

# COX LEASE 402 ACRES±

S. BROWN  
84.81 ACRES±

WELL NO. COX HEIRS 1  
A.P.I. #47-017-4103  
STATE PLANE  
COORDINATES

(N) 247,096  
(E) 1,652,073

B. NOVAK, ET AL  
148.05 ACRES±

I.L. MORRIS  
183.25 ACRES±

## WELL NO. COX HEIRS 1 A.P.I. #47-017-4103

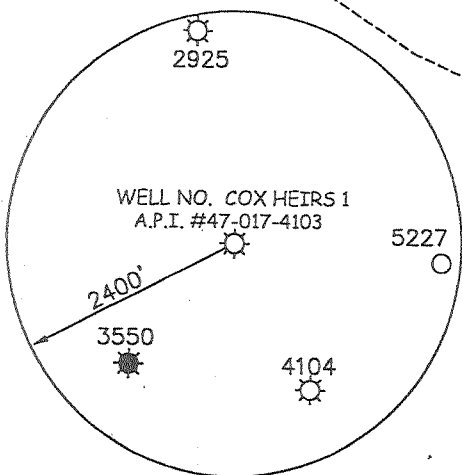
H. BUFF  
91.2 ACRES±

PHYLLIS  
HINTER, ET AL  
208.7 ACRES±

J. HEIM, ET AL  
68.53 ACRES±

P. COPLIN  
84 ACRES±

P. COPLIN  
27 ACRES±



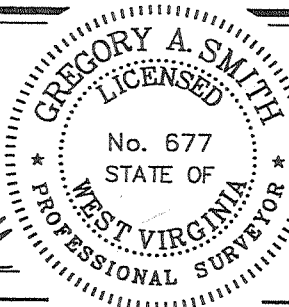
### NOTES ON SURVEY

1. TIES TO WELLS AND CORNERS ARE BASED ON GRID NORTH FOR THE WV STATE PLANE COORDINATE SYSTEM NORTH ZONE NAD '27.
2. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A DEED RECORDED IN DEED BOOK 108 AT PAGE 272.
3. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN JULY, 2006.
4. WELL LAT./LONG. (NAD'27) ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).



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 DIVISION OF ENVIRONMENTAL PROTECTION.

P.S. 677  
*Gregory A. Smith*



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

DATE JUNE 07, 20 07

OPERATORS WELL NO. \_\_\_\_\_ COX HEIRS NO. 1

API WELL NO. 47 - 017 - 4103  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 6457P1 (234 - 68)

PROVEN SOURCE OF ELEVATION DGPS (SUBMETER MAPPING GRADE) SCALE 1" = 800'

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS



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

LOCATION: ELEVATION 1,411' WATERSHED TOMS FORK **JUL 27 2007**

DISTRICT NEW MILTON COUNTY DODDRIDGE QUADRANGLE NEW MILTON 7.5'

SURFACE OWNER PHYLLIS HINTER, ET AL ACREAGE 208.7±

ROYALTY OWNER JOHN S. COX HEIRS, ET AL LEASE ACREAGE 402±

PROPOSED WORK: LEASE NO. 477300

DRILL \_\_\_\_\_ CONVERT \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD \_\_\_\_\_

FORMATION \_\_\_\_\_ PERFORATE NEW FORMATION X PLUG AND ABANDON \_\_\_\_\_ CLEAN OUT AND REPLUG \_\_\_\_\_ OTHER \_\_\_\_\_

PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION WEIR/GORDAN

ESTIMATED DEPTH 1,600/2,850'

WELL OPERATOR PETROLEUM DEVELOPMENT CORP. DESIGNATED AGENT ALAN H. SMITH  
ADDRESS 120 GENESIS BOULEVARD ADDRESS 120 GENESIS BOULEVARD  
BRIDGEPORT, WV 26330 BRIDGEPORT, WV 25301

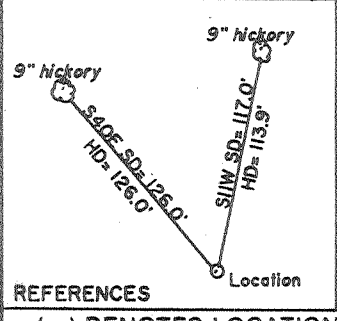
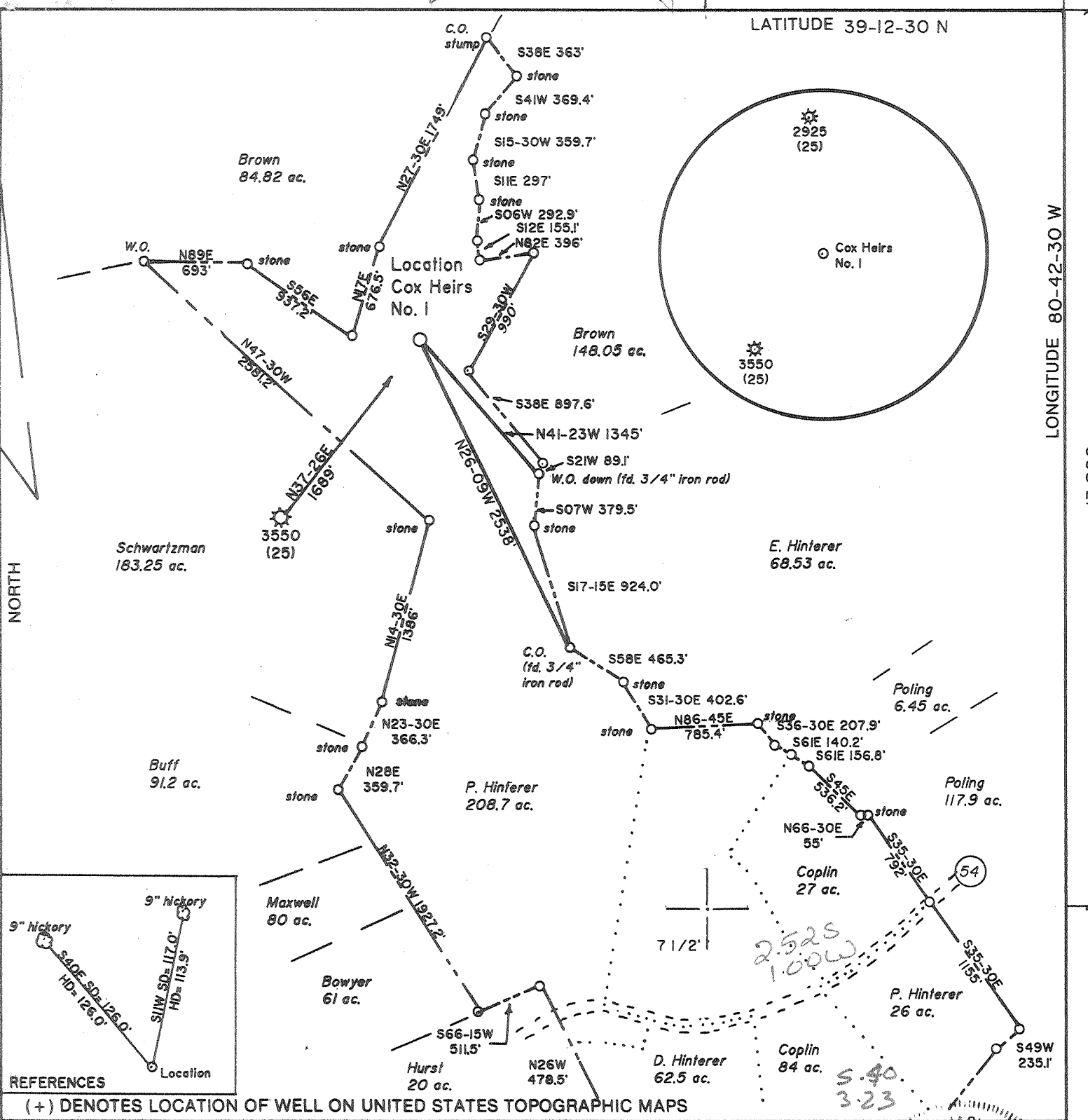
COUNTY NAME

PERMIT

Dodd

4103 F

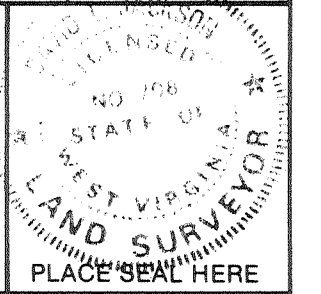
(Porto Rico - 134) 6-6



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

FILE NO. \_\_\_\_\_  
 DRAWING NO. 1  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION Hilltop 3575'  
South of Location; elev. 1337'

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) David Z. Jackson  
 R.P.E. \_\_\_\_\_ L.L.S. 708



STATE OF WEST VIRGINIA  
 Division of Environmental Protection  
 OFFICE OF OIL AND GAS

DATE February 1, 19 94  
 OPERATOR'S WELL NO. Cox Heirs No. 1  
 API WELL NO. \_\_\_\_\_

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

LOCATION: ELEVATION 1413 WATERSHED Toms Fork  
 DISTRICT New Milton COUNTY Doddridge  
 QUADRANGLE New Milton 7 1/2' Wade NW

SURFACE OWNER Phyllis Hinterer et al ACREAGE 208.7  
 OIL & GAS ROYALTY OWNER John S. Cox Heirs et al LEASE ACREAGE 402  
 LEASE NO. 477300

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 Benson ESTIMATED DEPTH 5000  
 WELL OPERATOR Petroleum Development Corp. DESIGNATED AGENT Eric R. Stearns  
 ADDRESS P.O. Box 26, Bridgeport, WV 26330 ADDRESS P.O. Box 26, Bridgeport, WV 26330

FORM WW-6

COUNTY NAME PERMIT

WR-25 RECEIVED

08-Feb-94  
API # 47-17-04103

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

Well Operator's Report of Well Work

Farm name: HINTERER, PHYLLIS ETAL. Operator Well No.: COX HEIRS #1

LOCATION: Elevation: Quadrangle:

District: NEW MILTON County: DODDRIDGE  
Latitude: Feet South of Deg. Min. Sec.  
Longitude: Feet West of Deg. Min. Sec.

Company: PETROLEUM DEVELOPMENT COR  
P. O. BOX 26  
BRIDGEPORT, WV 26330-0026

Agent: ERIC R. STEARNS

Inspector: MIKE UNDERWOOD  
Permit Issued: 02/09/94  
Well work Commenced: 03/11/94  
Well work Completed: 03/17/94

Verbal Plugging  
Permission granted on:  
Rotary x Cable \_\_\_\_\_ Rig  
Total Depth (feet) 5875'

Fresh water depths (ft) \_\_\_\_\_  
1963  
Salt water depths (ft) \_\_\_\_\_

Is coal being mined in area (Y/N)? N  
Coal Depths (ft): N/A

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
16"	12'	12'	
11 3/4"	167'	167'	110 sks
8 5/8"	2002'	2002'	496 sks
4 1/2"	5744'	5744'	550 sks

OPEN FLOW DATA

Producing formation Alexander Pay zone depth (ft) 5674-5697  
Gas: Initial open flow 15 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 335 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 4 Hours  
Static rock Pressure 2000 psig (surface pressure) after 72 Hours

Second producing formation Leopold Pay zone depth (ft) 5513-5515  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow co-mingled MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

Third producing formation Benson Pay zone depth (ft) 5372-5374

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: PETROLEUM DEVELOPMENT CORP.

By: Eric R. Stearns  
Date: April 28, 1994

OX HEIRS #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
st	Alexander	12 (5674' - 5697')	50	450	500	60
nd	Leopold	13 (5513' - 5515')	50	400	500	56
rd	Benson	13 (5372' - 5374')	50	400	500	63

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
KB - GL	0	10	
sand, shale, RR	10	2208	1/2" water @ 1963'
Maxton	2208	2276	
sand, shale	2276	2428	gas chk @ 2386' No Show
Big Lime	2428	2528	gas chk @ 2449' No Show
sand, shale	2528	2531	
Big Injun	2531	2580	gas chk @ 2545' No Show
sand, shale	2580	2691	gas chk @ 2672' No Show
Weir	2691	2780	
sand, shale	2780	2898	gas chk @ 2860' No Show
Berea	2898	2922	
sand, shale	2922	3068	gas chk @ 3018' No Show
Gordon	3068	3120	gas chk @ 3270' No Show
sand, shale	3120	3425	
5th	3425	3497	
sand, shale	3497	3726	gas chk @ 3550' No Show
Warren	3726	3879	
sand, shale	3879	4030	gas chk @ 4019' No Show
Speechley	4030	4386	
sand, shale	4386	4415	
Balltown	4415	4802	
sand, shale	4802	4827	
Bradford	4827	4950	
sand, shale	4950	5246	
Riley	5246	5334	
sand, shale	5334	5365	
Benson	5365	5397	gas chk @ 5368' No Show
sand, shale	5397	5482	gas chk @ 5400' 1/10 thru 1"/water
Leopold	5482	5592	gas chk @ 5589' No Show
sand, shale	5592	5612	gas chk @ 5777' No Show
Alexander	5612	5740	gas chk @ 5875' 2/10 thru 1"/water
sand, shale	5740	5875	Drillers TD
		5870	Logger TD

WK-55  
Rev (5-01)

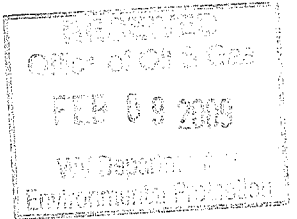
DATE: February 2, 2009  
API #: 47-017-04103

State of West Virginia  
Department of Environmental Protection  
Office of Oil and Gas

Well Operator's Report of Well Work

Farm name: HINTERER, PHYLLIS ETAL.  
LOCATION: Elevation 1411'

Operator Well No.: COX HEIRS #1  
Quadrangle: New Milton



District: New Milton County: Doddridge  
Latitude: 13,240 Feet North 39 of 12 Deg. 30 Min. Sec.  
Longitude: 5,350 Feet West 80 of 42 Deg. 30 Min. Sec.

Company: Petroleum Development Corporation

	Casing & Tubing	Used in drilling	Left in well	Cement fill up Cu. Ft.
Address: 120 Genesis Boulevard	16"	12'	12'	
Bridgeport, WV 26330	11-3/4"	167'	167'	110 sks
Agent: Alan H. Smith	8-5/8"	2002'	2002'	496 sks
Inspector: Mike Underwood	4-1/2"	5744'	5744'	550 sks
Date Permit Issued: 07/23/2007				
Date Well Work Commenced: 06/24/2008				
Date Well Work Completed: 06/24/2008				
Verbal Plugging:				
Date Permission granted on:				
Rotary X Cable Rig				
Total Depth (feet): 5875'				
Fresh Water Depth (ft.): 1963				
Salt Water Depth (ft.): N/A				
Is coal being mined in area (N/Y)? N				
Coal Depths (ft.): <u>N/A</u>				

OPEN FLOW DATA

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Time of open flow between initial and final tests \_\_\_\_\_ Hours  
Static rock Pressure \_\_\_\_\_ psig (surface pressure) after \_\_\_\_\_ Hours

Third producing Benson Pay zone depth (ft) 5372-5374

Fourth producing Gordon Pay zone depth (ft) 3128-3132

Fifth producing Weir Pay zone depth (ft) 2765-2785

FEB 27 2009

Dobo 4/03

LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS,  
INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

Signed: \_\_\_\_\_

  
By: Alan H. Smith

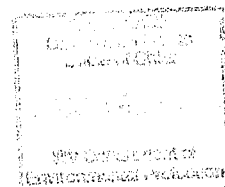
Date: \_\_\_\_\_

COX HEIRS #1

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Alexander	5612	5740	gas chk @ 5875' 2/10 thru 1"/water
sand, shale	5740	5875	Drillers TD
		5870	Logger TD



FEB 27 2009

Dope, 4/123

7 94

017-4103  
Issued 2/9/94  
Page \_\_\_ of \_\_\_  
Expires 2/9/96

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

- 1) Well Operator: 687 Petroleum Development Corporation 38200 (6) 511
- 2) Operator's Well Number: Cox Heirs #1 3) Elevation: 1413'
- 4) Well type: (a) Oil    / or Gas X /  
(b) If Gas: Production X / Underground Storage    /  
Deep    / Shallow X /
- 5) Proposed Target Formation(s): Alexander 439
- 6) Proposed Total Depth: 5900 feet  
Approximate fresh water strata depths: 280', 370', 460, 600', 895', 990'  
Approximate salt water depths: 1715', 1895', 1960'
- 9) Approximate coal seam depths: 525' - 529'
- 10) Does land contain coal seams tributary to active mine? Yes    / No X /
- 11) Proposed Well Work: Drill & stimulate new well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor	11 3/4"	H-40	42#	<del>150'</del> 200'	<del>150'</del> 200'	Surface
Fresh Water						
Coal						
Intermediate	8 5/8"	H-40	20#/23#	2,000'	2,000'	Surface
Production	4 1/2"	J-55	10.5#	5900'	5900' ←	450 sks
Tubing						
Liners						

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 Blinket  Agent  
 (Type)

18682

207937



1) Date: Feb. 2, 1994  
2) Operator's well number  
Cox Heirs #1  
3) API Well No: 47 - 017 - 4103  
State - County - Permit

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name Phyllis Hinterer  
Address Rt. 1, Box 171D  
Jane Lew, WV 26411  
(b) Name Craig Hinterer  
Address Rt. 1, Box 77  
New Milton, WV 26411  
(c) Name Philip Hinterer  
Address Rt. 1, Box 70A1  
New Milton, WV 26411  
6) Inspector Mike Underwood  
Address Rt. 2, Box 135  
Salem, WV 26426  
Telephone (304)- 782-1043

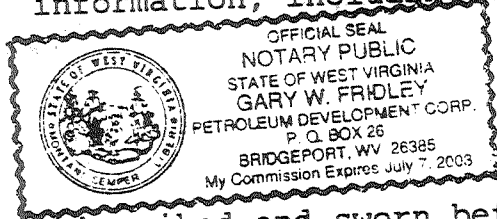
5) (a) Coal Operator:  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name Tygart Resources, Inc.,  
Address 1900 Grant Building  
Pittsburgh, PA 15219  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

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 xxx 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 \_\_\_\_\_ 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 PETROLEUM DEVELOPMENT CORPORATION  
By: [Signature]  
Its: \_\_\_\_\_ Geologist  
Address P O Box 26  
Bridgeport, WV 26330  
Telephone 842-6256

Subscribed and sworn before me this 3 day of February, 1994  
Gary W. Fridley Notary Public  
My commission expires July 7, 2003