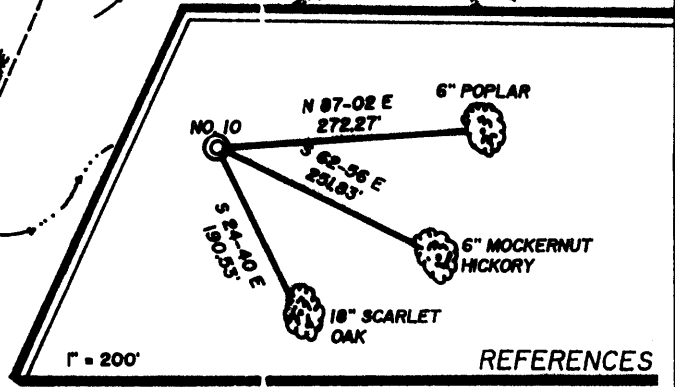
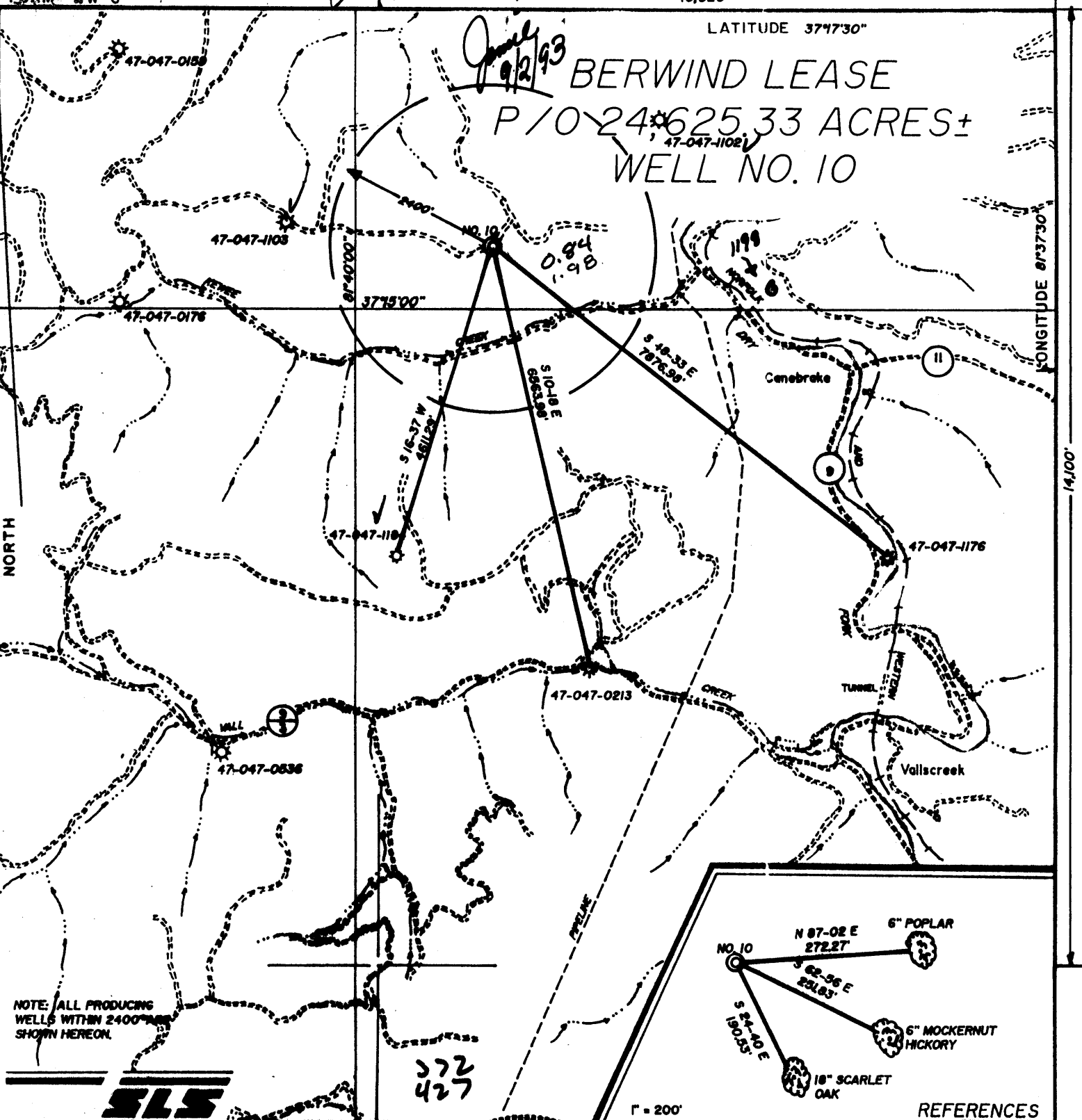


July 9/2/93

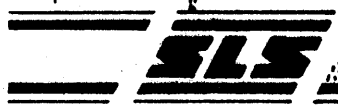
# BERWIND LEASE

## P/O 24,625.33 ACRES ±

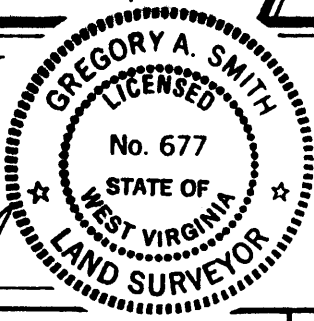
### WELL NO. 10



NOTE: ALL PRODUCING WELLS WITHIN 2400' ARE SHOWN HEREON.



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 AUGUST 11, 19 93  
 OPERATORS WELL NO. BERWIND NO. 10  
 API WELL NO. 47-047-1202  
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2901 (41-74)  
 PROVEN SOURCE OF ELEVATION TOP OF KNOB ELEVATION 2622' SCALE 1" = 2000'

STATE OF WEST VIRGINIA DEPARTMENT OF ENERGY OIL AND GAS DIVISION

WELL TYPE: OIL  GAS  LIQUID INJECTION  WASTE DISPOSAL  IF "GAS" PRODUCTION  STORAGE  DEEP  SHALLOW

LOCATION: ELEVATION 2190' WATERSHED KEWEE CREEK DISTRICT BIG CREEK COUNTY MCDOWELL QUADRANGLE WAR 7.5' W-14 S-5

SURFACE OWNER BERWIND LAND COMPANY ACREAGE P/O 24,625.33  
 ROYALTY OWNER BERWIND LAND COMPANY LEASE ACREAGE P/O 24,625.33

PROPOSED WORK: LEASE NO. \_\_\_\_\_  
 DRILL  CONVERT  DRILL DEEPER  REDRILL  FRACTURE OR STIMULATE  PLUG OFF OLD FORMATION  PERFORATE NEW FORMATION  PLUG AND ABANDON  CLEAN OUT AND REPLUG  OTHER \_\_\_\_\_  
 PHYSICAL CHANGE IN WELL (SPECIFY) \_\_\_\_\_ TARGET FORMATION BEREA  
 ESTIMATED DEPTH 4200' SEP 3 1993

WELL OPERATOR WACO OIL AND GAS COMPANY, Inc. DESIGNATED AGENT STEPHEN FOLLOWAY  
 ADDRESS P.O. BOX 397 GLENVILLE, WV 26351 933 ADDRESS P.O. BOX 397 GLENVILLE, WV 26351

6-0 267

COUNTY NAME PERMIT

State of West Virginia  
Division of Environmental Protection  
Section of Oil and Gas

Well Operator's Report of Well Work

Farm name: **BERWIND LAND CO.** Operator Well No.: **BERWIND #10**

LOCATION: Elevation: **2,180.00** Quadrangle: **WAR**

District: **BIG CREEK** County: **MCDOWELL**  
Latitude: **14100** Feet South of **37** Deg. **7** Min. **30** Sec.  
Longitude: **10020** Feet West of **81** Deg. **7** Min. **30** Sec.

Company: **WACO OIL & GAS CO., INC.**  
**1297 N. LEWIS ST.**  
**GLENVILLE, WV 26351-0000**

Agent: **STEPHEN E. HOLLOWAY**

INSPECTOR: **OFIE HELMICK**  
Permit Issued: **09/03/93**  
Well work commenced: **09/04/93**  
Well Work completed: **09/13/93**  
Verbal Plugging  
Permission granted on:  
Rotary **X** Cable Rig  
Total Depth (feet) **7,112'**  
Fresh water depths (ft) **118', 253'**  
Salt water depths (ft) **1,023'**  
Is coal being mined in area (Y/N)? **N**  
Coal Depths (ft): **92-102, 278-281, 721-726, 936-943**

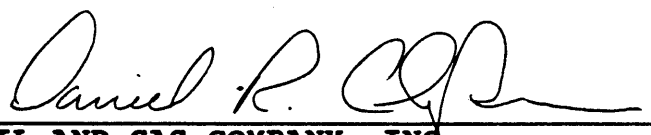
Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11-3/4"	612'	612'	C.T.S.
8-5/8"	1,648'	1,648	C.T.S.
4-1/2"		7,086	515 Sks.

OPEN FLOW DATA

Producing formation **NONE** Pay zone depth (ft) **SEE TREAT.**  
Gas: Initial open flow **N/A** MCF/d Oil: Initial open flow **N/A** Bbl/d  
Final open flow **N/A** MCF/d Final open flow **N/A** Bbl/d  
Time of open flow between initial and final tests **N/A** Hours  
Static Rock pressure **N/A** psig (surface pressure) after **N/A** 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 STIMULATION, PHYSICAL CHANGE, ETC. 2). THE WELL LOG WHICH IS A SYSTEMATIC DETAILED GEOLOGICAL RECORD OF ALL FORMATIONS, INCLUDING COAL ENCOUNTERED BY THE WELLBORE.



For: **WACO OIL AND GAS COMPANY, INC.**

By: **Daniel R. Chapman, Geologist**

Date: **JANUARY 25, 1994**

FEB 17 1994

1st Stage: Devonian Shale (6991-6489) 750 gal 15% HCL, 20 ton CO<sub>2</sub>,  
400 MCF N<sub>2</sub>

NOTE: Casing Failure During First Stage

Sand, Shale	0	92 Damp @ 118'
Coal	92	102 1" stream @ 253'
Sand, Shale	102	278
Coal	278	281 Damp @ 1,023'
Sand, Shale	281	721
Coal	721	726
Sand, Shale	726	936
Coal	936	943
Sand, Shale	943	1170
Sand, Shale, Red Rock	1170	2655
Sand, Shale	2655	3510
Big Lime	3510	4159
Sand, Shale	4159	4770
Berea	4770	4814
Shale	4814	4859
Gordon	4859	4922
Shale	4922	6198
Huron Shale	6198	6317
Shale	6317	6753
Rhinestreet Shale	6753	7079
Shale	7079	7112 T. D.