



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Cost Summary Kilo Sale 341-03-83

District: Tillamook

Date: 5/9/03

	Conifer	Hardwood	Total
<b>Gross Timber Sale Value</b>	\$1,431,977.20	\$0.00	\$1,431,977.20
		<b>Project Work</b>	(\$143,783.00)
		<b>Advertised Value</b>	\$1,288,194.20



# Timber Sale Appraisal Timber Description Kilo Sale 341-03-83

"STEWARDSHIP IN FORESTRY"

**District:** Tillamook

**Location:** Portions of Section 15, 16, 21, 27, 28 T1N, R8W, W.M. Tillamook County, Oregon

**Date:** 5/9/03

**Stand Stocking:** 20%

Species	Avg. DBH	Amortized %	Recovery %
Douglas - Fir	11	0	95

Volume by Grade	Douglas - Fir	Total
3S	5,537	5,537
4S	918	918
<b>Total</b>	<b>6,455</b>	<b>6,455</b>

**Comments:** Pond Values Used: 1st Quarter 2003 + Local Pond Values

Hardwood pond value of \$515.00 (1st quarter 2003) obtained locally, less the logging cost of Douglas-fir was used to determine the stumpage value of hardwoods.

Kilchis Stockpile - Prices were obtained from a local source.

\$7.75 per cubic yard for 2"-0" crushed rock

\$6.00 per cubic yard haul cost

\$0.50 per cubic yard for stockpiling



# Timber Sale Appraisal

## Logging Conditions

### Kilo

### Sale 341-03-83

"STEWARDSHIP IN FORESTRY"

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**Combination#: 1** Douglas - Fir 95.00%

**Yarding Distance:** Long (1,500 ft) **Downhill Yarding:** No

**Logging System:** Cable: Small Tower <=40 **Process:** Manual Delimiting

**Tree Size:** Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

**Loads/Day:** 5 **Bd. Ft./Load:** 3,200

**Cost/MBF:** \$161.13

**Machines:**

- Log Loader (A)
- Tower Yarder (Small)

**Combination#: 2** Douglas - Fir 5.00%

**Yarding Distance:** Short (400 ft) **Downhill Yarding:** Yes

**Logging System:** Wheel Skidder **Process:** Manual Falling/Delimiting

**Tree Size:** Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

**Loads/Day:** 9 **Bd. Ft./Load:** 3,200

**Cost/MBF:** \$110.32

**Machines:**

- Log Loader (B)
- Tire Skidder



# Timber Sale Appraisal

## Logging Costs

### Kilo

### Sale 341-03-83

"STEWARDSHIP IN FORESTRY"

Date: 5/9/03

Operating Seasons: 1.6

Profit & Risk: 15%

Project Costs: \$143,783

Other Costs (P/R): \$19,870

Slash Disposal: \$0

Other Costs: \$8,626

Road Maintenance: \$5.36

Miles of Road			
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	2.0	3.2

#### Local Pond Values

Date	Species	Grade	Value
5/9/03	Douglas - Fir	2S	\$530.00
5/9/03	Douglas - Fir	3S	\$505.00
5/9/03	Douglas - Fir	4S	\$455.00



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Logging Costs Breakdown Kilo Sale 341-03-83

Costs	Douglas - Fir
<b>Logging</b>	158.59
<b>Road Maintenance</b>	5.64
<b>Fire Protection</b>	0.67
<b>Hauling</b>	69.16
<b>Other (P/R appl.)</b>	3.08
<b>Profit &amp; Risk</b>	35.57
<b>Slash Disposal</b>	0.00
<b>Scaling</b>	2.00
<b>Other</b>	1.34
<b>Total</b>	276.05

<b>Amortization</b>	0.00
<b>Pond Value</b>	497.89
<b>Stumpage</b>	221.84
<b>Amortized</b>	0.00



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Summary Kilo Sale 341-03-83

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## Amortized

	Douglas - Fir
MBF	0.00
Value	0.00
Total	0.00

## Unamortized

	Douglas - Fir
MBF	6,455.00
Value	221.84
Total	1,431,977.20

## Gross Timber Sale Value

**Recovery \$1,431,977.20**

Prepared by: Chris Woodward

Date: 5/9/03

District: Tillamook

Phone: (503) 842-2545



**Timber Sale Appraisal  
Additional Cost Worksheet  
Kilo  
Sale 341-03-083**

"STEWARDSHIP IN FORESTRY"

Cable Yarding Vol. (MBF):	6132
Ground Yarding Vol. (MBF):	323
<b>Total Sale Volume:</b>	<b>6455</b>

ADDITIONAL COSTS - PROFIT & RISK TO BE ADDED					
Yarding & Loading:	Cost / MBF		Volume (MBF)		
Brand & Paint:	\$ 2	x	6455	=	\$12,910
Truck Assist/Tractor Swing	\$ 30	x	232	=	\$6,960
	Cost / Each			<b>OTHER COSTS TOTAL</b>	<b>\$19,870</b>

ADDITIONAL COSTS - PROFIT & RISK INCLUDED					
Non-Project Roads (See Logging Plan in Cruise Report)					
Non-Proj. Rd. 1 (const.)	7	Stations	x	\$ 100	= \$700
Non-Proj. Rd. 2 (constr.)	7	Stations	x	\$ 100	= \$700
Non-Proj. Rd. 3 (improv.)	10	Stations	x	\$ 65	= \$650
Non-Proj. Rd. 4 (improv.)	9	Stations	x	\$ 65	= \$585
Non-Proj. Rd. 5 (improv.)	5	Stations	x	\$ 65	= \$325
<b>Totals</b>	<b>38</b>				<b>\$2,960</b>
		Stations	x	cys	x \$/cy
Approach Rock: Pit-Run	3			45	x \$6.00 = \$810
		stations		acres	\$/ac
Grass Seeding	38			1.7	x \$180.00 = \$306
Mulching	38			1.7	x \$1,000.00 = \$1,700
Ditch Pulling and End Haul (per CY) <sup>1</sup>				\$ 19	x 150 = \$2,850
OHV Trail Clearing (per station)				\$ 40	x = \$0
Dust Abatement (per season) <sup>2</sup>				\$ 1,200	x = \$0
					<b>OTHER COSTS TOTAL \$8,626</b>

ROAD MAINTENANCE						
		\$/Cu.Yd	MMBF	Miles	cu.yds/mile	\$/MBF
Surfacing <sup>3</sup> :	Pit-Run	\$6.00	6.5	2.0	25	\$0.30
	Crushed	\$8.00	6.5	8	40	\$2.58
		\$/Mile	MMBF	Miles		
Grading <sup>4</sup>		\$ 500	6.5	8		\$2.48
						<b>TOTAL ROAD MAINTENANCE COST / MBF: \$5.36</b>

<sup>1</sup>Includes cost for excavating, hauling, compaction, and sediment control devices - includes 6 move-ins @\$400/move-in.

<sup>2</sup>Cost for lignin sulfonate application as dust abatement material.

<sup>3</sup>Assumes 40 cys crushed rock per MMBF per mile, 25 cys pit-run rock per MMBF per mile.

<sup>4</sup>Grading four times (assumes grading portions of roads)



# OREGON DEPARTMENT OF FORESTRY CRUISE REPORT Kilo

1. **Type of Sale**

Clearcut - Recovery

2. **Legal Description**

Portions of Section 15, 16, 21, 22, 27, 28, T1N, R8W, W.M., Tillamook County, Oregon

3. **Sale Acreage**

Sale acreage was determined by plotting posted boundaries in ArcView GIS, using digital orthophotos and planimetric themes.

	<b>ACRES</b>		
	<b><u>Sale</u></b>	<b><u>Total</u></b>	<b><u>Net</u></b>
<b>Area 1 (Clearcut)</b>	53	55	51
<b>Area 2 (Clearcut)</b>	104	98	98 *
<b>Area 3 (Clearcut)</b>	45	49	45
<b>Area 4 (Clearcut)</b>	14	16	13
<b>Area 5 (Clearcut)</b>	10	10	10
<b>Area 6 (Clearcut)</b>	4	4	4
<b>Area 7 (Clearcut)</b>	13	14	13
<b>Area 8 (Clearcut)</b>	8	8	8
<b>Area 9 (Clearcut)</b>	2	2	2
<b>Area 10 (Clearcut)</b>	88	82	82
<b>Total</b>	341	338	326

**Sale Acres**

Area within the Timber Sale Boundary signs

**Total acres**

*For accomplishment reporting*

**Clearcut harvest** - Sale acres; plus green tree retention acres outside the sale boundary; less roads and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

**Net acres**

*Used for calculating the advertised volume.*

**Clearcut** - Sale acres, less green tree retention, unstocked acres, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

\* Net acres include one acre of operationally limited special stewardship which will be reclassified in LMCS.



#### **4. Cruising Procedures**

##### **A. Cruise Method**

Cruise lines were established throughout the sale areas. Lines were established to represent the sale areas using aerial photographs. The previously thinned acres and the non-thinned acres were delineated and cruised as separate timber types. One plot per seven acres was installed for all sale areas. A total of 55 sample points were located along these lines. A ratio of three count plots per one measured plot was established. Conifer with less than 8" DBH and alder with less than 10" DBH were not recorded. On the count plots only the species and tree count were recorded. On the measure plots the species, diameter at breast height, height to a 6" merchantable top for conifer and 8" for alder, form factor at 16', and grades and lengths and defect of each segment were recorded.

##### **B. Plot size**

A 20 BAF was used for tree selection at each point. Point of observation was at 4.5 feet.

##### **C. Grading System**

Trees were graded following the Columbia River Official Log Scaling and Grading Bureau rules.

#### **5. Computation Procedure**

All cruise data was entered in SuperAce. SuperAce was used to report tree volumes and statistics.

The non-thinned acres averaged 195 square feet basal area per acre and 11 inches D.B.H. with a V-BAR of 118.8 board foot/square foot. The coefficient of variation and the standard error was 32.8% and 4.7% respectively.

The previously thinned acres average 101 square feet basal area per acre and 11 inches D.B.H. with a V-BAR of 111.0 board foot/square foot. The coefficient of variation and standard error was 18% and 5.4% respectively.

#### **6. Hidden Defect and Breakage**

Five percent of gross volume was subtracted to account for hidden defect and breakage.

#### **7. Timber Description**

The sale areas burned in 1933 and 1939. These areas were aerial seeded in 1957 and planted in 1963. Most of the trees on the sale areas are the result of the 1963 planting. Portions of Areas 3 through 5 and Area 10 were thinned in 2001. A few hemlock, spruce, and cedar are scattered through the sale area. The current stands are classed CSC. There are some hard snags created from wind, snow, and bear damage. Down wood is composed of scattered large old logs (36+) from salvage in decay class 3 and 4 and some windthrow from the last few years in decay class 1 and 2. Understory vegetation consists of sword fern, salmonberry, Oregon grape, and vine maple. Swiss needle cast infection is considered to be severe in this area.

**8. Cruiser Names/Dates**

Chris Woodward, Kirk Ausland January 2003

**9. Revenue Distribution**

100% FDF

Tax Code: 56

Deed Number: 161

100% Rehabilitation Obligated

**10. Attachments**

Volume Summary

Logging Plan

\\TILL1NTPUBLIC\StateForests\CentralUnit\Timber Sale Folders\2003 Sale Plan\kilo\Reports\Cruise Report.doc



**Timber Sale Appraisal  
Volume Summary  
Kilo  
Sale # 341-03-83**

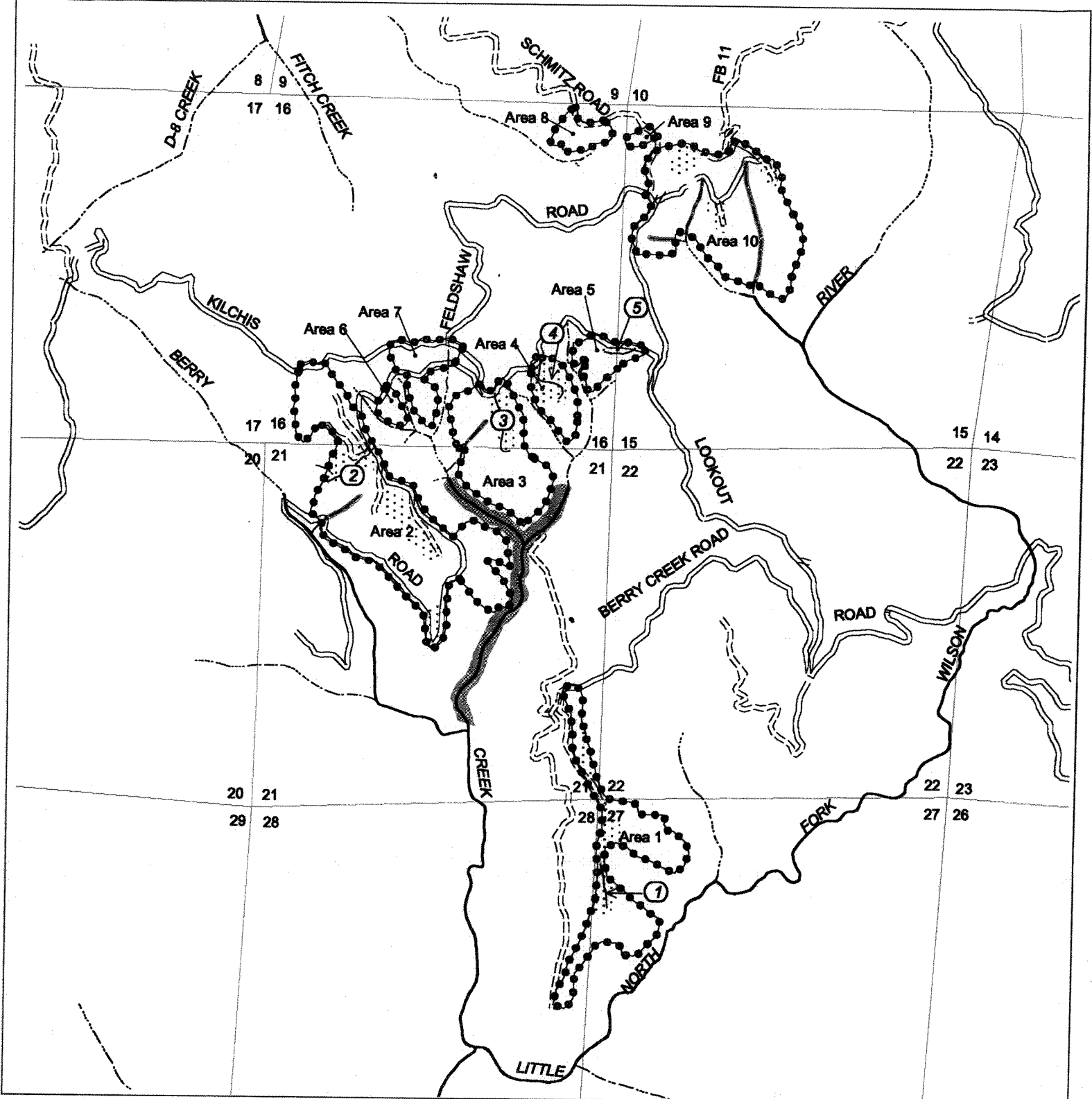
STEWARDSHIP IN FORESTRY

4/28/03

<b>Not thinned</b>						
262 acres						
SPECIES	Basal Area Per Ac	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	195	119.0	23.2	6078	5%	5774
<b>TOTAL</b>	195		23.2	6078		5774

<b>Previously thinned</b>						
64 acres						
SPECIES	Basal Area Per Ac	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	101	111.0	11.2	717	5%	681
<b>TOTAL</b>	101		11.2	717		681

<b>TOTAL SALE VOLUME</b>		
326 acres		
SPECIES	MBF	MBF NET
Douglas-fir	6795	6455
<b>TOTAL</b>	6795	6455



- Tractor landing
- Cable landing
- ▲ Domestic water supply
- ⊗ Block
- Cable yarding
- ▤ Ground yarding
- ▨ Helicopter yarding
- ▩ Buffer
- ▧ Non-required thinning
- ▦ Green tree retention area
- Setting boundary
- ⋯ Area boundary
- ⋯ Sale boundary
- ⋯ Ownership boundary
- Type-F stream
- ⋯ Type-N stream
- == Surfacd road
- == Unsurfaced road
- == State highway
- == County road
- ② Non-project road
- ⋯ Swing road
- ⋯ Abandoned road
- ⋯ OHV trail
- ⋯ Non-motorized trail

**LOGGING PLAN**  
 Timber Sale Contract No. 341-03-83  
 Kilo  
 Portions of sections 15, 16, 21, 22, 27,  
 and 28, T1N, R8W, W. M.  
 Tillamook County, Oregon



Area	Type of Operation	Acres	
		Net	Gross
1	Clearcut	51	53
2	Clearcut	98	104
3	Clearcut	45	45
4	Clearcut	13	14
5	Clearcut	10	10
6	Clearcut	4	4
7	Clearcut	13	13
8	Clearcut	8	8
9	Clearcut	2	2
10	Clearcut	82	88
<b>Total</b>		<b>326</b>	<b>341</b>



## OREGON DEPARTMENT OF FORESTRY WRITTEN PLAN

**SALE NAME:** Kilo

**LOCATION:** Portions of Section 15, 16, 21, 22, 27, 28, T1N, R8W, W.M., Tillamook County, Oregon

**ACTIVITIES:** Felling adjacent to and hanging across Type F stream buffers.

**PROTECTED RESOURCES:**

**Streams:** The Little North Fork Wilson River (large Type F), Berry Creek (medium Type F), and an unnamed tributary of Klahn Creek (medium Type F).

**Riparian Management Area (RMA):** The area within 100 feet slope distance from the high water mark on each side of Type F streams.

**PROTECTION MEASURES:**

**YARDING and FELLING:**

- All trees in the RMA outside of cable corridors are reserved from cutting.
- Trees felled for cable corridors within the RMA will be incidental and will not be removed. These trees will also be felled away from or parallel to the aquatic area.
- Cable yarding lines will be pulled out of RMA prior to rigging the next yarding road.
- Adjacent trees will be felled away from or parallel to the RMA.
- If trees or logs fall or slide into a stream channel they will not be limbed, bucked, or removed without approval from State.
- When cable yarding lines are strung across RMA's they will be an average of at least 150 feet apart.
- Ground yarding shall not be allowed within 50 feet of streams.

**PREPARED BY:** Chris Woodward  
Forester, Central Unit  
April 24, 2003