

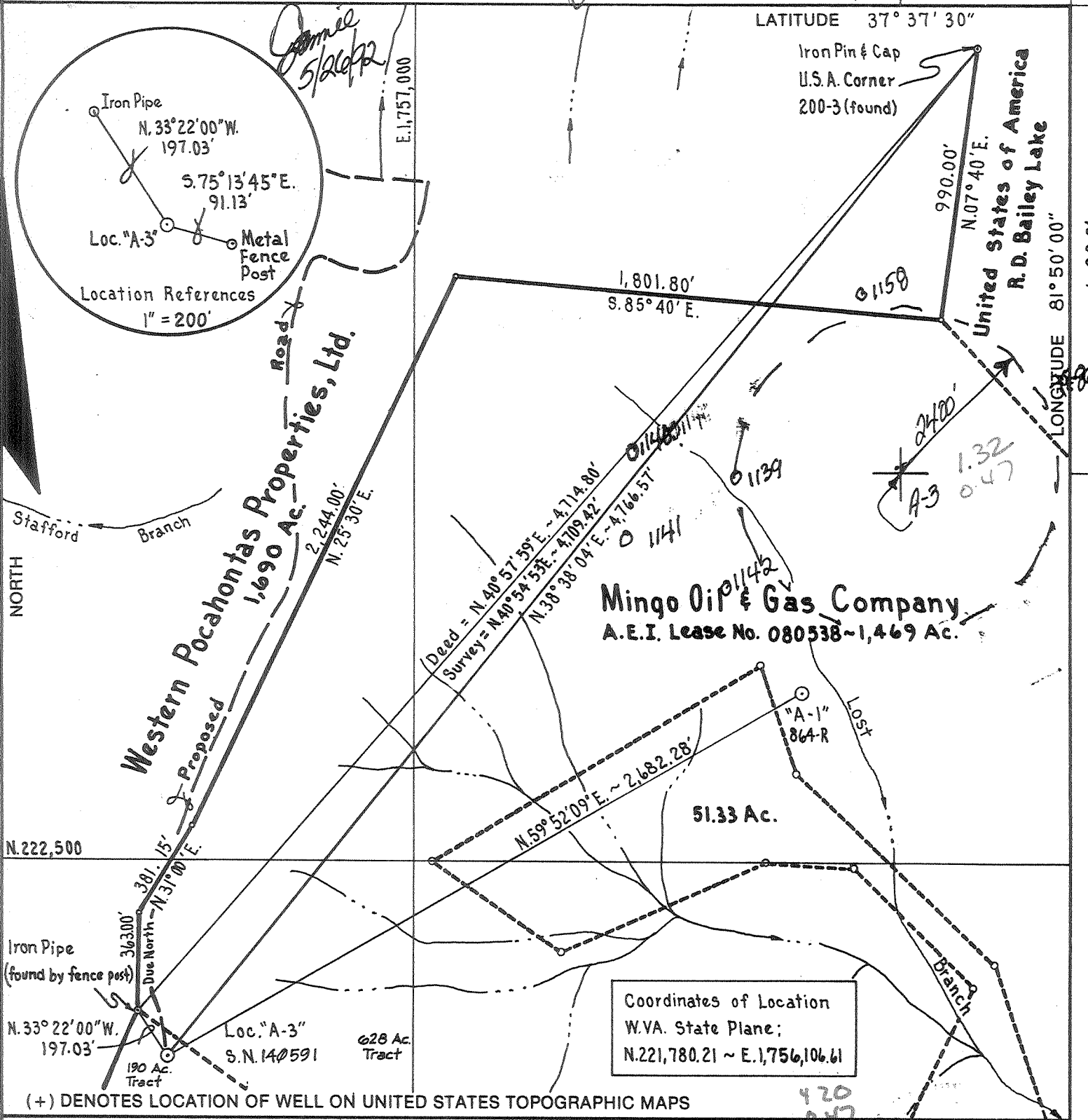
LATITUDE 37° 37' 30"

Iron Pin & Cap  
U.S.A. Corner  
200-3 (found)

990.00'  
N. 07° 40' E.

United States of America  
R. D. Bailey Lake

LONGITUDE 81° 50' 00"



Coordinates of Location  
W.V.A. State Plane;  
N.221,780.21 ~ E.1,756,106.61

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

FILE NO. \_\_\_\_\_  
DRAWING NO. \_\_\_\_\_  
SCALE 1" = 500'  
MINIMUM DEGREE OF ACCURACY 1 : 17,710  
PROVEN SOURCE OF ELEVATION Thin Seams Inc., Mine No. 1 Sta. No. 127, Elev. = 1588.13

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 ENERGY.

(SIGNED) Ronald A. Dault

R.P.E. \_\_\_\_\_ L.L.S. 150

PLACE SEAL HERE

**STATE OF WEST VIRGINIA**  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION

DATE January 29, 19 92

OPERATOR'S WELL NO. Mingo Oil & Gas Co.  
API WELL NO. No. A-3, S.N. 140591

47 059 1167  
STATE COUNTY PERMIT

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
(IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X

LOCATION: ELEVATION 1766.05 WATERSHED Lick Branch of the Guyandotte River  
DISTRICT Stafford 6 COUNTY Mingo  
QUADRANGLE Gilbert 2150

SURFACE OWNER J.S.P. Stafford Heirs ACREAGE 100  
OIL & GAS ROYALTY OWNER Mingo Oil & Gas Company LEASE ACREAGE 1469  
LEASE NO. 080538

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 Devonian Shale ESTIMATED DEPTH 6,210' KB

WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Bobby E. Widener  
ADDRESS P.O. Box 391 ADDRESS P.O. Box 379  
Ashland, Ky. 41114 Brenton, W. Va. 24818

FORM WW-6  
H.T. HALL 48673  
COUNTY NAME  
PERMIT

JUN 10 1992

DEEP WELL 666 Ann-Oceana (2667 271)

**RECEIVED**  
WV Division of  
Environmental Protection

DEC 28 92

Permitting  
Office of Oil & Gas

Reviewed TM6  
Recorded NA

27-May-92  
API # 47-59-01167

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: STAFFORD, J.S.O. HEIRS Operator Well No.: A-3 SD-140591

LOCATION: Elevation: 1766.05 Quadrangle: GILBERT

District: STAFFORD County: MINGO  
Latitude: 6900 Feet South of 37 Deg. 37 Min. 30 Sec.  
Longitude: 2500 Feet West of 81 Deg. 50 Min. 0 Sec.

Company: ASHLAND EXPLORATION, INC.  
P. O. BOX 391, A1-6  
ASHLAND, KY 41114-0391

Agent: B. E. WIDENER

Inspector: OFIE HELMICK

Permit Issued: 05/27/92  
Well work Commenced: 09/16/92  
Well work Completed: 12/11/92  
Verbal Plugging: \_\_\_\_\_  
Permission granted on: \_\_\_\_\_  
Rotary X Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total Depth (feet) 6149  
Fresh water depths (ft) \_\_\_\_\_  
None noted  
Salt water depths (ft) \_\_\_\_\_  
None  
Is coal being mined in area (Y/N)? N  
Coal Depths (ft): \_\_\_\_\_  
Open mine 387-390'

Casing & Tubing	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
Size			
16"	30'	30'	11.8
11 3/4"	467'	467'	303
5 1/2"	6119'	6119'	1065
1.9" @	5976'w/	R-4 pkr	@ 4136
1.9" @	4071'		

OPEN FLOW DATA

Producing formation Dev. Shale Pay zone depth (ft) 4319-6036  
Gas: Initial open flow 0 MCF/d Oil: Initial open flow --- Bbl/d  
Final open flow 929 MCF/d Final open flow --- Bbl/d  
Time of open flow between initial and final tests 3 Hours  
Static rock pressure 670# psig (surface pressure) after 72 Hours

929  
1712  
1641 MCF  
total for well  
Second producing formation Berea Pay zone depth (ft) 4037-4062  
Big Lime Pay zone depth (ft) 3229-3440  
Gas: Initial open flow 0 MCF/d Oil: Initial open flow --- Bbl/d  
Final open flow 712 MCF/d Final open flow --- Bbl/d  
Time of open flow between initial and final tests 3 Hours  
Static rock Pressure 670# psig (surface pressure) after 72 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1. DETAILS OF PERFORATED INTERVALS, FRACTURING OF STIMULATING, PHYSICAL CHANGE, ETC. 2.) THE WELL LOG WHICH IS A SYSTEMATIC DETIALED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: ASHLAND EXPLORATION, INC.  
By: James L. Stephens James L. Stephens, Eng. Tech.  
Date: 12/18/92

MAY 24 1993

<u>Formation or Rock Type</u>	<u>TOP</u>	<u>BASE</u>
Sand and Shale	0	1290
Lee formation	1290	2099
Pennington formation	2099	3034
U. Maxton     2310-2417		
M. Maxton     2445-2533		
L. Maxton     2961-2982		
Little Lime	3034	3106
Big Lime	3106	3465
Borden	3465	4010
Sunbury Shale	4010	4034
Berea	4034	4066
Devonian Shale	4066	6134
Onondaga Ls	6134	TD

DTD 6149  
LTD 6142

1 1/4" casing cemented to surface on primary job.

Well Treatment

<sup>830</sup>  
Perf Rhinestreet 19H/5879-6036. N<sub>2</sub> frac using 200 gal 8% fe acid, 804,000 scf N<sub>2</sub> @ 98,000 scf/min. BD @ 2700#, ATP 3750#, MTP 3830# and ISIP 3000#.

<sup>80</sup>  
Perf Huron 22H/5096-5496. N<sub>2</sub> frac using 500 gal 9% fe acid, 804,000 scf N<sub>2</sub> @ 100,000 scf/min. BD @ 2140#, ATP 2850#, MTP 2980# and ISIP 1900#.

<sup>404</sup>  
Perf U. Dev. Shale 20H/4319-4877. N<sub>2</sub> frac using 200 gal 9% fe acid, 804,000 scf N<sub>2</sub> @ 99,000 scf/min. BD @ 1820#, MTP 3170#, ATP 2850# and ISIP 2400#.

Perf Berea 50H/4037-4048. 75 quality foam frac using 500 gal 15% fe acid, 53,700# 20/40 sand 260,000 scf N<sub>2</sub> @ 8853 scf/min. BD @ 1207#, ATP 1036# @ 20 BPM foam rate and ISIP 1107#.

Perf Big Lime 17H/3273-3440. 75 quality foam frac using 1000 gal 14% fe acid, 40,100# 20/40 sand, 303,000 scf N<sub>2</sub> @ 12,000 scf/min. BD @ 2550#, MTP 3040#, ATP 2600# @ 20 BPM foam rate, ISIP 2850#.

**RECEIVED**

WV Division of  
Environmental Protection

DEC 28 92

Permitting  
Office of Oil & Gas

059-1167

MAY 11

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

Issued 05/27/92

Permitting Office of Oil & Gas

WELL WORK PERMIT APPLICATION

Expires 05/27/94 2750 (6) 363

- 1) Well Operator: Ashland Exploration, Inc. Mingo Oil & Gas Company
2) Operator's Well Number: A-3, Serial #140591 3) Elevation: 1766'
4) Well type: (a) Oil\_/ or Gas\_X/
(b) If Gas: Production\_X/ Underground Storage\_/ Deep\_/ Shallow\_X/
5) Proposed Target Formation(s): Devonian Shale
6) Proposed Total Depth: 6210'KB feet
7) Approximate fresh water strata depths: 826'KB (Map WV-12)
8) Approximate salt water depths: 1151'KB (Map WV-12)
9) Approximate coal seam depths: Solid - No Seams Operated
10) Does land contain coal seams tributary to active mine? Yes\_/ No\_X\_/
11) Proposed Well Work: Drill and Stimulate New Well
12)

CASING AND TUBING PROGRAM

Table with 7 columns: TYPE, SPECIFICATIONS (Size, Grade, Weight per ft.), FOOTAGE INTERVALS (For drilling, Left in well), CEMENT (Fill-up (cu.ft.)). Rows include Conductor, Fresh Water, Coal, Intermediate, Production, Tubing, and Liners.

13696

PACKERS : Kind \_\_\_\_\_ Sizes \_\_\_\_\_ Depths set \_\_\_\_\_

For Division of Oil and Gas Use Only

Fee(s) paid: [ ] Well Work Permit [ ] Reclamation Fund [ ] WPCP [ ] Plat [ ] WW-9 [ ] WW-2B [ ] Bond [ ] Agent (Type) Search Blanket

506559

**RECEIVED**  
WV Division of  
Environmental Protection  
**MAY 11 92**  
Permitting  
Office of Oil & Gas

- 1) Date: May 6, 1992
- 2) Operator's well number  
Mingo Oil & Gas #A-3, Serial #140591
- 3) API Well No: 47 - 059 - 1167  
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner(s) to be served:
  - (a) Name J.S.O. Stafford Heirs  
Address P.O. Box 217  
Justice, WV 24851
  - (b) Name \_\_\_\_\_  
Address \_\_\_\_\_
  - (c) Name \_\_\_\_\_  
Address \_\_\_\_\_
- 6) Inspector Ofie Helmick  
Address P.O. Box 218  
Fanrock, WV 24834  
Telephone (304)-732-9135

- 5) (a) Coal Operator:  
Name N/A  
Address \_\_\_\_\_
- (b) Coal Owner(s) with Declaration  
Name Same as No. 4(a)  
Address \_\_\_\_\_
- Name \_\_\_\_\_  
Address \_\_\_\_\_
- (c) Coal Lessee with Declaration  
Name Lynn Land Company  
Address P.O. Drawer D  
Gilbert, WV 25621

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

\_\_\_\_\_ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR  
 Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)  
 I certify that as required under Chapter 22B of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through 2 on the above named parties, by:  
 Personal Service (Affidavit attached)  
 Certified Mail (Postmarked postal receipt attached)  
 Publication (Notice of Publication attached)

I have read and understand Chapter 22B and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.  
 I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.  
 I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator Ashland Exploration, Inc.  
 By: W. Mark Parks  
 Its: Operations Manager  
 Address P.O. Box 391  
Ashland, KY 41114  
 Telephone 606-329-5989

Subscribed and sworn before me this 6th day of May, 1992

Thib. W. Dosta  
 My commission expires November 23, 1994 Notary Public