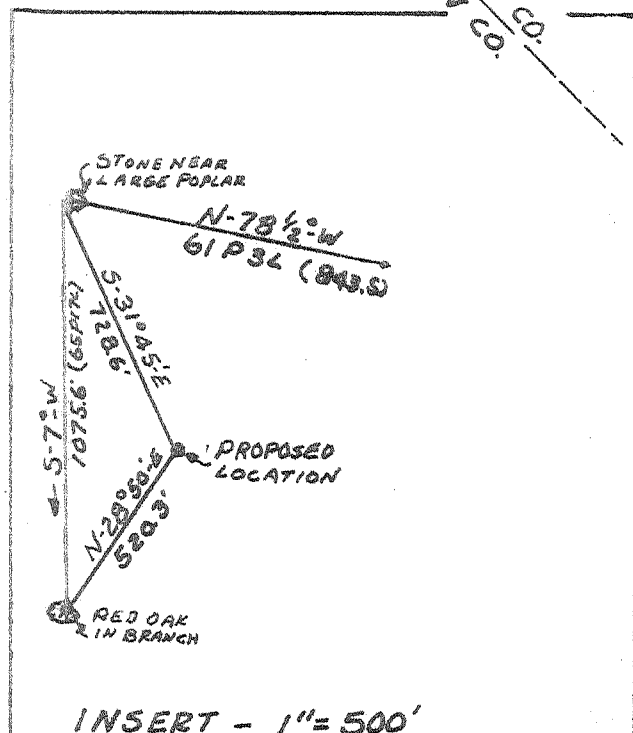
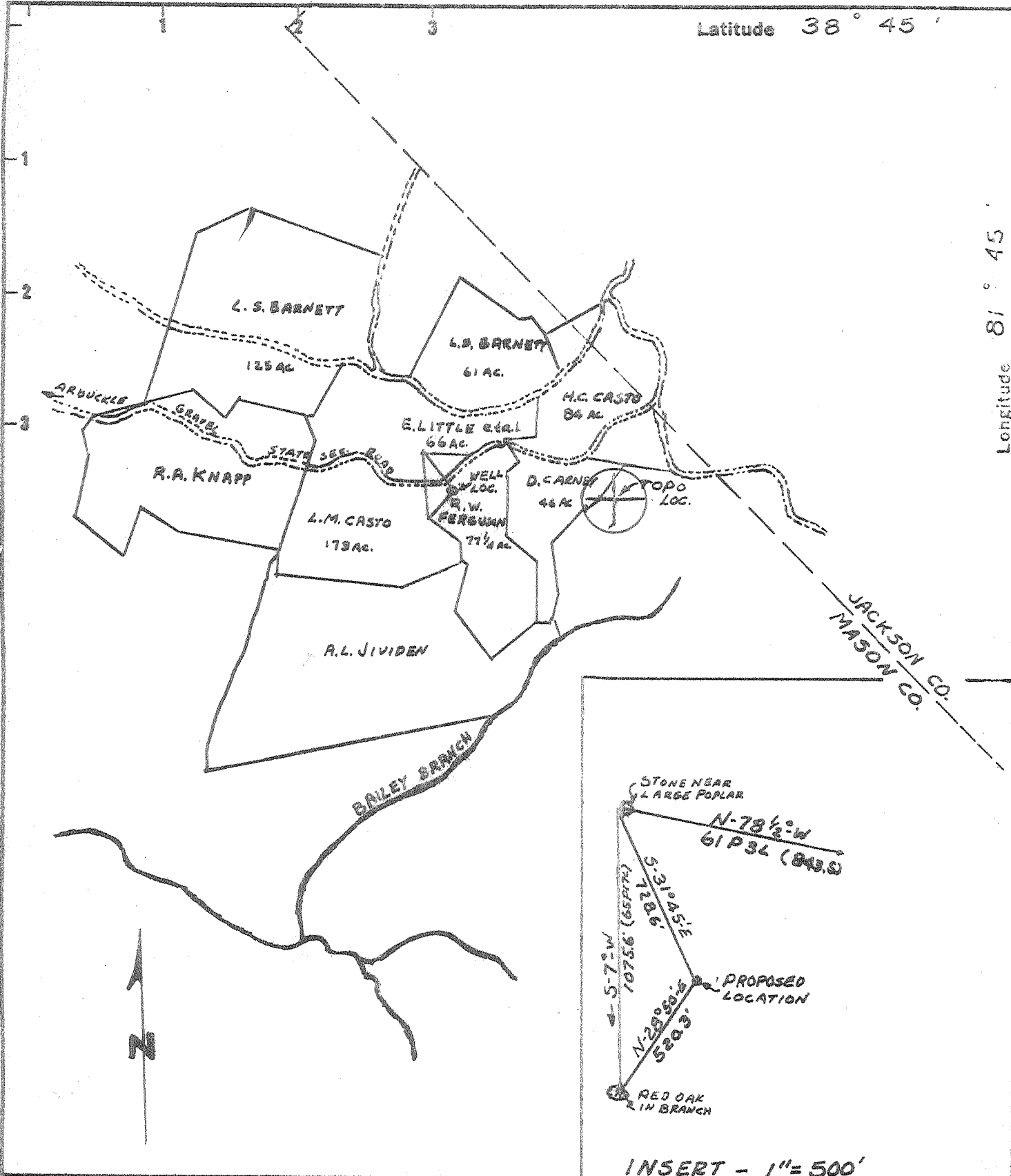


Latitude 38° 45'

Longitude 81° 45'



~~New Location~~
 Drill Deeper
 Abandonment
 Used 12-19-73

Minimum Error of Closure 1:200'
 Source of Elevation WELL No. 47-053-112 KNAPP FARM ELEV: 1033.0'
 "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."

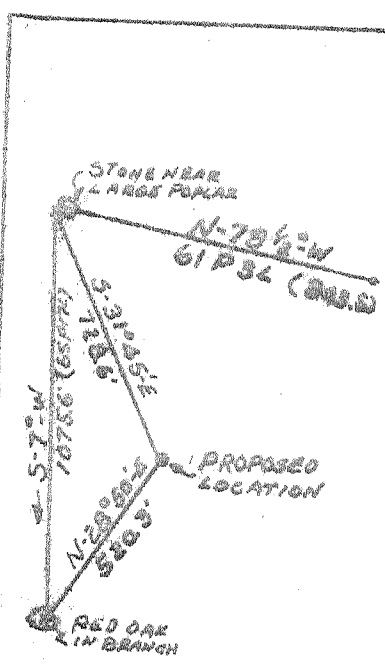
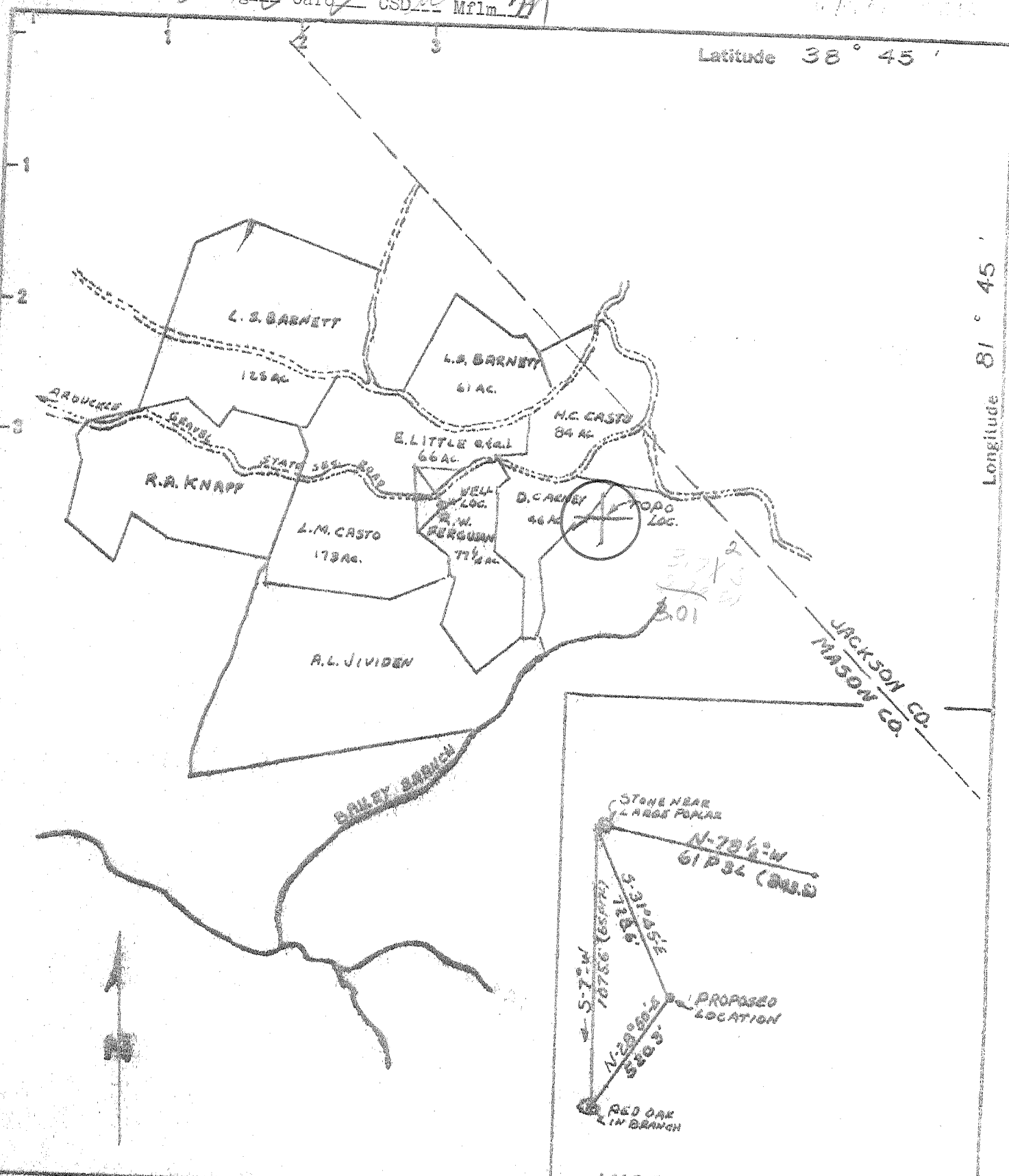
Company ANDREAE OIL CO.
 Address 6150 W. SURREY LANE
BIRMINGHAM, MICHIGAN
 Farm R.W. FERGUSON-UNIT
 Tract _____ Acres 77 1/4 Lease No. _____
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 973.0'
 Quadrangle WINFIELD N.E.
 County MASON District UNION
 Engineer Earl Holley, Jr. L.S.
 Engineer's Registration No. 219
 File No. _____ Drawing No. _____
 Date 10-4-73 Scale 1"=2000'

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

WELL LOCATION MAP
 FILE NO. Men-121-P

+ 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.

47-053



INSERT - 1" = 500'

New Location
 Drill Dumper
 Abandonment

Minimum Error of Closure 1:200'
 Source of Elevation WELL No. 47-053-112 KNAPP FARM ELEV=1033.0'

"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."

Company ANDREAS OIL CO.
 Address 6150 W. SURREY LANE BIRMINGHAM, MICHIGAN
 Farm R.W. FERGUSON - UNIT
 Tract _____ Acres 77 1/2 Lease No. _____
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 973.0'
 Quadrangle WINFIELD (N.E.)
 County MASON District UNION
 Engineer Carl Holley, S.D. 219
 Engineer's Registration No. 219
 File No. _____ Drawing No. _____
 Date 10-4-73 Scale 1" = 2000'

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

WELL LOCATION MAP
 FILE NO. 7702-121

+ 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.

47-053



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STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

WELL RECORD

Rotary Oil
Cable Gas
Recycling Comb.
Water Flood Storage
Disposal Dry NOEL

38-45
3-42

10

Quadrangle Winfield
Permit No. Mas - 121

Company <u>Andreae Oil Company</u>	Casing and Tubing	Used in Drilling	Left in Well	Cement Fill-up Cu. ft. (Sks.)
Address <u>6150 W. Surrey Lane, Birmingham, Michigan</u>				
Farm <u>R. W. Ferguson Unit</u> Acres <u>77 1/4</u>				
Location (waters)	Size			
Well No. <u>1</u> Elev. <u>973.0</u>	20-16			
District <u>Union</u> County <u>Mason</u>	Cond.			
The surface of tract is owned in fee by	13-10"			
	9 5/8	193'	193'	12-5 90 sks.
Address	8 5/8			
Mineral rights are owned by	7	2697'	2897'	12-13 80 sks.
Address	5 1/2			
Drilling Commenced <u>12-4-73</u>	4 1/2			
Drilling Completed <u>12-19-73</u>	3			
Initial open flow _____ cu. ft. _____ bbls.	2			
Final production _____ cu. ft. per day _____ bbls.	Liners Used			
Well open _____ hrs. before test _____ RP.				
Well treatment details:				

Attach copy of cementing record.

Coal was encountered at _____ Feet _____ Inches
 Fresh water _____ Feet Salt Water _____ Feet
 Producing Sand _____ Depth _____

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Soil			0	7		
Red Rock			7	195		
Sand and Shale			195	661		
Red Rock			661	1070		
Sand & Shale			1070	1649		
Sand			1649	1954		
lime			1954	2146		
Shale			2146	2170		
Injun			2170	2302		
Shale & Sand			2302	2386		
Shale			2386	2622		
Coffee Shale			2622	2648		
Berea <i>el-se log</i>			2648	2658		
Dev. Shale			2658	4938		
Corniferous - <i>Onondaga</i>			4938	5020		
Oriskany			5020	5037		light show gas

4938 5020
 973 973
 3965 4047

593'

(over)

* Indicates Electric Log tops in the remarks section.

Formation	Color	Hard or Soft	Top Feet	Bottom Feet	Oil, Gas or Water	* Remarks
Lime	<i>Haldenberg</i>		5037	5230		
Dolomite			5230	5731	Show H ₂ S Gas	<i>Saline</i>
<u>Newburg</u>			5731	5745		
Shale & Dolomite		} <i>McKenzie</i>	5745	5756		
Dolomite			5756			
Total Depth				5792		
Final Open Flow	8/10 water		1/4" Or. plate			

5731
 973
 4758

Date 12-20- 19 73

APPROVED Andrae Oil Company Owns

By _____ (Title) Cons. Geol.



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES

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OCT 9 1973

OIL & GAS DIVISION
DEPT. OF MINES

Oil and Gas Division

OIL AND GAS WELL PERMIT APPLICATION

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

DATE October 8, 1973

Surface Owner R. W. Ferguson

Company Andreae Oil Co.

Address 225 First Ave., Ripley, W. Va.

Address 6150 W. Surrey Lane, Birmingham, Mich/

Mineral Owner R. W. Ferguson, et al

Farm R. W. Ferguson Unit ^{77.25} Acres ⁷ 282 Unit

Address 225 First Ave., Ripley, W. Va.

Location (waters) Bailey Branch of Mudlick

Coal Owner Union Carbide and Carbon Corp.

Well No. 1 Elevation 973 ft.

Address 437 MacCorkle Ave., SW, Charleston, Va

District Union County Mason

Coal Operator Same as above

Quadrangle Winfield NE

Address _____

INSPECTOR TO BE NOTIFIED
R. D. #1 PH: 736-4885
Kenneth Butcher

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 3-28-74

Barboursville
W. Va. 25504

Robert T. Poole
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 November 14 1968 by R.W. & Faye Ferguson made to Pace, Preble & Poole and recorded on the 15 day of June 1969, in Mason County, Book 32 Page 45

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 8th day October, 1973 before, or on the same day with the mailing or delivery of this copy to the Department of Mines at Charleston, West Virginia.

Very truly yours,
(Sign Name) David G. Andreae
Well Operator

Address
of
Well Operator

6150 W. Surrey
Street
Birmingham
City or Town
Michigan 48010
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.

7000-121 PERMIT NUMBER
47-053
Andreae

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

PROPOSED WORK ORDER TO _____ DRILL DEEPEN _____ FRACTURE-STIMULATE _____
 DRILLING CONTRACTOR: (If Known) _____ RESPONSIBLE AGENT: _____
 NAME F.W.G. - Box 448 NAME E. J. Lisius
 ADDRESS Elkview, W.Va. 25071 ADDRESS P.O. Box 1844, Ann Arbor, Mich.
 TELEPHONE _____ TELEPHONE 313-973-9237
 ESTIMATED DEPTH OF COMPLETED WELL: 5700 ROTARY CABLE TOOLS _____
 PROPOSED GEOLOGICAL FORMATION: Newburg
 TYPE OF WELL: OIL _____ GAS 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	30'	30'	to surface
9 - 5/8	400'	400'	to surface
8 - 5/8			
7	2600'	2600'	100 sks.
5 1/2			
4 1/2	5700'	5700'	150 sks.
3			Perf. Top
2	5600'	5600'	Perf. Bottom
Liners			Perf. Top
			Perf. Bottom

APPROXIMATE FRESH WATER DEPTHS 400 FEET SALT WATER 1100 FEET
 APPROXIMATE COAL DEPTHS 700 ft.
 IS COAL BEING MINED IN THE AREA? No 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