

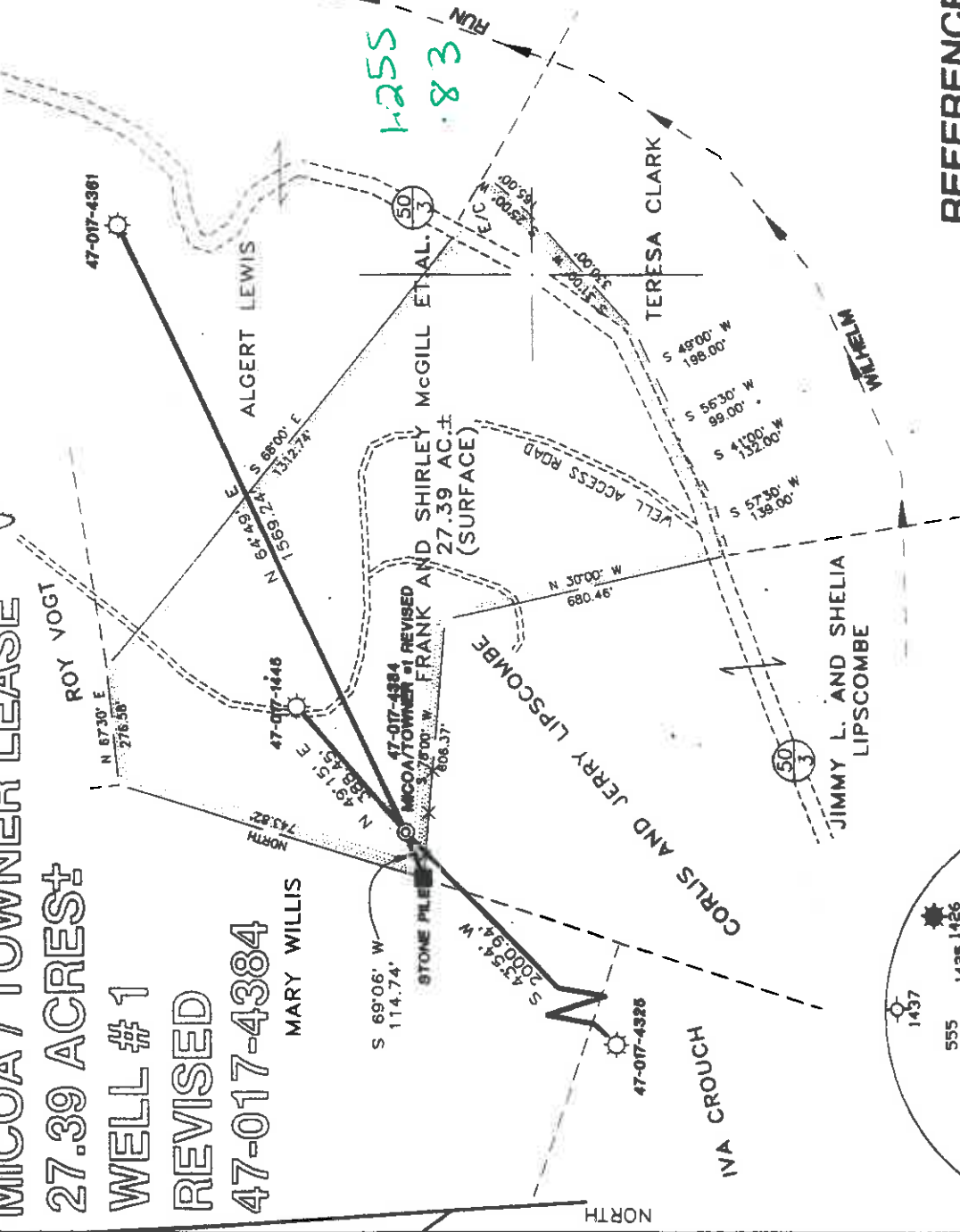
# MICOA/TOWNER LEASE 27.39 ACRES† WELL #1 REVISED 47-017-4384

MARY WILLIS

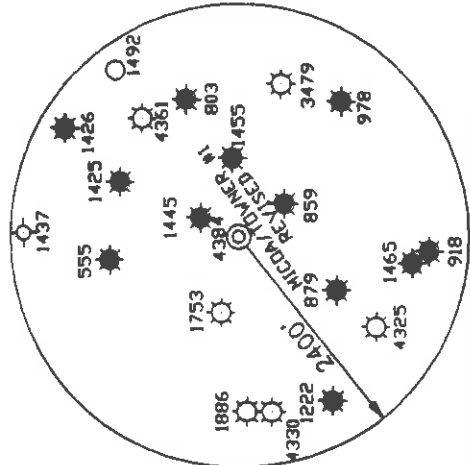
LATITUDE 39°17'30"

LONGITUDE 80°50'00"

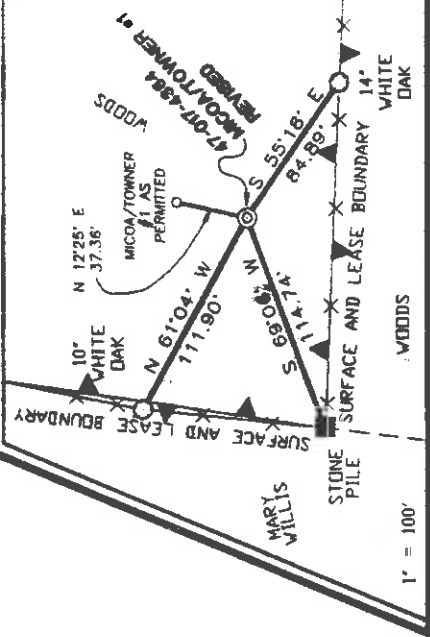
6.590'



1255  
83

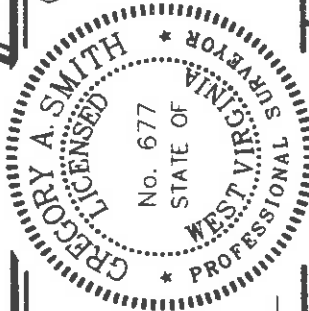


## REFERENCES



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 ENERGY.

P.S. *Gregory A. Smith*  
677



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE SEPTEMBER 4, 19 97  
OPERATORS WELL NO. MICOA/TOWNER #1  
API WELL NO. 47-017-4384  
COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200  
PROVEN SOURCE OF ELEVATION BENCH MARK ELEVATION 904'  
FILE NO. 3743P1R (65-33&78)  
SCALE 1" = 400'



WELL TYPE : OIL  GAS  INJECTION  WASTE  DISPOSAL  "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

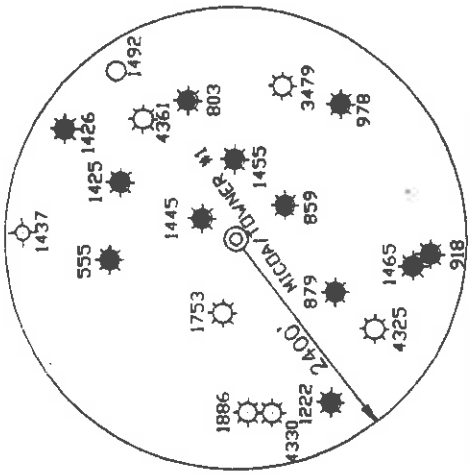
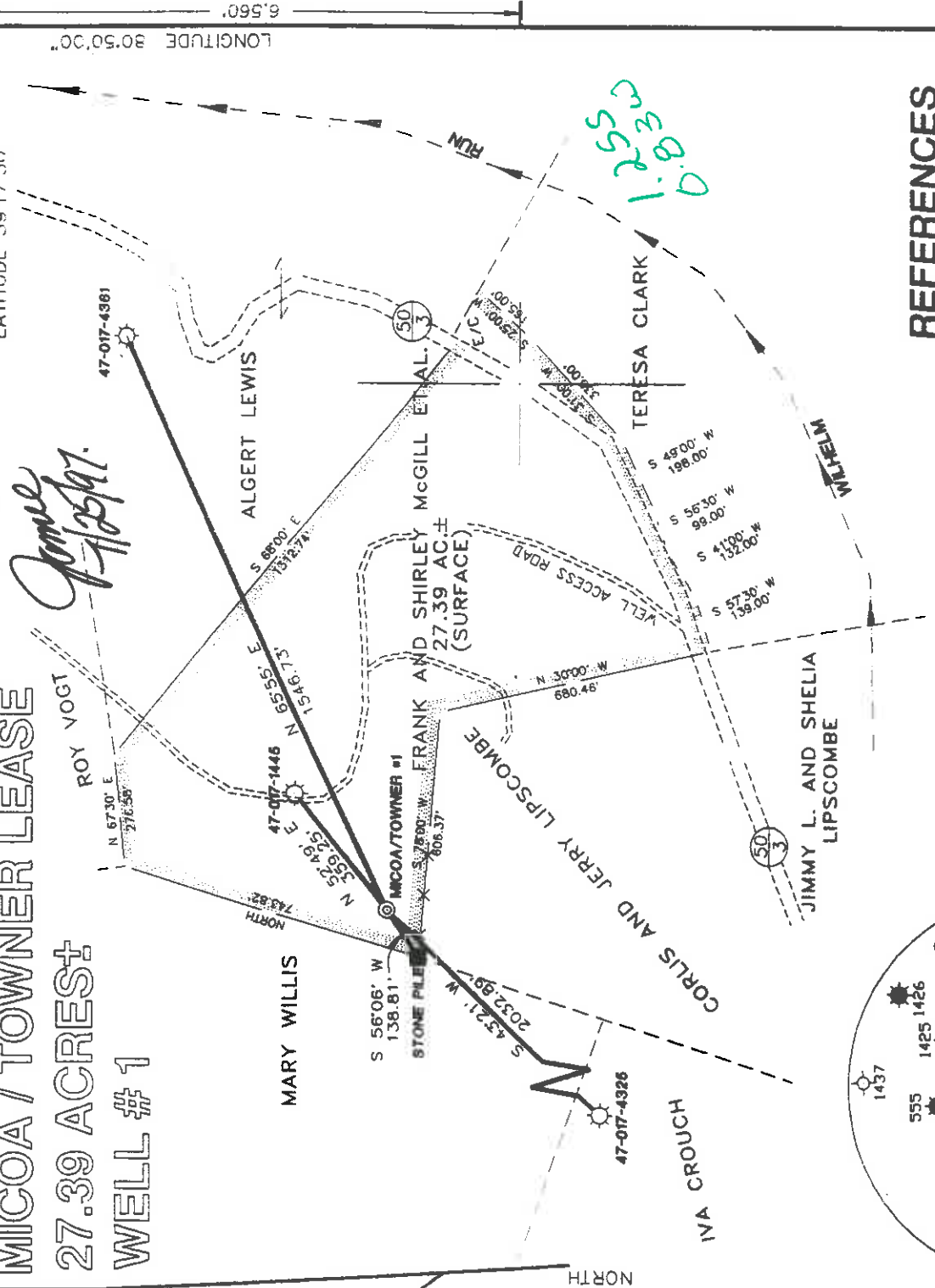
LOCATION : ELEVATION 1203' WATERSHED WILHELM RUN  
DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'  
SURFACE OWNER FRANK E. AND SHIRLEY M. MCGILL ET.AL. ACREAGE 27.39  
ROYALTY OWNER FRANK E. AND SHIRLEY M. MCGILL ET.AL. LEASE ACREAGE 27.39  
LEASE NO. \_\_\_\_\_  
PROPOSED WORK :  
DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD  
FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER  
PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION ALEXANDER  
ESTIMATED DEPTH 5500'

WELL OPERATOR KEY OIL COMPANY \_\_\_\_\_ DESIGNATED AGENT JAN CHAPMAN  
ADDRESS 22 GARTON PLAZA WESTON, WV 26452 ADDRESS 22 GARTON PLAZA WESTON, WV 26452

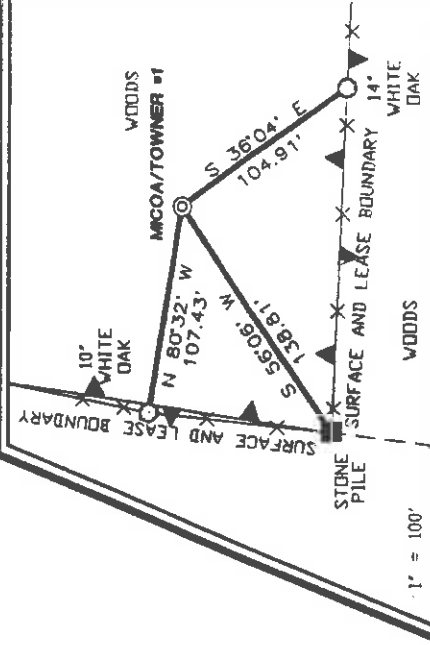
6-6 89

# MICOA / TOWNER LEASE 27.39 ACRES± WELL #1

LATITUDE 3917.30"  
LONGITUDE 80.5030"

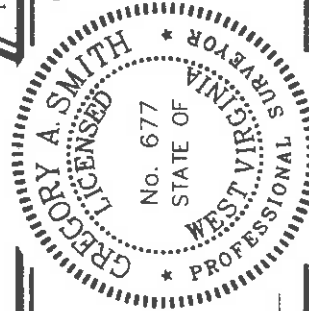


## REFERENCES



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P.S. *Gregory A. Smith*  
677



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE JUNE 25, 19 97  
OPERATORS WELL NO. MICOA/TOWNER #1  
API WELL NO. 47-017-017 COUNTY PERMIT STATE 04384

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 3743P1 (65-33)  
PROVEN SOURCE OF ELEVATION BENCH MARK ELEVATION 904' SCALE 1" = 400'

STATE OF WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS

WELL TYPE: OIL  GAS  INJECTION  WASTE  DISPOSAL  "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 1218' DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'

SURFACE OWNER FRANK E. AND SHIRLEY M. MCGILL ET.AL. ACREAGE 27.39  
ROYALTY OWNER FRANK E. AND SHIRLEY M. MCGILL ET.AL. LEASE ACREAGE 27.39

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER   
PHYSICAL CHANGE IN WELL (SPECIFY) ALEXANDER TARGET FORMATION 5500' ESTIMATED DEPTH 5500'

WELL OPERATOR KEY OIL COMPANY DESIGNATED AGENT JAN CHAPMAN  
ADDRESS 22 GARTON PLAZA WESTON, WV 26452 ADDRESS 22 GARTON PLAZA WESTON, WV 26452

DATE JUL 25 1997



WR-35

24 - Jul - 97  
API # 47 - 17 - 04384

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas



Well Operator's Report of Well Work

Farm name: MCGILL, FRANK & SHIRLEY

Operator Well No. : MICOA #1

LOCATION: Elevation: 1,218.00

Quadrangle: WEST UNION

District: CENTRAL  
Latitude: 6560  
Longitude: 4350

County: DODDRIDGE

Feet South of 39 Deg. 17 Min. 30 Sec.  
Feet West of 80 Deg. 50 Min. 0 Sec.

Company: KEY OIL COMPANY  
22 Garton Plaza  
WESTON, WV 26452-0000

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD  
Permit Issued: 07/25/97  
Well Work Commenced: 09/01/97  
Well Work Completed: 09/10/97

Verbal Plugging  
Permission granted on: \_\_\_\_\_ Rig  
Rotary X Cable \_\_\_\_\_ 5526'  
Total Depth ( feet ) \_\_\_\_\_  
Fresh water depths ( ft ) NONE  
Salt water depths ( ft ) 1805'

Is coal being mined in area ( Y / N )? N  
Coal Depths ( ft ) : NONE

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
11 3/4"	123.55'	123.55'	70 sks To Surface
8 5/8"	2219.25'	2219.25'	650 sks To Surface
4 1/2"	5526'	5526'	470 sks
2 3/8"		5422'	

OPEN FLOW DATA

Warren  
Balltown  
Rileys  
Benson  
Alexander

Producing formation \_\_\_\_\_  
 Gas: Initial open flow SHOW MCF / d  
 Final open flow 1,492 MCF / d  
 Time of open flow between initial and final tests N/A  
 Static rock pressure 1775 psig ( surface pressure ) after 96 Hours

Pay zone depth ( ft )  
 Oil: Initial open flow 0 Bbl / d  
 Oil: Final open flow show Bbl / d  
 Hours

3582' - 3630'  
 3960' - 4683'  
 4712' - 5106'  
 5148' - 5160'  
 5396' - 5482'

Second producing formation Commingled  
 Gas: Initial open flow MCF / d  
 Final open flow MCF / d  
 Time of open flow between initial and final tests \_\_\_\_\_  
 Static rock pressure \_\_\_\_\_ psig ( surface pressure ) after \_\_\_\_\_ Hours

Pay zone depth ( ft ) \_\_\_\_\_  
 Oil: Initial open flow \_\_\_\_\_ Bbl / d  
 Oil: Final open flow \_\_\_\_\_ Bbl / d  
 Hours

NOTE: ON BACK OF THIS FORM PUT THE FOLLOWING: 1). DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.

For: KEY OIL COMPANY  
By:   
Date: April 18, 1998

PRESIDENT

DODD 4384

Micoa #1 (47-017-04384)  
 Four Stage Foam Frac - Halliburton

1 <sup>st</sup> Stage:	Alexander ( 13 holes ) ( 5442.25' to 5471' )	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 815 bbis foam.
2 <sup>nd</sup> Stage:	Benson ( 5 holes ) ( 5152.75' to 5153.75' ) Third Riley ( 2 holes ) ( 5098.50' to 5098.75' ) Second Riley ( 6 holes ) ( 5003.50' to 5010.25' )	60 Quality Foam. 750 gal 15% HCL. 50,000# 20/40 sand, 481,000 SCF N2, 716 bbis foam.
3 <sup>rd</sup> Stage:	Riley ( 8 holes ) ( 4733.50' to 4753.50' ) Balltown ( 4 holes ) ( 4367.50' to 4368.25' )	60 Quality Foam. 1,000 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 746 bbis foam.
4 <sup>th</sup> Stage:	Balltown ( 7 holes ) ( 4107.75' to 4157.25' ) Warren ( 6 holes ) ( 3610.75' to 3625.75' )	60 Quality Foam. 750 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 684 bbis foam.

WELL LOG

Fill and Clay	0	12	
Sand	12	24	
Red Rock & Shale & Sand	24	145	
Sand	145	192	
Shale & Sand	192	250	
Sand	250	315	
Red Rock & Shale & Sand	315	1390	
Sand & Shale	1390	1616	
Sand	1616	2175	
Little Lime	2175	2190	
Shale	2190	2208	
Big Lime	2208	2284	
Big Injun	2284	2340	
Shale	2340	2498	
Weir	2498	2626	
Shale	2626	2694	
Berea	2694	2700	
Sand & Shale	2700	3582	
Warren	3582	3630	
Shale & Sand	3630	3960	
Balltown	3960	4683	
Shale	4683	4712	
Riley	4712	4778	
Sand & Shale	4778	4972	
Second Riley	4972	5014	
Shale	5014	5072	
Third Riley	5072	5106	
Shale	5106	5148	
Benson	5148	5160	
Shale	5160	5396	
Alexander	5396	5482	
Sand & Shale	5482	5526	
T.D.	5526		

½" H<sub>2</sub>O @ 1805'

Gas Checks

- 2536' - Show
- 3013' - No Show
- 4001' - Show
- 4618' - Show
- 5117' - Show
- 5302' - Show
- TD - Show

STATE OF WEST VIRGINIA  
 DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS  
 WELL WORK PERMIT APPLICATION

- 1) Well Operator: KEY OIL COMPANY 25650 (1) 671
- 2) Operator's Well Number: MICOA #1 3) Elevation: 1218'
- 4) Well type: (a) Oil X / or Gas X / Drained 07/25/97  
 (b) If Gas: Production X / Underground Storage /  
 Deep / Shallow X / Expires 07/25/99
- 5) Proposed Target Formation(s): ALEXANDER
- Proposed Total Depth: 5600 feet
- Approximate fresh water strata depths: 100'
- Approximate salt water depths: N/A
- Approximate coal seam depths: N/A
- Does land contain coal seams tributary to active mine? Yes / No X /
- 11) Proposed Well Work: DRILL, STIMULATE, PRODUCE Apudell.
- 12)

RECEIVED  
 W/7 Division of  
 Environmental Protection  
 JUL 27 1997  
 Permitting  
 Office of Oil & Gas

23964

CASING AND TUBING PROGRAM

TYPE	SIZE	GRADE	WEIGHT per ft.	FOOTAGE	INTERVALS	CEMENT
Conductor						
Fresh Water	11 3/4	ERW	42	132		
Coal						
Intermediate	8 5/8	ERW	23	2250		
Production	4 1/2	J-55	10.5	5500		
Tubing	1.5					
Liners						

PACKERS : Kind \_\_\_\_\_  
 Sizes \_\_\_\_\_  
 Depths set \_\_\_\_\_

For Office of Oil and Gas Use Only

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP

Plat  WW-9  WW-2B  Bond \_\_\_\_\_ (Type)

004519122

**RECEIVED**  
Engineering Section  
7/7

1) Date: JULY 7, 1997  
2) Operator's well number: MICOA #1  
3) API Well No: 47-017-4384  
State: WV County: Lincoln Permit: 4384

**STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS**

**NOTICE AND APPLICATION FOR A WELL WORK PERMIT**

4) Surface Owner(s) to be served: 5) (a) Coal Operator:

(a) Name FRANK E. & SHIRLEY M. MCGILL Name NONE  
Address P. O. BOX 117 Address \_\_\_\_\_  
WEST UNION, WV 26456

(b) Name \_\_\_\_\_ (b) Coal Owner(s) with Declaration  
Address \_\_\_\_\_ Name \_\_\_\_\_  
Address \_\_\_\_\_

(c) Name \_\_\_\_\_ Name \_\_\_\_\_  
Address \_\_\_\_\_ Address \_\_\_\_\_

6) Inspector MIKE UNDERWOOD (c) Coal Lessee with Declaration  
Address RT. 2 BOX 135 Name \_\_\_\_\_  
SALEM, WV 26426 Address \_\_\_\_\_  
Telephone (304)- 782-1043

**TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:**

Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

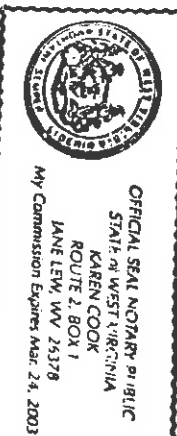
I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through \_\_\_ on the above named parties, by:

- Personal Service (Affidavit attached)
- Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application.

I certify under penalty of law that I have personally examined and am familiar with the information submitted on this application form and all attachments, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Well Operator KEY OIL COMPANY  
By: Karen Cook  
Title: PRESIDENT  
Address 22 GARTON PLAZA  
WESTON, WV 26452  
Telephone 304-269-7102

Subscribed and sworn before me this 7TH day of JULY, 1997

My commission expires MARCH 24, 2003 Karen Cook Notary Public