of completed well 6809 feet Rotary x / Cable Tools _____
Water strata depth: Fresh 40 feet; Salt 1015 feet
Coal seam depths: 140-145 343-345 394-398 Is coal being mined in the area? No
558-573

OPEN FLOW DATA
Producing formation Upper & Stray Dev. shale Pay zone depth 5280-5300 & 4675-4705 feet
Gas: Initial open flow TSTM Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 438 Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests 3 hours
Static rock pressure 1325 psig (surface measurement) after 480 hours shut in
(If applicable due to multiple completion--)
Second producing formation Gordon Pay zone depth 3636-3650 feet
Gas: Initial open flow TSTM Mcf/d Oil: Initial open flow _____ Bbl/d
Final open flow 310 Mcf/d Oil: Final open flow _____ Bbl/d
Time of open flow between initial and final tests 3 hours
Static rock pressure 900 psig (surface measurement) after 480 hours shut in

POF for well
248 Mcf

JAN 13 1986

(Continue on reverse side)

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

Perf L. Dev. Shale 30H/6310-6330 - N₂ frac using 500 gal 28% HCl & 1,969,000 SCF N₂, BD @ 3650#, ATP 4383# @ 66,000 SCF/m, MTP 4690#, ISIP 3100#. Made water - plugged off w/a "NC" BP @ 5445'

Perf U. Dev. Shale 30H/5280-5300 - N₂ frac using 500 gal 28% HCl, 1,947,000 SCF N₂. BD @ 3800#, ATP 4096, MTP 4140#, ISIP 2480#.

Perf Stray Dev. Shale 30H/4675-4705 - N₂ frac using 500 gal 15% HCl & 1,074,000 SCF N₂. BD @ 2890#, ATP 2767# @ 49,500 SCF/m, MTP 2890#, ISIP 2060#.

Perf Gordon 20H/3636-3650 - 75 Q foam frac using 500 gal 15% HCl, 30,000# 20/40 sand, 250,000 SCF N₂ @ 8500 SCF/m. BD @ 1320#, ATP 1372# @ 20 B/M foam, MTP 1410#, ISIP 850#, TL&FW 196 bbl., TSLF 112 bbl.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS
					Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			0	1016	Fresh wtr & coal
Salt Sand			1016	1682	Salt water
Shale			1682	1864	
Avis LS			1864	1895	
Shale			1895	2004	
Upper Maxton			2004	2060	
Shale			2060	2139	
Middle Maxton			2139	2159	
Shale			2159	2403	
Lower Maxton			2403	2472	
Shale			2472	2475	
Little Lime			2475	2546	
Pencil Cave			2546	2573	
Big Lime			2573	2871	
Shale			2871	3007	
Upper Weir			3007	3032	
Shale			3032	3068	
Lower Weir			3068	3159	
Shale			3159	3411	
Coffee Shale			3411	3433	
Berea			3433	3466	
Devonian Shale			3466	3628	
Gordon			3628	3653	
Dev. Shale			3653	6800	
Onondaga			6800	6809	

exploratory footage = 6809'

DTD 6809
LTD 6781

*Note: Top of Lime lost on log due to fill-up @ TD

from nearby wells:
bp thickness
up Dev well 3466 1470
up Hwa 4936 600
Jawa 5536 150
up 5686 320
up 6006 500
up 6506 220
Greene 6726 ?

(Attach separate sheets as necessary)

ASHLAND EXPLORATION, INC.

Well Operator

By: Steve J. Price

Date: 12/9/85

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."

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MAR 27 1985



1) Date: March 25, 1985
 2) Operator's Eagle Land Company
 Well No. 7, Serial No. 104721
 3) API Well No. 47 - 081 - 0680
 State County Permit

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

- 4) WELL TYPE: A Oil Gas
 B (If "Gas", Production Underground storage Deep Shallow)
 5) LOCATION: Elevation: 2024' Watershed: White Oak Creek of Clear Fork of Big Coal River
 District: Clear Fork County: Raleigh Quadrangle: Pax
 6) WELL OPERATOR Ashland Exploration, Inc. 2750 7) DESIGNATED AGENT Forrest Burkett
 Address P.O. Box 391 Address P.O. Box 379
Ashland, KY 41114 Brenton, WV 24818
 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Rodney G. Dillon Name Ray Resources Drilling Company
 Address P.O. Box 30 Address 2101 Washington St., East
Scarbro, WV 25917 Charleston, WV 25311
 10) PROPOSED WELL WORK: Drill / Drill deeper / Redrill / Stimulate
 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, 6779' feet
 13) Approximate strata depths: Fresh, _____ feet; salt, base @ 1714' feet.
 14) Approximate coal seam depths: 30, 130(open), Is coal being mined in the area? Yes / No

15) CASING AND TUBING PROGRAM 255(open) 295, 545

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	Circulate	Kinds
Fresh water									
Coal	13 3/8	H-40	48	X		285	285	Circulate <i>by rule 15.05</i>	
Intermediate	8 5/8	K-55	24	X		1750	1750	Circulate <i>by rule 15.05</i>	
Production	4 1/2	K-55	11.6	X		6000	6000	As Needed <i>by rule 15.01</i>	
Tubing									
Liners									Perforations: Top Bottom

OFFICE USE ONLY
 DRILLING PERMIT

Permit number 47-081-0680 Date April 12, 1985

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 April 12, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
10	SW	MP	MP	506453

Margaret J. Hesse
 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.