

State of West Virginia DEPARTMENT OF ENERGY Division of Oil and Gas

Well Operator's Report of Well Work

Farm name:	KNIGHT, ANG	CIL ETAI	.i. o	Operator	Well No.: V	7. KUCK #2	2
LOCATION:	Elevation:	1166.00	Quadi	angle: Pi	ENNSBORO		
	Latitude:	13110 E	reet Sout	th of 39	ounty: DODDI Deg. 17Min Deg. 52 Min	. 30 Sec.	
GLE	. BOX N NVILLE, WV	26351-0		&	Used in		Fill Up
Agent: DONA Inspector: N				Size			
Permit Issue Well work Co Well work Co	ed: ommenced:	10/11/8 10/19/89		8-5/8"	 1316_90'	 1316.90'	C.T.S.
Verbal Pluge Permission	ging granted on:	11/06/	89	4-1/2"	5421.40	5421.40	600
Rotary χ Total Depth Fresh water	,	Rig 5,491 50',	0 ' 1240 '	1-1/2"		5274.10	
Salt water o			nė		ACELY		
Is coal bein Coal Depths	ng mined in (ft): Nor	area () ne	(N)? <u>N</u>	0	DEC 081		-
OPEN FLOW DA			Warren (C	Commingled)	o ac actoma them them	LLENGY	5314.5'-
Produci	ing formation	on Alexan	der/Bensor	ı. Rilev.	Pav zone o	depth (ft) 3494 ነ

Warren (Commingled) DEPARTMENT 5314.5'
Producing formation Alexander/Benson, Riley, Pay zone depth (ft) 3494'

Gas: Initial open flow 1330 MCF/d Oil: Initial open flow N/A Bbl/d Final open flow 930 MCF/d Final open flow N/A Bbl/d Time of open flow between initial and final tests 15 Hours

Static rock Pressure 1450 psig (surface pressure) after 24 Hours

Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d 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: EASTERN AMERICAN ENERGY CORP.

Rich Heffelfinger

By: Vice President - Regional Operations

Date: December 5, 1989

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

3-STAGE FOAM FRAC

(i i)

STAGE 1: Alexander/Benson - 11 holes (5314.5'-5022.5') Breakdown 1370 psi, 60 Quality foam, 30 lbs/1000 gals Gel, 30,000 lbs 20/40 sand, 500 gals 15% HCl acid and 408,000 scf of $\rm N_2$

STAGE 2: Riley - 13 holes (4662'-4625.5') Breakdown 1330 psi, 75 Quality foam, 30 lbs/1000 gals Gel, 30,000 lbs 20/40 sand, 500 gals 15% HCl acid and 613,000 scf of N $_2$

STAGE 3: Warren - 13 holes (3537'-3494') Breakdown 1415 psi, 75 Quality foam, 30 lbs/1000 gals Gel, 20,200 lbs 20/40 sand, 650 gals 28% HCl acid and 487,000 scf of $\rm N_2$

WELL LOG

			REMARKS
FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	
dativari svaravi engali			and salt water, coal, oil and gas
Soil	0	20	Hole wet @ 50' (1/2" water)
Sand and Shale	20	110	1/2" stream water @ 1240'
Sand and Shale and Red Rock	110	220	1/2 Stiedm Water & 1240
Shale and Red Rock	220	256	
Sand and Shale	256	346	GAS CHECKS:
Red Rock	346	360	
Shale and Red Rock	360	405	2137° - No show
Shale	405	460	2201' - No show
Red Rock	460 .	481	2359' - No show
Red Rock; and Shale	481	525	2517' - No show
Sand and Shale	525	648	3022' - No show
Red Rock and Shale	648	716	3400' - No show
Sand and Shale	716	905	3557' - No show
Red Rock	905	1000	4001' - No show
Sand and Shale	1000	1080	4500' - Odow
Shale and Red Rock	1080	1240	4732' - 4/10 thru 1" w/water ,
Sand and Shale	1240	1648	4923' - 4/10 thru 1" w/water
Sand and Shale	1648	2035	5048' - No show
Little Lime	2035	2044	5205' - No show
Sand and Shale	2044	2072	5363' - 2/10 thru 1" w/water
Big Lime	2072	2119	D.C. $-4/10$ thru 1" w/water
Sand and Shale	2119	2218	
Shale w/Tr. Sand	2218	2402	•
Weir	2402	2476	
Siltstone	2476	2528	
Shale	2528	2580	
Berea	2580	2585	
Shale w/Tr. Sand	2585	3486	3/15/200
Warren	3486	3545	
Shale w/Tr. Sand	3545	4608	DEC CE MES CE
Riley	4608	4681	*
Shale and Sand	4681	5020	E. Algori De Compaga
Benson	5020	5058	DEPARTMENT
Shale w/Tr. Sand	5058	5271	
Alexander	5271	5345	
Shale	5345	5490 T.D.	
5		1	

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FORM WW-2B

STATE OF WEST VIRGINIA

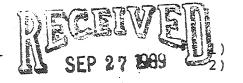
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

WELL WORK PERMIT APPLICATION

	-	WELL WO	ORK PERMIT	APPLICATION OF OI	L AND GAS		
l) Well Ope	erator:		7~^			0 (1) 538	
			•			evation: 1166'	
			or Gas			and a mount on	
					ound Storag	1 2	
			Deep	P	Shallo	W XX/	
	Alexander						
6) Proposed	Proposed Total Depth: 5440 feet						
7) Approxim	mate fres	h water s	strata dept	hs: <u>167°, 25</u>	7°, 517°		
8) Approxim	mate salt	water de	epths:	XXX 16	89"		
9) Approxim) Approximate coal seam depths: None						
10) Does lar	nd contai	n coal se	ams tribut	ary to acti	ve mine? Y	es/ No_XX_/	
				ete new well.			
12)		•					
		CASIN	IG AND TUBI	NG PROGRAM			
TYPE	S	PECIFICAT	TONS	FOOTAGE IN	TERVALS	CEMENT	
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)	
Conductor	11 "	F-25	37.5	30°	70 400 400 400 400		
Fresh Water	8 5/8"	J-55	20.0	1300*	1300'	C.T.S. 38CSR18-11_3	
Coal						38CSR18-11.2.2	
<u>Intermediate</u>							
Production	4 1/2"	J-55	10.5	5355°	. 5355°	38CSR18-11.1	
Tubing	1 1/2"	11-40	2.75				
Liners						VALENCE OF	
PACKERS : Kin	ıd						
	es ths set				44% C	SEP 27 1989	
		or Diviso	n of 0:1 -	nd Gas Use	DIVI	SION OF OIL & GAS RTMENT OF ENERG	
` Fee(s) p		<i>11</i>					
Aplat (71	11	ork Permit	1-01	amation Fund	WPCP	
A LIAC (CD MM-3 (WW-	2B U B	ond Blank	Type	_ Agent	

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DIVISION OF OIL & GAS 3) DEPARTMENT OF ENERGY

Date	:Se	eptembe	er 6,	1989		
Oper	ator	's we]	ll n	umber		
V. Ku	ck #2	- A1	DODO	01402		
API	Well	No:	47	- 017	-	3751
		Stat	te -	County	_	Permit

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

Surface Owner(s) to be served: 5) (a) Coal Operator:

(a) Name Ancil Knight, et al Name None

	Address Rt. 1	Address
	Greenwood, WV 26360	
	(b) Name	(b) Coal Owner(s) with Declaration
	Address	Name
		Address
	(c) Name	
	Address	Name
	Audiess	
		Address
<i>c</i> \	Turner of Males Hederman	
6)	Inspector Mike Underwood	(c) Coal Lessee with Declaration
	Address Rt. 2, Box 135	Name
	Salem, WV 26426	Address
	Telephone (304)- <u>782-1043</u>	
		•
	TO THE PERSON(S) NAMED AB	OVE TAKE NOTICE THAT:
		· · · · · · · · · · · · · · · · · · ·
	Included is the lease or leases or	other continuing contract or
contr	cacts by which I hold the right to	
	Included is the information requir	
Sect.	ion 8(d) of the Code of West Virgin	in /see mage 2)
Sect.		
7 1		hapter 22B of the West Virginia Code
	ve served copies of this notice and	
accor	mpanying documents pages 1 through	
	Personal Service (Affidavit a	ttached)
	XX Certified Mail (Postmarked po	stal receipt attached)
	Publication (Notice of Public	
	The side with this will also also also do not the side of the side	
	I have read and understand Chapter	22B and 38 CSR 11-18, and I agree
to th	ne terms and conditions of any perm	it issued under this application
	T correction and conditions of any perm	A T barra managed this application.
٠. ٠.	i certify under penalty or law tha	t I have personally examined and am
fami.	liar with the information submitted	on this application form and all
atta	chments, and that based on my inqui	ry of those individuals immediately
respo	onsible for obtaining the informati	on, I believe that the information
	rue, accurate, and complete.	•
		ant penalties for submitting false
info	rmation, including the possibility	
		Eastern American Energy Corporation
	-	
	By: John M. Pa	
	Its: <u>Designated</u>	
	Address <u>P.O. B</u>	
		lle, WV 26351
		<u>104) 462-5781</u>
Subs	cribed and sworn before me this 18	theday of <u>September</u> , 1989
	\cap \circ	
	La Coming	e Bowe Notary Public
My co	ommission expires July 2 /	996
	The state of the s	Land Committee to the Committee of the C
	V	