



STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

RECEIVED  
AUG 03 1978  
OIL & GAS DIVISION  
DEPT. OF MINES

TO THE DEPARTMENT OF MINES,  
Charleston, W. Va.

DATE 8-1-78

Surface Owner Johnie B. Wilfong  
Address Sand Fork, W.Va.  
Mineral Owner A.B. Campbell, hrs.  
Address \_\_\_\_\_  
Coal Owner N.E. Wiant  
Address \_\_\_\_\_  
Coal Operator None  
Address \_\_\_\_\_

Company NRM Petroleum Corporation  
Address P.O. Box 190 Glenville, W.Va.  
Farm A.B. Campbell Acres 114  
Location (waters) Ellis Run  
Well No. # 5 Elevation 1040  
District Glenville County Gilmer  
Quadrangle Gilmer 7.5 min.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location is hereby approved for drilling. This permit shall expire if operations have not commenced by 12-4-78.

INSPECTOR  
TO BE NOTIFIED Paul Goodnight  
ADDRESS Smithville, W.Va.  
PHONE 477-2544

Robert L. Todd  
Deputy Director - Oil & Gas Division

GENTLEMEN:

The undersigned well operator is entitled to drill upon the above named farm or tract of land for oil and gas, having fee title thereto, (or as the case may be) under grant or lease dated Aug. 31 1977 by R & S Gas Company made to NRM Petroleum Corp. and recorded on the 9 day of Sept. 1977 in Gilmer County, Book 292 Page 135

NEW WELL \_\_\_\_\_ DRILL DEEPER \_\_\_\_\_ REDRILL \_\_\_\_\_ FRACTURE OR STIMULATE  
\_\_\_\_\_ OIL AND GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1969.

The enclosed plat was prepared by a registered engineer or licensed land surveyor and all coal owners and/or operators have been notified as of the above date.

The above named coal owners and/or operator are hereby notified that any objection they wish to make, or are required to make by Section 3 of the Code, must be received by, or filed with the Department of Mines within ten (10) days. \*

Copies of this notice and the enclosed plat were mailed by registered mail, or delivered to the above named coal operators or coal owners at their above shown respective address \_\_\_\_\_ day \_\_\_\_\_ before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL  
GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA GEOLOGICAL AND  
ECONOMIC SURVEY  
P. O. BOX 879  
MORGANTOWN, WEST VIRGINIA 26505  
AC-304 - 292-6331

Address  
of  
Well Operator

Very truly yours, R. L. Hopkins  
(Sign Name) \_\_\_\_\_  
Well Operator  
P.O. Box 190  
Street  
Glenville, W  
City or Town  
W.Va., 26351  
State

\*SECTION 3 . . . If no objections are filed or found by the Department of mines, within said period of ten days from the receipt of notice and plat by the department of mines, to said proposed location, the department shall forthwith issue to the well operator a permit reciting the filing of such plat, that no objections have been made by the coal operators or found thereto by the department and that the same is approved and the well operator authorized to proceed.

(Formerly: GIL-2960)

GIL-3387

PERMIT NUMBER

BLANKET BOND

47-021



**THIS IS AN ESTIMATE ONLY  
ACTUAL INFORMATION WILL BE SUBMITTED ON OG-10 UPON COMPLETION**

PROPOSED WORK ORDER TO X DRILL \_\_\_\_\_ DEEPEN \_\_\_\_\_ FRACTURE-~~STIMULATE~~  
 DRILLING CONTRACTOR: (If Known) RESPONSIBLE AGENT:  
 NAME Union Drilling Co. NAME Rick Hopkins  
 ADDRESS Buckhannon, W.Va. ADDRESS P.O. Box 190 Glenville, W.Va.  
 TELEPHONE 472-4610 TELEPHONE 462-7916  
 ESTIMATED DEPTH OF COMPLETED WELL: 4700 ROTARY X CABLE TOOLS \_\_\_\_\_  
 PROPOSED GEOLOGICAL FORMATION: Benson  
 TYPE OF WELL: OIL \_\_\_\_\_ GAS X COMB. \_\_\_\_\_ STORAGE \_\_\_\_\_ DISPOSAL \_\_\_\_\_  
 RECYCLING \_\_\_\_\_ WATER FLOOD \_\_\_\_\_ OTHER \_\_\_\_\_

TENTATIVE CASING PROGRAM:

CASING AND TUBING SIZE	USED FOR DRILLING	LEFT IN WELL	CEMENT FILL UP OR SACKS - CUBIC FT.
20 - 16			
13 - 10			
9 - 5/8			
8 - 5/8	550	550	Cement to surface
7			
5 1/2			
4 1/2		4700	100 sks.
3			Perf. Top
2			Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 50 FEET \_\_\_\_\_ SALT WATER \_\_\_\_\_ FEET \_\_\_\_\_

APPROXIMATE COAL DEPTHS 530 \_\_\_\_\_

IS COAL BEING MINED IN THE AREA? No (Stripped) BY WHOM? \_\_\_\_\_

TO DRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, \$100.00 PERMIT FEE, PERFORMANCE BOND AND PERMANENT COPY OF PLAT.

TO DRILL DEEPER OR REDRILL:

SUBMIT FIVE (5) COPIES OF OG - 1, SHOWING ORIGINAL PERMIT NUMBER AND PERFORMANCE BOND. ON WELLS DRILLED PRIOR TO 1929, A PERMANENT COPY OF THE PLAT AND THE ORIGINAL WELL RECORD MUST ALSO BE SUBMITTED.

TO FRACTURE - STIMULATE:

OIL AND/OR GAS WELL ORIGINALLY DRILLED BEFORE JUNE 5, 1929, FIVE (5) COPIES OG - 1, PERFORMANCE BOND, PERMANENT PLAT AND ORIGINAL WELL RECORD.

OIL AND/OR GAS WELL ORIGINALLY DRILLED ON AND/OR AFTER JUNE 5, 1929, FIVE COPIES OG - 1, SHOWING ORIGINAL PERMIT NUMBER, AND PERFORMANCE BOND.

Required forms must be filed within ninety (90) days of completion for bond release. Inspector to be notified twenty-four (24) hours in advance.

The following waiver must be completed by the coal operator if the permit is to be issued within ten days of receipt thereof.

WAIVER: I the undersigned, Agent for \_\_\_\_\_ Coal Company, Owner or Operator of the coal under this lease have examined and place on our mine maps this proposed well location.

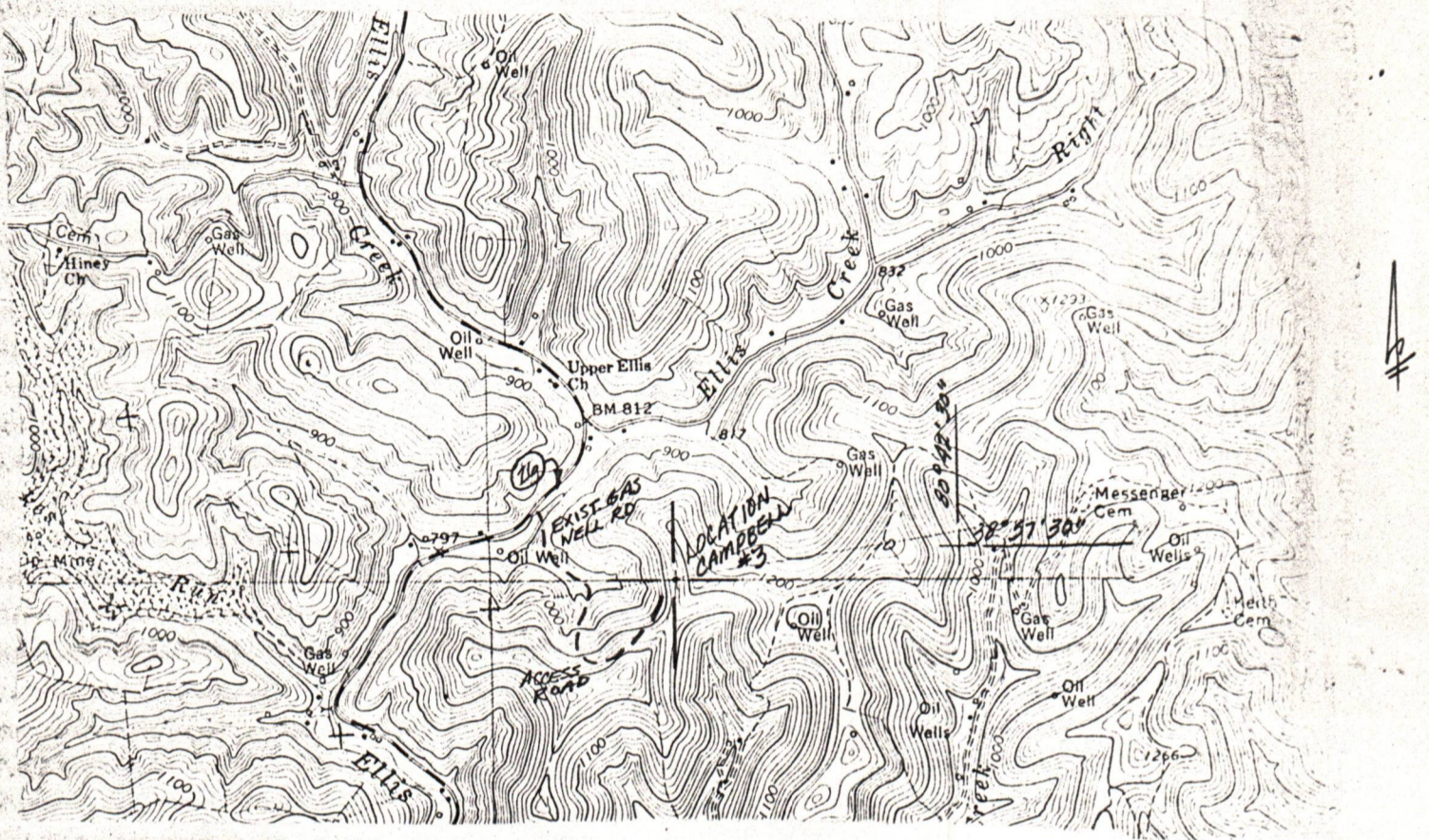
We the \_\_\_\_\_ Coal Company have no objections to said well being drilled at this location, providing operator has complied with all rules and regulations in Articles 4, 5, and 7, Chapter 22 of the West Virginia Code.

\_\_\_\_\_  
For Coal Company

\_\_\_\_\_  
Official Title



Locate and show (1) Well Location (2) Access Road (3) Well Site (4) Drilling Pit and (5) Necessary Drainage Features.



COMPANY NAME NRM PETROLEUM CORP.

PERMIT NO. Oil-3387

FARM JOHNNIE B. WILFONG

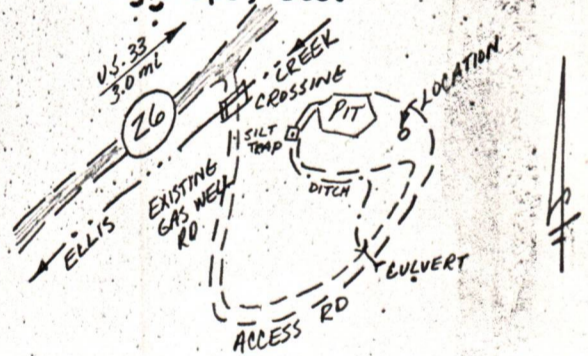
DISTRICT GLENVILLE

COUNTY GILMER

STATEMENT OF RECLAMATION PLAN:

Not to scale; drawing of all roads locations, ditches, drains, pits, silt traps, etc.

The proposed location No. 3 lies at elevation 1141, 2900 feet east of West Virginia Secondary Route 26. The access road will leave Route 26, cross Ellis Creek and follow an existing gas well road. It will then continue to the location, a total distance of 3200 feet. A crossing will be constructed and culverts placed along the road to prevent erosion and control runoff. The graded location will be ditched and silt traps constructed to control silt from entering Ellis Creek. The pit will be constructed west of the location to adequately contain all fluids and provide proper retention. Upon completion the drilling pit, location and all disturbed areas will be reclaimed by seeding fertilizing and mulching, allowing only the necessary area for the operation and maintenance of the well.



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NOV 9 1977

This plan was observed and agreed upon between the well operator, contractor, and the district oil and gas inspector.

OIL & GAS DIVISION  
DEPT. OF MINES

Please indicate ( ) "YES" if the district inspector was present.

"I have read and understand the reclamation requirements as set forth in Chapter 22, Article 4, Section 12-b and will carry out the specified requirements."

Submitted By: R.D. Hopkins

Title V-Pres.

Date 11-22-77





State of West Virginia

Department of Mines  
Oil and Gas Division

Charleston 25305

WALTER N. MILLER  
DIRECTOR

ROBERT L. DODD - P. E.  
DEPUTY DIRECTOR

November 29, 1978

NRM PETROLEUM CORPORATION  
P. O. Box 816  
Buckhannon  
West Virginia 26201

Gentlemen:

As you requested by telephone from your office this morning we are renewing the following drilling permits for an additional four months from their original expiration date.

GIL-3387 - Wilfong #5 Elevation 1141' extended to:  
April 4, 1979

GIL-3388 - Campbell #4 Elevation 778' extended to:  
April 4, 1979

HAR-1913 - Stout #1 Elevation 1125' extended to:  
April 3, 1979

We are posting our records "Renewed" and we are notifying our area inspectors of this change in expiration dates.

Very truly yours,

A handwritten signature in cursive script that reads "Faye Fleet".

Faye Fleet, Clerk  
OIL AND GAS DIVISION

/f  
ccs: File  
Paul Goodnight (copy of plats enclosed)  
Paul Garrett (copy of plat enclosed)



RECEIVED

FEB 21 1979

STATE OF WEST VIRGINIA  
DEPARTMENT OF MINES

OIL & GAS DIVISION  
DEPT. OF MINES  
Union Drilling Corp.

Oil and Gas Division  
WELL RECORD

Rig #6

Rotary  Oil \_\_\_\_\_  
Cable \_\_\_\_\_ Gas   
Recycling \_\_\_\_\_ Comb. \_\_\_\_\_  
Water Flood \_\_\_\_\_ Storage \_\_\_\_\_  
Disposal \_\_\_\_\_ (Kind) \_\_\_\_\_

Quadrangle Gilmer  
Permit No. Gil - 3387

Company <u>NRM Petroleum Corporation</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Address <u>P.O. Box 816, Buckhannon, W. Va. 26201</u>				
Farm <u>A. B. Campbell</u> Acres <u>114</u>	Size			
Location (waters) <u>Ellis Run</u>	20-16			
Well No. <u>5</u> Elev. <u>1140</u>	Cond.			
District <u>Glennville</u> County <u>Gilmer</u>	13-10"			
The surface of tract is owned in fee by <u>Johnie B. Wilfong</u>	9 5/8			
Address <u>Sand Fork, W. Va.</u>	8 5/8	520'	520'	150 sks. Dowell
Mineral rights are owned by <u>A. B. Campbell Hrs.</u>	7			
Address _____	5 1/2			
Drilling Commenced <u>12-20-78</u>	4 1/2	-	5326'	240 sks. Dowell
Drilling Completed <u>12-30-78</u>	3			
Initial open flow <u>91.3M</u> cu. ft. _____ bbls.	2			
Final production <u>793</u> cu. ft. per day _____ bbls.	Liners Used			
Well open _____ hrs. before test <u>1750#</u> RP.				

Well treatment details: Dowell  
 Frac Ced. Ck. - 500 gal. HCl, 50,000#20/40 in 605 bbl. water  
 BD 2200#, ATP 1972#, AIR 36.1 BPM, ISI 1150#  
 Frac Benson - 500 gal. HCl, 15000# 80/100, 35000# 20/40 in 538 bbl. water  
 BD 1700#, ATP 2214#, AIR 35.4 BPM, ISI 1100#

Attach copy of cementing record.

Coal was encountered at \_\_\_\_\_ Feet \_\_\_\_\_ Inches  
 Fresh water 211' Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
 Producing Sand Cedar Creek, Benson Depth 5136-64, 5198-5212, 5232-46, 4844-64  
 Holes 10 5 5 14

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
G L			0	10		
Sand & Shale			10	49		Hole damp - 145'
Sand, Shale & Red Rock			49	1952		1/2" stream - 211'
Little Lime			1952	1964		Damp w/oil @1950'
Shale			1964	1972		Gas chk. @1815' 13M
Blue Monday			1972	2000		
Big Lime			2000	2075		
Big Injun			2075	2188		
Sandy Shale			2188	2208		
Weir			2208	2335		
Sand & Shale			2335	2330		
Sandy Shale			2330	2435		
Sand & Shale			2435	2555		
Sandy Shale			2555	2605		
Sand & Shale			2605	2680		
Shale			2680	2690		
Sand & Shale			2690	2850		
Shale			2850	2865		
Sand & Sandy Shale			2865	2950		
Elizabeth			2950	2980		
Sandy Shale			2980	3250		
Warren			3250	3295		Gas chk. @2997' 34M
Shale			3295	3310		
Sand & Shale			3310	3505		

(over)

\* Indicates Electric Log tops in the remarks section.



Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Shale			3505	3540		
Sandy Shale			3540	3630		
Sand & Sandy Shale			3630	3800		
Shale			3800	3820		
Sand & Sandy Shale			3820	4505		
Sandy Shale			4505	4640	Gas chk. 4520'	34M
Sand & Sandy Shale			4640	4720		
Sandy Shale			4720	4805	Gas chk. 4799'	38.4M
Shale			4805	4840		
Benson			4840	4874		
Sandy Shale			4874	5070	Gas chk. 4955'	70M
Sand & Shale			5070	5130		
Cedar Creek			5130	5330		
Sandy Shale			5330	5451		
TOTAL DEPTH				5451	Gas chk. 5451'	91.3M
Well logged by Allegheny Nuclear Surveys				Gamma-Density-Temperature		
Initial open flow 91.3M						

Date 2-20- 1979  
APPROVED R.L. Hopkins Owner  
By Vice-President  
(Title)

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

RECEIVED

DEC 21 1978

INSPECTOR'S WELL REPORT OIL & GAS DIVISION  
DEPT. OF MINES

Permit No. 61-3387

Oil or Gas Well \_\_\_\_\_  
(KIND)

Company	CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
<u>N. R. M. Petroleum Corp</u>	Size			
Address _____	16			Kind of Packer _____
Farm <u>A. B. Campbell</u>	13			
Well No. <u># 5</u>	10			Size of _____
District <u>Glenville</u> County <u>Colver</u>	8 1/4			
Drilling commenced _____	6 5/8			Depth set _____
Drilling completed _____ Total depth _____	5 3/16			
Date shot _____ Depth of shot _____	3			Perf. top _____
Initial open flow _____ /10ths Water in _____ Inch	2			Perf. bottom _____
Open flow after tubing _____ /10ths Merc. in _____ Inch	Liners Used			Perf. top _____
Volume _____ Cu. Ft.				Perf. bottom _____
Rock pressure _____ lbs. _____ hrs.	CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____			
Oil _____ bbls., 1st 24 hrs.	NAME OF SERVICE COMPANY _____			
Fresh water _____ feet _____ feet	COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES			
Salt water _____ feet _____ feet	_____ FEET _____ INCHES _____ FEET _____ INCHES			
	_____ FEET _____ INCHES _____ FEET _____ INCHES			

Drillers' Names Heater - T. P.

Contr UNION Drilling Co Rotary - Air

Remarks:

*P.t. & Perm. t - O.K*

12-19-78  
DATE

W. B. Wright 505  
DISTRICT WELL INSPECTOR















DEPARTMENT OF ENERGY  
OIL AND GAS

MAY 14 1986

State of West Virginia  
Department of Mines  
Oil and Gas Division  
Charleston 25305

FINAL INSPECTION REPORT  
INSPECTORS COMPLIANCE REPORT  
March 7, 1984

(8-4-78)

COMPANY NRM Petroleum Corporation  
P. O. Box 816  
Buckhannon, West Virginia 26201

PERMIT NO 021-3387  
FARM & WELL NO Johnie B. Wilfong #1  
DIST. & COUNTY Glenville/Gilmer

RULE	DESCRIPTION	IN COMPLIANCE	
		YES	NO
23.06	Notification Prior to Starting Work		
25.04	Prepared before Drilling to Prevent Waste		
25.03	High-Pressure Drilling		
16.01	Required Permits at Wellsite		
15.03	Adequate Fresh Water Casing		
15.02	Adequate Coal Casing		
15.01	Adequate Production Casing		
15.04	Adequate Cement Strength		
15.05	Cement Type		
23.02	Maintained Access Roads		
25.01	Necessary Equipment to Prevent Waste		
23.04	Reclaimed Drilling Pits		
23.05	No Surface or Underground Pollution		
23.07	Requirements for Production & Gathering Pipelines		
16.01	Well Records on Site		
16.02	Well Records Filed		
7.05	Identification Markings		

I HAVE INSPECTED THE ABOVE CAPTIONED WELL AND RECOMMEND THAT IT BE RELEASED:

SIGNED Craig Duckworth  
DATE 5/8/86

Your well record was received and reclamation requirements approved. In accordance with Chapter 22, Article 4, Section 2, the above well will remain under bond coverage for the life of the well.

T. H. ...  
Administrator-Oil & Gas Division

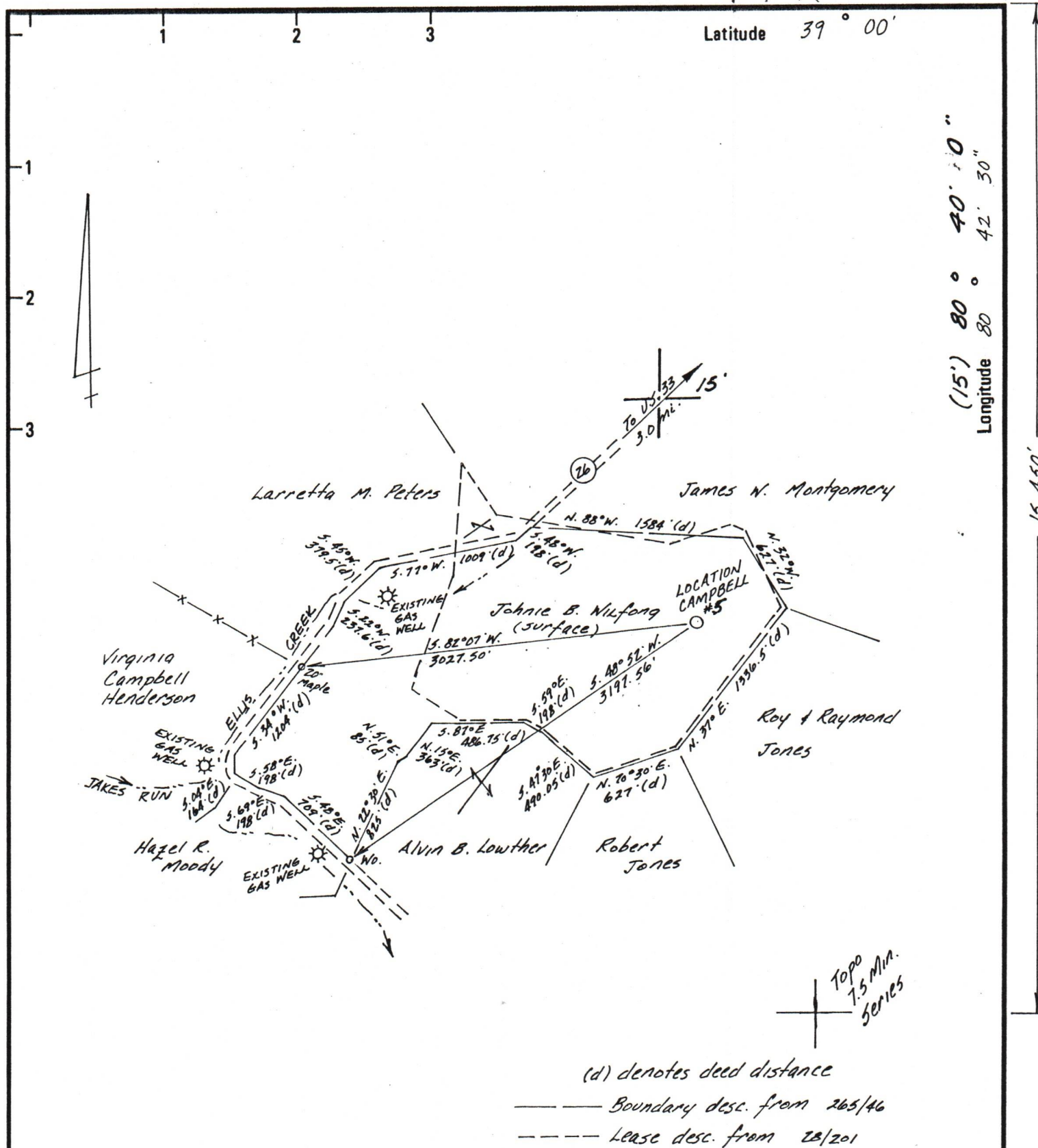
May 16, 1986  
DATE



11/29/1917 3000'

Latitude 39° 00'

Longitude 80° 40' 00"  
80° 42' 30"



(d) denotes deed distance  
 ——— Boundary desc. from 265/46  
 - - - Lease desc. from 28/201

Topo 7.5 Min. Series

New Location <input checked="" type="checkbox"/> Drill Deeper <input type="checkbox"/> Abandonment <input type="checkbox"/>	Minimum Error of Closure ..... 1 in 200 Source of Elevation ..... SPOT ELEVATION ON WEST HEADWALL CONC. BRIDGE, 2550' NN OF LOCATION, ELEV. = 797' "I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by paragraph 6 of the rules and regulations of the oil and gas section of the mining laws of West Virginia." <i>Rexford L. Ostrander</i>
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Company	NRM PETROLEUM CORP.	
Address	PO Box 190 GLENVILLE, WEST VIRGINIA 26351	
Farm	JOHNIE B. WILFONG	
Tract	1	Acres 114
Well (Farm) No.	CAMPBELL #5	Serial No.
Elevation (Spirit Level)	1141	
Quadrangle	GILMER - 7.5 MIN. SERIES, BURNSVILLE 15	
County	GILMER	District GLENVILLE
Engineer	REXFORD L. OSTRANDER, L.L.S.	
Engineer's Registration No.	L.L.S. No. 535	
File No.	186.02	Drawing No. NRM-18
Date	NOVEMBER 10, 1917	
Scale	1" = 1000'	

**STATE OF WEST VIRGINIA**  
 DEPARTMENT OF MINES  
**OIL AND GAS DIVISION**  
 CHARLESTON

**WELL LOCATION MAP**  
 FILE NO. **GIL-3387**  
 FORMERLY GIL-2960

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

47-021

4700' Benson