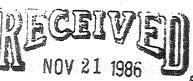


IV-35 (Rev 8-81)



DIVISION OF OIL & GAS DEPARTMENT OF ENERGY

Sinds of West Birginia
Pepartment of Mines
Gil und Gas Phision

Date Nov Operator	vember 12, 1986
	CNGD 1092
farm_	Williams
API No.	47 017 3421F

WELL OPERATOR'S REPORT

OF

DRITI.ING	FRACTURING	AND/OR	STIMILATING,	OR	PHYSICAL	CHANGE

OCNTION: Elevation: 904 Watershed_	<u>Cabin Run</u>			
District: Central County Doddr			<u>Oxfo</u>	rd
	: 1			
OMPANY CNG Development Company P. O. Box 15746 Pittsburgh PA 15244			7.66	Cement
	Caşing	Used in		fill up Cu. ft.
PSIGNATED AGENT Gary A. Nicholas	Tubing	Drilling	IN WEIT	Cu. Ic.
DDRESS Rt. 2 Box 698 Bridgeport. WV 26330	Size 20-16		verlands-vergussee	
URFACE OWNER D. B Adams	Cond.			
DDRESS West Union. WV 26456	13-10"			<u> </u>
MIERAL RIGHTS OWNER Luella Smith Hrs. et al	9 5/8			
ADDRESS	8 5/8			
OIL AND GAS INSPECTOR FOR THIS WORK	7			
Rt. 2 Box 114 ke Underwood ADDRESS Salem. WV 26426	5 1/2			
PERMIT ISSUED August 21, 1986	4 1/2			
ORTILING COMMENCED 8/21/86	3			
DRILLING COMPLETED 3/21/86	2 1-3	2184	2184	
IF APPLICABLE: PLUGGING OF DRY HOLE ON	a 1 2	2104		
CONTINUOUS PROGRESSION FROM DRILLING OR	Liners			
REWORKING. VERBAL PERMISSION OBTAINED ON	us eđ			
GEOLOGICAL TARGET FORMATION		Dep	oth	fee
	Potary		4.00.000	· ·
Depth of completed well feet; Water strata depth: Fresh feet;				
Coal seam depths:				e area?
Coal Seam depths:				
OPEN FLOW DATA			2202-1	6
OPEN FLOW DATA Producing formation Weir	Pa	ry zone dep	oth 2230-4	<u>ž</u> fee
Gas: Initial open flow Mcf/d	Oil: Ir	ncial obei	J ITOM	BOL/
Final open flow 87 Mcf/d	Fi	inal open	flow	Bbl/
Time of open flow between ini				
Static rock pressure 350 psig(surfa	ce measure	ament) afti	er 24 ho	ours shut i
(If applicable due to multiple completio				
Second producing formation	Pa	ay zone de	pth	fee
Gas: Initial open flow Mcf/d	Oil: I	nitial ope	n flow	Bbl/
Final open flowMcf/d	Oil: F	inal open	flow	Bbl
Time of open flow between ini	tial and	final test	s <u>ì</u>	wirs
Static rock pressurepsig(surface				

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

Set Alpha Solid Plug @ 4360' KB, Perforated Weir 2202-16, 14 holes, .39" HSC,

2230-42, 14 holes, .39" HSC

Halliburton 70Q Foam Frac - Breakdown 3200, Ave HHP 2260, Ave Rate 30, Ave Pres. 2900, Max Tr Pres. 3200, Total Acid 750 gal MOD 202, Ballout w/60 balls, Total Sand 8,000# 80/100 150,000 20/40, Max Conc. 7#/gal, Total Fluid (Clean fluid) 452 bbl, SL Fluid (Clean Fluid) 308 bbl, ISIP 1800 psi, 5 min 1600 psi, Total Nit. 845,000 SCF.

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOINOM FEET	REMARKS Including indication of all fres and salt water, coal, oil and ga
Sd., Sh. & RR	0	1880	Damp at 845'
Lime Shale	1880	1905	
	1905	2035	
Lime & Injun Sh. & Sd.	2035	5350	
LOG TOPS			
See attached sheet			
			and the state of t
			egyeti na ak agyet ka kiji liten gelê karena
		niga an an an asilasi 14 j	

(Attach separate sheets as necessary)

	CNG DI	EVELOPMENT	COMPANY	-
400	Well	Operator	1000	
•	· ·	4.1		
ā	2À 3	vary v		,986
Sind of	Date:	November	12, 1986	100

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 that, encountered in the drilling of a well."

(Rev 8-81)



OIL & GAS DIV. OIL & GAS DIV. OPERATOR'S DEPT. OF MINESSTRATE of Hest Hirginia Well No. CNGD WN 1092 Bepartment of Mines

Date April 23, 1985 Operator's API No. 47 - 017 -

198

Bil und Cas Bivision

WELL OPERATOR'S REPORT

OF DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

CATION: Elevation: 904' Watershed_	Cabin K	un	0 - 5	7 5 9
District: Central County Doddri	dge	Quadrangle	OXIOIU	. 1 . J
		,		
OMPANY CNG DEVELOPMENT COMPANY DDRESS 1 Park Ridge Center, P.O. Box 15746 Pitrsburgh, PA 15244	Cacina	Used in	Teft	Cement
ESIGNATED AGENT Gary A. Nicholas	Casing Tubing		1	fill up Cu. ft.
DDRESS Rt. 2 Box 698 Bridgeport, WV 26330	Size	12222007		
URFACE OWNER D. B. Adams	20-16			
DDRESS Rt. 1, West Union, WV 26456	Cond.		7.7	T- C
INERAL RIGHTS OWNER Luella Smith, Hrs. et al	21-32-44 2-2-2-2-4	161	161	To Surf.
DDRESS	9 5/8	2003	2022	To Surf.
IL AND GAS INSPECTOR FOR THIS WORK	8 5/8	2023	2023	I TO DATE.
ke Underwood ADDRESS Rt. 2 Box 114, Salem, WV	7			
ERMIT ISSUED 3-21-85	5 1/2			288 This c
PRILLING COMMENCED 4-1-85	4 1/2	5303	5303	400 50/30
RILLING COMPLETED 4-8-85	2			
F APPLICABLE: PLUGGING OF DRY HOLE ON	4			
CONTINUOUS PROGRESSION FROM DRILLING OR	Liners			
REWORKING. VERBAL PERMISSION OBTAINED	used			
TO SECURIO AND COMPANY OF THE PROPERTY OF THE		Dej	oth 535	io feet
FOLOGICAL TARGET FORMATION Alexander Depth of completed well 5350 feet				
Water strata depth: Fresh 845 feet;		heina mi	- ned in th	e area? <u>No</u>
Coal seam depths:		. 202.5	attack and confidence of	
OPEN FLOW DATA Alexander Renson		-	5101 4668	- 5153 - 4687
OPEN FLOW DATA Alexander Benson Producing formation Riley	Pa	y zone de	pen <u>(4439</u>	- 4443 Lee
case Initial open flow Mcf/d	Oil: Ir	utiai ope	U ITOM	
Final open flow 474 Mcf/d				
Time of open flow between init	ial and s	inal test	S 4 D	ours
Static rock pressure 300 psig(surface		ment) aft	er_i_nc	ours snut 1
(If applicable due to multiple completion	7)		. 5	for
Second producing formation	Pa	ay zone de	pun	DP 1 GE
Gas: Initial open flow Mcf/d	Oil: L	nitial ope	n IIOW	BDI/
Final open flow Mcf/d				
Time of open flow between ini	tial and	final test	.sì	nours May

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

Superior Perforated Alexander 5101 - 5153; 13 holes (.39)

Benson 4684 - 4687 (3) 4668 - 4670 (3)

Riley 4439 - 4443 (8) 14 holes; (.39)

WELL LOG

FORMATION COLOR HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
			dia sait water, our, or an ga
Sd, Sh & RR	o	1880	Damp at 845'
Lime Shale	1880	1905	
Lime & Injun	1905	2035	
Sh & Sd	2035	5350	
		नक.	
LOG TOPS		ELLOTA.	
See attached Sheet			
		De states de la company de	
		or and the second states of th	
		-	
		-	
•			

(Attach separate sheets as necessary)

CNG DEVELOPMENT COMPANY	
Well Operator	
1. 1.	
Die Man Alle Was	
DY: 2 JONE HI JOHN CO.	
Dates A 1 22 1095	S. S
Date: April 23, 1903	

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 coal, encountered in the drilling of a well."

LOG TOPS		
Big Injun		2033
Weir	2202	2327
Sunberry Sh.	2373	2391
Berea	2391	2395
50'	2504	2548
30 °	2548	2592
Gordon Stray	2592	2627
Gordon	2665	2750
Fourth	2760	2839
Fifth	2839	2903
Warren	3248	3328
Spcl St	3556	3618
Spcl	3805	3855
Bltn	3972	4292
Bdfd	4320	4510
Riley	4667	4830
Benson	4830	4896
Leopold	4990	5642
Alexander	5082	5165

FORM WW-	2(B)	FILE C	OPY	Cara Cara	EFE
(Obverse) 	A I		11/2	18/8
7/85	10/12			4 (=	ILLE
	18/12	1111	3.0	1986	



1)	Date: Jul	y 14		, 1	<u> 86 </u>
	Operator's Well No.	109	2	W:	
3)	API Well No.	47	-017-3421-	F	
٠,		State	County		Permit

DIVISION OF OIL & GAS STATE OF WEST VIRGINIA

DIVISION OF ENERGY, OIL AND GAS DIVISION

	DEPART	IMENIC	,,	APPL	ICATIO	N FOR A WEL	L WORK PERMIT		• • •	
4) WELL	TYPE: A			sX_			1			,
,,	В ((If "Gas", I	Production	X_	/	Underground:	storage	_/ Deep	/ Shallow _	_X/)
5) LOCA		levation: _				Watershed:	Cabin Run	, , , , , , , , , , , , , , , , , , ,		
-,	D	istrict:	Centra	a1 142		County:	oddridge	Quadrangle:	0xford	525
6) WELI	OPERATOR	NG Dev	elopme	nt Co	CODE:	10110	7) DESIGNATED	AGENT Gary Nic	cholas	:
Ad	dressc/o_Pa	aul W.	Garret	t, P.O	_ Box	15746	Address	Crosswind Co	orporate F	
		ittsbur					Rt. 2, Bo	x 698, Bridge	eport, WV	26330
8) OIL &	GAS INSPE	CTOR TO	BE NOTIF	FIED			9) DRILLING CO			
Name	M:	ike Und	erwood					Sam Jack Dri	-	
Ad		oute 2,						P.O. Box 48		
		alem, W						Buckhannon, J		
10) PROP	OSED WELL	WORK:	Drill		Drill	deeper	/ Redrill	/ Stimulate	_X/	
,			Plug of	f old form	nation	/ Perfor	ate new formation_	X -		
							See attache	d sheet		
11) GEOI	OGICAL TA	RGET FOR	MATION	We	<u>ir 3</u>	<u> </u>		The second secon		
12) E	stimated depth	of complet	ed well,	23	24	feet		•		
13) A	pproximate tr	ata depths:	Fresh,			feet; sal)	feet.		
						Is co	al being mined in the	area? Yes	/ No	
15) CASI	NG AND TUI	BING PRO	GRAM					,		
CASING OF		SPEC	CIFICATIONS Weight	5	9	FOOTAGE	INTERVALS	CEMENT FILL-UP OR SACKS	PACKE	RS
TUBING TY	Size	Grade	per ft.	New U	sed	For drilling	Left in well	(Cubic feet)		
Conductor	113/4	4					161	CT5	Kinds	
Fresh water	ر کمتر ا	,			_		`			
Coal	82/8	3					2023	CTS	Sizes	
Intermediate			1					200 TAIK		
Production	4-2						5303	400 50/50	Depths set	
Tubing							<u> </u>	/		
Line.s									Perforations:	
									Тор	Bottom
	:			<u> </u>						
			<u> </u>		1				ll	
						FEIGE HEE	ONITY			
						FFICE USE				
			W)		RILLING PI	SKIVIII			
Permit nun	iher	47-017	-3421-1	,				Aı	ugust 21	19 86
								Dat		
This permi	t covering the	well operat	or and we	ll location	shown b	elow is evidence	of permission grante	ed to drill in accordan	ice with the pert	inent legal re-
quirements	subject to the	conditions	contained	herein and	on the r	everse nereoi No	otification must be given in addition, the we	ven to the District Oil ell operator or his con	and Gas Inspect stractor shall not	or, (Refer to lify the proper
district oil	and gas inspec	tor 24 hou	rs before a	ctual perm	itted wor	k has commend	ed.)	•		and the second
								o any modifications a	nd conditions sp	secified on the
reverse her					,					
Permit exp	ires	August	21, 1	988		unless we	ll work is commenced	prior to that date and	prosecuted with	due diligence.
									•	
D			Plat:	Casip	F	ee WPCI	S&E	Other		- + + f
Bond	Ager		Mar.		٦		Mo		/	:
	Ar			<u> </u>	146	011 10	<u> </u>		/	
			-		13	7		11/	\supset	
							UT 1/1		-	
NOTE: K	Ceep one copy	of this peri	mit posted	at the dril	ling locat	ion.	jrector, Div	ision of Oil	and Gas	File
		-	- (ha	no side of t	ho A DDI	ICANT'S ONE	V for instructions to	the well operator		



1)		XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX							
2)	Operator's Well No.	109							
3)	API Well No.	47 -	017	- 342	1				
		State		County	Permit				

County

Permit

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

APPLICATION FOR A WELL WORK PERMIT

4) W	VELL TYP	PE: A O	il	/ Ga		Χ /									
.,			f ''Gas'', I				/ 11	nderoround	: storage	e <u> </u>	_/ Deep	/ Shallow	_X		
5) L	OCATIO	•	vation: _				w	aterched.	Ci	abin Run		_/ Shanow			
٠, ي	0013 - 101		strict:					ounty:			Quadrangle:(Oxford 7	51		
6) 17	VELL ODE					Compa			7) F	DESIGNATED	AGENT Mr. Gal	rv Nichol	30		
0) 11			aul W.						/) =		Crosswind Con				
	1,544,611,620	•			-		<u> </u>	<i>U</i> 70							
8) O	Pittsburgh, PA 15244 Rt. 2, Box 698, Bridgeport, WV 263 OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:											17 20330			
,											Sam Jack Drilling Company				
1.4	Address		. 2, B				· · · · · · · · · · · · · · · · · · ·			Address	P. O. Box 48		<u></u>		
	ridal css		lem. W					****		Aduress	Buckhannon,				
10) 7	202002			Drill					,		-	¥			
10) P	ROPUSE	D WELL	WORK:			_/ Drill		eper		Redrill	/ Stimulate				
				•		formation		1 . 1 2 . 1 2	rate in	en Tormation					
11) 0	TOLOGI	~ 4 7 7 4 7	~~~ ~~ ~			cnange r Alexai		specify)	100						
			GET FOR			53					3 				
		•	of complete			210	-	fee	(2605 water	0 572 46313					
			a depths:	-)		F.E.B.		feet.		v		
			l seam dep					Is c	oal beir	ng mined in the	area? Yes	/ No_	X/		
,		" "ND IOBI	NG PROC		_	:6	ıı	(Q)	1 2 0	AS DEMON	M CEMENT FILL-UP	â.			
CASIN TUBIN	NG OR NG TYPE		SPEC	IFICATIONS Weight	9 8			FOOTAGE	tnterv 17	ALS DIE	CEMENT FILL-UP	PACI	KERS		
		Size	Grade	per ft.	New	Used	F	or beithing	1 .	Left in well . ; i	FOR SACKS				
Conduct	101	77 0/		-			1-2		17			Kinds			
Fresh wa	ater	11-3/	4 H-40	42	X		12) 40	12	7 40	To surface	<u>By Ruïe</u>	15.05		
Coal		0 5 (0	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \		<u> </u>	-		£ 0.0 ¢				Sizes			
Intermed	diate	8-5/8	·	-	X	-	<u> </u>	2000		2000	To surface	<u>By Rule</u>	15.05		
Producti	ion	4-1/2		10.5	X_	-		5350		5350	200-400 sks				
Tubing		1-1/2	CN-55	2.75	X_							By Rule	15.01		
Liners			<u> </u>	ļ								Perforations:			
				ļ	 							Тор	Bottom		
						-									
			<u> </u>	<u> </u>	<u> </u>		L								
		Maria de la companya della companya de la companya de la companya della companya								7. A					
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				***************************************		· · · · · · · · · · · · · · · · · · ·	····	CE USE		····					
							DKIL	LING PI	LKMI						
Permit	number_		47-0	17-342	1						Ma	rch 21,	19 85		
											Dat	e			
This pe	ermit cove	ring the w	ell operato	or and wel	l locati	on showi	n below	is evidence	of per	mission grante	d to drill in accordan	ce with the per	rtinent legal re-		
quirem	ents subje	ect to the c	onditions	contained	herein	and on th	ie rever	se hereof.	Votifica	ation must be g	iven to the District Oi	il and Gas Insp	ector, (Refer to		
No. 8)	enor to	the constri as inspecto	nction of re	ba cs, locs s before a	tions ai	id pits to ermitted v	rany po work ha	ermitted wo	rk.ma ed.)	iddition, the we	ll operator or his con-	tractor snam no	ottry the proper		
. 7										mlam auhians sa	any modifications ar				
	hereof.	OIR IS as u	escribed in	the Notic	e anu /	appneam	Jii, piai	, and rectan	nanon	pian, subject it	any modifications ar	na conditions s	pecified on the		
Permit	expires _	Ma	rch 21	, 1987	7			unless we	ll work	is commenced	prior to that date and	prosecuted wit	h due diligence.		
	-										•	•			
Do-	d.	A ~~		Dlat.			Fac	- Apparatus							
Bond: Agent: Plat: Casing Fee				1											
28 My my 6967 Mb 101/															
0					g					Wra	Wet J.	Las			
								- <u></u> -		Admi	nistrator, Office of O	il and Gas			
NOTE	: Keep o	ne copy o	f this perm	it posted	at the c	irilling lo	cation.						<u> </u>		
			ρ.	eb =		. 6 Al A F	101 161 1	NITTE OF	W &		12		File		
			3ee	the revers	æ side (n ine Al	FLECA	NI B CUP	r for i	matrucumns to	the well operator.				