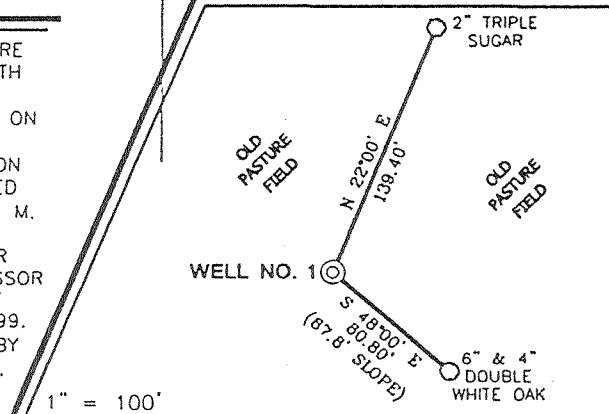


NOTES ON SURVEY

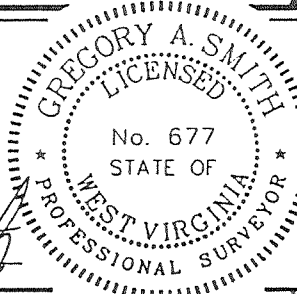
1. TIES TO WELLS AND CORNERS ARE BASED ON STATE PLANE GRID NORTH WV NORTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 8/23/99.
3. LEASE BOUNDARY SHOWN HEREON TAKEN FROM A TITLE REPORT DATED 8/06/99 AS PREPARED BY RICHARD M. REDDECLIFF, ATTORNEY.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF DODDRIDGE COUNTY IN AUGUST, 1999.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

2.195
89W

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 ENERGY.



P.S. 677 *Gregory A. Smith*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
 DATE AUGUST 24, 19 99
 OPERATORS WELL NO. MARKS NO. 1
 API WELL NO. 47-017-04527
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 4265P1 (80-23)
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 1332' SCALE 1" = 500'

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

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

LOCATION :
 ELEVATION 973' WATERSHED TRIBUTARY OF CLAYLICK RUN
 DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE WEST UNION 7.5'

SURFACE OWNER RODNEY ERNEST MARKS, SR. et al ACREAGE 95.69
 ROYALTY OWNER RODNEY ERNEST MARKS, SR. et al LEASE ACREAGE 95.69

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 DESIGNATED AGENT JAN CHAPMAN 7 1999
 ADDRESS 22 GARTON PLAZA WESTON, WV 26452 ADDRESS 22 GARTON PLAZA WESTON, WV 26452

6-6 89

LONGITUDE 80°05'08" 11.611" 35.2" LAT. 39°15'35.2"

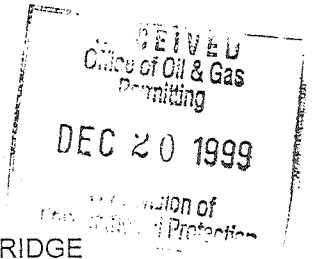
COUNTY NAME DODD

PERMIT 4527

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

K

Well Operator's Report of Well Work



Farm name: MARKS, RODNEY ERNEST, SR.

Operator Well No. : MARKS #1

LOCATION: Elevation: 973.00 Quadrangle: WEST UNION

District: CENTRAL County: DODDRIDGE
Latitude: 11610 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude: 4720 Feet West of 80 Deg. 50 Min. 00 Sec.

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

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD
Permit Issued: 09/03/99
Well Work Commenced: 09/13/99
Well Work Completed: 09/19/99
Verbal Plugging
Permission granted on:
Rotary X Cable Rig
Total Depth (feet) 5402'
Fresh water depths (ft) NONE
Salt water depths (ft) 260'

Casing & Tubing Size	Used in Drilling	Left In Well	Cement Fill Up Cu. Ft.
11 3/4"	128.55'	128.55'	70 sks To Surface
8 5/8"	1824.25'	1824.25'	sks To Surface
4 1/2"	5335'	5335'	460 sks
2 3/8"		5230'	

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

OPEN FLOW DATA
Warren 3360' - 3429'
Balltown 3788' - 4478'
Rileys 4510' - 4922'
Benson 4953' - 4962'
Producing formation Alexander Pay zone depth (ft) 5200' - 5282'
Gas: Initial open flow Show MCF / d Oil: Initial open flow 0 Bbl / d
Final open flow 1,540 MCF / d Oil: Final open flow show Bbl / d
Time of open flow between initial and final tests N/A Hours
Static rock pressure 1750 psig (surface pressure) after 96 Hours

Second producing formation Commingled Pay zone depth (ft)
Gas: Initial open flow MCF / d Oil: Initial open flow Bbl / d
Final open flow MCF / d Oil: 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: [Signature]
Date: December 13, 1999

PRESIDENT

FEB 25 2000

0000 4527

Marks #1 (47-017 -4527)
Four Stage Foam Frac - Halliburton

1 st Stage:	Alexander (15 holes) (5250.75' to 5274.25')	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 811 bbls foam.
2 nd Stage:	Benson (9 holes) (4955.50' to 4957.50') Second Riley (4 holes) (4784' to 4784.75')	60 Quality Foam. 750 gal 15% HCL. 40,000# 20/40 sand, 417,000 SCF N2, 617 bbls foam.
3 rd Stage:	Riley (8 holes) (4554.50' to 4574.75') Balltown (7 holes) (4174.50' to 4290.25')	60 Quality Foam. 1,000 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 744 bbls foam.
4 th Stage:	Balltown (7 holes) (3881.25' to 3953.75') Warren (6 holes) (3408.75' to 3423.25')	60 Quality Foam. 1,000 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 684 bbls foam.

WELL LOG

KB-GL	0	10	
Clay	10	16	
Red Rock & Shale	16	151	
Red Rock & Sand & Shale	151	466	
Sand & Shale	466	526	2 1/2" H ₂ O @ 260'
Shale	526	626	
Sand	626	630	
Sand & Shale	630	1968	
Little Lime	1968	2010	
Big Lime	2010	2086	
Big Injun	2086	2138	
Shale	2138	2298	
Weir	2298	2425	
Sand & Shale	2425	2766	
Gordon	2766	2790	
Shale	2790	3360	
Warren	3360	3429	<u>Gas Checks</u>
Shale	3429	3439	1918' - No Show
Speechley	3439	3562	2108' - Strong odor
Sand & Shale	3562	3788	2508' - No Show
Balltown	3788	4478	3317' -Odor
Shale	4478	4510	3718' - Odor
Riley	4510	4577	4521' - Odor
Shale	4577	4754	4926' - Odor
Second Riley	4754	4814	5208' - Odor
Shale	4814	4824	
Third Riley	4824	4922	
Shale	4922	4953	
Benson	4953	4962	
Shale	4962	5200	
Alexander	5200	5282	
Sand & Shale	5282	5402	
T.D.	5402		