



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Locked Marlow Sale 341-07-61

District: Coos

Date: 11/2/06

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$121,701.69	\$166,714.48	\$288,416.17
		Project Work	(\$10,938.00)
		Advertised Value	\$277,478.17



Timber Sale Appraisal

Timber Description

Locked Marlow

Sale 341-07-61

"STEWARDSHIP IN FORESTRY"

District: Coos

Location: Portions of Sections 27 & 28, T24S, 11W, W.M., Coos County, Oregon.

Date: 11/2/06

Stand Stocking: 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	18	0	95
Western Hemlock / Fir	13	0	95
Alder (Red)	14	0	90

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Alder (Red)	Total
SM	10	0	0	10
2S	224	0	0	224
3S	98	0	0	98
3S 12"+	8	0	0	8
4S	11	1	0	12
6"	0	0	83	83
8" - 9"	0	0	100	100
10" - 11"	0	0	291	291
12"+	0	0	110	110
Total	351	1	584	936

Comments: Pond Values Used: 3rd Quarter Calendar Year 2006.

Western Red Cedar Stumpage Price = Pond Value minus Logging Costs.
 $\$570/\text{MBF} = \$825/\text{MBF} - \$255/\text{MBF}$

Hauling costs adjusted to make equivalent to \$700 daily truck cost.

Hauling Cost Calculation Conifers:

$\$700 - \% \text{ Profit \& Risk } (\$700 / 1.15) = \$608 \text{ Daily Truck Cost.}$

$\$608 \text{ Daily Truck Cost} / (3 \text{ trips per day} \times 4.5 \text{ MBF per load}) = \$45.04/\text{MBF Hauling Cost.}$

Hauling Cost Calculation Hardwoods:

$\$700 - \% \text{ Profit \& Risk } (\$700 / 1.15) = \$608 \text{ Daily Truck Cost.}$

$\$608 \text{ Daily Truck Cost} / (3 \text{ trips per day} \times 3.5 \text{ MBF per load}) = \$57.91/\text{MBF Hauling Cost.}$

Other Costs (See attached sheet).



Timber Sale Appraisal Logging Conditions Locked Marlow Sale 341-07-61

"STEWARDSHIP IN FORESTRY"

Combination#: 1 Douglas - Fir 100.00%
 Western Hemlock / Fir 100.00%

Yarding Distance: Long (1,500 ft) **Downhill Yarding:** No
Logging System: Cable: Large Tower >=70 **Process:** Manual Delimiting
Tree Size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
Loads/Day: 6 **Bd. Ft./Load:** 4,000
Cost/MBF: \$147.92

Machines:
 Log Loader (A)
 Tower Yarder (Large)

Combination#: 2 Alder (Red) 100.00%

Yarding Distance: Long (1,500 ft) **Downhill Yarding:** No
Logging System: Cable: Large Tower >=70 **Process:** Manual Delimiting
Tree Size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
Loads/Day: 6 **Bd. Ft./Load:** 4,000
Cost/MBF: \$147.92

Machines:
 Log Loader (A)
 Tower Yarder (Large)



Timber Sale Appraisal

Logging Costs

Locked Marlow

Sale 341-07-61

"STEWARDSHIP IN FORESTRY"

Date: 11/2/06

Operating Seasons: 0.5

Profit & Risk: 15%

Project Costs: \$10,938

Other Costs (P/R): \$12,036

Slash Disposal: \$0

Other Costs: \$8,660

Road Maintenance: \$0.00

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
0.7	0.0	0.0	0.0

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$45.04	3.0	4.5
Western Hemlock / Fir	\$45.04	3.0	4.5
Alder (Red)	\$57.91	3.0	3.5

Local Pond Values

Date	Species	Grade	Value
11/2/06	Douglas - Fir	SM	\$700.00
11/2/06	Douglas - Fir	2S	\$620.00
11/2/06	Douglas - Fir	3S	\$565.00
11/2/06	Douglas - Fir	3S 12"+	\$370.00
11/2/06	Douglas - Fir	4S	\$545.00
11/2/06	Western Hemlock / Fir	4S	\$410.00
11/2/06	Alder (Red)	6"	\$355.00
11/2/06	Alder (Red)	8" - 9"	\$535.00
11/2/06	Alder (Red)	10" - 11"	\$590.00
11/2/06	Alder (Red)	12"+	\$645.00



Timber Sale Appraisal Logging Costs Breakdown Locked Marlow Sale 341-07-61

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
Logging	147.92	147.92	147.92
Road Maintenance	0.22	0.22	0.23
Fire Protection	1.45	1.45	1.45
Hauling	47.41	47.41	64.34
Other (P/R appl.)	12.86	12.86	12.86
Profit & Risk	31.48	31.48	34.02
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	2.00
Other	9.25	9.25	9.25
Total	252.59	252.59	272.07

Amortization	0.00	0.00	0.00
Pond Value	598.87	410.00	557.54
Stumpage	346.28	157.41	285.47
Amortized	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Locked Marlow Sale 341-07-61

Amortized

	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
MBF	0.00	0.00	0.00
Value	0.00	0.00	0.00
Total	0.00	0.00	0.00

Unamortized

	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
MBF	351.00	1.00	584.00
Value	346.28	157.41	285.47
Total	121,544.28	157.41	166,714.48

Gross Timber Sale Value

Recovery \$288,416.17

Prepared by: Norma Kline

Date: 11/2/06

District: Coos

Phone: (541) 267-1754

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Locked Marlow

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				
Felling of unmerch material	MBF	0	\$ 1.00	\$ -
Directional Felling	MBF	400	\$ 2.00	\$ 800.00
Yarding and Loading				
Artificial guyline support	anchor	0	\$ 500.00	\$ -
Brand and paint logs	MBF	936	\$ 1.00	\$ 936.00
Loader time for firewood stacking	Hours	0	\$ 75.00	\$ -
Snag Creation				
Tree Topping	Trees	21	\$ 100.00	\$ 2,100.00
Miscellaneous Costs				
Log Placement in Stream	Crossings	0	\$ -	\$ -
Additional Fire Equipment	Seasons	0.5	\$ 1,000.00	\$ 500.00
Maintenance rock per section 5	Cubic Yards	0	\$ 18.00	\$ -
Safety Flagging and/or signing	per day	70	\$ 110.00	\$ 7,700.00
Total additional "Other Cost" with additional profit and risk to be added				\$ 12,036

Additional "Other Cost" with no additional profit and Risk

	<u>Units</u>	<u>Quantity</u>	<u>Cost/unit</u>	<u>Total Cost</u>
Log Placement in Stream				
Non-required road construction	Stations		\$	-
Non-required road rocking	Cubic Yards		\$	-
Stream clearance	Feet		\$	-
Scaling (high piece count)	MBF		\$ 1.00	-
Road Easements:				
Weyhaeuser Road Use Fee	MBF	936	\$ 4.43	\$ 4,146.48
Lone Rock Timber, Road Use Fee	MBF	936	\$ 4.08	\$ 3,818.88
Lone Rock Timber, Rock Wear Fee	MBF	936	\$ 0.53	\$ 694.51
Total additional "Other Cost" with no additional profit and Risk				\$ 8,660

SUMMARY OF CONSTRUCTION COST
Locked Marlow

Project 2B: Road and Landing Construction

Points: D to E Length: 390' Type: 14' subgrade no ditch

Excavation

Excavator	<u>10</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$1,200.00</u>
Cat time	<u>15</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$1,800.00</u>
Laborer	<u>15</u>	hrs at	<u>\$30.00</u>	per hour	<u>\$450.00</u>

Total Excavation \$3,450.00

Grader

Grader to smooth road surface	<u>1</u>	hrs at	<u>\$75.00</u>	per hour	<u>\$75.00</u>
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Total Grader \$75.00

Total Project 2B: \$3,525.00

Project 2C: Landing Construction

Points: F Length: n/a Type: n/a

Excavation

Excavator	<u>5</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$600.00</u>
Cat time	<u>5</u>	hrs at	<u>\$120.00</u>	per hour	<u>\$600.00</u>
Laborer	<u>5</u>	hrs at	<u>\$30.00</u>	per hour	<u>\$150.00</u>

Total Excavation \$1,350.00

Total Project 2C: \$1,350.00

Project 2 Total \$9,150.00

Total Project Costs \$10,938.00

TIMBER SALE SUMMARY

Locked Marlow

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:** 74% BOF and 26% CSL; 100% Coos County.
4. **Sale Acreage:** The total sale area is 42 net acres. Grouped green trees and 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 ARCVIEW Geographic Information System program.
5. **Volume by Species, Fund, and County:** See attached table.
6. **Grade by Percent:**

Species	3 Peeler	Special Mill	2 Saw	3 Saw	3 Saw Large Diameter	4 Saw/Camp
Douglas-fir	-----	3 %	63 %	23 %	8 %	3 %
Western Red Cedar	-----	-----	-----	-----	-----	-----
Western Hemlock	-----	-----	-----	-----	-----	100 %
Big Leaf Maple	-----	-----	-----	-----	-----	-----
Red Alder Diameter Classes			12" +	10"-11"	8"-9"	6"-7"
Red Alder	-----	-----	19 %	50 %	-----	31 %

7. **Cruise:** The unit was variable plot cruised using the Big BAF cruise design, which consisted of 87 nested plots. Each plot consists of both a full 40 BAF count plot and a full 250 BAF measure plot. The 40 BAF count plot was used to tally the number of trees by species to determine the stand basal area. The 250 BAF plot was then used to select trees to measure. Selected trees were cruised for diameter at breast height, height, grade and defect. Ninety-seven Big BAF 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	57.9	7.05

B. Stand Summary:

Species	D4H	Trees per Acre	Basal Area (ft ² /ac)	BF per acre
Douglas-fir	18	29	53	10,397
Red Alder	14	129	131	15,328
Big Leaf Maple	17	10	18	901
Western Red Cedar	----	----	----	----
Western Hemlock	13	1	1.4	30

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

8. **Timber Description:** The timber sale is a moderately stocked, primarily alder stand, with pockets of Douglas-fir. The red alder is approximately 55 years old; the second growth Douglas-fir is 71 year old, of good to average quality. Hardwood heights range from 28 to 78 feet tall while conifers range from 62 to 164 feet.

9. **Topography:** The unit ranges from 10% to 90% slope. There are a few benches as well as steep drainages.

10. **Logging Method:** The sale will be cable logged mostly uphill with single-end suspension over the unit; full suspension will be required over designated streams and RMAs. A motorized carriage will be required to obtain the necessary suspension. Tailtrees may need to be placed for yarding the sale area as approved in the operations plan.

11. **Access:** From Coos Bay, proceed east on Coos River Highway for 21 miles, then proceed on Lockhart Ridge Road for about 3 miles to the timber sale area.

12. **Projects:**

Project No. 1: Road and Landing Improvement

Project No. 2: Road and Landing Construction

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			
I	D-fir	88	263	351			0	351	6.26	
	Hdwd	146	438	584			0	584	10.43	
	Cedar		0	0			0	0	0.00	
	Spruce		0	0			0	0	0.000	
	Hemlock			1	1			0	1	0.024
TOTALS				936			0	936		

TOTAL SALE VOLUME BY SPECIES

Douglas-fir	351	MBF
Hemlock	1	MBF
Cedar	0	MBF
Spruce	0	
Hardwoods	584	MBF
Total	936	MBF

Report by: Locked Marlow

Date: 11/17/2005

Unit For. Norm Ellis Jan 3, 06
Date

Asst. Dist. For. Greg Kreimyer 2006.02.10
Date

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

ACREAGE BY COUNTY (to nearest acre)

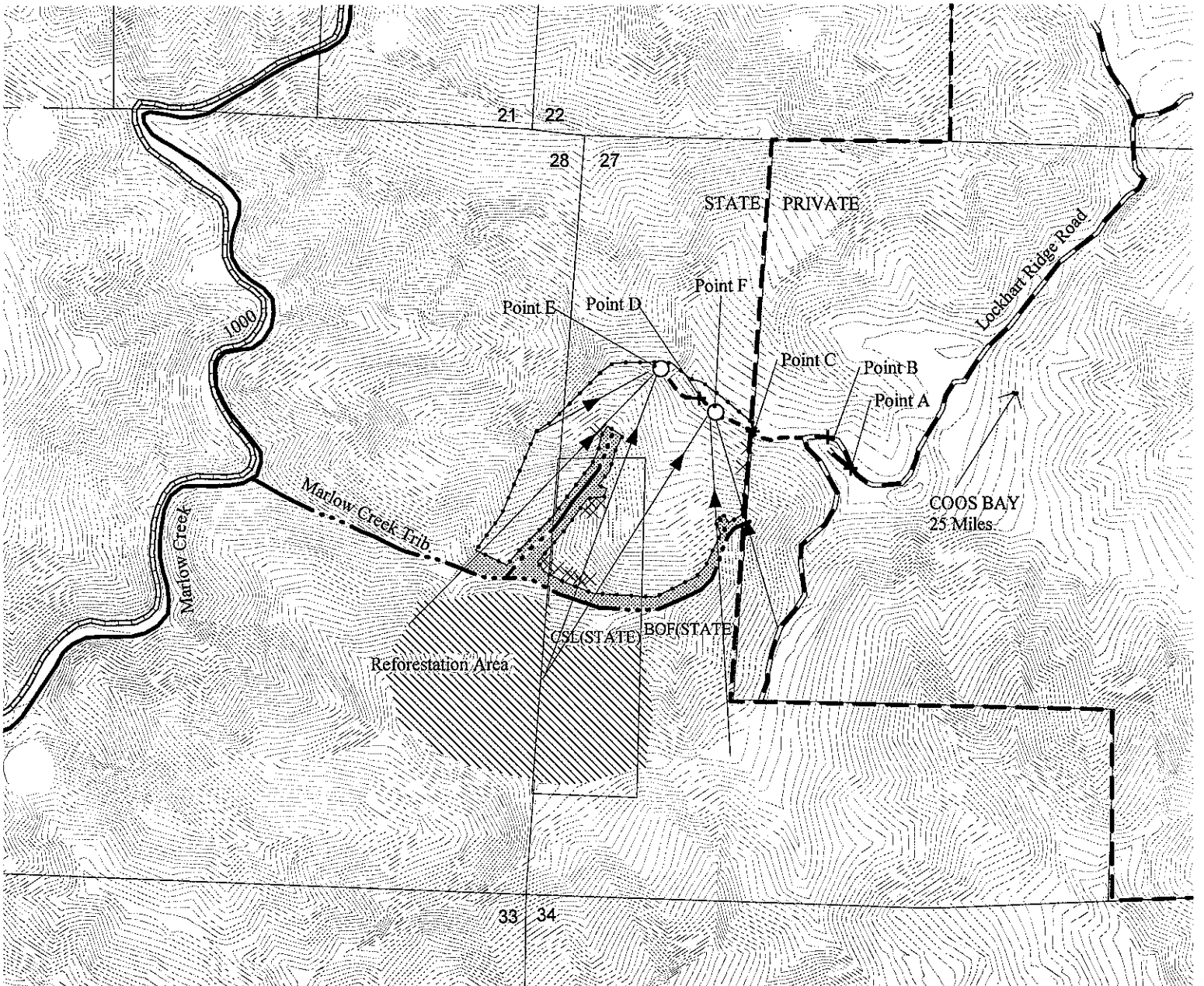
Sale Area	Coos County						Douglas County						TOTAL ACRES	
	CSL			BOF			CSL			BOF				
	Conifer cc	Conifer pc	Hard wood	Conifer cc	Conifer pc	Hard woods	Conifer cc	Conifer pc	Hard woods	Conifer cc	Conifer pc	Hard woods		
I	4		7	12		19								42
														0
														0
														0
SUM	4	0	7	12	0	19	0	0	0	0	0	0	0	42

cc- clearcut

pc- partial cut

BOF - Board of Forestry

CSL - Common School Land



LEGEND

- Landing
- + Project Point
- Posted Sale Boundary
- Elliott State Forest Boundary
- Roads**
- Purchser Maintained (STATE) Roads
- Purchser Maintained (PRIVATE) Roads
- State Maintained Roads
- New Road Construction
- Yarding Corridors
- Contours: 20 Foot
- Streams**
- Type F
- Type N Perennial
- ... Stream Buffer
- /// Reforestation Area
- × Green Tree Retention

LOGGING PLAN

LOCKED MARLOW
 341-07-61
 PORTIONS OF SECTIONS 27 & 28
 T24S, R11W, W.M.
 COOS COUNTY, OREGON
 APPROXIMATELY 42 NET HARVEST ACRES

APPROX. SCALE: 1" = 1000'

