



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Haulin Wolf
Sale 341-08-50

District: West Oregon

Date: November 21, 2007

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$560,633.40	\$0.00	\$560,633.40
		Project Work:	\$(12,834.00)
		Advertised Value:	\$547,799.40



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timber description

Location: Portions of Sections 28, 29, and 32, T11S, R8W, W.M., Lincoln County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	24	0	98

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	1,313	274	33	1,620
Total	1,313	274	33	1,620

comments: Pond Values Used: 3rd Quarter Calendar Year 2007.

Western Hemlock and Other Conifers Stumpage Price = Pond Value
minus Logging Cost
 $\$201.94/\text{MBF} = \$380/\text{MBF} - \$178.06/\text{MBF}$

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost
 $\$821.94/\text{MBF} = \$1,000/\text{MBF} - \$178.06/\text{MBF}$

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus
Logging Cost
 $\$496.94/\text{MBF} = \$675/\text{MBF} - \$178.06/\text{MBF}$

HAULING

Hauling costs equivalent to \$700 daily truck cost.

OTHER COSTS (with Profit and Risk to be added):

Substitute Earth Anchors (10 anchors x \$150/anchor) = \$1,500

TOTAL Other Costs (with Profit and Risk to be added) = \$1,500

OTHER COSTS (No Profit and Risk added):

Fire Trail Construction = \$2,781

Slash Throwback = \$599

Slash Piling = \$2,500

Firewood Sorting - 3 Landings = \$360

TOTAL Other Costs (No Profit and Risk added) = \$6,240



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logging conditions

combination#:	1	Douglas - Fir	82.11%
yarding distance:	Medium (800 ft)		downhill yarding: No
logging system:	Cable: Large Tower >=70		Process: Manual Delimbing
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
loads / day:	8.0	bd. ft / load:	4,500
cost / mbf:	\$102.60		
machines:	Log Loader (A) Tower Yarder (Large)		
combination#:	2	Douglas - Fir	17.89%
yarding distance:	Short (400 ft)		downhill yarding: No
logging system:	Track Skidder		Process: Manual Felling/Delimbing
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
loads / day:	10.0	bd. ft / load:	4,500
cost / mbf:	\$76.45		
machines:	Log Loader (B) Track Skidder		



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logging costs

Operating Seasons:	1.00	Profit Risk:	15.00%
Project Costs:	\$12,834.00	Other Costs (P/R):	\$1,500.00
Slash Disposal:	\$0.00	Other Costs:	\$6,240.00

Miles of Road

Road Maintenance: \$2.16

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



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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									
\$97.92	\$2.20	\$2.71	\$45.99	\$0.93	\$22.46	\$0.00	\$2.00	\$3.85	\$178.06

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$524.13	\$346.07	\$0.00



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summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,620	\$346.07	\$560,633.40

Gross Timber Sale Value

Recovery: \$560,633.40

Prepared by: Dave Wiger

Phone: 541-929-3266

SUMMARY OF ALL PROJECT COSTS

Sale Name: Haulin Wolf

Date: October 2007

Time: 15:13

Project #1 - New Construction

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
D to D1	3.9 sta	\$659

TOTALS

3.9 sta

\$659

Project #2 - Improvements

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A to B	118.9 sta	\$6,451
C to D	49.4 sta	\$2,119
C1 to C2	6.6 sta	\$806

TOTALS

174.9 sta

\$9,376

Project #3 - Post Harvest Activities

Landing patch rock and turnaround rock

\$1,334

Move in

	<u>Cost</u>	<u>On-site move</u>
Crawler tractor, D-7 or equiv.	\$488	
Grader, Cat 14-G or equiv.	\$304	\$40
Backhoe x2 (Project 2&3)	\$608	\$25

TOTAL

\$1,465

GRAND TOTAL

\$12,834

Compiled by C. Humcke

Date 10/18/2007

TIMBER SALE SUMMARY

Sale Name: Haulin Wolf, 341-08-50

Sale Type: Modified Clearcut; recovery; 36 acres net; 99% CSL, 1% BOF

Sale Area: Portions of Section 28, 29, & 32, T11S, R8W, W.M., Lincoln County, Oregon.

Access: From Philomath, travel west on Hwy. 20 approximately 17 miles to Burnt Woods. Turn south on Burnt Woods-Harlan Rd. and travel southwest 2 miles to Burnt Woods Ridge Rd (Pt "A").

To access Area I, turn north on the Burnt Woods Ridge Rd. and follow it 2 miles to reach the northeast corner of the unit.

To access Area II, continue southwest on the Burnt Woods-Harlan Rd. an additional 2 miles to an unnamed logging road (Pt "C"). Travel northwest on this road 0.9 miles, staying to the left at junctions to get to Point C1. **There is a locked gate on this road which will require a key to be checked out at the Philomath Office.**

Boundary Lines: The exterior boundaries of Areas I and II are posted with "Timber Sale Boundary" signs, fluorescent pink flagging, and fluorescent red paint. Stream buffers are posted with "Buffer Zone" signs, fluorescent pink flagging, and fluorescent red paint. Right-of-way boundaries are posted with "Right-of-Way" signs and fluorescent pink flagging. Small reserve tree leave areas along the outside of Areas I and II are posted out of the sale. However, the acreage of the reserve tree leave areas is included in the gross acres for the units.

Timber Description: The timber in this two unit sale is primarily Douglas-fir with some red alder present. Older, larger Douglas-fir (40+"") have been posted out of Areas I and II, or if they are located within the harvest units, have been marked with fluorescent red paint for retention.

Area I is approximately 23 acres net (24 acres gross) that is primarily a Douglas-fir unit. The average age of the timber available for harvest is 69 years. The DBH of the Douglas-fir is 26 inches.

Area II is approximately 13 acres net (15 acres gross) that is primarily a Douglas-fir unit. The average age of the timber available for harvest is 62 years. The DBH of the Douglas-fir is 23 inches.

New road construction on PRIVATE timber land adjacent to Area II will require removal of several trees to build the access roads. PURCHASER is required to keep this timber separate from sale area timber and deck the logs in a location that will be accessible to a self-loader log truck.

Topography: Area I has a ridge along the north boundary. The aspect for this area is south. All of this unit will require cable logging. There are two low spur ridges running south off the main ridge. Slopes within the unit exceed 100% in several places for short distances.

Area II has a ridge along the east boundary and a valley bottom along the west boundary. The general aspect for this area is southwest. There are two sharp draws that start in the unit and run west to the valley bottom. Slopes within the unit are generally less than 65%, with several benches in the south end.

Streams: For Area I, a type N stream originates mid-slope along the west boundary and flows south and east around the southwest corner of the unit. It is posted out of the unit with a 50' buffer.

In Area II, two type "N" tributaries have been posted with "Buffer Zone" signs, fluorescent pink flagging, and fluorescent red paint within the unit. A type F stream to the west of the unit is posted out. A 100+’ buffer has been left along the type F stream and 50’ buffers have been left along the type N streams. Additional trees have been reserved next to these buffers.

Reserve Trees: Reserve trees within Areas I and II are marked with fluorescent red paint. To meet the target of 8 to 10 leave trees per acre, trees are posted out of the sale along the boundaries and marked within the units. A total of 362 trees have been reserved. Of this total, 212 trees are marked within the sale unit boundaries. Snag and down wood creation is not required in the contract.

T & E Surveys: Areas I and II were surveyed to protocol for northern spotted owls and marbled murrelets as of the summer of 2007.

Logging Methods: Areas I and II will be logged using a combination of cable and ground based logging systems.

Area I – Cable landings along the ridge road will be used to log 100% of the unit. Substitute earth anchors may be required for guylines and have been costed for in the logging appraisal.

Area II – Cable landings along the east ridge and on the south benches will be used to log about 70% of the unit. The remaining 30% of the unit may be logged using ground based systems if weather and soil moisture permit. Tailholding across the type F stream may be required to log the unit. STATE has completed a written plan for PURCHASER that addresses this concern. The written plan also addresses log hauling within 100’ of the type F stream near the Burnt Woods-Harlan Road.

Project Work:

1. Road Construction 0.1 miles
2. Road Improvement 3.3 miles
3. Post Harvest Activities

Other Requirements:

- Fire trailing Area I and slash pullback around reserve trees. (ODF burn)
- Mechanical slash piling in Area II. (16 hrs. machine time)
- Private R/W requirements for Area II: insurance, maintenance, wear replacement rock, and decking privately owned logs.
- Firewood sorting is required on 3 landings (3hrs. loader time)

Cruise Summary:**Volume Summary**

Species	Gross Volume (MBF)	Net Volume (MBF)	Percent hidden defect & breakage	Final Adjusted Volume (MBF)
Douglas-fir	1,713	1,705	5%	1,620

Grade by Percent

Species	2-Saw	3- Saw	4-Saw
Douglas fir	81	17	2

Cruise Method: Big BAF Variable Plot cruise. A total of 36 plots in Area I on a 2 x 3 chain grid and 35 plots in Area II on a 2 x 2 chain grid were sampled.

Discussion: The cruise design was based on district knowledge and pre-cruise plot data. Equipment used included Spencer loggers tape, Biltmore stick, Spiegel- relaskop, and range finders. Plot and line spacing were maintained using aerial photo, hand compass, and pacing. In big BAF cruising a small basal area factor (BAF) is selected to get basal area data on a stand, then a large BAF is used to randomly select trees for height measurement and grading.

In Areas I and II, all take trees were selected by counting the number of "in" trees at each plot using a BAF of 40. All of the trees that fell in a 160 BAF plot were measured and graded.

Tree Form: Form point is at 16 feet. Form factors for each Douglas-fir measure tree were taken with a relaskop using a bars at form point over bars at breast height ratio and averaged over the sample.

Measurement Standards: Heights were measured in feet to the top of the merchantable bole with a minimum diameter of 6 inches or 25% of DBH. If the merchantable bole ended before the minimum diameter cutoff was reached, then the outside diameter at that point was measured using a relaskop and recorded on the cruise cards. Diameters were measured at breast height and recorded to the nearest inch.

Grading System: All trees were graded using the segment grading system. Trees were graded using 40' segment lengths unless breakage, defect or length to top of grade warranted otherwise. A total of 86 Douglas fir were measured and

graded. An additional 200 Douglas fir were counted on plots for basal area calculations.

Utilization Standards: A minimum log segment 6" diameter inside bark at the small end by 13' in length was used. Only trees with a 7" minimum DBH and a minimum bole length of 13' and larger were cruised.

Hidden D & B: A hidden defect and breakage adjustment of 5% on the sale was applied to net cruise volumes.

Computation Procedures: All sampled cruise data was recorded on plot cards and entered into a State Forests computer at the Philomath office for processing. All Big BAF data entry and computations were done by the District Cruise Specialist. SuperAce was used to determine V-Bar and volume per acre by grade. Sale volumes were calculated using 39 acres for the sale.


Cruisers and dates: The sale was cruised by Borg, McKinley, McMinds, Moore, Hunt, Humcke, Doyal, and Wiger during August of 2007.

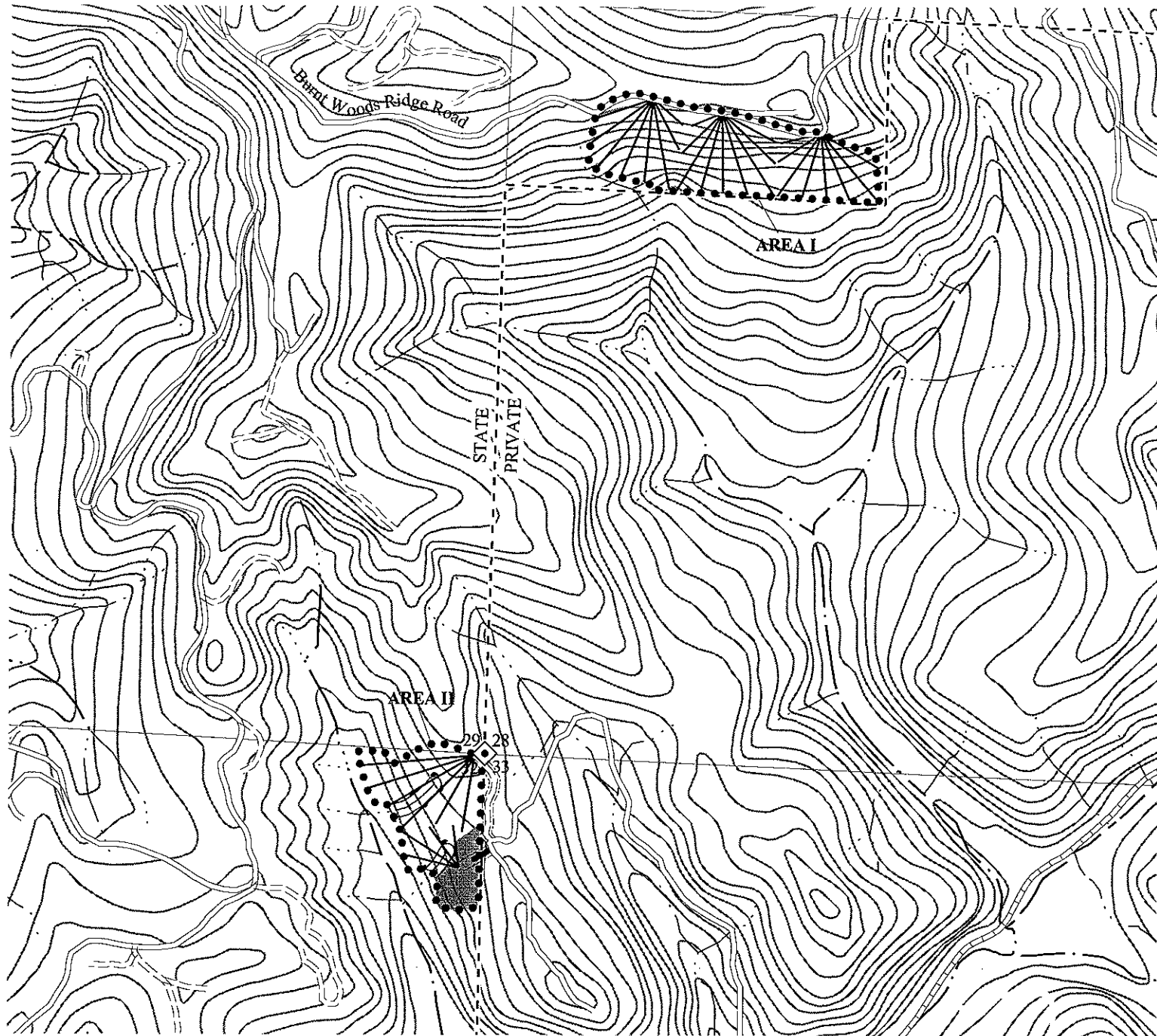
Signatures:

Cruise Specialist:

_____

Unit Forester:

_____



LEGEND

Boundaries

- Timber Sale Boundary
- Right of Way Boundary (Posted)
- - - - State Forest Property Boundary

Roads

- ==== County Road
- ===== Surfaced Road
- Unsurfaced Road
- New Construction

Streams

- Type F
- Type N

Stream Buffer

- Posted

Yarding Method

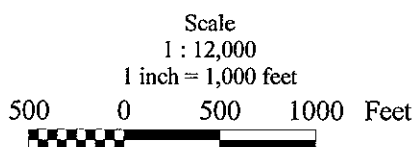
- Cable Corridor
- Tractor Yarding Area
- ◆ Land Survey Monument
- 40 Foot Contours

LOGGING PLAN

OF TIMBER SALE CONTRACT #341-08-50
HAULIN WOLF
PORTIONS OF SECTIONS 28, 29, & 32, T11S, R8W, W.M.
LINCOLN COUNTY, OREGON

This product is for informational use and may not have been prepared for or be suitable for legal, engineering or surveying purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of the information.

AREA	NET ACRES TRACTOR	NET ACRES CABLE
I	0	23
II	4	9
TOTAL	4	32



N

