Timber Inventory & Valuation For Mr. Forrest Land

Effective Date: April 25, 2008

Note: This report is entirely fictional



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PURPOSE:

The purpose of this appraisal assignment is to estimate the fair market value of timber on April 25, 2008 for property owned by Forrest Land. This property is further referenced by Deed Book 985 Page 462 in the Monroe County Register of Deeds.

Fair market value is defined as: the most probable price which the timber should bring in a competitive and open market under all conditions requisite to a fair sale, assuming:

- A knowledgeable and willing seller unencumbered by undue pressure to sell and acting in his own best interest.
- A knowledgeable and willing buyer unencumbered by undue pressure to buy and acting in his own best interest.

This appraisal makes the assumption the present ownership has the legal right to sell the timber in an unrestricted manner.

CONTACT INFORMATION

Forrest Land PO Box 955 Wilkesboro. NC 28697

PROPERTY SUMMARY

Directions to Property:

Located just off of Rattlesnake Rd.

Latitude: 36 8.994876 **Longitude:** -81 8.819506 WGS 1984

<u>High Elevation:</u> 1360 **<u>Low Elevation:</u>** 1260

Note: Elevations are taken from USGS topographic maps.

Parcel #: 117
Parcel Name: Wild

Owner: Forrest Land

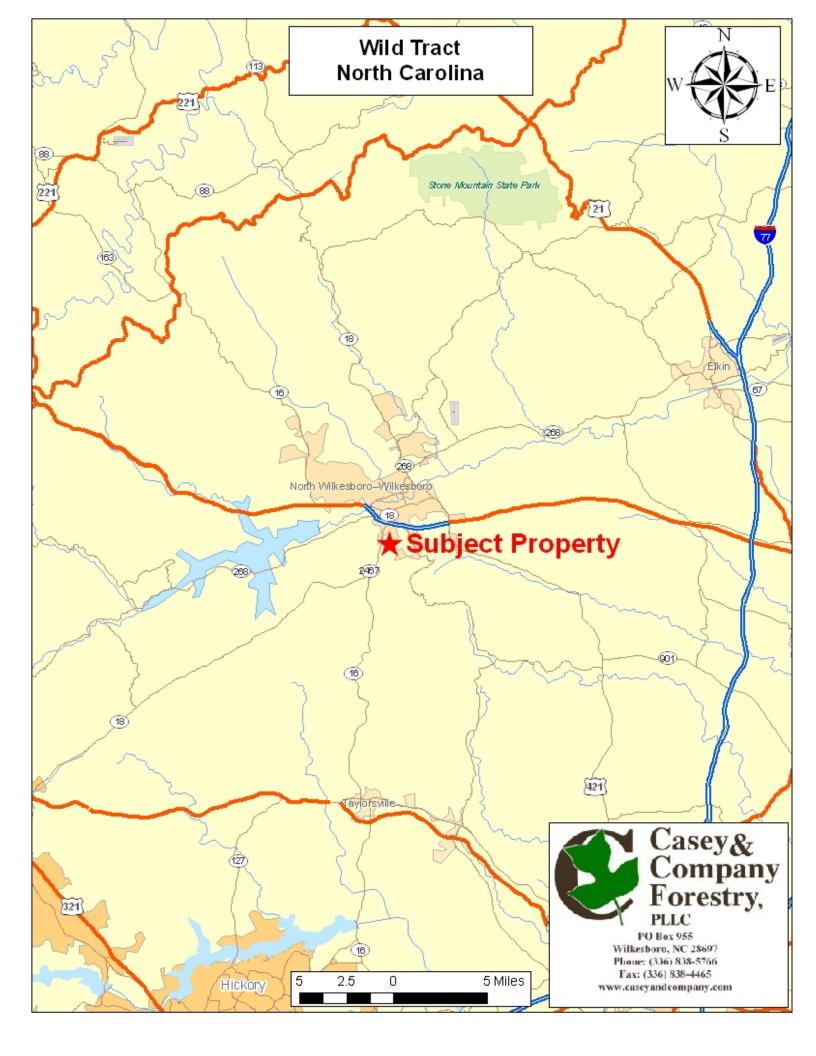
Acres: 87
County: Monroe
Deed Book/Page: 985/462

PIN #: 3052-67-9854
Parcel ID #: 5672359
Purchase Date: 8/12/1977
Survey: Modern survey

Right of Way: This parcel joins a public road.

Width: 0

Land Use: This parcel is not in the land use program.



TIMBER INVENTORY METHOD:

A property map was developed using information from the Wilkes County Tax Mapping office, topographic maps, aerial photography, and field observations. Samples were taken in a grid pattern on the wooded areas of the property. The inventory method used was a stratified, systematic, variable point sample. The sample size was determined by a 20 basal area factor prism. At every other sample point, tree diameters were measured at breast height with a steel tape and merchantable heights were estimated. On the remaining sample points only species and product class of the trees in the plot were recorded. Throughout the course of the fieldwork, merchantable heights were measured with a clinometer to maintain accuracy.

Trees in the sample points were recorded based on the following specifications:

Yellow Poplar and Pine Sawtimber:

Diameters were tallied in 1 inch diameter classes beginning at 9.1 inches diameter breast height. Heights were tallied in 16 foot logs or half logs to a minimum top diameter of 6 inches or a merchantable top. Deductions for visible defect were taken in the field.

All Other Sawtimber:

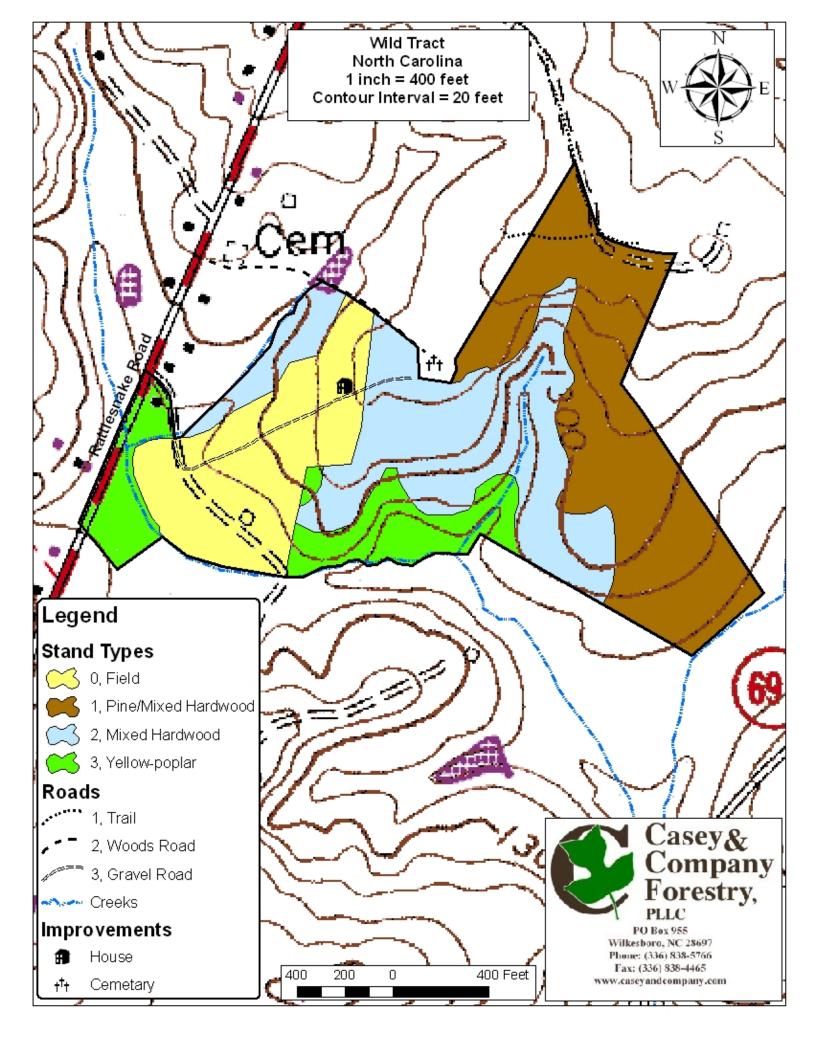
Diameters were tallied in 1 inch diameter classes beginning at 11.1 inches diameter breast height. Heights were tallied in 16 foot logs or half logs to a minimum top diameter of 8 inches or a merchantable top. Deductions for visible defect were taken in the field.

Pulpwood:

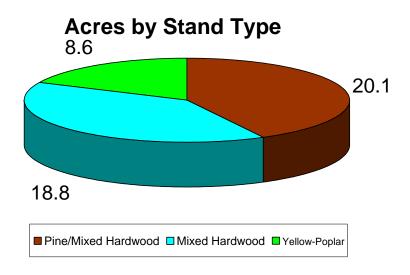
Diameters were tallied in 1 inch diameter classes beginning at 5.1 inches diameter breast height. Heights were tallied in 16 foot logs or half logs to a minimum top diameter of 4 inches or a merchantable top. Deductions for visible defect were taken in the field.

Grade:

All of the oaks, yellow poplar, maple, ash, cherry, and walnut were recorded by the grade of the tree. Standard U.S. Forest tree grades were used. Summary grade information is shown in the Sawtimber Volume Summary found near the end of this report.



FOREST STAND SUMMARY:



The property has been broken up into 4 separate areas, three of which are considered manageable forest stands. The, pine/mixed hardwood, mixed hardwood, and yellow-poplar stands contain all of the merchantable timber on the property. Additional information on these areas is found in the Timber Inventory Results and in the Detailed Forest Stand section.

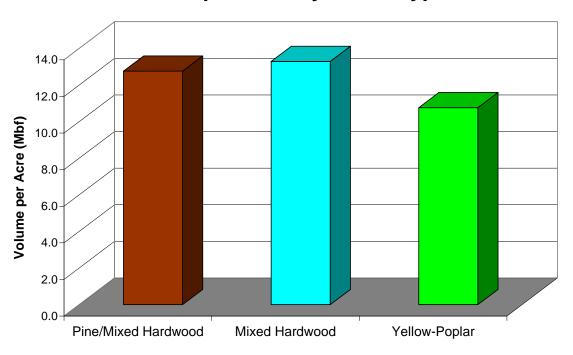
The one area not considered a forest stand is the grass field. The agricultural field is found on the eastern side of the property and it contains 12.7 acres.

TIMBER INVENTORY RESULTS:

Two Dog Inventory Software, version 2.6, was used to calculate volumes from the tree measurements. International ¼ inch log rule tables, Form Class 78 were used to calculate volumes for the sawtimber size trees. Tables developed by Dr. Richard Oderwald¹ were used to calculate volumes for pulpwood size trees.

The combined sawtimber volume estimate for all stands is 598,700 board feet of sawtimber. The combined standing pulpwood volume estimate for all stands is 751 tons.

Volume per Acre by Stand Type



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¹ Dr. Oderwald is currently serving as the Associate Dean of the College of Natural Resources, Virginia Technical Institute at Blacksburg, Virginia.

Volume Summary Table

Stand Type	Pine/Mixed Hardwood	Mixed Hardwood	Yellow- Poplar	Totals	Percent of Board Feet by Grad		
Stand Acres	20.1	18.8	8.6	47.5			
Avg. Volume per Acre (Mbf)	12.8	13.3	10.8	12.6			
Species		Sawtimber ²	(Mbf)		Grade 1	Grades 2 & 3	Grade 4
Ash		1.3	0.7	2.0	0%	0%	100%
Beech	2.3	15.1	1.4	18.8			
Black Cherry		1.8	2.1	3.9	0%	60%	40%
Black Oak		2.6	1.4	3.9	0%	100%	0%
Black Walnut			1.2	1.2	0%	100%	0%
Cedar		1.8		1.8			
Hickory	3.6	25.2	1.3	30.1			
Northern Red Oak		23.6	5.1	28.7	45%	45%	10%
Loblolly Pine	220.0			220.0			
Red Maple		1.5	0.7	2.2			
Southern Red Oak		1.5	1.1	2.6	41%	46%	13%
Sycamore			1.9	1.9			
Virginia Pine	5.9	1.4	4.7	12.0			
White Oak	2.4	72.3	5.4	80.1	33%	50%	17%
Yellow Poplar	22.1	101.7	65.5	189.3	32%	45%	22%

Sawtimber Totals (Mbf)	256.4	249.7	92.5	598.7
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Product	Pulpwood ³ (Tons)			
Pine Pulpwood	197	15	39	251
Hard Hardwood Pulp	10	53	9	73
Soft Hardwood Pulp	145	106	176	427
			-	

Pulpwood Totals (Tons)	352	174	225	751

¹ The volumes are an estimate and cannot be guaranteed.

² The sawtimber volumes are reported in units of thousand board feet and were calculated using International 1/4 inch Log Rule, Form Class 78.

³ The pulpwood volumes are reported in tons and were calculated with tables developed by Dr. Richard Oderwald.

Volume Graphs:

The volume graphs provide a quick look at the sawtimber in each stand type broken down by the following categories.

Grade 1 Hardwood Sawtimber: This is what you want to have all over your property. The trees must be 16 inches or greater dbh and have a minimum of a 7 foot and a 5 foot clear section in the best 12 feet of the butt 16 foot log.

Grade 1 Small Sawtimber: This grade is primarily for making management decisions. The trees in this class have to be 10 inches or greater in dbh and have the same clear sections as the Grade 1. If you have quite a bit of Grade 1 small sawtimber in a stand you should consider leaving it to grow.

Grade 2&3 Hardwood Sawtimber: This is your average run of the mill tree. The dbh must be 10 inches or greater.

Grade 4 Hardwood Sawtimber: These trees basically have knots all over them. The dbh must be 10 inches or greater.

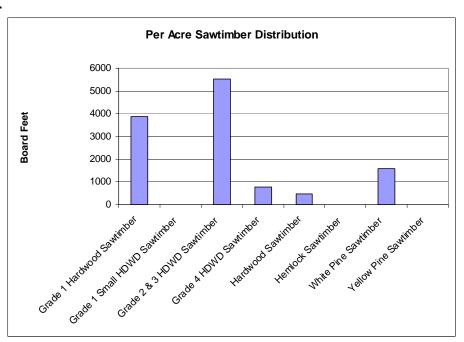
Hardwood Sawtimber: We don't grade all hardwood species, only the higher value ones.

Hemlock Sawtimber: Hemlock has always been a class unto itself. With the hemlock woolly adelgid it is even more so.

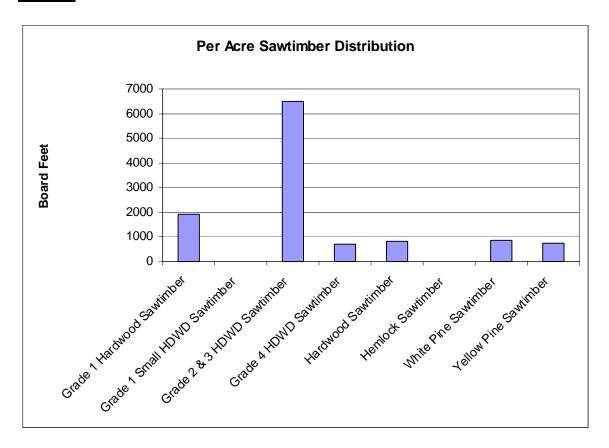
White Pine Sawtimber: White pine is primarily found in the foothills and mountains.

Yellow Pine Sawtimber: There are a number of yellow pine species. Many of the species have different unit values and need to be kept separate for appraisal purposes.

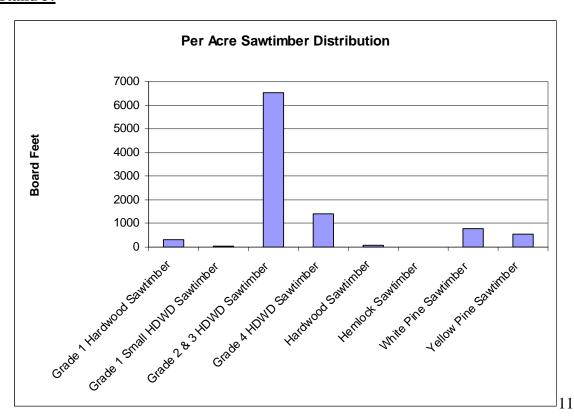
Stand 1:



Stand 2:



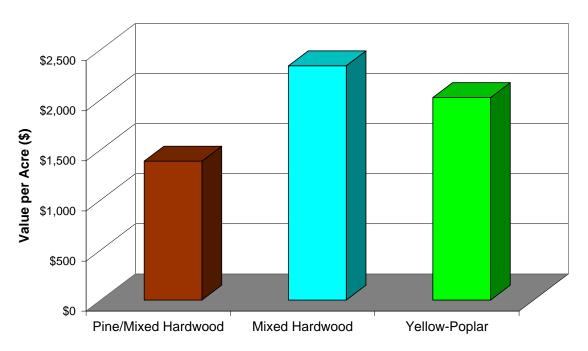
Stand 3:



TIMBER VALUE:

My estimate of timber value for this property is \$89,200. This is the value of the trees as they stand in the woods. For the purpose of this valuation it is assumed the trees would be sold on a clearcut basis at a sealed bid sale. This estimate is based on the timber inventory as previously discussed and recent timber sales. Please refer to the timber valuation table for additional details. No value was given to pulpwood.

Value per Acre by Stand Type



Timber Valuation Table

Stand Type	Stand Type Pine/Mixed Hardwood			
Stand Acres	cres 20.1			
Species	Volume (Mbf)	Price per Mbf (\$)	Value (\$)	
Ash				
Beech	2.3	\$0	\$0	
Black Cherry				
Black Oak				
Black Walnut				
Cedar				
Hickory	3.6	\$100	\$361	
Northern Red Oak				
Loblolly Pine	220.0	\$100	\$22,000	
Red Maple				
Southern Red Oak				
Sycamore				
Virginia Pine	5.9	\$100	\$595	
White Oak	2.4	\$200	\$487	
Yellow Poplar	22.1	\$200	\$4,417	
Sawtimber Totals (Mbf)	256.4		\$27,859	

Mixed Hardwood						
	18.8					
Volume (Mbf)	Price per Mbf (\$)	Value (\$)				
1.3	\$200	\$256				
15.1	\$0	\$0				
1.8	\$200	\$362				
2.6	\$200	\$512				
1.8	\$100	\$178				
25.2	\$100	\$2,516				
23.6	\$200	\$4,720				
1.5	\$100	\$153				
1.5	\$200	\$299				
1.4	\$100	\$142				
72.3	\$200	\$14,450				
101.7	\$200	\$20,349				
249.7		\$43,937				

Yellow-Poplar					
8.6					
Volume (Mbf)	Price per Mbf (\$)	Value (\$)			
0.7	\$200	\$149			
1.4	\$0	\$0			
2.1	\$200	\$419			
1.4	\$200	\$276			
1.2	\$200	\$250			
1.3	\$100	\$130			
5.1	\$200	\$1,014			
0.7	\$100	\$69			
1.1	\$200	\$223			
1.9	\$100	\$191			
4.7	\$100	\$467			
5.4	\$200	\$1,083			
65.5	\$200	\$13,102			
92.5		\$17,373			

Tract Summary					
Stand	Value (\$)	Value/ Acre (\$)			
Pine/Mixed Hardwood	\$27,859	\$1,386			
Mixed Hardwood	\$43,937	\$2,337			
Yellow-Poplar	\$17,373	\$2,020			
Total	\$89,168				

NOTE: ALL PRICES ARE FICTIONAL

FACTORS AFFECTING TIMBER VALUE:

Access: The property has frontage on Rattlesnake Road which is a paved state maintained road.

Logging conditions: The topography on the tract is typical foothills land which can be logged with fully mechanized logging equipment.

Sawtimber volume and quality: The average volume per acre is considered below average for the area. The quality of the trees is below average for the area.

Market condition: The sawtimber market is down in general due the decline in home sales. Currently there is a shortage of timber supply which has resulted in uncertain market conditions. Northern Red oak prices are down significantly from 2 to 3 years ago, it is currently out of favor in the market. There is no expectation the price will increase in the short-term. Yellow poplar prices have held up better than most, although local mills have had several significant price decreases in the past year.

ASSUMPTIONS and LIMITING CONDITIONS:

- 1. It is assumed that no county, state, or federal regulations will prohibit timber harvesting on the property.
- 2. The value appearing in this report represents Casey & Company Forestry, PLLC's opinion of value as of the date specified in this report. Timber prices are subject to rapid change.
- 3. The comparable sales and other information used for this valuation are believed the best available sources to base the valuation of this timber on and are assumed to reflect the market on the date of this report. Changes may have occurred in the timber markets that are not reflected in the comparable sales.
- 4. The property acreage is based on data from the Monroe County Mapping Office. The acreages and values expressed in this report could change significantly if the tract were to be re-surveyed. Casey & Company Forestry, PLLC makes no representation that the property lines used are correct.
- 5. The estimate of volumes and value made by Casey & Company Forestry, PLLC in the course of this timber valuation are the result of statistical samplings made in accordance with industry standards. Due to variances and accuracy level inherent in sampling techniques, any volumes or values stated in this report are intended to be estimates, based upon Casey & Company Forestry, PLLC's sampling and are expressly declared not to be precise. Therefore the property owners agree and understand the volumes and or values actually obtained may or may not the volumes or values actually obtained.

FOREST STAND INFORMATION:

This section of the plan provides a detailed description of each stand on your property. This is the information management recommendations are based on.

The items covered in the description section are:

Forest Stand

Type Table: This table describes the overall composition of the forest stand

based on several factors.

Canopy: Broken down into five classes based on the relative position in the

canopy. Overstory 1st species is the primary forest species type in the uppermost canopy, or the tallest trees in your stand. Overstory second describes the secondary species type in this uppermost canopy level if it is present. 2 Age 1st is used to describe stands that are two aged. Two aged stands are created when light can penetrate the upper most canopy and reach the forest floor. This is sometimes reached through selective harvesting of a stand, or through damage to the upper canopy. 2 Age 2nd describes the secondary species composition in the second age class. The final class is Regeneration; this describes new growth with the ability to regenerate the stand. This growth may be a result of stump or root

sprouts, or seed from the forest floor.

Forest type: Describes the primary, and if present, secondary forest type.

Detailed forest type descriptions are found in the appendix

Origin: Describes whether or not the stand was naturally regenerated, or

artificially regenerated by some form of planting.

Tree Size: Describes the size of the trees found in the stand. We use six

different sizes to describe the trees found in the stand. Seedlings and stump sprouts are trees less than 1 inch in Diameter at Breast Height. Saplings are those trees that are greater than 1 inch and less than 6 inches in Diameter at Breast Height. Poles are trees between 6 and 10 inches in Diameter at Breast Height. Small sawtimber trees are trees ranging from 10 to 15 inches in Diameter at Breast Height. Large sawtimber is any tree 16 inches or greater

in Diameter at Breast Height.

Tree Quality: Describes the overall quality of the trees found within the

stand.

Acres: Describes the size of the stand in acres.

Site Quality: Describes how well trees should grow. Depending on the

dominant species, we break down site quality into four classes based on how well red oak, white pine, or yellow pine will grow

on the site

Site Quality Guide: Describes what site quality guide was used to determine the stand

site quality. We use six different site quality guides depending on

the site, and species growing there.

Silviculture

History Table: This table describes the silvicultural practices that have been

performed in the stand, and the approximate time they were

performed.

Event: Describes the type of silvicultural practice performed. There are

nine practices we look for: planting; fell and leave; pine release; crop tree release; first commercial thinning; second commercial thinning; clear cut harvest; group selection harvest; and high grade

timber cutting. If these events occurred in your stand they

will be listed here.

Time: Describes the amount of time since the practice was performed.

We break the time periods up into four choices: 0 to 4 years ago; 5

to 15 years ago; 16 to 30 years ago; and over 30 years ago.

Slope

Position: Describes the general topographical features of the land within the

stand.

Slope: Describes how steep the land is

Aspect: Describes which way the stand faces. (South and west facing slopes are

drier than east and north facing slopes.)

Tree Density

and Stocking: Describes the tree density and stocking levels found in the stand.

The growth achieved in a given stand is in large part determined by the number, species, and quality of trees currently in the stand. The management recommendations are designed to change the number, species, and quality of the trees to better meet your management objectives. It is important that we know all we can about the existing

trees.

Foresters commonly use two different ways to measure tree density in a stand. These two methods are trees per acre and basal area. Trees per acre is as it implies, the average number of trees per acre. Basal area is a bit more complicated but very useful. Basal area is the cross sectional area of a tree trunk 4.5 feet above the ground. It is measured in square feet. Picture an acre of forest with every stem cut off 4.5 feet above the ground.

Add up the cut surface of each stem in square feet and you have the basal

area for that acre.

Stocking is not directly measured like tree density; it is a subjective measure of how well the stand in question compares to what we believe the ideal stand should look like. For instance, if we feel the stand is in good shape and fits your objectives well, we would call that normal stocking level. If the trees are so numerous that they are suppressing each others growth, we would call that grossly overstocked. This is especially important if you are trying to grow sawtimber.

Logging

Deck: Describes whether or not log decks are present in the stand

Log Deck

Condition: Describes the overall condition of the log decks if they are present

in the stand.

Skid Trails: Describes whether there are established skid trails in the stand or

whether they are required.

Number: Describes the number of skid trails present in the stand.

Condition: Describes the overall condition of the skid trails found in the stand.

Logging Method: Describes the logging method that would be used to harvest the

timber in the stand.

Rocks: Lists the rock formations found in the stand. Rocks in a stand can

be a management concern particularly for access so we list them

and what type they are.

Natural

Disturbance: Describes any natural disturbance that has happened in the stand.

This category has four possible options including: fire, flood, ice,

and wind damage.

Invasive

Plant Species: Describes any invasive plant species found within the stand. There

are several species of non-native plants that we look for when inspecting your forest stand. These plants can significantly impact

a stands growth and reproduction.

Other Threats: This section will include any other threats to the forest stand.

Other threats range from southern pine beetle to feral pigs.

Wildlife

Sightings: Describes any wildlife that was seen while inspecting the stand.

Wildlife sign: Describes any wildlife evidence found in the stand. Wildlife Forage: Describes what type of forage is available in the stand.

Wildlife Trails: Describes the amount of active game trails present in the stand.

Stand #: 1

Forest Stand					
Canopy	Forest Type	Origin	Tree Size	Tree Quality	
Primary Overstory	Virginia Pine	Natural	Small Sawtimber: trees between 10 inches and 15 inches in dbh; can be sold for saw logs.	Good	
Secondary Overstory	Mixed Hardwood	Natural	Small Sawtimber: trees between 10 inches and 15 inches in dbh; can be sold for saw logs.	Good	

Acres: 20 Site Quality: Fair

Guide: Hardwood Forest Site Index by Species Composition

Silviculture	History
Event	Time
N/A	N/A

Slope Position: Broad ridge

Shoulder Slope

Slope: 0 - 14 % slope

15 - 29 % slope

Aspect: South

Tree Density & Stocking Level:Overstocked **Logging Deck:**There is not a logging deck present in the stand.

Condition: NA

Skid Trails: The stand topography does not require skid trails.

Number: Very few trails are present in the stand.

Condition: The trails could be used with very little work.

Logging Method: Grapple Skidder

Rocks: Surface Rock, small rocks are visible above ground

Natural Disturbance: Stand has been damaged by wind.

Invasive Plant Species: None noted

Other Threats: None noted

Wildlife Sightings: A reptile was seen in the stand.

A neo-tropical migratory bird was seen in the stand.

Wildlife Habitat: One or more snags are located in this stand.

A vernal pool, used for amphibian breeding, was located within the

stand.

Wildlife Sign: Deer tracks were found in the stand.

Deer dung was found in the stand.

Wildlife Forage: None Noted Wildlife Trails: There were a

Wildlife Trails: There were a few game trails established in the stand.

Stand #: 2

Forest Stand					
Canopy	Forest Type	Origin	Tree Size	Tree Quality	
Primary Overstory	Mixed Hardwood	Natural	Large Sawtimber: trees greater than 15 inches in dbh; can be sold for saw logs; usually more valuable than small saw logs. Small Sawtimber: trees between 10 inches and 15 inches in dbh; can be sold for saw logs.	Good	

Acres: 19 Site Quality: Good

Guide: Hardwood Forest Site Index by Species Composition

Silviculture History			
Event	ent Time		
High Grade	More than 30 years since event		

Slope Position: Side Slope

Shoulder Slope

Broad ridge

Slope: 0 - 14 % slope

15 - 29 % slope

Aspect: South

Tree Density & Stocking Level: Normal

Logging Deck: There is not a logging deck present in the stand.

Condition: NA

Skid Trails: The stand topography does not require skid trails.

Number: None noted

Condition: NA

Logging Method: Grapple Skidder

Rocks: Surface Rock, small rocks are visible above ground

Natural Disturbance: None noted Invasive Plant Species: None noted

Other Threats: None noted

Wildlife Sightings: A deer was seen in the stand.

A squirrel was seen in the stand.

Wildlife Habitat: The stand has edge habitat.

One or more snags are located in this stand.

Wildlife Sign: A deer tree rub was found in the stand.

Deer tracks were found in the stand.

Wildlife Forage: Wildlife Trails:

There are hard mast producing trees present. There were a few game trails established in the stand.

Stand #: 3

Forest Stand						
Canopy	Forest Type	Origin	Tree Size	Tree Quality		
Primary Overstory	Yellow Poplar	Natural	Large Sawtimber: trees greater than 15 inches in dbh; can be sold for saw logs; usually more valuable than small saw logs.	Excellent		

Acres: 9

Site Quality: Excellent

Guide: Hardwood Forest Site Index by Species Composition

Silviculture History			
Event	Time		
High Grade	More than 30 years since event		

Slope Position: Footslope, Terrace **Slope:** 0 - 14 % slope

Aspect: South

Tree Density & Stocking Level: Normal

Logging Deck: There is not a logging deck present in the stand.

Condition: NA

Skid Trails: The stand topography does not require skid trails.

Number: None noted

Condition: NA

Logging Method: Grapple Skidder

Rocks: No rocks were noted in this stand

Natural Disturbance: None noted Invasive Plant Species: Grass Other Threats: None noted

Wildlife Sightings: A neo-tropical migratory bird was seen in the stand.

A rabbit was seen in the stand.

Wildlife Habitat: One or more snags are located in this stand.

The stand has edge habitat.

Wildlife Sign: Deer dung was found in the stand.

Predator dung was found in the stand.

Wildlife Forage: There are soft mast producers in the stand.

Grapes were found in the stand.

Wildlife Trails: There are several game trails in this stand.