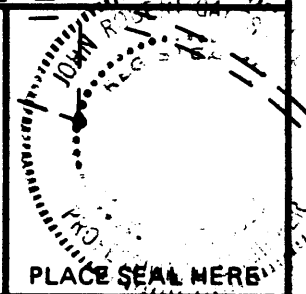


FILE NO. 79 - 399 - PH
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1/200
 PROVEN SOURCE OF ELEVATION STATE LINE MON. EL. 1273 1800' S.E. of SITE

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 Robert Dale
 P.E. 5566 L.L.S. _____



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE 7 - 6, 19 82
 OPERATOR'S WELL NO. 1
 API WELL NO. 47 - 029 - 0102
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL GAS _____ LIQUID INJECTION _____ WASTE DISPOSAL _____
 (IF "GAS,") PRODUCTION _____ STORAGE _____ DEEP _____ SHALLOW _____
 LOCATION: ELEVATION 1240 WATER SHED OHIO RIVER
 DISTRICT CLAY COUNTY HANCOCK
 QUADRANGLE EAST LIVERPOOL SOUTH Wellsville 15' SE
 SURFACE OWNER J.A. CARSON & S.H. CARSON Heirs ACREAGE 130
 OIL & GAS ROYALTY OWNER J.A. Carson & S.H. Carson Heirs LEASE ACREAGE 130
 LEASE NO. 358
 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 GORDON ESTIMATED DEPTH 1650' JUL 26 1982
 WELL OPERATOR PATRICK G. HOSLER DESIGNATED AGENT PATRICK G. HOSLER
 ADDRESS BOX 191 ADDRESS BOX 191
NEW CUMBERLAND, W. VA. 26047 NEW CUMBERLAND, W. VA. 26047

RECEIVED
APR 20 1983



FEB 17 1984

17

IV-35
(Rev 8-81)

OIL & GAS DIVISION
DEPT. OF MINES

& GAS DIVISION
DEPT. OF MINES

Date 3/14/83
Operator's
Well No. 1
Farm Carson Heirs
API No. 47-029-0102

RECEIVED
JUN 12 1984

State of West Virginia
Department of Mines
Oil and Gas Division

OIL & GAS DIVISION
DEPT. OF MINES

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 1240 Watershed Ohio River
District: Clay County Hancock Quadrangle East Liverpool South

COMPANY Patrick G. Hosler

ADDRESS Box 191, New Cumberland, W. Va.

DESIGNATED AGENT Same as above

ADDRESS _____

SURFACE OWNER J.A. & S.H. Carson Heirs

ADDRESS R.D. #3, Box 157, New Cumberland, W. Va.

MINERAL RIGHTS OWNER Same as above

ADDRESS _____

OIL AND GAS INSPECTOR FOR THIS WORK Robert Lowther
General Delivery
ADDRESS Middlebourne, W. Va. 26149

PERMIT ISSUED 7/9/82

DRILLING COMMENCED 7/23/82

DRILLING COMPLETED 7/31/82

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.	20	20	
13-10"			
9 5/8	300'	300'	To Surface
8 5/8			
7	1100	1100	800' to 1100'
5 1/2			
4 1/2			
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Berea Depth 1310 feet

Depth of completed well 1304 feet Rotary X / Cable Tools _____

Water strata depth: Fresh 200 feet; Salt 700 feet

Coal seam depths: 360 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Berea Pay zone depth 1310 feet

Gas: Initial open flow 0 Mcf/d Oil: Initial open flow 4 Bbl/d

Final open flow 0 Mcf/d Final open flow 5 Bbl/d

Time of open flow between initial and final tests _____ hours

Static rock pressure 0 psig (surface measurement) after 0 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

(Continue on reverse side)

Flow by vacuum only
NO RESOIVER PRESSURE

JUN 25 1984

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

1310 TO 1330 Shot with JUDY MITE
Berea

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	Broken		0	25	
Clay	Gray		25	42	
Red	Rock		42	48	
Slate	Gray		48	60	
Pink	Rock		60	80	
Slate	Gray		80	118	
Red	Rock		118	145	
Slate	Gray		145	170	
Sand			170	178	
Red	Rock		178	195	
Slate	Gray		195	236	
			236	237	Coal
Slate	Black		238	238	
Slate	Gray	Dark	238	241	
Slate	Black		241	278	
Slate	Gray		278	288	
Pink	Rock		288	385	
Slate	Gray		385	395	
Sand	Salt		395	442	
Slate	Gray	Dark	442	498	
			498	499	Coal
Clay			499	524	
Slate	Gray		524	534	
Slate	Black		534	548	
Clay			548	553	
Clay			553	570	
Slate	Gray		570	590	
Sand	Black		590	618	
Slate	Gray		618	715	
Sand	Broken		715	755	
Slate	Gray		755	815	
Sand			815	853	
Slate	Dark	Gray	853	902	
Sand			902	959	
Slate	Gritty	Gray	959	1250	
Slate	Black		1250	1270	
Slate	Gray	Gritty	1270	1290	
Sand			1290	1329	
Slate	Gray		1329	1361	
			1361	1364	

INSUN FORMATION

BEREA FORMATION

(Attach separate sheets as necessary)

SLATE GRAY

CHALLENGE PETROLEUM INC
Well Operator

By: Patrick L. Harkin
Date: 3/14/83

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."

(Obverse)

(Revised 3-81)



Farm _____
API #47 - 029- 0102
Date _____

STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil X / Gas ___ /

(If "Gas", Production ___ / Underground storage ___ / Deep ___ / Shallow ___ /

LOCATION: Elevation: 1240 Watershed: Ohio River
District: Clay County: Hancock Quadrangle: East Liverpool South

WELL OPERATOR Patrick G. Hosler
Address Box 191
New Cumberland, W. Va. 26047

DESIGNATED AGENT Patrick G. Hosler
Address Box 191
New Cumberland, W. Va. 26047

OIL AND GAS ROYALTY OWNER J. A. and S. H. Carson Heirs
Address R. D. #3 Box 157
New Cumberland, W. Va. 26047
Acreage 138

COAL OPERATOR None
Address _____

SURFACE OWNER J. A. and S. H. Carson Heirs
Address Box 157 R. D. #3
New Cumberland, W. Va. 26047
Acreage 138

COAL OWNER(S) WITH DECLARATION ON RECORD:
NAME J. A. and S. H. Carson Heirs
Address Box 157 R. D. #3
New Cumberland, W. Va. 26047

FIELD SALE (IF MADE) TO:
NAME _____
Address _____

NAME _____
Address _____

COAL LESSEE WITH DECLARATION ON RECORD:
NAME None
Address _____

OIL AND GAS INSPECTOR TO BE NOTIFIED:
NAME _____
Address _____
Telephone _____

RECEIVED
JUL 09 1982

OIL & GAS DIVISION
DEPT. 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 1/17, 1982, to the undersigned well operator from J. A. and S. H. Carson Heirs.

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

Recorded on March 3, 1982, in the office of the Clerk of County Commission of Hancock County, West Virginia, in 25 Book at page 361. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill Deeper ___ / Redrill ___ / Fracture or stimulate ___ / 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

Patrick G. Hosler
Well Operator
By: Patrick G. Hosler
Its: _____
Owner & Operator

CASH DEPOSIT
HELD BY TREASURER

(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) Robert Chisler

Address P. O. Box 101
Pentress, W. Va.

GEOLOGICAL TARGET FORMATION Gordon
Estimated depth of completed well 1650 feet. Rotary X / Cable tools /
Approximate water strata depths: Fresh, 170 feet; salt, 600 feet.
Approximate coal seam depths: 400'
Is coal being mined in this area: Yes / No X /

CASING AND TUBING PROGRAM

Table with columns: CASING OR TUBING TYPE, SPECIFICATIONS (Size, Grade, Weight per ft, New, Used), FOOTAGE INTERVALS (For Drill-ling, Left in Well), CEMENT FILL-UP OR SACKS (Cubic ft.), PACKERS (Kinds, Sizes, Depths set, 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 12, or in lieu thereof the other security allowed by Code 822-4-2, (iii) Form IV-9, "Reclamation Plan" applicable to the reclamation required by Code 822-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code 822-4-12a, and (v) if applicable, the consent required by Code 822-4-8a 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 sought and is noted as such on the Form IV-2 filed in connection therewith.

Well will be fractured and notification as to what is done will be sent to Department of Mines Oil & Gas Division as soon as possible. THIS PERMIT MUST BE POSTED AT THE WELL SITE.

ALL PROVISIONS BEING IN ACCORDANCE WITH CHAPTER 22, ARTICLE 4 OF THE W. VA. CODE, THE LOCATION IS HEREBY APPROVED FOR drilling. THIS PERMIT SHALL EXPIRE IF OPERATIONS HAVE NOT COMMENCED BY 3-16-83 BY [Signature]

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 822-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

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 regularions.

Date: _____, 19____.

By: _____
Its: _____

[Handwritten signature]