



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Rimrock Road Sale 314-07-02

District: Tillamook

Date: 7/17/06

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$281,017.50	\$116,949.36	\$397,966.86
		Project Work	(\$70,160.00)
		Advertised Value	\$327,806.86



Timber Sale Appraisal Timber Description Rimrock Road Sale 314-07-02

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Location: Portions of Section 34, T1S, R7W, W.M., Tillamook County, Oregon.

Date: 7/17/06

Stand Stocking: 40%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	15	0	95
Alder (Red)	14	0	100

Volume by Grade	Douglas - Fir	Alder (Red)	Total
2S	192	0	192
2S 12"+	0	23	23
3S	837	0	837
3S 10" - 11"	0	72	72
4S	234	0	234
4S 8" - 9"	0	277	277
Total	1,263	372	1,635

Comments: Pond Values Used: 2nd Quarter Fiscal Year 2006

Cedar Price = \$1000/MBF - \$395/MBF = \$605/MBF

Alder Grades are diameter grades: 2S = 12" and greater, 3S = 10" & 11" & 4S = 8" & 9"

OTHER COSTS (Profit and Risk to be Added) = \$3,270

Brand and Paint: \$2/MBF x 1635MBF = \$3,270.

OTHER COSTS (Profit and Risk Included) = \$41,920

Slash Piling: 134 acres x \$2.20/acre = \$295.

Trask River Road Public Safety Road Fee: \$25/MBF x 1,635MBF = \$40,875.

Tank Trap Installation (Road Closure): \$50/Tank Trap x 1 Tank Trap = \$50.

Water Bar Installation: 2 Hours x \$90/hour = \$180.

OHV Trail Clearing: \$40/Sta x 13 Sta=\$520.

MAINTENANCE COST = \$5.06/MBF

Pit Run Rock: \$8/C.Y. x 1.6MMBF x 2.2mi x 10C.Y./MBF/mi / 1635MBF = \$0.17/MBF.

Interim Grading: \$250/mi x 10.2 x 1 Gradings / 1635MBF = \$1.56/MBF.

Final Grading: \$500/mi x 10.2mi / 1635MBF = \$3.12/MBF

Mobilization: \$350 / 1635MBF = \$0.21/MBF.



Timber Sale Appraisal

Logging Conditions

Rimrock Road

Sale 314-07-02

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	24.17%	
	Alder (Red)	31.34%	
Yarding Distance:	Medium (800 ft)		Downhill Yarding: No
Logging System:	Cable: Medium Tower >40 - <70		Process: Stroke Delimber
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	5		Bd. Ft./Load: 3,200
Cost/MBF:	\$205.16		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Medium)		
Combination#: 2	Douglas - Fir	67.02%	
	Alder (Red)	59.60%	
Yarding Distance:	Long (1,500 ft)		Downhill Yarding: No
Logging System:	Cable: Medium Tower >40 - <70		Process: Stroke Delimber
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	5		Bd. Ft./Load: 3,200
Cost/MBF:	\$227.96		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Medium)		
Combination#: 3	Douglas - Fir	8.81%	
	Alder (Red)	9.06%	
Yarding Distance:	Short (400 ft)		Downhill Yarding: Yes
Logging System:	Track Skidder		Process: Feller Buncher
Tree Size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
Loads/Day:	6		Bd. Ft./Load: 3,200
Cost/MBF:	\$183.27		
Machines:			
	Feller Buncher w/ Delimber		
	Log Loader (B)		
	Stroke Delimber (B)		
	Track Skidder		



Timber Sale Appraisal

Logging Costs

Rimrock Road

Sale 314-07-02

"STEWARDSHIP IN FORESTRY"

Date: 7/17/06

Operating Seasons: 2.0

Profit & Risk: 15%

Project Costs: \$70,160

Other Costs (P/R): \$3,270

Slash Disposal: \$0

Other Costs: \$41,920

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

Road Maintenance: \$5.06

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$85.04	2.0	3.4
Alder (Red)	\$64.25	3.0	3.0



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Rimrock Road Sale 314-07-02

Costs	Douglas - Fir	Alder (Red)
Logging	218.51	216.77
Road Maintenance	5.33	5.06
Fire Protection	3.32	3.32
Hauling	89.52	64.25
Other (P/R appl.)	2.00	2.00
Profit & Risk	47.80	43.71
Slash Disposal	0.00	0.00
Scaling	2.00	0.00
Other	25.64	25.64
Total	394.12	360.75

Amortization	0.00	0.00
Pond Value	616.62	675.13
Stumpage	222.50	314.38
Amortized	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Rimrock Road Sale 314-07-02

Amortized

	Douglas - Fir	Alder (Red)
MBF	0.00	0.00
Value	0.00	0.00
Total	0.00	0.00

Unamortized

	Douglas - Fir	Alder (Red)
MBF	1,263.00	372.00
Value	222.50	314.38
Total	281,017.50	116,949.36

Gross Timber Sale Value

Recovery \$397,966.86

Prepared by: Kate Skinner

Date: 7/17/06

District: Tillamook

Phone: (503) 842-2545



"STEWARDSHIP IN FORESTRY"

PROJECT SUMMARY SHEET

Sale: Rimrock Road

RECONSTRUCTION

Point	A to B	64+50	stations =	\$50,374.87
Point	C to D	12+50	stations =	\$8,178.30
Point	E to F	10+20	stations =	\$6,656.46
Point	G to H	1+00	stations =	\$498.86
SUBTOTAL IMPROVEMENT				\$65,708.49

MOVE IN

\$4,452.06

GRAND TOTAL

\$70,160.55

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Rimrock Road</u>				Road:	<u>A to B</u>			
Construction -	0+00		stations		Reconstruction -	64+50		stations	
	0.00		miles			1.22		miles	
CLEARING AND GRUBBING -									
Widening				0.874	acres @	\$660.00	per acre =	\$576.84	
Scattering				1.480	acres @	\$980.00	per acre =	\$1,450.40	
						TOTAL CLEARING AND GRUBBING			\$2,027.24
EXCAVATION -									
Road Earthwork				64.50	sta. @	\$100.00	per sta. =	\$6,450.00	
Widening				3227	cy. @	\$1.40	per c.y. =	\$4,517.80	
						TOTAL EXCAVATION			\$10,967.80
ENDHAUL -									
Widening	18+35	to	24+00	754	cy. @	\$1.21	per c.y. =	\$912.34	
Widening	24+00	to	29+30	943	cy. @	\$1.40	per c.y. =	\$1,320.20	
Widening	31+20	to	33+90	720	cy. @	\$1.53	per c.y. =	\$1,101.60	
Widening	35+00	to	37+00	267	cy. @	\$1.64	per c.y. =	\$437.88	
Widening	41+30	to	43+30	356	cy. @	\$1.80	per c.y. =	\$640.80	
Widening	47+60	to	49+00	187	cy. @	\$1.98	per c.y. =	\$370.26	
Spread & compact				3227	cy. @	\$0.25	per c.y. =	\$806.75	
						TOTAL ENDHAUL			\$5,589.83
CULVERTS - MATERIALS & INSTALLATION									
	<u>Culverts</u>								
	0	LF of 18"		\$0.00		0	LF of 24"	\$0.00	
	60	LF of 30"		\$1,980.00		0	LF of 36"	\$0.00	
	0	LF of 42"		\$0.00		0	LF of 48"	\$0.00	
	0	LF of 54"		\$0.00		0	LF of 60"	\$0.00	
	0	LF of 66"		\$0.00		0	LF of 72"	\$0.00	
				\$1,980.00				\$0.00	
	<u>Half Rounds</u>								
	0	LF of 21"		\$0.00		0	LF of 30"	\$0.00	
	0	LF of 36"		\$0.00		0	LF of 42"	\$0.00	
				\$0.00				\$0.00	
	<u>Culvert Stakes & Markers</u>								
	0	stakes		\$0.00					
	1	markers		\$8.00					
				\$8.00					
						TOTAL CULVERTS			\$1,988.00
ROCK									
Culvert Backfill	37+50	80	cy. of	Pit Run	@	\$5.85	per c.y. =	\$468.00	
0+00 to	64+50	4,285	cy. of	Pit-Run	@	\$5.85	per c.y. =	\$25,067.25	
						TOTAL ROCK			\$25,535.25
SPECIAL PROJECTS									
Handheld Tamper and labor				1.00	lump sum @	\$100.00		\$100.00	
Construct waste areas -				3.00	hours @	\$130.00	per hour	\$390.00	
Grade and shape road -				64.50	stations @	\$15.50	per station	\$999.75	
Roll subgrade w/ vibratory roller prior to rocking -				64.50	stations @	\$13.20	per station	\$851.40	
Remove large stumps -				1	lump sum @	\$520.00		\$520.00	
Grass seed and fertilize -				2.35	acres @	\$220.00	per acre	\$517.00	
Mulching -				1.481	acres @	\$600.00	per acre	\$888.60	
						TOTAL SPECIAL PROJECTS			\$4,266.75
						GRAND TOTAL			\$50,374.87

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Rimrock Road</u>					Road: <u>C to D</u>
Construction -	<u>0+00</u> stations <u>0.00</u> miles					Reconstruction - <u>12+50</u> stations <u>0.24</u> miles
CLEARING AND GRUBBING - Scattering		0.400 acres @	\$980.00 per acre =	<u>\$392.00</u>		
					TOTAL CLEARING AND GRUBBING	\$392.00
EXCAVATION - Road Earthwork		12.50 sta. @	\$140.00 per sta. =	<u>\$1,750.00</u>		
					TOTAL EXCAVATION	\$1,750.00
ROCK 0+00 to 12+50	849 cy. of	Pit-Run	@	\$5.95 per c.y. =	<u>\$5,051.55</u>	
					TOTAL ROCK	\$5,051.55
SPECIAL PROJECTS						
Grade and shape road -		12.50 stations @	\$15.50 per station	\$193.75		
Roll subgrade w/ vibratory roller prior to rocking -		12.50 stations @	\$13.20 per station	\$165.00		
Remove large stumps -		1 lump sum @	\$390.00	\$390.00		
Grass seed and fertilize -		0.29 acres @	\$220.00 per acre	\$63.80		
Mulching -		0.287 acres @	\$600.00 per acre	\$172.20		
					TOTAL SPECIAL PROJECTS	\$984.75
GRAND TOTAL						\$8,178.30

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Rimrock Road</u>					Road: <u>E to F</u>	
Construction -	<u>0+00</u> stations <u>0.00</u> miles					Reconstruction - <u>10+20</u> stations <u>0.19</u> miles	
CLEARING AND GRUBBING - Scattering		0.140 acres @	\$980.00	per acre =	<u>\$137.20</u>		
					TOTAL CLEARING AND GRUBBING	\$137.20	
EXCAVATION - Road Earthwork		10.20 sta. @	\$100.00	per sta. =	<u>\$1,020.00</u>		
					TOTAL EXCAVATION	\$1,020.00	
ROCK 0+00 to	10+20	706 cy. of	Pit-Run	@	\$6.92 per c.y. =	<u>\$4,885.52</u>	
						TOTAL ROCK	\$4,885.52
SPECIAL PROJECTS							
Grade and shape road -		10.20 stations @	\$15.50	per station	\$158.10		
Roll subgrade w/ vibratory roller prior to rocking -		10.20 stations @	\$13.20	per station	\$134.64		
Remove large stumps -		1.00 lump sum @	\$130.00		\$130.00		
Grass seed and fertilize -		0.23 acres @	\$220.00	per acre	\$50.60		
Mulching -		0.234 acres @	\$600.00	per acre	\$140.40		
					TOTAL SPECIAL PROJECTS	\$613.74	
					GRAND TOTAL	\$6,656.46	

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Rimrock Road</u>		Road: <u>G to H</u>
Construction -	<u>0+00</u> stations <u>0.00</u> miles		Reconstruction - <u>1+00</u> stations <u>0.02</u> miles
CLEARING AND GRUBBING - Scattering	0.010 acres @	\$980.00 per acre =	<u>\$9.80</u>
		TOTAL CLEARING AND GRUBBING	\$9.80
EXCAVATION - Road Earthwork	1.00 sta. @	\$90.00 per sta. =	<u>\$90.00</u>
		TOTAL EXCAVATION	\$90.00
ROCK 0+00 to 1+00	62 cy. of Pit-Run @	\$5.68 per c.y. =	<u>\$352.16</u>
		TOTAL ROCK	\$352.16
SPECIAL PROJECTS			
Grade and shape road -	1.00 stations @	\$15.50 per station	\$15.50
Roll subgrade w/ vibratory roller prior to rocking -	1.00 stations @	\$13.20 per station	\$13.20
Grass seed and fertilize -	0.02 acres @	\$220.00 per acre	\$4.40
Mulching -	0.023 acres @	\$600.00 per acre	\$13.80
		TOTAL SPECIAL PROJECTS	\$46.90
		GRAND TOTAL	\$498.86

ROCK DEVELOPMENT COST SUMMARY

Pit:	Pit-Run	Location:	Sec.34, T1S, R7W, W.M.
Sale:	Rimrock Road	Road:	5902 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage:	1.16	Total Truck Loads:	5902 c.y.
Drill Pct.:	20%	In Place Total:	4216 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.	\$1,000.00
Drill & Shoot:	\$2.50 /cu.yd. x 843 cu.yds. = \$2,107.50
Rip Rock	\$1.90 /cu.yd. x 3373 cu.yds. = \$6,408.70
Load Dump Truck:	\$0.70 /cu.yd. x 5902 cu.yds. = \$4,131.40

Subtotal \$13,647.60

Move In and set up Drill and Compressor	1	@	\$503.32	=	\$503.32
Move in Excavator	1	@	\$811.24	=	\$811.24
Move in Trucks	2	@	\$163.94	=	\$327.88
				Subtotal	\$1,642.44

TOTAL PRODUCTION COSTS \$15,290.04

Base Cost= \$2.59 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST	
A to B	\$1.56	\$1.70	\$2.59	\$5.85	4285	\$25,067.25	
C to D	\$1.66	\$1.70	\$2.59	\$5.95	849	\$5,051.55	
E to F	\$2.63	\$1.70	\$2.59	\$6.92	706	\$4,885.52	
G to H	\$1.39	\$1.70	\$2.59	\$5.68	62	\$352.16	
				Total C.Y.	5902	Sub Total	\$35,356.48

	TOTAL ROCKING COSTS \$35,356.48
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Move-In Calculations

Sale: Rimrock Road

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
22.0	Pavement	30
12.0	Main Lines	7
3.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Graders	\$614.14		\$3.65	0.00	1.50	1.5	\$5.48	\$619.62
1	Rollers (smooth/grid) & Compactors	\$503.32		\$5.00	0.00	0.00	0	\$0.00	\$503.32
1	Excavators (Large)	\$828.11	1	\$44.80	0.00	1.50	1.5	\$67.20	\$895.31
1	Tractor (D8)	\$772.34	2	\$15.10	0.00	0.00	0	\$0.00	\$772.34
4	Dump Truck (10 cy +)	\$805.33		\$2.85	0.00	1.50	1.5	\$17.10	\$822.43
1	Dump Truck (Off Hiway)	\$667.97	1	\$4.75	0.00	1.50	1.5	\$7.13	\$675.10
1	Water Truck (1500 Gal)	\$163.94		\$2.85	0.00	0.00	0	\$0.00	\$163.94
TOTAL MOVE-IN COSTS:									\$4,452.06



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

Rimrock Road
341-07-02

1. **Type of Sale:** Regeneration harvest: Douglas-fir-Recovery & Red Alder-Cash
2. **Legal Description:** Portions of Section 34, T1S, R7W, W.M., Tillamook County, Oregon.
3. **Sale Acreage:** The sale boundary was plotted on a digital orthophotograph and the acreage was calculated with GIS.

Area	Harvest Type	Sale Acres	Net Acres
1	Modified Clearcut	44	44
2	Modified Clearcut	114	103
Total		158	147

Sale Acres

Area within the Timber Sale Boundary signs.

Net acres for calculating the advertised volume

Sale acres less roads, stream buffers and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. **Cruising Procedures:**
 - A. **Cruise Method:** A total of 53 plots were taken. Half the plots were tally plots and half were measure plots. Cruise lines and plots were placed to obtain representative sampling throughout the two sale areas in a north-south grid pattern. On all plots, trees were tallied by diameter class and species. On measure plots, heights and grades were recorded for all merchantable species.
 - B. **Plot size:** All plots were variable radius full point plots. A Basal Area Factor (BAF) of 27.78 was used in Area 1 for conifers and hardwoods. In Area 2, a BAF of 20 was used on the conifer and a BAF of 10 for the hardwoods. The point of tree observation was 4.5 feet.
 - C. **Grading System:** Tree heights were measured to a merchantable top of 6" outside bark for conifers and 9" outside bark for hardwoods. Minimum diameter at breast height (DBH) outside bark for merchantability was 8" for conifers and 11" for hardwoods. Minimum log volume was 20 board feet (bf) for conifers and 30 bf for hardwoods. Douglas-fir was graded using Columbia River rules favoring a 40' log lengths. Grade recorded for red alder was dependent on the outside bark, small-end

diameter of the merchantable log. A diameter of 8" & 9" = 4S. A diameter of 10" & 11" = 3S. A diameter of 12" and greater = 2S.

D. **Cruiser Names / Dates:** Ed Wallmark, Jim Neuman and Erin Wilson, May, 2005.

5. **Computation Procedures:** Plot data was entered into SuperAce for computation of stand tables. Take and leave trees were determined and SuperAce was rerun to compute basal area, V-BAR, stand tables and diameters. This data was entered into a volume summary worksheet to compute sale volumes based on the average V-Bar on the cruised timber.

Timber Sale Statistics: The net board feet/acre for Area 1 calculated as coefficient of variation of 59.9 and the standard error of 15.5%. The net board feet/acre for Area 2 has a coefficient of variation of 37.3 and standard error of 6.1%. The combined total for all areas and plots was a coefficient of variation of 44.6 and the standard error of 6.1%.

Defect and Breakage: A 5% defect and breakage reduction was used for volume calculations for Douglas-fir and 10% was used for red alder.

6. **Timber Description:** The sale contains 43 year old Douglas-fir with moderate to severe symptoms of Swiss Needle Cast and two alder types that are 43 and 32 years old. There is scattered cedar, spruce, hemlock and big leaf maple throughout the sale.

7. **Revenue Distribution:**

100% FDF
Tax Code: 9-2
Deed No. 161
26% Rehabilitation Obligated

8. **Appendices:**

- Volume Summary
- Logging Plan

Prepared by: Jim Neuman
Date: 5-22-2006



"STEWARDSHIP IN FORESTRY"

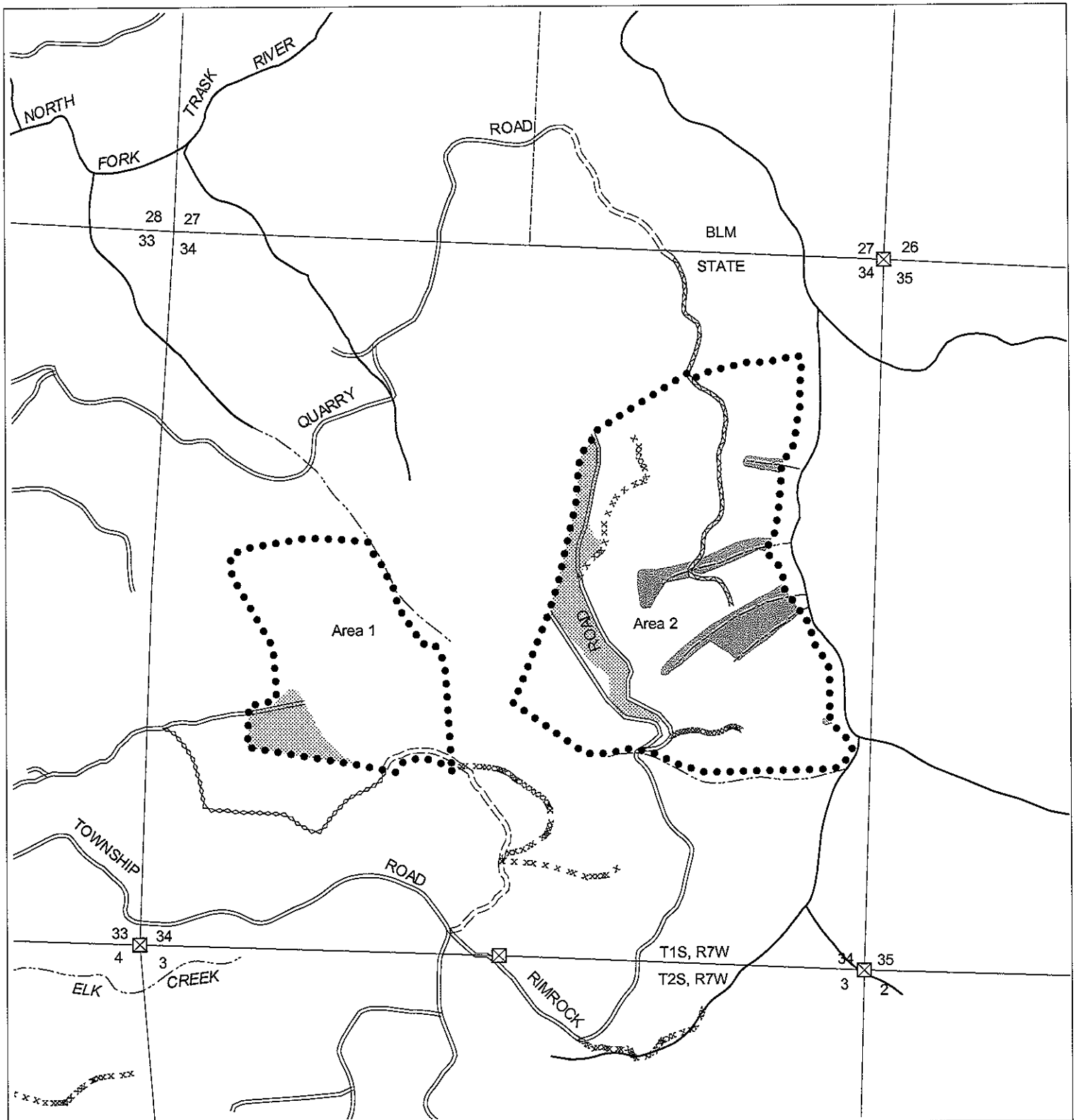
Rimrock Road

Volume Summary

Area I Modified Clearcut							
44 acres							
SPECIES	QMD	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	15	73	113	8.2	361	5%	343
Alder	14	54	62	3.3	145	10%	131
TOTAL					506		474

Area II Modified Clearcut							
103 acres							
SPECIES	QMD	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	15	86	109	9.4	968	5%	920
Alder	13	45	58	2.6	268	10%	241
TOTAL					1236		1161

TOTAL SALE VOLUME			
SPECIES	MBF	D&B	Net Vol. (MBF)
Douglas-fir	1329	5%	1263
Alder	413	10%	372
TOTAL	1742		1635



- Landing
- Ⓚ Domestic water supply intake
- Ⓜ Helicopter landing zone
- Ⓣ Truck turn-around
- ⊠ Survey corner
- ▭ Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- ▧ Downhill yarding
- ▦ Buffer
- ▥ Non-required thinning
- + Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream
- - - Perennial Type-N stream
- == Surfaced road
- === Unsurfaced road
- State/Federal highway
- County road
- (2)— Non-project road
- . A . - Swing road
- Legacy road
- x x x Blocked road
- ⋯ OHV trail
- ⋯ Non-motorized trail
- T T Transmission line

LOGGING PLAN
 Timber Sale Contract No. 341-07-02
 Rimrock Road
 Portions of Section 34,
 T1S, R7W, W. M.
 Tillamook County, Oregon

	Type of	Acres
Area	Operation	Gross Net
1	Modified clearcut	45 44
2	Modified clearcut	114 103
Total		159 147



Tillamook District GIS
 06/13/2006
 This product is for informational use and may not have been prepared for, or suitable for legal, engineering, or surveying purposes.

