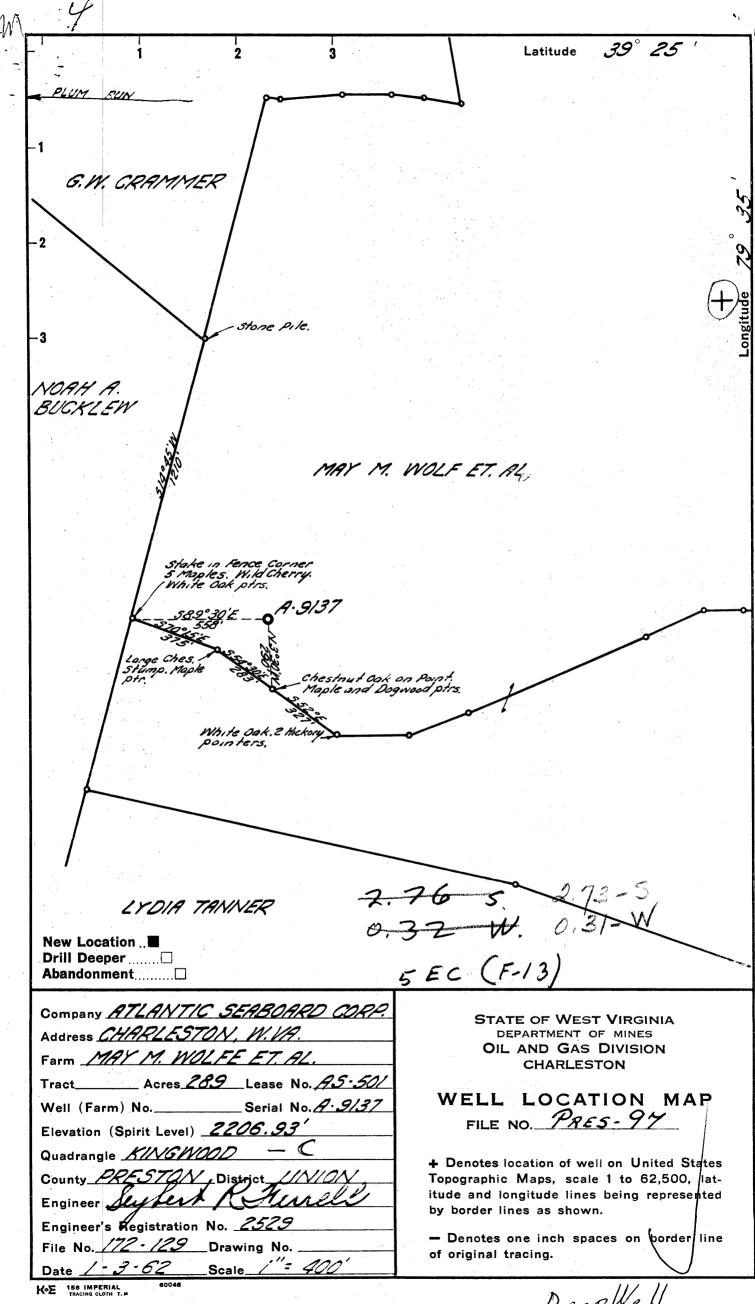


OWDD GS 9-OTERNA AHa 280

Deep Well (Oriskany)

MAR 13 1970



DespWell

WR-35

12-Feb-98 API # 47- 077-00097 F

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

Reviewed

		Section	n of Oil a	and	Gas						
		Well Operato	r's Repo	rt of	f Wel	i Worl	k				
Farm name: BOWMAN, MARGAUX & MEAGHAN Operator well No.: 7504 TERRA A						2 AT 14	#750 <i>4</i>				
LOCATION:	Elevation:	2,206.90	Quadra	ngle	e: TI	ERRA	ALTA		LEINING	12170	. #7504
	Latitude:	UNION 14,500 Fee 1,800 Fee	South	of	39	Deg.	25 Mir	n. 0	Sec. Sec.		
P.O CHA Agent: RICH Inspector: F Permit Issue	LUMBIA GAS T . BOX 1273 ARLESTON, V ARD L. COTY PHILLIP TRACed:	VV 25325-127 :Y 02/16/98	3		8	ing	Used Drilli		Left in Well	F	ement ill Up Cu. Ft.
Well work Verbal Plug Permission Rotary Total Depth	granted on:_ _ Cable (feet)	08-28 Rig 5,694'	-98	-	1	STI SE	RKOVER MULATIO E OPPOS etired: 5,678'	N; TE SI	DE FOR DI	ETAILS	
Salt water	depths (ft)	See F	revious	-					left in we	neb U	
OPEN FLOW	s (ft) : V DATA				vany l	Day 74	one den	-	Tarker and the second		
Gas :	Initial open Final open	flow 320 flow 20,20 pen flow bet	MCF 0 MCF ween in	/d /d itial	Oil : and	Initia Final final	l open open l tests_	flow flow (2	8 Months)	Bbl/d Bbl/d _Hours
	nd producing Initial open Final open Time of op Pressure	flow oen flow bet	MCF/ ween in	d itial	and	Final final	open I tests_	flow		}	_Bbl/d _Bbl/d Hours
INTERVALS, LOG WHICH	FRACTURING IS A SYSTEM COAL ENCOR	OR STIMULATIC DETAILS	ATING, F ED GEOL	PHYS .OGI	SICAL ICAL	CHA RECO	NGE, E	TC. 2	2). THE	WELL	
		For: COLU				NSMI		CORF	·.	····	

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

Well Operator's Report of Well Work

WORKOVER:

- Recovered and retired 5,678' of 2-3/8" 4.6 lb/ft J-55 tubing (tallied length: 5,681.31')
- Cleaned out hole to 5,690'.
- A new partial wellhead was installed.

STIMULATION:

- Acidized on 08-26-98.
- The well was treated as follows:
- Additives: FE1-A,FE-5A, BA-2, HAI-81, SCA-130, PENN-88, and HC-2.
- Total acid 5,620 gallons 15% FE acid, 1,008 gallons 20% FE acid.
- Total water 420 gallons
- Total nitrogen 308,000scf
- Fluids removed from location and transported for disposal @ LAD (Liquid Asset Disposal, Inc.) Wheeling, WV.



STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS DIVISION

Quadrangle	Kingwood
danarang.c	

Location (waters) Wolf Run

District Union County_

The surface of tract is owned in fee by...

Well No. A-9137

Drilling commenced____

Drilling completed____

Open Flow /10ths Water in_

WELL FRACTURED____

Date Shot____

WELL ACIDIZED.

With....

Company Atlantic Seaboard Corporation

Address P.O. Box 1273; Charleston 25, W.Va. Farm May M. Wolfe, et al Acres 289

__Address_ Mineral rights are owned by Helen Wolfe Bowman, et al 117 Beverly Street Address Kingwood, W. Va. 3-10-62

4- 3-62

30#/sq. inch in 4" ID 16,363,776. Ft.

__From___

/10ths Merc. in

Rock Pressure 1597.2 lbs.

Permit No. PRES-97

WELL

Elev. 2206.93

Preston

_To__

48

AS DIVISION						
RECORD		Oil or	Gas V	v e11	as (KIND)	
Casing and Tubing	Used in Drilling	Left in Well		Packers		
Size						
16			_ Kir	nd of Pac	ker	
13		<u> </u>	 			
10x 11-3/4"	62'	62'	Siz	e of		
81/4 5/8		532				
65/8			De	pth set		
5 3×36 ½		5405'	 -			
3			i			
2			1	rf. botton		
Liners Used		Perf. top				
			Per	rf. botton	1	
COAL WAS EN	NCOUNTERED LINCH	ATIES	FEE	TT	INCHES	
	Oil, Gas					
Bottom	or Water	Dept	th	Re	marks	
4541	•					
4555						
5372						
	5377	-				

resh Water	None	Feet		Salt Water	None	Feet	
Formation	Color	Hard or Soft	Тор	Bottom	Oil, Gas or Water	Depth	Remarks
Siltstone &	Shale		0	4541	·		
Fully line			4541	4555			
Shale			4555	5372			
Onondaga Lim	e		5372	5394	5372		
Chert - Hun	L ersuil		5394			· · · · · · · · · · · · · · · · · · ·	
Total Depth) 	5437'				
			(463)			•	
					,		
			,				
				,		1	
						33/0/15/16/77	7 200
				•		AP3 1002	
					(S)	RECEIVE	
					15.6	Vicul Virgini Dopt. of Min	
		L			ì	Seb	47/2



STATE OF WEST VIRGINIA DEPARTMENT OF MINES OIL AND GAS WELLS DIVISION?

∇

Quadrangle Kingwood

Permit No. Pres. - 97 D.D.

WELL RECORD

Storage	K	
Oil or Gas	Well	Horage

			ערון	r neeber.		On or Ga	(KIND)
			exation , W. Va. 2532		Used in Drilling	Left in Well	Packers
Farm	M. Wolfe,	et.al.	Acres 184	Size			
Location (waters X-7	6-S-7504	(C (1))	2206 93				Kind of Packer
Well No	-		Elev. 2206.93	13		·	
		County Pr			'' 62 '		Size of
			Wolfe	8 ⁴ / ₄ 85/8	'' 532 '	532	-
Bowman		Address Kingwo	od, W. Va.	65/8			Depth set
Mineral rights ar	e owned by!	lelen Wolfe		141/16 5 1	/2"_5405"	5405'	
Drilling commer)	
				d 2 2/011	56781	5678	Perf. top
					1 :		Perf. bottom
			To				Perf. top
With	·····		· ·				Perf. bottom
Open Flow	/10ths Wate	r in	Inch	Attach copy of	cementing record	1.	The second secon
			Inch	CASING CEA	4ENTED	SIZE N	o. FtDa
			Cu. Ft.				
			hrs.				
				Name of Servi	ce Co		
			bbls., 1st 24 hrs.		ENCOUNTERED	AT None F	FEETINCHE
WELL ACIDIZE	D (DETAILS)_		er en		ET INC	HES F	EET. INCHE
				FE	ET INC	HES 5	FEET INCHE
WELL FRACTU	RED (DETAIL	S)					
DESILT ACTUR	TOPATMENT			***************************************			
RESULT AFTER	TREATMENT	(Initial open Flow	or bbls.)				
ROCK PRESSUI	RE AFTER TRI	EATMENT		HOURS			
Fresh Water		Feet		Salt Water		Feet	
Producing Sand				. 22	Depth		
			- ()	,,,) 2 -			
Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Chert			5394'				- 10 00
Original T	otal Depth			54371	537×	555	3 5685
Chert - H	merci		5394	5543'	2207		and the second s
Shale -)	adman	Que	55431	5 5 53 '	3165	3346	3478
Oriskany			5553'	5685			
Helderberg			5685'	y.			
Tota1	Depth		(485)	5694			
				5437 257 7	lew foot	age	
			DD Soctage	257			
						DECE	
						JAN 18	
					. 1	CHI R CASE	detalena Leta da

5	nare 172 et				and the second	ties the first see	
Formation	Color	Hard or Soft	Top 7	Bottom	Oil, Gas on Water	Depth Found	Remarks 01-00 mes
NOTE: 2 3/3"	4.6#/ft. seating	, J-55 Seal- nipple, (1)	lok tubing, Baker BFC Mc May 19, 197	del "L" sli	(1) Baker M ling sleeve.	Sliding sl	eeve with dimension
	Parke	Telt in	annular 23	Statut T		eO_bangrion8	Pennit No. President Company Atlantifo Address P. O. 101. Fam. May M. Wol Of Location (waters) Wol Well No. X-76-8-756
	Size of the transport of the test.	5) :gcf hnc	439' - 4500'), November	19, 20, 1970	in fee by Hell Address King Hellen Well Address Wift	District United The surface of tract is owned Powman Mineral rights are owned by
	Perf. top. Perf. bottom. Perf. top Perf. bottom.		On action so have			ront valor in	Date Shot
Dyc. INCHES INCHES	Vo. Ft. PERT FERT PERT	oncM TA ds	PARRITED CONSECUTION CONS ANGEL STATUTORY FIRE FIRE FIRE FIRE FIRE FIRE FIRE FIRE	Honorank All Herschild Con-		#	Volume Rock Pressure Oil WELL ACIDIZED IDETAI
		Foot	The second secon	ANTONIA.			RESULT AFTER TREATME ROCK PRESSURE LIFTER Fresh Water
	9 2 E	Depth	no Jio nor il ro	Annual			Formation Color Cherr Original Total Nor
	3 4	5 334	3.16		53947 55437 55531		Chert Shale Oriskany Helderberg
							Total Depth
	Hay si	adjam					
		JAL		APPROVEI ()		comber 17,	A. Owner

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

WELL WORK PERMIT

This permit, issued to COLUMBIA GAS TRANSMISSION CORP.

is evidence of permission granted to perform the specified well work at the location described on the attached plat, subject to the provisions of Chapter 22 of the West Virginia Code of 1931, as amended, and all rules and regulations promulgated thereunder, and to all conditions and provisions outlined in the pages attached hereto. Notification shall be given to the Oil and Gas Inspector PHILLIP TRACY at 304-543-7389 prior to the construction of roads, locations, and/or pits for any permitted work. In addition, the well operator shall notify the same inspector 24 hours before any actual well work is commenced and prior to running and cementing casing. Spills or emergency discharges must be reported to 1-800-654-3312.

Failure to abide by all statutory and regulatory provisions governing all duties and operations hereunder may result in suspension or revocation of this permit and in addition may result in civil and/or criminal penalties.

Well work to be conducted under this permit shall be commenced within two (2) years from date of issue.

Chief

Theodore M. Streit

By:	
Title:	

Operator's Well No: 7504

Farm Name: BOWMAN, MARGAUX & MEAGHAN

API Well Number: 47- 77-00097 F

Date Issued : 02/16/98

Expires two (2) years from issue date.

2843

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY, DIVISION OF OIL AND GAS WELL WORK PERMIT APPLICATION

1)	Well Operator:	COLUMI	BIA GAS TI	RANSMISSION	CORPORATIO	N 10450		
2)	Operator's Well Number: Terra Alta South Stg # 7504 (API 47-077-00097) 3) Elevation: 2,206.93'feet							
4)	Well type: (a)	Oil/	or	Gas_X_/				
	(b)	If Gas: Production	n/ Undergi eep <u>X</u> _/	round Storage <u>X</u> Shallow				
5)	Proposed Target Formation (s): Chert & Oriskany							
6)	Proposed Total D	Depth :	5,694	feet		4	7 0 41	
7)	Approximate fresh	water strata dept	ths: <u>nor</u>	ne recorded		Office of	J. Salar	
8)	Approximate salt	water strata depth	ns :	none recorded		Office of the state of the stat	100 Stay	
9)	Approximate coal	seam depths:		none	recorded	`હ્) }	
10)		ain coal seams t				<u>X</u> _/		
11)	Proposed Well Work: Columbia proposes to kill the well with a freshwater polymer based mud system. Remove the tubing and reconfigure the wellhead. The well will be cleaned out to TD and logged with cased and open hole logs. A 3-1/2" liner [to surf.] will be installed. The liner will be cemented in place. The liner will be perforated and acidized across the Oriskany section as determined by the well logs. The well will then be cleaned up, flow tested and placed back in service.							
	TYPE	SPECIFICATIO)NS	FC	OTAGE INTI	ERVALS	CEMENT	
				Weight	For	Left in	F.11	
		Size	Grade	per ft.	drilling	well	Fill - up (cu. ft.)	
	conductor	Size 11-3/4"	Grade H-40	. •	drilling 62'	well 62'		
	conductor Fresh Water			per ft.			(cu. ft.)	
		11-3/4"	H-40	per ft. 47#	62'	62'	(cu. ft.) Cmtd w/ 17 sks Cmt w/	
	Fresh Water	11-3/4"	H-40	per ft. 47#	62'	62'	(cu. ft.) Cmtd w/ 17 sks Cmt w/	
	Fresh Water Coal	11-3/4"	H-40	per ft. 47#	62'	62'	(cu. ft.) Cmtd w/ 17 sks Cmt w/	
	Fresh Water Coal Intermediate	8-5/8"	H-40 H-40	per ft. 47# 24#	62' 532'	62° 532°	(cu. ft.) Cmtd w/ 17 sks Cmt w/ 140sks Reg	
	Fresh Water Coal Intermediate Production	11-3/4" 8-5/8" 5-1/2"	H-40 H-40 J-55	per ft. 47# 24#	532' 5,405'	5,405°	(cu. ft.) Cmtd w/ 17 sks Cmt w/ 140sks Reg	
PA	Fresh Water Coal Intermediate Production Tubing Liners	11-3/4" 8-5/8" 5-1/2"	H-40 H-40 J-55	per ft. 47# 24#	532' 5,405'	5,405°	(cu. ft.) Cmtd w/ 17 sks Cmt w/ 140sks Reg	
<u>₽A</u> ≻	Fresh Water Coal Intermediate Production Tubing Liners CKERS : Kind Sizes	11-3/4" 8-5/8" 5-1/2" 2-3/8"	H-40 H-40 J-55	per ft. 47# 24#	532' 5,405'	5,405°	(cu. ft.) Cmtd w/ 17 sks Cmt w/ 140sks Reg	
<u>₽A</u> }-	Fresh Water Coal Intermediate Production Tubing Liners CKERS : Kind Sizes Depths	11-3/4" 8-5/8" 5-1/2" 2-3/8"	H-40 H-40 J-55 J-55 For Divis	per ft. 47# 24# 15.5# 4.6#	62' 532' 5,405' 5,678'	5,405°, 5,678°	(cu. ft.) Cmtd w/ 17 sks Cmt w/ 140sks Reg	

Page I of	1) Date: November 5
·	. 2) Operator's Well Nu
Marie Company	750
Wy Hoar &	3) API Well No.: 47

, 1997 ımber 04 - 077 - 00097

State County Permit No.

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT

O. Too	O O	FFICE OF OIL & GAS
	NOTICE OF APPLI	CATION FOR A WELL WORK PERMIT
4.	~ .	
4)	Surface Owner(s) to be served.	
	(a) Name Margaux Bowman	Name
		Address
	Kingwood, West Virginia 26537	1) 0, 10 () 11 B. 1
	(b) Name <u>Meaghan Bowman</u>	(b) Coal Owner (s) with Declaration
		Name Marguax Bowman
		Address 116 Beverly Street
		Kingwood, West Virginia 26537
		Name Meaghan Bowman
		Address 116 Beverly Street
.		Kingwood, West Virginia
6)	Inspector Philip Tracy	(c) Coal Lessee with Declaration
	Address Route 2 Box 37-A	Name
	Montrose, West Virginia 26283	Address
	Telephone (304)	
	TO THE PERSONS	S NAMED ABOVE TAKE NOTICE THAT
notio		narked postal receipt attached)
subr	ny permit issued under this application. I certify under penalty of law the mitted on this application form and a mediatley responsible for obtaining the integral of the second	pter 22-6 and 38 CSR 11-18 and I agree to the terms and conditions nat I have peronally examined and am familiar with the information all attachments, and that based on my inquiry of those indivduals information is true, accurate and complete. Significant penalties for submitting false information, including the
		Operator 7 Columbia Gas Transmission Corporation
1700 30X 127	FFICIAL SEAL UPLIC STATE OF WEST VIRGINIA JUDY M. HENLEY MacCORKLE AVENUE, S. E. 73. CHARLESTON, WV 25325-1273 AMISSION EXPIRES 11 – 22 – 99 By:	Manajer - Well Sorvices ess P.O. Box 1273 arleston, WV 25325-1273
C ₋ 1		hone (304) 357-3034
	sribed and sworn before me this	day of <u>November</u> , 19 <u>97</u> Notary Public
My	commission expires	<u> </u>