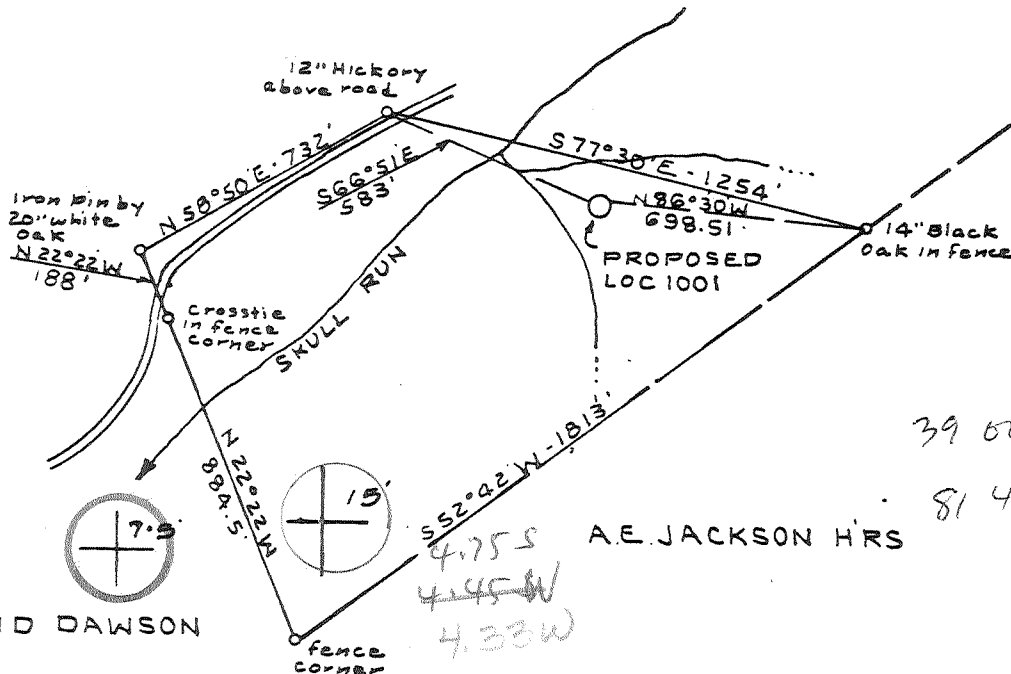


11,050'

LATITUDE 39°02'30"
39° 05'

LONGITUDE 81°42'30"
81° 40' 40'

NATHAN CARDER



DAVID DAWSON

A.E. JACKSON HRS

39 00 50

81 44 55

FILE NO. Bk 64 P 19
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1-200'
 PROVEN SOURCE OF ELEVATION intersection st. RT 2 & sec 4/12 EL 604.00' USGS BM.

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) C. Y. Yalley Jr.
 R.P.E. _____ J.U.S. 92

PLACE SEAL HERE

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



DATE Sept 5, 1981
 OPERATOR'S WELL NO. 1001
 API WELL NO. 47 - 035 - 1611
 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 651.57 WATER SHED SKULL RUN OF OHIO RIVER
 DISTRICT GRANT COUNTY JACKSON
 QUADRANGLE POND CREEK OHIO-WVA 7.5' Bellville 12 SW
 SURFACE OWNER NATHAN CARDER ACREAGE 31
 OIL & GAS ROYALTY OWNER NATHAN CARDER LEASE ACREAGE 31
 LEASE NO. 4624
 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 ORISKANY ESTIMATED DEPTH 4425
 WELL OPERATOR DEVON ENERGY CORP DESIGNATED AGENT ARTHUR G. YOUSE
 ADDRESS P.O. BOX 1433 ADDRESS P.O. BOX 1433
CHARLESTON WVA CHARLESTON, W.VA.

OCT 08 1981

TRASCO
SPD shale

6-4 to 6 deep well NEPTUNE 255



IV-35 **RECEIVED**
(Rev 8-81)

MAR 26 1982

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

State of West Virginia
Department of Mines
Oil and Gas Division

Date January 15, 1982
Operator's
Well No. #1001
Farm N. G. Carder
API No. 47 - 035 - 1611

WELL OPERATOR'S REPORT
OF

DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 651.57 Watershed Skull Run of Ohio River
District: Grant County Jackson Quadrangle Pond Creek 7-1/2

COMPANY DEVON ENERGY CORPORATION
ADDRESS Box 1433, Charleston, W. Va. 25325
DESIGNATED AGENT Arthur C. Youse
ADDRESS Box 1433, Charleston, W. Va. 25325
SURFACE OWNER Nathan G. Carder
ADDRESS Murraysville, W. Va. 26153
MINERAL RIGHTS OWNER Same as above
ADDRESS
OIL AND GAS INSPECTOR FOR THIS WORK Richard Morris
ADDRESS Grantsville, W. Va.
PERMIT ISSUED September 25, 1981
DRILLING COMMENCED October 28, 1981
DRILLING COMPLETED November 3, 1981
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.			
18 10"	257	257	To surface
9 5/8			
8 5/8			
7	1708	742	630 feet
5 1/2			
4 1/2		4418	1286 feet
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Oriskany Sand Depth 4425 feet
Depth of completed well 4456 feet Rotary XX / Cable Tools
Water strata depth: Fresh feet; Salt feet
Coal seam depths: None reported Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Brown Shale Pay zone depth 3465-3650 feet
Gas: Initial open flow 26 Mcf/d Oil: Initial open flow -0- Bbl/d
Final open flow 103 Mcf/d Final open flow -0- Bbl/d
Time of open flow between initial and final tests 4 hours
Static rock pressure 725 psig (surface measurement) after 48 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

April 1982
(Continued on reverse side)

(REVERSE)

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

Perforated 4-1/2" casing 3465 to 3650 with 24 shots.

Fractured Brown Shale with 382 bbls. water, 85,000# sand and 714,000 SCF nitrogen.

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Shale			0	104	
Sand			104	265	
Shale			265	346	
Sand			346	412	
Shale			412	480	
Sand			480	523	
Shale			523	586	
Sand			586	606	
Shale			606	823	
Sand			823	850	
Shale			850	920	
Sand			920	965	
Shale			965	1063	
Sand			1063	1120	
Shale			1120	1158	
Sand			1158	1183	
Shale			1183	1512	
Big Lime			1512	1578	
Shale			1578	2012	
Coffee Shale			2012	2029	
Berea Horizon				2029	
Gray Shale			2029	3176	
Brown Shale			3176	3661	
Gray Shale			3661	4038	
Marcellus Shale			4038	4210	
Onondaga L. S.			4210	4313	
Oriskany Sand			4313	4321	
Helderberg L. S.			4321	4456	
Log Total Depth				4456	

(Attach separate sheets as necessary)

DEVON ENERGY CORPORATION

Well Operator

By:

A. C. Youse

A. C. Youse, Area Expl. Mgr.

Date:

January 15, 1982

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."



API #47 - 035 - 1611

WELL NO. 1001

FARM N. G. Carder

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

DATE 9/3, 1981

OIL AND GAS WELL PERMIT

WELL TYPE: Oil _____ / Gas X /
(If "Gas", Production X / Underground storage _____ / Deep X / Shallow _____)

LOCATION: Elevation: 651.57 Watershed: Skull Run of Ohio River
District: Grant County: Jackson Quadrangle: Pond Creek

WELL OPERATOR DEVON ENERGY CORPORATION DESIGNATED AGENT Arthur C. Youse
Address P. O. Box 1433 Address P. O. Box 1433
Charleston, W. Va. 25325 Charleston, W. Va. 25325

OIL & GAS ROYALTY OWNER Nathan G. Carder COAL OPERATOR Not Operated
Address Murraysville, WV 26153 Address _____

ACREAGE 250 acres COAL OWNER(S) WITH DECLARATION ON RECORD:

SURFACE OWNER Same as above Name _____
Address _____

ACREAGE _____ Name _____
FIELD SALE (IF MADE) TO: Not Contracted Address _____

Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED Name _____
Name Richard J. Morris Address _____

Address P. O. Box 372
Grantsville, W. Va. 26147

Phone 354-7259

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed _____ / lease XX
other contract _____ / dated 11/15, 1978, to the undersigned well operator from Nathan G. Carder, et ux

If said deed, lease, or other contract has been recorded:
recorded on _____, 19_____, in the office of the Clerk of the County Commission of Jackson County, West

Virginia, in Lease Book 150 at page 343. 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 the receipt of this Application by the Department.

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 lessee on or before the day of the mailing or delivery of this Permit 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
15 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

DEVON ENERGY CORPORATION
Well Operator
By A. C. Youse
A. C. Youse
Its Dist. Expl. Mgr.

BLANKET BOND

RECEIVED

SEP 21 1981

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

PROPOSED WORK ORDER

**THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION**

DRILLING CONTRACTOR (IF KNOWN) Clint Hurt & Assoc.
 Address PO Box 388
Elkview, W. Va. 25071
 GEOLOGICAL TARGET FORMATION, Oriskany Sand

Estimated depth of completed well, 4425 feet Rotary X / Cable tools /
 Approximate water strata depths: Fresh, feet; salt, feet.
 Approximate coal seam depths: Is coal being mined in the area? Yes / No X /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft	New	Used	For drilling	Left in well		
Conductor									Kinds
Fresh Water	9-5/8			X		250	250	125 sax	to surface
Coal									Sizes
Intermediate	7			X		1675	750	75 sax	= 650 feet
Production	4-1/2			X			4425	225 sax	Depths set 2400 feet
Tubing	2-3/8			X			4325		
Liners									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 § 22-4-2, (iii) Form IV-9, "Reclamation Plan", applicable to the reclamation required by Code § 22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code § 22-4-12a, and (v) if applicable, the consent required by Code § 22-4-8a 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.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

provisions being in accordance with Chapter 22, the W. Va. Code, the location is hereby approved drilling . This permit shall expire if operations have not commenced by 5-25-82.

Fred B. ...
 Deputy Director - Oil & Gas Division

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 22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof.

WAIVER

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 regulations.

By
 Its