

1,650'

LATITUDE 39°17'30"

LONGITUDE 80°50'00"

6,200'



James
11/14/96

I. WEBB
86.3 AC.

A. BARKER
106.75 AC.

10' WHITE
OAK

C. OAK

A. MANCUSO
217.6 AC.

NO. 3

S37W
15'

S42E
125'

N0' C. OAK

A. LEWIS
30 AC.

NO. 3

D. MOORE
125 AC.

OLD B + O RAILROAD
ROUTE 36
WILHELM RUN

U.S. ROUTE 50
RIGHT OF WAY

ROUTE 50/3

N11°59'E 3137.9'

T92
S14°E

S21°W 429'

S49°W
825'

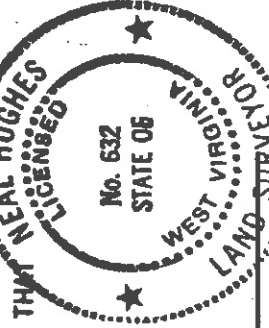
N41°25'E 2699.9'

T77.8'

N4°05'
1495'

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 NOVEMBER 5, 19 96
OPERATORS WELL NO. DUCKWORTH 3

L.L.S. 632
API WELL NO. 47-017-04324
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1/200
 FILE NO. 96-75
 STATE OF WEST VIRGINIA
 DEPARTMENT OF ENERGY
 OIL AND GAS DIVISION
 SCALE 1" = 500'
 PROVEN SOURCE OF ELEVATION KNOB 1202'

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL *GAS* PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1165' WATERSHED WILHELM RUN
 DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION
 SURFACE OWNER ANNA BARKER, ET AL ACREAGE 106.75
 ROYALTY OWNER ANNA BARKER, ET AL LEASE ACREAGE 146

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 475 DESIGNATED AGENT JAN CHAPMAN NOV 15 1996
 ADDRESS 22 GARTON PLAZA ADDRESS 22 GARTON PLAZA WESTON WV 26450
 COUNTY NAME PERMIT

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

Well Operator's Report of Well Work

Farm name: MOORE, DARRELL

Operator Well No.: FOLEY #3

LOCATION: Elevation: 1,010.00

Quadrangle: WEST UNION

District: CENTRAL

County: DODDRIDGE

Latitude: 7000 Feet South of 39 Deg. 17 Min. 30 Sec.

Permitting
Office of Oil & Gas

Longitude: 25 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: 11/14/96
Well Work Commenced: 1/7/97
Well Work Completed: 1/21/97

Verbal Plugging
Permission granted on: _____ Rig
Rotary X Cable _____
Total Depth (feet) 5590'
Fresh water depths (ft) 38'
Salt water depths (ft) NONE

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

OPEN FLOW DATA

Warren
Speechley
Balltown
Rileys
Benson

3306' - 3403'
3411' - 3528'
3722' - 4460'
4488' - 4894'
4937' - 4948'

Producing formation _____
Gas: Initial open flow 18 MCF / d
Final open flow 1,524 MCF / d
Time of open flow between initial and final tests N/A
Static rock pressure 1750 psig (surface pressure) after 96 Hours

Second producing formation _____
Gas: Initial open flow _____ MCF / d
Final open flow _____ MCF / 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: 

PRESIDENT

Date: 4-22-97

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
11 3/4"			
8 5/8"	973.15	973.15	265 sks To Surface
4 1/2"	5337	5337	380 sks
2 3/8"		5208	

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DIVISION OF ENVIRONMENTAL PROTECTION
APR 2 1997

APR 27 1997

Foley #3 (47-017-04324)
Four Stage Foam Frac - Halliburton

1st Stage:	Alexander (10 holes) (5228' - 5263')	60 Quality Foam, 500 gal. 15% HCL, 60,000# 20/40 sand, 550,000 SCF N2, 811 bbis foam.
2nd Stage:	Benson (4 holes) (4943.5' - 4944.25') Third Riley (9 holes) (4857.25' - 4485.75')	60 Quality Foam, 750 gal 15% HCL, 40,000# 20/40 sand, 417,000 SCF N2, 615 bbis foam.
3rd Stage:	Riley (8 holes) (4517.75' - 4554') Balltown (4 holes) (3929.25' - 4138.25')	60 Quality Foam, 1000 gal 15% HCL, 10,000# 80/100 sand, 35,000# 20/40 sand, 438,000 SCF N2, 647 bbis foam.
4th Stage:	Speechley (2 holes) (3517.5' - 3517.75') Warren (9 holes) (3366.25' - 3394')	60 Quality Foam, 750 gal 15% HCL, 5,000# 80/100 sand, 50,000# 20/40 sand, 523,000 SCF N2, 773 bbis foam.

WELL LOG

Fill	0	20	
Red Rock	20	28	
Sand & Shale	28	135	1" H ² O @ 38'
Red Rock & Sand & Shale	135	343	
Sand	343	580	
Sand & Shale & Red Rock	580	929	
Sand & Shale	929	1363	
Sand	1363	1394	
Sand & Shale	1394	1614	
Shale & Red Rock	1614	1670	
Sand	1670	1790	
Shale	1790	1935	
Little Lime	1935	1962	
Shale	1962	1971	
Big Lime	1971	2050	
Big Injun	2050	2110	
Shale	2110	2256	
Weir	2256	2392	
Sand & Shale	2392	3306	
Warren	3306	3403	
Shale	3403	3411	
Speechley	3411	3528	
Shale	3528	3722	
Balltown	3722	4460	
Shale & Sand	4460	4488	
Riley	4488	4564	
Shale	4564	4852	
Third Riley	4852	4894	
Shale	4894	4937	
Benson	4937	4948	
Sand & Shale	4948	5183	
Alexander	5183	5272	
Shale	5272	5397	
T.D.	5397		

Gas Checks

1926	No Show
2518	No Show
3018	1/10ths 1/2" w/H ² O
3707	2/10ths 2" w/H ² O
4419	2/10ths 1/2" w/H ² O
4793	2/10ths 1/2" w/H ² O
5102	3/10ths 1" w/H ² O
TD	3/10ths 1" w/H ² O

Well Operator: KEY OIL COMPANY ① 25655 671

Operator's Well Number: FOLEY #3 3) Elevation: 970'

Well type: (a) Oil X / or Gas X /
 (b) If Gas: Production X / Undergrnd Storage 11/4/98
Deep / Shallow X / 439

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 Environmental Protection
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Proposed Target Formation(s): ALEXANDER

Proposed Total Depth: 5600 feet

Approximate fresh water strata depths: 80'

Approximate salt water depths: -0-

Approximate coal seam depths: N/A

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

Proposed Well Work: DRILL. STIMULATE. PRODUCE

12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS	FOOTAGE INTERVALS	CEMENT	
	Size Grade	Weight per ft. drilling	Left in well	
			Fill-up (cu. ft.)	
Conductor	11 3/4 ERW	42	0	2058/11.3
Fresh Water	8 5/8 ERW	23	970'	265 SKS. TO SURFACE
Coal				2058/11.3
Intermediate				
Production	4 1/2 J-55	10.5	5400'	450 SKS.
Tubing	1.5			2058/11.1
Liners				

PACKERS : Kind _____
 Sizes _____
 Depths set _____

For Office of Oil and Gas Use Only
 Fee(s) paid: Well Work Permit Reclamation Fund WPCF
 Plat MW-9 MW-25 Bond (Type)

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Environmental Protection
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Office of Oil & Gas

1) Date: NOVEMBER 7, 1996
2) Operator's well number FOLEY #3
3) API Well No: 47 - 017 - 4324
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:

(a) Name DARRELL MOORE
Address P. O. BOX 74
SMITHBURG, WV 26436

(b) Name _____
Address _____

(c) Name _____
Address _____

5) (a) Coal Operator:
Name NONE
Address _____

(b) Coal Owner(s) with Declaration
Name _____
Address _____

(c) Coal Lessee with Declaration
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 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*
I, S. _____ PRESIDENT
Address 22 GARTON PLAZA
WESTON, WV 26452
Telephone 304-269-7492

Subscribed and sworn before me this 7TH day of NOVEMBER 1996

My commission expires MARCH 24, 2003

