

MINGO OIL AND GAS LEASE 95.42 OF 1469 ACRES± TOTAL WELL NO. A-12

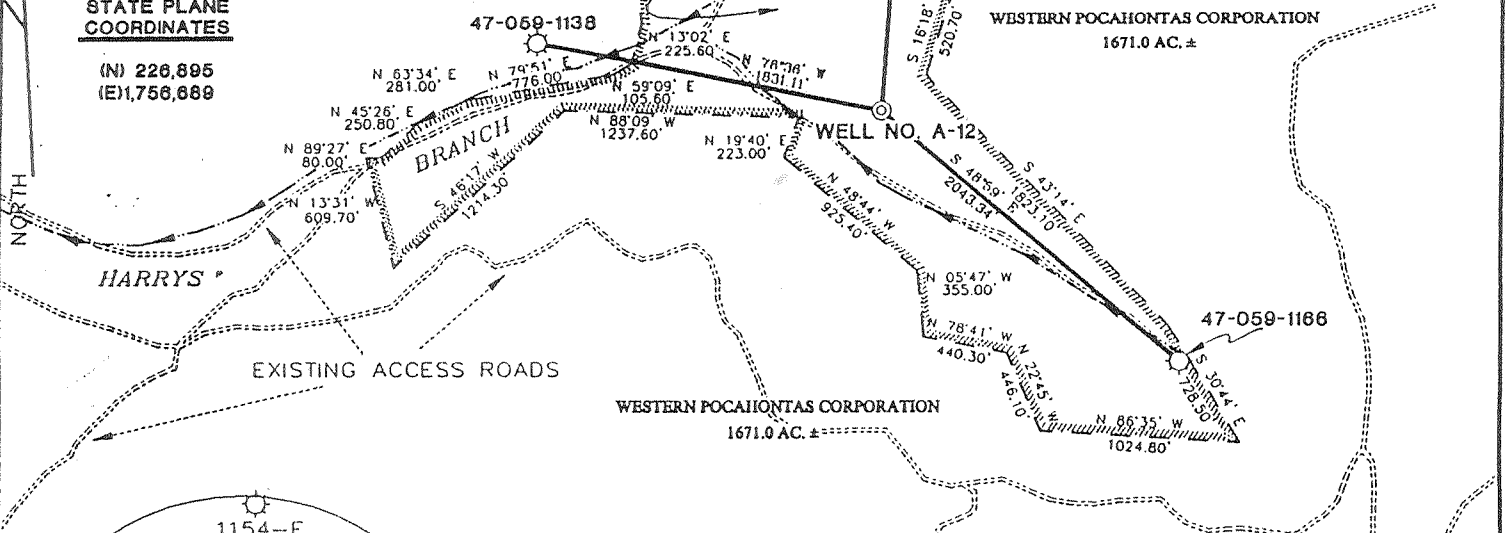
WESTERN POCAHONTAS CORPORATION
1671.0 AC.±

GILBERT HARDWOODS, INC.
95.42 AC.±
(SURFACE)

WELL NO. A-12
STATE PLANE
COORDINATES
(N) 226,895
(E) 1,758,688

NORTH

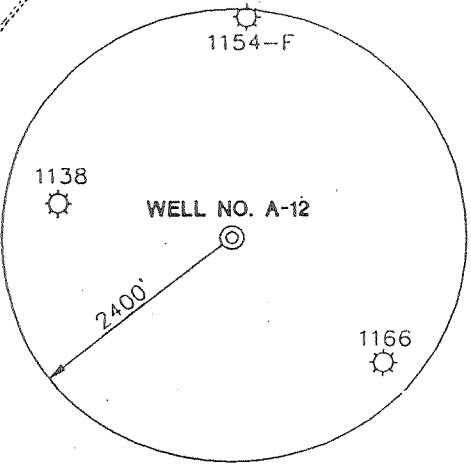
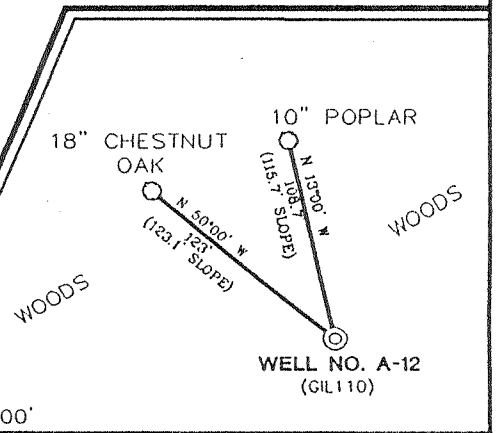
LONGITUDE 81°50'00"
LAT. 37°37'12.3"



NOTES ON SURVEY

1. TIES TO WELLS ARE BASED ON STATE PLANE GRID NORTH WV SOUTH ZONE NAD '27.
2. TIES TO REFERENCES ARE BASED ON MAGNETIC NORTH 5-16-2000.
3. TRACT BOUNDARY SHOWN HEREON TAKEN FROM A DEED DATED JUNE 23, 1971 FROM DASH COAL CO. TO GILBERT IMPORTED HARDWOODS, INC.
4. SURFACE OWNER AND ADJOINER INFORMATION TAKEN FROM THE ASSESSOR AND COUNTY CLERK RECORDS OF MINGO COUNTY IN FEBRUARY, 2000.
5. WELL LAT./LONG. ESTABLISHED BY DGPS(SUBMETER MAPPING GRADE).

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.

P.S. 677 Gregory A. Smith



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

DATE JUNE 22, 20 00
 OPERATORS WELL NO. A-12
 API WELL NO. 47-059-01376
 STATE COUNTY PERMIT

MINIMUM DEGREE OF ACCURACY 1 / 2500 FILE NO. 4255PA12 (93-4) & (87-25)
 PROVEN SOURCE OF ELEVATION BENCH MARK ELEVATION 817' SCALE 1" = 1000'

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



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

LOCATION : ELEVATION 1271' WATERSHED HARRYS BRANCH
 DISTRICT STAFFORD COUNTY MINGO QUADRANGLE GILBERT 7.5'

SURFACE OWNER GILBERT IMPORTED HARDWOODS, INC. ACREAGE 95.42
 ROYALTY OWNER MINGO OIL AND GAS LEASE ACREAGE 95.42 OF 1469.00 TOTAL

PROPOSED WORK : LEASE NO. 80538

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 DEVONIAN SHALE
 ESTIMATED DEPTH 5600'

WELL OPERATOR EASTERN STATES OIL AND GAS, INC. DESIGNATED AGENT ROBERT ALLEY
 ADDRESS P.O. BOX 2347 CHARLESTON, WV 25328 ADDRESS P.O. BOX 2347 CHARLESTON, WV 25328

COUNTY NAME MINGO
PERMIT 1376

DEEP WELL

6-6 271

JUL 28 2000

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

Well Operator's Report of Well Work

Farm Name: Gilbert Imported Hardwood Operator Well No.: Mingo Oil & Gas A-12

LOCATION: Elevation: 1271' Quadrangle: Gilbert

District: Stafford County: Mingo

Latitude: 1790 Feet South of 37 Deg. 37 30
Longitude: 1930 Feet West of 81 Deg. 50 0

RECEIVED
Office of Oil & Gas
Permitting

DEC 22 2000

WV Division of
Environmental Protection

Company: Eastern States Oil & Gas
P.O. Box 2347, 1710 Pennsylvania Avenue
Charleston, WV 25328

Agent: Robert Alley

Inspector: Ofie Helmick

Permit Issued: 07/27/2000

Well work commenced: 11/01/00

Well work completed: 12/04/00

Verbal Plugging

Permission granted on: _____

Rotary Rig Cable Rig _____

Total Depth 5620 feet

Fresh water depths (ft) 90'; 385'

Salt water depths (ft) 1560'

Is coal being mined in area? _____

Coal Depths (ft): 84'-85'; 750'-755'

Casing & Tubing Size	Used in Drilling	Left in Well	Cement Fill Up Cu. Ft.
13 3/8"	50'	50'	grouted
9 5/8"	443'	443'	171.1
7"	1825'	1825'	334.15
4 1/2"	5603'	5603'	446.4

OPEN FLOW DATA

Producing formation Lower Shale; Upper Shale; Berea; Big Line

Pay Zone Depth (ft): _____ See Attach for details

Gas: Initial open flow 84 MCF/d

Oil: Initial open flow _____ Bbl/d

Final open flow: 2100 MCF/d

Final open flow: _____

Time of open flow between initial and final tests _____ Hours

Static rock pressure 700 psig (surface pressure) after _____ 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: _____

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.

Kathy L. Lowmy
For: Eastern States Oil & Gas

By: *Robert A. Davis*
Date: 12/21/00

JAN 5 2001

DEEPWVU

MIN 60 1376

EASTERN STATES OIL & GAS, INC.
WR-35 COMPLETION REPORT - Attachment
Well Treatment Summary

Well: Mingo Oil & Gas A-12

API# 47-059-01376

Date	11/28/00	11/28/00	11/28/00	11/28/00		
Type Frac Acid, N ₂ , Foam, Water	N ²	N ²	N ²	Acid w/ N ² Displacement		
Zone Treated	Lower Shale	Upper Shale	Berea	Big Lime		
# Perfs	39	38	21	30		
From - To:	5529' - 4709'	3664' - 4631'	3526'-3546'	2773' - 2940'		
BD Pressure @ psi	3719	2783	2759	610		
ATP psi	2948	2341	2535	1470		
Avg. Rate, B=B/M, S= SCF/M	51,512 S	51,104 S	51,904 S	11 B 8400 S		
Max. Treat Press psi	3719	2783	2759	1900		
ISIP psi	2650	1850	1730	680		
Frac Gradient	.62	.52	.56	.61		
10 min S-I Pressure	1576	1250	1193	1409		
Material Volume						
Sand-sks						
Water-bbl						
SCF N ₂	888,016	710,922	641,630	81,653		
Acid-gal	650 gal 7 1/2%	900 gal 7.8%	350 gal 14.1%	3000 gal 14.1%		
NOTES:						

TOP	BOTTOM	FORMATION	REMARKS
0	10'	Sub	Water @ 90'
10'	84'	Sand & Rock	
84'	85'	Coal	
85'	385'	Sand & Rock	
385'	395'	Shale	Water @ 385'
395'	680'	Sand & Shale	
680'	718'	Shale	
718'	746'	Sand	
746'	750'	Shale	
750'	755'	Coal	
755'	853'	Shale & Sand	
853'	1150'	Sand	
1150'	1180'	Sand & Shale	
1180'	1380'	Salt Sand	Water @ 1560
1980'	2048'	Upper Maxton	GT @ 1845' = NS
2178'	2225'	Middle Maxton	GT @ 2382' = NS
2448'	2494'	Lower Maxton	
2538'	2604'	Little Lime	GT @ 2586' = NS
2610'	2957'	Big Lime	GT @ 2692' = NS
3049'	3134'	Weir	GT @ 3057' = 103 mcf/d
3501'	3524'	Sunbury	GT @ 3317' = 84 mcf/d
3524'	3556'	Berea	GT @ 3616' - 84 mcf/d
4558'	5002'	Lower Huron	GT @ 4048' = 103 mcf/d
5002'	5357'	Java / Angola	GT @ 4734' = 84 mcf/d
5357'	5614'	Rhinestreet	
5614'		Onondaga	
	5620'	TD	GT @ 5449 = 84 mcf/d

