

(Obverse)

(Revised 3-81)



Moss #1
Farm L.L. Moss
API #47-083-0599
Date January 15, 1982

STATE OF WEST VIRGINIA

OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil / Gas X /

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

LOCATION: Elevation: 2125' Watershed: Middle Fork River
District: Roaring Creek County: Randolph Quadrangle: Ellamore

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

OIL AND GAS ROYALTY OWNER: L.L. Moss
Address: RD #2 Box 201, Buckhannon, WV 26201
COAL OPERATOR: [Blank]
Address: [Blank]

ACREAGE: 79
SURFACE OWNER: L.L. Moss
Address: RD #2 Box 201, Buckhannon, WV 26201
ACREAGE: 79
COAL OWNER(S) WITH DECLARATION ON RECORD:
NAME: L.L. Moss
Address: RD #2 Box 201, Buckhannon, WV 26201

FIELD SALE (IF MADE) TO:
NAME: [Blank]
Address: [Blank]
COAL LESSEE WITH DECLARATION ON RECORD:
NAME: Amax Coal Co.
Address: 105 S. Meriden St., Indianapolis, In. 46225

OIL AND GAS INSPECTOR TO BE NOTIFIED:
NAME: Robert Stewart
Address: P.O. Box 345, Jane Lew, WV 26378
Telephone: 884-7782

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 12-24, 1981, to the undersigned well operator from L.L. Moss ex ux to Moss Minerals

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

Recorded on BEING RECORDED, 19, in the office of the Clerk of County Commission of Randolph County, West Virginia, in Book at page A permit is requested as follows:

PROPOSED WORK: Drill X / Drill Deeper / Redrill / Fracture or stimulate X / 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 522-4-3 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

NRM PETROLEUM CORPORATION
Well Operator
B. D. Hall
Its: Land-Field Manager Land Department

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

DRILLING CONTRACTOR (IF KNOWN) S. W. JACK DRILLING, INC.

Address Lorentz, WV 26229

GEOLOGICAL TARGET FORMATION

Flk

Estimated depth of completed well 4800' feet. Rotary Cable tools

Approximate water strata depths: Fresh 200-775' feet; salt ? feet.

Approximate coal seam depths: 105-110', 120-124', 185-189'

Is coal being mined in this area: Yes No

CASING AND DRILLING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL UP OR SACKS (Cubic ft.)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For Drill		
Conductor								Kinds
Fresh water								
Coal								Sizes
Intermit.	8 5/8					600' to	600' to	Cement to suit.
Production Tubing	4 1/2					4800'	4800'	750 sks. or as required by rule 15.01
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 §22-4-6a 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 is hereby approved for drilling

This permit shall expire if operations have not commenced by 10-2-82

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 hereof:

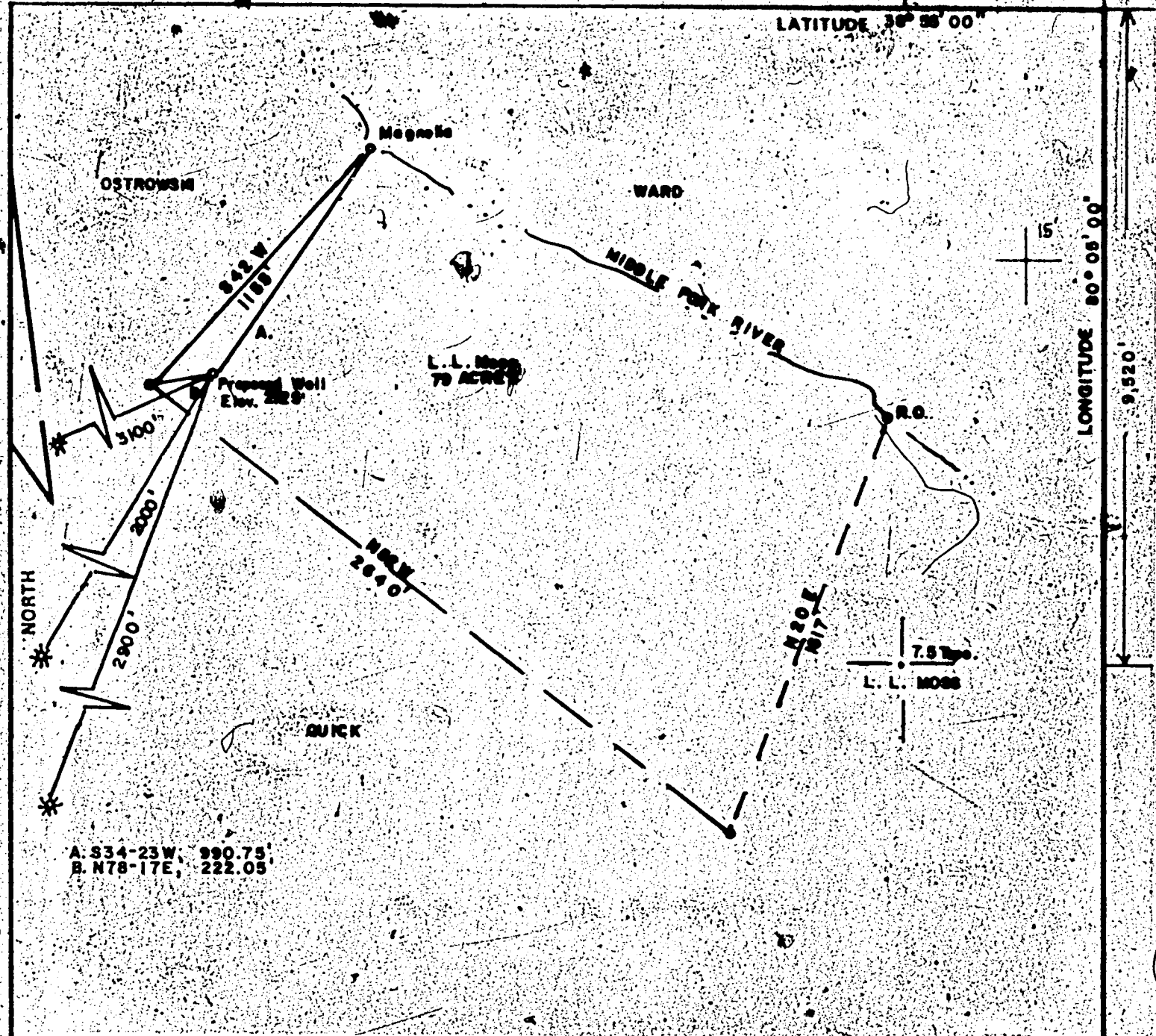
W.A.I.V.E.R.

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: 4-19-82

By:

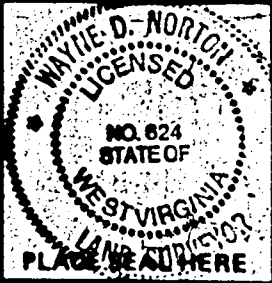
Its:



A. S34-23W, 990.75'
 B. N78-17E, 222.05'

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 500'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION USGS BM MIDDLE FORK RIVER 1869 ELLAMORE QUAD.

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 D. Norton
 R.P.E. _____ L.L.S. 624
Norton Survey & Consulting, Inc.



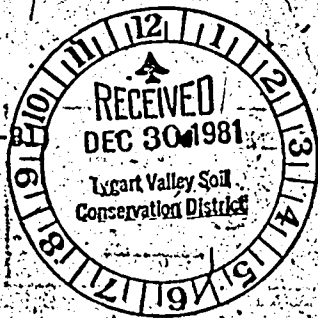
(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS
 FORM IV-6 (8-78)



DATE DECEMBER 29, 1981
 OPERATOR'S WELL NO. C-1
 API WELL NO. 47 083 0599
 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 2125' WATER SHED MIDDLE FORK RIVER
 DISTRICT ROARING CREEK COUNTY RANDOLPH
 QUADRANGLE ELLAMORE
 SURFACE OWNER L. L. MOSS ACREAGE 79
 OIL & GAS ROYALTY OWNER L. L. MOSS LEASE ACREAGE 79
 LEASE NO. _____
 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 ELK ESTIMATED DEPTH 4800'
 WELL OPERATOR N. R. M. PETROLEUM CORP. DESIGNATED AGENT R. L. HOPKINS
 ADDRESS BOX 816 BUCKHANNON, W. VA. 26201 ADDRESS BOX 816 BUCKHANNON, W. VA. 26201



State of West Virginia
Department of Mines
Oil and Gas Division

DATE Dec 28, 1981
WELL NO. Moss C-1
API NO. 041 - 083 - 0599

CONSTRUCTION AND RECLAMATION PLAN

COMPANY NAME NEM Petroleum Corp
Address Box 816, Buckhannon, WVa
Telephone 304-472-9113

DESIGNATED AGENT R.L. Hopkins
Address Box 816, Buckhannon, WVa
Telephone 472-9113

LANDOWNER

SOIL CONS. DISTRICT Tygart Valley

Revegetation to be carried out by Homer L. Kline (Agent)

This plan has been reviewed by Tygart Valley SCD. All corrections and additions become a part of this plan: -12-31-81

(Date)
Junius Delup
(SCD Agent)

Structure	LOCATION
Structure <u>Coluerts</u> (A)	Structure <u>Diversion Ditch</u> (1)
Spacing: <u>Min Size = 12" ID</u>	Material: <u>Earth</u>
Page Ref. Manual <u>I-8</u>	Page Ref. Manual <u>I-11</u>
Structure <u>DRAINAGE Ditch</u> (B)	Structure <u>By pass</u> (2)
Spacing	Material: <u>Rock</u>
Page Ref. Manual <u>I-11</u>	Page Ref. Manual <u>RECEIVED</u>
Structure <u>Ditch - Relief Cross Dr</u> (C)	Structure <u>JAN 18 1982</u> (3)
Spacing <u>See Sketch</u>	Material <u>OIL AND GAS DIVISION WV DEPARTMENT OF MINES</u>
Page Ref. Manual <u>I-5</u>	Page Ref. Manual

All structures should be inspected regularly and repaired if necessary. All commercial timber is to be cut and stacked and all brush and small timber to be cut and removed from the site before dirt work begins.

REVEGETATION

Treatment Area I

Lime three (3) Tons/acre
or correct to pH 6.5

Fertilizer 600 lbs/acre
(10-20-20 or equivalent)

Mulch Hay - 2 Tons/acre

Seed* Ky 31 - 30 lbs/acre
Birdseed/Fescue - 10 lbs/acre
Per. Rye - 10 lbs/acre

Treatment Area II

Lime three (3) Tons/acre
or correct to pH 6.5

Fertilizer 600 lbs/acre
(10-20-20 or equivalent)

Mulch Hay - 2 Tons/acre

Seed* Ky 31 - 30 lbs/acre
Birdseed/Fescue - 10 lbs/acre
Per. Rye - 10 lbs/acre

*Inoculate all legumes such as vetch, trefoil and clovers with the proper bacterium. Inoculate with 3X recommended amount.

PLAN PREPARED BY Norton Survey & Consulting

ADDRESS Rt 2 - Box 630
French Creek, WVa

PHONE NO. 472-9467

NOTES: Please request landowners' cooperation to protect new seedling for one growing season. Attach separate sheets as necessary for comments.

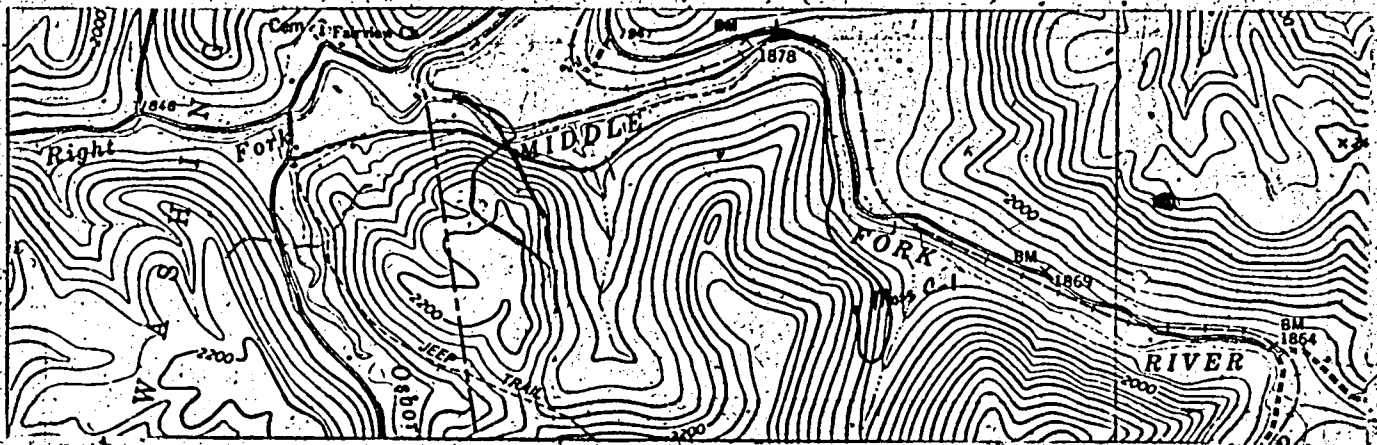


ATTACH OR PHOTOCOPY SECTION OF INVOLVED TOPOGRAPHIC MAP. QUADRANGLE Ellamore

LEGEND

Well Site ⊕

Access Road ———



WELL SITE PLAN

Sketch to include well location, existing access road, roads to be constructed, wellsite, drilling pits and necessary structures numbered or lettered to correspond with the first part of this plan. Include all natural drainage.

LEGEND

Property boundary ———	Diversion ———
Road ———	Spring ⊕ →
Existing fence — X — X —	Wet spot ♀
Planned fence ———	Building ■
Stream ~~~~~	Drain pipe — ρ — ρ — ρ —
Open ditch ———	Waterway ———



All road banks and other cuts to be on 2:1 Slopes or less

Ditch Relief Cross DRAIN SPACING

0%-5%	400'
6%	250'
24%	90'



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AUG 1 1982

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

Oil and Gas Division
WELL RECORD

S. W. Jack
Rig #21
Rotary Oil
Cable Gas
Recycling Comb.
Water Flood Storage
Disposal (Kind)

Quadrangle Ellamore 7.5'
Permit No. 47-083-0599

Company NRM Petroleum Corporation
Address P.O. Box 816, Buckhannon, WV 26201
Farm L. L. Moss Acres 54
Location (waters) Middle Fork River
Well No. C#1 Elev. 2290'
District Roaring Creek County Randolph
The surface of tract is owned in fee by L. L. Moss
Address RD #2, Box 201, Buckhannon, WV
Mineral rights are owned by Same
Address
Drilling Commenced 2-13-82
Drilling Completed 2-18-82
Initial open flow Est. 10 M cu. ft. bbls.
Final production 73 cu. ft. per day bbls.
Well open 3 hrs. before test 875 RP
Well treatment details: 825 tubing

Casing and Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft. (Sks.)
Size 20-16			
Cond. 11 3/4	30		
9 5/8			
8 5/8	870	870	235 Sks.
7			
5 1/2			
4 1/2		4916	100 Sks.
3			
2			
Lines Used			

Elk Perforations - 12 holes #88-4808
Elk Frac - Breakdown 1600#, average pressure 2497#, average rate 33.5 BPM,
total fluid 373 bbl., shut-in pressure 1100#, 38,200# of 20/40 sand

Coal was encountered at 15', 240' Feet Inches
Fresh water 65', 150' Feet Salt Water Feet
Producing Sand Elk Depth

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
Formation Depths Taken From Driller's Log Book						
Sand and Clay			0	10		
Sand and Shale			10	15		
Coal			15	17		
Sand and Shale			17	145		1/2" Stream Water @ 65'
Sand			145	240		1" Stream Water @ 150'
Coal			240	243		
Sandy Shale			243	350		
Sand			350	450		
Sand and Shale			450	525		
Sand			525	580		
Sand			580	600		
Sandy Shale and Red Rock			600	760		
Sand			760	790		
Red Rock and Shale			790			
Formation Depths Taken From Gamma Ray Log - EKB 2292'						
Red Rock and Shale				963		
Little Lime			963	981		
Silt and Shale			981	1007		
Blue Monday			1007	1029		

(over)
* Indicates Electric Log used in the remarks section

WATER

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	Remarks
OIL AND GAS DIVISION DEPARTMENT OF MINES						
Limey Siltstone			1029	1033		
Big Lime			1033			
Big Injun				1279		
Silt, Sand and Shale			1279	1600	Gas Chk. @ 1524'	No Show
Gordon			1600	1753		
Shale			1753	1773		
Fourth Sand			1773	1840		
Shale			1840	1856		
Fifth Sand			1856	1929		
Silt and Shale			1929	2008		
Bayard			2008	2089	Gas Chk. @ 2018'	
Shale			2089	2105		
Elizabeth			2105	2178		
Shale			2178	2282		
Silt and Shale			2282	2451		
Shale			2451	2661	Gas Chk. @ 2512'	
Balltown			2661	2930		
Silty Shale			2930	3198	Gas Chk. @ 3006'	
Riley			3198	3396		
Shale			3396	3475		
Benson			3475	3489		
Siltstone			3489	3562	Gas Chk. @ 3528'	
Silt and Shale			3562	3865		
Shale			3865	3961		
Silt and Shale			3961	4252	Gas Chk. @ 4022'	
Shale			4252	4330		
Silt and Shale			4330	4637	Gas Chk. @ 4513'	
Shale and Silty Shale			4637	4786		
Elk			4786	4832		
Shale and Silty Shale			4832			
TOTAL DEPTH				5097		

Well Logged By Allegheny Nuclear Surveys

Initial Open Flow - Est. 10 Mcf

Date: _____ 19__

APPROVED: _____ NRM Petroleum Corporation

By: *A. R. Hopkins* V. Pres

Owner

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

INSPECTOR'S WELL REPORT

Permit No. 083-0599

Oil or Gas Well OGS
(KIND)

Company NRA Pet
 Address BUCK HANNO
 Farm L.L. MOSS
 Well No. C-1
 District ROARING CREEK County RANDOLPH
 Drilling commenced 3-8-82
 Drilling completed _____ Total depth _____
 Date shot _____ Depth of shot _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			
16			Kind of Packer
13			
10			Size of
8 3/4			
6 3/4			Depth set
5 3/16			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

Volume _____ Cu. Ft.
 Rock pressure _____ lbs. _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____
 NAME OF SERVICE COMPANY _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES

Drillers' Names S. W. JACK, RIG-21

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MAR 10 1982

Remarks: move RIG SPUD

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

3-8-82

Robert Stewart

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

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FEB 6 1983

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

INSPECTOR'S WELL REPORT

Permit No. 083-0599

Oil or Gas Well
(KIND)

Company NRM Petroleum
 Address Buck Hannon
 Farm L.L. Moss
 Well No. Q-1
 District RRWB Creek County RANDOLPH
 Drilling commenced 3-8-82
 Drilling completed _____ Total depth _____
 Date shot _____ Depth of shot _____
 Initial open flow _____ /10ths Water in _____ Inch
 Open flow after tubing _____ /10ths Merc. in _____ Inch
 Volume _____ Cu. Ft.
 Rock pressure _____ lbs _____ hrs.
 Oil _____ bbls., 1st 24 hrs.
 Fresh water _____ feet _____ feet
 Salt water _____ feet _____ feet

CASING AND TUBING	USED IN DRILLING	LEFT IN WELL	PACKERS
Size			Kind of Packer
16			
13			Size of
10			
8 1/4			Depth set
6 3/8			
3			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. FT. _____ Date _____
 NAME OF SERVICE COMPANY _____
 COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES
 _____ FEET _____ INCHES _____ FEET _____ INCHES

Drillers' Names _____

Remarks: O.K. To Release

2-24-83
DATE

Robert Stewart
DISTRICT WELL INSPECTOR



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

WALTER N. MILLER
 DIRECTOR

THEODORE M. STREIT
 ADMINISTRATOR

March 15, 1983

NRM Petroleum Corporation
 301 Hiden Boulevard
 Newport News, Virginia 23606

Gentlemen:

The required records and reports have been received in this office and the District Inspectors have submitted FINAL INSPECTIONS for the following wells listed below:

PERMIT NUMBER	FARM AND WELL NUMBER	DISTRICT
RAN-0577	A. B. Andrews, A#1	Roaring Creek
RAN-0589	Franklin Ostrowski, Keener #1	Roaring Creek
RAN-0599	L. L. Moss, C#1	Roaring Creek
RAN-0600	L. L. Moss, "C" #2	Roaring Creek
RAN-0601	L. L. Moss, D#1	Roaring Creek

In accordance with Chapter 22, Article 4, Section 2, the above captioned wells will remain under bond coverage for "life of wells." Reclamation requirements have been approved.....

Very truly yours,

Theodore M. Streit, Administrator
 Office of Oil & Gas-Dept. Mines

TMS/