

1240'

LATITUDE 39°22'30"

0.165  
0.235

Jamie  
1/23/97

MARGAUX BOWMAN & MEAGHAN BOWMAN  
WB. 41 - PG. 766  
TM. 5 - PAR. 28

IRENE BUCKLEW  
DB. 551 - PG. 61  
TM. 5 - PAR. 26

JOHN A. ROLLYSON  
DB. 302 - PG. 397  
TM. 5 - PAR. 32

HAROLD D. & NORMA B. SANDERS  
DB. 461 - PG. 809  
TM. 10 - PAR. 6

INTER-STATE  
LUMBER CO. INC.  
DB. 460 - PG. 377  
TM. 10 - PAR. 7

FENCE CORNER  
AT CALL OF  
STONE

STAKE SET  
AT CALL OF  
STONE IN FENCE

STONE PILE  
CORNER (F.O.)  
30" W. OAK WIT.  
(BLUE PAINTED)

STONE PILE  
CORNER  
W. OAK  
WIT.

WELL  
#7518

NOTES

THIS MAP IS FOR WELL LOCATION  
ONLY AND DOES NOT REPRESENT  
A COMPLETE PROPERTY SURVEY.

ALL PROPERTY OWNERS WITH IN  
2000' LISTED ON PLAT ARE ON  
WELL WATER.

F.B. 2616, PG. 43-45

GEN PROJ ACT W.O. TR.CNT  
107-00313-681PM-W10736-2801

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS (7 1/2")

FILE NO. 122-129  
DRAWING NO. 7518  
SCALE 1" = 400'  
MINIMUM DEGREE OF  
ACCURACY 1/200  
PROVEN SOURCE OF  
ELEVATION USGS Standard Disc. STIMMED  
32 JEA, SET 10 CROC. MAPS, BY SEC. RI, R2  
about 1.3 mi. N. west of RI, 80, Hwy. R328, 20'

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 REGU-  
LATIONS ISSUED AND PRESCRIBED BY THE DEPART-  
MENT OF ENERGY.

(SIGNED) [Signature]

R.P.E. \_\_\_\_\_ L.L.S. 798

PLACE SEAL HERE

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION



DATE NOVEMBER 26, 19 96  
OPERATOR'S WELL NO. 7518  
API WELL NO.

47 077-00142-F

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
(IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 2043.04' WATER SHED KINSINGER RUN OF SALTICK CREEK

DISTRICT UNION COUNTY PRESTON

QUADRANGLE AURORA COORDINATES LAT. 39°22'21" LONG. 79°35'16"

SURFACE OWNER HAROLD D. & NORMA B. SANDERS ACREAGE 110.08

OIL & GAS ROYALTY OWNER JAMES EARNEST DEITZ LEASE ACREAGE 131

COAL OWNER SEE ABOVE LEASE NO. 901094

PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR  
STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW  
FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) STORAGE RECONDITION  
Full storage storage well in Chickmy & Chat.

PLUG AND ABANDON  CLEAN OUT AND REPLUG

TARGET FORMATION Chat ESTIMATED DEPTH 5657'

WELL OPERATOR COLUMBIA GAS TRANS. CORP. DESIGNATED AGENT RICHARD L. COTY

ADDRESS P.O. BOX 1273, CHARLESTON, WY ADDRESS P.O. BOX 1273, CHARLESTON, WY

25325-1273

25325-1273

DEEP WELL

LONGITUDE 79°35'00"

PRESTON  
COUNTY NAME

142  
PERMIT

9-AM RHO-3

Latitude 39° 25'

GLEN F. WOLFE

Set Stone in Fence Cor. on Hillside

376°45'E  
1129'

356°15'W-321'  
7518

366°W-200'

Fen. Cor. on Hillside Lg. Map. & Lg. W.O. Wit.

540°45'W-129'  
W.O. on Hillside

2.945  
0.15W

Longitude 79° 35'

7506

CARRIE M. BISHOFF

JOHN R. MORRIS ET. UX.

KINGSINGER  
RUN

52°30'E  
1720'

CABBAGE RUN

Fen. Post, Loc. & Lg. Bch. on West Bank of Lick Run 25' Below Water Fall.

PERRY BUCKLEW

**BENCH MARK DESCRIPTION**

U.S.G.S. Standard Disk Stamped 42 J.E.A. Set in Concrete Monument, By Sec. Rt. N<sup>o</sup> 82 & About 1.3 Mi. NW of Intersection of Sec. Rt. N<sup>o</sup> 80 and Sec. Rt. N<sup>o</sup> 82. Elev. 2398.70'

ACCURACY 1 Part in 200

- Fracture Before 6/5/29
- New Location
- Drill Deeper
- Redrill
- Abandonment

I, the undersigned, hereby certify that this map is correct to the best of my knowledge and belief and shows all the information required by Paragraph 5 of the Rules and Regulations of the Oil and Gas Section of the Mining Laws of West Virginia.

The accuracy of this survey is within the limits and as prescribed in Paragraph 5 by the Oil and Gas Division of the Department of Mines Regulations.

Company ATLANTIC SEABOARD CORP.  
 Address CHARLESTON, W. VA.  
 Farm CARRIE M. BISHOFF, ETAL  
 Tract \_\_\_\_\_ Acres 131 Lease No. AS-1094  
 Well (Farm) No. \_\_\_\_\_ Serial No. 7518  
 Elevation (Spirit Level) 2043.04'  
 Quadrangle KINGWOOD C.  
 County PRESTON District UNION  
 Engineer William Edman  
 Engineer's Registration No. 2330  
 No. 172-129 Drawing No. \_\_\_\_\_  
 Date JAN. 13, '70 Scale 1" = 400'

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

WELL LOCATION MAP  
 FILE NO. Pre-142

+ Denotes location of well on United States Topographic Maps, scale 1 to 62,500 latitude and longitude lines being represented by border lines as shown.

- Denotes one inch spaces on border line of original tracing.

Deep Well

Oriskany

APR 6 1970

1-0 Terra Alta 280

WR-35

12-Feb-98  
API # 47- 077-00142

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

Revised AS

Well Operator's Report of Well Work

Farm name: SANDERS, HAROLD & NORMA Operator well No.: TERRA-ALTA #7848  
TERRA ALTA S. #7518  
LOCATION: Elevation: 2,043.04 Quadrangle: AURORA  
District: UNION County: PRESTON  
Latitude: 830 Feet South of 39 Deg. 22 Min. 30 Sec.  
Longitude: 1240 Feet West of 79 Deg. 35 Min. 0 Sec.

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

Agent: RICHARD L. COTY  
Inspector: PHILLIP TRACY  
Permit Issued: 01/23/98  
Well work Commenced: 08-21-98  
Well work Completed: 09-17-98  
Verbal Plugging  
Permission granted on: \_\_\_\_\_  
Rotary \_\_\_\_\_ Cable \_\_\_\_\_ Rig  
Total Depth (feet) 5,657'  
Fresh water depths (ft) See Original Records  
Salt water depths (ft) See Previous  
Is coal being mined in area (Y/N) ? N  
Coal Depths (ft) : See Previous

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
WORKOVER & STIMULATION; SEE OPPOSITE SIDE FOR DETAILS			
Pulled & Retired: 2-3/8"	5,520'	all removed 0' left in well.	

OPEN FLOW DATA

Producing formation Huntersville Chert & Oriskany Pay zone depth (ft) 5246'-5468; 5483-5623'  
Gas : Initial open flow 7,020 MCF/d Oil : Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow 33,400 MCF/d Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests (363 Days) Hours  
Static rock Pressure 2,138 psig (surface pressure) after (37 Days) 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: W.H. Foraker  
Date: 3/5/99

MAR 29 1999

PRE 0142

WR-35

12-Feb-98  
API # 47- 077-00142

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

Well Operator's Report of Well Work

**WORKOVER:**

- Recovered and retired 5,520' of 2-3/8" 4.7 lb./ft J-55 tubing (tallied length: 5,524.44')
- Cleaned out hole to 5,626'.
- A new partial wellhead was installed.

**STIMULATION:**

- Acidized on 09-16-98.
- The well was treated as follows:
- Additives: FE1-A, FE-5A, BA-2, HAI-81, SCA-130, PENN-88, and HC-2.
- Total acid 5,660 gals 15% FE, 350 gals 20% FE
- Total water 840 gals
- Total Nitrogen 437,500 scf.
- Fluids removed from location and transported for disposal @ LAD (Liquid Asset Disposal, Inc.) Wheeling, WV.

Form OG-10

79-30  
1-35



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

Rotary   
Spudder   
Cable Tools   
Storage  **WOLF**  
Oil or Gas Well  **Storage Gas**

Quadrangle Kingwood  
Permit No. Pres. - 142

**WELL RECORD**

Company Atlantic Seaboard Corporation  
Address P. O. Box 1273, Charleston, W. Va. 25325  
Farm Carrie M. Bishoff, et. al. Acres 131  
Location (waters) Kinsinger Run  
Well No. X-76-S-7518 Elev. 2043.04'  
District Union County Preston  
The surface of tract is owned in fee by Lydia Tanner Hrs.  
Address \_\_\_\_\_  
Mineral rights are owned by Carrie M. Bishoff, et. al.  
Address Terra Alta, W. Va.  
Drilling commenced April 14, 1970  
Drilling completed May 5, 1970  
Date Shot \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
17 13 3/8"	32'	32'	Size of
18 9 5/8"	1846'	1846'	Depth set
8 1/4			
6 3/4 7"	5496'	5496'	Perf. top (See Reverse Side)
5 3/16			Perf. bottom
4 1/2			
3			
2 2 3/8"	5636'	5636'	Perf. top
Liners Used			Perf. bottom

Open Flow \_\_\_\_\_ /10ths Water in \_\_\_\_\_ Inch  
\_\_\_\_\_ /10ths Merc. in \_\_\_\_\_ Inch  
Volume \_\_\_\_\_ Cu. Ft.  
Rock Pressure \_\_\_\_\_ lbs. \_\_\_\_\_ hrs.  
Oil \_\_\_\_\_ bbls., 1st 24 hrs.  
WELL ACIDIZED (DETAILS) (See Reverse Side)  
WELL FRACTURED (DETAILS)

Attach copy of cementing record.  
CASING CEMENTED \_\_\_\_\_ SIZE \_\_\_\_\_ No. Ft. \_\_\_\_\_ Date \_\_\_\_\_  
Amount of cement used (bags) (See Reverse Side)  
Name of Service Co. Dowell  
COAL WAS ENCOUNTERED AT \_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES  
\_\_\_\_\_ FEET \_\_\_\_\_ INCHES

RESULT AFTER TREATMENT (Initial open Flow or  $\frac{1}{10}$  bbls.) 22.0 M 27,000  
ROCK PRESSURE AFTER TREATMENT 1600# HOURS 48  
Fresh Water \_\_\_\_\_ Feet \_\_\_\_\_ Salt Water \_\_\_\_\_ Feet \_\_\_\_\_  
Producing Sand \_\_\_\_\_ Depth \_\_\_\_\_

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Siltstone & Shale			0	4546	Measured from KB		
Tully Limestone ✓			4546	4576			
Shale			4576	5216			
Onondaga Limestone ✓			5213	5246			
Chert ✓			5246	5468	Gas	5213 5483 5623 2043 2043 2043	
Shale - <u>Need more ch</u> ✓			5468	5483		3170 3440 3580	
Oriskany Sand ✓			5483	5623	Gas		
Helderberg Limestone ✓			5623				
Total Depth				5657			

(over)

**RECEIVED**  
NOV 27 1970

OIL & GAS DIVISION  
DEPT. OF MINES

DEC 4 1970

Formation	Color	Hard or Soft	Top S	Bottom	Oil, Gas or Water	Depth Found	Remarks
<b>NOTE:</b>							
13 3/8"							48#/ft., H-40, casing cemented to surface with 17 sacks of neat cement plus 2% CaCl, April 14, 1970.
9 5/8"							36#/ft., K-55, casing cemented to surface with 680 sacks neat cement plus 2% CaCl, April 20, 1970.
7"							23#/ft., K-55, Seal-lok casing cemented in 1000' with 520 gallons latex and 80 cubic feet of neat, May 2, 1970.
2 3/8"							4.7#/ft., J-55, Seal-lok tubing, run to T.D. (1) Baker Model "J" ported seating nipple, (1) Baker BFC Model "L" sliding sleeve. Sliding sleeve is 421' off bottom, August 31, 1970.
Perforations:	Chert hole.	(5283' - 5333')					with 56, 3 1/2" Alum Jet shots. Basin Surveys Inc., August 31, 1970. Oriskany open
Stimulation:	Dowell						pumped a total of 762 barrels of fresh water to kill well in order to perforate chert pay and also to run tubing. August 31, 1970.
Logging:	Borehole						Compensated Sonic Log: 5488' - 5000', May 1, 1970.
	Formation						Density Log: 5488' - 4200', May 1, 1970.
	Gamma Ray:						5643' - 5200', May 5, 1970.
	Induction:						5488' - 4976', May 1, 1970.
	Gamma Ray:						5475' - 4600', April 30, 1970.
	Temperature:						5419' - 4600', April 28, 1970.
	Gamma Ray - P.D.C.:						5480' - 5200', August 31, 1970.

Date November 9, 19 70  
APPROVED Atlantic Seaboard Corp., Owner  
By Harrold D. Supt.  
(TWJ)

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

- 1) Well Operator: COLUMBIA GAS TRANSMISSION CORPORATION
2) Operator's Well Number: Terra Alta South Stg # 7518 (API 47-077-00142) 3) Elevation: 2,043.04 feet
4) Well type: (a) Oil / or Gas X /
(b) If Gas: Production / Underground Storage X / Deep X / Shallow /
1) Proposed Target Formation (s): Chert-Oriskany
6) Proposed Total Depth: 5,657 feet
7) Approximate fresh water strata depths: NONE RECORDED
8) Approximate salt water strata depths: NONE RECORDED
9) Approximate coal seam depths: NONE RECORDED
10) Does land contain coal seams tributary to active mine? Yes / No X /
11) Proposed Well Work: Columbia proposes to kill the well with a fresh-water polymer based mud system, pull the tubing and reconfigure the wellhead.
12) CASING AND TUBING PROGRAM

Issued 01/23/97
Expires 01/23/99

RECEIVED
WV Division of Environmental Protection
DEC 27 1996
Permitting Office of Oil & Gas

Table with columns: TYPE, SPECIFICATIONS, FOOTAGE INTERVALS, CEMENT. Rows include conductor, Fresh Water, Coal, Intermediate, Production, Tubing, and Liners.

PACKERS : Kind None
Sizes
Depths set

60172331

For Division of Oil and Gas Use Only
Fee(s) paid:
Well Work Permit
Reclamation Fund
Bond
WPCP Agent

RECEIVED  
WV Division of  
Environmental Protection

DEC 27 1996

Permitting  
Office of Oil & Gas

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

Page 1 of  
Form WW2 - A  
(6/94)  
File Copy

1) Date: 10/24/96  
2) Operator's well number  
TERRA ALTA SOUTH WELL 7518  
3) API Well No: 47 - 077 - 00142 - F  
State - County - Permit

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner (s) to be served:  
a) Name Harold D. & Norma Sanders  
Address 203 Sanders Ave.  
Kingwood, WV 26537  
b) Name  
Address  
c) Name  
Address  
6) Inspector Phillip Tracy  
Address Route 2, Box 37-A  
Montrose, WV 26283  
Telephone (304) - 636-8798

5) (a) Coal Operator:  
Name  
Address  
(b) Coal Owner (s) with Declaration  
Name SEE ATTACHED LIST  
Address  
Name  
Address  
(c) Coal Lessee with Declaration  
Name  
Address

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  
X 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:

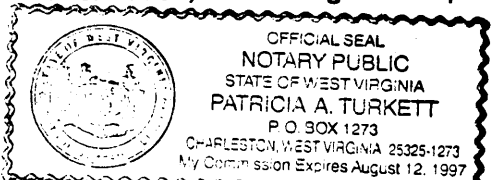
- Personal Service (Affidavit attached)
- X Certified Mail (Postmarked postal receipt attached)
- Publication (Notice of Publication attached)

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: W.N. Foraker  
Its: Senior Storage Engineer / Well Services  
Address Route 3, Box 216  
Elkins, WV 26241  
Telephone 304/636-8129



Subscribed and sworn before me this 24th day of November, 1996

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



Form WW2 - A (1)  
( 6/94)  
7518

Operator's Well No. TERRA ALTA SOUTH WELL

INFORMATION SUPPLIED UNDER WEST VIRGINIA CODE  
Chapter 22, Article 6, Section 8 (d)

COAL OWNERSHIP :

- 1) James Earnest Deitz - 1/4 Interest
- 2) William C. Drury - 1/4 Interest  
Box - 16  
Owings, MD 20836
- 3) Fern Calhoun Heirs - 1/4 Interest
- 4) George A. Bishoff - 1/2 of 1/4 Interest  
2015 Briarwood Circle  
Ft. Mill, SC 29715
- 5) Lorraine Bush - 1/2 of 1/4 Interest  
Pittsburg, PA

077-142