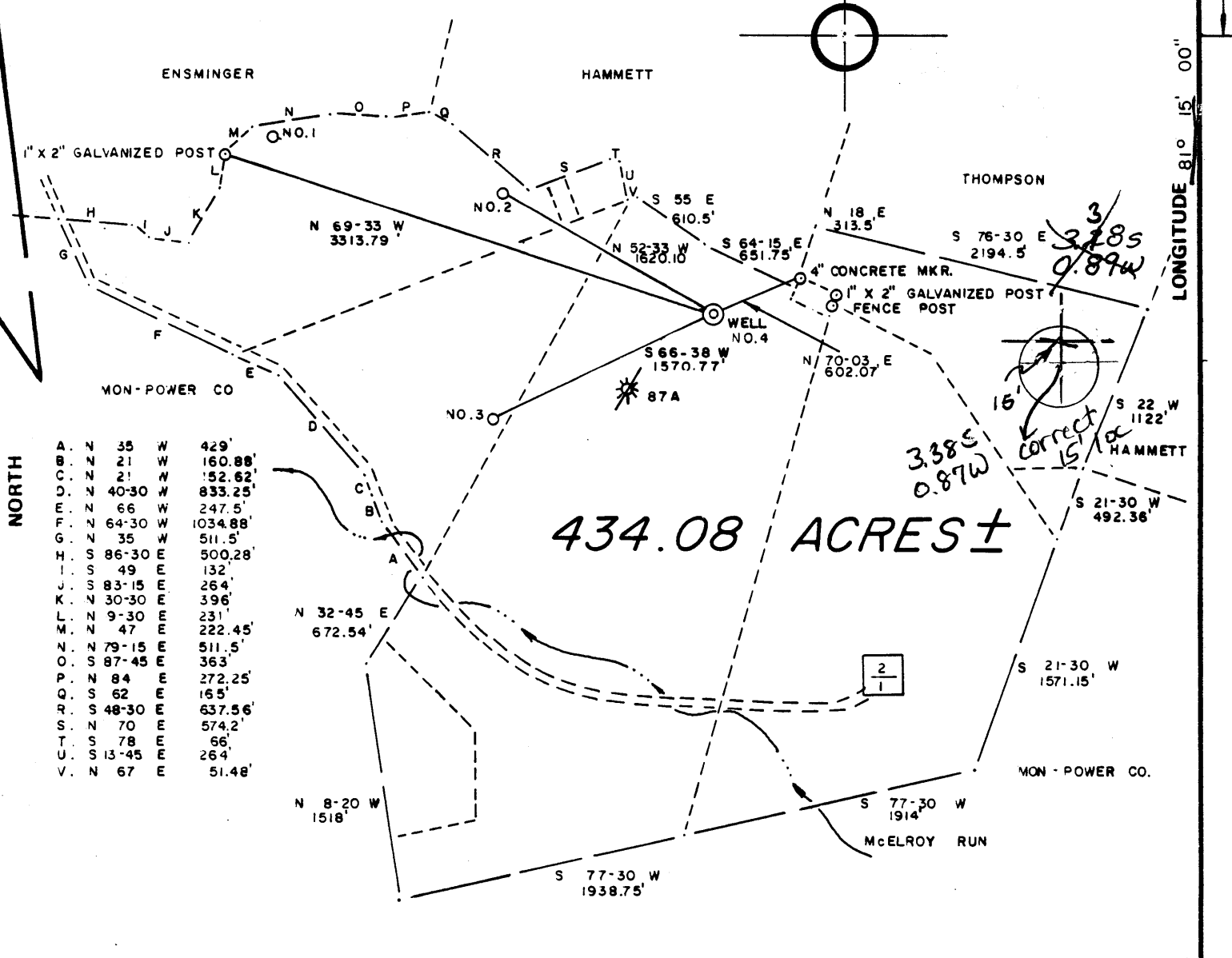


# MON-POWER LEASE WELL NO. 4

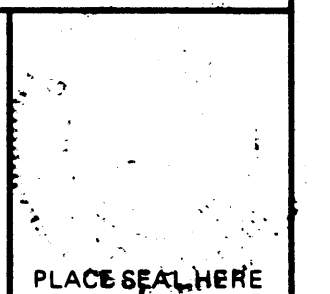


NORTH	A.	N	35	W	429'
	B.	N	21	W	160.88'
	C.	N	21	W	152.62'
	D.	N	40-30	W	833.25'
	E.	N	66	W	247.5'
	F.	N	64-30	W	1034.88'
	G.	N	35	W	511.5'
	H.	S	86-30	E	500.28'
	I.	S	49	E	132'
	J.	S	83-15	E	264'
	K.	N	30-30	E	396'
	L.	N	9-30	E	231'
	M.	N	47	E	222.45'
	N.	N	79-15	E	511.5'
	O.	S	87-45	E	363'
	P.	N	84	E	272.25'
	Q.	S	62	E	165'
	R.	S	48-30	E	637.56'
	S.	N	70	E	574.2'
	T.	S	78	E	66'
	U.	S	13-45	E	264'
	V.	N	67	E	51.48'

434.08 ACRES ±

FILE NO. 8-1  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1" = 1000'  
 MINIMUM DEGREE OF ACCURACY 1 / 200  
 PROVEN SOURCE OF ELEVATION T.B.M. MON.-POWER CO. ELEV. 826.61'

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) Gregory A. Smith  
 R.P.E. \_\_\_\_\_ L.L.S. 677



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



DATE JULY 21, 1982  
 OPERATOR'S WELL NO. 4  
 API WELL NO. \_\_\_\_\_  
47-073-1594  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL \_\_\_ GAS X LIQUID INJECTION \_\_\_ WASTE DISPOSAL \_\_\_  
 (IF "GAS,") PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
 LOCATION: ELEVATION 976 WATER SHED McELROY RUN  
 DISTRICT GRANT COUNTY PLEASANTS  
 QUADRANGLE WILLOW ISLAND 7.5' Marietta 15' EC  
 SURFACE OWNER MONONGAHELA POWER COMPANY ACREAGE 434.08  
 OIL & GAS ROYALTY OWNER MONONGAHELA POWER COMPANY LEASE ACREAGE 1158.22  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL X 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 5125'  
 WELL OPERATOR JENKINS ENERGY CORP DESIGNATED AGENT EARL DAVIS  
 ADDRESS P.O. BOX 980 BRIDGEPORT, W.V. 26330 ADDRESS P.O. BOX 980 BRIDGEPORT, W.V. 26330

FEB 14 1983

IV-35  
(Rev 8-81)

RECEIVED  
MAY 23 1984



OIL & GAS DIVISION  
DEPT. OF MINES  
State of West Virginia  
Department of Mines  
Oil and Gas Division

Date March 28, 1983  
Operator's  
Well No. Four (4)  
Farm Monongahela Power  
API No. 47 - 073 - 1594

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

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

LOCATION: Elevation: 976 Watershed McElroy Run of Ohio River  
District: Grant County Pleasants Quad angle Willow Island 7.5

COMPANY Jenkins Energy Corp.  
ADDRESS P.O. Box 980, Bridgeport, W.va.  
DESIGNATED AGENT Carlton Davis  
ADDRESS P.O. Box 980, Bridgeport W.va.  
SURFACE OWNER Monongahela Power Co.  
ADDRESS St. Marys, W.va.  
MINERAL RIGHTS OWNER Monongahela Power Co.  
ADDRESS St. Marys, W.va.  
OIL AND GAS INSPECTOR FOR THIS WORK Robert Lowther  
ADDRESS Middlebourne, W.va.  
PERMIT ISSUED February 11, 1983  
DRILLING COMMENCED February 15, 1983  
DRILLING COMPLETED February 24, 1983  
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 Cord.			
11 <sup>3</sup> / <sub>4</sub>	90	90	to surface
9 5/8			
8 5/8	1111	1111	to surface
7			
5 1/2			
4 1/2		4761	500 sacks
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Hamilton Shale Depth 4910 feet  
Depth of completed well 4730 ? feet Rotary X / Cable Tools \_\_\_  
Water strata depth: Fresh 60 feet; Salt 1050 feet  
Coal seam depths: -- Is coal being mined in the area? --

OPEN FLOW DATA

Producing formation Rhinestreet Hamilton Shale Pay zone depth 4761 feet  
Gas: Initial open flow show Mcf/d Oil: Initial open flow -- Bbl/d  
Final open flow 200 Mcf/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 4 hours  
Static rock pressure 750 psig (surface measurement) after 72 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation Brallier Shale Pay zone depth 3816 feet  
Gas: Initial open flow show Mcf/d Oil: Initial open flow show Bbl/d  
Final open flow 450 Mcf/d Oil: Final open flow show Bbl/d  
Time of open flow between initial and final tests 4 hours  
Static rock pressure --- psig (surface measurement) after 72 hours shut in

batch data: 6/11/84

(Continue on reverse side)

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

3 stages with 40 holes per stage each stage consisted of 750,000 scf N<sub>2</sub>

First Stage - Perf 4390-4604, 40 holes, stimulated with 750,000 scf N<sub>2</sub>. *Rhinastrect*

Second Stage - Perf 3860-4088, 40 holes, stimulated with 750,000 scf N<sub>2</sub>. *Huron*

Third Stage - Perf 3263-3766, 40 holes, stimulated with 750,000 scf N<sub>2</sub>. *Huron*

Fourth Stage - Perf 2123-3224, 38 holes, stimulated with 200,000 scf N<sub>2</sub>. *U. Devonian*

Fifth Stage - Perf 1918-1924, 10 holes, stimulated with 400,000 scf N<sub>2</sub>. *to Huron*

*U. Dev.*

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Top Soil, surface clay, sand, shale and lime streaks			0	1200	
Big Lime			1128	1200	Water, Oil, & Gas
Big Injun Sand			1213	1328	Oil & Gas
Berea Sand			1716	1724	Oil & Gas
Gantz Sand			1832	1844	
Gordon Sand			2108	2146	Oil & Gas
Brallier Shale			2608	3840	Oil & Gas
Huron Shale			3840	4480	Gas
Hamilton Shale			4480	4751	Gas

(Attach separate sheets as necessary)

Jenkins Energy Corp.

Well Operator

By:

Date:

*John Mitchell*  
*11-10-83*

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."



1) Date: February 4, 1983  
 2) Operator's Well No. Mon-Power 4  
 3) API Well No. 47 State 072 County 072 Permit 072

DRILLING CONTRACTOR:

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil \_\_\_\_\_ / Gas \_\_\_\_\_  
 B (If "Gas", Production \_\_\_\_\_ / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow \_\_\_\_\_)
- 5) LOCATION: Elevation: \_\_\_\_\_ Watershed: \_\_\_\_\_  
 District: \_\_\_\_\_ County: \_\_\_\_\_ Quadrangle: \_\_\_\_\_
- 6) WELL OPERATOR \_\_\_\_\_ 11) DESIGNATED AGENT \_\_\_\_\_  
 Address \_\_\_\_\_ Address \_\_\_\_\_
- 7) OIL & GAS ROYALTY OWNER \_\_\_\_\_ 12) COAL OPERATOR \_\_\_\_\_  
 Address \_\_\_\_\_ Address \_\_\_\_\_  
 Acreage \_\_\_\_\_
- 8) SURFACE OWNER \_\_\_\_\_ 13) COAL OWNER(S) WITH DECLARATION ON RECORD:  
 Address \_\_\_\_\_ Name \_\_\_\_\_  
 Address \_\_\_\_\_ Name \_\_\_\_\_  
 Acreage \_\_\_\_\_ Name \_\_\_\_\_
- 9) FIELD SALE (IF MADE) TO:  
 Address \_\_\_\_\_
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name \_\_\_\_\_ Address \_\_\_\_\_  
 Address \_\_\_\_\_
- 15) PROPOSED WORK: Drill \_\_\_\_\_ / Drill deeper \_\_\_\_\_ / Redrill \_\_\_\_\_ / Fracture or stimulate \_\_\_\_\_  
 Plug off old formation \_\_\_\_\_ / Perforate new formation \_\_\_\_\_  
 Other physical change in well (specify) \_\_\_\_\_
- 16) GEOLOGICAL TARGET FORMATION, \_\_\_\_\_
- 17) Estimated depth of completed well, \_\_\_\_\_ feet
- 18) Approximate water strata depths: Fresh, \_\_\_\_\_ feet; salt, \_\_\_\_\_ feet.
- 19) Approximate coal seam depths: \_\_\_\_\_ Is coal being mined in the area? Yes \_\_\_\_\_ / No \_\_\_\_\_

20) 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									
Coal									Sizes
Intermediate									
Production									Depths set
Tubing									
Liners									Perforations:
									Top Bottom

21) EXTRACTION RIGHTS

Check and provide one of the following:

- Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.  
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)

22) ROYALTY PROVISIONS

Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes  No

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

23) Required Copies (See reverse side.)

24) 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.

Notary: \_\_\_\_\_

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

My Commission Expires \_\_\_\_\_

Its: \_\_\_\_\_

OFFICE USE ONLY  
 DRILLING PERMIT

Date

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. Notification must be given to the District Oil and Gas Inspector. (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work. In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

Permit expires \_\_\_\_\_ unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
-------	--------	-------	--------	-----

Administrator, Office of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.