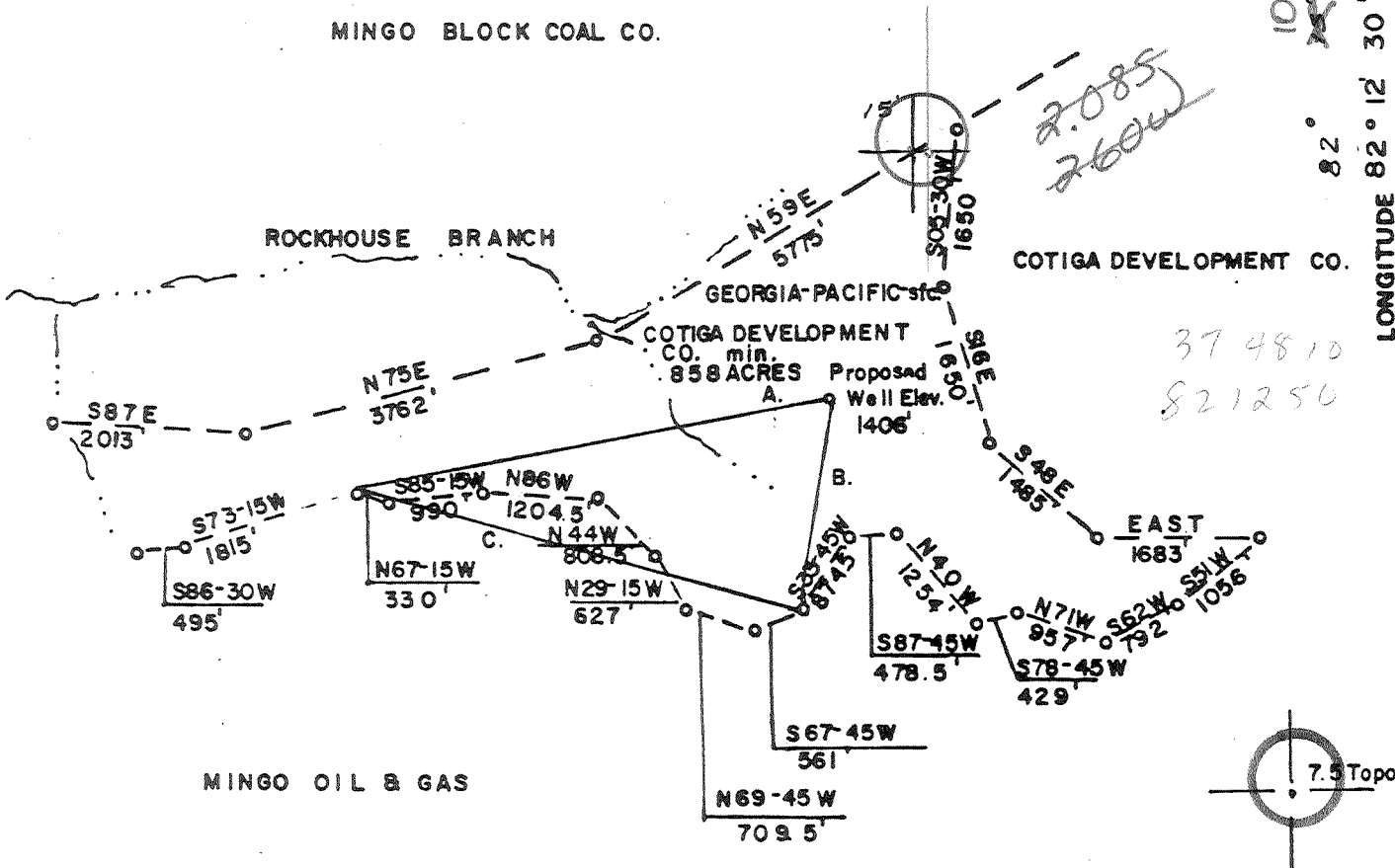


NORTH



- A. N79-39E, 4940.05'
- B. S10-00W, 2202.65'
- C. N74-02W, 4656.55'

FILE NO. _____
 DRAWING NO. _____
 SCALE 1" = 2000'
 MINIMUM DEGREE OF ACCURACY 1 in 200
 PROVEN SOURCE OF ELEVATION USGS BM TRACE FORK 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) Wayne D. Norton
 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)



STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

DATE NOV. 2, 1981
 OPERATOR'S WELL NO. C 29
 API WELL NO. 47-059-0996
 STATE COUNTY PERMIT

WELL TYPE: OIL ___ GAS LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS,") PRODUCTION STORAGE ___ DEEP ___ SHALLOW
 LOCATION: ELEVATION 1406' WATER SHED ROCKHOUSE BRANCH
 DISTRICT HARDEE COUNTY MINGO
 QUADRANGLE MYRTLE Polder 15' SW
 SURFACE OWNER GEORGIA-PACIFIC ACREAGE 858
 OIL & GAS ROYALTY OWNER COTIGA DEVELOPMENT CO. LEASE ACREAGE 858
 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 DEVONIAN SHALE ESTIMATED DEPTH 5000' 6-6 Dempsey School (368)
 WELL OPERATOR SENECA UPSHUR PET., INC. CONTACT JOSEPH HAGER DEC 4 1981
 BUCKHANNON, W.Va. 26201 BUCKHANNON, W.Va. 26201

RECEIVED



IV-35 (Rev 8-81)

AUG 13 1982

OIL AND GAS DIVISION WV DEPARTMENT OF MINES State of West Virginia Department of Mines Oil and Gas Division

Date August 12, 1982 Operator's Well No. C-29 Farm API No. 47 - 059 - 0996

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: 1406' Watershed Rockhouse Branch District: Hardee County Mingo Quadrangle Myrtle

COMPANY Seneca-Upshur Petroleum, Inc.

ADDRESS P.O. Box 2048, Buckhannon, WV 26201

DESIGNATED AGENT Seneca-Upshur Petroleum, Inc.

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 Company

ADDRESS 25 Darby Road, Paoli, PA 19301

OIL AND GAS INSPECTOR FOR THIS WORK Arthur St. Clair ADDRESS P.O. Box 157, Brenton, WV

PERMIT ISSUED 11/20/81

DRILLING COMMENCED 1/5/82

DRILLING COMPLETED 1/13/82

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

Table with 4 columns: Casing & Tubing Size, Used in Drilling, Left in Well, Cement fill up Cu. ft. Rows include sizes 20-16 Cond., 13-10", 5/8, 8 5/8, 7, 5 1/2, 4 1/2, 3, 2, and Liners used.

GEOLOGICAL TARGET FORMATION Marcellus Depth 5000 feet

Depth of completed well 4714 feet Rotary X / Cable Tools

Water strata depth: Fresh 294 feet; Salt feet

Coal seam depths: 233, 540, 594, 1814 Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth 3318 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 540 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

AUG 23 1982 (Continue on reverse side)

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

DATE:	5/28/82	6/2/82
NITROGEN:	8750 SCF	10850 SCF
SAND:	90,000#	120,000#
WATER:	372 BBLs.	461 BBLs.
PERFS:	12 <u>4392'-4612'</u>	12 <u>4134'-4286'</u>

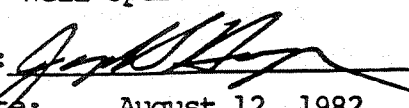
WELL LOG

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	53	
Sand			53	223	
Coal			223	239	
Sand & Shale			239	540	
Coal			540	544	
Sand & Shale			544	594	
Coal			594	604	
Sand & Shale			604	1750	
Shale			1750	1814	
Coal			1814	1819	
Sand & Shale			1819	2270	
Big Lime			2270	2548	
Big Injun			2548	2600	
Sand & Shale			2600	2776	
Weir			2776	2834	
Sand & Shale			2834	3170	
Sudbury Shale			3170	3240	
Berea			3240	3318	
Gray Shale			3318	3944	
Brown Shale			3944	4536	
Marcellus Huron			4536	4714	T.D.

From electric log:
 top thickness
 2417 131
 2548 51
 2776 58
 3170 39
 3209 109
 3318 727
 4045 235
 4280 116
 4396 161
 4557 144
 4701

(Attach separate sheets as necessary)

Seneca-Upshur Petroleum, Inc.
Well Operator

By: 
Date: August 12, 1982

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 coal, encountered in the drilling of a well."



STATE OF WEST VIRGINIA
OFFICE OF OIL AND GAS - DEPARTMENT OF MINES

OIL AND GAS WELL PERMIT APPLICATION

WELL TYPE: Oil ___ / Gas X /
(If "Gas", Production X / Underground storage ___ / Deep ___ / Shallow X /

LOCATION: Elevation: 1406' Watershed: Rockhouse Branch
District: Hardee County: Mingo Quadrangle: Myrtle

WELL OPERATOR Seneca-Upshur Petroleum, Inc. DESIGNATED AGENT Seneca-Upshur Petroleum, Inc.
Address P.O. Drawer P Address P.O. Drawer P
Buckhannon, West Virginia 26201 Buckhannon, West Virginia 26201

OIL AND GAS ROYALTY OWNER Cotiga Development Company COAL OPERATOR None
Address 25 Darby Road Address _____
Paoli, Pennsylvania 19301
Acreage 858.00

SURFACE OWNER Georgia-Pacific, Exchange Oil & Gas COAL OWNER(S) WITH DECLARATION ON RECORD:
Address 1250 Poydras St., 24th Floor Island Creek Coal Company
New Orleans, Louisiana 70112 Address Pantsville, Kentucky 41240
Acreage 858.00 NAME _____
Address _____

FIELD SALE (IF MADE) TO:
NAME _____
Address _____

COAL LESSEE WITH DECLARATION ON RECORD:
NAME _____
Address _____

OIL AND GAS INSPECTOR TO BE NOTIFIED:
NAME Arthur St. Clair
Address P.O. Box 157
Brenton, West Virginia 24818
Telephone 732-6227

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NOV - 5 1981

OIL AND GAS DIVISION
VAL DEPARTMENT OF MINES

The undersigned well operator is entitled to operate for oil or gas purposes at the above location under a deed ___ / lease X / other contract ___ / dated Aug. 1, 1979, to the undersigned well operator from Cotiga Development Company.

(If deed, lease, or other contract has been recorded:)

Recorded on _____, 19____, in the office of the Clerk of County Commission of _____ County, West Virginia, in _____ Book at page _____. A permit is requested as follows:

PROPOSED WORK: Drill X / Drill Deeper ___ / Redrill ___ / Fracture or stimulate ___ / Plug off old formation ___ / Perforate new formation ___ / Other physical change in well (specify) _____

--planned as shown on the work order on the reverse side hereof.

The above named coal operator, coal owner(s), and coal lessee are hereby notified that any objection they wish to make or are required to make by Code §22-4-3 must be filed with the Department of Mines within fifteen (15) days after receipt of this Application by the Dept. 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 lessees on or before the day of the mailing or delivery of this Application to the Department of Mines at Charleston, West Virginia.

PLEASE SUBMIT COPIES OF ALL GEOPHYSICAL LOGS DIRECTLY TO:

WEST VIRGINIA OIL AND GAS CONSERVATION COMMISSION
1113 WASHINGTON ST., E.
CHARLESTON, WV 25311
Telephone - 304/348-3092

BLANKET BOND

Seneca-Upshur Petroleum, Inc.
Well Operator
By: [Signature]
Vice President

(Revised 3-81)

PROPOSED WORK ORDER

THIS IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-35 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Little Swiss Drilling Company

Address P.O. Drawer P

Buckhannon, West Virginia 26201

GEOLOGICAL TARGET FORMATION Marcellus

Estimated depth of completed well 5000 feet. Rotary x / Cable tools /

Approximate water strata depths: Fresh, feet; salt, feet.

Approximate coal seam depths:

Is coal being mined in this area: Yes / No x /

CASING AND TUBING PROGRAM

CASING OR TUBING TYPE	SPECIFICATIONS				FOOTAGE INTERVALS		CEMENT FILL-UP OR SACKS Cubic ft.	PACKERS	
	Size	Grade	Weight per ft	New	Used	For Drill-ling			Left in Well
Conductor	16"				X	30	30	To Surface	Kinds
Fresh water									
Coal									Sizes
Intermed.	8 5/8"		20.00	X		2450	2450	To Surface	
Production Tubing	4 1/2"		10.50	X			4850	As Required	Depths set
Liners								by Rule 15.01	Perforations:
									Top Bottom

NOTE: Regulation 7.02 of the Department of Mines provides that the original and four copies of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 11, (ii) a bond in one of the forms prescribed by Regulation 12, or in lieu thereof the other security allowed by Code §22-4-2, (iii) Form IV-9, "Reclamation Plan" applicable to the reclamation required by Code §22-4-12b and Regulation 23, (iv) unless previously paid on the same well, the fee required by Code §22-4-12a, and (v) if applicable, the consent required by Code §22-4-8a from the owner of any water well or dwelling within 200 feet of the proposed well.

A separate Form IV-2 shall not be required for fracturing or stimulating a well where fracturing or stimulating is to be part of the work for which a permit is sought and is noted as such on the Form IV-2 filed in connection therewith.

THIS PERMIT MUST BE POSTED AT THE WELL SITE

All provisions being in accordance with Chapter 22 of the W. Va. Code, the location is hereby approved

for Drilling. This permit shall expire if operations have not commenced by 7-29-82

Jed Rudette
Deputy Director - Oil & Gas Division

The following waiver must be completed by the coal operator and by any coal owner or coal lessee who has recorded a declaration under Code §22-4-20, if the permit is to be issued within fifteen (15) days of receipt thereof:

W A I V E R

The undersigned coal operator / owner / lessee / of the coal under this well location has examined this proposed well location. If a mine map exists which covers the area of the well location, the well location has been added to the mine map. The undersigned has no objection to the work proposed to be done at this location, provided the well operator has complied with all applicable requirements of the West Virginia Code and the governing regularions.

Date: , 19 .

By:

Its:

Jes