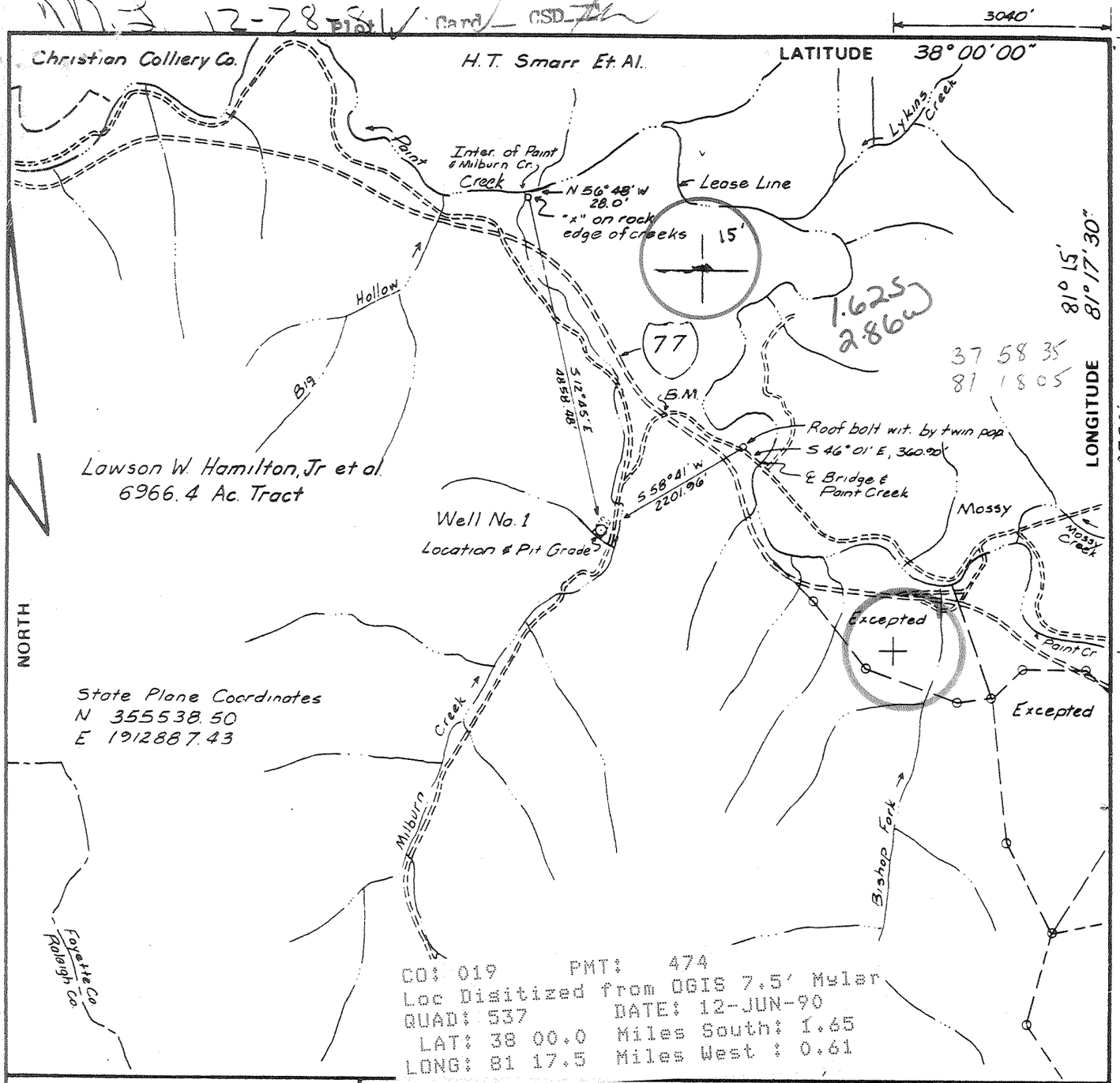
NN-3 12-78 Plat Card CSD



FILE NO. _____
DRAWING NO. _____
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1 in 24,600
PROVEN SOURCE OF ELEVATION USC&GS BM on Bridge over Turnpike

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. Bristuth

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 Dec 23, 1981
OPERATOR'S WELL NO. 1- Ser #093121
API WELL NO.
47 - 019 - 474
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 1444.6 WATER SHED Milburn Creek of Paint Creek of Kanawha River
DISTRICT Valley COUNTY Fayette
QUADRANGLE Pax Eccles 15' NE
SURFACE OWNER Lawson W. Hamilton, Jr. et al. ACREAGE 6615.4
OIL & GAS ROYALTY OWNER Lawson W. Hamilton, Jr. et al. LEASE ACREAGE 6966.4
LEASE NO. 62824
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 Tuscarora ESTIMATED DEPTH 7600'
WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT H.H. Griffith
ADDRESS P.O. Box 391 Ashland, Ky 41114 ADDRESS P.O. Box 156 Brenton W Va. 24818

JAN 26 1982

H. T. HALL ← 2-5 0 → deep well ←

RECEIVED

OCT 6 - 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

IV-35
(Rev 8-81)

State of West Virginia
Department of Mines
Oil and Gas Division

Date October 4, 1982
Operator's
Well No. 1
Farm Lawson W. Hamilton
API No. 47 - 019 - 0474

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: 1444.6 Watershed Milburn Creek of Paint Creek of Kanawha River
District: Valley County Fayette Quadrangle Pax

COMPANY Ashland Exploration, Inc.
ADDRESS P. O. Box 391, Ashland, Ky. 41114
DESIGNATED AGENT Forrest Burkett
ADDRESS P. O. Box 158, Brenton, WV 24818
SURFACE OWNER Lawson Hamilton, Jr. etal
ADDRESS P. O. Box 175, Hansford, WV
MINERAL RIGHTS OWNER Lawson Hamilton, Jr. etal
ADDRESS P. O. Box 175, Hansford, WV
OIL AND GAS INSPECTOR FOR THIS WORK D. Craig Duckworth ADDRESS Rt. 2, Box 2-D Sandyville, WV
PERMIT ISSUED 1/5/82
DRILLING COMMENCED 3/4/82
DRILLING COMPLETED 4/16/82
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.	31	31	
13-10"	60	60	60 sks
9 5/8	1412	1412	450 sks
8 5/8			
7	6202	6202	170 sks
5 1/2			
4 1/2			
3			
2 3/8		5433	Pkr @ 2576
Liners used			

GEOLOGICAL TARGET FORMATION Newburg Depth 7589 feet
Depth of completed well 7641 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 → Rhinestreet → Marcellus 4584-5904 ~~8942-9194~~ 1570-1626
Producing formation Dev. Shale, ~~Gordon~~ & Maxton Pay zone depth ~~7565~~ feet
Gas: Initial open flow 84 Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow 3060 Mcf/d Final open flow ___ Bbl/d
Time of open flow between initial and final tests 3 hours
Static rock pressure 520 psig (surface measurement) after 408 hours shut in
(If applicable due to multiple completion--)
Second producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig (surface measurement) after ___ hours shut in

OCT 18 1982

(Continue on reverse side)

FORM IV-35
(REVERSE)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.
Perf Dev. Shale 30H/4584-5904-Frac w/75 Quality foam using 590 sks 20/40 sand, 713 MCFN$_2$, ATP 3037# @ 11.6 B/M, ISIP 4800#, 15 min 4200#, TSLF 291 bbl.
Perf Gordon 15H/2942-54 - Frac w/75 Quality foam using 25,000# 80/100, 28,600# 20/50, 350 MCFN$_2$, BD @ 600#, ATP 1450# @ 39.6 B/M foam rate. ISIP 1500#, 5 min 1000#, TSLF 139 bbl.
Perf Weir 30H/2401-2441 - Frac w/75 Quality foam using 50,000# 20/40, 390 MCFN$_2$, BD @ 1200#, ATP 1000# @ 7.5 B/M (wtr rate) ISIP 850#, 15 min 800#. TSLF 200 bbl - Squeezed and abandoned)
Perf Maxton 30H/1570-1626- Water frac w/30#/1000 J-266 gel system, 35,000# 20/40 - BD on vacuum, ATR 30 B/M, ATP 1250#, ISIP 1000#, 15 min 800#. TSLF 585 bbl.
Perf M. Maxton 13H/1423-50 - Frac w/20#/1000 waterfrac gel system using 19,000# 20/40 BD @ 1600#, ATP 2244# @ 24 B/M, ISIP 1750#, 15 min 1100# - TSLF 390 bbl.

Completed as a commingled gas producer in Devonian Shale & Maxton w/3060 MCF/D.

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	0	170	@ 2244 94 MCF/D
Shale	170	190	@ 2520 84 MCF/D
Sand	190	272	@ 3010 119 MCF/D
Shale & Sand	272	316	@ 3516 119 MCF/D
Salt Sand	316	976	@ 5510 94 MCF/D
Shale	976	1196	@ 5585 84 MCF/D
Ravencliff	1196	1390	
Shale	1390	1422	
Middle Maxton	1422	1456	
Shale	1456	1565	
Stray Maxton	1565	1629	
Shale	1629	1664	
Lower Maxton	1664	1761	
Little Lime	1761	1827	
Pencil Cave	1827	1863	
Big Lime	1863	2180	
Shale	2180	2295	
Upper Weir	2295	2328	
Shale	2328	2402	
Lower Weir	2402	2443	
Shale	2443	2720	
Coffee Shale	2720	2736	
Berea	2736	2768	
Dev. Shale	2768	2935	
Gordon	2935	2961	
Dev. Shale	2961	6132	
Onondaga Limestone	6132	6230	
Oriskany	6230	6247	Hole plugged back
Lime	6247	6466	6800-7000 36 sks Cl A
Dolomite	6466	6937	6100-6300 46 sks Cl A
Newburg	6937	6950	Drillable plug set @
Dolomite	6950	7114	6050 inside of 7" csg.
Keifer	7114	7134	
Rose Hill	7134	7532	
Juniata	7532	7641	
DTD 7635			
LTD 7641			

(Attach separate sheets as necessary)

ASHLAND EXPLORATION, INC.
Well Operator

By: D. J. Belcher

Date: October 4, 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 coal, encountered in the drilling of a well."

IV-35
(Rev 8-81)

RECEIVED
NOV 3 - 1982
OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

REVISED November 1, 1982

Date October 4, 1982
Operator's
Well No. 1
Farm Lawson W. Hamilton
API No. 47 - 019 - 0474

State of West Virginia
Department of Mines
Oil and Gas Division

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

REVISED

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

LOCATION: Elevation: 1444.6 Watershed Milburn Creek of Paint Creek of Kanawha River
District: Valley County Fayette Quadrangle Pax

COMPANY Ashland Exploration, Inc.
ADDRESS P. O. Box 391, Ashland, Ky. 41114
DESIGNATED AGENT Forrest Burkett
ADDRESS P. O. Box 158, Brenton, WV 24818
SURFACE OWNER Lawson Hamilton, Jr. etal
ADDRESS P. O. Box 175, Hansford, WV
MINERAL RIGHTS OWNER Lawson Hamilton, Jr. etal
ADDRESS P. O. Box 175, Hansford, WV
OIL AND GAS INSPECTOR FOR THIS WORK D. Craig Duckworth ADDRESS Rt. 2, Box 2-D Sandyville, WV
PERMIT ISSUED 1/5/82
DRILLING COMMENCED 3/4/82
DRILLING COMPLETED 4/16/82
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.	31	31	
13-10"	60	60	60 sks
9 5/8	1412	1412	450 sks
8 5/8			
7	6202	6202	170 sks
5 1/2			
4 1/2			
3			
2 3/8		5433	Pkr @ 2576
Liners used			

GEOLOGICAL TARGET FORMATION Newburg Depth 7589 feet
Depth of completed well 7641 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 Dev. Shale, Cordon & Maxton Pay zone depth 1565 feet
Gas: Initial open flow 84 Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow 3060 Mcf/d Final open flow ___ Bbl/d
Time of open flow between initial and final tests 3 hours
Static rock pressure 520 psig (surface measurement) after 408 hours shut in
(If applicable due to multiple completion--)
Second producing formation ___ Pay zone depth ___ feet
Gas: Initial open flow ___ Mcf/d Oil: Initial open flow ___ Bbl/d
Final open flow ___ Mcf/d Oil: Final open flow ___ Bbl/d
Time of open flow between initial and final tests ___ hours
Static rock pressure ___ psig (surface measurement) after ___ hours shut in

NOV 15 1982

(Continue on reverse side)

(REVERSE)

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

Perf Dev. Shale 30H/4584-5904-Frac w/75 Quality foam using 590 sks 20/40 sand, 713 MCF N_2, ATP 3037# @ 11.6 B/M, ISIP 4800#, 15 min 4200#, TSLF 291 bbl.

Perf Gordon 15H/2942-54 - Frac w/75 Quality foam using 25,000# 80/100, 28,600# 20/50, 350 MCF N_2, BD @ 600#, ATP 1450# @ 39.6 B/M foam rate. ISIP 1500#, 5 min 1000#, TSLF 1[illegible] bbl.

Perf Weir 30H/2401-2441 - Frac w/75 Quality foam using 50,000# 20/40, 390 MCF N_2, BD @ 1200#, ATP 1000# @ 7.5 B/M (wtr rate) ISIP 850#, 15 min 800#. TSLF 200 bbl - Squeezed and abandoned)

Perf Maxton 30H/1570-1626- Water frac w/30#/1000 J-266 gel system, 35,000# 20/40 - BD on vacuum, ATR 30 B/M, ATP 1250#, ISIP 1000#, 15 min 800#. TSLF 585 bbl.

Perf M. Maxton 13H/1423-50 - Frac w/20#/1000 waterfrac gel system using 19,000# 20/40 BD @ 1600#, ATP 2244# @ 24 B/M, ISIP 1750#, 15 min 1100# - TSLF 390 bbl.

Completed as a commingled gas producer in Devonian Shale & Maxton w/3060 MCF/D.

WELL LOG

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Shale	976	1196	@ 5585 84 MCF/D
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Shale	2443	2720	
Coffee Shale	2720	2736	
Berea	2736	2768	
Dev. Shale	2768	2935	
Gordon	2935	2961	
Dev. Shale	2961	6132	
Onondaga Limestone	6132	6230	
Oriskany	6230	6247	Hole plugged back
Lime	6247	6466	6800-7000 36 sks Cl A
Dolomite	6466	6937	6100-6300 46 sks Cl A
Newburg	6937	6950	Drillable plug set @
Dolomite	6950	7114	6050 inside of 7" csg.
Keifer	7114	7134	
Rose Hill	7134	7456	
Tuscarora] - only revision	7456	7582	
Juniata	7582	7641	
DTD 7635			
LTD 7641			

(Attach separate sheets as necessary)

ASHLAND EXPLORATION, INC.
Well Operator

By: D. J. Belcher

Date: October 4, 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

FORM IV-2
(Obverse)

(Revised 3-81)

Well No. 1 - Ser. #093121
Farm Lawson W. Hamilton, Jr. et al
API #47 -019 - 0474
Date December 23, 1981

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: 1444.6 Watershed: Milburn Creek of Paint Creek of Kanawha River
District: Valley County: Fayette Quadrangle: Pax

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

DESIGNATED AGENT H. H. Griffith
Address P. O. Box 156
Brenton, WV 24818

OIL AND GAS
ROYALTY OWNER Lawson W. Hamilton, Jr. et al
Address P. O. Box 175
Hansford, WV 24103
Acreage 6966.4

COAL OPERATOR NONE
Address

SURFACE OWNER Lawson W. Hamilton, Jr. et al
Address P. O. Box 175
Hansford, WV 24103
Acreage 6615.4

COAL OWNER(S) WITH DECLARATION ON RECORD:
NAME Hansford Coal Company
Address P. O. Box 175
Hansford, WV 24103
NAME
Address

FIELD SALE (IF MADE) TO:
NAME
Address

COAL LESSEE WITH DECLARATION ON RECORD:
NAME
Address

OIL AND GAS INSPECTOR TO BE NOTIFIED:

NAME D. Craig Duckworth
Address Rt. 2 Box 2-D
Sandyville, WV 25275
Telephone 304 273-5853

RECEIVED
DEC 28 1981
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 May 1, 1981, to the undersigned well operator from Lawson W. Hamilton, Jr. et al.

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

Recorded on November 4, 1981, in the office of the Clerk of County Commission of Fayette County, West Virginia, in 404 Book at page 16. 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

BLANKET BOND

By: John H. Burtnett
J. H. Burtnett
Its: Regional Civil Engineer

FORM IV-2
(Reverse)

(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 Co.

Address 630 Commerce Square

Charleston, WV 25301

GEOLOGICAL TARGET FORMATION Tuscarora

Estimated depth of completed well 7600' feet. Rotary X / Cable tools ___ /

Approximate water strata depths: Fresh, 5 feet; salt, Top of Salt Sand feet.

Approximate coal seam depths: None.

Is coal being mined in this area: Yes ___ / No X /

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 ft.	PACKERS
Conductor	13 3/8	H-40	48#	X		60	60	30	Kinds
Fresh water	9 5/8	H-40	32#	X		1380	1380	Circulate	
Coal									Sizes
Intermed.	7	N-80	23#/ft.	X		6145	6145	2500 ft.	
Production	4 1/2	N-80	11.6	X		7600	7600	As Required	Depths set
Tubing									
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 18, 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 dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is applied 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, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 9-4-82.

Deputy Director - Oil & Gas Division

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:

WAIVER

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 regulations.

Date: _____, 19___.

_____

By: _____

Its: _____