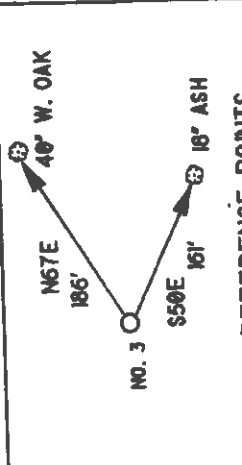
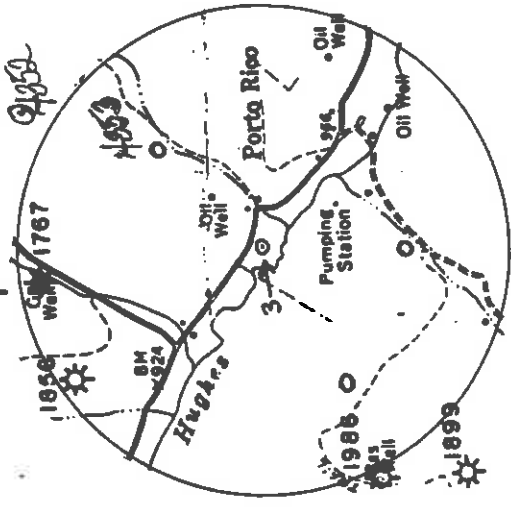
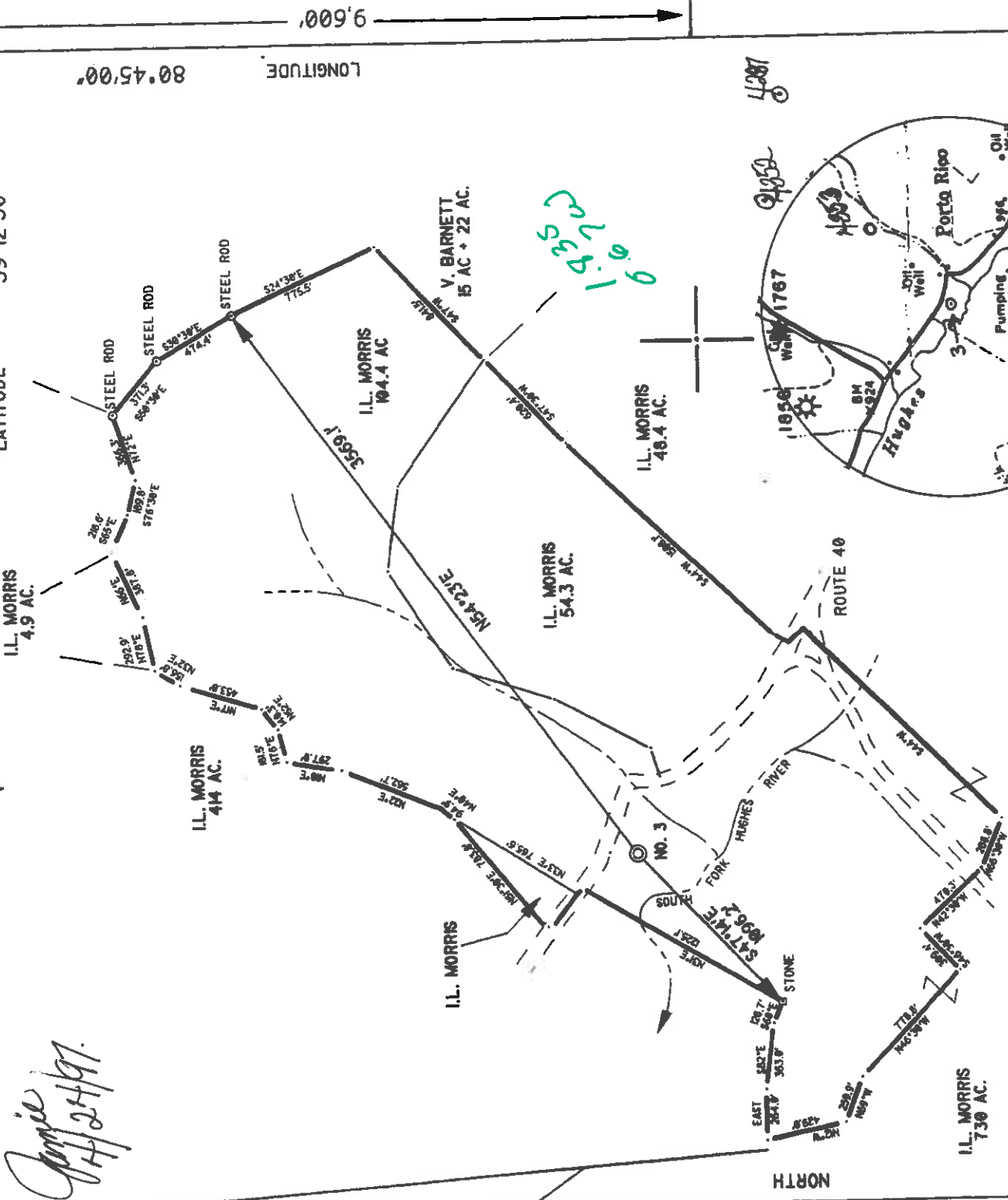


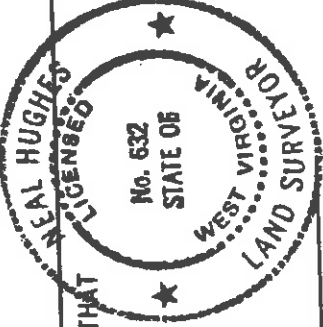
*Janice*  
*4/24/97*

LATITUDE 39°12'30"  
LONGITUDE 80°45'00"  
9.600'



REFERENCE POINTS

I THE UNDERSIGNED, DO 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.



(\*) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

DATE MARCH 26 19 97  
OPERATORS WELL NO. DRENNAN 3

API WELL NO. 47 - 017-04354  
STATE COUNTY PERMIT

WEST VIRGINIA  
DIVISION OF ENVIRONMENTAL PROTECTION  
OFFICE OF OIL AND GAS  
#10 MCJUNKIN ROAD  
NITRO, WEST VIRGINIA 25443-2506

MINIMUM DEGREE OF ACCURACY 1/200  
PROVEN SOURCE OF ELEVATION ROAD INTER. 966'  
SCALE 1" = 800'

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

LOCATION: ELEVATION 923'  
WATERSHED SOUTH FORK HUGHES RIVER  
DISTRICT SOUTHWEST COUNTY DODDRIDGE QUADRANGLE OXFORD  
SURFACE OWNER I. L. MORRIS ACREAGE 730  
ROYALTY OWNER SUSAN V. DRENNAN, ET AL LEASE ACREAGE 236

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 5600'

WELL OPERATOR KEY OIL COMPANY 22 GARTON PLAZA WESTON, WV 26452  
DESIGNATED AGENT JAN CHAPMAN 22 GARTON PLAZA WESTON, WV 26452  
ADDRESS 6-6 134  
COUNTY NAME PERMIT APR 28 1997

**RECEIVED**  
WV Division of  
Environmental Protection

FEB 27 1998

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas**Permitting**  
**Office of Oil & Gas**

Well Operator's Report of Well Work

Farm name: MORRIS, I.L.

Operator Well No. : DRENNAN #3

LOCATION: Elevation: 923.00

Quadrangle: OXFORD

District: SOUTHWEST

County: DODDRIDGE

Latitude: 9600

Feet South of 39 Deg. 12 Min. 30 Sec.

Longitude: 4050

Feet West of 80 Deg. 45 Min. 0 Sec.

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

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD  
Permit Issued: 04/15/97  
Well Work Commenced: 05/03/97  
Well Work Completed: 05/14/97Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary X Cable \_\_\_\_\_ Rig \_\_\_\_\_  
Total Depth ( feet ) 5133'  
Fresh water depths ( ft ) 15'  
Salt water depths ( ft ) 165', 188'Is coal being mined in area ( Y / N ) ? N  
Coal Depths ( ft ) : 1109' (6')

## OPEN FLOW DATA

Warren  
Speechley  
Riley  
Benson  
Alexander  
Producing formation \_\_\_\_\_  
Gas: Initial open flow 60 MCF / d Pay zone depth ( ft ) \_\_\_\_\_  
Final open flow 1,571 MCF / d Oil: Initial open flow 0 Bbl / d  
Time of open flow between initial and final tests \_\_\_\_\_  
Static rock pressure 1500 psig ( surface pressure ) after 96 Hours2998' - 3056'  
3070' - 3296'  
4188' - 4238'  
4642' - 4653'  
4887' - 4995'Second producing formation \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF / d Commingled \_\_\_\_\_  
Final open flow \_\_\_\_\_ MCF / d Oil: Initial open flow \_\_\_\_\_ Bbl / d  
Time of open flow between initial and final tests \_\_\_\_\_  
Static rock pressure \_\_\_\_\_ psig ( surface pressure ) after \_\_\_\_\_ 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: 

PRESIDENT

Date: February 16, 1998

MAR 06 1998

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
11 3/4"	119.9'	119.9'	70 sks To Surface
8 5/8"	1726.2	1726.2	500 sks To Surface
4 1/2"	5059'	5059'	480 sks
2 3/8"		4884"	

**Drennan #3 (47-017-04354)  
Four Stage Foam Frac - Halliburton**

1st Stage: Alexander ( 13 holes ) ( 4904.25' to 4953.50' ) 60 Quality Foam. 500 gal. 15% HCL.  
40,000# 20/40 sand, 421,000 SCF N2,  
616 bbls foam.

2nd Stage: Benson ( 10 holes ) ( 4644' to 4646.25' ) 60 Quality Foam. 750 gal 15% HCL.  
40,000# 20/40 sand, 417,000 SCF N2,  
611 bbls foam.

3rd Stage: Riley ( 10 holes ) ( 4219.50' to 4232' ) 60 Quality Foam. 750 gal 15% HCL.  
5,000# 80/100 sand, 35,000# 20/40 sand,  
438,000 SCF N2, 642 bbls foam.

4th Stage: Speechley ( 8 holes ) ( 3080' to 3140.25' ) 60 Quality Foam, 1,000 gal 15% HCL.  
Warren ( 5 holes ) ( 3035.75' to 3043' ) 5,000# 80/100 sand, 55,000# 20/40 sand,  
522,000 SCF N2, 779 bbls foam.

**WELL LOG**

Clay	0	10	
Red Rock & Sand & Shale	10	154	4" H <sub>2</sub> O @ 15'
Sand & Shale	154	792	1/4" H <sub>2</sub> O @ 165'
Sand	792	810	2 1/2" H <sub>2</sub> O @ 188'
Sand & Shale	810	1109	
Coal	1109	1115	
Sand & Shale & Red Rock	1115	1394	
Lime	1394	1397	
Sand & Shale	1397	1605	
Lime	1605	1609	
Shale	1609	1625	
Shale & Lime	1625	1664	
Sand	1664	1678	
Big Lime	1678	1774	
Big Injun	1774	1810	
Shale	1810	1944	
Weir	1944	2054	
Shale	2054	2149	
Berea	2149	2156	
Sand & Shale	2156	2364	
Gordon	2364	2389	
Sand & Shale	2389	2998	
Warren	2998	3056	
Shale	3056	3070	
Speechley	3070	3296	
Shale	3296	3520	
Balltown	3520	3982	
Shale & Sand	3982	4188	
Riley	4188	4238	
Shale	4238	4642	
Benson	4642	4653	
Shale	4653	4766	
Elk	4766	4776	
Shale	4776	4887	
Alexander	4887	4995	
Sand & Shale	4995	5133	
T.D.	5133		

**Gas Checks**

2009' - 2/10ths 1/2" w/H<sub>2</sub>O  
2566' - 12/10ths 2" w/H<sub>2</sub>O  
2996' - 6/10ths 2" w/H<sub>2</sub>O  
3523' - 4/10ths 2" w/H<sub>2</sub>O  
4079' - 6/10ths 2" w/H<sub>2</sub>O  
4510' - 6/10ths 2" w/H<sub>2</sub>O  
4822' - 6/10ths 2" w/H<sub>2</sub>O  
5110' - 2/10ths 2" w/H<sub>2</sub>O  
Collars - 2/10ths 2" w/H<sub>2</sub>O



1) Date: APRIL 5, 1997  
2) Operator's well number DRENNAN #3  
3) API Well No: 47 - 017 - 4354  
State County Permit

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: I. L. MORRIS  
 (a) Name Address P. O. BOX 397 GLENVILLE, WV 26351 Name Address NONE  
 (b) Name Address (b) Coal Owner(s) with Declaration Name Address  
 (c) Name Address Name Address  
 6) Inspector MIKE UNDERWOOD (c) Coal Lessee with Declaration Name Address  
 Address RT. 2 BOX 135 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 *[Signature]*  
 PRESIDENT  
 Address 22 GARTON PLAZA  
 WESTON, WV 26452  
 Telephone 304-269-7102

Subscribed and sworn before me this 7TH day of APRIL 1997

My commission expires MARCH 24, 2003

