

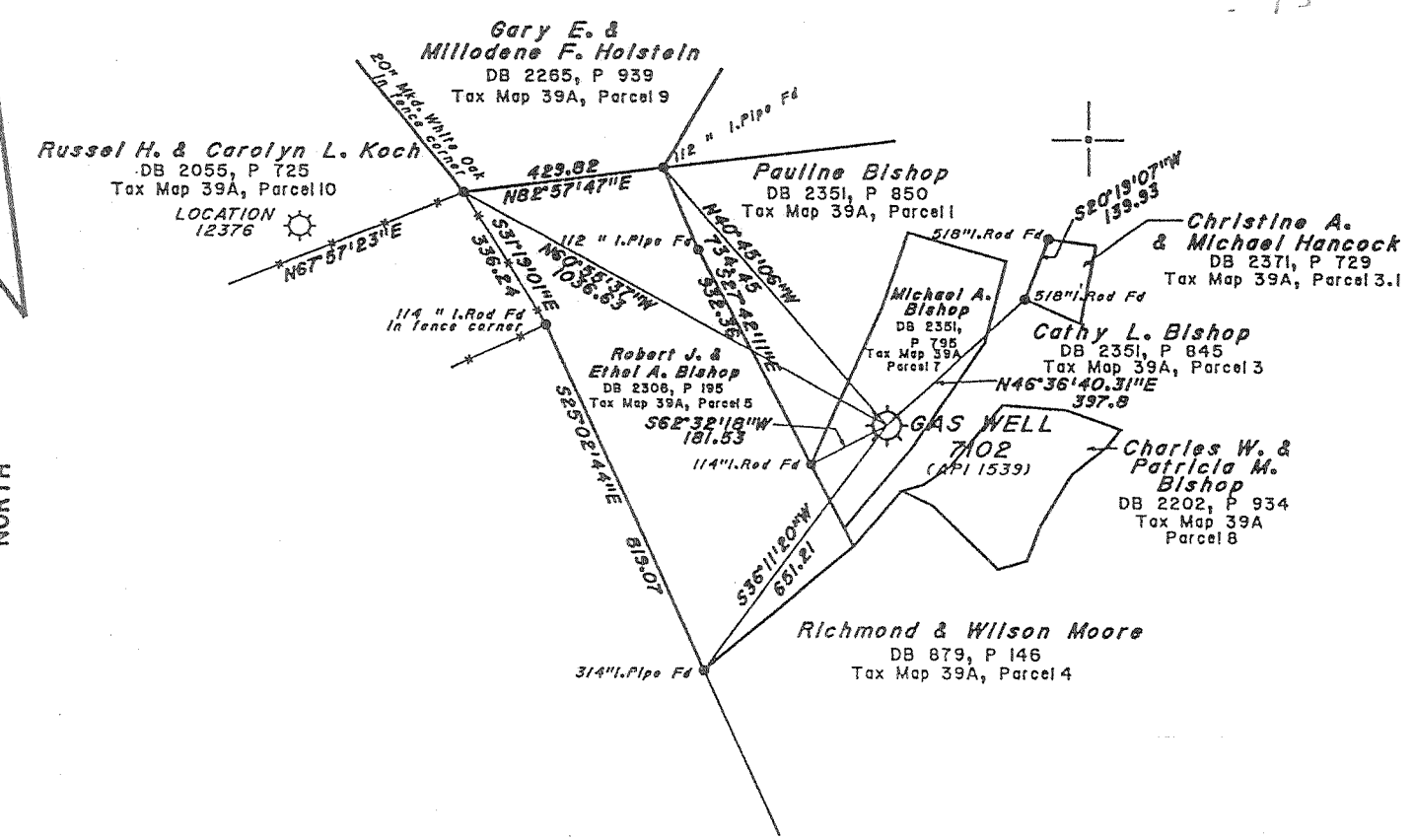
Amel
3/9/99

3,940'
LATITUDE 38°25'00"

LONGITUDE 81°00'52.8"

4,600'

875
750



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

FB. 2614, PG. 33-34

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS (7 1/2") REVISED : 01/28/99

FILE NO. _____
DRAWING NO. 7102
SCALE 1" = 400'
MINIMUM DEGREE OF ACCURACY 1:200
PROVEN SOURCE OF ELEVATION EXISTING WELL
7102 ELEVATION

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) Charles R. Davidson
R.P.E. _____ L.L.S. 819



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



DATE JANUARY 20, 19 99
OPERATOR'S WELL NO. 7102
API WELL NO. _____

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

47 039 0 1539 7
STATE COUNTY PERMIT

LOCATION: ELEVATION 874.5 WATER SHED Branch of Blue Creek of Elk River
DISTRICT Elk COUNTY Kanawha
QUADRANGLE Blue Creek, WV COORDINATES LAT: 38°24'15" LONG: 81°25'50"

SURFACE OWNER Michael A. Bishop ACREAGE 2.793
OIL & GAS ROYALTY OWNER Kanawha Crude Oil Inc. LEASE ACREAGE 914
COAL OWNER John W. Simon LEASE NO. 881

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

PLUG AND ABANDON _____ CLEAN OUT AND REPLUG _____
TARGET FORMATION Oriskany ESTIMATED DEPTH 5246'
WELL OPERATOR COLUMBIA GAS TRANSMISSION CORP DESIGNATED AGENT Richard L. Cory
ADDRESS PO Box 1273, Charleston, WV 25325-1273 ADDRESS PO Box 1273, Charleston, WV 25325-1273

MAR 16 1999

DEEP well

KANAWHA
COUNTY NAME
1539 - F
PERMIT

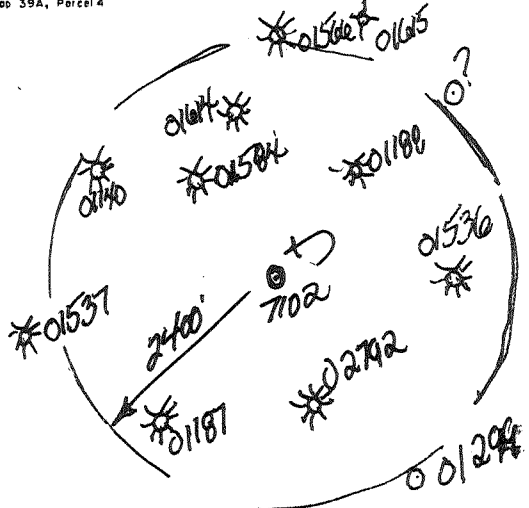
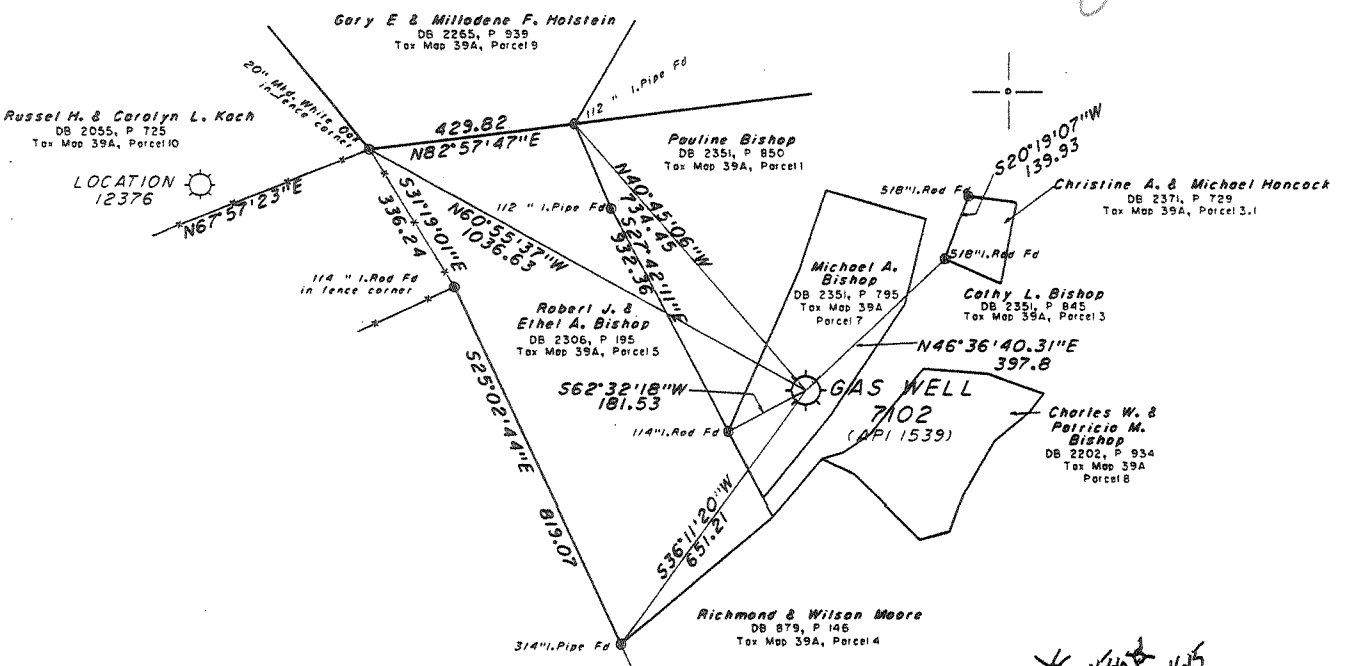
Jamie
5/12/97

LATITUDE 38°25'00"

LONGITUDE 81°52'18"

4,600'

0.875
0.74W



NORTH

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

FILE NO. _____
DRAWING NO. 12376
SCALE 1" = 200'
MINIMUM DEGREE OF ACCURACY 1:400
PROVEN SOURCE OF ELEVATION EXISTING WELL 7102 ELEVATION

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) Wayne H. Smith, Jr.
R.P.E. _____ L.L.S. 499

PLACE SEAL HERE

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



DATE March 17, 19 97
OPERATOR'S WELL NO. 7102
API WELL NO. 47 099 01539-0
STATE COUNTY PERMIT

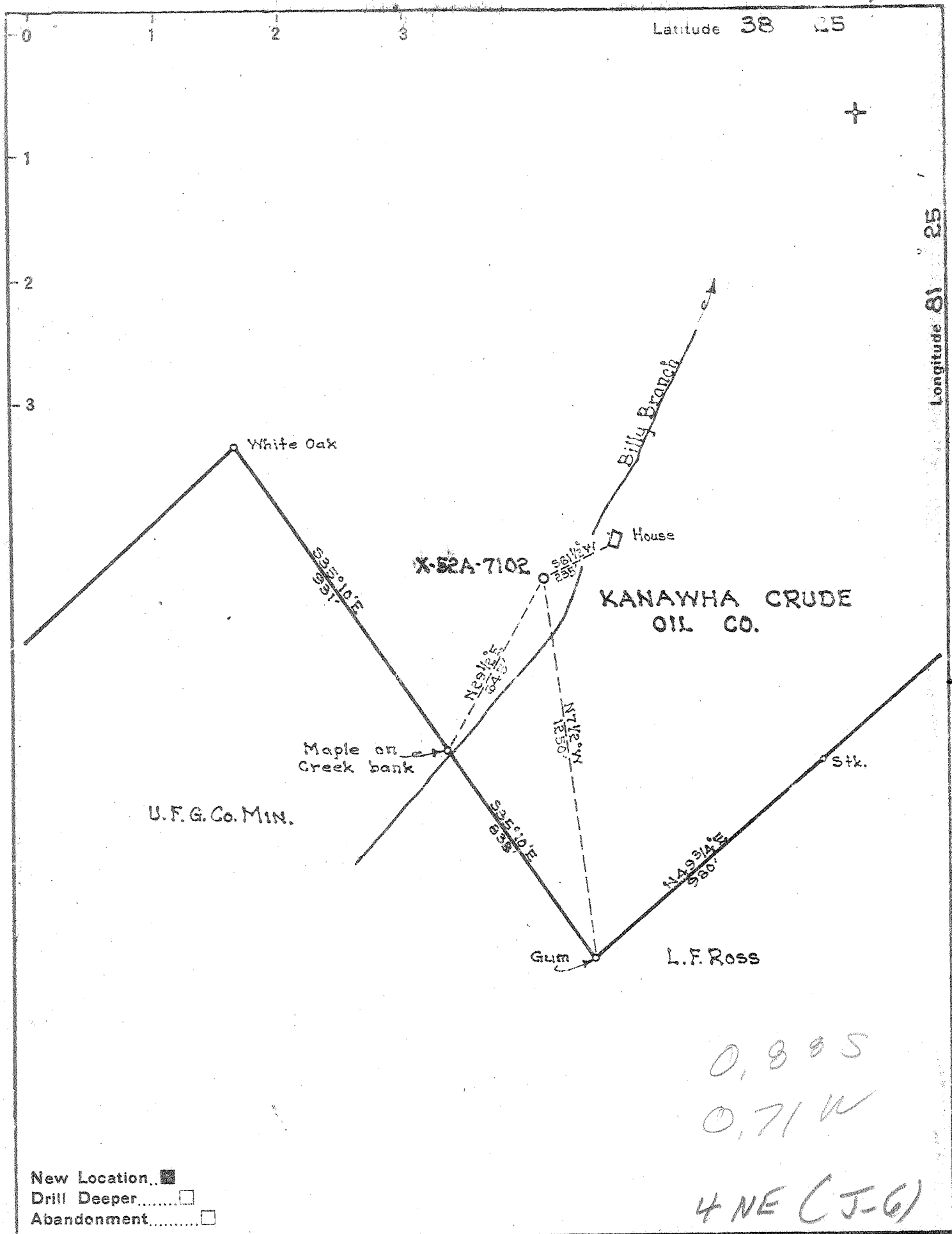
WELL TYPE: OIL GAS X LIQUID INJECTION WASTE DISPOSAL
(IF "GAS,") PRODUCTION STORAGE X DEEP SHALLOW
LOCATION: ELEVATION 874.5 WATER SHED Branch of Blue Creek of Elk River
DISTRICT Elk COUNTY Kanawha
QUADRANGLE Blue Creek, WV COORDINATES LAT: 38°24'15" LONG: 81°25'50"
SURFACE OWNER Michael A. Bishop ACREAGE 2.793
OIL & GAS ROYALTY OWNER Kanawha Crude Oil Inc. LEASE ACREAGE 9/4
COAL OWNER Robert S. Evans, et. al. LEASE NO. 881

KANAWHA COUNTY NAME

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 Well drilled in 1950 by United Fuel Co. (API 1536) Well reconditioned well 23 1997
PLUG AND ABANDON CLEAN OUT AND REPLUG
TARGET FORMATION Oriskany ESTIMATED DEPTH 5215' 58' Deeper. Same formation
WELL OPERATOR COLUMBIA GAS TRANSMISSION CORP DESIGNATED AGENT Richard L. Coly
ADDRESS PO Box 1273, Charleston, WV 25325-1273 ADDRESS PO Box 1273, Charleston, WV 25325-1273

PERMIT 1539

DEC 11 1997



New Location...
 Drill Deeper.....
 Abandonment.....

0,885
 0,71 W
 4 NE (J-G)

Company UNITED FUEL GAS CO.
 Address CHARLESTON, W.VA.
 Farm KANAWHA CRUDE OIL CO.
 Tract _____ Acres 914. Lease No. 881
 Well (Farm) No. 26 Serial No. X-52A-7102
 Elevation (Spirit Level) 874.51
 Quadrangle CLENDENIN - WC
 County KANAWHA District ELK
 Engineer _____
 Engineer's Registration No. 662
 File No. 72-63 Drawing No. _____
 Date 8-11-50 Scale 1"=400'

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

WELL LOCATION MAP
 FILE NO. KAN-1539

+ 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

"IMPERIAL" TRACING CLOTH
 K & E CO., N. Y.

9-9 Blue Creek (Hackberry Branch) (218) *Orisk* **Storage Well** 0920
 No driller's Log filed

STATE OF WEST VIRGINIA
DEPARTMENT OF MINES
OIL AND GAS DIVISION

WELL RECORD

Permit No. KAN-1539

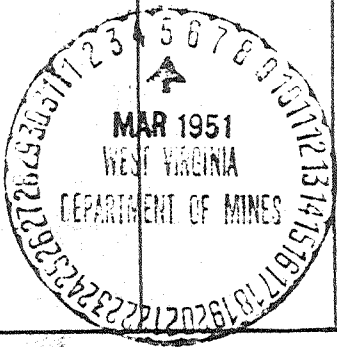
Oil or Gas Well Gas
(SIND)

Company United Fuel Gas Co.
Address P.O. Box 1273, Charleston 25, W. Va.
Farm Kanawha Crude Oil Co. Acres 914
Location (waters) Billy Br. of Blue Cr.
Well No. X-52A-7102 Elev. 874.51
District Elk County Kanawha
The surface of tract is owned in fee by _____
Address _____
Mineral rights are owned by Kan. Crude Oil Company
Box 1113 Address Charleston, W. Va.
Drilling commenced 7-13-50
Drilling completed 12-8-50
Date Shot Not shot From _____ To _____
With _____
Open Flow 60/10ths Water in 7" Inch
_____/10ths Merc. in _____ Inch
Volume 3,308 M-Oriskany _____ Cu. Ft.
Rock Pressure 720 lbs. 12 hrs.
Oil _____ bbls., 1st 24 hrs.
Fresh water 150 feet _____ feet
Salt water 320, 910 feet _____ feet

Casing and Tubing	Used in Drilling	Left in Well	Packers
Size			Kind of Packer
16			
18			
10 <u>3/4</u>	<u>547'-6"</u>	<u>547'-6"</u>	Size of
8-5/8	<u>1482'</u>	<u>1482'</u>	
7"	<u>5063</u>	<u>5063</u>	Depth set
5 3/16			
8			Perf. top
2			Perf. bottom
Liners Used			Perf. top
			Perf. bottom

CASING CEMENTED _____ SIZE _____ No. Ft. _____ Da _____
COAL WAS ENCOUNTERED AT _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES
_____ FEET _____ INCHES _____ FEET _____ INCHES

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Surface			0	20			
Sand			20	55			
Slate			55	68			
Slate & Shells			68	80	Water	150'	1 bailer per
Sand			80	158			
Slate			158	208			
Sand			208	310			
Slate			310	318			
Sand			318	331			
Slate			331	380			
Sand			380	400			
Slate & Shells			400	420			
Lime			420	440			
Slate			440	473			
Sand			473	540			
Slate			540	552			
Lime			552	568			
Sand			568	600			
Slate & Shells			600	624			
Sand			624	656			
Slate			656	672'	Show, Oil Water	770' 820'	1. bailer per
					Show, Gas Water	900' 910'	Hole full
Sand			672	1219			
Slate			1219	1225			
Sand			1225	1257			
Lime			1257	1290			
Slate			1290	1296			
Red Rock			1296	1302			
Black Lime			1302	1320			
Red Rock			1320	1348			
Black Lime			1348	1358			
Maxon			1358	1370			
Lime			1370	1382			
Slate			1382	1387			
Little Lime			1387	1460			



(Over)

DEEP WELL

Formation	Color	Hard or Soft	Top	Bottom	Oil, Gas or Water	Depth Found	Remarks
Slate			1460	1464	Show, Gas	1555'	
Big Lime			1464	1615			
Slate			1615	1620			
Injun Sand			1620	1670			
Weir			1670	1860			
Slate & Shells			1860	2020			
Black Slate			2020	2050			
Berea Sand			2050	2070			
Slate & Shells			2070	2200			
Brown Shale			2200	2330			
Slate & Shells			2330	4670			
Brown Shale			4670	5010			
Black Shale			5010	5040			
Corniferous Lime			5040	5153	Gas:	5157-5165,	60/10 W 7 3,308 M
Oriskany Sand			5153				
Total depth				5166'			
					NOT SHOT		
					FINAL OPEN FLOW -	3,308 M - Or	
					12 Hr. R.P. 720#		
					Shut in 12-8-50 in 7" casing.		

Date March 5, 19 51

APPROVED UNITED FUEL GAS COMPANY Owner

By *J. Moore*
(Title)
Chief Engineer

RECEIVED
WV Division of
Environmental Protection

MAY 6 1997

Permitting
Office of Oil & Gas

- 1) Date: 1/3/97
- 2) Operator's well number
COCO-A WELL #07102
- 3) API Well No: 47 - 039 - 01539 *JD*
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 Anna F. Bishop
Address Box 70
Pinch, WV 25156
 - b) Name _____
Address _____
 - c) Name _____
Address _____
- 6) Inspector Carlos W. Hively
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 Robert S. Evans, et. al.
Address # 8 Seneca Drive
Elkview, WV 25071
 - 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.

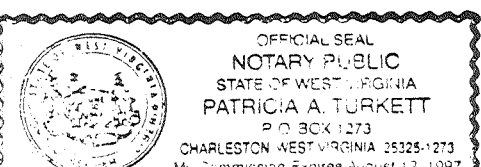
Well Operator COLUMBIA GAS TRANSMISSION CORP.
By: _____
Its: Storage Engineer / Well Services
Address P. O. Box 1808
St. Albans, WV 25177-1808

Telephone (304) 722-8612

Subscribed and sworn before me this 30th day of April, 19 97

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

Handwritten signatures and notes:
Storage Engineer
Columbia Gas Transmission Corp.
Elkview, WV
See attached contracts



039-1539-DD

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

Well Operator: COLUMBIA GAS TRANSMISSION CORP. 10450 (4) 258

Operator's Well Number: 7102 3) Elevation: 874'

Well type: (a) Oil / or Gas / Issued 05/22/97
Expired 05/22/99
(b) If Gas: Production / Underground Storage /
Deep / Shallow /

5) Proposed Target Formation(s): ORISKANY 475

6) Proposed Total Depth: 5215' feet

7) Approximate fresh water strata depths: 200' (EST)

8) Approximate salt water depths: 800' (EST)

9) Approximate coal seam depths: N/A

10) Does land contain coal seams tributary to active mine? Yes / No ✓

11) Proposed Well Work: KILL WELL, PULL TUBING, DRILL 50' DEEPER, RUN + CEMENT 4 1/2" CASING, AND STIMULATE ORISKANY.

12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS		FOOTAGE INTERVALS		CEMENT	
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
Conductor						
Fresh Water	10 3/4"		40.6*		547'	
Coal						
Intermediate	8 5/8"		32*		1466'	
Production	7"		23*		5063'	
Tubing	2 3/8"		4.6*		5166'	
Liners (NEW)	4 1/2"	N-80	11.6*	D.H. H-347	5215' +	100 SX

RECEIVED
MAY 11 1997
Division of Environmental Protection
Permitting
Office of Oil & Gas

Existing from well records

3905 B.A. 11.1

PACKERS : Kind NONE
Sizes _____
Depths set _____

For Division of Oil and Gas Use Only

Fee(s) paid: Well Work Permit Reclamation Fund WPCP
 Plat WW-9 WW-2B Bond _____ Agent
(Type)

20/194
13

22

RECEIVED
WV Division of
Environmental Protection

WR-35

13-May-97

API # 47- 39-01539 D

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: BISHOP, ANNA F. Operator Well No.: 7102-T

LOCATION: Elevation: 874.50 Quadrangle: BLUE CREEK

District: ELK County: KANAWHA
Latitude: 4600 Feet South of 38 Deg. 25Min. 0 Sec.
Longitude 3940 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: 05/22/97
Well work Commenced: 10/22/97
Well work Completed: 12/15/97
Verbal Plugging _____
Permission granted on: _____
Rotary X Cable _____ Rig _____
Total Depth (feet) 5246'
Fresh water depths (ft) _____
Not Reported
Salt water depths (ft) _____
Not Reported
Is coal being mined in area (Y/N)? N
Coal Depths (ft): Not Reported

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
14"		19'	
10 3/4"		539'	
8 5/8"		1466'	
7"		5063'	
4 1/2", 1.6 lb., N-80		5244'	75SX

OPEN FLOW DATA

Producing formation ORISKANY STORAGE Pay zone depth (ft) 5144'-5159'
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

Pulled 5158' of 2/3" tubing, installed new 7" X 4 1/2" API 3000 wellhead.
Drilled new 4 3/4" hole 5170' - 5246', ran 5244' of 4 1/2", 11.6 lb, N-80 casing and cemented with 75SX Class A Gement. Perf'd ORISKANY 5144' - 5159' with 6 SPF₂ Stimulated ORISKANY with N₂-Assist Deltafrac using 362 bbls water, 101 MSCF N₂, 8000 lbs. of 20/40 sand.

DATE	TIME	DEPTH	REMARKS
1981	10:00	5170	DRILLING BEGINS
1981	10:15	5175	DRILLING
1981	10:30	5180	DRILLING
1981	10:45	5185	DRILLING
1981	11:00	5190	DRILLING
1981	11:15	5195	DRILLING
1981	11:30	5200	DRILLING
1981	11:45	5205	DRILLING
1981	12:00	5210	DRILLING
1981	12:15	5215	DRILLING
1981	12:30	5220	DRILLING
1981	12:45	5225	DRILLING
1981	13:00	5230	DRILLING
1981	13:15	5235	DRILLING
1981	13:30	5240	DRILLING
1981	13:45	5244	DRILLING
1981	14:00	5246	DRILLING
1981	14:15	5246	DRILLING
1981	14:30	5246	DRILLING
1981	14:45	5246	DRILLING
1981	15:00	5246	DRILLING
1981	15:15	5246	DRILLING
1981	15:30	5246	DRILLING
1981	15:45	5246	DRILLING
1981	16:00	5246	DRILLING
1981	16:15	5246	DRILLING
1981	16:30	5246	DRILLING
1981	16:45	5246	DRILLING
1981	17:00	5246	DRILLING
1981	17:15	5246	DRILLING
1981	17:30	5246	DRILLING
1981	17:45	5246	DRILLING
1981	18:00	5246	DRILLING
1981	18:15	5246	DRILLING
1981	18:30	5246	DRILLING
1981	18:45	5246	DRILLING
1981	19:00	5246	DRILLING
1981	19:15	5246	DRILLING
1981	19:30	5246	DRILLING
1981	19:45	5246	DRILLING
1981	20:00	5246	DRILLING
1981	20:15	5246	DRILLING
1981	20:30	5246	DRILLING
1981	20:45	5246	DRILLING
1981	21:00	5246	DRILLING
1981	21:15	5246	DRILLING
1981	21:30	5246	DRILLING
1981	21:45	5246	DRILLING
1981	22:00	5246	DRILLING
1981	22:15	5246	DRILLING
1981	22:30	5246	DRILLING
1981	22:45	5246	DRILLING
1981	23:00	5246	DRILLING
1981	23:15	5246	DRILLING
1981	23:30	5246	DRILLING
1981	23:45	5246	DRILLING
1981	24:00	5246	DRILLING
1981	24:15	5246	DRILLING
1981	24:30	5246	DRILLING
1981	24:45	5246	DRILLING
1981	25:00	5246	DRILLING
1981	25:15	5246	DRILLING
1981	25:30	5246	DRILLING
1981	25:45	5246	DRILLING
1981	26:00	5246	DRILLING
1981	26:15	5246	DRILLING
1981	26:30	5246	DRILLING
1981	26:45	5246	DRILLING
1981	27:00	5246	DRILLING
1981	27:15	5246	DRILLING
1981	27:30	5246	DRILLING
1981	27:45	5246	DRILLING
1981	28:00	5246	DRILLING
1981	28:15	5246	DRILLING
1981	28:30	5246	DRILLING
1981	28:45	5246	DRILLING
1981	29:00	5246	DRILLING
1981	29:15	5246	DRILLING
1981	29:30	5246	DRILLING
1981	29:45	5246	DRILLING
1981	30:00	5246	DRILLING
1981	30:15	5246	DRILLING
1981	30:30	5246	DRILLING
1981	30:45	5246	DRILLING
1981	31:00	5246	DRILLING
1981	31:15	5246	DRILLING
1981	31:30	5246	DRILLING
1981	31:45	5246	DRILLING
1981	32:00	5246	DRILLING
1981	32:15	5246	DRILLING
1981	32:30	5246	DRILLING
1981	32:45	5246	DRILLING
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1981	37:15	5246	DRILLING
1981	37:30	5246	DRILLING
1981	37:45	5246	DRILLING
1981	38:00	5246	DRILLING
1981	38:15	5246	DRILLING
1981	38:30	5246	DRILLING
1981	38:45	5246	DRILLING
1981	39:00	5246	DRILLING
1981	39:15	5246	DRILLING
1981	39:30	5246	DRILLING
1981	39:45	5246	DRILLING
1981	40:00	5246	DRILLING
1981	40:15	5246	DRILLING
1981	40:30	5246	DRILLING
1981	40:45	5246	DRILLING
1981	41:00	5246	DRILLING
1981	41:15	5246	DRILLING
1981	41:30	5246	DRILLING
1981	41:45	5246	DRILLING
1981	42:00	5246	DRILLING
1981	42:15	5246	DRILLING
1981	42:30	5246	DRILLING
1981	42:45	5246	DRILLING
1981	43:00	5246	DRILLING
1981	43:15	5246	DRILLING
1981	43:30	5246	DRILLING
1981	43:45	5246	DRILLING
1981	44:00	5246	DRILLING
1981	44:15	5246	DRILLING
1981	44:30	5246	DRILLING
1981	44:45	5246	DRILLING
1981	45:00	5246	DRILLING
1981	45:15	5246	DRILLING
1981	45:30	5246	DRILLING
1981	45:45	5246	DRILLING
1981	46:00	5246	DRILLING
1981	46:15	5246	DRILLING
1981	46:30	5246	DRILLING
1981	46:45	5246	DRILLING
1981	47:00	5246	DRILLING
1981	47:15	5246	DRILLING
1981	47:30	5246	DRILLING
1981	47:45	5246	DRILLING
1981	48:00	5246	DRILLING
1981	48:15	5246	DRILLING
1981	48:30	5246	DRILLING
1981	48:45	5246	DRILLING
1981	49:00	5246	DRILLING
1981	49:15	5246	DRILLING
1981	49:30	5246	DRILLING
1981	49:45	5246	DRILLING
1981	50:00	5246	DRILLING
1981	50:15	5246	DRILLING
1981	50:30	5246	DRILLING
1981	50:45	5246	DRILLING
1981	51:00	5246	DRILLING
1981	51:15	5246	DRILLING
1981	51:30	5246	DRILLING
1981	51:45	5246	DRILLING
1981	52:00	5246	DRILLING
1981	52:15	5246	DRILLING
1981	52:30	5246	DRILLING
1981	52:45	5246	DRILLING
1981	53:00	5246	DRILLING
1981	53:15	5246	DRILLING
1981	53:30	5246	DRILLING
1981	53:45	5246	DRILLING
1981	54:00	5246	DRILLING
1981	54:15	5246	DRILLING
1981	54:30	5246	DRILLING
1981	54:45	5246	DRILLING
1981	55:00	5246	DRILLING
1981	55:15	5246	DRILLING
1981	55:30	5246	DRILLING
1981	55:45	5246	DRILLING
1981	56:00	5246	DRILLING
1981	56:15	5246	DRILLING
1981	56:30	5246	DRILLING
1981	56:45	5246	DRILLING
1981	57:00	5246	DRILLING
1981	57:15	5246	DRILLING
1981	57:30	5246	DRILLING
1981	57:45	5246	DRILLING
1981	58:00	5246	DRILLING
1981	58:15	5246	DRILLING
1981	58:30	5246	DRILLING
1981	58:45	5246	DRILLING
1981	59:00	5246	DRILLING
1981	59:15	5246	DRILLING
1981	59:30	5246	DRILLING
1981	59:45	5246	DRILLING
1981	60:00	5246	DRILLING

[Handwritten signature]

Cleaned out to 5198' with coiled tubing, reperf'd Oriskany 5144' - 5199' with 6 SPF, and pumped an N2-Assist Deltafrac using 250 gallons of 28% HCL, 433 bbls of water, 147 MSCF N2, and 25,700 lbs of 20/40 sand at 0.5 - 4 PPG.