



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) Haynes D. Gordon  
 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 FEBRUARY 14, 19 83  
 OPERATOR'S WELL NO. C 52  
 API WELL NO. \_\_\_\_\_  
47 - 059 - 1049  
 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 920' WATER SHED RIGHT FORK OF LAUREL FORK  
 DISTRICT HARDEE COUNTY MINGO  
 QUADRANGLE MYRTLE Holden 15 SW

SURFACE OWNER HAROLD GILLMAN, et al 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) \_\_\_\_\_

PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_

TARGET FORMATION MARCELLUS ESTIMATED DEPTH 4250'  
 WELL OPERATOR SENECA-UPSHUR PET INC. DESIGNATED AGENT JOSEPH HAGER  
 ADDRESS P.O. BOX 2048 ADDRESS P.O. BOX 2048  
BUCKHANNON, W. VA 26201 BUCKHANNON, W. VA. 26201

64 Dempsey School (368)  
 MAR 21 1983

Mingo 1049





IV-35  
(Rev 8-81)

JUL 25 1983

JUL 19 1983

OIL & GAS DISTRICT  
DEPT. OF MINES

State of West Virginia  
Department of Mines  
Oil and Gas Division

Date July 15, 1983  
Operator's  
Well No. C-52  
Farm \_\_\_\_\_  
API No. 47 - 059 - 1049

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: 920' Watershed Right Fork of Laurel Fork  
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 Harold Gilman  
ADDRESS Star Rt. 1, Box 560, Lenore, WV 25676  
MINERAL RIGHTS OWNER Cotiga Development Co.  
ADDRESS 2nd Floor Rear, 14 E. Lancaster Ave. Paoli, PA 19301  
OIL AND GAS INSPECTOR FOR THIS WORK Arthur St. Clair ADDRESS P.O. Box 157, Brenton, WV  
PERMIT ISSUED March 15, 1983  
DRILLING COMMENCED June 10, 1983  
DRILLING COMPLETED June 19, 1983  
IF APPLICABLE: PLUGGING OF DRY HOLE ON CONTINUOUS PROGRESSION FROM DRILLING OR REWORKING. VERBAL PERMISSION OBTAINED ON \_\_\_\_\_

Casing & Tubing	Used in Drilling	Left in Well	Cement fill up Cu. ft.
Size 20-16 Cond.	18	18	10
13-10"	148	148	80
9 5/8			
8 5/8	1822	1822	400
7			
5 1/2			
4 1/2		4191	175
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Marcellus Depth 5,000 feet  
Depth of completed well 4245 feet Rotary X / Cable Tools \_\_\_\_\_  
Water strata depth: Fresh 45 feet; Salt \_\_\_\_\_ feet  
Coal seam depths: 84', 93', 151', 195', 259', 334', 512', 624' Is coal being mined in the area? No

OPEN FLOW DATA  
Producing formation Devonian Shale Pay zone depth 2790 feet  
Gas: Initial open flow Trace Mcf/d Oil: Initial open flow 0 Bbl/d  
Final open flow 808 Mcf/d Final open flow 0 Bbl/d

Time of open flow between initial and final tests 2 hours  
Static rock pressure 490 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: 6/23/83  
 SAND: 180,000#  
 WATER: 775 BBLs.  
 PERFS: 3550' - 4085' 24 .49 Perfs  
 NITROGEN: 18,960 CCF

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	28	
Sand			28	84	
Coal			84	89	
Sand & Shale			89	93	
Coal			93	97	
Sand & Shale			97	138	
Sand			138	151	
Coal			151	155	
Sand			155	195	
Coal			195	201	
Shale			201	259	
Coal			259	261	
Sand & Shale			261	334	
Coal			334	338	
Sand			338	512	
Coal			512	516	
Sand			516	592	
Sand & Shale			592	624	
Coal			624	627	
Sand & Shale			627	950	
Sand			950	1493	
Sand & Shale			1493	1802	
Big Lime			1802	2080	
Big Injun			2080	2098	
Sand & Shale			2098	2258	
Weir			2258	2332	
Sand & Shale			2332	2656	
Sudbury Shale			2656	2726	
Berea			2726	2790	
Gray Shale			2790	3522	
Brown Shale			3522	4070	
Marcellus			4070	<u>4245</u>	T.D. <i>Huron</i> Top of Onondaga 4237 from gamma ray - density log.

3550  
2790  
760

4245  
2790  
1455

(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 coal, encountered in the drilling of a well."





1) Date: February 21, 19 83  
 2) Operator's Well No. C-52  
 3) API Well No. 47 035 1049  
 State \_\_\_\_\_ County \_\_\_\_\_ Permit \_\_\_\_\_

DRILLING CONTRACTOR:

Little Swiss Drilling Co.  
Buckhannon, WV 26201

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 \_\_\_\_\_ / Underground storage \_\_\_\_\_ / Deep \_\_\_\_\_ / Shallow X /)
- 5) LOCATION: Elevation: \_\_\_\_\_ Watershed: \_\_\_\_\_  
 District: \_\_\_\_\_ County: \_\_\_\_\_ Quadrangle: \_\_\_\_\_
- 6) WELL OPERATOR \_\_\_\_\_ Address P.O. Box 2048  
Buckhannon, West Virginia 26201
- 7) OIL & GAS ROYALTY OWNER Cotiga Development Company  
 Address 25 Dobby Road  
Paoli, Pennsylvania 19301  
 Acreage Part of 2,456
- 8) SURFACE OWNER Star Rt. 1, Box 560  
 Address Lenore, WV 25676  
 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  
Renton, West Virginia 24918
- 11) DESIGNATED AGENT \_\_\_\_\_ Address P.O. Box 2048  
Buckhannon, West Virginia 26201
- 12) COAL OPERATOR None  
 Address \_\_\_\_\_
- 13) COAL OWNER(S) WITH DECLARATION ON RECORD:  
 Name \_\_\_\_\_ Address Painesville, Kentucky 41241
- 14) COAL LESSEE WITH DECLARATION ON RECORD:  
 Name \_\_\_\_\_ Address \_\_\_\_\_
- 15) PROPOSED WORK: Drill \_\_\_\_\_ / 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, \_\_\_\_\_ feet
- 18) Approximate water strata depths: Fresh, 180 feet; salt, 1900 feet.
- 19) Approximate coal seam depths: \_\_\_\_\_ 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	<u>10</u>				<u>X</u>	<u>20</u>	<u>20</u>	<u>to surface</u>	Kinds
Fresh water									Sizes
Coal						<u>2100</u>	<u>2100</u>	<u>to surface</u>	Depths set
Intermediate	<u>8 3/8</u>		<u>23.00</u>	<u>X</u>				<u>as required</u>	Perforations:
Production	<u>4 1/2</u>		<u>23.00</u>	<u>X</u>				<u>by rule 15.0</u>	Top Bottom
Tubing									
Liners									

- 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: Joseph A. Tente Signed: Joseph A. Tente  
 My Commission Expires June 6, 1988 Its: Vice President  
 \_\_\_\_\_  
 \_\_\_\_\_

OFFICE USE ONLY  
**DRILLING PERMIT**

Permit number 47-059-1049 Date March 19

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 \_\_\_\_\_ unless drilling is commenced prior to that date and prosecuted with due diligence.

Bond:	Agent:	Plat:	Casing	Fee
				<u>512</u>

Administrator, Office of Oil and Gas