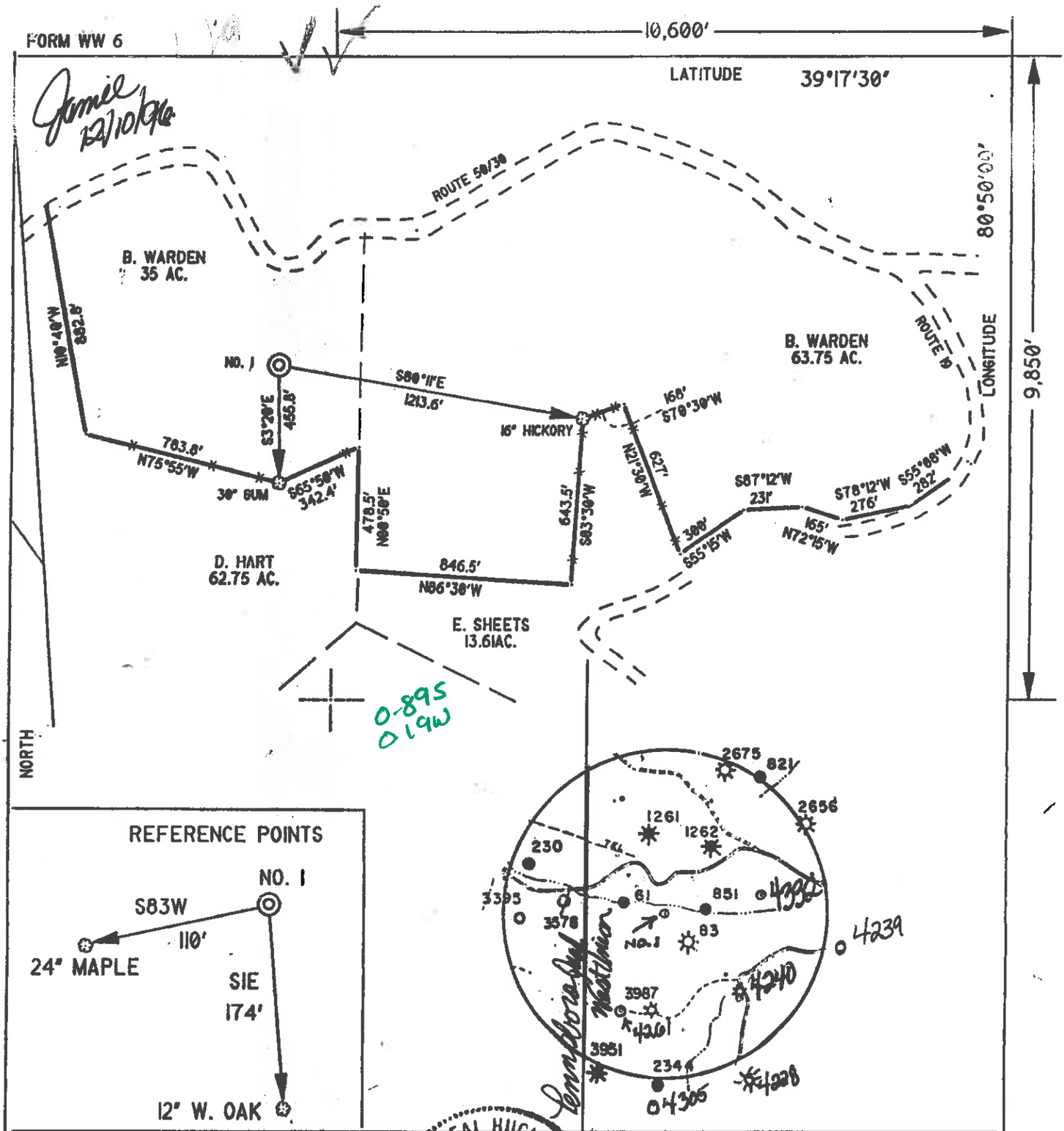
FORM WW 6

Jamie 12/10/96



I THE UNDERSIGNED, DO 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. 632 Neal Hughes

NEAL HUGHES LICENSED No. 632 STATE OF WEST VIRGINIA LAND SURVEYOR

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

DATE DECEMBER 4, 19 96

OPERATORS WELL NO. WARDEN 1

API WELL NO. 47 – 017-04331 (STATE – COUNTY – PERMIT)

MINIMUM DEGREE OF ACCURACY 1/200 FILE NO. 96-96

PROVEN SOURCE OF ELEVATION KNOB 1332' SCALE 1" = 500'

STATE OF WEST VIRGINIA
DEPARTMENT OF ENERGY
OIL AND GAS DIVISION

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

LOCATION: ELEVATION 980' WATERSHED DOTSON RUN

DISTRICT CENTRAL COUNTY DODDRIDGE QUADRANGLE West Union

SURFACE OWNER BARBARA L. WARDEN ACREAGE 35.06

ROYALTY OWNER BARBARA L. WARDEN LEASE ACREAGE 35.06

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 ALEXANDER

ESTIMATED DEPTH 5500'

WELL OPERATOR KEY OIL COMPANY DESIGNATED AGENT JAN CHAPMAN

ADDRESS 22 GARTON PLAZA ADDRESS 22 GARTON PLAZA

WESTON, WV 26452 WESTON, WV 26452

Permit issued 12/20/96

COUNTY NAME 0000

PERMIT 4331

WR-35

16 - Dec - 96
API # 47 - 17 - 04331

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

Well Operator's Report of Well Work

RECEIVED
Environmental Protection
APR 2 1997
Permitting
Office of Oil & Gas

Farm name: WARDEN, BARBARA Operator Well No. : WARDEN #1

LOCATION: Elevation: 980.00 Quadrangle: WEST UNION

District: CENTRAL County: DODDRIDGE
Latitude: 9850 Feet South of 39 Deg. 17 Min. 30 Sec.
Longitude: 10600 Feet West of 80 Deg. 50 Min. 0 Sec.

Company: KEY OIL COMPANY
22 Garton Plaza
WESTON, WV 26452-0000

Agent: JAN E. CHAPMAN

Inspector: MIKE UNDERWOOD
Permit Issued: 12/20/96
Well Work Commenced: 1/14/97
Well Work Completed: 1/30/97
Verbal Plugging
Permission granted on: _____
Rotary X Cable _____ Rig
Total Depth (feet) 5448'
Fresh water depths (ft) 20', 252', 303'
Salt water depths (ft) NONE

Is coal being mined in area (Y / N)? N
Coal Depths (ft): None Reported

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
11 ¾"	129.10	129.10	70 sks To Surface
8 5/8"	1974.6	1974.6	565 sks To Surface
4 ½"	5356.75	5356.75	360 sks
2 3/8"		5169	

OPEN FLOW DATA

Balltown 3754' - 4434'
Rileys 4466' - 4580'
Benson 4897' - 4910'

Producing formation Alexander Pay zone depth (ft) 5143' - 5222'
Gas: Initial open flow 20 MCF / d Oil: Initial open flow 0 Bbl / d
Final open flow 1,524 MCF / d Oil: Final open flow show Bbl / d
Time of open flow between initial and final tests N/A Hours
Static rock pressure 1750 psig (surface pressure) after 96 Hours

Second producing formation Commingled Pay zone depth (ft) _____
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 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: KEY OIL COMPANY

By: Jan Chapman PRESIDENT

Date: 4-22-97

Warden #1 (47-017-04331)
Four Stage Foam Frac - Halliburton

1st Stage:	Alexander (10 holes) (5189.25' - 5207.25')	60 Quality Foam. 500 gal. 15% HCL. 60,000# 20/40 sand, 550,000 SCF N2, 811 bbls foam.
2nd Stage:	Benson (10 holes) (4901.75' - 4904')	60 Quality Foam. 750 gal 15% HCL. 40,000# 20/40 sand, 417,000 SCF N2, 616 bbls foam.
3rd Stage:	Riley (11 holes) (4494.25' - 4578')	60 Quality Foam. 750 gal 15% HCL. 10,000# 80/100 sand, 35,000# 20/40 sand, 438,000 SCF N2, 647 bbls foam.
4th Stage:	Balltown (14 holes) (3811.75' - 4133.25')	60 Quality Foam, 750 gal 15% HCL. 5,000# 80/100 sand, 35,000# 20/40 sand, 390,000 SCF N2, 589 bbls foam.

WELL LOG

Clay	0	4	
Red Rock & Shale	4	50	Wet @ 20'
Sand & Shale	50	178	
Red Rock	178	192	
Sand & Shale	192	432	¼" H^2O @ 252', ½" H^2O @ 303'
Sand & Shale & Red Rock	432	642	
Sand & Lime	642	727	
Red Rock & Shale	727	1024	
Sand & Shale	1024	1844	
Maxton	1844	1901	
Shell	1901	1915	
Little Lime	1915	1925	
Shale	1925	1960	
Big Lime	1960	2008	
Big Injun	2008	2086	
Shale	2086	2256	
Weir	2256	2384	
Sand & Shale	2384	3320	
Warren	3320	3393	
Shale	3393	3406	
Speechley	3406	3530	
Shale	3530	3754	
Balltown	3754	4434	
Shale & Sand	4434	4466	
Riley	4466	4534	
Shale	4534	4897	
Benson	4897	4910	
Sand & Shale	4910	5143	
Alexander	5143	5222	
Shale	5222	5448	
T.D.	5448		

Gas Checks

2504	No Show
3029	No Show
3736	No Show
4418	No Show
4821	No Show
5100	28/10ths ½" w/H^2O
5400	12/10ths ½" w/H^2O
TD	3810ths ½" w/H^2O