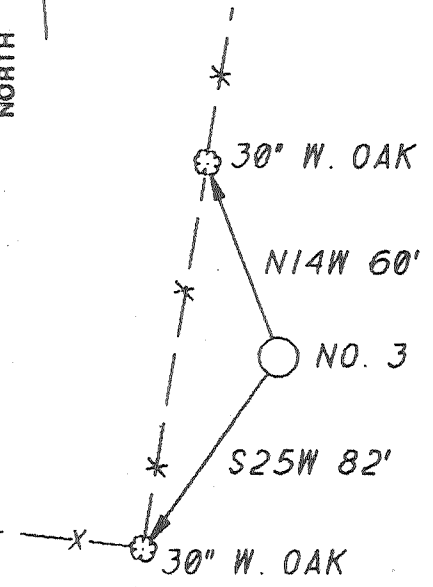
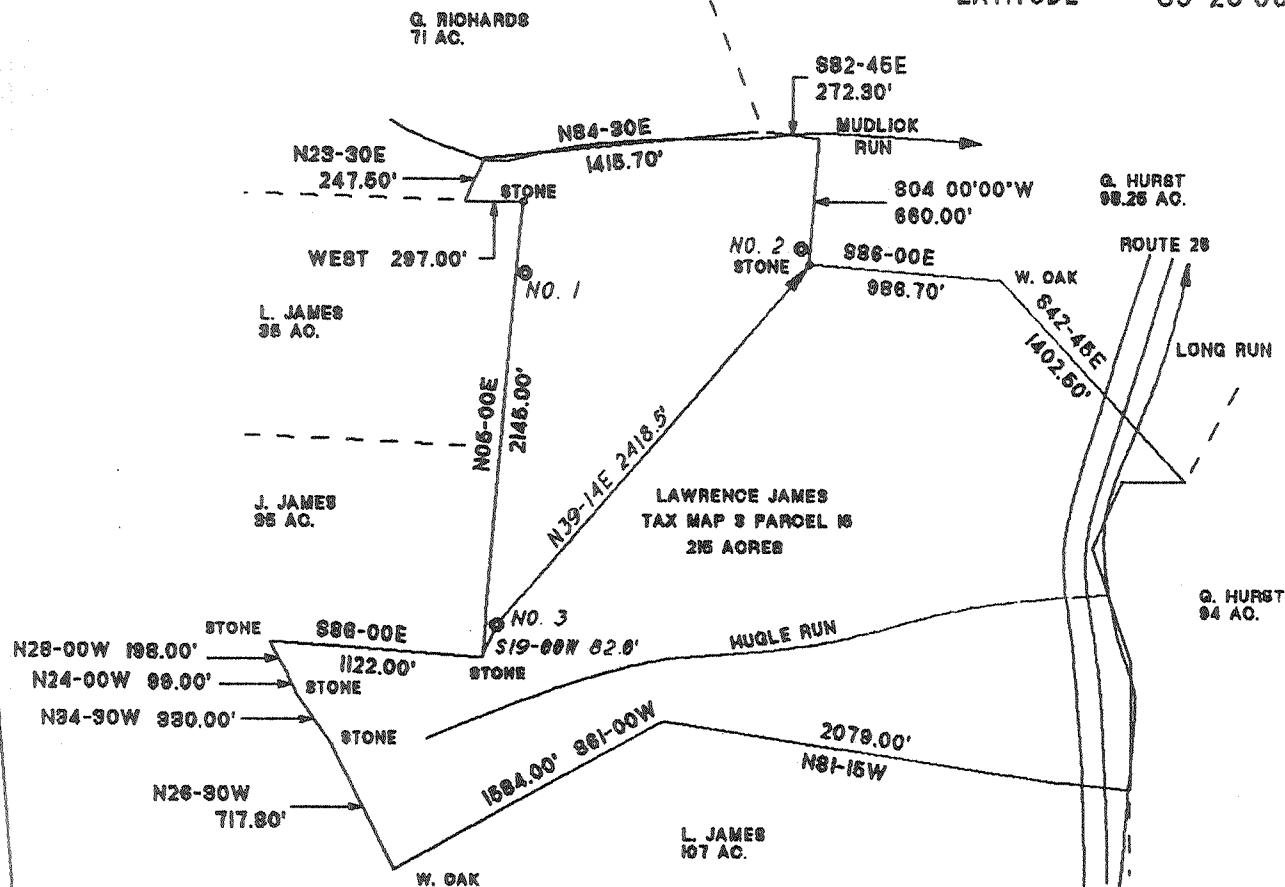


9,575'

LATITUDE 39°20'00"

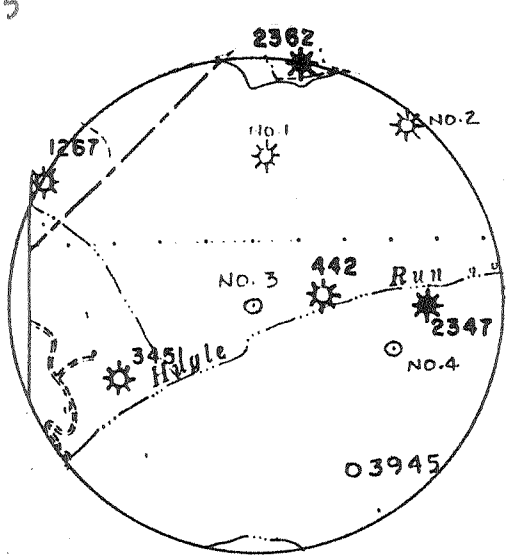
LONGITUDE 80°50'00"

NORTH



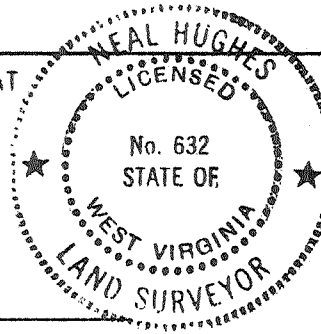
1.985  
1.83W

1.98  
1.83



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 DEC. 20, 19 93

OPERATORS WELL NO. JAMES NO. 3

API WELL NO. 47 - 017 - 4085  
STATE COUNTY PERMIT

L.L.S. Neal Hughes  
632

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 93-106  
PROVEN SOURCE OF ELEVATION KNOB III8' SCALE 1"=1000'

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW   
LOCATION: ELEVATION 922' WATERSHED MUDLICK RUN

DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION 415  
SURFACE OWNER LAWRENCE JAMES ACREAGE 215  
ROYALTY OWNER LAWRENCE JAMES LEASE ACREAGE 215

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 CO. 475 DESIGNATED AGENT JAN CHAPMAN  
ADDRESS 22 GARTON PLAZA ADDRESS 22 GARTON PLAZA

DODDRIDGE COUNTY NAME PERMIT

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

Well Operator's Report of Well Work

RECEIVED  
WV Division of  
Environmental Protection  
MAR 08 94  
Permitting & Compliance

Facility Name: JAMES, LAWRENCE Operator Well No.: JAMES #3

LOCATION: Elevation: 922.00 Quadrangle: WEST UNION

District: CENTRAL County: DODDRIDGE  
Latitude: 10400 Feet South of 39 Deg. 20Min. Sec.  
Longitude 9575 Feet West of 80 Deg. 50 Min. Sec.

Company: KEY OIL COMPANY  
22 GARTON PLAZA  
WESTON, WV 26452-0000

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD  
Permit Issued: 01/12/94  
Well work Commenced: 02/04/94  
Well work Completed: 02/09/94  
Verbal Plugging  
Permission granted on:  
Rotary  Cable \_\_\_\_\_ Rig  
Total Depth (feet) 5207'  
Fresh water depths (ft) 83.300  
Salt water depths (ft) -0-

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.
16"	20	20	
11 3/4"	127	127	70 sks. to surface
8 5/8"	1431	1431	320 sks. to surface
4 1/2"		5142	260 sks
1.5"		5030	

OPEN FLOW DATA Riley 4356-4388  
Benson 4758-4764  
Producing formation Alexander Pay zone depth (ft) 5042-5064

Gas: Initial open flow 21 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 888 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests N/A Hours  
Static rock Pressure 1650 psig (surface pressure) after 96 Hours

Second producing formation \_\_\_\_\_ Pay zone depth (ft) \_\_\_\_\_  
Gas: Initial open flow \_\_\_\_\_ MCF/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ Hours  
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: Jan Chapman Jan Chapman  
Date: March 4, 1994

JAMES #3 47-017-4085  
 DETAILS OF PERFORATED INTERVALS AND FRACTURING  
 3 STAGE FOAM FRAC - HALLIBURTON

Stage 1: Alexander (10 holes) (5051.25'-5062.50') 60 Quality Foam, 750 gal. 15% HCl, 30,000 lbs. 20-40 sand, 354,000 SCF N<sub>2</sub>, 521 bbls. foam.

Stage 2: Benson (10 holes) (4758.75'-5761') 75 Quality Foam, 750 gal. 15% HCl, 30,000 lbs. 20-40 sand, 424,000 SCF N<sub>2</sub>, 517 bbls. foam.

Stage 3: Riley (10 holes) (4359.75'-4386') 60 Quality Foam, 750 gal. 15% HCl, 5000 lbs. 80-100 sand, 35,000 lbs. 20-40 sand, 410,000 SCF N<sub>2</sub>, 643 bbls. foam.

WELL LOG

FORMATION	TOP FEET	BOTTOM FEET	REMARKS
Sand, shale, red rock	0	1738	Damp at 83'
Little Lime	1738	1766	2" stream H <sub>2</sub> O @ 300'
Big Lime	1766	1900	
Big Injun	1900	1940	
Sand and shale	1940	4356	
Riley	4356	4388	<u>Gas Checks:</u>
Sand and shale	4388	4758	1602' N/S
Benson	4758	4764	1817' N/S
Sand and shale	4764	5042	2004' N/S
Alexander	5042	5064	2504' N/S
Sand and shale	5064	5207 T.D.	3000' N/S
			3500' N/S
			3995' N/S
			4500' 4/10 thru 1" w/water
			4900' 4/10 thru 1" w/water
			T.D. 4/10 thru 1" w/water

13582

STATE OF WEST VIRGINIA *Issued*  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
WELL WORK PERMIT APPLICATION *Expires 01/12/96*

18582

- 1) Well Operator: Key Oil Company 25655 <sup>475</sup> (D) 671
- 2) Operator's Well Number: James #3 3) Elevation: 92'
- Well type: (a) Oil X/ or Gas X/
- (b) If Gas: Production X/ Underground Storage   /  
Deep   / Shallow X/
- Proposed Target Formation(s): Alexander <sup>439</sup>
- Proposed Total Depth: 5400 feet
- 7) Approximate fresh water strata depths: 90'
- 8) Approximate salt water depths: 1350'
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes   / No X
- 11) Proposed Well Work: Drill, Stimulate, Produce
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT Fill-up (cu. ft)
	Size	Grade	Weight per ft.	For drilling	Left in well	
Conductor						
Fresh Water	11 3/4	ERW	42	132	132	To surface
Coal						
Intermediate	8 5/8	ERW	23	1400	1400	To surface
Production	4 1/2	J-55	10.50		5300	260 sks.
Tubing	1.5"					
Liners						

PACKERS : Kind             
          Sizes             
          Depths set           

For Division of Oil and Gas Use Only

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

EX 3 0 93  
Office of Oil & Gas

1) Date: December 28, 1993  
2) Operator's well number  
James #3  
3) API Well No: 47 - 017 - 4085  
State - County - Permit

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS  
NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:  
(a) Name Lawrence James  
Address Rt. 1 Box 104  
Greenwood, WV 26360  
(b) Name \_\_\_\_\_  
Address \_\_\_\_\_  
(c) Name \_\_\_\_\_  
Address \_\_\_\_\_

5) (a) Coal Operator:  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
(b) Coal Owner(s) with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_  
Name \_\_\_\_\_  
Address \_\_\_\_\_

6) Inspector Mike Underwood  
Address Rt. 2 Box 135  
Salem, WV 26426  
Telephone (304)- 782-1043

(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

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

X Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B 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:

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

I have read and understand Chapter 22B 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]  
Its: President  
Address 22 Garton Plaza  
Weston, WV 26452  
Telephone 304-269-7102

Subscribed and sworn before me this 28th day of December, 1993

Karen Cook Notary Public  
My commission expires March 24, 2003

