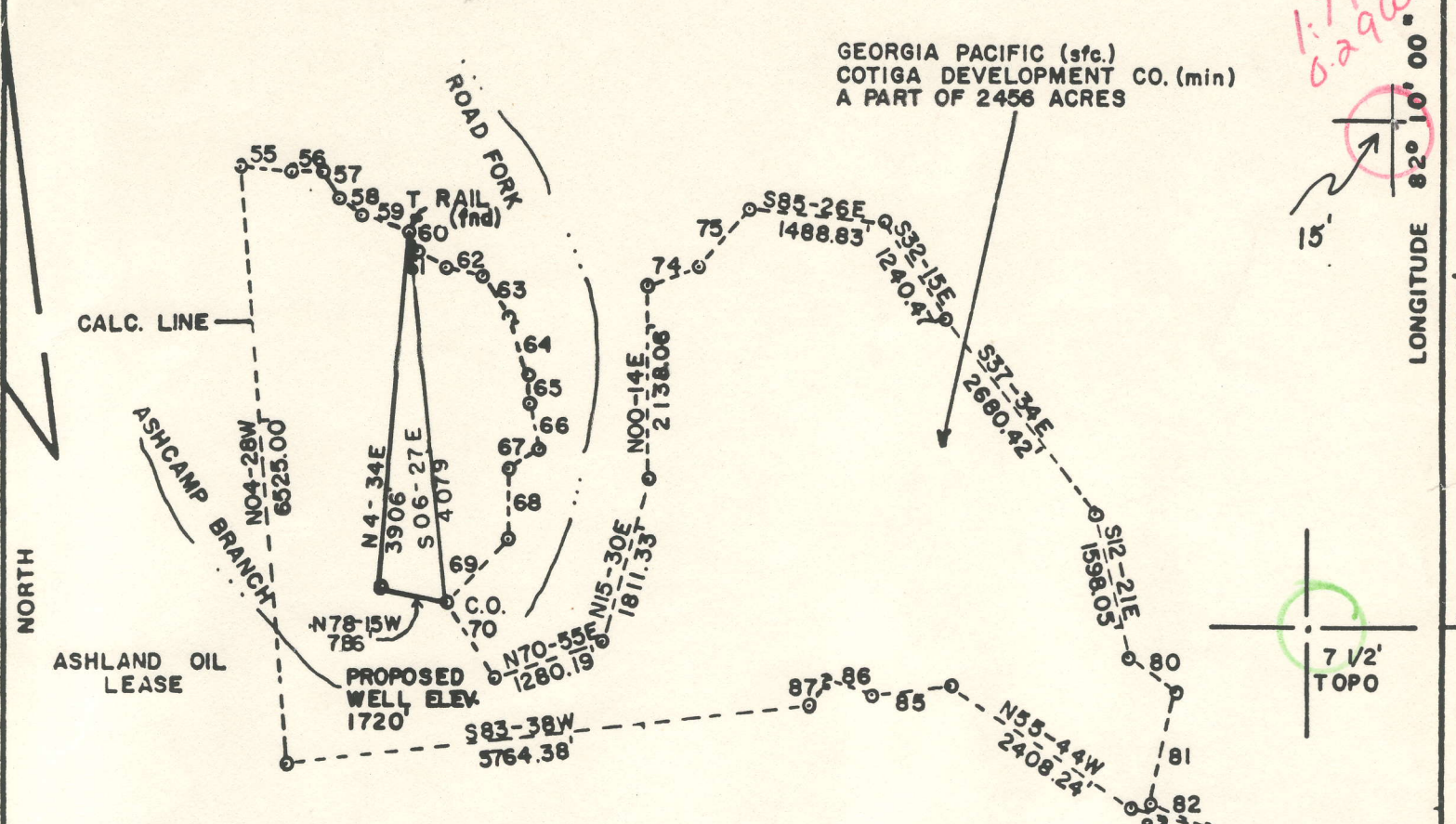


4-18-83

Plot Card CSD

LONGITUDE 37° 50' 00"

1450'



1.745  
0.29W

15'

LONGITUDE 82° 10' 00"

9150'

55=S84-23E, 576.91'  
 56=N88-55E, 309.69'  
 57=S38-34E, 335.65'  
 58=S47-51E, 297.79'  
 59=S72-41E, 570.52'  
 60=S26-36E, 233.12'  
 61=S66-14E, 358.33'  
 62=S79-27E, 395.30'  
 63=S34-33E, 537.76'  
 64=S17-30E, 683.36'  
 65=S02-36E, 317.36'  
 66=S12-01E, 491.26'

67=S56-10W, 398.23'  
 68=S01-03W, 741.78'  
 69=S43-29W, 951.27'  
 70=S29-19E, 985.79'  
 74=N69-32E, 601.12'  
 75=N39-31E, 835.37'  
 80=S54-18E, 656.34'  
 81=S12-31W, 1261.68'  
 82=S68-23E, 676.88'  
 83=N75-37W, 868.74'  
 85=S83-47W, 883.60'  
 86=N70-32W, 528.67'

87=S31-25W, 292.68'

FILE NO. \_\_\_\_\_  
 DRAWING NO. \_\_\_\_\_  
 SCALE 1"=2000'  
 MINIMUM DEGREE OF ACCURACY 1 in 200  
 PROVEN SOURCE OF ELEVATION USGS BM TRACEFORK 665, USGS MYRTLE QUAD

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) Raymond D. Pender  
 R.P.E. \_\_\_\_\_ L.L.S. 624  
 Norton Surveys & Consulting, Inc.

PLACE SEAL HERE

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS  
 FORM IV-6 (8-78)



DATE APRIL 4, 1983  
 OPERATOR'S WELL NO. C-57  
 API WELL NO. \_\_\_\_\_  
 47 - 059 - 1051  
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA  
 DEPARTMENT OF MINES  
 OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL   
 (IF "GAS,") PRODUCTION  STORAGE  DEEP  SHALLOW   
 LOCATION: ELEVATION 1720' WATER SHED ASHCAMP BRANCH  
 DISTRICT HARDEE COUNTY MINGO  
 QUADRANGLE MYRTLE Holden 15' SW  
 SURFACE OWNER GEORGIA PACIFIC ACREAGE A PART OF 2456  
 OIL & GAS ROYALTY OWNER COTIGA DEVELOPMENT CO. LEASE ACREAGE A PART OF 2456  
 LEASE NO. \_\_\_\_\_  
 PROPOSED WORK: DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  OTHER PHYSICAL CHANGE IN WELL (SPECIFY) DEEP WELL

PLUG AND ABANDON  CLEAN OUT AND REPLUG   
 TARGET FORMATION MARCELLUS ESTIMATED DEPT. 2000'  
 WELL OPERATOR SENECA-UPSHUR, ET AL. DATE AGENT JOSEPH HAGER  
 P.O. BOX 2048 ADDRESS P.O. BOX 2048  
 BUCKHANNON, W.VA. BUCKHANNON, W.VA. 26201

6-6 Dempsey School (368)  
 APR 25 1983

MINGO 1051

IV-35  
(Rev 8-81)

**APPROVED**  
JUL 19 1983



Date July 15, 1983  
Operator's Well No. C-57  
Farm \_\_\_\_\_  
API No. 47 - 059 - 1051

State of West Virginia  
Department of Mines  
Oil and Gas Division

JUL 25 1983

OIL & GAS DIVISION  
DEPT. OF MINES

WELL OPERATOR'S REPORT  
OF  
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

WELL TYPE: Oil \_\_\_ / Gas X / Liquid Injection \_\_\_ / Waste Disposal \_\_\_ /  
(If "Gas," Production X / Underground Storage \_\_\_ / Deep \_\_\_ / Shallow X /)

LOCATION: Elevation: 1720' Watershed Ashcamp Branch  
District: Hardee County Mingo Quadrangle Myrtle

COMPANY Seneca-Upshur Petroleum, Inc.  
ADDRESS P.O. Box 2048, Buckhannon, WV 26201  
DESIGNATED AGENT Joseph G. Hager  
ADDRESS P.O. Box 2048, Buckhannon, WV 26201  
SURFACE OWNER Georgia-Pacific  
ADDRESS P.O. Box 1808, Augusta, GA 30909  
MINERAL RIGHTS OWNER Cotiga Development Co.  
2nd Floor Rear, 14 E. Lancaster Ave.  
ADDRESS Paoli, PA 19301  
OIL AND GAS INSPECTOR FOR THIS WORK Arthur  
St. Clair ADDRESS P.O. Box 157, Brenton, WV  
PERMIT ISSUED April 21, 1983  
DRILLING COMMENCED June 1, 1983  
DRILLING COMPLETED June 13, 1983

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.	20	20	10
13-10"			
9 5/8			
8 5/8	2340	2340	500
7	2628	2628	25
5 1/2			
4 1/2		4992	95
3			
2			
Liners used			

IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON \_\_\_\_\_

GEOLOGICAL TARGET FORMATION Marcellus Depth 5,000 feet  
Depth of completed well 5049 feet Rotary X / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh \_\_\_\_\_ feet; Salt \_\_\_\_\_ feet  
Coal seam depths: 331', 782', 970' Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 4340-4930 ~~3560'~~ feet  
Gas: Initial open flow Trace Mcf/d Oil: Initial open flow 0 Bbl/d  
Final open flow 852 Mcf/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 2 hours  
Static rock pressure 485 psig (surface measurement) after 24 hours shut in  
(If applicable due to multiple completion--)  
Second producing formation \_\_\_\_\_ Pay zone depth \_\_\_\_\_ feet  
Gas: Initial open flow \_\_\_\_\_ Mcf/d Oil: Initial open flow \_\_\_\_\_ Bbl/d  
Final open flow \_\_\_\_\_ Mcf/d Oil: Final open flow \_\_\_\_\_ Bbl/d  
Time of open flow between initial and final tests \_\_\_\_\_ hours  
Static rock pressure \_\_\_\_\_ psig (surface measurement) after \_\_\_\_\_ hours shut in

(Continue on reverse side)

DETAILS OF PERFORATED INTERVALS, FRACTURING OR STIMULATING, PHYSICAL CHANGE, ETC.

FOAM FRAC:

DATE: 6/29/83

WATER: 606 BBLS.

SAND: 240,000#

PERFS: 4340' - 4930' 24 .49 Perfs

NITROGEN: 15,660 CCF *Huron*

WELL LOG

FORMATION	COLOR	HARD OR SOFT	TOP FEET	BOTTOM FEET	REMARKS Including indication of all fresh and salt water, coal, oil and gas
Sand & Shale			0	331	
Coal			331	335	
Sand & Shale			335	782	
Coal			782	792	
Sand & Shale			792	970	
Coal			970	974	
Sand & Shale			974	2200	
Sand			2200	2238	
Shale			2238	2245	
Sand & Shale			2245	2515	
Little Lime			2515	2546	
Big Lime			2546	2824	
Big Injun			2824	2864	
Sand & Shale			2864	3012	
Weir			3012	3090	
Sand & Shale			3090	3420	
Sudbury Shale			3420	3490	
Berea			3490	3560	
Gray Shale			3560	4310	
Brown Shale			4310	4864	
Marcellus			4864	5049	T.D.
					<i>Huron @ T.D.</i>
					<i>Onondaga at 5033' with elev. = 1730' k.b.</i>

*4340  
3560  
8780*

*5049  
3560  
1489*

(Attach separate sheets as necessary)

Seneca-Upshur Petroleum, Inc.  
Well Operator

By: *[Signature]*  
Date: July 15, 1983

Note: Regulation 2.02(i) provides as follows:  
"The term 'log' or 'well log' shall mean a systematic detailed geological record of all formations, including those encountered in the drilling of a well."



1) Date: April 5, 1983  
 2) Operator's Well No. C-57  
 3) API Well No. 47 State West Virginia County Mingo Permit 1051

DRILLING CONTRACTOR:  
Little Swiss Drilling Co.  
P.O. Box 2948, Buckhannon, WV

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

OIL AND GAS WELL PERMIT APPLICATION

- 4) WELL TYPE: A Oil          / Gas X /  
 B (If "Gas", Production X / Underground storage          / Deep          / Shallow X /)
- 5) LOCATION: Elevation: 1720' Watershed: Ashcamp Branch  
 District: Marble County: Mingo Quadrangle: Myrtle
- 6) WELL OPERATOR Seneca-Upshur Petroleum, Inc. 11) DESIGNATED AGENT Joseph G. Hager  
 Address P.O. Box 2048 Address P.O. Box 2048  
Buckhannon, West Virginia 26201 Buckhannon, West Virginia 26201
- 7) OIL & GAS ROYALTY OWNER Cotiga Development Company 12) COAL OPERATOR None  
 Address 100 Floor Four, 14 East Lancaster Ave. Address           
Paoli, Pennsylvania 19301  
 Acreage Part of 2,456
- 8) SURFACE OWNER Georgia-Pacific 13) COAL OWNER(S) WITH DECLARATION ON RECORD:  
 Address P.O. Box 1808 Name           
Augusta, Georgia 30909 Address           
 Acreage Part of 2,456
- 9) FIELD SALE (IF MADE) TO:  
 Address
- 10) OIL & GAS INSPECTOR TO BE NOTIFIED  
 Name Arthur St. Clair  
 Address P.O. Box 157  
Brenton, West Virginia 26218
- 15) PROPOSED WORK: Drill X / Drill deeper          / Redrill          / Fracture or stimulate          /  
 Plug off old formation          / Perforate new formation          /  
 Other physical change in well (specify)
- 16) GEOLOGICAL TARGET FORMATION,
- 17) Estimated depth of completed well, 5,000 feet
- 18) Approximate water strata depths: Fresh, 680 feet; salt, 1030 feet.
- 19) Approximate coal seam depths: 320 Is coal being mined in the area? Yes          / No X /

20) CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS					FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS (Cubic feet)	PACKERS
	Size	Grade	Weight per ft.	New	Used	For drilling	Left in well		
Conductor					X	20	20	to surface	Kinds
Fresh water						900	900	LT 15 1/4 1/4	
Coal									Sizes
Intermediate	5/8"		23.00	X		2610	2610	to surface	
Production	1/2"		23.00	X			5000	as required by MD&G 15.0	Depths set
Tubing									
Liners									Perforations: Top Bottom

- 21) EXTRACTION RIGHTS  
 Check and provide one of the following:  
 Included is the lease or leases or other continuing contract or contracts by which I hold the right to extract oil or gas.  
 The requirement of Code 22-4-1-(c) (1) through (4). (See reverse side for specifics.)

- 22) ROYALTY PROVISIONS  
 Is the right to extract, produce or market the oil or gas based upon a lease or other continuing contract or contracts providing for flat well royalty or any similar provision for compensation to the owner of the oil or gas in place which is not inherently related to the volume of oil or gas so extracted, produced or marketed? Yes  No

If the answer above is No, nothing additional is needed. If the answer is Yes, you may use Affidavit Form IV-60.

- 23) Required Copies (See reverse side.)  
 24) Copies of this Permit Application and the enclosed plat and reclamation plan have been mailed by registered mail or delivered by hand to the above named coal operator, coal owner(s), and coal lessee on or before the day of the mailing or delivery of this Permit Application to the Department of Mines at Charleston, West Virginia.

Notary:          Signed:           
 My Commission Expires June 6, 1985 Its:         

OFFICE USE ONLY  
**DRILLING PERMIT**

Permit number 47-059-1051 Date April 11 1983

This permit covering the well operator and well location shown below is evidence of permission granted to drill in accordance with the pertinent legal requirements subject to the conditions contained herein and on the reverse hereof. **Notification must be given to the District Oil and Gas Inspector. (Refer to No. 10) Prior to the construction of roads, locations and pits for any permitted work.** In addition, the well operator or his contractor shall notify the proper district oil and gas inspector 24 hours before actual permitted work has commenced.)

Permit expires December 21, 1983 unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing:	Fee:
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Administrator, Office of Oil and Gas