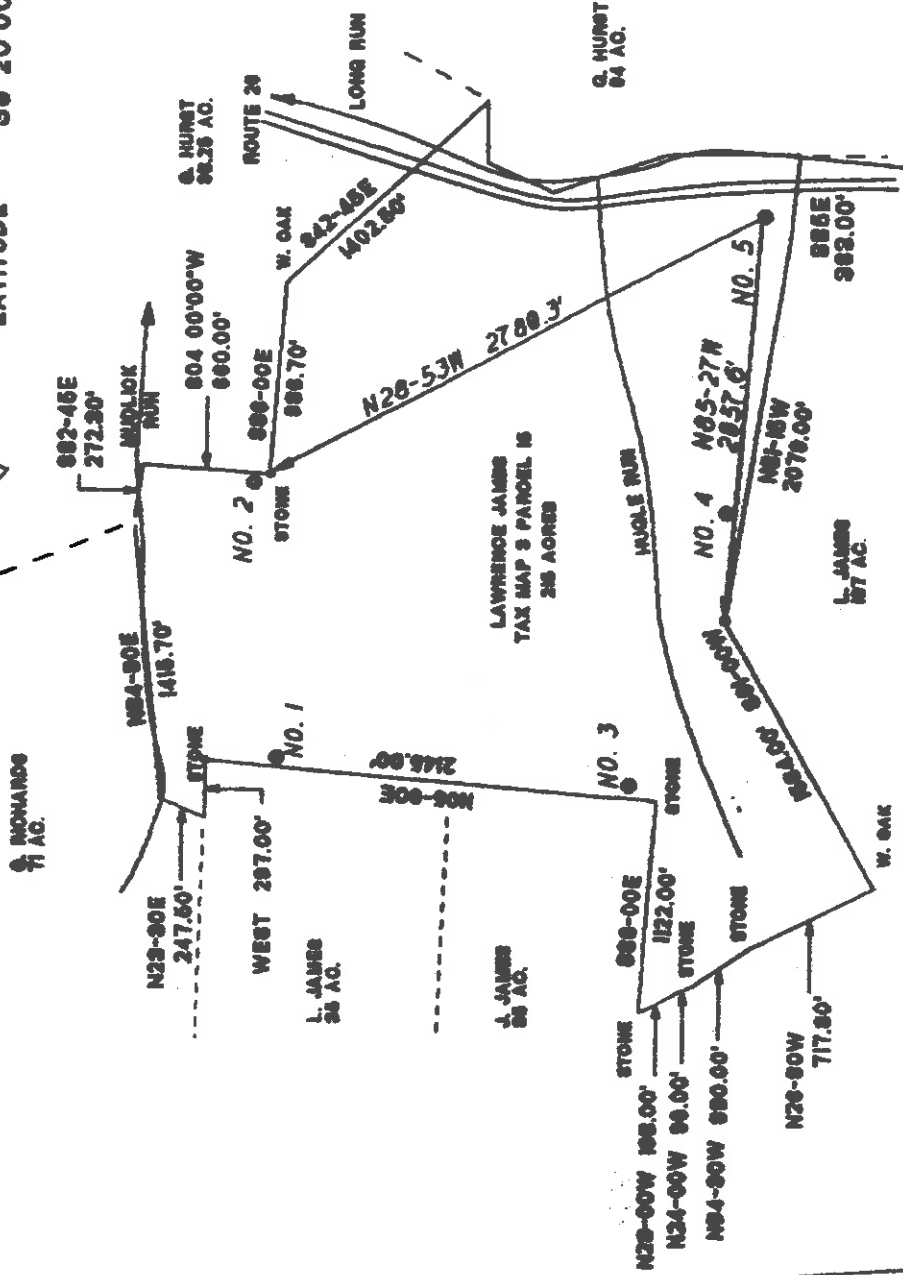
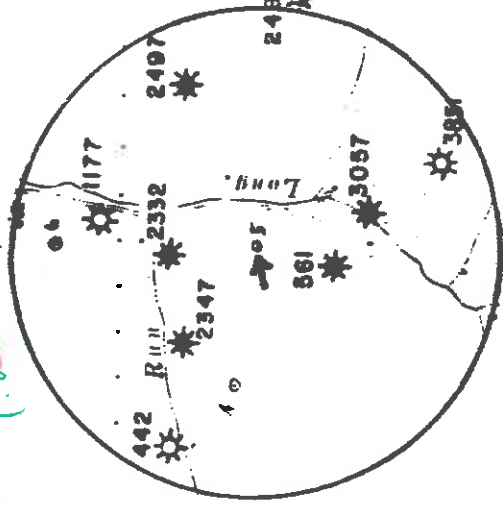
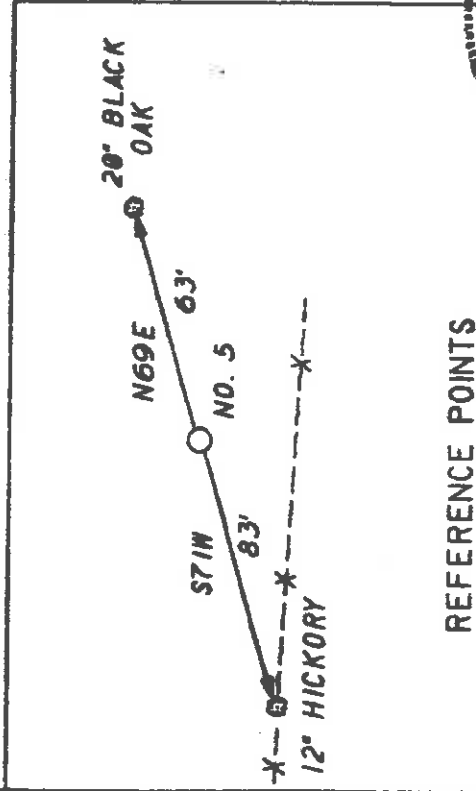


LATITUDE 39°20'00"

LONGITUDE 80°50'00"



2.12.94



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.

L.L.S. *Neal Hughes*



I * DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

DATE APRIL 15 19 94
OPERATORS WELL NO. JAMES NO. 5

API WELL NO. 47 - 017 - 4133
STATE WEST VIRGINIA COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 93-106
PROVEN SOURCE OF ELEVATION NOB 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 960' WATERSHED MUDLICK RUN

DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION
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) 6-6 57 TARGET FORMATION ALEXANDER
ESTIMATED DEPTH 5500'

WELL OPERATOR KEY OIL CO. DESIGNATED AGENT JAN CHAPMAN PERMIT 47-017-4133
ADDRESS 22 GARTON PLAZA WESTON WV 26452 ADDRESS 22 GARTON PLAZA WESTON WV 26452

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

Well Operator's Report of Well Work

Farm name: JAMES, LAWRENCE L. Operator Well No.: JAMES #5

LOCATION: Elevation: 960.00 Quadrangle: WEST UNION
District: CENTRAL County: DODDRIDGE
Latitude: 11075 Feet South of 39 Deg. 20Min. Sec.
Longitude 6750 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: 05/31/94
Well work Commenced: 7/18/94
Well work Completed: 7/23/94
Verbal Plugging
Permission granted on: _____ Rig
Rotary Cable _____
Total Depth (feet) 5243
Fresh water depths (ft) 454'
Salt water depths (ft) -0-Is coal being mined in area (Y/N)? N
Coal Depths (ft): -0-

OPEN FLOW DATA

Riley Stray
Riley
BensonProducing formation Alexander
Gas: Initial open flow 103 MCF/d Oil: Initial open flow 0 Bbl/d
Final open flow 531 MCF/d Final open flow Show Bbl/d
Time of open flow between initial and final tests N/A Hours
Static rock Pressure 1600 psig (surface pressure) after 96 HoursSecond producing formation _____
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

Casing & Tubing Size	Used in	Left in Well	Cement Fill Cu. Ft.
11 3/4	132	132	70 sks. to surface
8 5/8	1484	1484	395 sks. to surface
4 1/2		5172	300 sks.
1 1/2		5058	

4170-4180
4414-4444
4816-4824
5100-5114

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.

RECEIVED
WV Division of
Environmental Protection
AUG 09 1994
Permitting
Office of Oil & Gas

For: KEY OIL COMPANY

BY:  President

Date: August 4, 1994

AUG 26 1994

James #5 (47-017-4133)
4 Stage Foam Frac - Halliburton

Stage 1: Alexander (10 holes) 5109'-5111.25' 60 Quality Foam, 750 gal. 15% HCl, 30,000 lbs. 20-40 sand, 358,000 SCF N₂, 523 bbls. Foam.

Stage 2: Benson (10 holes) 4819'-4821.25' 75 Quality Foam, 750 gal. 15% HCl, 25,000 lbs. 20-40 sand, 397,000 SCF N₂, 470 bbls. Foam.

Stage 3: Riley (10 holes) 4417.25'-4441' 60 Quality Foam, 750 gal. 15% HCl, 10,000 lbs. 80-100 sand, 30,000 lbs. 20-40 sand, 466,000 SCF N₂

Stage 4: Riley Stray (10 holes) 4175'-4177.25' 60 Quality Foam, 750 gal. 15% HCl, 5,000 lbs. 80-100 sand, 20,000 lbs. 20-40 sand, 326,000 SCF N₂, 498 bbls. Foam.

WELL LOG

FORMATION	TOP FEET	BOTTOM FEET	REMARKS
Clay and Shale	0	10	1/2" stream H ₂ O @ 454'
Shale and Red Rock	10	113	
Sand and Shale	113	1804	
Little Lime	1804	1848	
Big Lime	1848	1986	
Big Injun	1986	2004	
Sand and Shale	2004	4170	1880 N/S
Riley Stray	4170	4180	2533 N/S
Sand and Shale	4180	4414	3002 N/S
Riley	4414	4444	3499 N/S
Sand and Shale	4444	4816	4029 6/10 thru 2" w/water
Benson	4816	4824	4932 N/S
Sand and Shale	4824	5100	5243 N/S
Alexander	5100	5114	Gas at Drill Collars N/S
Shale	5114	5243	T.D.

RECEIVED
WV Division of
Environmental Protection
AUG 09 1994
Permitting
Office of Oil & Gas

shel

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS
 OFFICE OF OIL & GAS PERMIT APPLICATION

1) Well Operator: KEV OIL COMPANY James #5 25655 1 671 Elevation: 960

2) Well type: (a) Oil X / oz Gas X /
 (b) IF Gas: Production X / Underground storage
 Deep / Shallow X

Proposed Target Formation(s): Alexander

Proposed Total Depth: 5300 feet

7) Approximate fresh water strata depths: 100'

8) Approximate salt water depths: -0-

9) Approximate coal seam depths: None

10) Does land contain coal seams tributary to active mine? Yes / No

11) Proposed Well Work: Drill, Stimulate, Produce

12)

CASING AND TUBING PROGRAM

TYPE	SIZE	GRADE	WEIGHT PER FT.	FOOTAGE	FEET IN WELL	FILL-U (CU. F)
Conductor	16"	Used		20	0	
Fresh Water	11 3/4"	ERW	42	132	65 132	70 sks to surface
Coal						AKMMJ.
Intermediate	8 5/8"	ERW	23	1470	65 1470	390 sks. to surface
Production	4 1/2"	J-55	10.5		5200	260 sks.
Tubing	1.5"					
Liners						

PACKERS : Kind Sizes Depths set

Fee(s) paid: Well Work Permit Reclamation Fund
 STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

Permitting
Office of Oil & Gas

1) Date: May 4, 1994
2) Operator's well number
James #5
3) API Well No: 47 - 017 - 4133
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 L. James
Address Rt. 1 Box 104
Greenwood, WV 26360
(b) Name _____
Address _____
(c) Name _____
Address _____
6) Inspector Mike Underwood
Address Rt. 2 Box 135
Salem, WV 26426
Telephone (304) - 782-1043

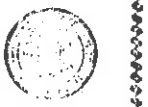
TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

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 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:
 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.



OFFICIAL SEAL NOTARY PUBLIC
STATE OF WEST VIRGINIA
KATHIE COOK
ROUTE 2, BOX 1
JANE LEWIS, WV 26378
My Commission Expires Mar. 24, 2003

Well Operator Key Oil Company
BY: Paul Turner President
Its: _____
Address 22 Garton Plaza
Weston, WV 26452
Telephone 304-269-7102
Subscribed and sworn before me this 4th day of May, 19 94

My commission expires March 24, 2003 _____ Notary Public