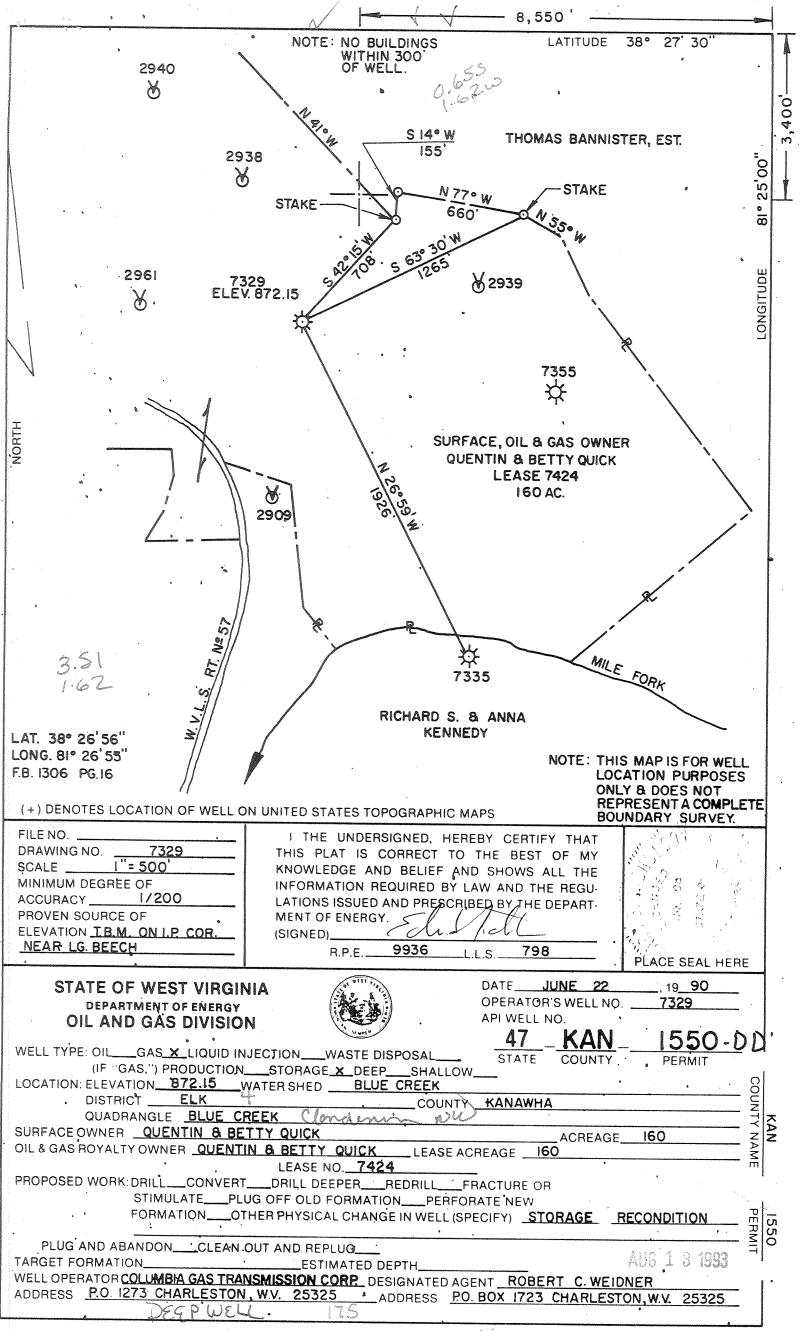
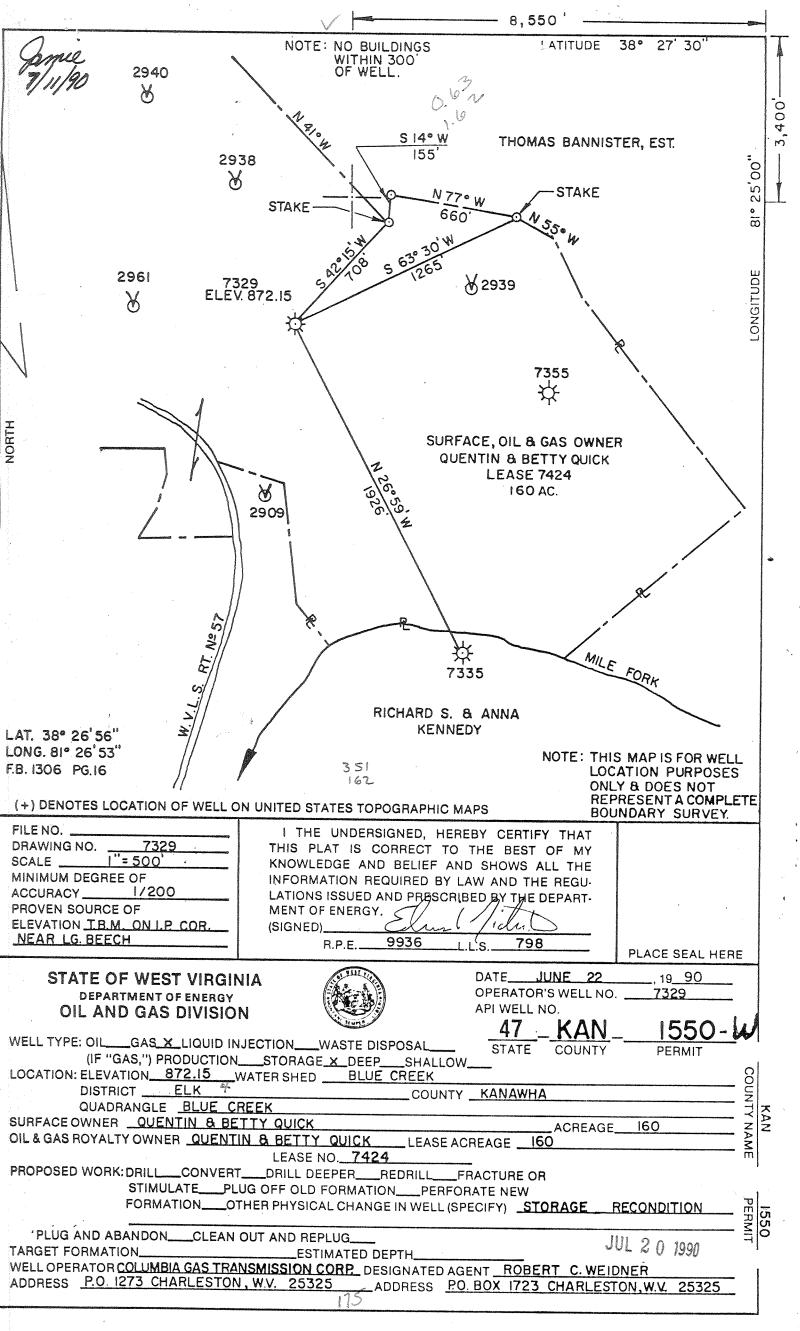
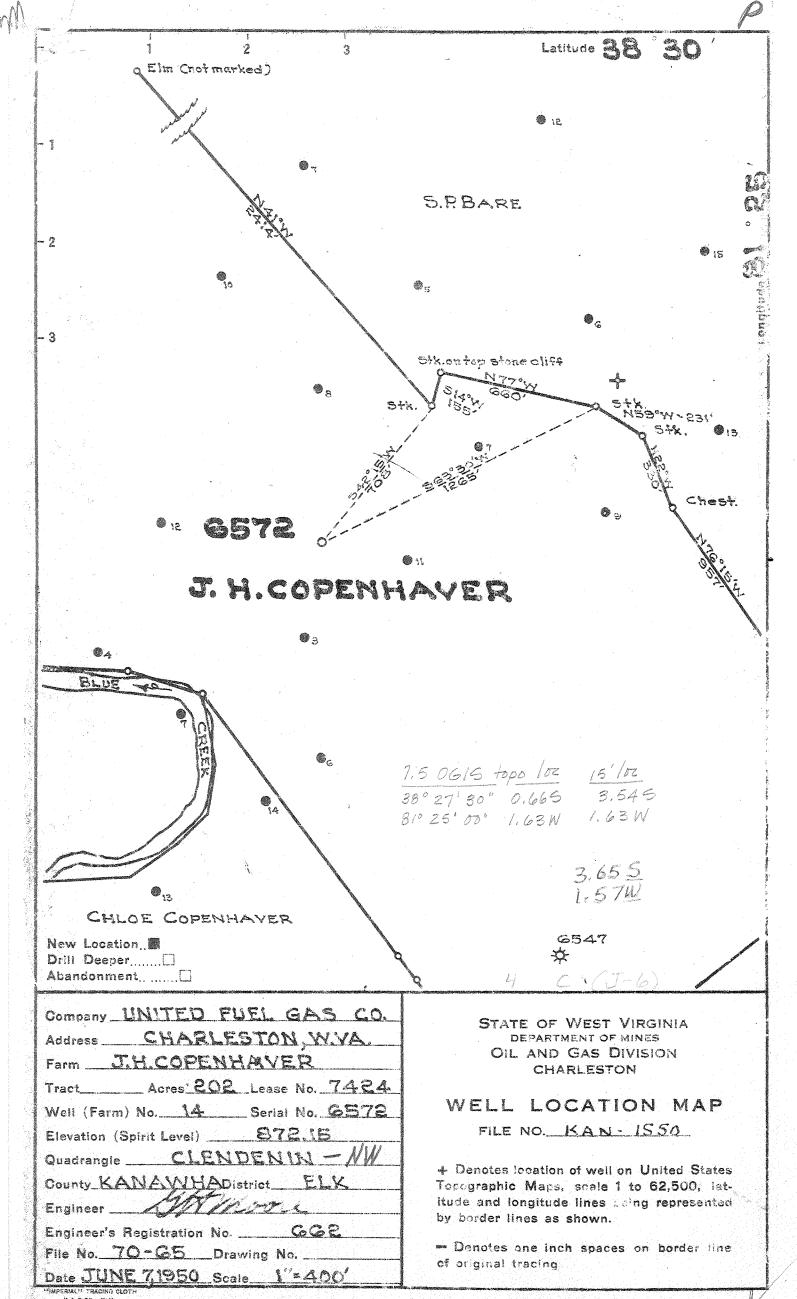


Blue CK (Falling RK) 6-6

06/11/2010







Deep Well

### WEST VIRGINIA DEPARTMENT OF MINES OIL & GAS DIVISION WELL RECORD

Permit No. Kan 1550 Clendenin Quad.	77 9 1 2			(		s Well & Tu	
Company Address Farm Location Well No.	P.O. B J.H.Co Blue C 6572	penhaver reek Elev. 872.	rloston 25, W.Va. Acres 202	10¾ 8 5/8 7	480	5205	0
District Surface Mineral	A.D.Co		3531 Douglas St.	2		5318	,
Commenced Completed Not shot	El Pas 1-6-51 5-4-51						
Open flow Volume Rock Pressure Salt Water	11.476 11.30 1	hs M in 7° M, Oriskany bs. 140 hrs. F.: 1770° 2					
DST 4 MC 901	1000 11	پ ښې په ښې و په ښې د د د د د د د د د د د د د د د د د د	4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4. 4				
Slate Sand Red Rock Sand Slate Sand Lime Slate Salt Sand Slate Salt Sand Slate Salt Sand Slate Slate Salt Sand Slate Red Rock Slate Red Rock Slate Maxon Sand Slate	0 22 41 155 0 20 0 32 140 155 0 20 2483 0 340 8 455 5 5 5 5 5 5 5 5 5 5 5 6 5 7 8 5 8 9 10 0 0 145 5 15 6 5 8 8 8 16 3 9 10 15 15 15 15 15 15 15 15 15 15 15 15 15	190 220 240 383	Brown Shale Lime Slate & Shells Brown Shale Lime Shell Slate & Shells Brown Shale Slate & Shells Brown Shale White Slate Blue Slate Brown Shale Slate Black Shale Slate Brown Shale Slate Blue Slate Brown Shale Slate Blue Slate	0 1910! 4 2/10 M 11:476 30# in 2" t	236 240 334 339 341 371 379 383 411 447 460 503 508 511 517 530 0/10 W	0 30 .0 0 0 0 0 0 5 5 5 5 8 7 0 0 1 2 1 2 1 2 2 1 2 1 2 1 2 1 2 1 2 1	76 M
Slate Brown Shale Lime Squaw Sand Lime Slate & Shells Weir Sand Slate & Shells Lime Slate & Shells	1810 1830 1850 1900 1927 1950 2030 2055 2083 2130	1830 1850 1900 1927 1950 2030 2055 2083 2130 2345					er e

SEP 2 0 1994\_\_\_

Permitting Office of OII & Gas

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

Well Operator's Report of Well Work

Farm name: QUICK, QUENTIN & BETTY Operator Well No.: COCO C 7329

LOCATION: Elevation: 872.00 Quadrangle: BLUE CREEK

> District: ELK County: KANAWHA

Latitude: 3400 Feet South of 38 Deg. 27Min. 30 Sec. Longitude 8550 Feet West of 81 Deg. 25 Min. 0 Sec.

Company: COLUMBIA GAS TRANSMISSION 1700 MacCORKLE AVENUE S.E.

CHARLESTON, WV 25314-0000

Agent: ROBERT E. WEIDNER

Inspector: CARLOS W. HIVELY Permit Issued: 07/17/90 Well work Commenced: Well work Completed: Verbal Plugging Permission granted on: Rotary Cable Total Depth (feet) 5518 Fresh water depths (ft)

Īs Coa.

Salt water depths (ft) 3801 est.

			L		, -	,		<del></del>	
cc	al Dep	bei ths	ng (f	min	ed /¤	in	area	(Y/N)?	

-	Casing &	Use	d in	Left	Cement
-	Tubing	Dri	lling	in Well	Fill Up   Cu. Ft.
	Size	14/4			
	14"	42	41'	0	
	10-3/4"	32.75	480'	01	
	8-5/8"	32	1715'	1551	
	7"-4/2"	  23  -77=7#	50501	5050	
	472	11.6		5306	955X 50/50 POZ

OPEN FLOW DATA

Producing formation Octobary Pay zone depth (ft) 5300'

Gas: Initial open flow MCF/d Oil: Initial open flow Bb1/d

Final open flow MCF/d Final open flow Bb1/d

Time of open flow between initial and final tests Hours Static rock Pressure \_\_\_\_ psig (surface pressure) after \_\_\_ Hours

Pay zone depth (ft) Second producing formation Pay zone depth (ft)

Gas: Initial open flow MCF/d Oil: Initial open flow Bb1/d

Final open flow MCF/d Final open flow Bb1/d

Time of open flow between initial and final tests Hours Static rock Pressure psig (surface pressure) after Hours

- Over -

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: COLUMBIA GAS TRANSMISSION CORP.

## Physical Changes

1.) Pulled 173 joints-of 2-3/8" + 6g- 11-1/5" V threads -

2.) Pulled 1519' of 7" cg - Also-because of the stuck mechanical back-off-tool-Milled
3) Pulled 1519' of 7" cg - Also-because of the stuck mechanical back-off-tool-Milled
3) Pulled 1519' of 7" cg - Also-because of the stuck mechanical back-off-tool-Milled

3.) Perforated 85/8" cog e 1185' N/ 4 shots per foot -

4.) Pulled and replaced the top joint of 85/8" cy5.) Squeezed 85/8" csy w/ 300 sacks Class A and Halal-344-

6.) Ran 5306' of 4-1/2" 11.6 #/f+ N80 casing - and comented w/ 95 sacks 50/50 POZ mr x w/ 2% gel, 2% CACL, 10% salt

7.) Perforated 41/2" csg e 5296.5'-5301.5'-

(Note: See previously submitted)
geological record

FORM WW-2B

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

				APPLICATIO		
l) Well Op	erator:_	COLUMBIA GA	AS TRANSMISS	ION CORP. 10	450 (4)	258
						evation:872'
			or Ga			
	(b <sub>i</sub> )	If Gas:	Productio Dee	n/ Underg	round Storag Shallo	ge_X_/
5) Propose	d Target	Formation		ny Sand 42		***************************************
6) Propose	d Total D	epth:	5318	feet		
				ths: 150' e	st.	
8) Approxi	mate salt	water de	epths:	380' est.		
9) Approxim	mate coal	seam dep	oths: 1,	000 est.	·	
10) Does lan	nd contai	n coal se	eams tribu	tary to act	ive mine? Y	es/ No/
11) Proposed	d Well Wo B) perfora	rk: A) pu te and sque	ull and repl eeze the 8-5	ace 2-3/8" tu	bing and partia C) Install 3,00	al replacement of 00 psi API flanged
TYPE	S		CIONS			& COVOVO
			Weight	For	Left in	CEMENT
	Size	Grade		drilling	well well	Fill-up (cu. ft.)
Conductor					/	
Fresh Water	14"		42#	41'	0''	
Coal	10-3/4"		32.75#	480 '	0'0 11	V.TOX
Intermediate	8-5/8"		32#	1,715'	1,551	AW O
Production	7"		23#	5,050'	5,050' 4	KONOGE
Tubing	2-3/8"		4.6#	5,423'	5,330'	D WE
Liners					INE	CONTRACTOR OF THE PARTY OF THE
Siz				-		W 06 1000
Dep	ths set _			·	DIVIE	10
105 7	Fo	Diviso	n of Oil a	nd Gas Use	Only DEPAR	RTMENT OF ENERGY
Fee(s) p	aid: Z	/ Well W	ork Permit	Recl	amation Fund	WPCP
Iff Plat (1)		WW-	2B (17) B	on Hanf	Mane	Agent

Page 1 of Form WW2-A (09/87) File Copy



Date: <u>June 8, 1990</u> Operator's well number Coco C #7329

API Well No: 47 - 039 State - County - Permit DIVISION OF OIL & GAS

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

	NOTICE AND APPLICATION	FOR A WELL WORK PERMIT
4)	Surface Owner(s) to be served:	5) (m) G
- /	(a) Name Quentin & Betty Quick	5) (a) Coal Operator:
	Address 300 Walgrove Road	Name <u>none</u> Address
	Elkview, WV 25071	Address
	(b) Name	(b) Coal Owner(s) with Declaration
	Address	Name Quentin & Betty M. Quick
		Address 300 Walgrove Road
	(c) Name	Elkview, WV 25071
	Address	
		Address
		Address
6)	Inspector Carlos Hively	(a) Cond Torres with D. J.
•	Address 223 Pinch Ridge Road	(c) Coal Lessee with Declaration
	Elkview, WV 25071	Name
	Telephone (304) - 965-6069	Address <u>none</u>
	TO THE PERSON(S) NAMED A	DOVE TARE MONTOS MUAM.
	10 THE TERBON(S) NAMED A	BOVE TAKE NUTTUE THAT:
	Included is the lease or leases o	v obbiv montinuin
cont	racts by which I hold the right to	outreat oil and one on
X	Included is the information requi	extract oil and gas <u>OR</u>
Sect	ion 8(d) of the Code of West Virgi	red by Chapter 22B, Article 1,
	T cortify that as manifest virgin	nia (see page 2)
T 5-	To certify that as required under the	Chapter 22B of the West Virginia Code
1 11d	ve served copies of this notice and	d application a location plat and
acco	mpanying documents pages 1 through	on the above named partice by:
	Personal Service (Affidavit a	attached)
	X Certified Mail (Postmarked po	ostal receipt attached)
	Publication (Notice of Public	cation attached)
	then does not used their real state of the same state and their time and their times and their times and	
	I have read and understand Chapte:	r 22B and 38 CSR 11-18, and I agree
to t	ne terms and conditions of any peri	Mit issued under this application
	I CELLITY Under Denaity of law th:	at I have perconally examined and
fami	fiel with the information submitted	d on this application form and all
auta	cimencs, and that based on my indu-	Irv of those individuals immodiately.
resp	onsible for obtaining the information	ion, I believe that the information
is t	rue, accurate, and complete.	- only i believe that the information
~~~~~	-I am aware that there are signific	cant penalties for submitting false
in fo	rmationscaling the possibility	of fine and imprisonment
		CODUMBIA GAS FRANSMISSION CORP.
4 E	STATE OF WEST VIRGINIA	COGONDIA GAS MANSHISSIUN CURP.
الم برات التي		C. Divilling & Mainten
. Salarana	2052 Linsoln Avenue Its: <u>Ulrector</u> St. Albans, West Virginia 25177  My Complete P. O.	r, Drilling & Maintenance
	my commission Expires Oct 77 7004	Box 1273
~~~~		eston, WV 25325-1273
Subse	Telephone Telephone Telephone	Star 5
_ ~~ ~	arrange and sworm before me fuls	2 day of / 19 90
	IMAN, C	Tarak na /
Mv C	ommission expires	Notary Public
7 -	- COUNTRY CAPITED COUNTRY	10,1994

039-1550-DD essued 8/10/93 Page OF EXPNO 8/10/95 GAS

STATE OF WEST VIRGINIA 02

I\_I Agent

(Type)

-	- 25-1 AA to	WELL WO	RK PERMIT	ISION OF O	L AND GAS	_
Well Ope	rate of C	Columb	MS ia Gas Transi	mission Corpo	ration 104.50	) <del>(4)</del> 250
			Coco C	#7329	3) Ele	vation: 872
Well typ	e: (a) (	oil_/	or Gas	X	•	
	(b) :	If Gas:		/ Undergo		<u>X</u> / /
5) Proposed	Target 1	Formation	(s):		(5305'-5318')	
6) Proposed	Total De	epth:	5350	_ feet		
7) Approxim	ate fres	h water s	trata dept	hs:E	stimated 150'	
8) Approxim	ate salt	water de	pths:	Estimat	ed 380'	
9) Approxim	ate coal	seam dep	ths:	Estimat	ed 1,000'	
10) Does lan	d contai:	n coal se	ams tribut	ary to act	ive mine? Ye	es/ No
3-3/4" hol		CASIN	IG AND TUBI	NG PROGRAM		
TYPE	<u>S</u>	PECIFICAT	CIONS	FOOTAGE I	NTERVALS	CEMEN'
wave either transmission in earn earn earn earn earn earn earn ear	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.
Conductor						
Fresh Water	14"		42#	41'	0 '	
Coal	10-3/4"		32.75#	480'	0'	
<u>Intermediate</u>	8-5/8"		32#	1,715'	1,551'	
Production_	7"		23#	5,050'	5,050'	
Production*	4-1/2"		11.6#	5,306'	5,306'	
Linexs						
PACKERS : Kir	-					
	ths set					
Fee(s)	F	or Diviso	on of Oil a	and Gas Use	Only	
m - / \						

Page 1 of	RECEIVED	1) Date: July 16, 1993
Form WW2-A (10-91)	WW Divinian as	2) Operator's well number
( 20 - ) 2 /	Environmental Protection	Coco C #7329 3) API Well No: 47 - 039 - 01550 - DD
	M 2 7 93	State - County - Permit
	Permitting 7 CT2	OF WEST VIRGINIA
DIVI	SION OF CHATRONMENT	AL PROTECTION, OFFICE OF OIL AND GAS
Ġ.	<b>©</b>	
	NOTICE AND APPLI	CATION FOR A WELL WORK PERMIT
4) Surface	Owner(s) to be serv	ved: 5) (a) Coal Operator:
(a) Nam	e Quentin Quick	Name None
Address	300 Wall Grove Road Elkview, WV 25071	Address
(b) Nam	eEIKVIEW, WV 250/I	(b) Coal Owner(s) with Declaration
Address		Name Quentin Quick
		Address 300 Wall Grove Road
(c) Nam Address		Elkview, WV 25071
Address		Address
	C3 II:3	
6) Inspect	or <u>Carlos Hively</u> 223 Pinch Ridge Road	(c) Coal Lessee with Declaration Name None
I LANGES	Elkview, WV 25071	Name None Address
Telepho	ne (304) - 965-6069	
M. Shill		
HLD: UTU	TO THE PERSON(S)	NAMED ABOVE TAKE NOTICE THAT:
Include	d is the lease or le	eases or other continuing contract or
contracts by	which I hold the r	ight to extract oil and gas OR
X_ Include	d is the information	n required by Chapter 22B, Article 1,
Section 8(d)	of the Code of West	Virginia (see page 2)
I have serve	d copies of this not	under Chapter 22B of the West Virginia Code tice and application, a location plat, and
accompanying	documents pages 1	through on the above named parties, by:
Pe	rsonal Service (Aff:	idavit attached)
XCe	rtified Mail (Postma	arked postal receipt attached)
Pu	Dication (Notice of	f Publication attached)
I have	read and understand	Chapter 22B and 38 CSR 11-18, and I agree
to the terms	and conditions of a	any permit issued under this application.
I certi	fy under penalty of	law that I have personally examined and am
attachments	n the information st	abmitted on this application form and all my inquiry of those individuals immediately
responsible	for obtaining the in	nformation, I believe that the information
is true, acc	urate, and complete.	•
I am aw	are that there are	significant penalties for submitting false
OFFICE	IAL SEAL : S WO I I OF	bility of fine and imprisonment.  Derator Columbia Gas Transmission Corporation
	Y PUBLIC BY:	Continua das pransinassion corporation
MARY	PARSONS Its:	Director, Drilling & Maintenance
2002 Un 2L Alban, Wes	Whatele 28177 Address	
By Especialists &	Telepho	Charleston, WV 25325-1273 One 304/357-2459
Subscribed a	nd sworn before me	
	m	
Mar gamai :		Notary Public
My commission	n expires <u>NOT</u>	oler 10, 1494

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

JUN 22 1995

Well Operator's Report of Well Work

Permitting Farm namice of CHECGOS QUENTIN

Operator Well No.: COCO C #7329

NOTE: NO NEW CASING WAS USED ON SIDETRACK

Left

1,551'

5,050'

Fill Up

in Well|Cu. Ft.

Used in

NONE

NONE

NONE

ILEFT AS AN OPEN HOLE COMPLETION

5255'|

Drilling

LOCATION:

Elevation: 872.00

Quadrangle: BLUE CREEK

District: ELK

Casing |

Tubing

Size

8-5/8"#32

4-1/2"

3-3/4"

\_\_\_#11

OPEN\_HOLE

4-1/2" WHIPSTOCK

County: KANAWHA Feet South of 38 Deg. 27Min. 30 Sec. Latitude: 3400 Deg. 25 Min. Longitude 8550 Feet West of 81

Company: COLUMBIA GAS TRANSMISSION

1700 MacCORKLE AVENUE S.E.

CHARLESTON, WV 25314-0000

Inspector: CARLOS HIVELY 08/10/93

Permit Issued: Well work Commenced: 8/27/93

Well work Completed: 10/06/93

Verbal Plugging

Permission granted on:

Rotary Cable Total Depth (feet)

Fresh water depths (ft) EST. 150'

Salt water depths (ft) EST. 380'

Is coal being mined in area (Y/N)? N Coal Depths (ft): EST. 1000'

NOTE: THE 3-3/4" SIDETRACK WAS LEFT AS AN OPEN HOLE COMPLETION.

OPEN FLOW DATA

-			
	Producing formation ORISKANY STORAGE Pay zon	e depth (ft)530	01'-5325'
0/2/93	Gas: Initial open flow 13 MMCF/d Oil: Initial op	en flow	Bbl/d
10	10/3/94: Final open flow 42 MMCF/d Final open	flow	Bb1/d
0	Time of open flow between initial and final t	ests 1 YEAR	XFX & WXXXSX
	Static rock Pressure N/A psig (surface pressur	e) after <u>N/A</u>	Hours
		e depth (ft)	
	Gas: Initial open flow MCF/d Oil: Initial op	en flow	Bbl/d
	Final open flow MCF/d Final open	flow	Bbl/d
	Time of open flow between initial and final t	ests	Hours
	Static rock Pressure psig (surface pressur	e) 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: COLUMBIA GAS TRANSMISSION CORP.

R. L. COTY, MANAGER/WELL SERVICES

WR-35 Rev (5-01)

Signed:

DATE: 3/7/2011 API#: 47-039-01550

## State of West Virginia Department of Environmental Protection Office of Oil and Gas

Well Operator's Report of Well Work

LOCATION: Elevation: 872 ft		rangle: <u>Blue</u>		
District: Elk	Cou	nty: <u>Kanawh</u>	la .	
Latitude: 3,400 Feet South of	38 Deg. <u>27</u>	Min. 30	Sec.	
Longitude 8,550 Feet West of	81 Deg. <u>25</u>	_ Min00_	Sec.	
ompany: Columbia Gas Transmission, LLC				
John Janes Cho Hamandaya Las	Casing &	Used in	Left in well	Cement fill
	Tubing	drilling		up Cu. Ft.
ddress: 1700 MacCorkle Ave SE				
Charleston, WV 25325-1273	This is an exis	sting storage y	vell. No changes	were made to
gent: Paul Amick	casing.		•	
nspector: Terry Urbin				
Pate Permit Issued: 6/11/2010		I i		
Pate Well Work Commenced: 9/7/2010	13-3/8 42#	41	0	
Pate Well Work Completed: 3/3/2011	10-3/4 32#	480	0	
/erbal Plugging:	8-5/8 32#	1550	0 1550	cmt'd but no
e transminina at a compania.				vol reported
Onte Permission granted on:	7 23#	5050	0-5050	20 sks
Rotary X Cable Rig	4-1/2 11.6#	5255	0-5255_	110 cu ft
	N-80		R	ECEIVED_
Total Dopth (feet): 5334			Office	of Oil & Gas
Fresh Water Depth (ft.): not applicable - rework				-
Salt Water Depth (ft.): not applicable - rework				
Is coal being mined in area (N/Y)? N			IVI.	AR 07 2011
Coal Depths (ft.): none reported ft	·	1 1 2 1		
	•		WV D	partment of
OPEN FLOW DATA			Environm	ental Protecti
	•			and LIOSECT
Producing formation Oriskany Sand				.a.1.
Gas: Initial open flow <u>not applicable</u>				
Final open flow * 1000 MCF/6				Bbl/d
Time of open flow between initial and				
Static rock pressure 1168 psig (s				
* AOF calculated @ max storag	e rock pressur	e of 1800 psi	ig	
	- <b>-</b>	•		
Second Producing formation N/A	Pay zone de	oth (ft)	* + - ±	
and the state of t		. , , , , , , , , , , , , , , , , , , ,		
NOTE: ON BACK OF THIS FORM PUT THE	FOLLOWING:	1). DETAILS	S OF PERFORAT	ED
INTERVALS, FRACTURING OR STIMULATE				
LOG WHICH IS A SYSTEMATIC DETAILED				
INCLUDING COAL ENCOUNTERED BY THE				

Senior Storage Engineer - Columbia Gas Transmission, LLC

### Coco C storage well 7329

This is an existing storage well. Below is a summary of work performed.

Cleaned wellbore using coil tubing and fracture stimulated.

Frac Data:

Fresh water based polymer w/ 20%  $N_2$  assist

500 gals 28% HCl acid

442 bbls gel 84 MSCF N<sub>2</sub> 27,300 lbs sand

Avg BH rate: 14 bpm

ATP: 1880 psig ISIP: 2125 psig

<sup>\*</sup> Note that no earthen pit was utilized. All fluids recovered via steel tanks and transported off site to waste water treatment facilities.