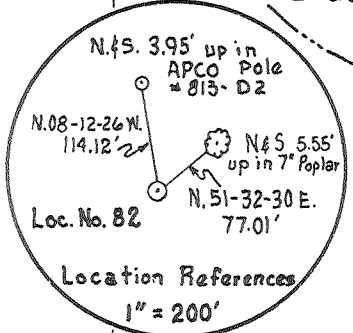
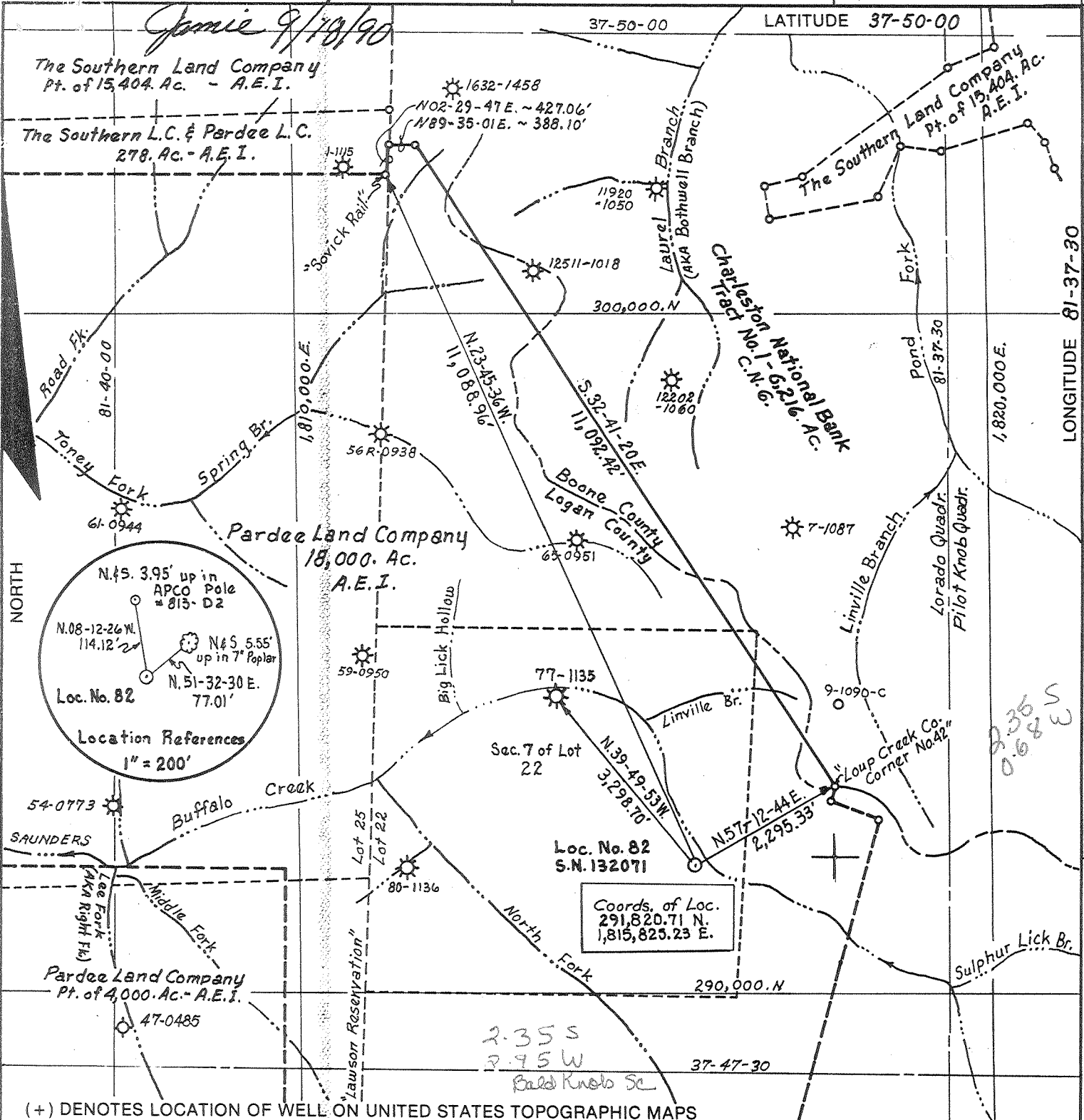


Janie 9/18/90



Coords. of Loc.
291,820.71 N.
1,815,825.23 E.

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

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 2,000'
MINIMUM DEGREE OF ACCURACY 1:45,120
PROVEN SOURCE OF ELEVATION U.S.C. & G.S. Bench Mark "N-189" Elev. 1803.996

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 L. Smith
R.P.E. _____ L.L.S. 150

PLACE SEAL HERE

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

DATE August 31, 19 90
OPERATOR'S WELL NO. 82, S.N. 132071
API WELL NO. 47-045-1144
STATE COUNTY PERMIT

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

LOCATION: ELEVATION 1816.33 WATER SHED Buffalo Creek
DISTRICT Triadelphia COUNTY Logan
QUADRANGLE Lorado 3

SURFACE OWNER Pardee Land Company ACREAGE 17,000.+
OIL & GAS ROYALTY OWNER Pardee Land Company LEASE ACREAGE 18,000.
LEASE NO. 4107

PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE PLUG OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

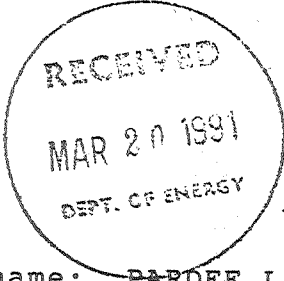
PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____

TARGET FORMATION Devonian Shale ESTIMATED DEPTH 6,351 KB
WELL OPERATOR Ashland Exploration, Inc. DESIGNATED AGENT Forrest Burkett
ADDRESS P.O. Box 391 ADDRESS P.O. Box 379
Ashland, KY. 41114 Brenton, W.V. 24818

DEEP WELL G-6 Man-Oceana (266)

FORM WW-6 H.T. HALL 4-8673

COUNTY NAME PERMIT



State of West Virginia
DEPARTMENT OF ENERGY
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: PARDEE LAND CO Operator Well No.: 82 S 132071

LOCATION: Elevation: 1816.30 Quadrangle: LORADO

District: TRIADELPHIA County: LOGAN
Latitude: 12405 Feet South of 37 Deg. 50Min. 0 Sec.
Longitude 3580 Feet West of 81 Deg. 37 Min. 30 Sec.

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

Agent: FORREST BURKETT

Inspector: TIM BENNETT
Permit Issued: 09/27/90
Well work Commenced: 1/10/91
Well work Completed: 3/6/91
Verbal Plugging _____
Permission granted on: _____
Rotary x Cable _____ Rig _____
Total Depth (feet) 6266'
Fresh water depths (ft) 112'
approximately 926'
Salt water depths (ft) approx. 2166'

Is coal being mined in area (Y/N)? N
Coal Depths (ft): Not noted during drl'g

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
20"	28'	28'	driven
16"	48'	48'	17.7
8 5/8"	2158'	2158'	866
5 1/2"	6258'	6258'	713
1.9" @ 6046' KB w/ADL-1 Pkr @ 3315'			
1.9" @ 3259' KB			

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) 4451-6153
Gas: Initial open flow 0/197 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 790/472 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 3 Hours
Static rock Pressure 825 psig (surface pressure) after 72 Hours

Second producing formation Big Lime Pay zone depth (ft) 3262-3279
Gas: Initial open flow 197 MCF/d Oil: Initial open flow _____ Bbl/d
Final open flow 318 MCF/d Final open flow _____ Bbl/d
Time of open flow between initial and final tests 3 Hours
Static rock Pressure 730 psig (surface pressure) after 72 Hours

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

For: ASHLAND EXPLORATION, INC.

By: Jim Stephens Jim Stephens, Engr. Tech.
Date: 3/18/91

<u>FORMATION OR ROCK TYPE</u>	<u>TOP</u>	<u>BASE</u>
Sand & Shale (Base Lee Sands)	0	2061
Shale	2061	2211
Ravenscliff Sand	2211	2243
Shale	2243	2282
Avis Lime	2282	2319
Shale	2319	2356
Stray Maxton	2356	2401
Shales	2401	2611
M. Maxton	2611	2637
Shales	2637	2699
Stray Maxton	2699	2741
Sand & Shale	2741	2790
L. Maxton	2790	2834
Shales	2834	2894
L. Lime	2894	2952
B. Lime	2952	3294
Borden Formation	3294	3765
U. Weir 3400-3426		
L. Weir 3495-3542		
Sunbury Shale	3765	3775
Berea	3775	3796
Devonian Shale	3796	6253
Onondaga LS	6253	TD

DTD 6266
LTD 6270

WELL TREATMENT

2h
Perf L. Devonian Shale 21H/586706153. N2 frac using 500 gal 7 1/2% Fe acid, 885,000 SCF N2 @ 57,000 SCF/min. BD @ 3430#, ATP 3850#, MTP 4080#, ISIP 3400# & 15 min 2350#.

LH
Perf M. Dev. Shale 18H/5183-5498. N2 frac using 500 gal 7 1/2% Fe acid, 875,000 SCF N2 @ 66,000 SCF/min. BD @ 3910#, ATP 3650#, MTP 3910#, ISIP 2000# & 5 min 2110#.

UD
Perf U. Dev. Shale 19H/4451-4893. N2 frac using 500 gal 7 1/2% Fe acid, 885,000 SCF N2 @ 75,000 SCF/min. BD @ 3940#, ATP 3600#, MTP 3970#, ISIP 2000# & 5 min 1800#.

Perf Big Lime 25H/3262-3279. Acidize Big Lime using 4000 gal 15% Fe acid, 2000 gal 29% Inh Fe acid. BD @ 2000#, ATP 800# @ 5 BPM, MTP 2000#, ISIP 0#, 15 min 0# & TF 218 bbls.

11257

045-1144
 Issued 9/27/90
 Expires 9/27/92
 Page 1 of 1

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
WELL WORK PERMIT APPLICATION

- 1) Well Operator: Ashland Exploration, Inc. 2750 (3) 445
 Pardee Land Company
- 2) Operator's Well Number: 82, Serial #132071 3) Elevation: 1816.3
- 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: 6351'KB feet
- 7) Approximate fresh water strata depths: 686'KB 599' 920' Permitting
 Oil and Gas
- 8) Approximate salt water depths: 1101'KB, 2116'KB 2166'
- 9) Approximate coal seam depths: Solid - No seams operated
- 10) Does land contain coal seams tributary to active mine? 443'-447' 488'-492' Yes / No X /
- 11) Proposed Well Work: Drill & Stimulate New Well
- 12)

RECEIVED
 Division of
 SEPT 11 1990
 Permitting
 Oil and Gas

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling		Left in well
Conductor	16	LS	42.0	30	30	CTS
Fresh Water						} 38CSR18 11.3 38CSR18 11.2.2
Coal						
Intermediate	8 5/8	J55	24.0	2166	2166	CTS
Production	5 1/2	J55	15.5	6351	6351	38CSR18 11.1 CTS
Tubing	1.9	J55	2.76	-	6350	Siphon
Liners						

PACKERS : Kind _____
 Sizes _____
 Depths set _____

506983
 25

For Division of Oil and Gas Use Only

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

1) Date: September 10, 1990
2) Operator's well number
Pardee Land Co. #82, Serial #132071
3) API Well No: 47 - 045 - 1144
State - County DEPT

RECEIVED
Division of Energy
SEPT 11 90
Permitting
Oil and Gas Sect.

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 Pardee Land Company
Address 1510 Two Mellon Bank Center
Philadelphia, PA 19102
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Tim Bennett
Address 525 Tiller Street
Logan, WV 25601
Telephone (304)- 792-7075

5) (a) Coal Operator:
Name Buffalo Mining Company
Address Box 429
Lyburn, WV 25632
(b) Coal Owner(s) with Declaration
Name Same as No. 4(a)
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name Same as No. 5(a)
Address _____

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
X 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)
X 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: J. T. Mellinger
Its: Vice President
Address P.O. Box 391
Ashland, KY 41114
Telephone 329-5450 (606)

Subscribed and sworn before me this 10th day of September, 1990
Nick W. Rosta Notary Public
My commission expires November 23, 1990