



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Double Barrel
Sale 341-09-34

District: Coos

Date: July 07, 2008

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$202,872.90	\$8,928.06	\$211,800.96
		Project Work:	\$(12,715.00)
		Advertised Value:	\$199,085.96



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timber description

Location: Portions (NE 1/4) of Section 3, T23S, R10W, W.M., Douglas County, Oregon.
Approximately 2 miles up the 7700 road of the Elliott State Forest.

Stand Stocking: 80%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	15	0	95
Western Hemlock / Fir	21	0	90
Alder (Red)	12	0	90

Volume by Grade	12"+	2S	3S	3S 12"+	4S	5" - 7"	8" - 9"	Total
Douglas - Fir	0	302	463	60	181	0	0	1,006
Western Hemlock / Fir	0	29	33	62	13	0	0	137
Alder (Red)	10	0	0	0	0	20	4	34
Total	10	331	496	122	194	20	4	1,177



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comments: Pond Values Used: 2nd Quarter Calendar Year 2008.

Regeneration harvest containing approximately 66 acres of 46 year-old third growth Douglas-fir/hemlock/hardwood mix.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost
 $\$765/\text{MBF} = \$1,000/\text{MBF} - \$235/\text{MBF}$

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$4.50/\text{Gallon}$

HAULING COST ALLOWANCE

Hauling costs equivalent to \$700 daily truck cost.

Other Costs (Profit and Risk to be added):

Directional Felling/Tree Jacking: $\$2/\text{tree} \times 10 \text{ trees} = \20

Brand & Paint Logs: $\$1/\text{MBF} \times 1,072 \text{ MBF} = \$1,072$

Cull Sorting/Slash Piling on Landings: $\$125/\text{hour} \times 3 \text{ landings} = \375

Artificial Guy Anchors (dozer, skidder): $\$500/\text{anchor} \times 3 \text{ anchors} = \$1,500$

Additional Fire Equipment: $\$2,000/\text{season} \times 1 \text{ season} = \$2,000$

TOTAL Other Costs (Profit and Risk to be added) = $\$4,967$



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logging conditions

combination#: 1 Douglas - Fir 100.00%
 Western Hemlock / Fir 100.00%
 Alder (Red) 100.00%

yarding distance: Long (1,500 ft) **downhill yarding:** No

logging system: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 6.0 **bd. ft / load:** 4,500

cost / mbf: \$123.86

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)



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logging costs

Operating Seasons:	0.00	Profit Risk:	15.00%
Project Costs:	\$12,715.00	Other Costs (P/R):	\$4,967.00
Slash Disposal:	\$0.00	Other Costs:	\$0.00

Miles of Road

Road Maintenance: \$0.00

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	1.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	4.5
Western Hemlock / Fir	\$0.00	2.0	4.5
Alder (Red)	\$0.00	2.0	3.5

Local Pond Values

Date	Specie	Grade	Value
7/7/08	Western Hemlock / Fir	2S	\$420.00
7/7/08	Western Hemlock / Fir	3S	\$390.00
7/7/08	Western Hemlock / Fir	3S 12"+	\$200.00
7/7/08	Western Hemlock / Fir	4S	\$370.00



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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									
\$123.86	\$1.07	\$0.00	\$71.01	\$4.22	\$30.02	\$0.00	\$5.00	\$0.00	\$235.18
Western Hemlock / Fir									
\$123.86	\$1.12	\$0.00	\$74.39	\$4.22	\$30.54	\$0.00	\$5.00	\$0.00	\$239.13
Alder (Red)									
\$123.86	\$1.12	\$0.00	\$95.66	\$4.22	\$33.73	\$0.00	\$5.00	\$0.00	\$263.59

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$427.40	\$192.22	\$0.00
Western Hemlock / Fir	\$0.00	\$308.47	\$69.34	\$0.00
Alder (Red)	\$0.00	\$526.18	\$262.59	\$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
Alder (Red)	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,006	\$192.22	\$193,373.32
Western Hemlock / Fir	137	\$69.34	\$9,499.58
Alder (Red)	34	\$262.59	\$8,928.06

Gross Timber Sale Value

Recovery: \$211,800.96

Prepared by: Nickolus Morris

Phone: 541-267-1756

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Double Barrel

Additional "Other Cost" with additional profit and risk to be added:

	<u>Units</u>	<u>Quantity</u>	<u>Cost/unit</u>	<u>Total Cost</u>
Felling				
Directional Felling/Tree Jacking	MBF	10	\$ 2.00	\$ 20.00
Felling of unmerch material	MBF	0	\$ 1.00	\$ -
Yarding and Loading				
Brand and paint logs	MBF	1,072	\$ 1.00	\$ 1,072.00
Cull sorting/slash piling on landings	landing	3	\$ 125.00	\$ 375.00
Rig lift trees	lift tree	0	\$ 100.00	\$ -
Artificial guy anchors(dozer, skidder)	anchor	3	\$ 500.00	\$ 1,500.00
Skid Road Layout	MBF	0	\$ 10.00	\$ -
Miscellaneous Costs				
Log Placement in Stream	Crossings	0	\$ 505.00	\$ -
Additional fire equipment	Seasons	1	\$ 2,000.00	\$ 2,000.00
Maintenance rock per section 2610	Cubic Yards	0	\$ 18.00	\$ -
Safety Flagging and/or signing	per day	0	\$ 110.00	\$ -
Tree topping	per tree	0	\$ 100.00	\$ -
Tree Girdling @ DBH	per tree	0	\$ 50.00	\$ -
Total additional "Other Cost" with additional profit and risk to be added				\$ 4,967.00

SUMMARY OF CONSTRUCTION COST
Double Barrell

Project 1A: Landing Construction

Points: C Length: n/a Type: n/a

Excavator	10	hrs at	\$120.00	per hour	\$1,200.00
Cat time	10	hrs at	\$120.00	per hour	\$1,200.00
Laborer	10	hrs at	\$30.00	per hour	\$300.00

Total Project 1A: \$2,700.00

Project 1B: Landing Construction

Points: D Length: n/a Type: n/a

Excavator	10	hrs at	\$120.00	per hour	\$1,200.00
Cat time	10	hrs at	\$120.00	per hour	\$1,200.00
Laborer	10	hrs at	\$30.00	per hour	\$300.00

Total Project 1B: \$2,700.00

Move-in

Equipment	Miles	hrs/RT	Lowboy Rate/hr	Total
Excavator	40	3.5	\$95.00	\$332.50
Cat	40	3.5	\$95.00	\$332.50
Grader	40	3.5	\$95.00	\$332.50
Dump Truck	40	3.5	\$95.00	\$332.50

Total Move-in: \$1,330.00

Project 1 Total \$6,730.00

Project 2: Road and Landing Improvement

Points: A to B Length: 275' Type: 14' no ditch

Excavator - remove small trees and brush	5	hrs at	\$120.00	per hour	\$600.00
Cat time	5	hrs at	\$120.00	per hour	\$600.00
Grader time	1	hrs at	\$75.00	per hour	\$75.00
Laborer	5	hrs at	\$30.00	per hour	\$150.00

Project 2 Total \$1,425.00

Project 3A: Road Surfacing

Points: 7000 & 7700 Roads

1 1/2" rock for maintenance on 7700 rd for after new const at Pt C (3.0 hr RT)	34	yds at	\$22.86	per yd	\$777.24
1 1/2" rock for maintenance on 7000 rd for after new const at Pt D (3.1 hr RT)	34	yds at	\$23.34	per yd	\$793.56
Grader time for rock surfacing	2	hrs at	\$75.00	per hour	\$150.00

Total Project 3A: \$1,721.00

SUMMARY OF CONSTRUCTION COST
Double Barrell

Project 3B: Road Surfacing

Points: 7000 & 7700 Roads

1 1/2" rock for maintenance on 7700 rd for after logging at Pt C (3.0 hr RT)	<u>51</u>	yds at	<u>\$22.86</u>	per yd	<u>\$1,165.86</u>
1 1/2" rock for maintenance on 7000 rd for after logging at Pt D (3.1 hr RT)	<u>51</u>	yds at	<u>\$23.34</u>	per yd	<u>\$1,190.34</u>
Grader time for rock surfacing	<u>2</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$150.00</u>
Grader move-in	<u>3.5</u>	hrs at	<u>\$95.00</u>	per hour	<u>\$332.50</u>

Total Project 3B: \$2,839.00

Project 3 Total \$4,560.00

Total Project Costs \$12,715.00

TIMBER SALE SUMMARY

Double Barrel

1. **Type of sale:** Final harvest; Recovery, Sealed Bid.
2. **Boundary Lines:** Sale boundaries are marked on the ground with "Timber Sale Boundary" posters, red paint, and red flagging at locations shown on the Exhibit A.
3. **Revenue Distribution:** 100% CSL.
4. **Sale Acreage:** The total sale area is 66 net acres. Buffer areas are posted outside the sale area and are not included in the net acreage calculation. The acreage was determined using orthophoto imagery on the ARCMAP Geographic Information System program.
5. **Volume by Species, Fund, and County:** See attached table.
6. **Grade by Percent:**

Species	3 Peeler	Special Mill *(12"+)	2 Saw *(10"-12")	3 Saw *(8"-10")	3 Saw Large Diameter	4 Saw *(6"-8")
Douglas-fir			30%	46%	06%	18%
Red Alder		(29%)		(12%)		(59%)
Western Hemlock			21%	24%	45%	10%
W. Red Cedar						

*Numbers in parenthesis represent alder/hardwood grades

7. **Cruise:** This unit was variable plot cruised using the Big BAF cruise design, which consisted of 41 nested plots. Each plot has both a full 20 BAF count plot and a full 250 BAF measure plot. The 20 BAF count plot was used to tally the number of trees by species to determine the stand basal area. The 20 BAF plot was also used to cruise hardwoods and other minor species. The 250 BAF plot was used to obtain Douglas-fir trees to cruise. Selected trees were cruised for diameter at breast height, height, grade and defect. Forty-two Big BAF Douglas-fir trees were cruised for diameter, height, grade and defect. The cruise was analyzed using the SuperACE cruising program.

A. Cruise Summary Data:

Diameter	Top Diameter	Form Point	Form Factor	CV %	SE%
D4H	Total Height	Conifer: 16' Hardwood: 16'	Estimated or measured on all trees	79.1	11.14

B. Stand Summary:

Species	D4H	Trees per Acre	Basal Area (ft ² /ac)	Net BF per acre
Douglas-fir	15	91	115	15,240
W. Hemlock	21	6	15	2,080

C. **Green Tree Retention Summary:** Most green trees were posted outside of the timber sale, except some scattered and grouped trees which were removed from the cruise. These scattered trees are marked with a "W" in red.

8. **Timber Description:** The sale area is composed of 37 to 44 year-old Douglas-fir with a minor component of western hemlock, red alder, and big leaf maple scattered throughout the understory and draws. Conifers range from 50 to 125 feet tall while hardwoods are about 20 to 60 feet.
9. **Topography:** The sale area is highly dissected with steep east facing slopes, narrow ridge tops, short benches and confined canyons. The majority of the sale area averages approximately 70% slope with slopes averaging 15% on the short benches.
10. **Logging Method:** The sale will be cable logged uphill with single-end suspension over the majority of the unit; full suspension will be required over designated streams and RMAs. Tail-trees may need to be placed for yarding some portions of the sale area as approved in the operations plan.
11. **Access:** From Coos Bay travel North on Highway 101 to the town of Reedsport and proceed east on Highway 38 for approximately 13 miles to the Loon Lake Road junction. From here proceed for approximately 6 miles to the 7700 road junction. Once on the 7700 road, proceed for another 2 miles to the timber sale area.

12. Projects:

Project No. 1: Road and landing construction

Project No. 2: Road and landing improvement

Project No. 3: Rock stockpile

NET VOLUMES AND ACREAGE

SALE AREA & SPECIES		Tree cnt. 100% Units	NET VOLUMES (MBF)							
			By County and Fund						Total Vols.	Vol. per Acre
			Coos			Douglas				
Area	Spec		CSL	BOF	Total	CSL	BOF	Total		
	D-fir			0	1006		1006	1006	15.24	
	Hem			0	137		137	137	2.08	
	Cedar			0	0		0	0	0.00	
	Hdwd			0	34		34	34	0.52	
TOTALS			0.00	0	0	1177	0	1177	17.83	

TOTAL SALE VOLUME BY SPECIES

Douglas-fir 1006 MBF
 Hemlock 137 MBF
 Red Cedar 0 MBF
 Hardwoods 34 MBF
 Total 1177

Report by: Nickolus Morris

Date: 04/21/2008

Unit For.

Nickolus Morris 4/24/08
Date

Asst. Dist. For.

Gary Kreimeyer 5.16.2008
Date

UTILITY VOLUME NOT SHOWN TO PROVIDE FOR RETENTION OF DOWN LOGS
NO INGROWTH INCLUDED

ACREAGE BY COUNTY (to nearest acre)

Sale Area	Coos County						Douglas County						TOTAL ACRES
	CSL			BOF			CSL			BOF			
	Conifer		Hard wood	Conifer		Hard woods	Conifer		Hard woods	Conifer		Hard woods	
	cc	pc		cc	pc		cc	pc		cc	pc		
63							63						66
SUM	0	0	0	0	0	0	63	0	0	0	0	0	66

cc- clearcut

pc- partial cut

BOF - Board of Forestry

CSL - Common School Land

CRUISE VOLUME COMPUTATION REPORT

SALE NAME: Double Barrel

DATE: 01/08/08

BY: Nick Morris

GROSS VOLUME MBF *

SPECIES>>	Doug-fir	Hemlock	r. cedar	Hardwds	TOTAL
	1120	160	0	48	1328
less retention vol	44	4	0	9	57
down wood	15		0	0	15
TOTAL	1061	156	0	39	1256

DEFECT AND BREAKAGE

Species	Doug-fir	Hemlock	Hardwds	Cedar
Field cull	0.03	0.03	0.03	0.03
Hidden cull	0.01	0.07	0.07	0.07
Breakage	0.01	0.01	0.01	0.01
TOTAL	0.05	0.11	0.11	0.11

NET VOLUME BY MBF BY AREA*

SPECIES	Doug-fir	Hemlock	r. cedar	Hardwds	TOTALS
	1007.95	138.84	0.00	34.71	1182
TOTALS	1007.95	138.84	0.00	34.71	1182

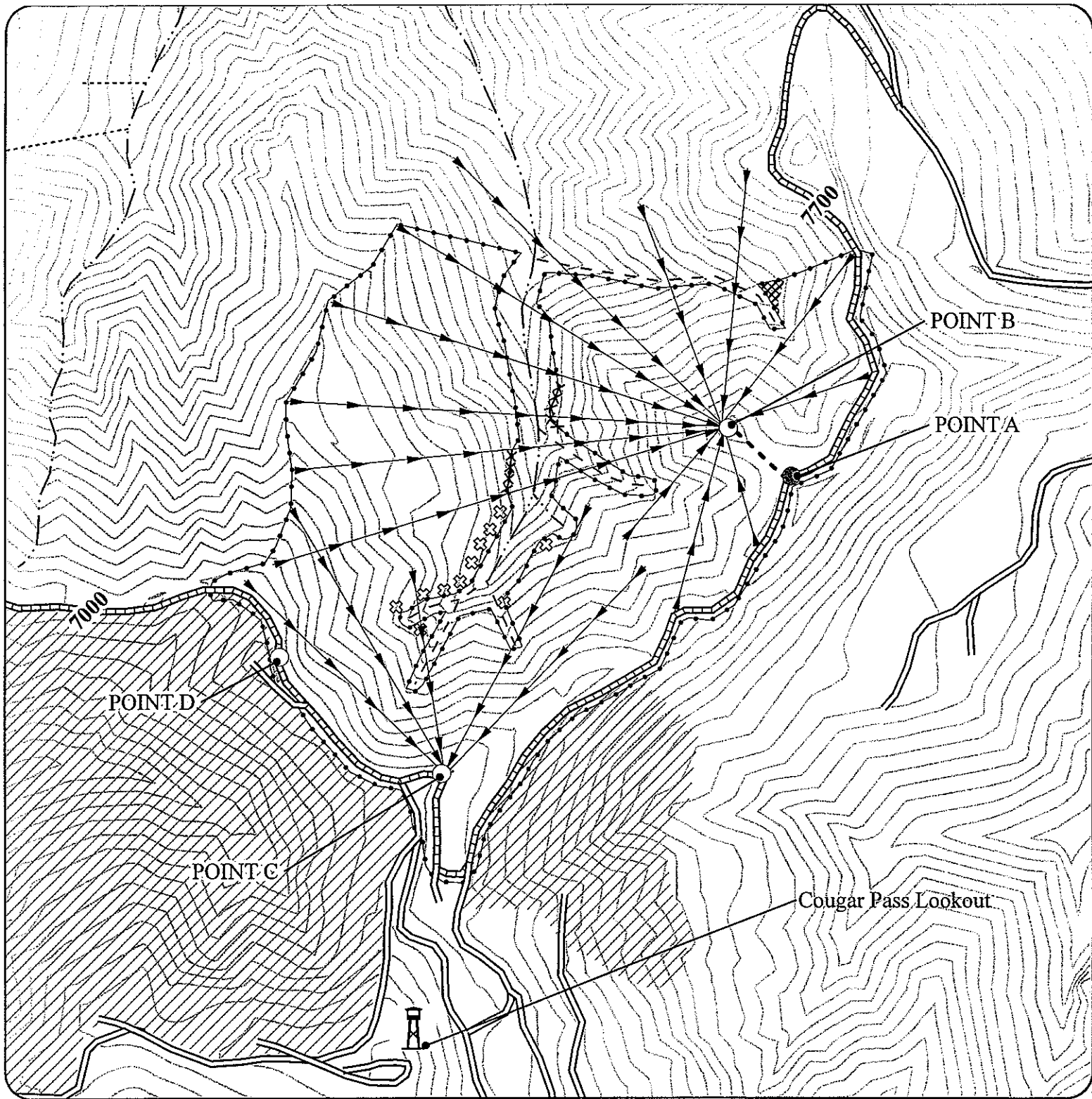
NET VOLUME BY GRADE AND MBF *

Grade >>>>>>>>>>	2PEE	3PEE	S.M. (12+)	2SAW (10-12)	3SAW (8-10)	Big 3 SAW	4SAW (6-8)	check
Doug-Fir	0.00	0.00	0.00	302.39	463.66	60.48	181.43	*1006
Hemlock	0.00	0.00	0.00	29.16	33.32	62.48	13.88	*137
R. Cedar	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
Hdwds	0.00	0.00	10.07	0.00	4.17	0.00	20.48	*34
								*1177

GRADE DISTRIBUTION BY PERCENT

Grade >>>>>>>>>>	2PEE	3PEE	S.M. (12+)	2SAW (10-12)	3SAW (8-10)	Big 3 SAW	4SAW (6-8)	check
Doug-fir	0.00%	0.00%	0.00%	30.00%	46.00%	6.00%	18.00%	100.00%
Hemlock	0.00%	0.00%	0.00%	21.00%	24.00%	45.00%	10.00%	100.00%
Cedar	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Hdwds	0.00%	0.00%	29.00%	0.00%	12.00%	0.00%	59.00%	100.00%

* Decimal points have been dropped from final volumes.



LEGEND

- | | |
|------------------------------|--------------------------------|
| ○ Landing | ~ Type F Perennial |
| ● Road Point | ~ Type N Perennial |
| --- Boundary | ~ Type N Seasonal, High Energy |
| ⊗ No Boundary | ~ Type N Seasonal |
| → Yarding Roads | ⊗ Single GTR |
| - - - New Road Construction | ⊗ Grouped GTR |
| ▨ Purchaser Maintained Roads | ▨ Reforestation Area |
| ▨ State Maintained Roads | ~ 40 Foot Contours |

LOGGING PLAN

OF TIMBER SALE CONTRACT #: 341-09-34
 DOUBLE BARREL
 PORTIONS OF SECTION 3, T23S, R10W, W.M.
 DOUGLAS COUNTY, OREGON

APPROXIMATELY 66
 NET HARVEST ACRES



The information shown on the Exhibit A map(s) are approximate locations. Exact locations of features represented by map symbols shall be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.

