



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 23190
 PROVEN SOURCE OF ELEVATION USCG's Metal Disk 200' Below mouth of Elklick Br. Elev. 1319.98'

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 M. Burkett
 R.P.E. 1442 L.L.S. _____

PLACE SEAL HERE

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



DATE June 22, 1982
 OPERATOR'S WELL NO. 67-Ser 095041
 API WELL NO. 47-045-1085
 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 1996.3 WATER SHED Elklick Branch of Buffalo Creek of Guyandotte River
 DISTRICT Triadelphia COUNTY Logan
 QUADRANGLE Lorado Bald Knob 1st SW
 SURFACE OWNER Pardee Land Company ACREAGE 4000
 OIL & GAS ROYALTY OWNER Pardee Land Company LEASE ACREAGE 4000
 LEASE NO. 60622
 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 6531'
 WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett
 ADDRESS P.O. Box 391 Ashland Ky 41114 ADDRESS P.O. Box 156 Brenton WVa 24818



IV-35
(Rev 8-81)

Date November 23, 1982
Operator's
Well No. 67
Farm Pardee Land Co.
API No. 47 - 045 - 1085

State of West Virginia
Department of Mines
Oil and Gas Division

OCT 16 1983

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: 1996.3' Watershed Elklick Branch of Buffalo Creek
District: Tridelpia County Logan Quadrangle Lorado

COMPANY Ashland Exploration, Inc.

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

DESIGNATED AGENT Forrest Burkett

ADDRESS Box 156, Brenton, WV 24818

SURFACE OWNER Pardee Land Co.

ADDRESS 1512 Two Girard Plaza, Phil. PA 19102

MINERAL RIGHTS OWNER Pardee Land Co.

ADDRESS 1512 Two Girard Plaza, Phil. PA 19102

OIL AND GAS INSPECTOR FOR THIS WORK Arthur

St. Clair ADDRESS Box 157, Brenton, WV24818

PERMIT ISSUED 7/8/82

DRILLING COMMENCED 7/22/82

DRILLING COMPLETED 8/6/82

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement fill up Cu. ft.
20-16 Cord.			
13-10"	30'	30'	20 sks
9 5/8			
8 5/8	2456'	2456'	525 sks
7			
5 1/2			
4 1/2	6463'	6463'	245 sks
3			
2 3/8"		6101'	
Liners used			

GEOLOGICAL TARGET FORMATION Onondaga Lime Depth 6531 feet

Depth of completed well 6473 feet Rotary x / Cable Tools _____

Water strata depth: Fresh 18' & 26' feet; Salt 1787 feet

Coal seam depths: _____ Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 5100 feet *see back*

Gas: Initial open flow 1055 Mcf/d Oil: Initial open flow _____ Ebl/d

Final open flow 348 Mcf/d Final open flow _____ Ebl/d

Time of open flow between initial and final tests 3 hours

Static rock pressure 765 psig (surface measurement) after 168 hours shut in

(If applicable due to multiple completion--)

Second producing formation Berea, B. Lime, MaxtoRay zone depth 2691 feet

Gas: Initial open flow 793 Mcf/d Oil: Initial open flow _____ Ebl/d

Final open flow 440 Mcf/d Oil: Final open flow _____ Ebl/d

Time of open flow between initial and final tests 3 hours

Static rock pressure 240 psig (surface measurement) after 168 hours shut in

(Continued on next page)

348
440
788
MCF
PDF

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

Perf Dev. Shale (1st Stage) 42H/6107-6253 - Frac w/75 Quality foam using 50,000# 20/50 sd, 780 MCFN₂ & 8 perf balls @ 40 B/M (foam) BD @ 2700#, ATP 2900#, MTP 3150#, ISIP 1800#, 15 min 1600#, TSLF 182 bbl, TL&FW 247 bbl.

Perf Dev. Shale (2nd Stage) 45H/5100-5625 - dump 10 gal sd & 500 gal inh HCl w/20 bbl. pad, dump 1000 gal HCl w/60 perf balls - displace w/116 bbl KCl wtr. ATR 12-13 bbl. BD @ 400#, MTP 760#. Swab back acid returns - frac w/75 Quality foam using 50,000# 20/40 sd, 742 MCFN₂ & 28 perf balls. ATR 40 B/M foam. BD @ 2000#, ATP 2623#, MTP 3100#, ISIP 1200#, 15 min 1000#, TL&FW 231 bbl, TSLF 164 bbl.

Perf Berea 16H/4008-4022 - Set RBP @ 4072, dump 500 gal inh 15% HCl acid - load hole w/foam frac. BD @ 1400#, ATP 1700#, ISIP 1000#, 15 min 950#, using 30,000# 20/40 sd. 320 MCFN₂, TL&FW 195 bbl, TSLF 135 bbl. Swb dry - pump 500 gal 15% HCl - Wtr frac using 50,000# 20/40 sd, BD 0#, ATP 1540#, ATR 48 BPM, ISIP 0#, TL&FW 580bbl, TSLF 457 bbl.

Perf Big Lime 18H/3234-3487 - pump 500 gal 15% HCl & load hole w/KCl wtr. BD @ 1100#, pump 1500 gal 15% HCl w/25 perf balls, complete ball out, MTP 3000#, ATR 10 BPM, TL&FW 140 bbl. ISIP 1200#, 15 min 300#. WELL LOG

Perf Maxton 21H/2691-2720 - dump 500 gal 15% inh HCl & Water frac using 40,000# 20/40 sd & a 20#/1000 gal gel system. BD @ 500#, ATP 1745#, ATR 25 BPM, MTP 2400#, ISIP 1700#, 15 min 400#, TSLF 485 bbl, TL&FW 557 bbl.

Sand & Shale	0	95	Fresh wtr @ 18'
Sand	94	290	Fresh wtr @ 260'
Shale	290	330	
Sand & Shale	330	470	
Sand	470	730	
Shale & Sand	730	1235	
Sand	1235	1535	
Shale	1535	1617	
Salt Sand	1617	2307	Salt Wtr @ 1787
Shale & Sand	2307	2457	
Shale	2457	2498	
Avis Limestone	2498	2534	
Stray Sand	2534	2641	
Shale	2641	2676	
Upper Maxton	2676	2725	
Shale	2725	2782	
Middle Maxton	2782	2849	
Shale & Sand	2849	2997	
Lower Maxton	2997	3058	
Shale	3058	3068	
Little Lime	3068	3141	
Pencil Cave	3141	3163	
Big Lime	3163	3494	
Shale	3494	3607	
Upper Weir	3607	3642	
Shale	3642	3732	
Lower Weir	3732	3751	
Shale	3751	3975	
Coffee Shale	3975	3994	
Berea	3994	4025	Show of gas
Devonian Shale	4025	6434	Shows of gas
Onondaga LS	6434	TD	

LTD 6473
DTD 6490

(Attach separate sheets as necessary)

ASHLAND EXPLORATION, INC.

Well Operator

By:

Derek A. King

Date: November 23, 1982

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

(Obverse)

(Revised 3-81)



WCV, No. 67, Serial No. 095041
Farm Pardee Land Co.
API #47 - 045 - 1085
Date June 22, 1982

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil ___ / Gas X /

(If "Gas", Production X / Underground storage ___ / Deep X / Shallow ___ /

LOCATION: Elevation: 1996.3 Watershed: Elklick Branch of Buffalo Creek
District: Triadelphia County: Logan Quadrangle: Lorado

WELL OPERATOR Ashland Exploration, Inc.
Address Box 391
Ashland, KY 41114

DESIGNATED AGENT Forrest Burkett
Address Box 156
Brenton, WV 24818

OIL AND GAS ROYALTY OWNER Pardee Land Company
Address 1512 Two Girard Plaza
Philadelphia, PA 19102
Acreage 4000

COAL OPERATOR Buffalo Mining Company
Address Lyburn, WV 25632

SURFACE OWNER Pardee Land Company
Address 1512 Two Girard Plaza
Philadelphia, PA 19102
Acreage 4000

COAL OWNER(S) WITH DECLARATION ON RECORD:
NAME Pardee Land Company
Address 1512 Two Girard Plaza
Philadelphia, PA 19102

NAME _____
Address _____

FIELD SALE (IF MADE) TO:
NAME _____
Address _____

COAL LESSEE WITH DECLARATION ON RECORD:
NAME Buffalo Mining Company
Address Lyburn, WV 25632

OIL AND GAS INSPECTOR TO BE NOTIFIED:
NAME Arthur St. Clair
Address Box 157
Brenton, WV 24818
Telephone (304) 732-6227

RECEIVED

JUN 23 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease X / other contract ___ / dated March 6, 1981, to the undersigned well operator from Pardee Land Company.

(If said deed, lease, or other contract has been recorded:)

Recorded on May 7, 1981, in the office of the Clerk of County Commission of Logan County, West Virginia, in Lease Book at page 359. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill Deeper ___ / Redrill ___ / Fracture or stimulate X / Plug off old formation ___ / Perforate new formation ___ / Other physical change in well (specify) _____

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after receipt of this Application by the Dept. 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 lessees on or before the day of the mailing or delivery of this Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1613 WASHINGTON ST., E.
CHARLESTON, WV 25311
Telephone - 304/348-3092

Ashland Exploration, Inc.
Well Operator
By: John H. Burkett
John H. Burkett
Its: Regional Civil Engineer

BLANKET BOND

(Revised 3-81)

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Ray Resources Drilling Company

Address 630 Commerce Square

Charleston, WV 25301

GEOLOGICAL TARGET FORMATION Onondoga Lime

Estimated depth of completed well 6531 feet. Rotary / Cable tools /
Approximate water strata depths: Fresh, 996 feet; salt, 1148 feet.
Approximate coal seam depths: 180', 600', 700', 900' salt sand
Is coal being mined in this area: Yes / No /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL UP OR SACKS Cubic ft.	PACKERS
	Size	Grade	Weight per ft	New	Used	For Drilling	Left in Well		
Conductor	13 3/8	H-40	48	X		2411	2411	15 sks by hand	Kinds
Fresh water									
Coal						1050'	1050'	CTS	Sizes
Intermed.	8 5/8	K-55	24	X		2411	2411	Circulate	
Production Tubing	4 1/2	K-55	10.5	X		6531	6531	As Required	Depths set
Liners									Perforations: Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan" applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or drilling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well unless fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE.

ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22,

ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY

APPROVED FOR drilling. THIS PERMIT SHALL EXPIRE

IF OPERATIONS HAVE NOT COMMENCED BY 3-8-83

BY [Signature]

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code §22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided the well operator has complied with all applicable requirements of the West Virginia Code and the governing regularions.

Date: , 19 .

By:

Its: