

Janice
11/20/92

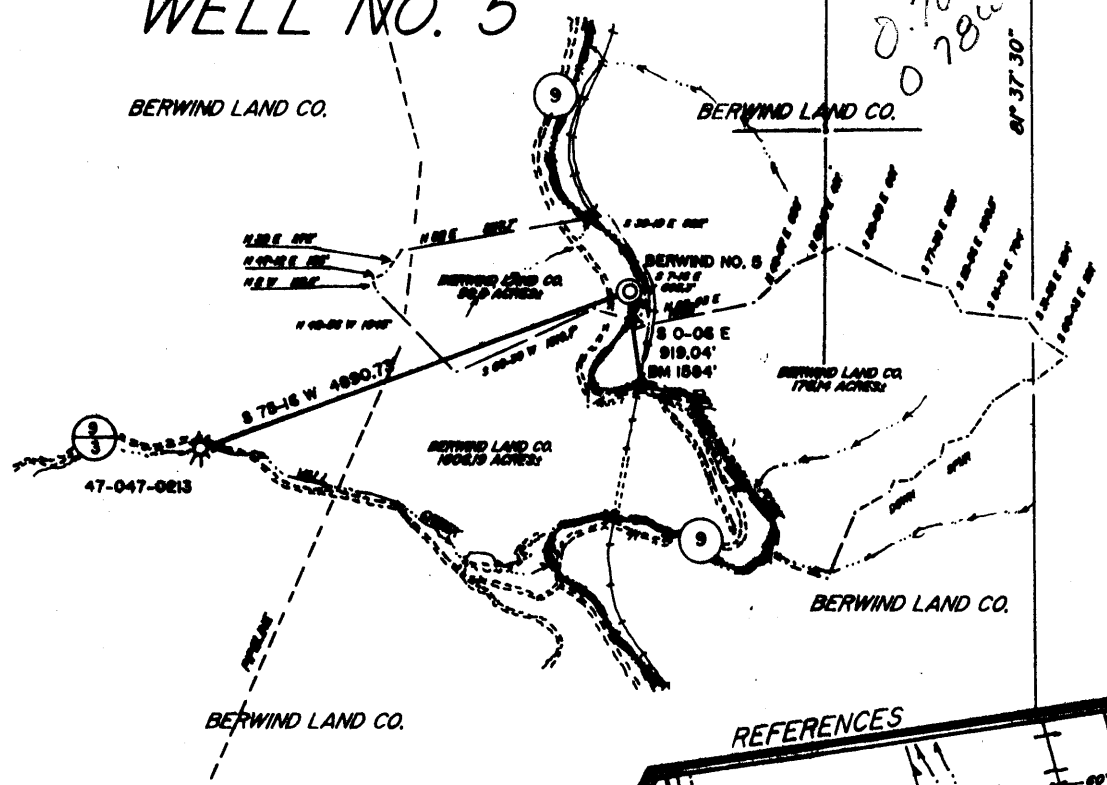
BERWIND LEASE 58.8 ACRES ± WELL NO. 5

37° 15' 00"

67° 40' 00"

67° 37' 30"

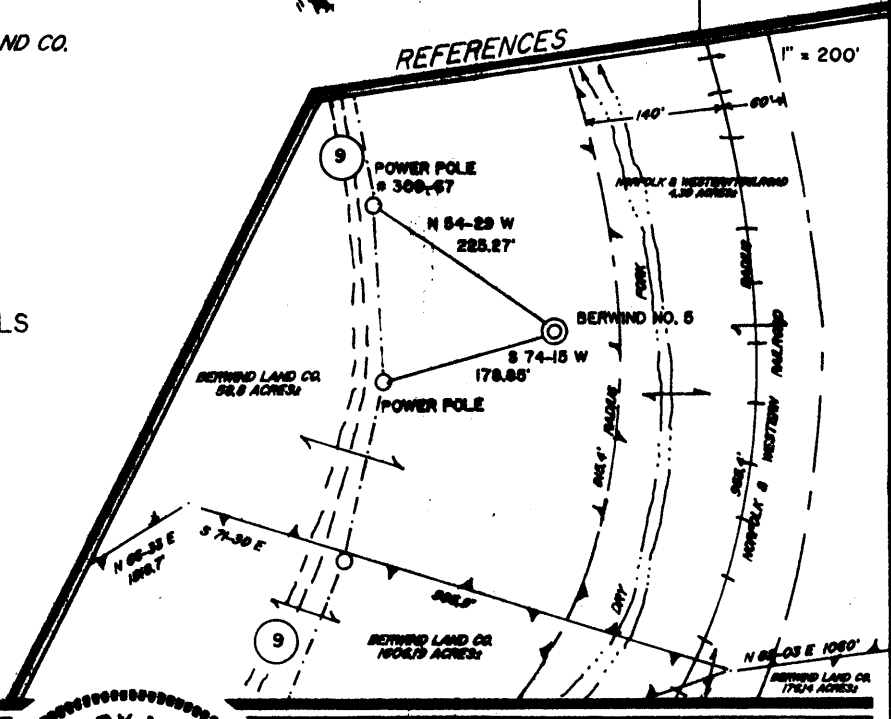
LONGITUDE 81° 37' 30"



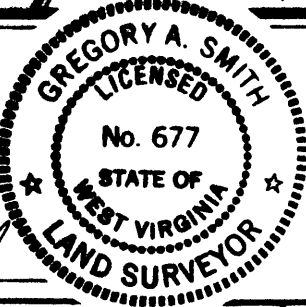
NOTE: ALL PRODUCING WELLS WITHIN 2400' ARE SHOWN HEREON.

0.70
3.04

REFERENCES



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.



(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.

DATE NOVEMBER 5, 19 92

OPERATORS WELL NO. BERWIND NO. 5

API WELL NO. 47 - 047 - 1176.F
STATE COUNTY PERMIT

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

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2901 (41-07)
PROVEN SOURCE OF ELEVATION BENCH MARK ELEVATION 1564' 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 1553' WATERSHED DRY FORK
DISTRICT BIG CREEK COUNTY MCDOWELL QUADRANGLE AMONATE 7.5' Pond

SURFACE OWNER BERWIND LAND COMPANY ACREAGE 58.8 OF 24,625.33
ROYALTY OWNER BERWIND LAND COMPANY LEASE ACREAGE 58.8 OF 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 BERA
ESTIMATED DEPTH 5000'

WELL OPERATOR Waco Oil & Gas Company Inc. DESIGNATED AGENT Stephen Holloway
ADDRESS P.O. Box 397 Glenville, WV 26351 ADDRESS P.O. Box 397 Glenville, WV 26351

COUNTY NAME MCDOWELL
PERMIT 1176

575

LATITUDE 37° 15' 00"

Final
11/10/92

BERWIND LEASE 58.8 ACRES+ WELL NO. 5

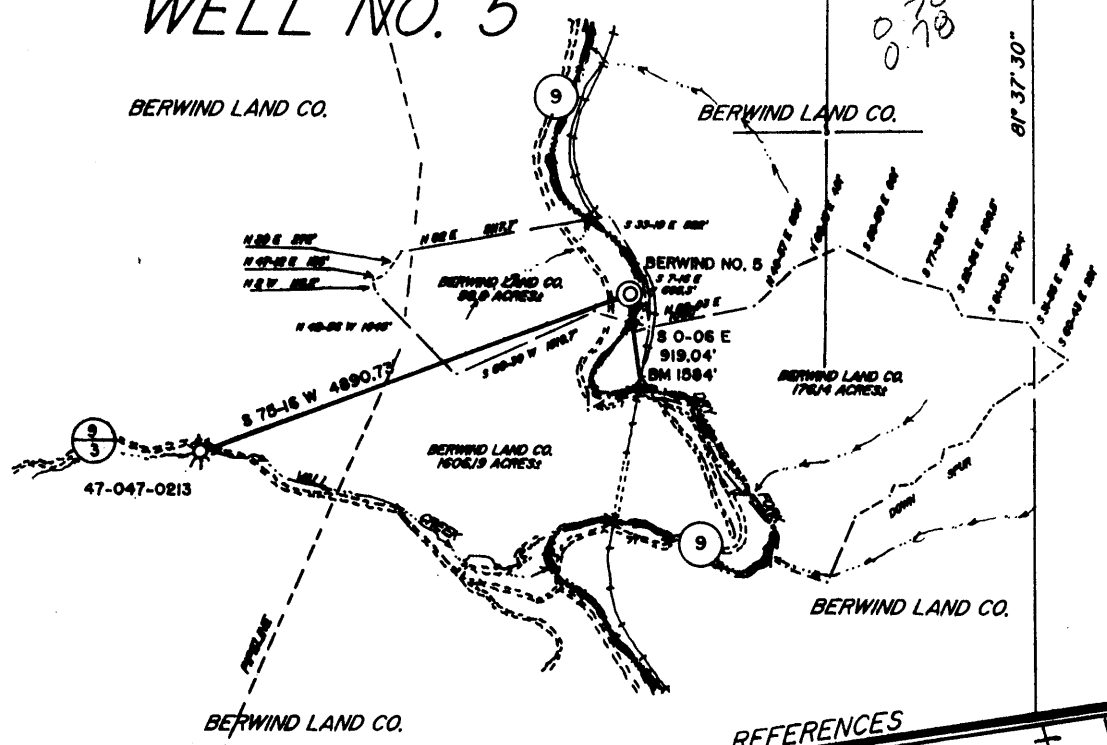
37° 15' 00"

LONGITUDE 81° 37' 30"

NORTH

81° 40' 00"

81° 37' 30"

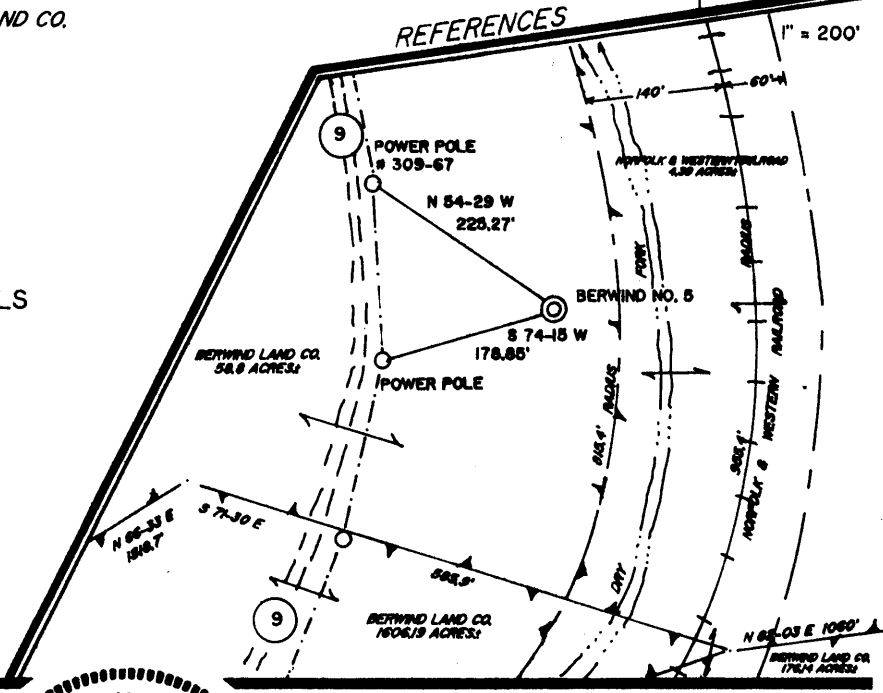


NOTE: ALL PRODUCING WELLS
WITHIN 2400' ARE SHOWN
HEREON.

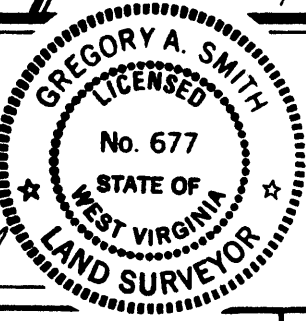
UTMS
443306.8
4121453.6
0.70S
3.04W



REFERENCES



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. Gregory A. Smith
677

(+) DENOTES LOCATION OF WELL ON UNITED STATES TOPOGRAPHIC MAPS.
DATE NOVEMBER 5, 19 92
OPERATORS WELL NO. BERWIND NO. 5
API WELL NO. 47-047-1176
STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 200 FILE NO. 2901 (41-07)
PROVEN SOURCE OF ELEVATION BENCH MARK ELEVATION 1584' 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 1553' WATERSHED DRY FORK Pounding Mill
DISTRICT BIG CREEK 2 COUNTY MCDOWELL QUADRANGLE AMONATE 7.5'

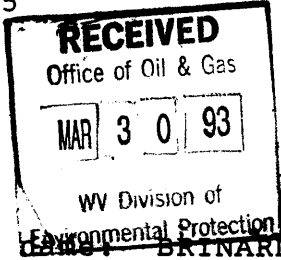
SURFACE OWNER BERWIND LAND COMPANY ACREAGE 58.8 OF 24,625.33 NC
ROYALTY OWNER BERWIND LAND COMPANY LEASE ACREAGE 58.8 OF 24,625.33

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 BERA
ESTIMATED DEPTH 5000'

WELL OPERATOR Waco Oil & Gas Company Inc. DESIGNATED AGENT Stephen Holloway
ADDRESS P.O. Box 397 Glenville, WV 26351 ADDRESS P.O. Box 397 Glenville, WV 26351

6-6 Big Creek (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 ~~Land~~ BRINARD, RAY

Operator Well No.: BERWIND LAND#5

LOCATION: Elevation: 1553.00 Quadrangle: AMONATE

District: BIG CREEK County: MCDOWELL
Latitude: 3650 Feet South of 37 Deg. 15Min. 0 Sec.
Longitude 4150 Feet West of 81 Deg. 37 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: 11/10/92
Well work Commenced: 11/11/92
Well work Completed: 11/19/92
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 6359'
Fresh water depths (ft) 65', 245'
Salt water depths (ft) _____
None
Is coal being mined in area (Y/N)? N
Coal Depths (ft): 173-178, 887-981

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11-3/4"	302	302	C.T.S.
8-5/8"	958	958	C.T.S.
4-1/2"		6,179	440 Sks.

OPEN FLOW DATA

Producing formation Devonian Shale Pay zone depth (ft) see treatment
Gas: Initial open flow N/A MCF/d Oil: Initial open flow N/A Bbl/d
Final open flow 211 MCF/d Final open flow None Bbl/d
Time of open flow between initial and final tests 4 Hours
Static rock Pressure 1275 psig (surface pressure) after 48 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.

Reviewed TMG
Recorded _____

For: WACO OIL & GAS CO., INC.

By: Daniel R. Chapman, Geologist
Date: February 1, 1993

813 813

1st stage: Devonian Shale (6153-5270) 1000 gal 15% HCL, 40 ton CO₂, 1,006 mcf N₂

2nd stage: Devonian Shale (5177-4438) 1000 gal 15% HCL, 41 ton CO₂, 1,040 mcf N₂

404 404

Sand, Shale	0	173	7" stream @ 65'
Coal	173	178	7" stream @ 245'
Sand, Shale	178	887	
Coal	887	891	
Sand, Shale	891	2467	
Big Lime	2467	3340	
Shale	3340	3963	
Berea	3963	4003	
Shale	4003	4051	
Gordon	4051	4099	
Shale	4099	6359'	

DE- 813 (2)

DET- 813

SEP 27 1994

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

Permitting
Office of Oil & Gas

Well Operator's Report of Well Work

Farm name: **BRAINARD, RAY** Operator Well No.: **BERWIND #5**
LOCATION: Elevation: **1,553.00** Quadrangle: **AMONATE**
District: **BIG CREEK** County: **MCDOWELL**
Latitude: **3650** Feet South of **37** Deg. **15** Min. Sec.
Longitude: **4150** Feet West of **81** Deg. **37** 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: **04/21/94**
Well work commenced: **08/08/94**
Well Work completed: **08/09/94**
Verbal Plugging
Permission granted on:
Rotary Cable Rig
Total Depth (feet)
Fresh water depths (ft)
Salt water depths (ft)
Is coal being mined in area (Y/N)?
Coal Depths (ft):

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
	NO	CHANGE	
SEE	ORIGINAL	WR-35	

OPEN FLOW DATA

Producing formation **GORDON, BEREA** Pay zone depth (ft) **See Treatment**
Gas: Initial open flow **N/A** MCF/d Oil: Initial open flow **N/A** Bbl/d
Final open flow **1958** MCF/d Final open flow **N/A** Bbl/d
Time of open flow between initial and final tests **4** Hours
Static Rock pressure **390** psig (surface pressure) after **48** 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.

Daniel R. Chapman
For: **WACO OIL AND GAS COMPANY, INC.**

By: **Daniel R. Chapman, Geologist**
Date: **September 19, 1994**

1st Stage: Gordon (4074-97) 750 gal 15% HCL, 53,000# 20/40, 185 mcf N₂, 576 bbl H₂O

2nd Stage: Berea (3994-97) 750 gal 15% HCL, 61,000# 20/40, 179 mcf N₂, 613 bbl H₂O

P 7581

47047-01170

Issued 11/10/92 Page of

Expires 11/10/94

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

- 1) Well Operator: Waco Oil and Gas Company, Inc. ⁹³² 51800 (2) 210
- 2) Operator's Well Number: Berwind Land Co. #5 3) Elevation: 1553'
- 4) Well type: (a) Oil / or Gas X /
 (b) If Gas: Production X / Underground Storage /
 Deep / Shallow X /
- 5) Proposed Target Formation(s): Berea ³⁹⁵
- 6) Proposed Total Depth: 5000' feet
- 7) Approximate fresh water strata depths: 250'
- 8) Approximate salt water depths: 2075'
- 9) Approximate coal seam depths: 300'
- 10) Does land contain coal seams tributary to active mine? Yes / No X /
- 11) Proposed Well Work: Drill and 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.)
Conductor						38 CSR 11.3
Fresh Water	11-3/4"	H	42	300'	300'	38 CSR 11.2.2 C.T.S.
Coal	8-5/8"	J	20	950'	950'	C.T.S.
Intermediate						38 CSR 11.1
Production	4-1/2"	J	10.5		5000'	200 Cu. Ft.
Tubing						
Liners						

PACKERS : Kind
 Sizes
 Depths set

For Division of Oil and Gas Use Only

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

02164
36

1) Date: NOVEMBER 2, 1992
2) Operator's well number
BERWIND WELL #5
3) API Well No: 47 - 047 - 1176
State - County - Permit

STATE OF WEST VIRGINIA
DIVISION OF ENVIRONMENTAL PROTECTION, OFFICE OF OIL AND GAS

NOTICE AND APPLICATION FOR A WELL WORK PERMIT

4) Surface Owner(s) to be served:
(a) Name RAY BRAINARD
Address BERWIND LAND COMPANY
1050 ONE VALLEY SQUARE
~~Knox/Marion~~ CHARLESTON, WV 25301
Address _____
(c) Name _____
Address _____
6) Inspector OFIE HELMICK
Address P.O. BOX 218
FANROCK, WV 24824
Telephone (304)- 732-9135

5) (a) Coal Operator:
Name Consolidation Coal Company
Address P.O. Box 1289
Bluefield, Virginia 24605
(b) Coal Owner(s) with Declaration
Name Berwind Land Company
Address 1050 One Valley Square
Charleston, WV 25301
Name Consolidation Coal Company
Address P.O. Box 1289
Bluefield, Virginia 24605
(c) Coal Lessee with Declaration
Name _____
Address _____

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
XXX 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 7 on the above named parties, by:
XXX 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 is true, accurate, and complete.

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

Well Operator WACO OIL AND GAS
By: [Signature]
Its: STEVEN HOLLOWAY - DESIGNATED AGENT
Address P.O. BOX 397
GLENVILLE, WV 26351
Telephone (304) 462-5347

Subscribed and sworn before me this 2nd day of November, 1992

Russell L. Tallhamer

Commissioner
Notary Public

My commission expires September 9th, 2001