

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS

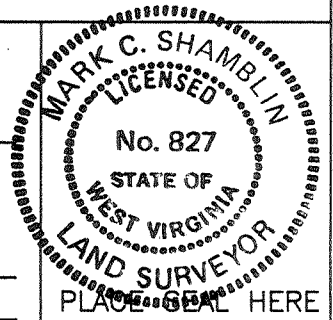
FILE No 96X208
 DRAWING No. W-12381
 SCALE 1" = 1000'
 MINIMUM DEGREE OF ACCURACY 1 : 200
 PROVEN SOURCE OF ELEVATION EXISTING WELL
API #1276

I, THE UNDERSIGNED, HEREBY CERTIFY THAT THIS PLAT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AND SHOWS ALL THE INFORMATION REQUIRED BY LAW AND THE REGULATIONS ISSUED AND PRESCRIBED BY THE DEPARTMENT OF MINES

(SIGNED) *[Signature]*

R.P.E.

R.P.S. 827



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION



DATE DECEMBER 3, 19 96
 OPERATOR'S WELL No. W-12381
 API WELL No.

WELL TYPE: OIL GAS LIQUID INJECTION WASTE DISPOSAL
 (IF "GAS") PRODUCTION STORAGE DEEP SHALLOW
 LOCATION: ELEVATION 1126 WATER SHED BLUE CREEK
 DISTRICT ELK COUNTY KANAWHA
 QUADRANGLE BLUE CREEK, 7.5' COORDINATES Lat: 38°-23'-44" Long: 81°-25'-06"

SURFACE OWNER CHARLES E. HUFFMAN ACREAGE 20.41 AC
 OIL & GAS ROYALTY OWNER CARPENTER ETAL LEASE ACREAGE 78 AC
 LEASE No. 7384

PROPOSED WORK: DRILL CONVERT DRILL DEEPER REDRILL FRACTURE OR STIMULATE PLUG OFF OLD FORMATION PERFORATE NEW FORMATION OTHER PHYSICAL CHANGE IN WELL (SPECIFY) New drill

PLUG AND ABANDON CLEAN OUT AND REPLUG
 TARGET FORMATION Osage Sandstone ESTIMATED DEPTH 5490' FEB 28 1997
 WELL OPERATOR COLUMBIA GAS TRANSMISSION CORP. DESIGNATED AGENT RICHARD L. COTY
 ADDRESS P.O. 1273 CHARLESTON, WV 25325 ADDRESS P.O. BOX 1723 CHARLESTON, WV 25325

DEEP WELL

9-0 217

JAN 21 1998

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

Permitting
Office of Oil & Gas Well Operator's Report of Well Work

Farm name: HUFFMAN, CHARLES E. ETAL Operator Well No.: 12381

LOCATION: Elevation: 1,126.00 Quadrangle: BLUE CREEK

District: ELK County: KANAWHA
Latitude: 7780 Feet South of 38 Deg. 25Min. 0 Sec.
Longitude 590 Feet West of 81 Deg. 25 Min. 0 Sec.

Company: COLUMBIA GAS TRANSMISSION
P. O. BOX 1273
CHARLESTON, WV 25325-1273

Agent: RICHARD L. COTY

Inspector: CARLOS HIVELY
Permit Issued: 02/28/97
Well work Commenced: 06-23-97
Well work Completed: 08-01-97
Verbal Plugging
Permission granted on:
Rotary X Cable Rig
Total Depth (feet) 5460'
Fresh water depths (ft)

Salt water depths (ft)

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

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft. to surface
13 3/8"	48 lb., H-40,	426'	350SX
9 5/8"	36 lb., H-40	2329'	575SX
7"	23 lb., N-80	5335'	325SX
2 3/8"	4.7 lb., J-55	4313'	

OPEN FLOW DATA

Producing formation ORISKANY STORAGE Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/d Final open flow Bbl/d
Time of open flow between initial and final tests Hours
Static rock Pressure psig (surface pressure) after Hours

Second producing formation Pay zone depth (ft)
Gas: Initial open flow MCF/d Oil: Initial open flow Bbl/d
Final open flow MCF/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: COLUMBIA GAS TRANSMISSION CORP.

By: *[Signature]*
Date: 1-15-98

JAN 23 1998

Stimulated ORISKANY with N²-Assist Deltafrac using 591 bbls water, 274 MSCF N², and 33,500 lbs. 16/30 sand.

FORMATIONS:

SALT SANDS	978' - 1478'
MAXTON	1588' - 1616'
LITTLE LIME	1642' - 1712'
BIG LIME	1696' - 1838'
WEIR	1882' - 2080'
SUNBURY	2262' - 2272'
ONONDAGA	5272' - 5382'
ORISKANY	5382' - 5432'
HELDERBURG	5432'

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

- 1) Well Operator: Columbia Gas¹⁷⁵ Transmission Corp. (4) 258
- Operator's Well Number: 12381 3) Elevation: 1126'
- Well type: (a) Oil / or Gas X / *Issued 02/28/97*
Expires 02/28/99
- (b) If Gas: Production / Underground Storage X /
Deep X / Shallow /
- Proposed Target Formation(s): Oriskany Sandstone⁴⁷⁵
- Proposed Total Depth: 5490 feet
- 7) Approximate fresh water strata depths: N/A
- 8) Approximate salt water depths: N/A
- 9) Approximate coal seam depths: N/A
- 10) Does land contain coal seams tributary to active mine? Yes / No X /
- 11) Proposed Well Work: Drill, complete, and stimulate a new storage
- 12) Well in the Oriskany Sandstone with casing program as listed below.

CASING AND TUBING PROGRAM

New Well.

TYPE SPECIFICATIONS FOOTAGE INTERVALS CEMENT

	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						38CSR18/11.3
Fresh Water	13 3/8"	H-40	48	400'	400'	Circ. to Surface
Coal						CS-38CSR18-11.2.2
Intermediate	9 5/8"	K-55	36	2500'	2500'	Circ. to Surface
Production	7"	N-80	23	5370'	5370'	325 sks
Tubing	2 3/8"	J-55	4.6	5370'	5370'	38CSR18/11.1
Liners				C.H. 10	2296	

PACKERS : Kind
Sizes
Depths set

For Office of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP

Plat WW-9 WW-2B Bond Blanket Agent

(Type)

RECEIVED
FEB 13 1997
Office of Oil & Gas
Permitting Section

1) Date: 10/29/96
2) Operator's well number
COCO-A WELL #12381
3) API Well No: 47 - 039 - 5123-T
State - County - Permit

STATE OF WEST VIRGINIA - BUREAU OF ENVIRONMENT
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
a) Name (see attached sheet)
Address _____
b) Name _____
Address _____
c) Name _____
Address _____
6) Inspector Carlos W. Hiviely
Address 223 Pinch Ridge Road
Elkview, WV 25071
Telephone (304) - 965-6069

5) (a) Coal Operator:
Name _____
Address _____
(b) Coal Owner (s) with Declaration
Name (see attached sheet)
Address _____
Name _____
Address _____
(c) Coal Lessee with Declaration
Name _____
Address Coal Storage Lease

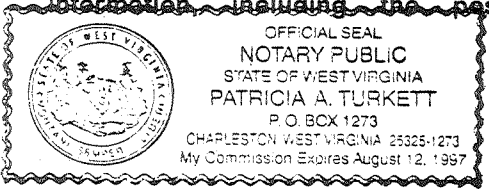
TO THE PERSON(S) NAMED ABOVE TAKE NOTICE THAT:

_____ Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil and gas OR
 Included is the information required by Chapter 22, Article 6, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22 of the West Virginia Code I have served copies of this notice and application, a location plat, and accompanying documents pages 1 through _____ on the above named parties, by:
_____ Personal Service (Affidavit attached)
 Certified Mail (Postmarked postal receipt attached)
_____ Publication (Notice of Publication attached)

I have read and understand Chapter 22-6 and 38 CSR 11-18, and I agree to the terms and conditions of any permit issued under this application. 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 is true, accurate, and complete.

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.



Well Operator COLUMBIA GAS TRANSMISSION CORP.
By: [Signature]
Its: Storage Engineer / Well Services
Address P. O. Box 1808
St. Albans, WV 25177-1808
Telephone (304) 722-8612

Subscribed and sworn before me this 4th day of November, 1996

Patricia A. Turkett Notary Public
My commission expires August 12, 1997

in Kin City office
See Dick
[Signature]