

Dr. David Rankin  
 Columbia County, Arkansas  
 1/9/2008

Marking Prospectus  
 Rankin 47  
 47 Total Acres  
 47 Marked Acres

RFC  
 P. O. Box 1129  
 Magnolia, AR 71754  
 (870) 234-0200

Pine Sawtimber

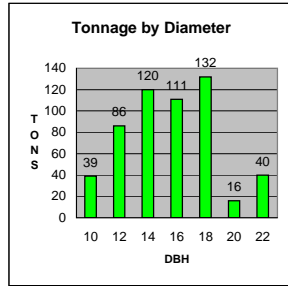
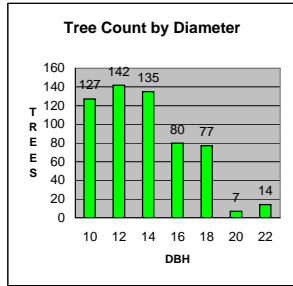
Diameter at 4.5'	Form Class	Merchantable Heights in 16 Foot Logs							Trees				Doyle Log Rule (derived from CF)				Tons			Cubic Feet		
		1	1.5	2	2.5	3	3.5	4	Total Trees	Per Acre	Total 16 ft. Logs	Average Logs/Tree	Total BF	Per Acre	Per Tree	Average BF/Log	Tons Total	Tons Per Tree	Loads (28 Tons)	CF Total	CF Per Acre	CF Per Tree
10	81	50	28	35	14	0	0	0	127	2.7	197	1.6	2,724	58	21	14	39	0.3	1.4	1,169	25	9
12	81	0	14	57	43	28	0	0	142	3.0	327	2.3	7,668	163	54	23	86	0.6	3.1	2,556	54	18
14	81	0	28	14	44	21	28	0	135	2.9	341	2.5	13,183	280	98	39	120	0.9	4.3	3,563	76	26
16	81	0	0	7	7	14	45	7	80	1.7	259	3.2	13,789	293	172	53	111	1.4	4.0	3,283	70	41
18	81	0	0	7	14	14	35	7	77	1.6	242	3.1	18,424	392	239	76	132	1.7	4.7	3,920	83	51
20	81	0	0	0	0	0	0	7	7	0.1	28	4.0	2,525	54	361	90	16	2.4	0.6	495	11	71
22	81	0	0	0	0	0	0	14	14	0.3	56	4.0	6,644	141	475	119	40	2.9	1.4	1,208	26	86
24	81	0	0	0	0	0	0	0	0	0.0	0	0.0	0	0	0	0	0	0.0	0.0	0	0	0
26	81	0	0	7	0	0	0	0	7	0.1	14	2.0	3,585	76	512	256	19	2.7	0.7	569	12	81
<b>Total</b>		50	70	127	122	77	108	35	589	13	1,463	2.5	68,542	1,458	116	47	563	1.0	20	16,763	357	28

**Pine**  
 Sawtimber Summary

Average DBH (inches)

Average Height (16 Ft Logs)

Average Tons/Acre



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**Pine Pulpwood**

Merchantable Heights in 16 Foot Logs

Diameter at 4.5'	Form					
	Class	1	1.5	2	2.5	3
6	81	30	20	0	0	0
8	81	10	20	60	50	20
10	80	0	0	10	0	0
<b>Total</b>		40	40	70	50	20

<b>Trees</b>		<b>Cords</b>		<b>Tons</b>		
Total Trees	Per Acre	Total Cords	Per Acre	Tons Total	Tons Per Acre	Loads (28 Tons)
50	1.1	1.7	0.0	4	0.1	0.2
160	3.4	14.2	0.3	37	0.8	1.3
10	0.2	1.4	0.0	4	0.1	0.1
<b>220</b>	<b>4.7</b>	<b>17.4</b>	<b>0.4</b>	<b>46</b>	<b>1.0</b>	<b>1.6</b>

# Inventory Utilizations

[www.reynoldsforestry.com](http://www.reynoldsforestry.com)

\* **Blue marks defined as follows:** All blue marks (whether spot or slash) are to be harvested; Single Spot = single tree tallied; Two Spots = Two trees tallied; Single spot with horizontal slash with Two Spots above = three trees tallied; Horizontal slash with one or more spots above = jump butt'd due to defect; Single Spot with Single Slash = tree reduced in diameter or height due to defect, but still sawtimber; Two Slashes = pulpwood; X = cull tree to be felled but not tallied. Trees not marked or with Black Paint sprayed over the blue are not to be cut.

\* Trees were inventoried by diameter at breast height (dbh; two inch classes at 4.5 feet).

\* Pine Sawtimber dbh reported as  $\geq 10$  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  $\geq 14$  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 6" top diameters outside bark (dob) for pine sawtimber, 9" top dob for hardwood sawtimber, 3" top dob 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 is guaranteed.**