

WELL #7524
(47-077-00161)

LATITUDE 39°22'30"

NIF
MESSENGER LTD PARTNERSHIP
TM. 9 - PAR. 4
DB. 551 - PG. 539
552 Ac.

NIF
ALLEGANY...
DB. 553 - PG. 541
553.00 Ac.

BEVERLY A. SHAY
TM. 14 - PAR. 12
WB. 26 - PG. 327
78.89 Ac.

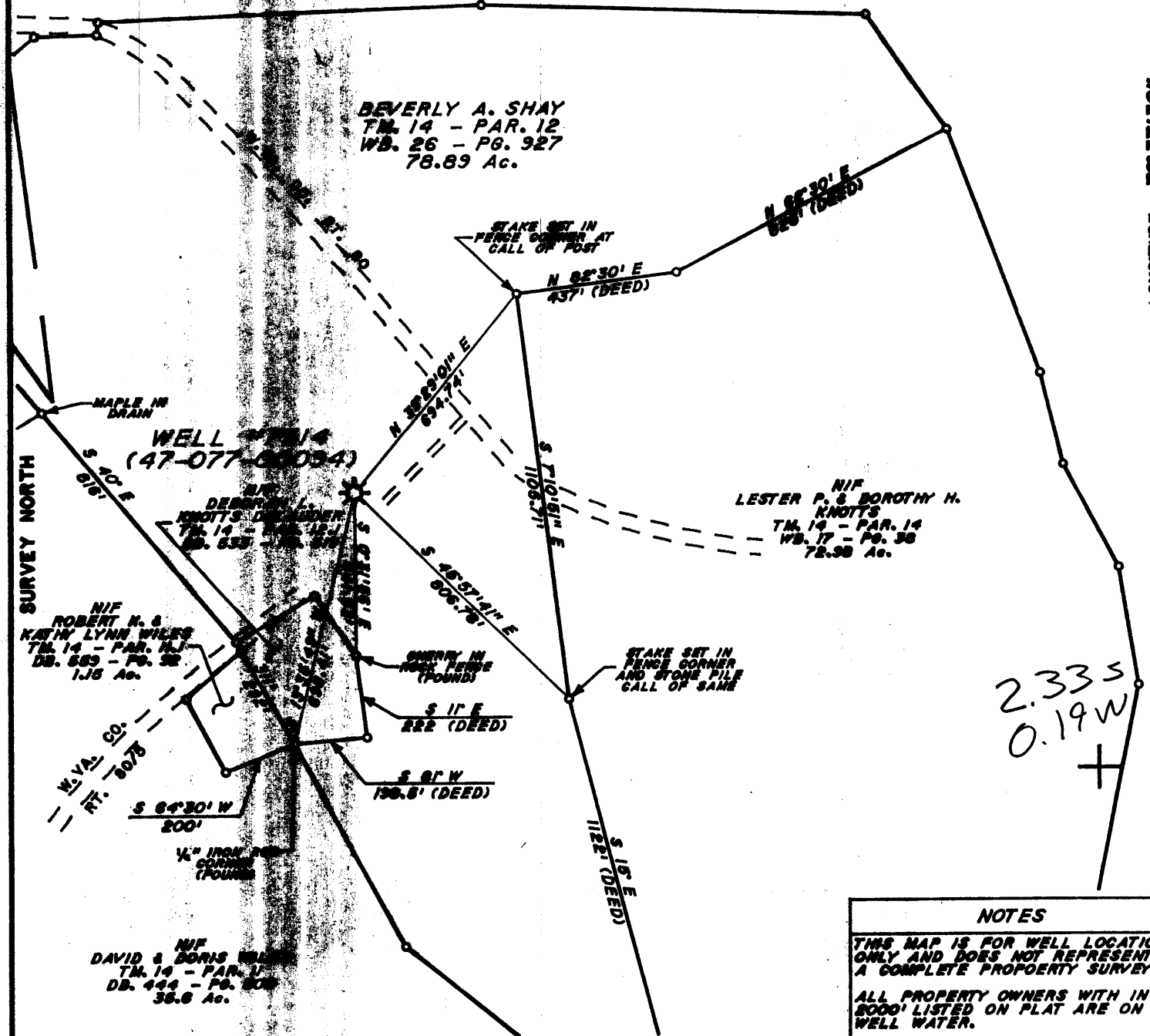
WELL #7514
(47-077-00094)

NIF
DEBORAH L. KNOTTS
TM. 14 - PAR. 14
DB. 553 - PG. 541
78.98 Ac.

NIF
LESTER P. & DOROTHY H. KNOTTS
TM. 14 - PAR. 14
WB. 17 - PG. 35
78.98 Ac.

NIF
ROBERT H. & KATHY LYNN WILES
TM. 14 - PAR. 14
DB. 553 - PG. 541
1.35 Ac.

NIF
DAVID & DORIS WILES
TM. 14 - PAR. 14
DB. 444 - PG. 508
35.6 Ac.



2.335
0.19W
+

NOTES
THIS MAP IS FOR WELL LOCATION ONLY AND DOES NOT REPRESENT A COMPLETE PROPERTY SURVEY.
ALL PROPERTY OWNERS WITH IN 5000' LISTED ON PLAT ARE ON WELL WATER.

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS (7 1/2) FB. 2541 PG. 24-26

FILE NO. _____
DRAWING NO. 7514
SCALE 1" = 400'
MINIMUM DEGREE OF ACCURACY 1/200
PROVEN SOURCE OF ELEVATION U.S. STANDARD DISK IN CONC. POST BETWEEN ROADS STAMPED

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 ENERGY.
(SIGNED) Edward Nicholson
R.P.E. _____ L.L.S. 798

PLACE SEAL HERE

WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION
OFFICE OF OIL AND GAS
#10 McJUNKIN ROAD
NITRO, WEST VIRGINIA 25143-2506



DATE JANUARY 9, 1997
OPERATOR'S WELL NO. 7514
API WELL NO. 47 077 00094W

WELL TYPE: OL GAS X LIQUID INJECTION WASTE DISPOSAL _____
OF "GAS, " PRODUCTION _____ STORAGE X DEEP _____ SHALLOW _____
LOCATION: ELEVATION 2420' WATER SHED MADISON RUN
DISTRICT UNION COUNTY PRESTON
QUADRANGLE ROWLESBURG, WV COORDINATES LAT: 39°20'28" LONG: 79°37'42"
SURFACE OWNER BEVERLY A. SHAY ACREAGE 78.89 Ac.
OIL & GAS ROYALTY OWNER H.B. & ETHEL SHAY LEASE ACREAGE 132 Ac.
COAL OWNER H.B. & ETHEL SHAY LEASE NO. 91101
PROPOSED WORK: DRILL CONVERT _____ DRILL DEEPER _____ REDRILL _____ FRACTURE OR STIMULATE _____ PLUS OFF OLD FORMATION _____ PERFORATE NEW FORMATION _____ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) STORAGE RECONDITION
Well drilled by Atlantic Seaboard in 1970 TD-6169 Columbia to ferric and Acidize
PLUS AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION _____ ESTIMATED DEPTH _____
WELL OPERATOR COLUMBIA GAS TRANS. CORP. DESIGNATED AGENT RICHARD L. COTY APP. 0 8 1997
ADDRESS P.O. BOX 1273, CHARLESTON, WV ADDRESS P.O. BOX 1273, CHARLESTON, WV
25325-1273 175 25325-1273

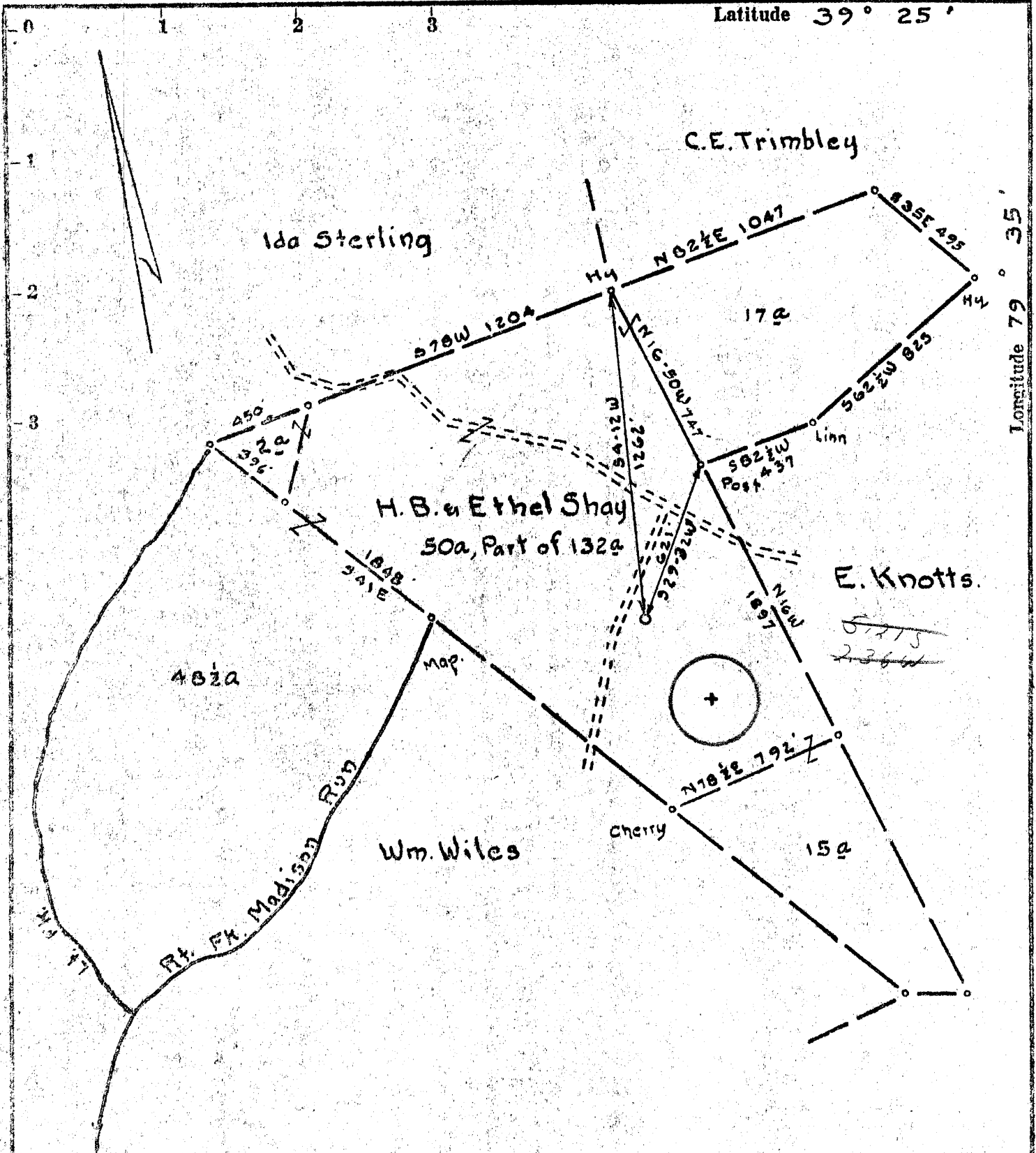
DEEP WELL

5-8A FORM

COUNTY NAME PERMIT

Latitude 39° 25'

Longitude 79° 35'



Drill Deeper - 3-6-70

- Redrill.....
- New Location
- Drill Deeper.....
- Abandonment.....

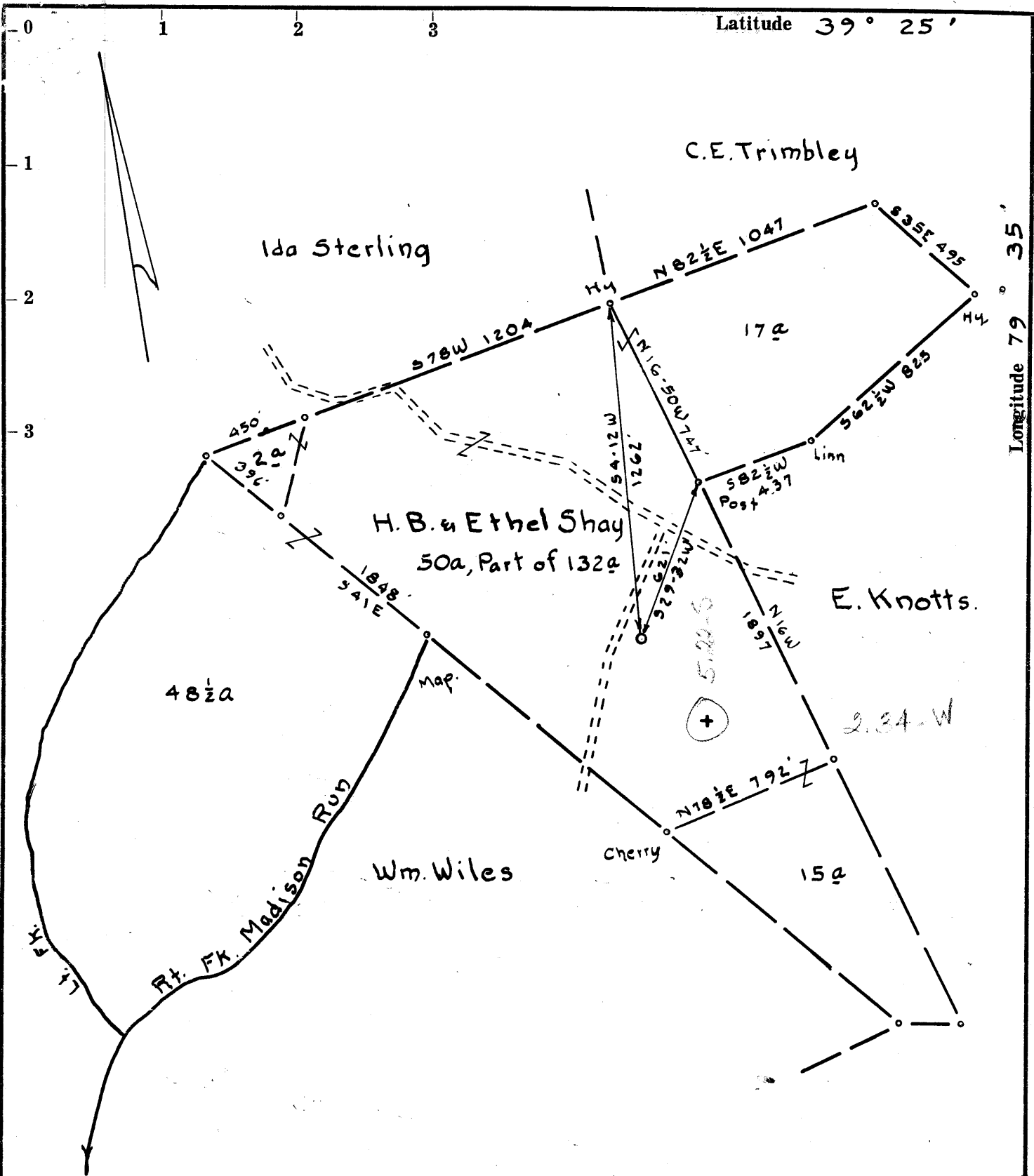
ATLANTIC Seaboard Corporation
 Company Atlantic Seaboard
 Address Charleston, W. Va.
 Farm H.B. & Ethel Shay
 Tract _____ Acres 1.32 Lease No. _____
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 2420'
 Geographic Kingwood C
 County Preston District Union
 Engineer James D. Jeffries
 Engineer's Registration No. 1084
 File No. 201/24 Drawing No. _____
 Date 2-20-61 Scale 1"=500'

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

WELL LOCATION MAP
 FILE NO. PRES-94-DD

+ 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.



- Redrill.....
- New Location.
- Drill Deeper.....
- Abandonment.....

5.30 (P)
~~2.41 W.~~
 5.56 (F-13)

Company Union Gas No 9
 Address Clarksburg W.Va.
 Farm H.B. & Ethel Shay
 Tract _____ Acres 132 Lease No. _____
 Well (Farm) No. 1 Serial No. _____
 Elevation (Spirit Level) 2420'
 Quadrangle Kingwood - C
 County Preston District Union
 Engineer James D. Jeffries
 Engineer's Registration No. 1084
 File No. 201/94 Drawing No. _____
 Date 9-30-61 Scale 1"=500'

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

WELL LOCATION MAP
 FILE NO. PRES-94

+ 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.

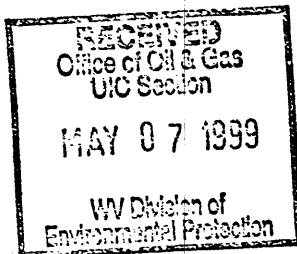
No Samples

Deep Well

WR-35

27-Mar-96

API # 47- 077-00094 W



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

Reviewed MS

Well Operator's Report of Well Work

Farm name: SHAY, BEVERLY A. ETAL Operator Well No.: TERRA ALTA SOUTH 7514
 LOCATION: Elevation: 2,420.00' Quadrangle: ROWLESBURG
 District: UNION County: PRESTON
 Latitude: 12,250 Feet South of 39 Deg. 22 Min. 30 Sec.
 Longitude: 990 Feet West of 79 Deg. 37 Min. 30 Sec.

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

Agent: RICHARD L. COTY
 Inspector: PHILLIP TRACY
 Permit Issued: 03/27/96
 Well work Commenced: 07/24/97
 Well work Completed: 08/26/97
 Verbal Plugging
 Permission granted on: _____
 Rotary _____ Cable _____ Rig
 Total Depth (feet) 6,169'
 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 Cu. Ft.
RE-PERFORATED 4-1/2" CASING; SEE BACK FOR DETAILS			
STIMULATION; SEE BACK FOR DETAILS			

OPEN FLOW DATA

Producing formation Chert & Oriskany Pay zone depth (ft) 5,860'-5,995' - 6,009'-6,166'
 Gas : Initial open flow 1712 MCF/d Oil : Initial open flow _____ Bbl/d
 Final open flow 7370 MCF/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests 480 Days Hours
 Static rock Pressure 2166 psig (surface pressure) after 4 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 : William H. Farker
 Date : May 4, 1999

MAY 17 1999

PRE 0094 W

WR-35

27-Mar-96

API # 47- 077-00094 W

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

Well Operator's Report of Well Work

RE-PERFORATED

Re-perforated 4-1/2" casing 07/31/97 with Western Atlas Logging Services 3-3/8" expendable guns from: 6,015'-6,036', 5,950'-5,960', 5,942'-5,946', and 5,874'-5,938', with 594 shots @6 shots/foot.

STIMULATION

- Acidized on 08/25/97
- Halliburton Coiled Tubing Conveyed -Selective Injection Packer -Acid Job.
- Acidized with 11,592 gals 10% Halliburton FE Acid setting selective injection packer and treating with five foot intervals as follows:

5,886'-5,874'	6,036'-6,031'	6,031'-6,026'	6,026'-6,021'	6,021'-6,016'	6,016'-6,011'
6,008'-6,003'	5,960'-5,955'	5,955'-5,950'	5,946'-5,941'	5,941'-5,936'	5,936'-5,931'
5,931'-5,926'	5,926'-5,921'	5,921'-5,916'	5,916'-5,911'	5,911'-5,906'	5,906'-5,901'
5,901'-5,896'	5,896'-5,891'	5,891'-5,886'	5,886'-5,881'	5,881'-5,878'	



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

Rotary
Spudder
Cable Tools
Storage

Quadrangle Kingwood

Permit No. Pres. 94 - D.D.

WELL RECORD
"Drill Deeper"

Oil or Gas Well
(KIND)

Company Atlantic Seaboard Corporation
Address P. O. Box 1273, Charleston, W. Va. 25325
Farm H. B. and Ethel Shay Acres 132
Location (waters) Right Fork of Madison Run
Well No. X-76-S-7514 Elev. 2420'
District Union County Preston
The surface of tract is owned in fee by H. B. and Ethel Shay
Address Rowlesburg, W. Va.
Mineral rights are owned by H. B. and Ethel Shay
Address Rowlesburg, W. Va.
Drilling commenced April 11, 1970
Drilling completed May 6, 1970
Date Shot From To
With

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
13			Size of
10			
8 1/4			Depth set
6 3/8			
5 3/16			Perf. top (See
4 1/2	6118'	6118'	Perf. bottom Revers
3			Perf. top Side)
2			Perf. bottom
Liners Used			

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. Halliburton
COAL WAS ENCOUNTERED AT None FEET INCHES
 FEET INCHES FEET INCHES
 FEET INCHES FEET INCHES

RESULT AFTER TREATMENT (Initial open Flow or bbls.) 133 M 133,000
ROCK PRESSURE AFTER TREATMENT 1100 HOURS
Fresh Water Feet Salt Water Feet
Producing Sand Depth

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Oriskany					5835	6009	6166
Original Total Depth			6009'	6130'		2420	2420
Oriskany			6130'	6166'		3589	3746
Helderberg			6166'				
Total Depth			6169'				
			<u>485</u>				
			<u>6169</u>				
			<u>6130</u>				
			<u>39</u>				
			<u>DD</u>				
			<u>Soilage</u>				
			<u>New</u>				
			<u>Soilage</u>				

RECEIVED

JAN 18 1971

OIL & GAS DIVISION

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
NOTE:							
4 1/2"							11.6#/ft., J-55, casing cemented in 1000' with 115 sacks of Halliburton latex cement plus 29 lbs. of Flocele. Water mixed with 1 drum Bariod B-1400, left behind pipe to surface. Casing set about 110' in Oriskany sand.
							Squeeze job on 4 1/2" casing with Halliburton using 75 cubic feet of Halliburton latex cement.
Perforations:							
							Chert (6003' - 6008') 11 shots Oriskany (6011' - 6015') 9 shots (6018' - 6029') 21 shots
							3 1/2" glass jets shots - May 22, 1970
Stimulation:							
							Halliburton stimulated Oriskany pay only using 6000 gallons. 28% HCL 1 drum Bariod B-11 and 237 barrels of fresh water. Average pressure 3300#, 18 BPM. May 21, 1970.
							Halliburton latter stimulated chert section only using 5 barrels 28% HCL and 300 barrels of fresh water. Well on Vac. May 25, 1970.
Logging:							
							Temp. cement top location (6031 - 5350') May 8, 1970
							Gamma Ray - PDC (6169 - 5800') May 15, 1970
							Caliper (6169 - 6050') May 15, 1970
							Differential Data (6151 - 5500') May 28, 1970
							Formation Fracture (6169 - 5900') May 5, 1970
							Gamma Ray - Neutron (6169 - 5800') May 5, 1970
							Cement Bond Log (6160 - 5578') May 8, 1970

Date December 17, 1970

APPROVED *[Signature]* Owner

By *[Signature]* (Title) *[Signature]*



STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION *22*

Quadrangle Kingwood

Permit No. PRES-94

WELL RECORD

Oil or Gas Well Gas
(KIND)

Company UNION GAS COMPANY NO. 9
Address P. O. Drawer 351, Clarksburg, W. Va.
Farm H. B. & Ethel Shay Acres 132
Location (waters) Lantz Ridge
Well No. One Elev. 2420'
District Union County Preston
The surface of tract is owned in fee by Same
Star Route, Aurora Address West Virginia.
Mineral rights are owned by Same Address _____
Drilling commenced May 7, 1962
Drilling completed September 12, 1962
Date Shot _____ From _____ To _____
With _____
Open Flow 94 10ths Water in _____ Inch
94 10ths Merc. in. 2" Inch
Volume 1,124,000 Cu. Ft.
Rock Pressure 1720# lbs. 72 hrs.
Oil _____ bbls., 1st 24 hrs.
WELL ACIDIZED Treated with 20,000 Gal.
15% Acid
WELL FRACTURED _____

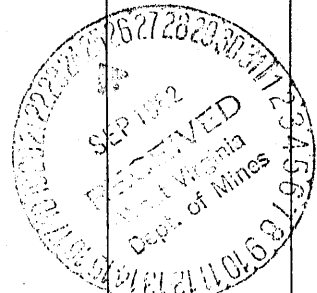
Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer _____
16			
13	<u>38'</u>	<u>38'</u>	
10	<u>582'</u>	<u>582'</u>	Size of _____
8 1/4	<u>2736'</u>	<u>2736'</u>	
6 3/4	<u>5855'</u>	<u>5855'</u>	Depth set _____
5 3/16			
3			Perf. top _____
2			Perf. bottom _____
Liners Used			Perf. top _____
			Perf. bottom _____

CASING CEMENTED 7" SIZE 450' No. Ft. _____ Date 8/18/62

COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

RESULT AFTER TREATMENT 30/10 M. 7" 9,105 McE gas
ROCK PRESSURE AFTER TREATMENT 1720#
Fresh Water _____ Feet Salt Water _____ Feet

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth	Remarks
Rock			0	40			
Slate			40	95			
Lime			95	170			
Rock	Pink		170	215			
Sand			215	240	Water at 220		
Lime			240	480			
Lime	Red		480	520			
Lime			520	805			
Slate			805	890			
Lime			890	1025			
Red Rock	<i>Mauch Chunk?</i>		1025	1040			
Lime			1040	2820			
Slate			2820	2830			
Denson Sand			2830	2860			
Slate			2860	2872			
Lime			2872	3005			
Slate & Shells			3005	3370			
Lime			3370	3510			
Slate & Shells			3510	3805			
Lime			3805	4215			
Slate & Shells			4215	4880			
Shale	Brown		4880	5345			
Shale	Black		5345	5400			
Lime	Tulley		5400	5425			
Shale			5425	5835			
Shale	Brown		5835	5835			
Lime	<i>Onondaga</i>		5835	5860	Gas	5895 to 5896	
Chert	<i>Huntsville</i>		5860	5995	94/10 Water 2"		



Gas 5895 to 5896
94/10 Water 2"
Blowed down to 66/10 W 2" = 343 M

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

23333

- 1) Well Operator: 75 COLUMBIA GAS TRANSMISSION CORPORATION 10450 (7) 591
- 2) Operator's Well Number: Terra Alta South Stg # 7514 (API 47-077-00094) 3) Elevation: 2,420 feet
- 4) Well type: (a) Oil / or Gas X /
 (b) If Gas: Production / Underground Storage X /
 Deep X / Shallow /
- 5) Proposed Target Formation (s): 475 Chert-Oriskany
- 6) Proposed Total Depth: 6,169 feet
- 7) Approximate fresh water strata depths: 220 feet
- 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 / *Epostron Well*
- 11) Proposed Well Work: Columbia proposes to clean the well out to total depth with coiled tubing. The well will be logged with cased hole logs. The well will be reperforated, acidized or fractured depending on log results. Cleaned up, flow tested & place back in service.
- 12) **CASING AND TUBING PROGRAM**

*Issued 03/31/97
Expires 03/31/99*

RECEIVED
WV Division of
Environmental Protection
MAR 14 1997
Permitting
Office of Oil & Gas

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling		Left in well
conductor	13-3/8"			38'	38'	Unknown
Fresh Water	10-3/4"			582'	582'	Unknown
Coal						
Intermediate	8-5/8" 7"		23#	2,736' 5,855'	2,736' 5,855'	Unknown 50 sks cmt
Production	4-1/2"	J-55	11.6#	6,118'	6,118'	115 sks latex cmt sqzd w/ 75cuft latex
Tubing						<i>3805818 11/1</i>
Liners						

PACKERS : Kind None
 Sizes
 Depths set

00188944

For Division 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
WV Division of
Environmental Protection

MAR 14 1997

Permitting
Office of Oil & Gas

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

- 1) Date: 1/31/97
- 2) Operator's well number
TERRA ALTA SOUTH WELL 7514
- 3) API Well No: 47 - 077 - 00094 -W
State - County - Permit

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

- 4) Surface Owner (s) to be served:
 - a) Name Beverly A. Shay
Address PO Box - 15
Aurora, WV 26705
 - b) Name Rex A. and Beverly A. Nice
Address PO Box - 15
Aurora, WV 26705
 - c) Name Deborah L. Knotts Delauder
Address 352 Sanders Street
Terra Alta, WV 26764
- 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 SAME
Address _____
- (c) Coal Lessee with Declaration
Name _____
Address _____

Copy of Storage Lease in Columbia Gas office in Kan City can be seen.

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.H. Foraker
Its: Senior Storage Engineer / Well Services
Address Route 3, Box 216
Elkins, WV 26241

Subscribed and sworn before me this 5th day of February, 19 97

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

