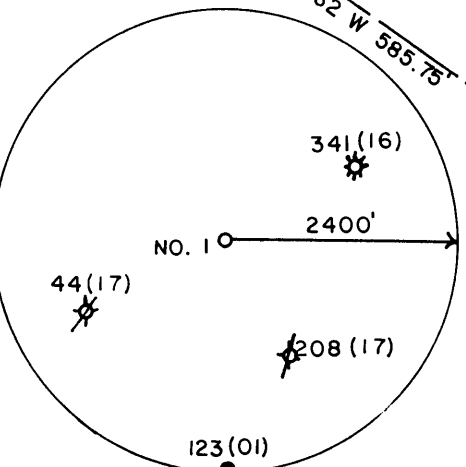
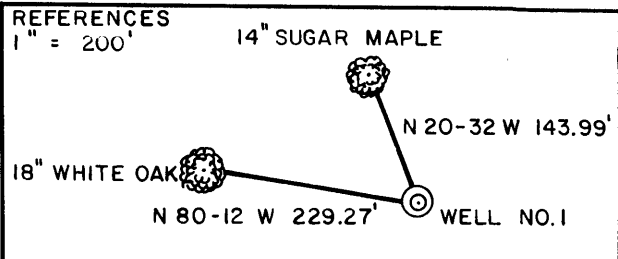
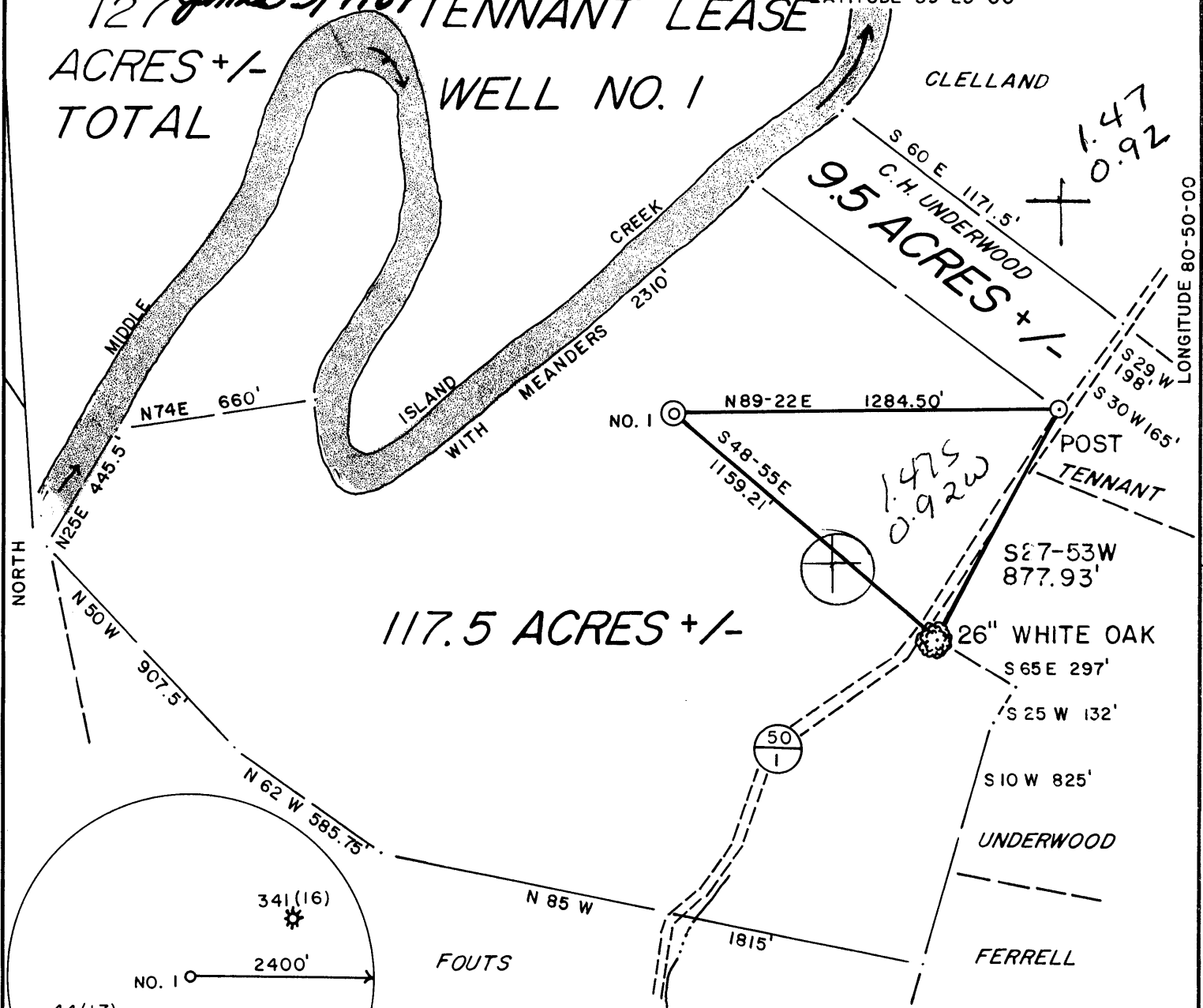
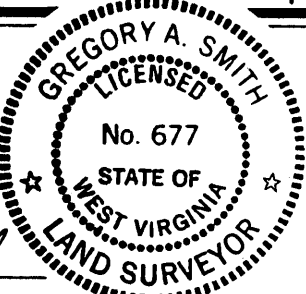


127 *Janie 3/9/89* TENNANT LEASE  
ACRES +/-  
TOTAL WELL NO. 1



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.



L.L.S. 677 *Gregory A. Smith*

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.  
DATE FEBRUARY 25, 19 89  
OPERATORS WELL NO. TENNANT NO. 1  
API WELL NO. 47 - 095 - 1286  
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2021 (26-57)  
PROVEN SOURCE OF ELEVATION TOP OF KNOB SCALE 1" = 500'  
ELEV. 1122'

STATE OF WEST VIRGINIA  
DEPARTMENT OF ENERGY  
OIL AND GAS DIVISION



WELL TYPE: OIL \_\_\_ GAS \_\_\_ LIQUID INJECTION X WASTE DISPOSAL \_\_\_ "GAS" PRODUCTION X STORAGE \_\_\_ DEEP \_\_\_ SHALLOW X  
LOCATION: ELEVATION 826' WATERSHED MIDDLE ISLAND CREEK West Union C  
DISTRICT CENTERVILLE 1 COUNTY TYLER QUADRANGLE SHIRLEY 7.5' 607  
SURFACE OWNER ROBERT H. TENNANT ACREAGE 117.5 133  
ROYALTY OWNER ROBERT H. TENNANT LEASE ACREAGE 127 6

PROPOSED WORK: DRILL X CONVERT \_\_\_ DRILL DEEPER \_\_\_ REDRILL \_\_\_ FRACTURE OR STIMULATE X PLUG OFF OLD FORMATION \_\_\_ PERFORATE NEW FORMATION \_\_\_ PLUG AND ABANDON \_\_\_ CLEAN OUT AND REPLUG \_\_\_ OTHER \_\_\_  
PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_ TARGET FORMATION BENSON ESTIMATED DEPTH 5050 MAR 10 1989

WELL OPERATOR The Coastal Corporation DESIGNATED AGENT William Carpenter  
ADDRESS Box 4119 Parkersburg, W.V. 26104 195 ADDRESS Box 4119 Parkersburg, W.V. 26104 (092)

State of West Virginia  
DEPARTMENT OF ENERGY  
Division of Oil and Gas

Well Operator's Report of Well Work

Farm name: TENNANT, ROBERT H. Operator Well No.: TENNANT 1

LOCATION: Elevation: 826.00 Quadrangle: SHIRLEY

District: CENTERVILLE County: TYLER  
Latitude: 7790 Feet South of 39 Deg. 25Min. 0 Sec.  
Longitude 4870 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: COASTAL CORP., THE  
P. O. BOX 4119  
PARKERSBURG, WV 26104-0000

Agent: WILLIAM E. CARPENTER

Inspector: GLEN P. ROBINSON  
Permit Issued: 03/09/89  
Well work Commenced: 3/17/89  
Well work Completed: 3/26/89  
Verbal Plugging  
Permission granted on: N/A  
Rotary  Cable \_\_\_\_\_ Rig  
Total Depth (feet) 4988'  
Fresh water depths (ft) 70'  
Salt water depths (ft) 1190'

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 3/4	120'	120'	71
8 5/8	1745'	1745'	555
4 1/2	4910	4910	500

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OPEN FLOW DATA

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY 4784-4794

Producing formation Riley , Benson Pay zone depth (ft) 4270-4410  
Gas: Initial open flow 1100 MCF/d Oil: Initial open flow 0 Bbl/d  
Final open flow 860 MCF/d Final open flow 0 Bbl/d  
Time of open flow between initial and final tests 24 Hours  
Static rock Pressure 1675 psig (surface pressure) after 24 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: COASTAL CORP., THE  
*William E. Carpenter*

By: \_\_\_\_\_  
Date: 6/17/89

JUN 20 1989

TENNANT 1

Shot 14 .39 holes from 4784 to 4794. Broke down w/500 gallon of 15% HCL at 2375 PSI. Ran 50 sacks of 80/100 mesh sand and 350 sacks of 20/40 mesh sand at a rate of 22 BPM for a total volumn of 425 bbl. Average treating pressure 2665 PSI with and ISIP of 1485 PSI.

Shot 16 .39 holes form 4269 to 4413 broke down w/500 gallon of 15% HCL at 2055 PSI. Ran 50 sacks of 80/100 mesh sand and 250 sacks of 20/40 mesh sand at a rate of 21 BPM for a total volumn of 325 bbls. Nitrogen used to assist was 125,000 SCF. Average treating pressure was 2467 PSI with an ISIP of 1540 PSI.

FORMATION	COLOR	HARD/SOFT	TOP	BOTTOM	
Red Rock	Red	Soft	0	15	
Shale	Black	Soft	15	25	
Rock	White	Med	25	45	
Shale	Gray	Soft	45	65	
Sand	White	Med	65	70	70' water
Shale	Gray	Soft	70	95	
Shale	Brown	Med	95	145	
Sand	White	Med	145	220	
Shale	Red	Soft	220	350	
Sand	White	Hard	350	370	
Shale	Gray	Soft	370	410	
Sand	White	Hard	410	420	
Shale	Gray	Med	420	460	410' hole wet
Sand	White	Med	460	900	
Sand & Shale	Gray	Med	900	1150	
Sand	White	Med	1150	1190	
Shale	Gray	Med	1190	1220	
Sand	White	Med	1220	1350	
Shale	Gray	Med	1350	1460	
Sand	White	Hard	1460	1590	
Sand & Shale	Gray	Hard	1590	1630	
Sand	White	Hard	1630	1715	
Big Lime	White	Hard	1715	1790	
Shale	Gray	Med	1790	1795	
Sand	White	Hard	1795	1815	
Shale	Gray	Med	1815	2110	
Sand	White	Med	2110	2160	2130-2160 oil & gas dust heavy
Shale	Gray	Soft	2160	2414	
Shale	Gray	Soft	2414	4327	
Sand & Shale	GrayL	Soft	4327	4380	
R Shale	Brown	Soft	4380		
Shale	Gray	Soft	4380		5005 TD

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DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

8380

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

10125, 1, 606

- 1) Well Operator: The Coastal Corporation
- 2) Operator's Well Number: Tennant No. 1 3) Elevation: 826'
- 4) Well type: (a) Oil \_\_\_ / or Gas X /  
(b) If Gas: Production X / Underground Storage \_\_\_ /  
Deep \_\_\_ / Shallow X /
- 5) Proposed Target Formation(s): Benson
- 6) Proposed Total Depth: 5050 feet
- 7) Approximate fresh water strata depths: 50', 250', 310'
- 8) Approximate salt water depths: 1280-1300' N/A 1379'
- 9) Approximate coal seam depths: possibly coal blossoms N/A 527-528', 559-560'
- 10) Does land contain coal seams tributary to active mine? Yes \_\_\_ / No X /
- 11) Proposed Well Work: Drill & Stimulate. New Well
- 12)

CASING AND TUBING PROGRAM

TYPE	SPECIFICATIONS			FOOTAGE INTERVALS		CEMENT
	Size	Grade	Weight per ft.	For drilling	Left in well	Fill-up (cu. ft.)
<u>CM</u> Conductor	11 3/4			120'	120'	cts.
Fresh Water	8 5/8		23	1700'	1700'	By Rule 38 CSR 18-11.3 38CSR18-11.22
Coal						
Intermediate						
Production	4 1/2		10.5	5050'	5050'	By Rule 33 CSR 18-11.1
Liners						

PACKERS : Kind \_\_\_\_\_  
Sizes \_\_\_\_\_  
Depths set \_\_\_\_\_

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For Division of Oil and Gas Use Only

DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

Fee(s) paid:  Well Work Permit  Reclamation Fund  WPCP  
 Plat  WW-9  WW-2B  Bond 50 Blanket  Agent  
 (Type)

0280

6462  
5

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DIVISION OF OIL & GAS  
DEPARTMENT OF ENERGY

1) Date: February 24, 1989  
2) Operator's well number  
Tennant #1  
3) API Well No: 47 - 095 - 1286  
State - County - Permit

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

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:

(a) Name Robert H. Tennant  
Address Box 9, Ross Run Road  
Alma, WV 26320

(b) Name \_\_\_\_\_  
Address \_\_\_\_\_

(c) Name \_\_\_\_\_  
Address \_\_\_\_\_

5) (a) Coal Operator:  
Name \_\_\_\_\_  
Address \_\_\_\_\_

(b) Coal Owner(s) with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

Name \_\_\_\_\_  
Address \_\_\_\_\_

(c) Coal Lessee with Declaration  
Name \_\_\_\_\_  
Address \_\_\_\_\_

6) Inspector Glen P. Robinson  
Address Route 1  
Mineral Wells, WV  
Telephone (304)- 489-9162

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  
XX Included is the information required by Chapter 22B, Article 1, Section 8(d) of the Code of West Virginia (see page 2)

I certify that as required under Chapter 22B 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:

- XX Personal Service (Affidavit attached)
- \_\_\_ Certified Mail (Postmarked postal receipt attached)
- \_\_\_ Publication (Notice of Publication attached)

I have read and understand Chapter 22B 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

I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

Well Operator The Coastal Corporation  
By: Linda Carpenter  
Its: Vice President  
Address P. O. Box 4119  
Parkersburg, WV 26104  
Telephone 304-428-3471

Subscribed and sworn before me this 24th day of February, 1989

Sharon Davis Notary Public  
My commission expires Sept. 19, 1990