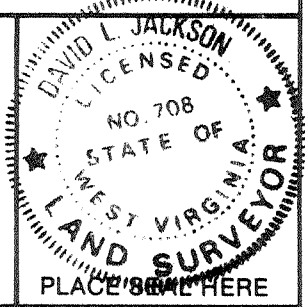


(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

FILE NO. _____
 DRAWING NO. 1
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION Hill top 1750' NE of Location: elev. 1207'

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 L. Jackson
 R.P.E. _____ L.L.S. 708



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

DATE October 6, 19 93
 OPERATOR'S WELL NO. Verna Haught No. 1
 API WELL NO. 47-017-4063

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

LOCATION: ELEVATION 1137 WATER SHED Little Buck Run
 DISTRICT Cove COUNTY Doddridge
 QUADRANGLE New Milton 7 1/2' Vadio WC

SURFACE OWNER Andrew Bryant et ux ACREAGE 83.61
 OIL & GAS ROYALTY OWNER Verna Haught LEASE ACREAGE 84
 LEASE NO. 463400

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

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___

TARGET FORMATION Benson ESTIMATED DEPTH 5000

WELL OPERATOR Petroleum Development Corp. 688 DESIGNATED AGENT Eric R. Stearns
 ADDRESS P.O. Box 26, Bridgeport, WV 26330 ADDRESS P.O. Box 26, Bridgeport, WV 26330

66 New Milton South (307)

FORM WW-6

COUNTY NAME

PERMIT

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

Well Operator's Report of Well Work

Farm Name: BRYANT, ANDREW & PEGGY Operator Well No.: V. HAUGHT #1

LOCATION: Elevation: 1,137.00 Quadrangle: NEW MILTON

District: COVE County: DODDRIDGE
Latitude: 14350 Feet South of 39 Deg. 10Min. Sec.
Longitude 100 Feet West of 80 Deg. 42 Min. 30 Sec.

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

Agent: ERIC R. STEARNS

Inspector: MIKE UNDERWOOD
Permit Issued: 11/12/93
Well work Commenced: 12/17/93
Well work Completed: 12/23/93

Verbal Plugging
Permission granted on: _____
Rotary x Cable _____ Rig
Total Depth (feet) 5550'
Fresh water depths (ft) _____

Salt water depths (ft) _____
n/a

Is coal being mined in area (Y/N)? N
Coal Depths (ft): 1070-1078

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4"	178'	178'	90 sks
8 5/8"	1426'	1426'	354 sks
4 1/2"	5441'	5441'	160 sks

OPEN FLOW DATA

Producing formation Alexander/Leopold Pay zone depth (ft) 5312-5314
Gas: Initial open flow 18 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 420 MCF/d Final open flow 0 Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 1300 psig (surface pressure) after 72 Hours

Second producing formation Benson Pay zone depth (ft) 5042-5046
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

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: January 7, 1994

JAN 6 1994
JAN 23 1994

ERNA HAUGHT #1

STAGE	FORMATION	PERFS	80/100 SKS	20/40 SKS	ACID GAL	N2 (MCF)
st	Alexander →	9(5312' - 5314')	50	500	1000	59
	/Leopold →	6(5175' - 5176')				
nd	Benson	17(5042' - 5046')	50	450	500	63

W E L L L O G

FORMATION	TOP FEET	BOTTOM FEET	REMARKS: FRESH & SALT WATER, COAL, OIL & GAS
B - GL	0	10	
and, shale, RR	10	1937	
axton	1937	2043	Coal @1070' - 1078'
and, shale	2043	2130	
ig Lime	2130	2232	gas chk @ 2380' no show
and, shale	2232	2234	
ig Injun	2234	2322	gas chk @ 2554' no show
and, shale	2322	2372	gas chk @ 2677' no show
air	2372	2508	
and, shale	2508	2588	gas chk @ 2865' no show
erea	2588	2604	gas chk @ 3270' no show
and, shale	2604	2772	
ordon	2772	2841	gas chk @ 4024' no show
and, shale	2841	3111	gas chk @5048' 4/10 thru 1"/water
th	3111	3176	
and, shale	3176	3419	
arren	3419	3512	
and, shale	3512	3710	
eechley	3710	4080	
and, shale	4080	4152	
alltown	4152	4508	
and, shale	4508	4540	
radford	4540	4683	
and, shale	4683	4818	
iley	4818	5005	gas chk @TD 3/10 thru 1"/water
and, shale	5005	5040	
enson	5040	5087	gas chk @collars 2/10 thru 1"/water
and, shale	5087	5155	
Leopold	5155	5183	
and, shale	5183	5285	
Alexander	5285	5388	
and, shale	5388	5551	Drillers TD
		5550	Logger TD

DC - 424

DFC - 439

7/2/81

OCT 26 03
Permitting
Office of Oil & Gas

Operator's Well Number
Verna Haught #1
3) API Well No: 47 - 017 - 4063
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 Andrew & Peggy Bryant
Address 43 Backbone Hill Rd.
Englishtown, NJ 07726
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Mike Underwood
Address Rt. 2, Box 135
Salem, WV 26426
Telephone (304)-782-1043

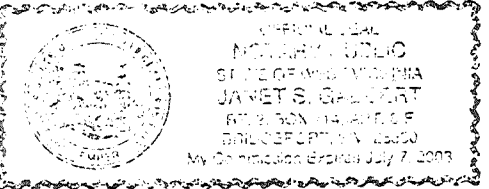
5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner(s) with Declaration
Name Eastern Associated Coal Corp.
Address P O Box 1233, Laidley Tower
Charleston, WV 25324
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address _____

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
xx 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 304-842-6256

Subscribed and sworn before me this 14TH day of October, 1993

Janet S. Gabbert Notary Public
My commission expires July 7TH, 2003

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

017 4063

Issued 11/12/93

1) Well Operator: Petroleum Development Corporation ⁶⁸⁷ 38200 ⁽²⁾ 511

Operator's Well Number: Verna Haught #1 ^{Expires 11/12/95} Elevation: 1137'

Well type: (a) Oil ___ / or Gas XXX/
(b) If Gas: Production XXX / Underground Storage ___ /
Deep ___ / Shallow XXX

Proposed Target Formation(s): Alexander Sands 439

Proposed Total Depth: 5600 feet

RECEIVED
WV Division of
Environmental Protection
OCT 26 93
Permitting
Office of Oil & Gas

7) Approximate fresh water strata depths: 85', 210', 305'

8) Approximate salt water depths: _____

9) Approximate coal seam depths: 245'

10) Does land contain coal seams tributary to active mine? Yes ___ / No XX

11) Proposed Well Work: Drill and stimulate new well

12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor	11 3/4	H-40	42#	150'	150' <u>C/S</u>	surface
Fresh Water					<u>38CSA/A-11.3</u>	<u>p.k.</u>
Coal					<u>38CSA/A-11.2.2</u>	<u>W</u>
Intermediate	8 5/8	H-40	20/23#	1450'	1450' <u>C/S</u>	surface
Production	4 1/2	J-55	10.5	5600'	5600' <u>←</u>	450sks
Tubing						<u>38CSA/A-11.1</u>
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 Blanket Agent
(Type)

00487
22

12