



FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1 in 100
 PROVEN SOURCE OF ELEVATION 4569 Bm N. Va. Sec. 25, 986', 4565 Big Isaac

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) Raymond O. Powell
 R.P.E. _____ L.L.S. 624

PLACE SEAL HERE

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



DATE Dec 7, 19 79
 OPERATOR'S WELL NO. Furbee #1
 API WELL NO. _____
47 - 017 - 2551
 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 940' WATER SHED Meadhouse Fork
 DISTRICT Greenbrier COUNTY Doddridge
 QUADRANGLE Big Isaac VADIS 15'
 SURFACE OWNER Harry Richards ACREAGE 34.5
 OIL & GAS ROYALTY OWNER Alta E. Furbee LEASE ACREAGE 34.5
 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 5350'
 WELL OPERATOR NRM Petroleum DESIGNATED AGENT R. L. Hopkins
 ADDRESS Box 816 ADDRESS Box 816
Buckhannon, W. Va. 26201 Buckhannon, W. Va. 26201



JUN 30 1980

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division
WELL RECORD

Quadrangle Big Issac 7.5'
Permit No. 47-017-2551

Union Drilling Corp.
Rig. #6
Rotary X Oil _____
Cable _____ Gas X _____
Recycling _____ Comb. _____
Water Flood _____ Storage _____
Disposal _____ (Kind) _____

Company NRM Petroleum Corporation
Address P. O. Box 816, Buckhannon, WV
Farm Alta E. Furbee Acres 34.5
Location (waters) Meathouse Fork
Well No. 1 Elev. 940'
District Greenbrier County Doddridge
The surface of tract is owned in fee by Harry Richards
Address Rt. 3, Box 58, Salem, WV 26426
Mineral rights are owned by _____
Address _____
Drilling Commenced 1-23-80
Drilling Completed 1-29-80
Initial open flow 30 M cu. ft. _____ bbls.
Final production 412 cu. ft. per day _____ bbls.
Well open 4 hrs. before test 720 RP.

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 16"	27	-	
12 1/2 11 3/4"	108'	108'	100 sks.
9 5/8			
8 5/8	1109.95	1109.95	275 sks.
7			
5 1/2			
4 1/2	-	494.7'	550 sks.
3			
2			
Liners Used			

Well treatment details:

Attach copy of cementing record.

Benson Perforations - 10 holes 4733-36
Benson Frac - Broke down 2000#, total fluid 424 bbl. ; average rate 32.7 BPM
Average pressure 2700#, shut-in pressure 1700#
10,000# of 80/100 sand and 30,000# of 20/40 sand

Coal was encountered at _____ Feet _____ Inches
Fresh water _____ Feet _____ Salt Water _____ Feet
Producing Sand Benson, Balltown and Gordon Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
GL			0	10		
Sand & shale			10	1790		
Little lime			- 1790	1798		
Shale			1798	1832		
Big Lime			- 1832	1888		
Big Injun.			1888	1982		
Shale			1982	1994		
Weir			1994	2132		
Shale			2132	2219	Gas chk. @ 2066'	No show
Berea			2219	2246	Gas chk. @ 2193'	No show
Shale			2246	2420		
Gordon			2420	2572		
Siltstone & Shale			2572	2820		
Shale			2820	3085		
Warren			3085	3122		
Shale			3122	3142		
Siltstone & Shale			3142	3570		
Balltown			3570	3743	Gas chk. @ 3342'	Odor, No Reading
Siltstone & Shale			3743	4728		
Benson			- 4728	4740	Gas chk. @ 4617'	36 M
Siltstone & Shale			4740	5006		
Alexander			5006	5147	Gas chk. @ 4799'	34 M
Siltstone & Shale			5147			

JUL 28 1980

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
TOTAL DEPTH				5308	TD	30 M
Initial Open Flow		30 Mcf per day				
Logged by Allegheny Nuclear Surveys						
Balltown Perforations - 10 holes 3577-80						
Balltown Frac - Broke down 3400#, total fluid 405 bbl., average rate 36.8 BPM						
Average pressure 2400#, shut-in pressure 1300#.						
10,000# of 80/100 sand and 30,000# of 20/40 sand.						
Gordon Perforations - 10 holes 2510-2651						
Gordon Frac - Broke down 2500#, total fluid 300#, average rate 33.3 BPM						
average pressure 2600# shut-in pressure 600#						
10,000# of 80/100 sand and 30,000# of 20/40 sand						

Date June 26 19 80

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

OIL AND GAS WELL PERMIT APPLICATION

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

LOCATION: Elevation: 940' Watershed: Meathouse Fork
District: Greenbrier County: Doddridge Quadrangle: Big Isaac

WELL OPERATOR NRM Petroleum Corporation DESIGNATED AGENT Rickard L. Hopkins
Address P.O. Box 816 Address P.O. Box 816
Buckhannon, WV 26201 Buckhannon, WV 26201

OIL & GAS ROYALTY OWNER Alta E. Furbee
Address James Furbee, Agent
Bristol, WV 26432

COAL OPERATOR _____
Address _____

Acreage 34.5
SURFACE OWNER Harry Richards
Address Rt. 3 Box 58
Salem, WV 26426
Acreage 34.5

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Consolidation Coal Company
Address Morgantown, W. Va.

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

Name _____
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Paul Garrett
Address 321 Beech Street
Clarksburg, WV 26301

COAL LESSEE WITH DECLARATION ON RECORD:
Name _____
Address _____
DEC 14 1979

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 / other contract / dated May 30, 1979, to the undersigned well operator from Mark V. Schumacher to NRM Petroleum Corp.
[If said deed, lease, or other contract has been recorded:]

Recorded on _____, 19____, in the office of the Clerk of the County Commission of _____ County, West Virginia, in _____ Book _____ at page _____. A permit is requested as follows:

PROPOSED WORK: Drill / 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
1615 WASHINGTON STREET EAST
CHARLESTON, WV 25311
TELEPHONE: (304) 348-3092

NRM PETROLEUM CORPORATION
Well Operator

By Bill Hall
Its Land Department

BLANKET BOND

PROPOSED WORK ORDER

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

DRILLING CONTRACTOR (IF KNOWN) Union Drilling Company
Address Drawer 40
Buckhannon, WV 26201

GEOLOGICAL TARGET FORMATION, Devonian Shale

Estimated depth of completed well, 5350 feet Rotary Cable tools

Approximate water strata depths: Fresh, 100 feet; salt, feet.

Approximate coal seam depths: eroded away coal being mined in the area? Yes No

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	8 5/8					1100	1100	Cement to surface	surface
Coal									Sizes
Intermediate									
Production	4 1/2						5350	225 sks.	Depths set
Tubing									
Liners									Perforations:
									Top Bottom

NOTE: Regulation 7.08 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-3, "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 § 22-4-13a, and (v) if applicable, the consent required by Code § 22-4-3a 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

All provisions being in accordance with Chapter 22, of the W. Va. Code, the location hereby approved for drilling operations shall expire if operations have not commenced by 8-18-80

[Signature]
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 § 22-4-27, 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 regulations.

Date: , 19