





# State of West Virginia Division of Environmental Protection

Section of Oil and Gas

Permitting Office of Oil & Gas

JAN 0 6 1995

Well Operator's Report of Well Work

WOODS, ROBERT W. Farm name:

Operator Well No.: WOODS #4

LOCATION:

Elevation: 667.00

Quadrangle: NEW MARTINSVILLE

District: PROCTOR County: WETZEL

2080 Feet South of 39 Deg. 42Min. 30 Sec. 7300 Feet West of 80 Deg. 47 Min. 30 Sec. Latitude: Longitude

Company: COBHAM GAS INDUSTRIES, IN P.O. BOX 1293 Casing | Used in | Left | |Fill Up BRIDGEPORT, WV 26330-1293 æ | Drilling | in Well | Cu. Ft. Tubing Agent: A. D. ANDERSON Size Inspector: RANDAL MICK 03/10/94 8 5/8" Permit Issued: 8941 SURFACE Well work Commenced: 3/10/94 Well work Completed: 5/13/94 Verbal Plugging \$ !?@" 200SKS 2332' Permission granted on: Rotary Cable
Total Depth (feet) 235
Fresh water depths (ft) 2350**'** Salt water depths (ft) 942' Is coal being mined in area (YN)?
Coal Depths (ft): 417

#### OPEN FLOW DATA

Gas: Initial open flow	15 MCF/	Pay zone depth (ft) 17 d Oil: Initial open flow 0 d Final open flow 0	Bbl/d
Time of open flow	between in	itial and final tests	Hours
Static rock Pressure	_400psig	(surface pressure) after 72	Hours
Second producing format	tion Big Inju	nn/Keener Pay zone depth (ft)_1	.410'
Gas: Initial open flow	5 MCF/	d Oil: Initial open flow 0	Bbl/d
Final open flow	5 MCF/	d Final open flow 0	_Bbl/d
Time of open flow	between in	itial and final tests	Hours
Static rock Pressure	400 psig	(surface pressure) after 72	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:	COBHAM	GAS INDUSTRIES,	INC.
		() () () ()	-05
	By:	Clebe	55
	Date:	12/3//94	

Perforations: Weir - 29 shots from 1770' to 1832'

Big Injun/Keener - 38 shots from 1410' to 1468'

Fracturing: Weir - 11400 gal of H20 and 2000 lbs of sand

Big Injun/Keener - 3000 gal of 10% HCL and H20  $\,$ 

WR-35



# State of West Wirginia

DEPARTMENT OF ENERGY
Gil und Gas Division

Pate	April	30,	198	7	_
Opera					
Well	No	Wood	ls #	4	
				et al	_
_				<b>-</b> 1417	_

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

MAY 04 1987

WELL OPERATOR'S REPORT

OF

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		21m /0n	STIMULATING	$\sim$	DINICACAT	
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	LIVICIOITING	MW/UK	DITION TO 1	, 011		

WELL TYPE: Oil $x$ / Gas $x$ / Liquid Injection (If "Gas," Production $x$ / Underground	/ Wast	e Disposa e/ Deep	/ / Sha	llow/)
LOCATION: Elevation: 667! Watershed_	Pr	octor Cree	. k	
District: Proctor County Wetze				li .
COMPANY Clay Resources, Inc.				
ADDRESS 286 Front Street, Marietta, Ohio45750	Casing	Used in	Left	Cement fill up
DESIGNATED AGENT Andy Brown, Jr.	Tubing	Drilling	in Well	Cu. ft.
ADDRESS P.O. Box 32, Reader, W. Va. 26167	Size			· · · · · · · · · · · · · · · · · · ·
SURFACE OWNER Robert Woods et al	20-16 Cond.		•	
ADDRESS Rt 2. Box 52. New Martinsville, WV	13-10"			Total and the second se
MINERAL RIGHTS OWNER Same 26155	9 5/8			
ADDRESS	8 5/8	894'	894 <b>'</b>	CTS
OIL AND GAS INSPECTOR FOR THIS WORK Mike	7			Market State Co.
Underwood ADDRESS Rt. 2, Box 135 Salem, W. Va. 26426	5 1/2			
PERMIT ISSUED 2-9-87	4 1/2		2332	200
DRILLING COMMENCED 2-16-87	3			
DRILLING COMPLETED 2-20-87	2			!
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON	Liners used			
GEOLOGICAL TARGET FORMATION Gordon		Dep	th	feet
Depth of completed well 2350 feet I				1
Water strata depth: Fresh 75 feet;				21 TEST
Coal seam depths: 417			ed in the	area?_No_
OPEN FLOW DATA				
Producing formation Gordon	Pay	zone dep	th 2500	feet
Gas: Initial open flow 20 Mcf/d				
Final open flow 16 Mcf/d				
Time of open flow between init:				Į.
Static rock pressure 450 psig(surface	e measuren	ment) afte	r 24 hou	rs shut in
(If applicable due to multiple completion	)			-
Second producing formation N/A		zone dep	th	feet
Gas: Initial open flow Mcf/d				
Final open flow Mcf/d	Oil: Fir	nal open f	low	Bbl/d
Time of open flow between init	ial and f	inal tests	ho	urs
Static rock pressurepsig(surface	measurem	ent) after	hou	rs shut in
		(Conti	rue on re	verse side)

## DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

40,000 Lbs Sand Foam Frac

MAY 04 1987

20 perfs. 2220-2240 .49 diameter

DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

### WELL LOG

		× *			n	فللل لللك		
FORMA	TION	COLOR	HARD	or soft	TOP FEET	BOTTOM FEET	REMA Including indicand salt water.	RKS ation of all fre coal, oil and g
Sand & Injun Sand & Weir Sand & Berea Sand & Gordon Sand & TD	Shale Shale Shale				0 1409 1544 1778 1850 1976 1980 2220 2240 2350	1409 1544 1778 1850 1976 1980 2220 2240 2350		
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(Attach separate sheets as necessary)

Clay Resources, Inc.	1.
Well Operator	
By: Sandra & Schare	
Date: April 30, 1987	÷

Note: Regulation 2.02(i) provides as follows:

"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including coul, encountered in the drilling of a well."

FOR	WW-2B		<b>ዊ</b> ተልኅ	/ TE OF WEST_	03-1417 F		geot ed 03/10/94	
RAM	0 8 94	DEPARTI	MENT OF E	ENERGY, DIV ORK PERMIT	ISION OF OI APPLICATION	L AND GAS	10x 03/10/90	
)	Well by op	Pator:	CaBH	am Gas I	563D .HOUSTZIES, 1	rc, 1019.	5 0 50	9
) )	Operator	r's Well	Number:	MuoDS	#4	3) El	evation: 64.7	
)	Well typ	pet (a)	011	or Gas	<u>×</u> /			
1792				Deep	305	Shallo	w&/	
187	Propose	d Target	Formation	n(s): Bire	A, PER, BIG.	INOUN KEENE	R MARTON	
	Propose	d Total D	epth:	2365	_ feet Myu	nal Industri	na Bordon 2220-2240	
	Approxi	mate fres	h water s	strata dept	hs!			
					942			
)	Approxi	mate coal	seam đej	pths:	417			
0)	Does la	nd contai	n coal se	eams tribut	ary to acti	ve mine? Y	es/ No_X_/	
1)	Propose	d Well Wo	IK! RUN	I BOND LOG ARE BEHIN	PERFURATE	-, FRACTURE THE CEMENT	UP HOLE COVERAGE	
	in for				PIPE WIT	10110 Jest	year olymetra	lur
YHE	ing for			rions	FOOTAGE IN	TERVALE	CEHENT	dur
THE	ing for		PECIFICA'	Tions Weight	FOOTAGE IN	10110 Jest	FIL-UP	duri
THE	ictor		PECIFICA'	Tions Weight	FOOTAGE IN	TERVALS Left in	CEMENT Filt-up	dvir
	uctor n Water	Size	PECIFICA' Grade	Tions Weight	FOOTAGE IN	TERVALS Left in	CEMENT Filt-up	duri
			PECIFICA' Grade	Tions Weight	FOOTAGE IN	TERVALS Left in	CEMENT Filt-up	divi
res		\$1ze	PECIFICA' Grade	Tions Weight	FOOTAGE IN For drilling	Left in well	FILEUP (CU. EU.)	duri
res oal	n Water	\$1ze	PECIFICA' Grade	Tions Weight	FOOTAGE IN For drilling	Left in well	FILEUP (CU. EU.)	duzi
res oal	mediate	\$1ze	PECIFICA' Grade	Tions Weight	FOOTAGE IN  For drilling	Left in well	FILTUP (CU. EU.)	dur
coal nter	mediate	\$1ze	PECIFICA' Grade	Tions Weight	FOOTAGE IN  For drilling	Left in well	FILTUP (CU. EU.)	duri
coal nter	mediate	8 \$1ze 85/8	PECIFICA' Grade	Tions Weight	FOOTAGE IN  For drilling	Left in well	FILTUP (CU. EU.)	dur
resional nteriodicubir	mediate	Size  85/8  41/2  nd  zes  pths set	Grade  Grade	Weight per ft.	FOOTAGE IN For drilling  894'  2332  and Gas Use	Left in well  894	FILL-UP (CU. EC.) WATERSON TO SUZFACE  200 SACKS	dur

					1001
Page	1 of WW2-A	<u></u>	1) 2)	Date: MARCH 3,	7777
(09/8)	7 1			Woad 2 th 7	
		9 <sup>10</sup> ( 5 <b>94</b> )		API Well No: 47 - 10 State - Cou	<u> </u>
		भागा है जो <b>के छिट</b> ड		VIDGINIA	
		DEPARTMEN!		VISION OF OIL AND GAS	
		NOTICE AND	APPLICATION F	OR A WELL WORK PERMIT	
4)			be served:	5) (a) Coal Operator:	
	(a) Name	ROBERT	W. DOODS	Name Address	
	NEW I	MARTINSULL	7 LC, HV 26155	Address	
	(b) Name			(b) Coal Owner(s) wit	h Declaration
	Address			Name	
	(-) N			Address	
	(C) Name			Name	
				Address	
6)	Taaaata	- 0 ~ ~	<b>~</b>	(c) Coal Lessee with	Doclaration
0)	Address	VI KING I	MICK	Name	
				Address	
	Telephon	ie (304)			
Sect I ha	racts by Included ion 8(d) I certif ve served mpanying Per Pub	l is the lead which I hold is the info of the Code by that as relacional servication (Notes that the control of	se or leases or d the right to ormation require of West Virgin equired under (this notice and ages 1 through ce (Affidavit a (Postmarked pootice of Publice)	cother continuing contextract oil and gas OR ced by Chapter 22B, Arthur (see page 2) Chapter 22B of the West application, a location on the above named attached) Distal receipt attached) Cation attached	ticle 1,  Virginia Code on plat, and parties, by:
fami atta resp is t	he terms I certif liar with chments, onsible f rue, accu I am awa	and conditing under pend the informand that based on the condition of the	ons of any permalty of law the ation submitted sed on my inquige the information omplete. The are signification is a possibility	mit issued under this a set I have personally exert on this application for iry of those individual ion, I believe that the cant penalties for submof fine and imprisonme	application.  camined and am  form and all  is immediately  information  mitting falia
		THICULUSCAL (MAY PUBLIC)	By:ALAN		2
		DRIVEST VIRGINIA	Its:	AGENT	
			Address $\rho$ .	0. Box 1293	
		المراب الأولىد المولود الماراة	Telephone	304-842-9256	
Subs	cribed an	d sworn bef	ore me this 2		- <b>H</b> , 19 <u>94</u>
	4	Khandas 1	What		Notary Public
Мус	ommission	expires	Ganwan 15	2004	
		6			
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1)	Date: Jan	uary	13	13 868 87
2)	Operator's Well No.	Woods	#4	—, -, -, -, -, -, -, -, -, -, -, -, -, -,
3)	API Well No.	47	103	1417
•		State	County	Permit

#### STATE OF WEST VIRGINIA

DEPARTMENT OF ENERGY, OIL AND GAS DIVISION DIVISION OF OIL & GAS **APPLICATION FOR A WELL WORK PERMIT** DEPARTMENT OF ENERGY X WELL TYPE: A Oil \_ / Gas X B (If "Gas", Production Underground storage Deep \_ Shallow \_ 667 Proctor creek LOCATION: Elevation: Watershed: Quadrangle: New Martinsville Proctor Wetzel 103 Clay Resources, ICODE: 1002 7) DESIGNATED AGENT Andy Brown WELL OPERATOR 286 Front Street Box 32 Address Marietta, Ohio 45750 Reader, 26167 OIL & GAS INSPECTOR TO BE NOTIFIED DRILLING CONTRACTOR: Name Mike Underwood Name N/A Route 2, Box 135 Address Address Salem, WV <u> 26426</u> 10) PROPOSED WELL WORK: Drill\_ Drill deeper\_ Redrill\_ Stimulate Plug off old formation Perforate new formation. Other physical change in well (specify). Gordon 11) GEOLOGICAL TARGET FORMATION, . 3100' 12) Estimated depth of completed well, feet 13) Approximate trata depths: Fresh, salt, 467 14) Approximate coal seam depths: Is coal being mined in the area? Yes 15) CASING AND TUBING PROGRAM CASING OR TUBING TYPE SPECIFICATIONS FOOTAGE INTERVALS PACKERS OR SACKS (Cubic feet) per ft. Left in well Conductor Kinds CT5 8 5/8 8801 880' Per rule 15.05 Fresh water Coal Sizes Intermediate 4 1/ 3100 approx 3100 approx 15.01 Production 3105K5 -14 Depths setper rule Perforations: Top Bottom OFFICE USE ONLY **DRILLING PERMIT** 47-103-1417 <sub>19</sub> 87 February 9 Permit number Date This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal re-This permit covering the well operator and well location should be reverse hereof Notification must be given to the District Oil and Gas Inspector, (Refer to a location of roads, locations and bits for any permitted work. In addition, the well operator or his contractor shall notify the proper No. 8) Prior to the construction of roads, locations and pits for any permitted work. It district oil and gas inspector 24 hours before actual permitted work has commenced.) The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof. 1989 February 9, Permit expires unless well work is commenced prior to that date and prosecuted with due diligence. Bond: Agent: Casing Fee Other NOTE: Keep one copy of this permit posted at the drilling location.

Director,

See the reverse side of the APPLICANT'S CORY for instructions to the well operator.

sion of Oil and Gas

File