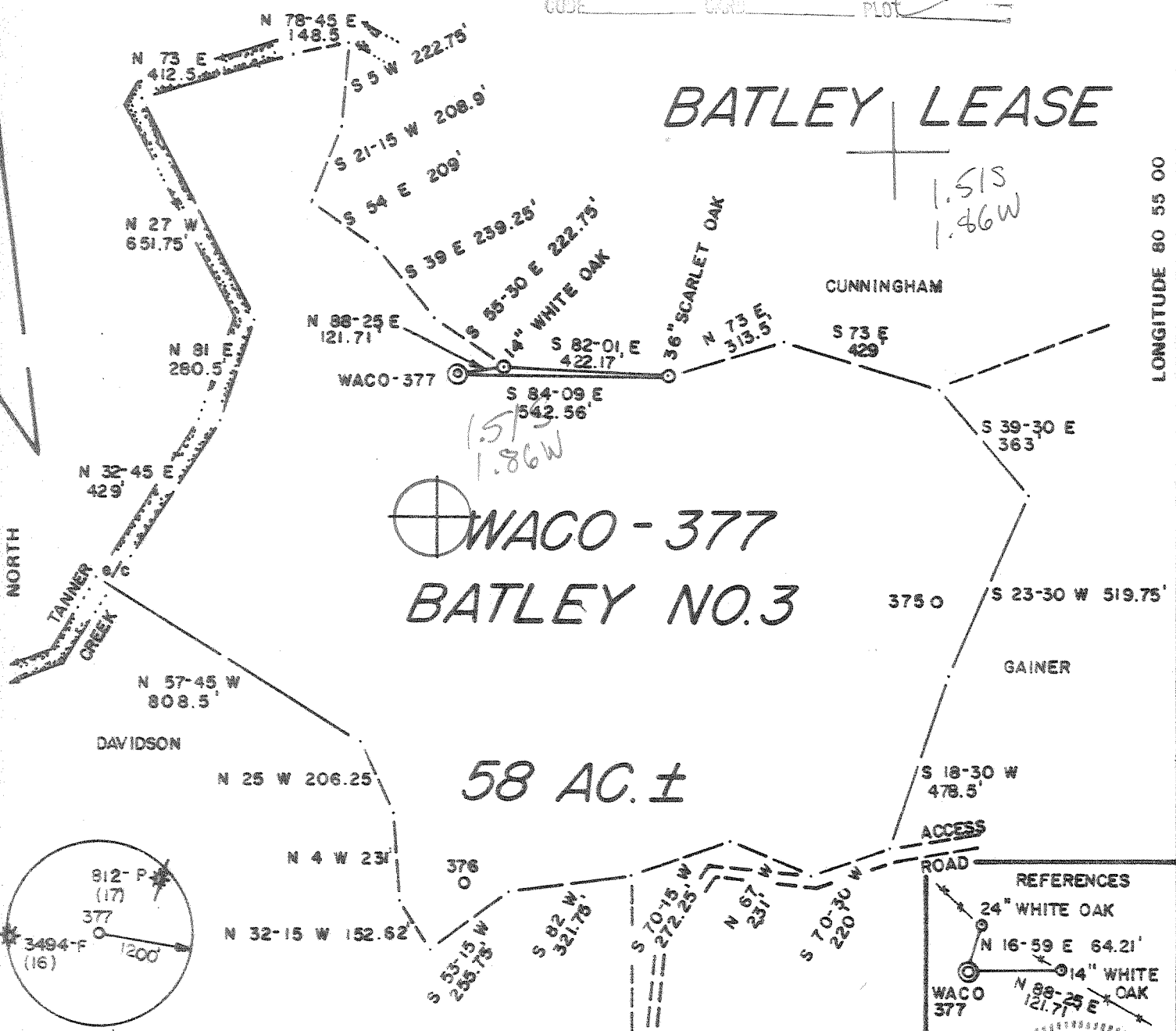


9750' LATITUDE 39 00 00

CODE _____ CARD _____ PLOT

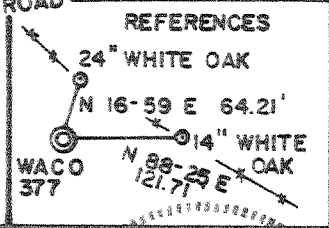
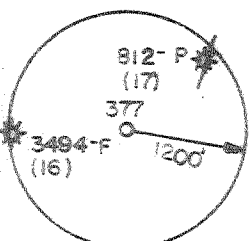
BATLEY LEASE

LONGITUDE 80 55 00



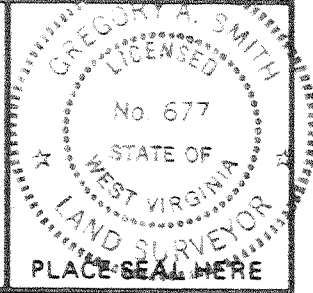
WACO-377
BATLEY NO. 3

58 AC. ±



FILE NO. 15 - 39
 DRAWING NO. _____
 SCALE 1" = 400'
 MINIMUM DEGREE OF ACCURACY 1/200'
 PROVEN SOURCE OF ELEVATION TOP OF KNOB
ELEV. 1164'

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) Gregory A. Smith
 R.P.E. _____ L.L.S. 677



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



DATE NOV. 2, 1984
 OPERATOR'S WELL NO. WACO-377
 API WELL NO. BATLEY NO. 3
47 - 021 - 4373
 STATE COUNTY PERMIT

STATE OF WEST VIRGINIA
 DEPARTMENT OF MINES
 OIL AND GAS DIVISION

WELL TYPE: OIL ___ GAS X LIQUID INJECTION ___ WASTE DISPOSAL ___
 (IF "GAS.") PRODUCTION X STORAGE ___ DEEP ___ SHALLOW X
 LOCATION: ELEVATION 994' WATER SHED TANNER CREEK
 DISTRICT DEKALB 2 COUNTY GILMER
 QUADRANGLE TANNER 7.5' 634 050 NW 1 Glenville
 SURFACE OWNER BERNICE BATLEY et al. ACREAGE 53
 OIL & GAS ROYALTY OWNER T. B. WEBSTER, HRS. LEASE ACREAGE 58
 LEASE NO. _____
 PROPOSED WORK: DRILL X CONVERT ___ DRILL DEEPER ___ REDRILL ___ FRACTURE OR
 STIMULATE X PLUG OFF OLD FORMATION ___ PERFORATE NEW
 FORMATION ___ OTHER PHYSICAL CHANGE IN WELL (SPECIFY) _____

PLUG AND ABANDON ___ CLEAN OUT AND REPLUG ___
 TARGET FORMATION ELK ESTIMATED DEPTH 5200'
 WELL OPERATOR WACO OIL & GAS CO. INC. DESIGNATED AGENT STEPHEN E. HOLLOWAY
 ADDRESS P.O. BOX 397 933 ADDRESS P.O. BOX 397
GLENNVILLE, WV. 26351 GLENNVILLE, WV. 26351

AUG 12 1985

DEEP WELL 616 Tanner (178)



Date December 22, 1986
 Operator's Waco #377
 Well No. Waco #377
 Farm Batley #3
 API No. 47- 021 - 4373

State of West Virginia
 DEPARTMENT OF ENERGY
 Oil and Gas Division

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: 994 Watershed Tanner Creek
 District: Dekalb County Gilmer Quadrangle Tanner 7.5'

COMPANY WACO OIL & GAS CO., INC.
 ADDRESS PO Box 397, Glenville, WV 26351
 DESIGNATED AGENT Stephen E. Holloway
 ADDRESS PO Box 397, Glenville, WV 26351
 SURFACE OWNER Bernice Batley et al
 ADDRESS Creston, OH
 MINERAL RIGHTS OWNER T.B. Webster, Hrs.
 ADDRESS Parkersburg, WV
 OIL AND GAS INSPECTOR FOR THIS WORK Craig Duckworth ADDRESS Glenville, WV
 PERMIT ISSUED August 2, 1985
 DRILLING COMMENCED December 7, 1986
 DRILLING COMPLETED December 12, 1986
 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.			
13-10"			
9 5/8			
8 5/8	1045	1045	surf
7			
5 1/2			
4 1/2		6216	865 - eke
3			
2			
Liners used			

GEOLOGICAL TARGET FORMATION Elk Depth 5500 feet
 Depth of completed well 6284 feet Rotary x / Cable Tools _____
 Water strata depth: Fresh 85' 735' feet; Salt None feet
 Coal seam depths: None Is coal being mined in the area? No

OPEN FLOW DATA

Producing formation Shale, Elk, Alexander Pay zone depth see treatment feet
 Gas: Initial open flow show Mcf/d Oil: Initial open flow _____ Bbl/d
 Final open flow 1,132 Mcf/d Final open flow _____ Bbl/d
 Time of open flow between initial and final tests 4 hours
 Static rock pressure 1260 psig (surface measurement) after 48 hours shut in
 (If applicable due to multiple completion--)
 Second producing formation Riley, Balltown Pay zone depth see treatment feet
 Gas: Initial open flow _____ Mcf/d Oil: Initial open flow _____ Bbl/d
 Final open flow see above 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)

APR 20 1987

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

1st Stage - Shak 6140 - 6185 - 1000 Gal 15% Gal Hcl, 40 ton CO₂, 570 MCF N₂

2nd Stage - Elk, Alexander - 4911 tp 5314 - 500 Gal 15% Hcl, 40 Ton CO₂, 510 MCF N₂

3rd Stage - Riley - 4221 to 4615 - 500 Gal 15% HCL, 40 ton CO₂, 435 MCF N₂

4th Stage - Balltown - 3695 to 4015 - 500 Gal 15% Hcl, 40 ton CO₂, 425 MCF N₂

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	172	1/2" Fresh Water @ 85'
Sand, Shale & Redrock			172	695	
Sand & Shale			695	1275	1/2" Fresh Water @ 735'
Sand, Shale, Redrock			1275	1390	
Sand & Shale			1390	1816	
Little Lime			1816	1838	
Blue Monday			1838	1861	
Big Lime			1861	1954	
Big Injun			1954	2006	
Sand & Shale			2006	3218	
Speechly Section			3218	3545	
Shale			3545	3610	
Balltown Section			3610	4187	
Riley Seciton			4187	4670	
Benson			4670	4674	
Shale			4674	4900	
Alexander			4900	4954	
Shale			4954	5069	
Elk Section			5069	5326	
Shale			5326	6214	
Marcellus			6214	6270	
Onondaga			6270	6284	TD

404 2256
 813 3331
 822 4656
 825 4906
 830 5206

6070
 994
 5286

(Attach separate sheets as necessary)

Waco Oil & Gas Co., Inc.
 Well Operator

By: Dan Chapman, Geologist

Date: December 22, 1986

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."

FILE COPY

RECEIVED

JUL 18 1985



- 1) Date: April 8, 19 85
 2) Operator's Well No. Waco #377 - Batley No. 3
 3) API Well No. 47-021-4373
 State _____ County _____ Permit _____

STATE OF WEST VIRGINIA

DEPARTMENT OF ~~MINES~~, OIL AND GAS DIVISION

OIL & GAS DIVISION

APPLICATION FOR A WELL WORK PERMIT

DEPT. OF MINES

- 4) WELL TYPE: A Oil / Gas /
 B (If "Gas", Production / Underground storage _____ / Deep _____ / Shallow /)
- 5) LOCATION: Elevation: 994' Watershed: Tanner Creek
 District: DeKalb 2 County: Gilmer Quadrangle: Tanner 7.5 633
- 6) WELL OPERATOR WACO OIL & GAS CO., INC. 933 7) DESIGNATED AGENT Stephen E. Holloway
 Address PO Box 397 Address PO Box 397
Glenville, WV 26351 51800 Glenville, WV 26351
- 8) OIL & GAS INSPECTOR TO BE NOTIFIED 9) DRILLING CONTRACTOR:
 Name Deo Mace Name I.L. Morris Well Service
 Address Rt. 1, Box 5 Address PO Box 397
Sandridge, WV 25274 Glenville, WV 26351
- 10) PROPOSED WELL WORK: Drill / Drill deeper _____ / Redrill _____ / Stimulate /
 Plug off old formation _____ / Perforate new formation _____ /
 Other physical change in well (specify) _____
- 11) GEOLOGICAL TARGET FORMATION, Elk 436
- 12) Estimated depth of completed well, 5500 feet
- 13) Approximate strata depths: Fresh, 266 feet; salt, None feet.
- 14) Approximate coal seam depths: None Is coal being mined in the area? Yes _____ / No /

15) 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										Kinds
Fresh water										
Coal										Sizes
Intermediate	8 5/8	ERW	20#	X		1060	1060	250 sks. to		surf.
Production	4 1/2	J-55	10.5#	X			5500	700 sks.		Depths set
Tubing										
Liners										Perforations:
										Top Bottom

OFFICE USE ONLY
DRILLING PERMIT

Permit number 47-021-4373

August 2 19 85

Date

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. 8) 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.)

The permitted work is as described in the Notice and Application, plat, and reclamation plan, subject to any modifications and conditions specified on the reverse hereof.

Permit expires August 2, 1987 unless well work is commenced prior to that date and prosecuted with due diligence.

Bond: <input checked="" type="checkbox"/>	Agent: <u>MB</u>	Plat: <u>ML</u>	Casing: <u>ML</u>	Fee: <u>1384</u>
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[Signature]

DIRECTOR, DIVISION of Oil and Gas

NOTE: Keep one copy of this permit posted at the drilling location.

File

See the reverse side of the APPLICANT'S COPY for instructions to the well operator.