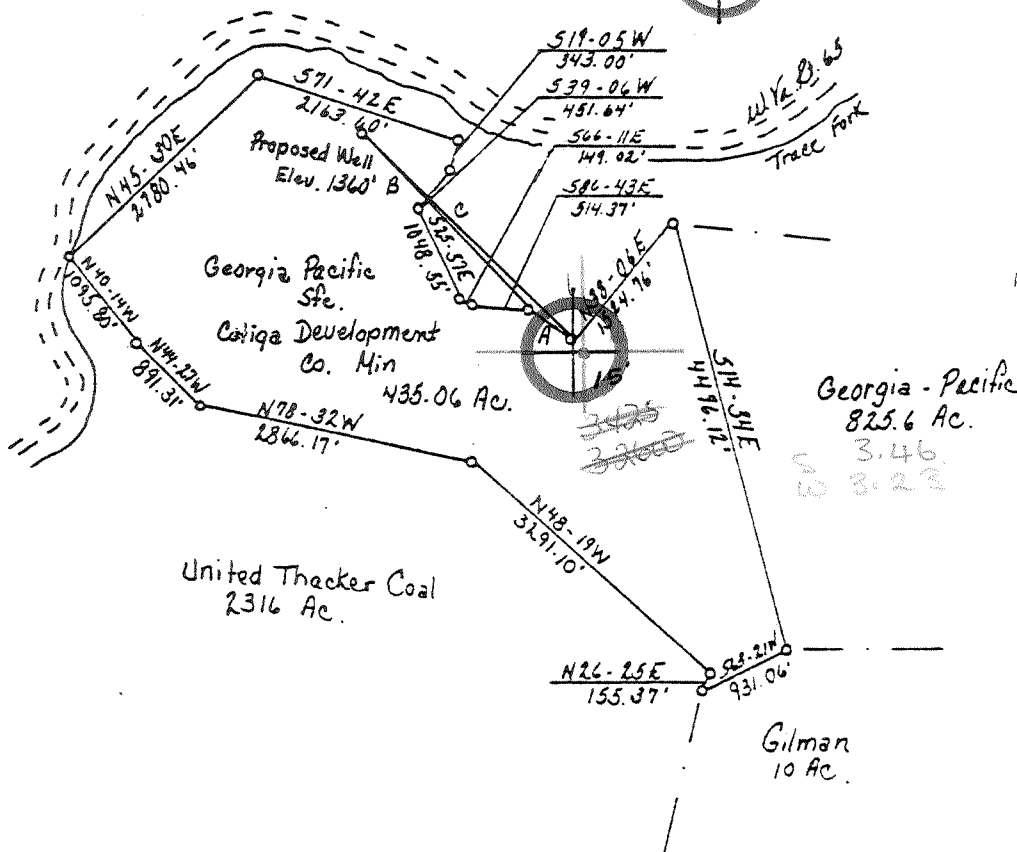
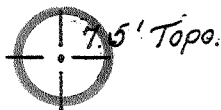


United Thacker Coal
2316 Ac.



A. N 55-01 W 615.28'
B. N 43-57 W 2508.60'
C. S 44-07 E 3123.84'

NORTH

FILE NO. _____
DRAWING NO. _____
SCALE 1" = 2000'
MINIMUM DEGREE OF ACCURACY 1 in 200
PROVEN SOURCE OF ELEVATION USGS BM Pickering Knob, 1933, USGS Holden 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) [Signature]
R.P.E. _____ L.L.S. 624

PLACE SEAL HERE

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



DATE August 19, 19 80
OPERATOR'S WELL NO. #5
API WELL NO. 47-059-0962
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 1360' WATER SHED Trace Fork
DISTRICT Hardee COUNTY Mingo
QUADRANGLE Myrtle Holden 15 SC
SURFACE OWNER Georgia-Pacific ACREAGE 435.06
OIL & GAS ROYALTY OWNER Cotique Development Co. LEASE ACREAGE 435.06
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) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
TARGET FORMATION Benson ESTIMATED DEPTH 4220 DEEP WELL
WELL OPERATOR Seneca-Washburn Pet. Inc. DESIGNATED AGENT Joseph Hager
ADDRESS P.O. Box P ADDRESS P.O. Box P
Buckhannon, W. Va. 26201 Buckhannon, W. Va. 26201

[08-78]

WELL OPERATOR'S REPORT

Operator's Well No. C-5

OF
DRILLING, FRACTURING AND/OR STIMULATING, OR PHYSICAL CHANGE

API Well No. 47-059-0962
State County Perm

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

LOCATION: Elevation: 1360 Watershed: TRACE FORK
District: HARDEE County: MINGO Quadrangle: MYRTLE

WELL OPERATOR SENECA-UPSHUR PETROLEUM DESIGNATED AGENT SAME
Address P.O. BOX Address _____
BUCKHANNON WV 26201

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

PERMIT ISSUED ON 4-3, 19 81
(IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED _____, 19 _____)
OIL & GAS INSPECTOR FOR THIS WORK: Name ARTHUR S. CLARK Address P.O. BOX 157
BRENTON WV 24818

GEOLOGICAL TARGET FORMATION: DEVONIAN SHALE Depth 4880 feet
Depth of completed well, _____ feet Rotary ___ / Cable Tools ___
Water strata depth: Fresh, 145 feet; salt, _____ feet.
Coal seam depths: 375 Is coal being mined in the area? ___
Work was commenced 6-2, 19 81, and completed 6-13, 19 81

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	<u>16</u>				<u>X</u>	<u>10</u>	<u>10</u>	<u>10</u>	Kinds
Fresh water									
Coal	<u>11 3/4</u>		<u>46</u>	<u>X</u>		<u>714</u>	<u>714</u>	<u>300</u>	Sizes
Intermediate	<u>8 7/8</u>		<u>23</u>	<u>X</u>		<u>2386</u>	<u>2386</u>	<u>250</u>	
Production	<u>4 1/2</u>		<u>10.5</u>	<u>X</u>			<u>4835</u>	<u>180</u>	Depths set
Tubing									
Packers									Perforations:
									Top Bottom
									<u>4178 4805</u>

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OPEN FLOW DATA
Producing formation DEVONIAN SHALE Pay zone depth 3292 feet
Gas: Initial open flow, 000R Mcf/d Oil: Initial open flow, _____ Bbl/d
Final open flow, 539 Mcf/d Final open flow, _____ Bbl/d
Time of open flow between initial and final tests, 14 hours
Static rock pressure, 695 psig (surface measurement) after _____ 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 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

SEP 21 1981

OIL AND GAS DIVISION
WV DEPARTMENT OF MINES

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

DATE	7/16/81	7/20/81
WATER	460 BALS	510 BALS
SAND	90,000 LBS	120,000 LBS
NITROGEN	885,000 SCF	975,000 SCF

WELL LOG

FORMATION	Color	Hard or Soft	Top Feet	Bottom Feet	Remarks
					Including indication of all fresh and salt water, coal, oil and gas
Fill			0	10	
Sand			10	70	
White Sand			70	130	
Sand & Shale			130	372	
Shale			372	375	
Coal			375	379	
Sand & Shale			379	580	
Sand			580	592	
Shale & Coal			592	595	
Sand			595	657	
Open Mine			657	662	
Sand & Shale			662	1890	
Sand			1890	1985	
Bed Rock			1985	2030	
Gray Shale			2030	2177	
Maxim Sand			2177	2290	
Sand & Shale			2290	2304	
Bed Rock			2304	2312	
Big Lime			2312	2365	
Sand & Shale			2365	2408	
Big Lime			2408	2652	
Sand & Shale <i>DESH</i>			2652	4867?	T.D. <i>Onondaga at 4869'</i> <i>(using elev = 1370', K6.)</i>

(Attach separate sheets to complete as necessary)

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

NOTE: Regulation 8.03(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."

[08-78]

OIL AND GAS WELL PERMIT APPLICATION

Operator's Well No. C-5
API Well No. 47 - 059 - 0962
State Survey Perm.

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

LOCATION: Elevation: 1360' Watershed: Trace Fork
District: Hardee County: Mingo Quadrangle: Myrtle

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

DELEGATED AGENT Seneca-Upshur Petroleum, Inc.
Address P. O. Drawer "P"
Buckhannon, W. Va. 26201

OIL & GAS ROYALTY OWNER Cotiga Development Co.
Address 25 Darby Road
Paoli, Pennsylvania 19301

COAL OPERATOR _____
Address _____

SURFACE OWNER Georgia-Pacific
Address 2310 Park Lake Drive, N. E.
Atlanta, Georgia
Acres: 435.06

COAL OWNER(S) WITH DECLARATION ON RECORD:
Name Island Creek Coal Company
Address Pantsville
Kentucky 41240

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

COAL LESSEE WITH DECLARATION ON RECORD:
Name _____
Address _____

OIL & GAS INSPECTOR TO BE NOTIFIED
Name Arthur St. Clair
Address P. O. Box 157
Brenton, W. VA. 24818
732-6227

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OIL & GAS DIVISION
DEPT. OF MINES

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

[If said deed, lease, or other contract has been recorded:]
Recorded on _____, 19____, in the office of the Clerk of the County Commission of _____ County, West Virginia, in _____ Book _____ at page _____. A permit is requested for _____

PROPOSED WORK: Drill / 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 the receipt of this Application by the Department.

Two copies of this Permit Application and the enclosed plat and declaration plan have been retained by the Department and will be 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, Charleston, West Virginia.

Seneca-Upshur Petroleum, Inc.
Well Operator

By [Signature]
Vice President

PLEASE RETURN COPIES OF ALL
ALL PHYSICAL PLANS DIRECTLY TO:
WEST VIRGINIA OIL AND GAS
CONSERVATION DEPARTMENT
100 WASHINGTON STREET EAST
CHARLESTON, WV 25301
TELEPHONE: 304-261-2300

BLANKET BOND

[08-78]

PROPOSED WORK ORDER

ESTIMATE IS AN ESTIMATE ONLY:
ACTUAL INFORMATION MUST BE SUBMITTED ON FORM IV-2 UPON COMPLETION

DRILLING CONTRACTOR (IF KNOWN) Little Swiss Drilling Company

Address P. O. Drawer "P"

Buckhannon, West Virginia 26201

GEOLOGICAL TARGET FORMATION, Benson

Estimated depth of completed well, 4220 feet Primary Secondary

Approximate water storage capacity: Fract., _____ feet; Seal, _____ feet

Approximate coal seam thickness: _____ Is coal being mined in the area: Yes _____ / No

EQUIPMENT AND TYPING PROGRAM

EQUIPMENT OR TYPING TYPE	QUANTIFICATION					FOOTAGE INTERVALS		PERMIT FEES - PER HOUR OR SACKS (Table C)	REMARKS
	Size	Grade	Weight	New	Used	For drilling	Left in well		
Collator	16				X	15	15	To Surface	mins
Fract water									
	11 3/4"			X		480	480	To Surface	mins
Intercollar	8 5/8"	20.00		X		1200	1200	To Surface	
Intercollar	4 1/2" K55	10.5		X			4200	100 Sacks	per hr
Tools									
Tools									

Section 2004 of the West Virginia Code provides that the original and true copy of Form IV-2 must be filed with the Department, accompanied by (i) a plat in the form prescribed by Regulation 2, (ii) a bond in one of the forms prescribed by Regulation 2, or in the form of the other security allowed by Code § 22-4-2, (iii) Form IV-3, "Perforation Plan", and (iv) the permit required by Code § 22-4-12b and Regulation 2, the seal required by Code § 22-4-12c, the fee required by Code § 22-4-12d, and the permit required by Code § 22-4-12e from the corner of any water well or other well, or 200 feet of the proposed well.

A separate Form IV-3 shall not be required for fracturing or stimulating operations. THIS PERMIT MUST BE POSTED AT THE WELL SITE. The permit for fracturing or stimulating operations is to be part of the work for which a permit is sought and is to be posted at the well site in connection therewith.

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 12-3-81.

[Signature]
Deputy Director - Oil & Gas Division

REMARKS

The undersigned, as operator or owner or lessee of the well, hereby certifies that the well is being drilled in accordance with the provisions of the West Virginia Code and the relevant regulations. The undersigned hereby certifies that the well is being drilled in accordance with the provisions of the West Virginia Code and the relevant regulations. The undersigned hereby certifies that the well is being drilled in accordance with the provisions of the West Virginia Code and the relevant regulations.

By: _____
Date: _____