

Pine Sawtimber

Merchantable Heights in 16 Foot Logs

| Diameter at 4.5' | Form Class | Merchantable Heights in 16 Foot Logs | | | | | |
|------------------|------------|--------------------------------------|-----|-----|-----|-----|-----|
| | | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 |
| 10 | 82 | 23 | 46 | 23 | 137 | 252 | 23 |
| 12 | 82 | 23 | 23 | 46 | 137 | 183 | 69 |
| 14 | 82 | 0 | 23 | 46 | 157 | 160 | 69 |
| 16 | 82 | 0 | 23 | 23 | 46 | 229 | 23 |
| 18 | 82 | 0 | 0 | 115 | 160 | 115 | 0 |
| 20 | 82 | 0 | 0 | 0 | 92 | 46 | 0 |
| 22 | 82 | 0 | 0 | 0 | 23 | 0 | 23 |
| 24 | 82 | 1 | 4 | 3 | 6 | 4 | 2 |
| 26 | 82 | 0 | 1 | 1 | 2 | 0 | 0 |
| 28 | 82 | 0 | 1 | 2 | 1 | 1 | 0 |
| 30 | 82 | 0 | 0 | 1 | 0 | 0 | 0 |

| Trees | | | |
|-------------|----------|-------------------|-------------------|
| Total Trees | Per Acre | Total 16 ft. Logs | Average Logs/Tree |
| 504 | 9.9 | 1,317 | 2.6 |
| 481 | 9.4 | 1,283 | 2.7 |
| 455 | 8.9 | 1,241 | 2.7 |
| 344 | 6.7 | 963 | 2.8 |
| 390 | 7.6 | 975 | 2.5 |
| 138 | 2.7 | 368 | 2.7 |
| 46 | 0.9 | 138 | 3.0 |
| 20 | 0.4 | 47 | 2.4 |
| 4 | 0.1 | 9 | 2.1 |
| 5 | 0.1 | 11 | 2.2 |
| 1 | 0.0 | 2 | 2.0 |

| Doyle Log Rule (derived from CF) | | | |
|----------------------------------|----------|----------|----------------|
| Total BF | Per Acre | Per Tree | Average BF/Log |
| 17,741 | 348 | 35 | 13 |
| 31,053 | 609 | 65 | 24 |
| 50,113 | 983 | 110 | 40 |
| 56,624 | 1,110 | 165 | 59 |
| 83,961 | 1,646 | 215 | 86 |
| 41,585 | 815 | 301 | 113 |
| 19,135 | 375 | 416 | 139 |
| 8,956 | 176 | 448 | 191 |
| 2,129 | 42 | 532 | 250 |
| 3,343 | 66 | 669 | 304 |
| 774 | 15 | 774 | 387 |

| Tons | | |
|------------|---------------|-----------------|
| Tons Total | Tons Per Tree | Loads (28 Tons) |
| 257 | 0.5 | 9.2 |
| 349 | 0.7 | 12.5 |
| 456 | 1.0 | 16.3 |
| 454 | 1.3 | 16.2 |
| 602 | 1.5 | 21.5 |
| 269 | 1.9 | 9.6 |
| 115 | 2.5 | 4.1 |
| 50 | 2.5 | 1.8 |
| 11 | 2.8 | 0.4 |
| 16 | 3.2 | 0.6 |
| 4 | 4.0 | 0.1 |

| Cubic Feet | | |
|------------|-------------|-------------|
| CF Total | CF Per Acre | CF Per Tree |
| 7,614 | 149 | 15 |
| 10,351 | 203 | 22 |
| 13,544 | 266 | 30 |
| 13,482 | 264 | 39 |
| 17,864 | 350 | 46 |
| 8,154 | 160 | 59 |
| 3,479 | 68 | 76 |
| 1,518 | 30 | 76 |
| 338 | 7 | 85 |
| 499 | 10 | 100 |
| 109 | 2 | 109 |

| | | | | | | |
|-------|----|-----|-----|-----|-----|-----|
| Total | 47 | 121 | 260 | 761 | 990 | 209 |
|-------|----|-----|-----|-----|-----|-----|

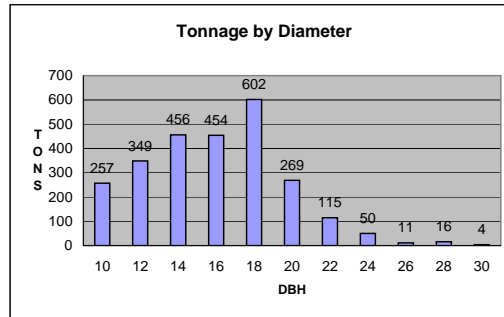
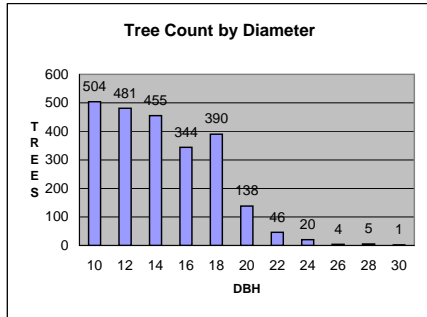
| | | | | |
|-------|-------|----|-------|-----|
| Total | 2,388 | 47 | 6,353 | 2.7 |
|-------|-------|----|-------|-----|

| | | | | |
|-------|---------|-------|-----|----|
| Total | 315,414 | 6,185 | 132 | 50 |
|-------|---------|-------|-----|----|

| | | | |
|-------|-------|-----|----|
| Total | 2,583 | 1.1 | 92 |
|-------|-------|-----|----|

| | | | |
|-------|--------|-------|----|
| Total | 76,952 | 1,509 | 32 |
|-------|--------|-------|----|

| Pine Sawtimber Summary | |
|-----------------------------|------|
| Average DBH (inches) | 14.3 |
| Average Height (16 Ft Logs) | 2.7 |
| Average Tons/Acre | 51 |



Marking Prospectus
Snyder (100-7-002-003)

Teddy Reynolds, BSF, RF, SR
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Columbia County, Arkansas
7/1/2003

60 Total Acres
51 Marked Acres

Pine Pulpwood

Merchantable Heights in 16 Foot Logs

| Diameter at 4.5' | Form Class | Merchantable Heights in 16 Foot Logs | | | | | |
|---------------------|---------------|--------------------------------------|-----|-----|-----|-----|-----|
| | | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 |
| 6 | 82 | 89 | 266 | 244 | 89 | 0 | 0 |
| 8 | 82 | 44 | 177 | 133 | 244 | 155 | 89 |
| 10 | 80 | 0 | 44 | 0 | 0 | 0 | 0 |
| 12 | 80 | 0 | 0 | 0 | 0 | 0 | 0 |
| 14 | 80 | 0 | 22 | 0 | 0 | 0 | 0 |
| Total | | 133 | 509 | 377 | 333 | 155 | 89 |

| Trees | | Cords | | Tons | | |
|----------------|-------------|----------------|-------------|---------------|------------------|--------------------|
| Total Trees | Per Acre | Total Cords | Per Acre | Tons Total | Tons Per Tree | Loads (28 Tons) |
| 688 | 13.5 | 30.1 | 0.6 | 79 | 0.1 | 2.8 |
| 842 | 16.5 | 76.2 | 1.5 | 200 | 0.2 | 7.2 |
| 44 | 0.9 | 5.3 | 0.1 | 14 | 0.3 | 0.5 |
| 0 | 0.0 | 0.0 | 0.0 | 0 | 0.0 | 0.0 |
| 22 | 0.4 | 5.2 | 0.1 | 14 | 0.6 | 0.5 |
| 1,596 | 31 | 116.8 | 2.3 | 307 | 0.2 | 11.0 |

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Miscellaneous Hardwood Sawtimber

Merchantable Heights in 16 Foot Logs

| Diameter at 4.5' | Form Class | Merchantable Heights in 16 Foot Logs | | | | |
|---------------------|---------------|--------------------------------------|----------|----------|-----------|-----------|
| | | 1 | 1.5 | 2 | 2.5 | 3 |
| 14 | 78 | 0 | 0 | 0 | 0 | 0 |
| 16 | 78 | 0 | 0 | 0 | 22 | 0 |
| 18 | 78 | 0 | 0 | 0 | 0 | 22 |
| Total | | 0 | 0 | 0 | 22 | 22 |

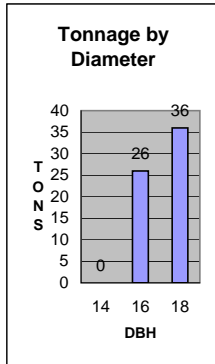
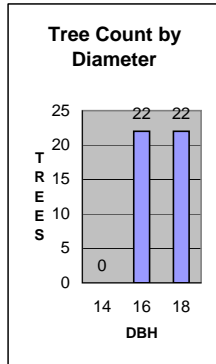
| Trees | | | |
|----------------|-------------|----------------------|----------------------|
| Total Trees | Per Acre | Total 16 ft. Logs | Average Logs/Tree |
| 0 | 0.0 | 0.0 | 0.0 |
| 22 | 0.4 | 55.0 | 2.5 |
| 22 | 0.4 | 66.0 | 3.0 |
| 44 | 0.9 | 121.0 | 2.8 |

| Doyle Log Rule (derived from CF) | | | |
|----------------------------------|-------------|-------------|-------------------|
| Total BF | Per Acre | Per Tree | Average BF/Log |
| 0 | 0 | 0 | 0 |
| 3,213 | 63 | 146 | 58 |
| 5,015 | 98 | 228 | 76 |
| 8,228 | 161 | 187 | 68 |

| Tons | | |
|---------------|------------------|--------------------|
| Tons Total | Tons Per Tree | Loads (28 Tons) |
| 0 | 0.0 | 0.0 |
| 26 | 1.2 | 0.9 |
| 36 | 1.6 | 1.3 |
| 62 | 1.4 | 2.2 |

| Cubic Feet | | |
|--------------|----------------|----------------|
| CF Total | CF Per Acre | CF Per Tree |
| 0 | 0 | 0 |
| 765 | 15 | 35 |
| 1,067 | 21 | 49 |
| 1,832 | 36 | 42 |

| Miscellaneous Hardwood Sawtimber Summary |
|--|
| Average DBH (inches) 17.0 |
| Average Height (16 Ft Logs) 2.8 |
| Average Tons/Acre 1.2 |



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Hardwood Pulpwood

Merchantable Heights in 16 Foot Logs

| Diameter at 4.5' | Form Class | Merchantable Heights in 16 Foot Logs | | | | | |
|---------------------|---------------|--------------------------------------|------------|------------|------------|------------|-----------|
| | | 1 | 1.5 | 2 | 2.5 | 3 | 3.5 |
| 8 | 78 | 67 | 177 | 222 | 133 | 67 | 0 |
| 10 | 78 | 0 | 0 | 67 | 177 | 89 | 44 |
| 12 | 78 | 0 | 22 | 0 | 89 | 67 | 0 |
| 14 | 79 | 0 | 0 | 22 | 0 | 0 | 0 |
| Total | | 67 | 199 | 311 | 399 | 223 | 44 |

| Trees | |
|----------------|-------------|
| Total Trees | Per Acre |
| 666 | 13.1 |
| 377 | 7.4 |
| 178 | 3.5 |
| 22 | 0.4 |
| 1,243 | 24 |

| Cords | |
|----------------|-------------|
| Total Cords | Per Acre |
| 55 | 1.1 |
| 61 | 1.2 |
| 43 | 0.8 |
| 7 | 0.1 |
| 166 | 3.3 |

| Tons | | |
|---------------|------------------|--------------------|
| Tons Total | Tons Per Acre | Loads (28 Tons) |
| 139 | 2.7 | 5.0 |
| 153 | 3.0 | 5.5 |
| 109 | 2.1 | 3.9 |
| 16 | 0.3 | 0.6 |
| 417 | 8.2 | 15 |

Inventory Utilizations

www.reynoldsforestry.com

- * Trees were inventoried by diameter at breast height (dbh; two inch classes at 4.5 feet).
- * Pine Sawtimber dbh reported as ≥ 10 inches in two inch classes as follows: 10" = 9.1" - 11.0" dbh; 12" = 11.1" - 13.0" dbh, etc.
- * Hardwood Sawtimber dbh reported as ≥ 14 inches in two inch classes as follows: 14" = 13.1" - 15.0" dbh; 16" = 15.1" - 17.0" dbh, etc.
- * Tree heights were called in 16 feet logs to 7" top diameters outside bark (dob) for pine sawtimber, 9" top dob for hardwood sawtimber, 4" top dop for all pulpwood, or to merchantability (whichever occurred first).
- * Saw-log merchantable heights are defined as: 1) to the heights specified above, or 2) the height where a whorl of 3 or more branches (whose diameters are equal to or greater than the diameter of the supporting stem) occurs within a 1-foot stem section if there is not a minimum of 8 feet of clear stem above the whorl. If a one foot section has three or more 3 inch diameter branches, regardless of the diameter, the height is called just below the one foot section.
- * Cubic Feet were derived from USFS's "Stem Profile Equations for Southern Tree Species" by Clark, Souter and Schlaegel.
- * Board Feet in Doyle was derived from the cubic feet using conversion tables in the Forest Service's "Service Forester's Handbook".
- * Pine Sawtimber tons were derived from Cubic feet using 3.37 tons per Cunit (10" - 18" dbh) and 3.30 tons per Cunit (20" - 30" dbh).
- * Hardwood Sawtimber tons were derived from Cubic feet using 3.65 tons per Cunit for Oak and 3.40 tons per Cunit for Misc. Hardwood.
- * Pulpwood volumes were derived from cubic feet. Cords were derived using 78 cubic feet per cord for pine and 74 cubic feet per cord for hardwood. Cubic feet were converted to tons using 3.37 tons per cunit for pine and 3.4 tons per cunit for hardwood.
- * Expected tonnage fluctuations occur between winter and summer logging due to sap flow and moisture composition.
- * Pine sawtimber tree count and dbh guaranteed by RFC.