

BARNES LEASE 34.12 ACRES± WELL NO. 1

JOHN P. &
MARY LONGACRE ET AL.
86.37 ACRES±
(SURFACE)

14" CHESTNUT
OAK

20" POPLAR
N 47°32' W
86.71'
WELL NO. 1

DANNY CANTRELL
67.25 ACRES±
(SURFACE)

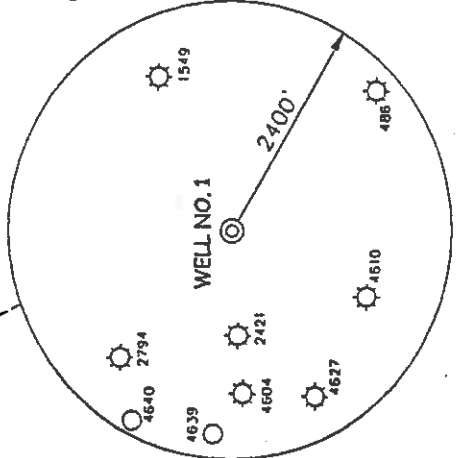
THOMAS BARNES
34.12 ACRES±
(SURFACE)

LEONCE LABEL
50 ACRES±
(SURFACE)

THOMAS BARNES
15.5 ACRES±
(SURFACE)

TATE
10.86 ACRES±
(SURFACE)

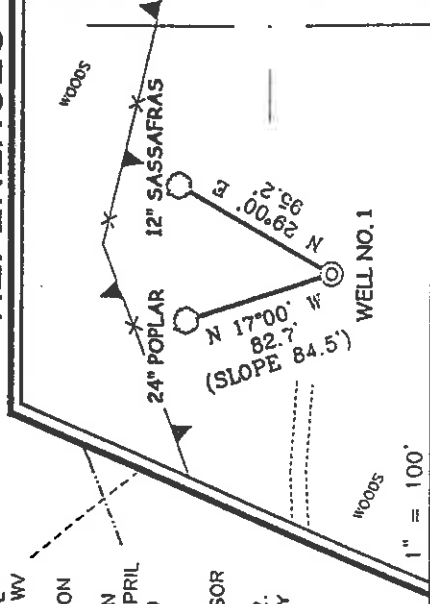
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96



NOTES ON SURVEY

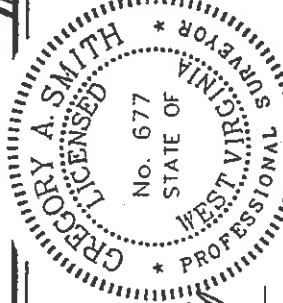
1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV - NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 03-04-02.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A TITLE OPINION DATED APRIL 2, 1998 AS PREPARED BY RICHARD REDDECLIFF ATTORNEY AT LAW.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN MARCH 2002.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

REFERENCES



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 ENVIRONMENTAL PROTECTION.

P.S. *Gregory A. Smith*
677



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE MARCH 3, 20 02
OPERATORS WELL NO. 1
API WELL NO. 47-17-04670
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 4975PI(11.1/74)
PROVEN SOURCE SCALE 1" = 400'
OF ELEVATION TOP OF KNOB ELEVATION 1,295'

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS



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

LOCATION : ELEVATION 1,251' WATERSHED MIDDLE ISLAND CREEK

DISTRICT WEST UNION COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'

SURFACE OWNER THOMAS BARNES ACREAGE 34.12

ROYALTY OWNER THOMAS BARNES ET AL. LEASE ACREAGE 34.12

PROPOSED WORK : LEASE NO. _____

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 5,600'

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

ADDRESS 22 GARTON PLAZA WESTON, WV 26452

6-6 99

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

Reviewed APR 17

Well Operator's Report of Well Work

Farm Name: THOMAS BARNES

Operator Well No. : BARNES #1

LOCATION: Elevation: 1251.00

Quadrangle: WEST UNION

District: WEST UNION
Latitude: 14,560 Feet South of 39 Deg. 20 Min. 00 Sec.
Longitude: 350 Feet West of 80 Deg. 45 Min. 00 Sec.

County: DODDRIDGE

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

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD
Permit Issued: 04/15/02
Well Work Commenced: 06/26/02
Well Work Completed: 06/29/02

Verbal Plugging
Permission granted on: _____ Rig
Rotary X Cable _____

Total Depth (feet) 5580'
Fresh water depths (ft) 199'
Salt water depths (ft) NONE

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

OPEN FLOW DATA

Warren
Speechley
Rileys
Benson

3415' - 3472'
3484' - 3570'
4594' - 5052'
5084' - 5095'
5332' - 5424'

Producing formation _____
Gas: Initial open flow 105 MCF / d
Final open flow 1,586 MCF / d

Time of open flow between initial and final tests _____
Static rock pressure 1900 psig (surface pressure) after 96

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 _____

Pay zone depth (ft) _____
Oil: Initial open flow _____ Bbl / d
Oil: Final open flow _____ Bbl / d
Hours _____
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: Jane Chapman
Date: July 12, 2002

PRESIDENT

OCT 18 2002

DODD 4670

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
8 5/8"	1282'	1282'	285 sks To Surface
4 1/2"	5501'	5501'	480 sks

RECEIVED
Office of Oil & Gas
Permitting
SEP 23 2002
WV Department of Environmental Protection

Barnes #1 (47-017 - 4670)
Four Stage Foam Frac - BJ Services

1 st Stage:	Alexander (14 holes) (5360.50' to 5422')	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 813 bbis foam.
2 nd Stage:	Benson (6 holes) (5088' to 5092.25') Third Riley (4 holes) (5036' to 5036.75') Second Riley (3 holes) (4903.50' to 4904')	60 Quality Foam. 750 gal 15% HCL. 35,000# 20/40 sand, 390,000 SCF N2, 571 bbis foam.
3 rd Stage:	Riley (13 holes) (4636.50' to 4653.75')	60 Quality Foam 750 gal 15% HCL 5,000# 80/100 sand, 35,000# 20/40 sand, 440,000 SCF N2, 654 bbis foam.
4 th Stage:	Speechley (4 holes) (3561.50' to 3562.25') Warren (10 holes) (3424.50' to 3456.75')	60 Quality Foam. 1,000 gal 15% HCL. 5,000# 80/100 sand, 35,000# 20/40 sand, 464,000 SCF N2, 601 bbis foam.

WELL LOG

KB-GL	0	10	
Clay	10	12	
Red Rock	12	17	
Sand & Shale	17	40	
Sand	40	68	
Sand & Shale & Red Rock	68	119	
Sand	119	159	
Sand & Shale & Red Rock	159	250	
Sand & Shale	250	380	
Sand	380	409	
Sand & Shale & Red Rock	409	681	
Sand	681	702	
Sand & Shale	702	808	
Red Rock	808	920	
Sand & Shale	920	1030	
Shale & Red Rock	1030	1096	
Sand & Shale	1096	1971	
Little Lime	1971	2007	
Big Lime	2007	2064	
Keener	2064	2133	
Big Injun	2133	2195	
Sand & Shale	2195	2342	
Weir	2342	2494	
Shale	2494	2540	
Berea	2540	2564	
Shale	2564	2746	
Gordon	2746	2803	
Shale	2803	3415	
Warren	3415	3472	
Shale	3472	3484	
Speechley	3484	3570	
Silt & Shale	3570	4594	
Riley	4594	4670	
Shale	4670	4860	
Second Riley	4860	4940	
Shale	4940	4994	
Third Riley	4994	5030	
Shale	5030	5084	
Benson	5084	5096	
Shale	5096	5332	
Alexander	5332	5424	
Sand & Shale	5424	5580	
T.D.	5580		

Gas Checks

1936' - No Show
2219' - 8/10^{ths} 2" w/water
2724' - 8/10^{ths} 2" w/water
3384' - 8/10^{ths} 2" w/water
3918' - 8/10^{ths} 2" w/water
4612' - 8/10^{ths} 2" w/water
5051' - 8/10^{ths} 2" w/water
5333' - 6/10^{ths} 2" w/water

1" stream water @ 199'