

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

Well Operator's Report of Well Work

Farm name: BRITTON, WILLIAM P. Operator Well No.: BURGESS #2, LOCATION: Elevation: 1,061,00 Quadrangle: PULLMAN District: CENTRAL County: DODDRIDGE Latitude: 4600 Feet South of 39 Deg. 15 Min. 0 Sec. Longitude: 2610 Feet West of 80 Deg. 30 Min. 0 Sec. Casing Used Left Cement Company: **KEY OIL COMPANY** & in Fill Up ln 22 Garton Plaza **Tubing** Drilling Well Cu. Ft. WESTON, WV 26452-0000 Size Agent: JAN E. CHAPMAN Inspector: MIKE UNDERWOOD 11 3/4" 125.95' 125.95 100 sks Permit Issued: 11/12/97 To Well Work Commenced: <u>12/14/97</u> Surface Well Work Completed: 12/23/97 Verbal Plugging 8 5/8" 1897.35' 1897.35' 560 sks Permission granted on: To Rotary X Cable Rig Surface Total Depth (feet) Fresh water depths (ft) 30', 194', 1049' 4 1/2" 5404' 5404' 470 sks Salt water depths (ft) NONE 2 3/8" 5272' Is coal being mined in area (Y/N)?N Coal Depths (ft): NONE **OPEN FLOW DATA** Warren 3394' - 3494' Balltown 3861' - 4520' Riley 4564' - 4646' Benson 4988' - 5016' Elk 5184' - 5194' Producing formation Alexander Pay zone depth (ft) 5232' - 5316' Initial open flow ___15 MCF / d Oil: Initial open flow 0 Bbl / d Final open flow 1,508 MCF / d Oil: Final open flow show Bbl / d Time of open flow between initial and final tests N/A Hours Static rock pressure 1825 psig (surface pressure) after Second producing formation Commingled Pay zone depth (ft) Initial open flow MCF/d Oil: Initial open flow Bbl / d MCF / d Oil: Final open flow_ Final open flow Bbl / d Time of open flow between initial and final tests Hours _ 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: KEX OIL COMPANY

Date: ____ April 1, 1998

PRESIDENT

(1A) 0 1 1986

Burgess #2 (47-017-04413) Four Stage Foam Frac - Halliburton

1 st Stage:	Alexander (9 holes) (5292.50' to 5305') Elk (3 holes) (5188' to 5188.50')	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 812 bbls foam.
2 nd Stage:	Benson (2 holes) (4995.50' to 5012.75')	60 Quality Foam. 750 gal. 15% HCL. 40,000# 20/40 sand, 417,000 SCF N2, 617 bbls foam.
3 rd Stage:	Riley (14 holes) (4587.25' to 4625.50')	60 Quality Foam. 750 gal 15% HCL. 5,000# 80/100 sand, 45,000# 20/40 sand, 502,000 SCF N2, 749 bbls foam.
4 th Stage:	Balltown (10 holes) (3886.50' to 4388.50') Warren (4 holes) (3458' to 3472')	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

Sand	0	30	
Sand & Shale	30	85	
Red Rock & Shale	85	110	
Sand	110	155	1/4" H ² O @ 80'
Sand & Shale & Red Rock	155	254	Hole damp @ 200'
Sand	254	290	
Sand & Shale & Red Rock	290	588	
Sand & Shale	588	1478	
Red Rock & Shale	1478	1509	
Sand & Shale	1509	1604	
Sand	1604	1670	
Sand & Shale	1670	2022	
Little Lime	2022	2040	
Shale	2040	2055	
Big Lime	2055	2135	
Big Injun	2135	2163	
Shale	2163	2359	GAS CHECKS
Weir	2359	2490	1957' - No Show
Shale	2490	2542	2507' - No Show
Berea	2542	2551	3003' - No Show
Shale & Sand	2551	3394	3714' - No Show
Warren	3394	3494	4480' - No Show
Shale	3494	3861	4852' -No Show
Balltown	3861	4520	5412' - 2/10 ^{ths} - 1" w/H ² O
Shale	4520	4564	TD - 2/10 ^{ths} - 1" w/H ² O
Riley	4564	4646	
Sand & Shale	4646	4912	
Third Riley	4912	4960	
Shale	4960	4988	
Benson	4988	5000	
Sand & Shale	5000	5184	
Upper Elk	5184	5194	
Shale	5194	5232	
Alexander	5232	5318	
Shale	5318	5721	
T.D.	5721		

	DIVISI	ON OF ENV	TRONMENTA WELL WORL	L PROTECT	ION, OFFICE APPLICATION	OF OIL AND	
WELL WORK PERMIT APPLICATION 017 4413 1) Well Operator: KEY OIL COMPANY 25650 (1) 562							
2)	Operator'					3) Ele	vation: 1061
	Well type		-			Dogwood 11/1	, 197
5)	werr cibe				<u>`</u>	Expers 11/1	2/99
2456		(b) II	t Gas: Pi	Deeb ogncrrou	_/	ound Storage Shallow	
	Proposed	Target Fo	ormation(s	: ALEXAN	DER 435	Nine	10 10 10 10 10 10 10 10 10 10 10 10 10 1
	Proposed	Total De	pth: 5 <u>6</u>	00	feet	D.	W 3 1997
	Approximate fresh water strata depths: 80' Approximate salt water depths: 4751						
8)	Approxima	ate salt	water dep	ths: 17	'51 <u>'</u>		Gas
9)							
10)	Does land	i contain	coal sea	ms tribut	ary to acti	ive mine? Ye	es/ No_X/
11)	Proposed	Well Wor	k:_ DRILL	STIMULATE	PRODUCE	And Woll	
12)					7	គឺ	
CASING AND TUBING PROGRAM							
			31 2231				
16/12/	2	SE	See a Se (en Are)		FOOTAGE I	NUSEVALS	<u> सब्धावर्गम</u>
TYPE	2	Size			FOOTAGE I	Left in	Fill-up (cu. ft.)
	ductor		्रेट(केक्ट्रक् (क ्रेशक	CONS Weight	FOOTAGE 1	Left in	Fill-up
Cont			Grade	CONS Weight	FOOTAGE 1	Left in well	Fill-up (cu. ft.)
Conc	luctor sh Water	Size	्रेट(केक्ट्रक् (क ्रेशक	Weight per ft.	FOOTAGE I	Left in well	Fill-up (cu. ft.) O SKS. O SURFACE
Conc	luctor sh Water	Size	Grade	Weight per ft.	FOOTAGE I	Left in well	Fill-up (cu. ft.) SKS. O SKS. O SURFACE 3809/14/1/20
Cond Free Coal	ductor sh Water	Size	Grade ERW	Weight per ft.	For drilling	132 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fill-up (cu. ft.) BCSBBIS 0 SKS. 0 SURFACE 38CRBIS
Cons Free Coa Int	ductor sh Water l ermediate	11 3/4 8 5/8	Grade ERW ERW	Weight per ft.	For drilling	132 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fill-up (cu. ft.) O SKS. O SURFACE 38 CSPIMILA O5 SKS.
Cond Free Coal Int	ductor sh Water l ermediate duction	Size 11 3/4 8 5/8 4 1/2	Grade ERW ERW	Weight per ft.	For drilling	132 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fill-up (cu. ft.) O SKS. O SURFACE 38 CSPIMILA O5 SKS.
Cond Free Coal Int Pro Tub	ductor sh Water L ermediate duction ing ers KERS : Kin	5ize 11 3/4 8 5/8 4 1/2 1.5	Grade ERW ERW	Weight per ft.	For drilling	132 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fill-up (cu. ft.) O SKS. O SURFACE 38 CSPIMILA O5 SKS.
Cond Free Coal Int Pro Tub	ductor sh Water L ermediate duction ing ers KERS : Kin	11 3/4 8 5/8 4 1/2	Grade ERW ERW	Weight per ft.	For drilling	132 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fill-up (cu. ft.) O SKS. O SURFACE 38 CSPIMILA O5 SKS.
Cond Free Coa Int Pro Tub	ductor sh Water L ermediate duction ing ers KERS : Kin	11 3/4 8 5/8 4 1/2 1.5 1.5 1.5	Grade ERW J-55	Weight per ft. 42 23 10.5	For drilling	132 7 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fill-up (cu. ft.) O SKS. O SURFACE 38 CSPIMILA O5 SKS.
Cond Free Coal Int Pro Tub	iuctor sh Water l ermediate duction ing ers KERS : Kir Sir Der	11 3/4 8 5/8 4 1/2 1.5 1.5 1.5	Grade ERW ERW J-55	Weight per ft. 42 23 10.5	For drilling 132 1880 and Gas Use	132 7 7 1 1880 5 5 1 1880 5 5 1 1880 6 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Fill-up (cu. ft.) O SKS. O SURFACE 38 CSPIMILA O5 SKS.

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

) Well Oper	ator:	KET OF C					
) Operator'	s Well No	umber:	BURGESS #2		3) E	levation: 1061'	
) Well type	e: (a) O:	il <u>X</u> / d	or Gas	<u>x</u> _/			
	(b) I:	f Gas: Pi	roduction Deep	X / Undergr	Shall	.ow_X_/	
i) Proposed	Target F	ormation(: ALEXAN	DER	_ Piec		
) Proposed	Proposed Target Formation(s): ALEXANDER Proposed Total Depth: 5600 feet Approximate fresh water strata depths: 80'						
7) Approxima	Approximate salt water depths: 1751' Approximate coal seam depths: N/A						
B) Approxim	ate salt	water dep	ths:	751'	Om Pernie	1397	
9) Approxim	ate coal	seam dept	hs:	N/A	" C1"	<u></u>	
10) Does lan	d contain	coal sea	ms tribut			Yes/ No_X/	
11) Proposed	Well Wor	ik: DRILL	STIMULATE	PRODUCE	•		
12}						-	
		CASTRIC	AND TUBI	NG PROGRAM			
STERMONICAL ROOMAGE INVESTIGATION (HEALTH)							
TYPE		चेड ्कक्ष्म् (स .५५	ONS	FOOTAGE I	AANAMANA S	(M2\(\)12\(\)24	
4¥442			Weight	For drilling	Left in	Fill-up	
Conductor		Grade	Weight	For	Left in	Fill-up (cu. ft.)	
			Weight	For	Left in	Fill-up	
Conductor	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)	
Conductor Fresh Water	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.) 70 SKS. TO SURFACE	
Conductor Fresh Water Coal	Size	Grade ERW	Weight per ft.	For drilling	Left in well	70 SKS. TO SURFACE V.K. Mchucl	
Conductor Fresh Water Coal Intermediate	11 3/4 8 5/8	Grade ERW ERW	Weight per ft. 42	For drilling	Left in well	70 SKS. TO SURFACE O.K. Mchuck 505 SKS. TO SURFACE	
Conductor Fresh Water Coal Intermediate Production	11 3/4 8 5/8 4 1/2	Grade ERW ERW	Weight per ft. 42	For drilling	Left in well	70 SKS. TO SURFACE O.K. Mchuck 505 SKS. TO SURFACE	
Conductor Fresh Water Coal Intermediate Production Tubing Liners PACKERS: Kin	11 3/4 8 5/8 4 1/2 1.5	Grade ERW ERW	Weight per ft. 42	For drilling	Left in well	70 SKS. TO SURFACE O.K. Mchuck 505 SKS. TO SURFACE	
Conductor Fresh Water Coal Intermediate Production Tubing Liners PACKERS: Kin	11 3/4 8 5/8 4 1/2	Grade ERW ERW	Weight per ft. 42	For drilling	Left in well	70 SKS. TO SURFACE O.K. Mchuck 505 SKS. TO SURFACE	
Conductor Fresh Water Coal Intermediate Production Tubing Liners PACKERS: Kin	8 5/8 8 5/8 4 1/2 1.5 ad_ zes_ pths set	ERW ERW J-55	Weight per ft. 42 23 10.5	For drilling	132 \ 1880 \ 5500	70 SKS. TO SURFACE O.K. Mchuck 505 SKS. TO SURFACE	
Conductor Fresh Water Coal Intermediate Production Tubing Liners PACKERS: Kingsing Derivation	8 5/8 8 5/8 4 1/2 1.5 1.5 paid:	ERW ERW J-55 For Office	42 23 10.5 of Oil	132 1880 1 Re	132 1880 5500 Only lamation	70 SKS. TO SURFACE O.K. Mchuck 505 SKS. TO SURFACE	
Conductor Fresh Water Coal Intermediate Production Tubing Liners PACKERS: King	8 5/8 8 5/8 4 1/2 1.5 1.5 paid:	ERW ERW J-55 For Office	42 23 10.5 of Oil	132 1880 1 Re	132 1880 5500 Only lamation	70 SKS. TO SURFACE SURFACE SURFACE SURFACE 490 SKS.	

Page 1 of Form WW2-A (6/94) File Copy	1) Date: 0CTOBER 28, 1997 2) Operator's well number BURGESS #2 3) API Well No: 47 -017 - 4413
	State County Permit
DIVISION OF ENVI OFFICE	NIA - BUREAU OF ENVIRONMENT IRONMENTAL PROTECTION OF OIL AND GAS
4) Surface Owner(s) to be served: 5) (a) Name WILLIAM P RRITTON Address RT 1 ROX 205 WEST UNION, WV 26456 (b) Name Address	(b) Coal Owner(s) with Declaration Name

(c) Name Address

6)

Inspector MIKE UNDERWOOD

Address RT. 2 BOX 135

right to extract oil and gas OR

the above named parties, by:

is true, accurate, and complete.

My commission expires

possibility of fine and imprisonment.

Virginia (see page 2)

SALEM, WV 26426 Telephone (304)- 782-1043

Personal Service (Affidavit attached)

conditions of any permit issued under this application.

Certified Mail (Postmarked postal receipt attached) Publication (Notice of Publication attached)

Well Operator

By:

lts:

Subscribed and sworn before me this 28THday of OCTOBER

MARCH 24.

Name Address

Name Address

Name

Address

TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

this notice and application, a location plat, and accompanying documents pages 1 through ____ on

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

PRESIDEN

WESTON, WV 264 Telephone 304-269-7102

Included is the lease or leases or other continuing contract or contracts by which I hold the

Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and

I am aware that there are significant penalties for submitting false information, including the

WV 26452

10 Pro-10 1-

22 GARTON PLAZA

COMPANY

19 97

OFFICIAL SEAL MOTARY PUBLICNOTARY PUBLIC

KAREN COOK ROUTE 2, BOX 1 IANE LEW, WV 26378 My Commission Expires Mar. 24, 2003

(c) Coal Lessee with Declaration