



Timber Sale Appraisal
Happy Gilmore
Sale 341-10-07

"STEWARDSHIP IN FORESTRY"

District: Astoria

Date: October 15, 2009

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$98,337.26	\$0.00	\$98,337.26
		Project Work:	\$(5,926.00)
		Advertised Value:	\$92,411.26



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timber description

Location: Portions of Sections 32 and 33, T6N, R7W, W.M., Clatsop County, Oregon.

Stand Stocking: 80%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	16	0	97
Western Hemlock / Fir	16	0	97

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	192	228	64	484
Western Hemlock / Fir	162	83	20	265
Total	354	311	84	749



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comments: Pond Values Used: 3rd Quarter Calendar Year 2009.

Log Markets: Mist, Clatskanie, Tillamook, Forest Grove.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost
 $\$565.38/\text{MBF} = \$740/\text{MBF} - \$174.62/\text{MBF}$

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus
Logging Cost
 $\$360.38/\text{MBF} = \$535/\text{MBF} - \$174.62/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$700 daily truck cost.

Other Costs (with Profit & Risk to be added):

100% Branding and Painting: $\$1\text{MBF} \times 749 \text{ MBF} = \749

TOTAL Other Costs (with Profit and Risk to be added) = \$749

Other Costs (No Profit & Risk added):

Waterbar and block 1A to 1B at conclusion of logging:

$16.3 \text{ Stations} \times \$13.85/\text{Station} = \$226$

TOTAL Other Costs (No Profit & Risk added) = \$226



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logging conditions

combination#: 1	Douglas - Fir	100.00%
	Western Hemlock / Fir	100.00%
yarding distance:	Short (400 ft)	downhill yarding: No
logging system:	Track Skidder	Process: Manual Delimiting
tree size:	Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF	
loads / day:	4.0	bd. ft / load: 4,000
cost / mbf:	\$87.41	
machines:	Feller Buncher w/ Delimber	



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logging costs

Operating Seasons:	2.00	Profit Risk:	10.00%
Project Costs:	\$5,926.00	Other Costs (P/R):	\$749.00
Slash Disposal:	\$0.00	Other Costs:	\$226.00

Miles of Road

Road Maintenance: \$5.11

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	4.5
Western Hemlock / Fir	\$0.00	3.0	3.7



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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$87.41	\$5.26	\$11.71	\$48.55	\$1.00	\$15.39	\$0.00	\$5.00	\$0.30	\$174.62
Western Hemlock / Fir									
\$87.41	\$5.26	\$11.71	\$59.05	\$1.00	\$16.44	\$0.00	\$5.00	\$0.30	\$186.17

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$332.56	\$157.94	\$0.00
Western Hemlock / Fir	\$0.00	\$268.79	\$82.62	\$0.00



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summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	484	\$157.94	\$76,442.96
Western Hemlock / Fir	265	\$82.62	\$21,894.30

Gross Timber Sale Value

Recovery: \$98,337.26

Prepared by: Lanny Freeman

Phone: 503-325-5451

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Happy Gilmore

NEW CONSTRUCTION:

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Project No. 1 (Dirt Road)	<u>1A to 1B</u>	<u>16.30</u>	<u>\$3,486</u>
	TOTALS	<u>16.30</u>	<u>\$3,486</u>

ROAD IMPROVEMENT:

	<u>None</u>	<u>0.00</u>	<u>\$0</u>
	TOTALS	<u>0.00</u>	<u>\$0</u>

SPECIAL PROJECTS:

	<u>None</u>	<u>0.00</u>	<u>\$0</u>
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MOVE IN:

	<u>Equipment</u>	<u>Cost</u>
	<u>Dozer (D8) x 1</u>	<u>\$1,220</u>
	<u>Excavator (C330) x1</u>	<u>\$1,220</u>
	TOTAL	<u>\$2,440</u>

GRAND TOTAL \$5,926

Compiled By: L. Freeman FL Date: 10/02/2009

SUMMARY OF CONSTRUCTION COSTS

Project No. 1 New Construction
 (Unsurfaced)
 SALE NAME: Happy Gilmore
 ROAD: 1A-1B (16+30)

NEW CONSTRUCTION: 16.30 STATIONS
 IMPROVEMENT: STATIONS

0.31 MILES
 0.00 MILES

Method	Acres/amount	x	Rate	=	Cost
Scatter Outside of R/W	1.0	x	\$1,161.00	=	\$1,161.00
SUB TOTAL FOR CLEARING & GRUBBING					\$1,161

Material	Sta/amount	x	Rate	=	Cost
Common (Drift Earth up to 200' \$\$/sta.	16.30	x	\$106.00	=	\$1,727.80
Landing Construction \$\$/landing	1	x	\$338.00	=	\$338.00
Point 1B					
SUB TOTAL FOR EXCAVATION					\$2,066

Location	Dial/type	Lineal ft.	Rate	Cost	No. bands	Rate	Cost	
Other/miscellaneous: Grade 14' outslope							Quantity	Cost
							16.30	\$15.93
								\$259.66
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION							\$260	\$3,486
Subtotal								

Road Maintenance Cost Summary

Sale: Happy Gilmore
Date: 27-Aug-09
By: L. Freeman

MBF: 749
\$/MBF: \$5.11

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost	Production Rates	Days
Final Road Maintenance	Grader 14G	\$675	1	7	\$93	\$1,326	Production Rates	
	Dump Truck 12CY x 1	\$141	1	2	\$73	\$287	Grader	Miles/day
	FE Loader C966	\$675	1	1	\$77	\$752		1.5
	Vibratory Roller*	\$675	1	4	\$72	\$963	Vibratory Roller*	Distance(miles)
	Water Truck 2,500 gallon	\$165	1	4	\$83	\$497		1.0
Total								0.7
						\$3,825		

*Final Road Maintenance Only

**Happy Gilmore
TIMBER CRUISE REPORT
FY 2010**

1. **Sale Area Location:** Areas 1 and 2 are located in Portions of Sections 32 and 33, T6N, R7W, W.M., Clatsop County, Oregon.
2. **Fund Distribution:** BOF 100%
Tax Code 8-01 (67%) & 8-02 (33%)

3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Existing R/W	New R/W	Stream Buffer	Net Acres	Survey Method
1	Partial Cut	62	1	1	4	56	GIS
2	Partial Cut	11	0	0	1	10	GIS
3 R/W	In Sale R/W	1	0	0	0	1	GIS
TOTALS		74	1	1	5	67	

4. **Cruisers and Cruise Dates:** Areas 1 and 2 were cruised by Derek Bangs, Lanny Freeman, Ty Williams, Jon Long, and Jasen McCoy, in July, 2009.

5. **Cruise Method and Computation:**

Areas 1 and 2 (Partial Cut) are "thinning" units and were cruised using a 40 BAF. The plots are located on a 4 chain by 4 chain grid, with every third plot being measured and graded. A total of 44 plots were sampled, with 17 measured and graded plots, and 27 count plots. The stands are to be thinned to 140 ft²/acre. The "biggest and best" trees were recorded as "leave" trees to meet a target residual basal area of 140 ft²/acre. Trees larger than 23 inches DBH are reserve trees. Conifers other than Douglas-fir were favored as leave trees. Cedar is a reserve species, and were recorded as "leave" trees.

Area 3 R/W The right-of-way volume was calculated by multiplying the R/W acreage and the average volume per acre from the plots in Areas 1 and 2. In-sale right-of-way totals 1 acre.

All cruisers used Corvallis MicroTechnology (CMT) and/or Allegro data collectors, and were downloaded to the Atterbury Super A.C.E. program in District for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Astoria district office.

AREA	CRUISE	TRACT	TYPE	ACRES
1 and 2	06N07W SEC 33	AREA 12	TAKE	66
3 R/W	06N07W SEC 33	AREA 12	ROW	1

6. **Timber Description** Areas 1 and 2 are "partial" cut units, approximately 42 years old, consisting of primarily Douglas-fir stands with mixed hemlock. Areas 1 and 2 will be thinned to a SDI of 30 (150 Sq.Ft.BA), removing approximately 82 trees per acre and 11 MBF/acre. The average conifer "take" tree size is 16 inches DBH and 51 feet to a merchantable top (6 inch d.i.b.).

Area 3 R/W is similar to the timber description mentioned above for Areas 1 and 2. The average volume (net) is approximately 28 MBF/acre.

7. **Statistical Analysis and Stand Summary:** (See "Statistics" - Type Reports, attached)

Statistics for Stand B.F. volumes

Area	Estimated CV	Target SE%	Actual CV	Actual SE%
1 and 2	35%	7%	36%	5.4%

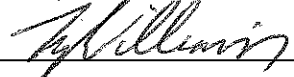
8. Volumes by Species and Log Grade: (See "Species, Sort, Grade - Type and Project Reports, attached, of individual sale areas and combined areas and two cruise types).

Volumes by Species and Grade for All Sale Areas: (MBF) Volumes do not include "in-growth."

Species	DBH	Net Vol.	2 Saw	3Saw	4 Saw	% D & B	% Sale
Douglas-fir	16"	484	192	228	64	1.2%	64.5%
Western Hemlock/fir	16"	265	162	83	20	<1%	35.5%
TOTALS		749	354	311	84		100%

9. Approvals:

Prepared by: Lanny Freeman Date: July 29, 2009

Unit Forester Approval:  Date: 8/21/09

10. Attachments:

- Cruise Design (1)
- Cruise Maps (1)
- Volume Reports - 3 pages
- Statistics Report - 5 pages
- Stand Table - 1 page
- Log Stock Tables - 2 pages

X:\Jewell_Uni\Timber Sales\2010\Happy Gillmore\Happy_Gill_Cruise_Report.doc

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Happy Gilmore Area(s) 1 and 2

Harvest Type: (PC) "Partial Cut"

Approx. Cruise Acres: 67 Estimated CV% 35 Net BF SE% Objective 7 Net BF

Planned Sale Volume : 515 MBF Estimated Sale Area Value/Acre: \$940/Ac
(All Sale Areas) (7.5 MBF/Ac.)

A. **Cruise Goals:** (a) Grade minimum 70 conifer:
(b) Sample 43 cruise plots (17 grade/ 26 count); (c) Other goals (X Determine "automark" thinning standards; X Determine log grades for sale value; X Determine snag and leave tree species and sizes.

B. Cruise Design:

1. **Plot Cruises:** BAF 40 (**Full point**; Half point) (circle one)
Cruise Line Direction(s) AZ= 360° (North/South)
Cruise Line Spacing 4 (chains)
Cruise Plot Spacing 4 (chains)
Grade/Count Ratio 1/2

Basal Area leave target 130 sq. ft. Cruiser needs to select 3 or 4 leave trees per plot, for a 3.5 tree per plot average. Cruise all take and leave trees on grade plots. Do not take plots in buffers. If a cruise line ends up paralleling in a buffer offset by 1 chain. Alder will not be thinned; Record alder as leave trees. All cedar are leave trees and count towards the leave tree basal area. Favor other conifer species as leave trees over Doug-fir of similar size. Maximum take DBH for conifer is 18 inches. Record snags (SN) as cull and estimate height and diameter. Alder will not count towards the leave tree BA.

C. Tree Measurements:

1. **Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods. Record dbh to nearest $\frac{1}{2}$ " for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
2. **Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
3. **Top Cruise Diameter (TCD):** Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.

4. **Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.
5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.
6. **Species, Sort, and Grade Codes:**
 - A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)
 - B. Sort: Use code "1" (Domestic).
 - C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camprun; 0 = Cull
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
8. **Standard Field Procedures: Plot Type Cruises:** Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at inter-visible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.
9. **Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape (with dbh on back) Biltmore Stick, Compass, Cruise Cards in Tatum OR Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
10. **Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: Lanny Freeman
 Approved by: *L. Freeman* 6/24/09
 Date: 6/23/2009

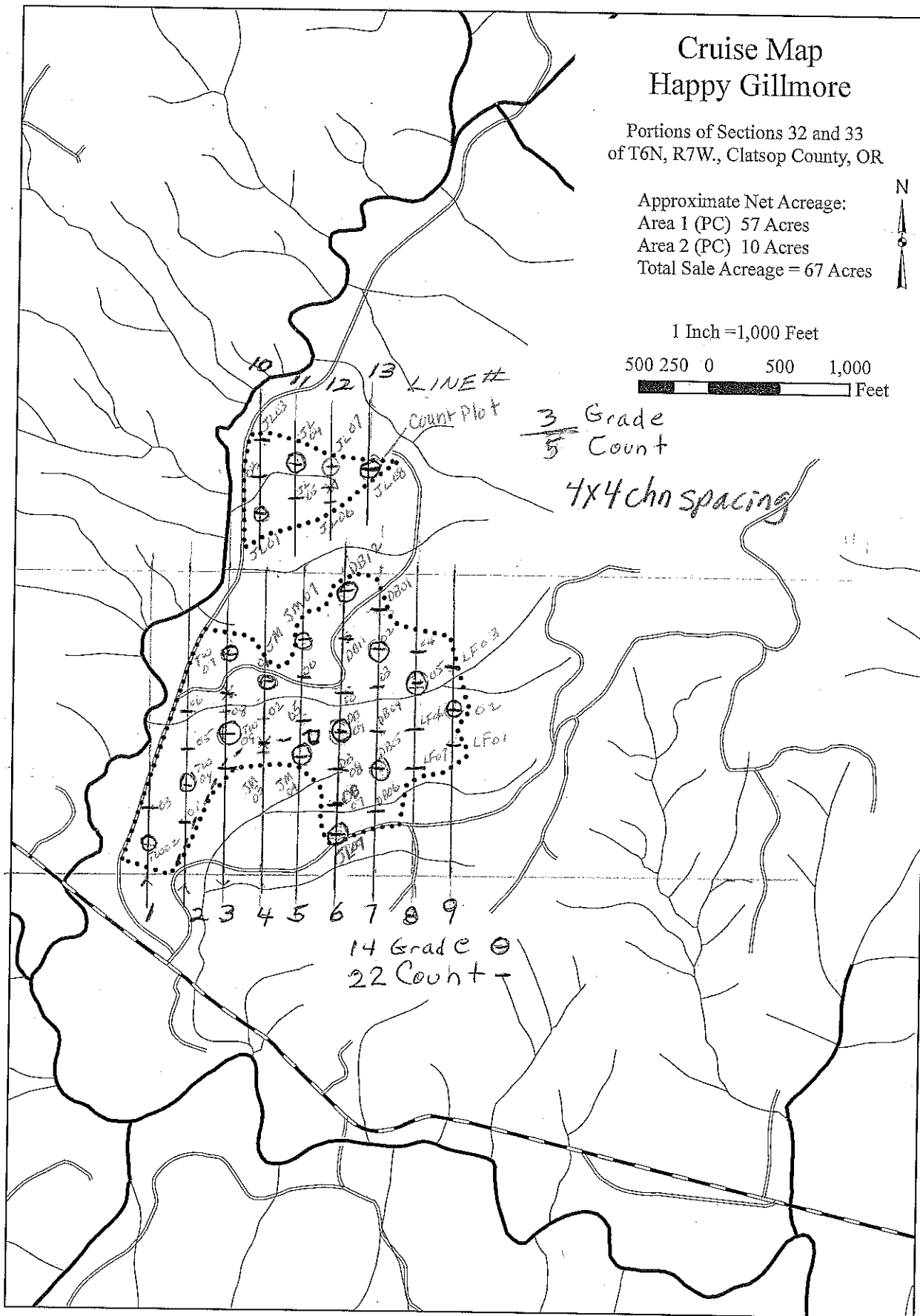
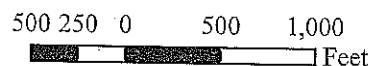
Cruise Map Happy Gillmore

Portions of Sections 32 and 33
of T6N, R7W., Clatsop County, OR

Approximate Net Acreage:
Area 1 (PC) 57 Acres
Area 2 (PC) 10 Acres
Total Sale Acreage = 67 Acres



1 Inch = 1,000 Feet



3 Grade
5 Count

7x4 chn spacing

LINE #

14 Grade ⊖
22 Count +

HAPPY GILLMORE AREAS 1 AND 2 PARTIAL CUT

Areas 1 and 2 Clearcut

BAF	ACRES	AVG. DIA	N	%CV	%SE	# of plots	Cnt:Grade
40	67	15	2183.922	35	7	25	Grade All
						31	1:1
						37	2:1
						43	3:1

Grade	Count
25	0
15	15
12	25
11	32

Timber Sale Happy Gillmore Areas 1 and 2
Plots 44

Plot Spacing

67 Area Size (Acres)
37 Plots Needed

4 Plot Spacing (Chains) 264'x264'

**Total 43 Plots
16 Grade Plots
27 Count Plots**

**Area 1 - 57 Acres
Area 2 - 10 Acres**

2 Count / 1 Grade

Species, Sort Grade - Board Foot Volumes (Project)

T06N R07W S33 TyTAKE 66.00
T06N R07W S33 TyROW 1.00

Project: HAPPY
Acres 67.00

Page 1
Date 7/6/2009
Time 3:00:43PM

Spp	So Gr T rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre	
			Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf		
							4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
D	DOCU																		
D	DO2S	39	1.2	2,894	2,859	192		6	93	0		8		16	75	35	166	1.26	17.2
D	DO3S	47	1.5	3,448	3,397	228		88	12			7	8	36	49	34	83	0.79	41.1
D	DO4S	14		950	950	64		100				39	27		34	22	30	0.50	31.3
D Totals		65	1.2	7,292	7,205	483		57	42	0		12	8	23	57	27	70	0.79	103.1
H	DOCU																		
H	DO2S	61	.9	2,442	2,420	162		6	77	17				57	43	35	243	1.64	9.9
H	DO3S	31	1.4	1,262	1,245	83		84	16	0		0	7	43	49	35	70	0.65	17.8
H	DO4S	8		298	298	20		100				14	75	11		25	32	0.55	9.4
H Totals		35	1.0	4,002	3,963	266		37	52	11		1	8	49	42	31	100	0.90	39.5
S	DOCU																		
S	DO2S	87		2	2	0				100				100		32	750	4.19	.0
S	DO3S	13	15.4	0	0	0		100						100		33	110	1.55	.0
S Totals		0	2.3	2	2	0		13		87				100		25	287	2.50	.0
Totals			1.1	11,297	11,171	748		50	46	4		8	8	33	52	28	78	0.82	142.6

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)								Page 1												
		Project: HAPPY								Date 7/6/2009												
										Time 3:00:42PM												
T06N R07W S33 TTAKE										T06N R07W S33 TTAKE												
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt													
06N	07W	33	AREA12	TAKE	66.00	44	55	1	W													
Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre		
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf			
D		DO	CU																			
D		DO	2S	39	1.2	2,789	2,754	182	6	94		9		15	77			7		0.00		13.5
D		DO	3S	47	1.5	3,409	3,358	222	88	12		7	8	36	49			35	164	1.25		16.8
D		DO	4S	14		944	944	62	100			39	27		34			34	83	0.79		40.6
D	Totals			65	1.2	7,141	7,056	466	58	42		12	8	23	58			22	30	0.50		31.1
H		DO	CU																			
H		DO	2S	60	.9	2,370	2,349	155	6	77	17			58	42			8		0.00		2.2
H		DO	3S	32	1.4	1,230	1,213	80	84	16			7	43	50			35	69	0.64		17.5
H		DO	4S	8		292	292	19	100			14	75	11				25	32	0.55		9.2
H	Totals			35	1.0	3,893	3,854	254	38	52	10	1	8	50	41			31	100	0.89		38.6
Type Totals					1.1	11,034	10,910	720	51	46	4	8	8	32	52			28	78	0.82		140.6

T06N R07W S33 TROW T06N R07W S33 TROW
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt BdFt
 06N 07W 33 RIGHT-OF-WAY ROW 1.00 44 116 1 W

S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
D	DO	CU														7		0.00	16.3
D	DO	2S	57	.8	9,864	9,787	10	6	85	9		4		44	52	35	206	1.55	47.5
D	DO	3S	35	1.3	6,026	5,945	6	89	11			4	7	36	52	35	83	0.78	71.4
D	DO	4S	8		1,344	1,344	1	100				41	31		27	22	30	0.52	44.8
D	Totals		60	.9	17,233	17,076	17	42	53	5		7	5	38	50	29	95	0.96	180.0
H	DO	CU														7		0.00	8.7
H	DO	2S	63	1.0	7,163	7,092	7	3	75	23				47	53	36	263	1.78	27.0
H	DO	3S	30	1.6	3,400	3,347	3	74	22	4		5	4	43	48	35	84	0.78	39.7
H	DO	4S	7		685	685	1	100				20	73	6		24	30	0.57	22.6
H	Totals		39	1.1	11,248	11,124	11	30	54	16		3	6	43	48	30	114	1.06	97.9
S	DO	CU														9		0.00	.2
S	DO	2S	87		139	139	0			100				100		32	750	4.19	.2
S	DO	3S	13	15.4	24	20	0	100						100		33	110	1.55	.2
S	Totals		1	2.3	163	159	0	13		87				100		25	287	2.50	.6
Type Totals				1.0	28,645	28,359	28	37	53	10		5	5	40	49	29	102	1.00	278.4

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT HAPPY		DATE 8/21/2009				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	33	AREA12	00PC	66.00	44	276	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		44	276	6.3						
CRUISE		17	117	6.9	9,514		1.2			
DBH COUNT										
REFOREST										
COUNT		27	159	5.9						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUGLEAV	38	36.5	20.2	70		80.9	10,028	9,956	2,826	2,826
DOUG FIR	34	57.2	15.7	51		76.4	7,141	7,056	2,171	2,171
HEMLEAV	22	25.3	20.7	66		59.1	7,440	7,349	2,050	2,050
WHEMLOCK	21	24.5	15.7	51		32.7	3,893	3,854	1,078	1,078
SPRUCELV	1	.2	30.0	76		.9	163	159	34	34
SNAG	1	.6	17.0	30		.9				
TOTAL	117	144.2	17.9	58		250.9	28,665	28,375	8,159	8,159
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL:	68.1 %	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DOUGLEAV		60.3	9.8	281	311	342				
DOUG FIR		61.3	10.5	135	151	167				
HEMLEAV		58.1	12.7	309	354	398				
WHEMLOCK		82.6	18.5	195	239	283				
SPRUCELV										
SNAG										
TOTAL		74.3	6.9	244	262	280	220	55	24	
CL:	68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DOUGLEAV		79.9	12.0	32	36	41				
DOUG FIR		90.9	13.7	49	57	65				
HEMLEAV		97.5	14.7	22	25	29				
WHEMLOCK		176.4	26.6	18	24	31				
SPRUCELV		663.3	99.9	0	0	0				
SNAG		663.3	99.9	0	1	1				
TOTAL		36.7	5.5	136	144	152	54	13	6	
CL:	68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DOUGLEAV		78.0	11.7	71	81	90				
DOUG FIR		84.4	12.7	67	76	86				
HEMLEAV		98.5	14.8	50	59	68				
WHEMLOCK		173.4	26.1	24	33	41				
SPRUCELV		663.3	99.9	0	1	2				
SNAG		663.3	99.9	0	1	2				
TOTAL		29.6	4.5	240	251	262	35	9	4	
CL:	68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DOUGLEAV		79.2	11.9	8,768	9,956	11,144				
DOUG FIR		87.3	13.2	6,128	7,056	7,984				
HEMLEAV		102.7	15.5	6,213	7,349	8,486				
WHEMLOCK		188.0	28.3	2,763	3,854	4,946				

STATISTICS
PROJECT **HAPPY**

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
06N	07W	33	AREA12	00PC	66.00	44	276	1	W
CL: 68.1%		COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
SPRUCELV		663.3	99.9	0	159	318			
SNAG									
TOTAL		36.0	5.4	26,836	28,375	29,913	52	13	6

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT HAPPY		DATE 8/21/2009				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	33	AREA12	TAKE	66.00	44	120	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL	44	120	2.7							
CRUISE	17	55	3.2	5,389		1.0				
DBH COUNT										
REFOREST										
COUNT	25	65	2.6							
BLANKS	2									
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	34	57.2	15.7	51		76.4	7,141	7,056	2,171	2,171
WHEMLOCK	21	24.5	15.7	51		32.7	3,893	3,854	1,078	1,078
TOTAL	55	81.7	15.7	51		109.1	11,034	10,910	3,249	3,249
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	61.3	10.5	135	151	167					
WHEMLOCK	82.6	18.5	195	239	283					
TOTAL	79.4	10.7	165	184	204	252	63	28		
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	90.9	13.7	49	57	65					
WHEMLOCK	176.4	26.6	18	24	31					
TOTAL	63.2	9.5	74	82	89	159	40	18		
CL: 68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	84.4	12.7	67	76	86					
WHEMLOCK	173.4	26.1	24	33	41					
TOTAL	59.9	9.0	99	109	119	143	36	16		
CL: 68.1 %	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	87.3	13.2	6,128	7,056	7,984					
WHEMLOCK	188.0	28.3	2,763	3,854	4,946					
TOTAL	71.5	10.8	9,735	10,910	12,085	204	51	23		

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT		HAPPY		DATE	8/21/2009	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	33	RIGHT-OF-WAY	ROW	1.00	44	275	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL	44	275	6.3							
CRUISE	17	116	6.8	147	79.0					
DBH COUNT										
REFOREST										
COUNT	27	159	5.9							
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	72	93.0	17.6	58		157.3	17,233	17,076	5,011	5,011
WHEMLOCK	43	53.7	17.7	57		91.8	11,248	11,124	3,106	3,106
S SPRUCE	1	.2	30.0	76		.9	163	159	34	34
TOTAL	116	146.8	17.7	58		250.0	28,645	28,359	8,151	8,151
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	72.1	8.5	216	236	256					
WHEMLOCK	69.7	10.6	266	297	329					
S SPRUCE										
TOTAL	73.4	6.8	246	264	282	215	54	24		
CL: 68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	73.3	11.0	83	93	103					
WHEMLOCK	110.7	16.7	45	54	63					
S SPRUCE	663.3	99.9	0	0	0					
TOTAL	32.2	4.8	140	147	154	41	10	5		
CL: 68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	67.7	10.2	141	157	173					
WHEMLOCK	109.4	16.5	77	92	107					
S SPRUCE	663.3	99.9	0	1	2					
TOTAL	29.7	4.5	239	250	261	35	9	4		
CL: 68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	69.0	10.4	15,300	17,076	18,852					
WHEMLOCK	117.7	17.7	9,152	11,124	13,095					
S SPRUCE	663.3	99.9	0	159	318					
TOTAL	37.1	5.6	26,776	28,359	29,942	55	14	6		

TC TSTATS		STATISTICS							PAGE	1
		PROJECT			HAPPY				DATE	8/21/2009
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	33	AREA12	LEAV	66.00	44	155	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		44	155	3.5						
CRUISE		17	61	3.6	4,087	1.5				
DBH COUNT REFOREST COUNT		27	94	3.5						
BLANKS 100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUGLEAV	38	36.5	20.2	70		80.9	10,028	9,956	2,826	2,826
HEMLEAV	22	25.3	20.7	66		59.1	7,440	7,349	2,050	2,050
SPRUCELV	1	.2	30.0	76		.9	163	159	34	34
TOTAL	<i>61</i>	<i>61.9</i>	<i>20.4</i>	<i>68</i>		<i>140.9</i>	<i>17,631</i>	<i>17,464</i>	<i>4,910</i>	<i>4,910</i>
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	60.3	9.8	281	311	342					
HEMLEAV	58.1	12.7	309	354	398					
SPRUCELV										
TOTAL	<i>60.7</i>	<i>7.8</i>	<i>309</i>	<i>336</i>	<i>362</i>	<i>147</i>	<i>37</i>	<i>16</i>		
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	79.9	12.0	32	36	41					
HEMLEAV	97.5	14.7	22	25	29					
SPRUCELV	663.3	99.9	0	0	0					
TOTAL	<i>19.2</i>	<i>2.9</i>	<i>60</i>	<i>62</i>	<i>64</i>	<i>15</i>	<i>4</i>	<i>2</i>		
CL: 68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	78.0	11.7	71	81	90					
HEMLEAV	98.5	14.8	50	59	68					
SPRUCELV	663.3	99.9	0	1	2					
TOTAL	<i>15.6</i>	<i>2.3</i>	<i>138</i>	<i>141</i>	<i>144</i>	<i>10</i>	<i>2</i>	<i>1</i>		
CL: 68.1 %	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	79.2	11.9	8,768	9,956	11,144					
HEMLEAV	102.7	15.5	6,213	7,349	8,486					
SPRUCELV	663.3	99.9	0	159	318					
TOTAL	<i>20.9</i>	<i>3.1</i>	<i>16,915</i>	<i>17,464</i>	<i>18,014</i>	<i>17</i>	<i>4</i>	<i>2</i>		

TC TSTNDSUM		Stand Table Summary													
Project HAPPY											T06N R07W S33 TLEA				
T06N R07W S33 TLEAV											Page: 1				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Date:	07/06/2004			Time:	3:02:08PM		
06N	07W	33	AREA12	LEAV	66.00	44	61								
S Spc	T	Sample		Av	Trees/ BA/ Logs			Average Log		Net		Net		Totals	
		DBH	Trees	FF 16'	Ht Tot	Acres	Acres	Acres	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acres	Cu.Ft. Acres	Bd.Ft. Acres	Tons	Cunits
DL		16	1	85	66	1.525	2.13	3.05	19.5	70.0		59	213	39	14
DL		17	3	83	89	4.052	6.39	8.10	26.2	90.0		212	729	140	48
DL		18	5	84	96	6.024	10.65	13.25	29.8	98.2		395	1,301	261	86
DL		19	6	87	75	6.488	12.78	12.98	29.7	95.8		385	1,244	254	82
DL		20	7	85	89	6.832	14.90	13.66	38.5	126.4		526	1,727	347	114
DL		21	3	85	99	2.656	6.39	6.20	40.6	147.1		251	912	166	60
DL		22	5	85	90	4.033	10.65	8.87	40.8	146.4		362	1,299	239	86
DL		23	2	87	89	1.476	4.26	2.95	53.2	202.5		157	598	104	39
DL		24	2	84	80	1.355	4.26	2.71	50.3	162.5		136	441	90	29
DL		26	2	84	110	1.155	4.26	2.89	54.8	228.0		158	658	104	43
DL		29	1	90	113	.464	2.13	1.39	68.3	333.3		95	464	63	31
DL		31	1	87	103	.406	2.13	.81	108.0	455.0		88	370	58	24
DL	Totals		38	85	88	36.467	80.91	76.87	36.8	129.5		2,826	9,956	1,865	657
HL		14	1	88	47	2.513	2.69	2.51	22.0	60.0		55	151	36	10
HL		16	1	85	87	1.924	2.69	3.85	27.0	90.0		104	346	69	23
HL		17	1	89	91	1.704	2.69	3.41	31.5	110.0		107	375	71	25
HL		18	1	86	72	1.520	2.69	3.04	30.5	90.0		93	274	61	18
HL		19	4	88	81	5.457	10.74	10.91	33.5	112.5		366	1,228	241	81
HL		20	2	88	75	2.462	5.37	4.92	33.7	122.5		166	603	110	40
HL		21	2	85	91	2.233	5.37	4.47	49.5	175.0		221	782	146	52
HL		22	1	85	70	1.017	2.69	2.03	43.5	130.0		89	265	58	17
HL		23	1	83	70	.931	2.69	1.86	46.0	135.0		86	251	57	17
HL		24	2	87	81	1.710	5.37	3.42	53.3	190.0		182	650	120	43
HL		25	2	87	105	1.576	5.37	3.94	57.2	244.0		225	961	149	63
HL		27	1	89	104	.676	2.69	2.03	61.3	296.7		124	601	82	40
HL		29	1	83	88	.586	2.69	1.17	88.0	295.0		103	345	68	23
HL		31	1	78	104	.512	2.69	1.02	76.0	315.0		78	323	51	21
HL		33	1	72	98	.452	2.69	.90	56.0	215.0		51	194	33	13
HL	Totals		22	86	81	25.272	59.09	49.50	41.4	148.5		2,050	7,349	1,353	485
SL		30	1	89	92	.185	.91	.37	92.5	430.0		34	159	23	11
SL	Totals		1	89	92	.185	.91	.37	92.5	430.0		34	159	23	11
Totals			61	86	85	61.924	140.91	126.74	38.7	137.8		4910	17,464	3,240	1,153

Log Stock Table - MBF

T06N R07W S33 TyTAKE 66.00
T06N R07W S33 TyROW 1.00

Project: HAPPY
Acres 67.00

Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches									
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29
D		DO 2S	16	16		16	3.3					8	8	0			
D		DO 2S	32	31		31	6.4				0	29	1	0	0		
D		DO 2S	34	0		0	.0					0					
D		DO 2S	40	147	1.6	144	29.9			11		114	18	0	0		
D		DO 3S	20	15		15	3.1				4	11					
D		DO 3S	21	0		0	.0					0					
D		DO 3S	24	10		10	2.0			0		10					
D		DO 3S	26	6		6	1.2			6							
D		DO 3S	27	0		0	.0			0							
D		DO 3S	28	0		0	.0			0							
D		DO 3S	30	3		3	.7			3							
D		DO 3S	32	81	3.1	78	16.2			5	21	37	15	0			
D		DO 3S	34	4		4	.8			4							
D		DO 3S	36	6		6	1.2			6							
D		DO 3S	40	106		106	21.9			61	15	29					
D		DO 4S	13	0		0	.0			0							
D		DO 4S	14	4		4	.8			4							
D		DO 4S	15	8		8	1.7			8							
D		DO 4S	16	7		7	1.5			7							
D		DO 4S	17	2		2	.4			2							
D		DO 4S	18	2		2	.5			2							
D		DO 4S	19	1		1	.3			1							
D		DO 4S	20	0		0	.0				0						
D		DO 4S	22	0		0	.0			0							
D		DO 4S	23	5		5	1.0			5							
D		DO 4S	26	4		4	.8			4							
D		DO 4S	28	5		5	1.0			5							
D		DO 4S	29	4		4	.8			4							
D		DO 4S	30	0		0	.0			0							
D		DO 4S	37	0		0	.0				0						
D		DO 4S	40	21		21	4.4			21							
D		Totals		489	1.2	483	64.5			160	40	76	177	28	1	1	
H		DO 2S	32	94	1.1	93	35.0					9	44	0	25	14	
H		DO 2S	40	70		69	26.0					41	27	1			
H		DO 3S	12	0		0	.1							0			
H		DO 3S	19	0		0	.0			0							

Log Stock Table - MBF

T06N R07W S33 TyTAKE 66.00
 T06N R07W S33 TyROW 1.00

Project: HAPPY
 Acres 67.00

Page 2
 Date 7/6/2009
 Time 3:02:28PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches												
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
H		DO	3S	25	0		0	.0				0									
H		DO	3S	28	6		6	2.2			6										
H		DO	3S	32	37	3.0	36	13.6			8	3	11	7	6						
H		DO	3S	34	0		0	.0			0										
H		DO	3S	35	0		0	.0				0									
H		DO	3S	36	7		7	2.6			7	0									
H		DO	3S	38	3		3	1.2			3										
H		DO	3S	40	31		31	11.7			31		0								
H		DO	4S	16	0		0	.0			0										
H		DO	4S	18	1		1	.4			0	1									
H		DO	4S	19	2		2	.6			2										
H		DO	4S	20	0		0	.0			0										
H		DO	4S	22	1		1	.6				1									
H		DO	4S	23	0		0	.0			0										
H		DO	4S	24	2		2	.8			2										
H		DO	4S	26	7		7	2.5			7										
H		DO	4S	28	2		2	.7			2										
H		DO	4S	29	3		3	1.1			3										
H		DO	4S	31	2		2	.8			2										
H		Totals			268		266	35.5			73	6	21	91	34	27	14				
S		DO	2S	32	0		0	87.2											0		
S		DO	3S	33	0	15.4	0	12.8					0								
S		Totals			0	2.3	0	.0					0						0		
Total		All Species			757	1.1	748	100.0			233	46	97	268	62	28	15				

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-10-07
HAPPY GILMORE
PORTIONS OF SECTIONS 32 AND 33
OF T6N, R7W., CLATSOP COUNTY, OR

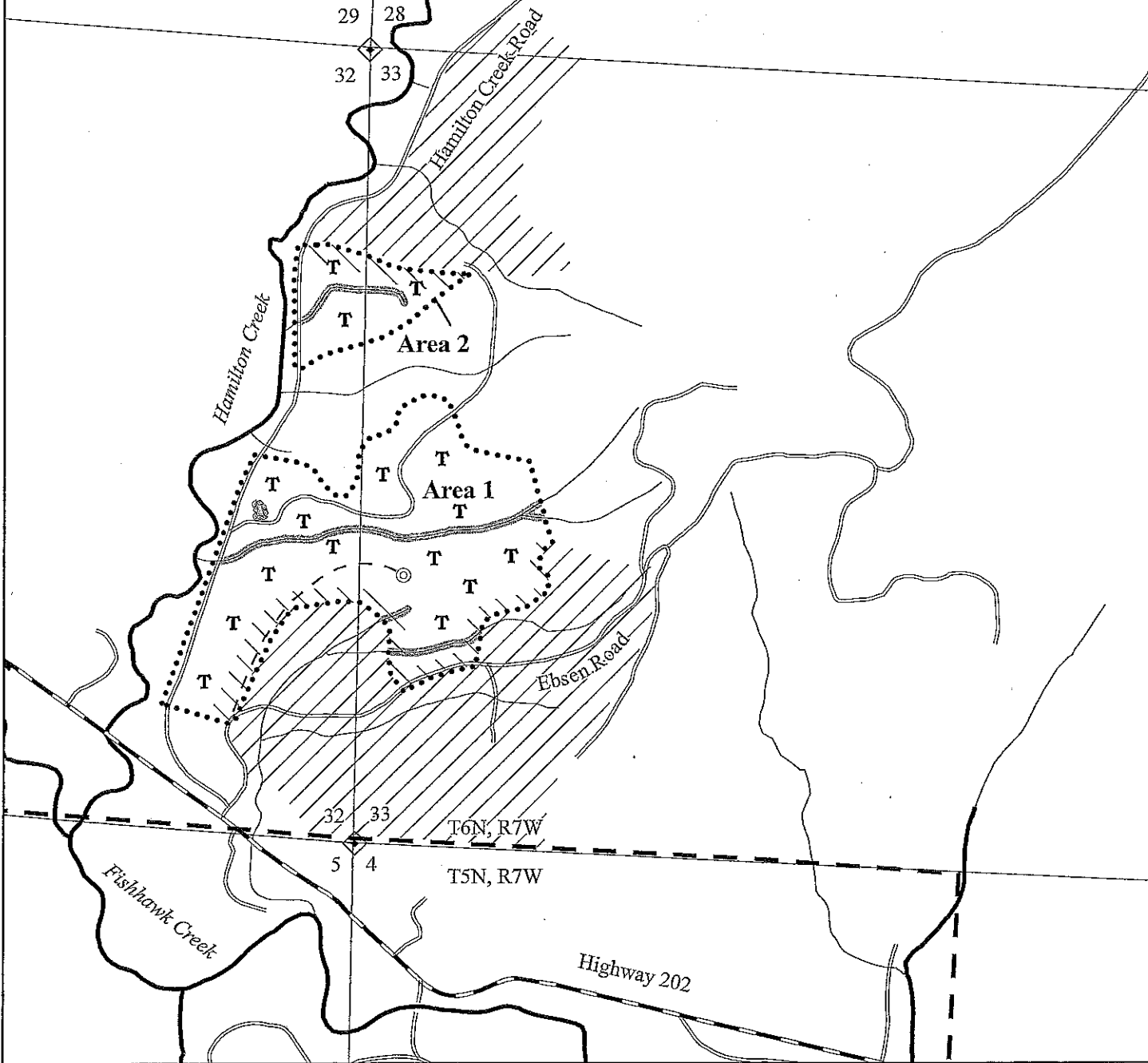
Approximate Net Acreage:
Area 1 (PC) - 56 Acres
Area 2 (PC) - 10 Acres
Area 3 (R/W) - 1 Acre
Total Sale Acreage = 67 Acres

Approximate Scale = 1" : 1,000'
500 250 0 500 1,000 Feet



Legend

- Ownership Boundary
- Timber Sale Area
- Paved Road
- Existing Surfaced Road
- New Road Construction
- Type N Stream
- Type F Stream
- Posted Buffer Zone
- Controlled Felling Area
- Reforestation Area
- Non-Posted Stream Buffer
- New Landing Construction
- Known Land Survey Corner
- Tractor Logging Area



LOGGING PLAN















OF TIMBER SALE CONTRACT NO. 341-10-07
HAPPY GILMORE
PORTIONS OF SECTIONS 32 AND 33
OF T6N, R7W., CLATSOP COUNTY, OR

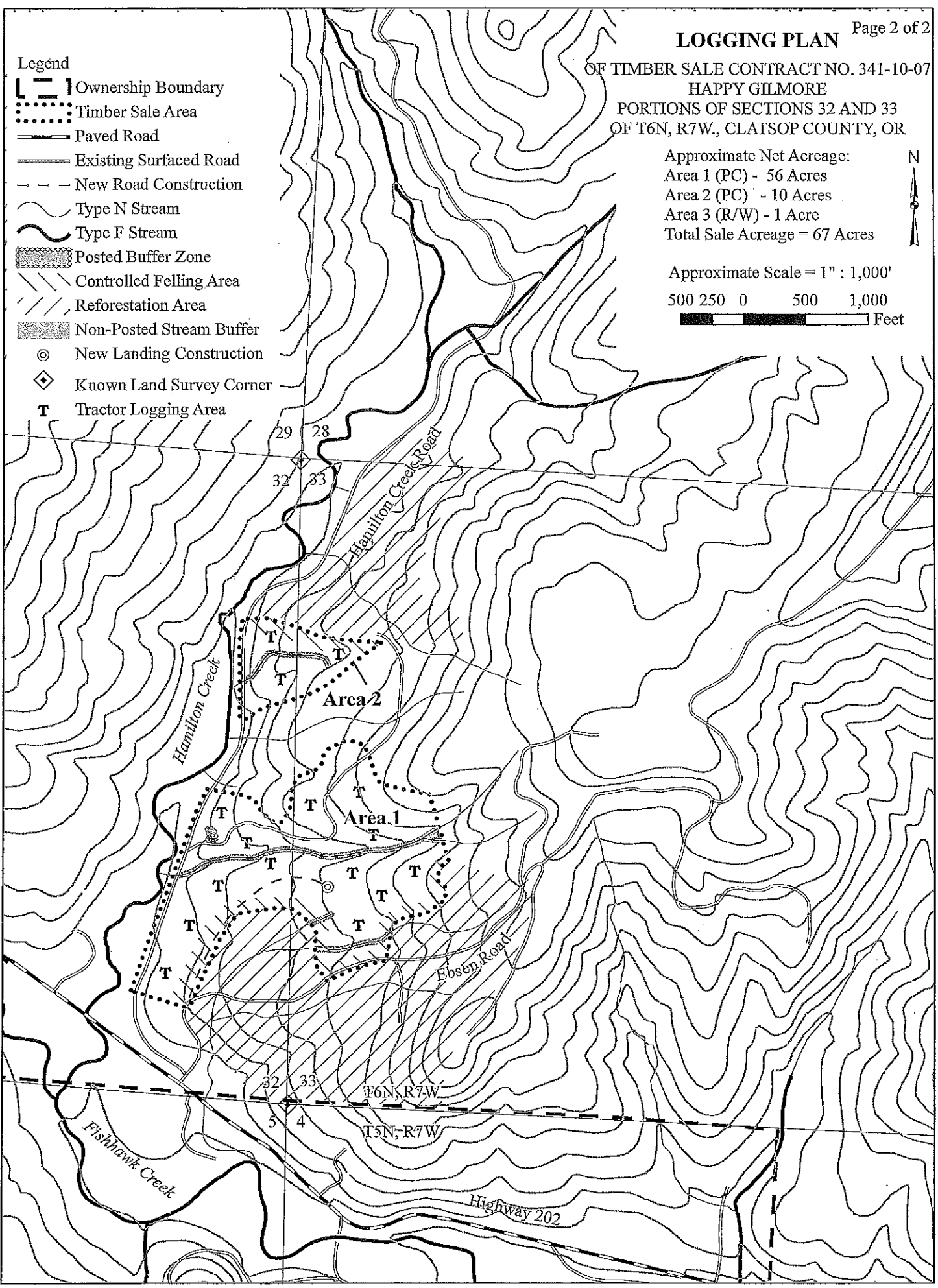
Approximate Net Acreage:
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Total Sale Acreage = 67 Acres

Approximate Scale = 1" : 1,000'
500 250 0 500 1,000
Feet



Legend

-  Ownership Boundary
-  Timber Sale Area
-  Paved Road
-  Existing Surfaced Road
-  New Road Construction
-  Type N Stream
-  Type F Stream
-  Posted Buffer Zone
-  Controlled Felling Area
-  Reforestation Area
-  Non-Posted Stream Buffer
-  New Landing Construction
-  Known Land Survey Corner
-  Tractor Logging Area



ORTHO MAP

OF TIMBER SALE CONTRACT NO. 341-10-07
 HAPPY GILMORE
 PORTIONS OF SECTIONS 32 AND 33
 OF T6N, R7W., CLATSOP COUNTY, OR

Approximate Net Acreage:
 Area 1 (PC) - 56 Acres
 Area 2 (PC) - 10 Acres
 Area 3 (R/W) - 1 Acre
 Total Sale Acreage = 67 Acres

Approximate Scale = 1" : 1,000'

500 250 0 500 1,000
 Feet



Legend

- Ownership Boundary
- Timber Sale Area
- Paved Road
- Existing Surfaced Road
- New Road Construction
- Type N Stream
- Type F Stream
- Posted Buffer Zone
- Non-Posted Stream Buffer
- Controlled Felling Area
- Reforestation Area
- Right-of-Way Boundary
- Registered Water Use Site
- Stockpile Site
- New Landing Construction
- Known Land Survey Corner
- Pt. "A" Point for Project Work

