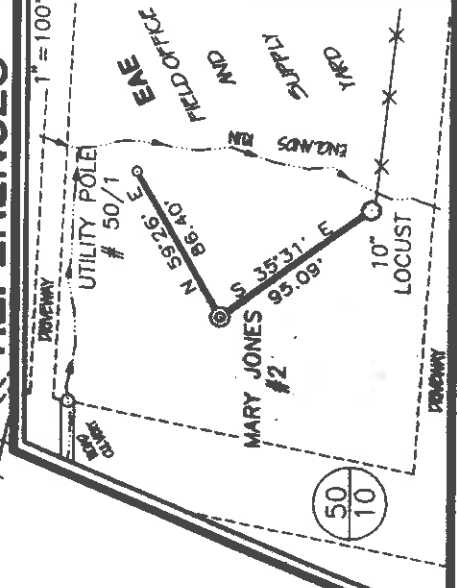
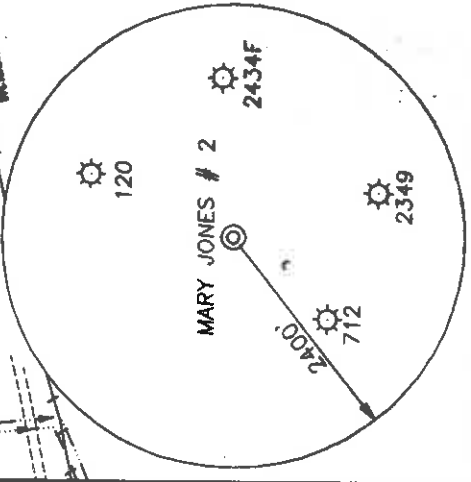
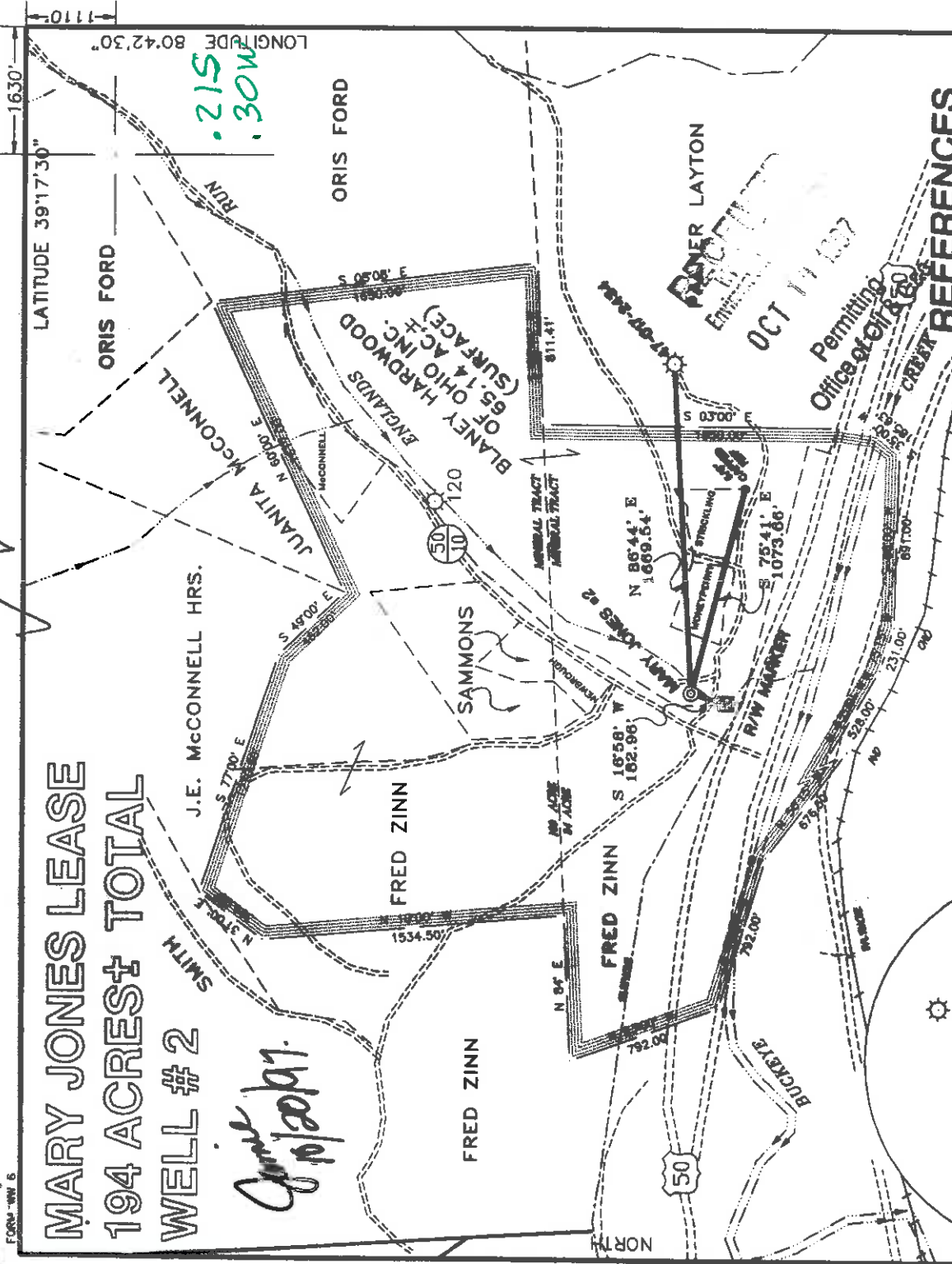


# MARY JONES LEASE 194 ACRES± TOTAL WELL #2

*Gregory A. Smith*



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 23, 19 97  
OPERATORS WELL NO. MARY JONES #2  
API WELL NO. 47-017-04410  
STATE 47 COUNTY SMITH PERMIT 017-04410

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 3802P2 (64-21)  
PROVEN SOURCE OF ELEVATION BENCH MARK ELEVATION 817' SCALE 1" = 800'

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 810' WATERSHED ENGLANDS RUN  
DISTRICT WEST UNION COUNTY DODDRIDGE  
SURFACE OWNER BLANEY HARDWOOD OF OHIO INC.  
ROYALTY OWNER MRS. E. LEE JONES HRS. ET.AL. LEASE ACREAGE 84 OF 194  
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 ESTIMATED DEPTH 5600'

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

PERMIT 017-04410

*6-6-99*

WR-35

17 - Oct - 97  
API # 47 - 17 - 04410

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

Well Operator's Report of Well Work

Farm name: BLANEY HARDWOOD OF OHIO

Operator Well No. : MARY JONES #2

LOCATION: Elevation: 810.00

Quadrangle: SMITHBURG

District: WEST UNION

County: DODDRIDGE

Latitude: 1110 Feet South of 39 Deg. 17 Min. 30 Sec.  
Longitude: 1630 Feet West of 80 Deg. 42 Min. 30 Sec.

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

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD  
Permit Issued: 10/20/97  
Well Work Commenced: 12/06/97  
Well Work Completed: 12/16/97

Verbal Plugging  
Permission granted on: \_\_\_\_\_ Rig  
Rotary X Cable \_\_\_\_\_ 5086'  
Total Depth ( feet ) \_\_\_\_\_  
Fresh water depths ( ft ) 50'  
Salt water depths ( ft ) NONE

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

OPEN FLOW DATA

Warren  
Speechley  
Balltown  
Rileys  
Benson

2918' - 2960'  
2976' - 3052'  
3230' - 4040'  
4088' - 4560'  
4592' - 4604'  
4843' - 4958'

Producing formation \_\_\_\_\_ Alexander  
Gas: Initial open flow 735 MCF / d  
Final open flow 1,586 MCF / d  
Time of open flow between initial and final tests \_\_\_\_\_ N/A  
Static rock pressure 1800 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 \_\_\_\_\_  
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: April 1, 1998

DODD. 4410

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	844'	844'	220 sks To Surface
4 1/2"	5031'	5031'	490 sks
2 3/8"		4884'	

Mary Jones #2 ( 47-017-04410 )  
 Four Stage Foam Frac - Halliburton

1<sup>st</sup> Stage: Alexander ( 12 holes ) ( 4904.25' to 4941.75' ) 60 Quality Foam. 500 gal. 15% HCL.  
 60,000# 20/40 sand, 550,000 SCF N2,  
 706 bbls foam.

2<sup>nd</sup> Stage: Benson ( 10 holes ) ( 4597.25' to 4618.25' ) 60 Quality Foam. 750 gal. 15% HCL.  
 Third Riley ( 3 holes ) ( 4534' to 4534.50' ) 50,000# 20/40 sand, 481,000 SCF N2,  
 707 bbls foam.

3<sup>rd</sup> Stage: Riley ( 9 holes ) ( 4122' to 4143.25' ) 60 Quality Foam. 1,000 gal 15% HCL.  
 Balltown ( 3 holes ) ( 3682.25' to 3682.75' ) 5,000# 80/100 sand, 45,000# 20/40 sand,  
 502,000 SCF N2, 737 bbls foam.

4<sup>th</sup> Stage: Speechley ( 10 holes ) ( 2983.50' to 3044.25' ) 60 Quality Foam. 750 gal 15% HCL.  
 Warren ( 2 holes ) ( 2941.50' & 2950.25' ) 5,000# 80/100 sand, 45,000# 20/40 sand,  
 502,000 SCF N2, 684 bbls foam.

WELL LOG

KB & Fill	0	20	
Creek Sand	20	30	
Sand	30	311	2" H <sub>2</sub> O @ 50'
Sand & Shale & Red Rock	311	963	
Sand	963	1061	
Sand & Shale	1061	1180	
Sand	1180	1328	
Shale & Sand	1328	1437	
Sand	1437	1462	
Sand & Shale	1462	1483	
Little Lime	1483	1519	
Big Lime	1519	1630	
Big Injun	1630	1700	
Shale	1700	1841	
Weir	1841	1928	
Shale	1928	2046	
Berea	2046	2068	
Sand & Shale	2068	2261	
Gordon	2261	2294	
Sand & Shale	2294	2931	
Warren	2918	2960	
Shale	2960	2976	
Speechley	2976	3052	
Shale & Sand	3052	3230	
Balltown	3230	4040	
Shale	4040	4088	
Riley	4088	4171	
Sand & Shale	4171	4486	
Third Riley	4486	4560	
Shale	4560	4592	
Benson	4592	4604	
Sand & Shale	4604	4725	
Upper Elk	4725	4786	
Shale	4786	4843	
Alexander	4843	4958	
Shale	4958	5086	
T.D.	5086		

**GAS CHECKS**

1515' - 80/10<sup>ths</sup> -2" w/H<sub>2</sub>O  
 1636' - 80/10<sup>ths</sup> -2" w/H<sub>2</sub>O  
 2010' - 80/10<sup>ths</sup> -2" w/H<sub>2</sub>O  
 2518' - 70/10<sup>ths</sup> -2" w/H<sub>2</sub>O  
 3011' - 70/10<sup>ths</sup> -2" w/H<sub>2</sub>O  
 3501' - 70/10<sup>ths</sup> -2" w/H<sub>2</sub>O  
 4028' - 70/10<sup>ths</sup> -2" w/H<sub>2</sub>O  
 4528' - 60/10<sup>ths</sup> -2" w/H<sub>2</sub>O  
 4806' - 60/10<sup>ths</sup> -2" w/H<sub>2</sub>O

Dodd 4410

Mary Jones #2 ( 47-017-04410 )  
Four Stage Foam Frac - Halliburton

- 1<sup>st</sup> Stage: Alexander ( 12 holes ) ( 4904.25' to 4941.75' ) 60 Quality Foam. 500 gal. 15% HCL.  
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Sand & Shale & Red Rock	311		963
Sand	963		1061
Sand & Shale	1061		1180
Sand	1180		1328
Shale & Sand	1328		1437
Sand	1437		1462
Sand & Shale	1462		1483
Little Lime	1483		1519
Big Lime	1519		1630
Big Injun	1630		1700
Shale	1700		1841
Weir	1841		1928
Shale	1928		2046
Berea	2046		2068
Sand & Shale	2068		2261
Gordon	2261		2294
Sand & Shale	2294		2931
Warren	2918		2960
Shale	2960		2976
Speechley	2976		3052
Shale & Sand	3052		3230
Balltown	3230		4040
Shale	4040		4088
Riley	4088		4171
Sand & Shale	4171		4486
Third Riley	4486		4560
Shale	4560		4592
Benson	4592		4604
Sand & Shale	4604		4725
Upper Elk	4725		4786
Shale	4786		4843
Alexander	4843		4958
Shale	4958		5086
T.D.	5086		

2" H<sub>2</sub>O @ 50'

**GAS CHECKS**

- 1515' - 80/10<sup>ths</sup> -2" w/H<sub>2</sub>O
- 1636' - 80/10<sup>ths</sup> -2" w/H<sub>2</sub>O
- 2010' - 80/10<sup>ths</sup> -2" w/H<sub>2</sub>O
- 2518' - 70/10<sup>ths</sup> -2" w/H<sub>2</sub>O
- 3011' - 70/10<sup>ths</sup> -2" w/H<sub>2</sub>O
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- 4528' - 60/10<sup>ths</sup> -2" w/H<sub>2</sub>O
- 4806' - 60/10<sup>ths</sup> -2" w/H<sub>2</sub>O



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

- 1) Well Operator: KEY OIL COMPANY - 25650 (8) 611
- 2) Operator's Well Number: MARY JONES #2 3) Elevation: 810'  
 Well type: (a) Oil  / or Gas   
 (b) If Gas: Production  / Underground Storage   
 Deep  / Shallow  *Issued 10/20/97 Expires 10/20/99*
- 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
- 10) Does land contain coal seams tributary to active mine? Yes  / No  /
- 11) Proposed Well Work: DRILL, STIMULATE, PRODUCE *Spill Well*
- 12)

24462

RECEIVED  
 Division of Environmental Protection  
 OCT 14 1997  
 Office of Oil & Gas

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	3808/11.3
Fresh Water	8 5/8	ERW	23	810	220 SKS. TO SURFACE
Coal					3808/11.2
Intermediate					
Production	4 1/2	J-55	10.5	5400	490 SKS.
Tubing	1.5				3808/11.1
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)

