



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Foss Alder Sale 341-04-056

District: Tillamook

Date: 1/15/04

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$178,549.15	\$210,676.41	\$389,225.56
		Project Work	(\$106,645.00)
		Advertised Value	\$282,580.56



Timber Sale Appraisal Timber Description Foss Alder Sale 341-04-056

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Location: Portions of Sections 17, 18, and 20, T3N, R8W, W.M., Tillamook County, Oregon.

Date: 1/15/04

Stand Stocking: 80%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	16	0	95
Western Hemlock / Fir	14	0	95
Alder (Red)	15	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Alder (Red)	Total
2S	231	420	0	651
3S	92	228	0	320
4S	16	46	0	62
Camprun	0	0	747	747
Total	339	694	747	1,780

Comments: Pond Values Used: 4th Quarter 2003.

Cedar: Pond value of \$1,000 - Logging Cost of \$228.98 = \$ 771.02

Additional Costs - P&R to be added

Brand & Paint	\$ 2/Mbf x 1780 Mbf =	\$ 3,560
Truck Assist (Area 4)	\$30/Mbf x 340 Mbf =	\$ 10,200
Total P&R to be added =		\$ 13,760

Additional Costs - P&P Included

Non-Project Roads

Road 1	10 Sta.	x	\$100	=	\$ 1,000
Road 2	13 Sta.	x	\$ 65	=	\$ 845
Road 3	6 Sta.	x	\$ 65	=	\$ 390
Road 4	9 Sta.	x	\$ 65	=	\$ 585

Pit-run rock for Road 1 & approach on Road 2 (33cu.yds/sta at \$4.00/cu.yd)

11 Stations x \$132/station = \$ 1,452

Vacate road "A" to "B" = \$ 325

(includes grass seeding & mulching)

Total - P&R Included = \$ 4,597

Road Maintenance:

Gradings - 2 gradings x \$500/mile x 3 miles = \$1.69/Mbf

Final Maintenance: Reprocess Rock on Sibley Road

(includes cost for water and compaction)

3 Miles x 52.8 Stations x \$17.75/Station / 1780 Mbf = \$ 1.58

Maintenance Rock - 25 cu.yds./MMbf/mile

Rock - 1.71 MMbf x 3 miles x 25 cu.yds. x \$ 5.51/cu.yd. = \$ 0.41

Total Maintenance Costs = \$ 3.68



Timber Sale Appraisal

Logging Conditions

Foss Alder

Sale 341-04-056

"STEWARDSHIP IN FORESTRY"

Combination#: 1	Douglas - Fir	18.29%	
	Western Hemlock / Fir	4.32%	
	Alder (Red)	88.90%	
Yarding Distance:	Medium (800 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		Bd. Ft./Load: 3,000
Cost/MBF:	\$182.37		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Medium)		
Combination#: 2	Alder (Red)	11.10%	
Yarding Distance:	Short (400 ft)		Downhill Yarding: Yes
Logging System:	Track Skidder		Process: Manual Falling/Delimiting
Tree Size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
Loads/Day:	7		Bd. Ft./Load: 3,000
Cost/MBF:	\$167.46		
Machines:			
	Log Loader (B)		
	Track Skidder		
Combination#: 3	Douglas - Fir	52.42%	
	Western Hemlock / Fir	82.18%	
Yarding Distance:	Medium (800 ft)		Downhill Yarding: No
Logging System:	Cable: Medium Tower >40 - <70		Process: Stroke Delimber
Tree Size:	Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF		
Loads/Day:	6		Bd. Ft./Load: 4,000
Cost/MBF:	\$136.78		
Machines:			
	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Medium)		
Combination#: 4	Douglas - Fir	29.29%	
	Western Hemlock / Fir	13.50%	

Yarding Distance: Short (400 ft)

Logging System: Track Skidder

Tree Size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF

Loads/Day: 8

Cost/MBF: \$108.85

Downhill Yarding: Yes

Process: Manual Falling/Delimiting

Bd. Ft./Load: 4,000

Machines:

Log Loader (B)

Track Skidder



Timber Sale Appraisal

Logging Costs

Foss Alder

Sale 341-04-056

"STEWARDSHIP IN FORESTRY"

Date: 1/15/04

Operating Seasons: 1.6

Profit & Risk: 15%

Project Costs: \$106,645

Other Costs (P/R): \$13,760

Slash Disposal: \$0

Other Costs: \$4,597

Road Maintenance: \$3.68

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	4.0
Western Hemlock / Fir	\$0.00	3.0	3.5
Alder (Red)	\$0.00	4.0	3.0



Timber Sale Appraisal Logging Costs Breakdown Foss Alder Sale 341-04-056

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir	Alder (Red)
Logging	136.94	134.98	180.71
Road Maintenance	3.87	3.87	3.87
Fire Protection	2.44	2.44	2.44
Hauling	60.53	46.11	40.37
Other (P/R appl.)	7.73	7.73	7.73
Profit & Risk	31.73	29.27	35.27
Slash Disposal	0.00	0.00	0.00
Scaling	2.00	2.00	0.00
Other	2.58	2.58	2.58
Total	247.82	228.98	272.97

Amortization	0.00	0.00	0.00
Pond Value	540.13	343.47	555.00
Stumpage	292.31	114.49	282.03
Amortized	0.00	0.00	0.00



Timber Sale Appraisal Summary Foss Alder Sale 341-04-056

"STEWARDSHIP IN FORESTRY"

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	339.00	694.00	747.00
Value	292.31	114.49	282.03
Total	99,093.09	79,456.06	210,676.41

Gross Timber Sale Value

Recovery \$389,225.56

Prepared by: David Wells

Date: 1/15/04

District: Tillamook

Phone: (503) 842-2545

PROJECT SUMMARY SHEET

Sale: Foss Alder

CONSTRUCTION

Point	A to B	15+05	stations =	\$13,339.74
Point	C to D	23+40	stations =	\$50,149.46
SUBTOTAL CONSTRUCTION				\$63,489.20

IMPROVEMENT

Point	C to D	22+15	stations =	\$3,210.10
Point	Point "E" (Turnaround)	0+00	stations =	\$673.66
Point	A to F	6+65	stations =	\$24,205.07
SUBTOTAL IMPROVEMENT				\$28,088.83

SPECIAL PROJECTS

Maintenance Pit-Run Stockpile				\$3,028.40
SUBTOTAL SPECIAL PROJECTS				\$3,028.40

MOVE IN

\$12,036.26

GRAND TOTAL

\$106,642.69

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Foss Alder</u>			Road:	<u>A to B</u>		
Construction -	<u>15+05</u> stations <u>0.29</u> miles			Improvement -	<u>+00</u> stations <u>0.00</u> miles		
CLEARING AND GRUBBING -							
Scattering		1.020 acres @				\$815.00 per acre =	\$831.30
Endhaul		0.210 acres @				\$1,500.00 per acre =	\$315.00
						TOTAL CLEARING AND GRUBBING	
							\$1,146.30
EXCAVATION -							
Excavation (Common)		4592 cy. @				\$1.40 per c.y.=	\$6,428.80
Excavation (Rippable)		572 cy. @				\$3.20 per c.y.=	\$1,830.40
						TOTAL EXCAVATION	
							\$8,259.20
ENDHAUL -							
Road Fill Material	0+00	to	3+60	475 cy. @		\$1.17 per c.y.=	\$555.75
Spread & Compact (Fill Material)				5164 cy. @		\$0.35 per c.y.=	\$1,807.40
						TOTAL ENDHAUL	
							\$2,363.15
CULVERTS - MATERIALS & INSTALLATION							
		<u>Culverts</u>					
		0 LF of 18"	\$0.00			0 LF of 24"	\$0.00
		0 LF of 30"	\$0.00			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
			\$0.00				\$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				
		0 markers	\$0.00				
			\$0.00				
						TOTAL CULVERTS	
							\$0.00
SURFACING-							
						TOTAL SURFACING	
							\$0.00
SPECIAL PROJECTS							
Construct waste areas -		0.00 hours @		\$130.00 per hour			\$0.00
Construct ditchouts -		1.00 @		\$60.00 each			\$60.00
Grade and shape road -		15.05 stations @		\$9.75 per station			\$146.74
Roll subgrade w/ vibratory roller prior to rocking -		15.05 stations @		\$11.00 per station			\$165.55
Grass seed and fertilize -		1.04 acres @		\$220.00 per acre			\$228.80
Construct Rolling Dips		3.000 Dips @		\$150.00 per Dip			\$450.00
						TOTAL SPECIAL PROJECTS	
							\$1,571.09
						GRAND TOTAL	
							\$13,339.74

SUMMARY OF CONSTRUCTION COST

Sale:	Foss Alder						Road: C to D	
Construction -	23+40 stations 0.44 miles						22+15 stations 0.42 miles	
CLEARING AND GRUBBING -								
Scattering		2.500	acres @	\$815.00	per acre =	\$2,037.50		
Endhaul		0.00	acres @	\$1,500.00	per acre =	\$0.00		
TOTAL CLEARING AND GRUBBING							\$2,037.50	
EXCAVATION -								
Excavation (common)		5038	cy. @	\$1.40	per c.y. =	\$7,053.20		
Excavation (rippable)		1851	cy. @	\$3.20	per c.y. =	\$5,923.20		
Excavation (solid)		5	cy. @	\$7.50	per c.y. =	\$37.50		
TOTAL EXCAVATION							\$13,013.90	
ENDHAUL -								
Road Subgrade Material		2965	cy. @	\$1.27	per c.y. =	\$3,765.55		
To Waste Area		963	cy. @	\$1.09	per c.y. =	\$1,049.67		
Spread & Compact (Fills)		5928	cy. @	\$0.35	per c.y. =	\$2,074.80		
Spread & compact (Waste)		963	cy. @	\$0.20	per c.y. =	\$192.60		
TOTAL ENDHAUL							\$7,082.62	
CULVERTS - MATERIALS & INSTALLATION								
<u>Culverts</u>								
	124	LF of 18"	\$1,829.00		142	LF of 24"	\$2,520.50	
	0	LF of 30"	\$0.00		62	LF of 36"	\$1,140.80	
	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	
			<u>\$1,829.00</u>				<u>\$3,661.30</u>	
<u>Half Rounds</u>								
	20	LF of 21"	\$228.00		0	LF of 30"	\$0.00	
	0	LF of 36"	\$0.00		0	LF of 42"	\$0.00	
			<u>\$228.00</u>				<u>\$0.00</u>	
Install 36" culvert: 1 Hour w/ excavator & 1 Hour w/ two laborers								
\$186.00								
1:1 Bevel on inlet of 36" culvert								
\$34.55								
2 Bands for 36" culvert								
\$64.70								
<u>Culvert Stakes & Markers</u>								
\$285.25								
	4	stakes	\$32.00					
	9	markers	\$72.00					
			<u>\$104.00</u>					
TOTAL CULVERTS							\$6,107.55	
SURFACING-								
0+00 to	42+70	1,075	cy. of	1-1/2"-0" Crushed	@	\$5.77	per c.y. =	\$6,202.75
Culvert Backfill	28+85, 29+80, 33+45, 40+85, and 42+40	145	cy. of	1-1/2"-0" Crushed	@	\$4.57	per c.y. =	\$662.65
Fill/Energy Dissipator	28+65 - 29+40 and 33+15 - 33+80	265	cy. of	48"-24" RipRap	@	\$8.51	per c.y. =	\$2,170.05
Fill Armor	28+65 - 29+40 and 33+15 - 33+80	75	cy. of	24"-12" RipRap	@	\$8.51	per c.y. =	\$638.25
22+15 to	45+55	1,338	cy. of	Pit-Run	@	\$8.71	per c.y. =	\$11,653.98
Landing Rock	Point "D"	52	cy. of	Pit-Run	@	\$8.71	per c.y. =	\$452.92
TOTAL SURFACING							\$21,780.60	
SPECIAL PROJECTS								
Re-grade and shape existing road surfacing -		22.15	stations @	\$9.75	per station	\$215.96		
Re-process existing Pit-Run Surfacing		22.15	stations @	\$11.00	per station	\$243.65		
Construct waste areas -		2.00	hours @	\$130.00	per hour	\$260.00		
Construct ditchouts -		8.00	@	\$60.00	each	\$480.00		
Construct Sediment Catch Basins		1.00	hours @	\$130.00	per hour	\$130.00		
Straw Bales for Sediment Catch Basins		3.00	bales @	\$6.00	per bale	\$18.00		
Grade and shape road -		23.40	stations @	\$14.20	per station	\$332.28		
Roll subgrade w/ vibratory roller prior to rocking -		23.40	stations @	\$11.00	per station	\$257.40		
Remove large stumps -				lump sum		\$520.00		
Grass seed and fertilize -		1.34	acres @	\$220.00	per acre	\$294.80		
Mulching -		0.350	acres @	\$600.00	per acre	\$210.00		
TOTAL SPECIAL PROJECTS							\$2,962.09	
GRAND TOTAL							\$52,984.26	

SUMMARY OF CONSTRUCTION COST

Sale:	<u>Foss Alder</u>		Road:	<u>Point "E" (Turnaround)</u>								
Construction -	<table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: right;">0+00</td> <td style="text-align: left;">stations</td> </tr> <tr> <td style="text-align: right; border-top: 1px solid black;">0.00</td> <td style="text-align: left; border-top: 1px solid black;">miles</td> </tr> </table>	0+00	stations	0.00	miles		Improvement -	<table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td style="text-align: right;">+00</td> <td style="text-align: left;">stations</td> </tr> <tr> <td style="text-align: right; border-top: 1px solid black;">0.00</td> <td style="text-align: left; border-top: 1px solid black;">miles</td> </tr> </table>	+00	stations	0.00	miles
0+00	stations											
0.00	miles											
+00	stations											
0.00	miles											
CLEARING AND GRUBBING -												
Scattering	0.000	acres @	\$815.00	per acre =	\$0.00							
				TOTAL CLEARING AND GRUBBING	\$0.00							
EXCAVATION -												
Level Area	1.00	Hr. @	\$130.00	per Hr. =	\$130.00							
				TOTAL EXCAVATION	\$130.00							
CULVERTS - MATERIALS & INSTALLATION												
<u>Culverts</u>												
0	LF of 18"	\$0.00	0	LF of 24"	\$0.00							
0	LF of 30"	\$0.00	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							
		\$0.00			\$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										
0	markers	\$0.00										
		\$0.00										
				TOTAL CULVERTS	\$0.00							
SURFACING:												
Point "E"	0+85	14 cy. of	1-1/2"-0" Crushed	@	\$4.52 per c.y.=	\$63.28						
Point "E"	0+00	34 cy. of	Pit-Run	@	\$7.97 per c.y.=	\$270.98						
						TOTAL SURFACING	\$334.26					
SPECIAL PROJECTS												
Grade and shape road -		0.50	Hrs. @	\$75.00	per Hour	\$37.50						
Roll subgrade w/ vibratory -		0.50	Hrs. @	\$75.00	per Hour	\$37.50						
Remove slash pile and scatter		1.00	Hrs. @	\$130.00	per hour	\$130.00						
Grass seed and fertilize -		0.02	acres @	\$220.00	per acre	\$4.40						
Mulching -		0.000	acres @	\$600.00	per acre	\$0.00						
					TOTAL SPECIAL PROJECTS	\$209.40						
GRAND TOTAL					\$673.66							

SUMMARY OF CONSTRUCTION COST

Sale:	Foss Alder				Road:	A to F				
Construction -	0+00		stations		Improvement -	6+65		stations		
	0.00		miles			0.13		miles		
CLEARING AND GRUBBING -										
Scattering			0.000 acres @		\$815.00 per acre =			\$0.00		
Endhaul			0.60 acres @		\$1,500.00 per acre =			\$900.00		
					TOTAL CLEARING AND GRUBBING				\$900.00	
EXCAVATION -										
Pullback			0 cy. @		\$1.40 per c.y.=			\$0.00		
Widening/ Common			2405 cy. @		\$1.40 per c.y.=			\$3,367.00		
Widening/ Rippable			2111 cy. @		\$3.20 per c.y.=			\$6,755.20		
					TOTAL EXCAVATION				\$10,122.20	
ENDHAUL -										
Widening			4516 cy. @		\$1.29 per c.y.=			\$5,825.64		
Spread & compact			4516 cy. @		\$0.35 per c.y.=			\$1,580.60		
					TOTAL ENDHAUL				\$7,406.24	
CULVERTS - MATERIALS & INSTALLATION										
	<u>Culverts</u>									
	0	LF of 18"	\$0.00		10	LF of 24"	\$177.50			
	0	LF of 30"	\$0.00		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			
			\$0.00				\$177.50			
	<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				\$185.50	
SURFACING-										
Culvert Backfill	0+85	10	cy. of	Crushed	@	\$4.12 per c.y.=		\$41.20		
Fill Armor	0+85	5	cy. of	Riprap	@	\$8.03 per c.y.=		\$40.15		
Backfill	0+85	10	cy. of	Pit-Run	@	\$5.41 per c.y.=		\$54.10		
0+00 to	6+65	425	cy. of	Pit-Run	@	\$5.41 per c.y.=		\$2,299.25		
0+00 to	6+65	285	cy. of	Crushed	@	\$4.90 per c.y.=		\$1,396.50		
						TOTAL SURFACING				\$5,227.70
SPECIAL PROJECTS										
Grade and shape road -		6.65	stations @		\$14.20 per station			\$94.43		
Roll subgrade w/ vibratory roller prior to rocking -		6.65	stations @		\$11.00 per station			\$73.15		
Grass seed and fertilize -		0.22	acres @		\$220.00 per acre			\$48.40		
Mulching -		0.050	acres @		\$600.00 per acre			\$30.00		
					TOTAL SPECIAL PROJECTS				\$245.98	

GRAND TOTAL

\$24,087.62

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Sibley Road Stockpile Site	Location:	
Sale:	Foss Alder	1-1/2'-0" Road:	1529 c.y.
Swell:	1.40	Drain Rock:	c.y.
		RipRap:	c.y.
Shrinkage	1.16	Total Truck Loads:	1529 c.y.
Drill Pct.:	0%	In Place Total:	1092 c.y.

Load Dump Truck (crushed):	\$0.60 /cu.yd.	x	1529 cu.yds.	=	\$917.40
Load Dump Truck (RipRap):	\$1.40 /cu.yd.	x	0 cu.yds.	=	\$0.00
			Subtotal		\$917.40

Move in Loader:	1	@	\$1,673.22	=	\$1,673.22
Move in Trucks:	Within Area Move: 2.2 Miles @ \$2.85/Mile/Truck			=	\$18.81
			Subtotal		\$1,692.03

TOTAL PRODUCTION COSTS \$2,609.43

1-1/2'-0" Base Cost= \$1.71 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
C to D	2.76	1.30	1.71	5.77	1075	6,202.75
C to D Culvert Backfill	2.26	0.60	1.71	4.57	145	662.65
Point "E" (Turnaround)	1.51	1.30	1.71	4.52	14	63.28
A to F	1.89	1.30	1.71	4.90	285	1,396.50
A to F Culvert Backfill	1.81	0.60	1.71	4.12	10	41.20
				Total C.Y.	1529	Sub Total 8,366.38

TOTAL ROCKING COSTS 8,366.38

ROCK DEVELOPMENT COST SUMMARY

Pit:	Sibley Road Pit-Run Pit	Location:	
Sale:	Foss Alder	Road:	2529 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage:	1.16	Total Truck Loads:	2529 c.y.
Drill Pct.:	75%	In Place Total:	1806 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$1,059.45

Drill & Shoot:	\$2.10	/cu.yd.	x	1355	cu.yds.	=	\$2,845.50
Rip Rock	\$1.75	/cu.yd.	x	451	cu.yds.	=	\$789.25
Load Dump Truck:	\$0.60	/cu.yd.	x	1859	cu.yds.	=	\$1,115.40
Push Rock:	\$0.60	/cu.yd.	x	2529	cu.yds.	=	\$1,517.40

Subtotal \$7,327.00

Move In and set up Drill and Compressor	1	@	\$682.25	=	\$682.25
Move in D-8	Within Area Move: 3.2 Miles @ \$15.10/Mile			=	\$48.32
Move in Loader	1	@	\$1,673.22	=	\$1,673.22
Move in Excavator	Within Area Move: 3.2 Miles @ \$44.80/Mile			=	\$143.36
Move in Trucks	Within Area Move: 3.2 Miles @ \$2.85/Mile/Truck			=	\$27.36
				Subtotal	\$2,574.51

TOTAL PRODUCTION COSTS \$9,901.51

Base Cost= \$3.92 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
C to D	\$4.16	\$0.90	\$3.92	\$8.98	1338	\$12,015.24
C to D Landing Rock	\$4.16	\$0.90	\$3.92	\$8.98	52	\$466.96
Point "E" (Turnaround)	\$3.15	\$0.90	\$3.92	\$7.97	34	\$270.98
A to F Backfill	\$0.86	\$0.90	\$3.92	\$5.68	10	\$56.80
A to F	\$0.86	\$0.90	\$3.92	\$5.68	425	\$2,414.00
Maintenance Pile	\$0.00	\$0.60	\$3.92	\$4.52	670	\$3,028.40
				Total C.Y.	2529	Sub Total
						\$18,252.38

TOTAL ROCKING COSTS \$18,252.38

ROCK DEVELOPMENT COST SUMMARY

Pit:	Sibley Road Crush Pit	Location:	
Sale:	Foss Alder	RipRap:	335 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	335 c.y.
Drill Pct.:	75%	In Place Total:	239 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$0.00

Drill & Shoot:	\$2.10	/cu.yd.	x	179	cu.yds.	=	\$375.90
Rip Rock	\$1.75	/cu.yd.	x	60	cu.yds.	=	\$105.00
Load Dump Truck:	\$1.40	/cu.yd.	x	335	cu.yds.	=	\$469.00

Subtotal \$949.90

Move In and set up Drill and Compressor	0	@	\$649.01	=	\$0.00
Move in Roller and Compactor	0	@	\$649.01	=	\$0.00
Move in Grader	0	@	\$813.59	=	\$0.00
Move in D-8	0	@	\$1,749.16	=	\$0.00
Move in Loader	0	@	\$1,512.48	=	\$0.00
Move in Excavator	Within Area Move: 0.96 Miles @ \$44.80/ Miles			=	\$43.01
Move in Trucks	Within Area Move: 0.96 Miles @ \$2.85/ Mile/Truck			=	\$8.21
Move in Water Truck	0	@	\$274.11	=	\$0.00
				Subtotal	\$51.22

TOTAL PRODUCTION COSTS \$1,001.12

Base Cost= \$2.99 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Placement Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
C to D Fill/Energy Dissipator	\$4.12	\$1.40	\$2.99	\$8.51	255	\$2,170.05
C to D Fill Armor	\$4.12	\$1.40	\$2.99	\$8.51	75	\$638.25
A to F Fill Armor	\$3.64	\$1.40	\$2.99	\$8.03	5	\$40.15
				Total C.Y.	335	Sub Total
						\$2,848.45

TOTAL ROCKING COSTS \$2,848.45

MOVE-IN CALCULATIONS

Sale: **Foss Alder**

LOWBOY HAUL (Round Trip)		
DISTANCE	ROADWAY	AVE SPEED (MPH)
5.1	Highway	37
5.9	Main Lines (Off Road)	15
53.4	Pulling Steep Grades	4

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
0	Drill & Compressor	\$0.00		\$46.00	0.00	1.70	1.7	\$0.00	\$0.00
0	Brush Cutter	\$0.00		\$4.00	0.00	0.00	0	\$0.00	\$0.00
1	Graders	\$854.26		\$3.65	0.00	1.70	1.7	\$6.21	\$860.47
0	Loader (Small)	\$0.00	1	\$3.55	0.00	0.00	0	\$0.00	\$0.00
0	Loader (Med. & Large)	\$0.00	1	\$9.00	0.00	3.81	3.81	\$0.00	\$0.00
1	Rollers & Compactors	\$681.46		\$5.00	0.00	1.70	1.7	\$8.50	\$689.96
0	Excavators (Small)	\$0.00		\$22.00	0.00	0.00	0	\$0.00	\$0.00
0	Excavators (Med.)	\$0.00		\$35.50	0.00	0.00	0	\$0.00	\$0.00
2	Excavators (Large)	\$4,182.07	1	\$44.80	0.00	1.70	1.7	\$152.32	\$4,334.39
2	Rubber Tired Backhoes/Skidders	\$1,362.91		\$3.00	0.00	1.70	1.7	\$10.20	\$1,373.11
0	Tractors (D6)	\$0.00	2	\$7.10	0.00	0.00	0	\$0.00	\$0.00
0	Tractors (D7)	\$0.00	2	\$11.30	0.00	0.00	0	\$0.00	\$0.00
2	Tractor (D8)	\$3,685.22	2	\$15.10	0.00	1.70	1.7	\$51.34	\$3,736.56
3	Dump Truck (10 cy +)	\$734.57		\$2.85	0.00	0.00	1.7	\$14.54	\$749.11
0	Dump Truck (Off Hiway)	\$0.00	1	\$4.75	0.00	0.00	0	\$0.00	\$0.00
0	Water Truck (1500 Gal)	\$0.00		\$2.85	0.00	0.00	0	\$0.00	\$0.00
1	Water Truck (2500 Gal)	\$287.81		\$2.85	0.00	1.70	1.7	\$4.85	\$292.66
0	Jaw	\$1,066.00							
0	2-Stage Crusher	\$1,597.00							
0	3-Stage Crusher	\$2,613.45							

TOTAL MOVE-IN COSTS:	\$12,036.26
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Oregon Department of Forestry Cruise Report *Foss Alder*

1. Type of Sale

Clearcut and partial cut/ Hardwood cash, conifer recovery.

2. Legal Description

Portions of Sections 17, 18, and 20, T3N, R8W, W.M., Tillamook County, Oregon

3. Sale Acreage

The sale boundaries were plotted on a digital orthophotograph and the acreage was calculated with a GIS.

	ACRES		
	Sale	Total	Net
Area 1 (clear cut)	43	41	41
Area 2 (partial cut)	44	41	39
Area 3A (partial cut)	8	8	8
Area 3B (partial cut)	25	21	21
Area 4 (clear cut)	29	26	25
Area 5 (clear cut)	5	5	5
Area Right of Way	1	1	1
Total	155	143	140

Sale Acres: Area within the Timber Sale Boundary signs

Total Acres: Sale acres; plus green tree retention areas outside the sale boundary; less roads and riparian areas classified as Special Stewardship in LMCS inside the sale boundary. For accomplishment reporting – clearcut (regeneration) harvest.

Net acres: For accomplishment reporting & for calculating the advertised volume

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

Partial Cut - Sale acres less areas of low stocking, hardwoods, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. Cruising Procedures

A. Cruising Method

A total of 87 plots were taken in the sale area; 37 in Areas 1 and 2, 26 in Areas 3A and 3B, and 24 in Areas 4 and 5. Plot layout was approximately on a square grid of varying intensity. Diameters and species were recorded on all plots. Diameters were measured to the nearest inch, heights to the

nearest foot. All conifer trees less than 8" DBH and all hardwood trees less than 10 inches DBH were not recorded.

In addition, on Areas 1, 2, 4 and 5 all hardwood trees and two conifer trees were graded and measured for merchantable height and form factor on each plot. The coefficient of variation for these areas was 46.5%. The standard error for Areas 1 and 2 was 7.6% and for Areas 4 and 5 was 9.5% based on basal area. In Areas 3A and 3B every other plot was graded and measured for merchantable height and form factor. The CV for these areas was 30.1% and the SE was 5.9% based on basal area.

B. Plot Size

A 28 BAF was used on Areas 1 and 2, a 40 BAF was used on Areas 3A and 3B, and a 34 BAF was used on Areas 4 and 5. The point of observation was at 4.5 feet.

C. Grading System

Hardwoods were measured and graded to an 8-inch top and conifers were measured and graded to a 5-inch top. Volumes reflect favoring 40-foot log lengths. All diameters were measured at a height of 4.5 feet to the nearest 1-inch. Conifers less than 20 board feet and hardwoods less than 30 board feet were not recorded. All trees were graded according to Columbia River Log Scaling and Grading Rules.

5. Computation Procedures

Plot data was entered into SuperAce for computation of basal area, V-BAR, stand tables and diameters. This data was entered into the Volume Summary Worksheet to compute sale volumes.

The right-of-way volume was calculated using the residual tree data and cruise information from the Blue Ribbon Thin sale.

6. Defect and Breakage

A 10% reduction for defect and breakage was applied to the hardwood volume and a 5% reduction for defect and breakage was applied to the conifer volume.

7. Timber Description

Area 1 is an alder stand approximately 50 years old. Area 2 is an approximately 60 year old Douglas-fir and hemlock stand that has a variable density. Area 3A is a dense stand of hemlock and Douglas-fir approximately 50 years old and Area 3B is a stand of variable density of 65 year old hemlock, Douglas-fir, and cedar. The stand on Areas 4 and 5 is approximately 55 years old and mostly alder with scattered clumps of Douglas-fir and hemlock. Throughout all of the stands is a minor amount of spruce and big leaf maple.

8. Cruiser Names/Dates

Wells, Bond, Beltran and Lieske; May -June 2003

9. Revenue Distribution

100% FDF

Tax Code: 100% 56-1

Deed Number: 35

10. Attachments

Stand Tables

Volume Summary

Logging Plan

TC TSTNDSUM		Stand Table Summary															
Project FOSSADL																	
T03N R08W S17 T0105											T03N R08W S17 T0105						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page: 1			Date: 12/31/03	Time: 9:24:19AM					
03N	08W	17	AREA 1	0105	1.00	24	154										
S Spe	T	Sample			Av	Trees/ BA/ Logs			Average Log		Net	Net	Totals				
		DBH	FF	Ht	Tot	Acres	Acres	Acres	Net	Net	Tons/	Cu.Ft.	Bd.Ft	Tons	Cunits	MBF	
RA		10	2	79	28	4.460	2.33	4.46	2.6	9.6		11	43		0	0	
RA		11	6	80	52	10.558	7.00	10.56	10.3	37.9		109	400		1	0	
RA		12	12	79	60	17.672	14.00	17.67	16.2	51.6		286	913		3	1	
RA		13	10	79	75	12.528	11.67	16.27	17.7	57.9		288	942		3	1	
RA		14	10	79	74	11.048	11.67	16.54	17.5	57.4		290	949		3	1	
RA		15	17	79	80	16.313	19.83	23.96	21.9	75.1		524	1,800		5	2	
RA		16	10	79	76	8.445	11.67	13.44	23.0	69.5		309	934		3	1	
RA		17	21	79	78	15.727	24.50	26.94	25.8	84.5		694	2,276		7	2	
RA		18	3	80	79	2.011	3.50	4.02	25.8	85.4		104	343		1	0	
RA		19	4	80	82	2.402	4.67	4.80	29.0	100.0		139	480		1	0	
RA		20	7	80	77	3.788	8.17	7.02	33.6	113.9		236	800		2	1	
RA		21	1	80	79	.485	1.17	.97	39.3	110.0		38	107		0	0	
RA		22	1	79	64	.438	1.17	.88	33.5	115.0		29	101		0	0	
RA		23	4	80	65	1.647	4.67	2.47	51.5	122.7		127	303		1	0	
RA		24	4	80	72	1.495	4.67	2.62	45.0	145.9		118	382		1	0	
RA		29	1	80	58	.262	1.17	.52	55.0	170.0		29	89		0	0	
RA		34	1	80	46	.186	1.17	.19	104.0	110.0		19	20		0	0	
RA	Totals	114	79	70		109.462	133.00*	153.32	21.9	71.0		3,350	10,882		34	11	
DF		11	3	82	51	6.982	4.51	7.78	8.0	30.0		1.98	62	233	2	1	0
DF		12	1	69	37	2.933	2.38	2.93	12.0	30.0		1.11	35	88	1	0	0
DF		13	1	76	41	2.370	2.02	2.37	13.4	30.0		.99	32	71	1	0	0
DF		14	1	78	101	1.653	1.87	3.31	17.5	60.0		1.77	58	198	2	1	0
DF		15	1	81	17	.951	1.17										
DF		16	4	76	85	5.134	7.21	9.85	19.1	63.5		5.70	189	626	6	2	1
DF		18	1	78	133	.683	1.17	2.05	23.6	90.0		1.44	48	184	1	0	0
DF		20	2	79	144	1.689	3.65	5.07	32.0	125.8		4.79	162	638	5	2	1
DF		22	3	81	76	1.521	4.03	2.50	34.4	160.0		2.51	86	400	3	1	0
DF		23	1	86	136	.561	1.58	1.68	42.1	183.3		2.07	71	309	2	1	0
DF		24	2	80	17	.731	2.33										
DF		25	2	82	152	.981	3.39	2.94	56.1	235.6		4.76	165	693	5	2	1
DF		26	2	82	94	.781	2.86	1.38	59.2	253.3		2.35	82	349	2	1	0
DF		27	2	80	17	.596	2.33										
DF		29	1	81	129	.381	1.74	1.14	66.3	280.0		2.16	76	320	2	1	0
DF		33	1	79	151	.303	1.82	1.21	71.2	325.0		2.44	86	394	2	1	0
DF	Totals	28	78	73		28.248	44.05	44.21	26.0	101.9		34.08	1,151	4,503	34	12	5
WH		11	1	83	23	2.505	1.65	2.51	8.0	20.0		.64	20	50	1	0	0
WH		13	1	86	41	1.598	1.54	1.60	18.0	30.0		.89	29	48	1	0	0
WH		14	2	75	40	3.872	4.07	3.87	19.7	30.0		2.35	76	116	2	1	0
WH		18	1	91	17	.675	1.17										
WH		20	1	85	98	.702	1.58	1.40	44.5	135.0		1.84	62	189	2	1	0
WH		27	1	83	112	.436	1.69	1.31	56.3	213.3		2.12	74	279	2	1	0
WH		32	1	80	116	.322	1.78	.97	83.7	326.7		2.30	81	316	2	1	0
WH		33	1	86	113	.267	1.58	.80	85.3	400.0		1.94	68	321	2	1	0
WH		38	1	84	92	.213	1.65	.43	150.5	435.0		1.80	64	186	2	1	0
WH	Totals	10	81	47		10.590	16.71	12.88	36.8	116.8		13.87	475	1,505	14	5	2
SS		14	1	89	17	1.123	1.17										
SS		18	1	90	17	.660	1.17										
SS	Totals	2	89	17		1.783	2.33										
Totals		154	79	68		150.084	196.10	210.41	23.6	80.3		47.95	4976	16,890	48	50	17

* Net (minus wildlife tree volume) of Alder BA = 133 - 7.24 = 125.76 FT²/ACRE

TC TSTNDSUM														Stand Table Summary					
Project FOSSADL																			
T03N R08W S17 T0260										T03N R08W S17 T0260									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:											
03N	08W	17	AREA 2	0260	1.00	11	88	1	Date: 8/18/03										
									Time: 10:55:10AM										
S Spec	T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals					
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF			
WH		17	2	85	124	3.823	5.91	11.47	25.5	94.4	8.81	293	1,082	9	3	1			
WH		18	3	89	80	5.061	8.91	10.86	26.8	101.1	8.67	291	1,098	9	3	1			
WH		22	6	89	51	5.997	15.80	6.28	42.8	175.6	7.86	269	1,103	8	3	1			
WH		23	2	84	117	2.482	7.09	7.45	43.8	173.8	9.50	326	1,294	9	3	1			
WH		24	2	91	129	1.952	6.08	5.86	53.5	236.7	9.09	313	1,386	9	3	1			
WH		25	1	91	17	.759	2.55												
WH		27	1	91	17	.640	2.55												
WH		28	1	91	17	.595	2.55												
WH		29	1	90	129	.679	3.07	2.04	79.3	300.0	4.62	162	612	5	2	1			
WH		30	1	80	163	.790	3.88	2.37	94.3	393.3	6.37	224	933	6	2	1			
WH		36	1	90	17	.364	2.55												
WH		38	1	90	17	.325	2.55												
WH	Totals		22	88	85	23.468	63.47	46.32	40.5	162.1	54.92	1,877	7,508	55	19	8			
RA		9	1	79	88	5.762	2.55	11.52	5.3	25.0		61	288		1	0			
RA		11	3	79	49	11.901	7.64	11.90	11.3	39.5		135	470		1	0			
RA		12	4	81	56	13.403	10.18	13.40	15.4	51.9		206	695		2	1			
RA		13	4	80	67	11.029	10.18	13.83	16.8	55.9		233	773		2	1			
RA		14	3	82	76	7.465	7.64	9.85	21.3	72.5		210	714		2	1			
RA		15	1	86	17	1.968	2.55												
RA		17	2	80	81	3.230	5.09	6.46	25.8	80.0		166	517		2	1			
RA		18	1	79	58	1.440	2.55	1.44	45.0	90.0		65	130		1	0			
RA		19	1	79	86	1.293	2.55	2.59	33.8	105.0		87	271		1	0			
RA		20	1	80	89	1.190	2.55	2.38	37.4	115.0		89	274		1	0			
RA		21	1	80	76	1.111	2.55	2.22	33.9	95.0		75	211		1	0			
RA		22	3	79	73	2.902	7.64	5.80	37.0	126.7		215	735		2	1			
RA		23	2	80	65	1.804	5.09	2.69	50.6	132.3		136	355		1	0			
RA		25	1	79	88	.747	2.55	1.49	60.5	205.0		90	306		1	0			
RA		26	1	79	70	.701	2.55	1.40	55.4	155.0		78	217		1	0			
RA	Totals		29	80	65	65.944	73.82	86.98	21.2	68.5		1,847	5,957		18	6			
DF		19	1	80	17	1.293	2.55												
DF		20	3	81	17	3.500	7.64												
DF		21	1	81	17	1.089	2.55												
DF		22	2	81	17	1.937	5.09												
DF		24	3	82	112	3.174	9.96	7.03	49.2	196.7	10.03	346	1,383	10	3	1			
DF		25	2	77	145	2.547	8.48	8.92	38.9	168.4	10.04	347	1,503	10	3	2			
DF		30	1	80	17	.519	2.55												
DF		31	1	88	145	.623	3.29	1.87	85.4	433.3	4.54	160	810	5	2	1			
DF	Totals		14	81	65	14.683	42.09	17.82	47.8	207.4	24.61	853	3,696	25	9	4			
DFX		9	1	80	17	5.762	2.55												
DFX		14	1	81	17	2.381	2.55												
DFX		15	1	80	17	2.074	2.55												
DFX		16	2	81	85	4.602	6.43	11.11	13.8	55.0	4.63	153	611	5	2	1			
DFX		17	2	80	17	3.230	5.09												
DFX		18	3	80	101	5.014	8.97	10.72	25.5	104.6	8.16	274	1,122	8	3	1			
DFX		19	1	80	17	1.293	2.55												
DFX	Totals		11	80	47	24.356	30.67	21.84	19.6	79.4	12.79	427	1,733	13	4	2			
WHX		9	2	91	17	10.918	5.09												
WHX		11	1	70	38	4.001	2.55	4.00	10.0	30.0	1.28	40	120	1	0	0			
WHX		12	1	90	17	3.241	2.55												

LEAVE

LEAVE

TAKE

TAKE

TC TSTNDSUM

Stand Table Summary

Project FOSSADL

T03N R08W S17 T0260

T03N R08W S17 T0260

Twp Rge Sec Tract
03N 08W 17 AREA 2

Type Acres Plots Sample Trees
0260 1.00 11 88

Page: 2
Date: 8/18/03
Time: 10:55:10AM

S Spec T	Av			Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
	DBH	Sample Trees	FF 16'				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF
WHX	13	1	90	17	2.849	2.55									
WHX	15	1	91	101	2.451	3.01	4.90	25.0	100.0	3.74	123	490	4	1	0
WHX	17	2	91	17	3.230	5.09									
WHX	19	1	87	121	1.652	3.29	4.96	32.3	116.7	4.75	160	578	5	2	1
WHX	Totals	9	88	33	28.341	24.11	13.86	23.3	85.7	9.77	323	1,188	10	3	1
RC	28	1	77	17	.604	2.55									
RC	30	1	78	17	.515	2.55									
RC	31	1	78	17	.486	2.55									
RC	Totals	3	78	17	1.605	7.64									
Totals		88	83	59	158.396	241.80	186.82	28.5	107.5	102.09	5326	20,082	102	53	20

TAKE

Stand Table Summary

Project FOSSADL

T03N R08W S17 T0390

T03N R08W S17 T0390

Twp Rge Sec Tract Type Acres Plots Sample Trees
 03N 08W 17 AREA 3 **A** 0390 1.00 5 34

Page: 1
 Date: 8/18/03
 Time: 10:56:07AM

S SpC	T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
WH		12	1	91	57	10.186	8.00	10.19	18.0	60.0	5.78	183	611	6	2	1
WH		15	1	86	124	8.472	10.82	25.42	17.7	70.0	13.66	449	1,779	14	4	2
WH		17	2	90	17	10.646	16.00									
WH		18	2	91	17	9.262	16.00									
WH		19	1	80	117	6.625	12.50	19.87	28.0	90.0	16.54	556	1,789	17	6	2
WH		20	2	89	61	7.334	16.00	11.00	34.3	136.7	11.14	378	1,503	11	4	2
WH		21	2	90	17	6.652	16.00									
WH		25	1	90	17	2.347	8.00									
WH		30	1	90	17	1.630	8.00									
WH		Totals	13	89	53	63.153	111.32	66.48	23.6	85.5	47.12	1,567	5,682	47	16	6
RA		12	1	79	104	10.358	8.00	20.72	11.6	45.0		240	932		2	1
RA		14	1	80	65	11.366	12.50	22.73	13.1	45.0		298	1,023		3	1
RA		19	1	86	17	4.021	8.00									
RA		22	1	80	81	3.031	8.00	6.06	44.1	140.0		267	849		3	1
RA		25	1	80	56	2.347	8.00	4.69	39.5	145.0		186	681		2	1
RA		Totals	5	80	73	31.122	44.50	54.20	18.3	64.3		990	3,484		10	3
DF		15	1	80	17	6.976	8.00									
DF		20	1	81	17	3.667	8.00									
DF		22	1	74	124	5.386	14.61	16.16	28.4	100.0	13.41	459	1,616	13	5	2
DF		28	1	80	17	1.871	8.00									
DF		Totals	4	78	49	17.900	38.61	16.16	28.4	100.0	13.41	459	1,616	13	5	2
DFX		11	1	81	17	12.811	8.00									
DFX		Totals	1	81	17	12.811	8.00									
WHX		9	3	90	17	54.325	24.00									
WHX		11	1	91	17	12.122	8.00									
WHX		13	3	91	17	26.597	24.00									
WHX		15	2	90	17	13.038	16.00									
WHX		18	2	90	17	9.054	16.00									
WHX		Totals	11	90	17	115.136	88.00									
Totals			34	87	36	240.123	290.43	136.84	22.0	78.8	60.53	3016	10,782	61	30	11

LEAVE

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TAKE

TAKE

TC TSTNDSUM													Stand Table Summary				
Project FOSSADL																	
T03N R08W S17 T0395										T03N R08W S17 T0395							
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees			Page:							
03N	08W	17	AREA 3 B	0395	1.00	21	167			1	Date:	8/18/03					
										Time:	10:56:48AM						
S Spc	T	Av			Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft Acre	Totals				
		Sample DBH	FF Trees	Ht 16'				Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF	
WHX		8	1	91	17	5.457	1.90										
WHX		10	2	90	17	6.985	3.81										
WHX		11	4	91	17	11.601	7.62										
WHX		12	2	77	84	7.509	5.79	9.74	16.0	45.0	4.90	156	438	5	2	0	
WHX		13	5	90	46	10.501	9.52	8.60	15.7	55.0	4.23	135	473	4	1	0	
WHX		14	4	85	60	8.200	8.77	9.98	20.8	63.6	6.40	208	635	6	2	1	
WHX		15	3	92	86	5.212	6.31	9.30	23.9	81.7	6.78	222	760	7	2	1	
WHX		16	2	91	67	2.728	3.81	4.09	23.7	96.7	2.93	97	396	3	1	0	
WHX		17	4	90	37	4.908	7.62	2.42	34.0	125.0	2.47	82	302	2	1	0	
WHX		18	1	91	17	1.127	1.90										
WHX		19	5	91	17	4.932	9.52										
WHX		20	3	90	17	2.602	5.71										
WHX		21	3	90	43	2.376	5.71	1.58	51.5	210.0	2.39	82	333	2	1	0	
WHX		22	4	90	17	2.873	7.62										
WHX		23	3	90	83	1.964	5.71	3.96	46.5	198.3	5.36	184	786	5	2	1	
WHX		24	3	91	17	1.819	5.71										
WHX		25	4	90	81	2.258	7.62	3.91	58.3	265.7	6.59	228	1,039	7	2	1	
WHX	Totals	53	89	42		83.052	104.68	53.58	26.0	96.3	42.05	1,394	5,161	42	14	5	
DFX		15	1	85	114	2.099	2.58	4.20	25.0	65.0	3.20	105	273	3	1	0	
DFX		16	1	81	17	1.364	1.90										
DFX		18	1	80	17	1.078	1.90										
DFX		20	1	81	17	.873	1.90										
DFX		21	1	80	17	.792	1.90										
DFX		22	2	84	120	1.443	3.81	4.33	37.4	155.0	4.73	162	671	5	2	1	
DFX		23	1	81	121	.660	1.90	1.98	38.0	143.3	2.19	75	284	2	1	0	
DFX		24	2	84	93	1.383	4.36	3.11	40.7	195.0	3.66	126	606	4	1	1	
DFX		25	1	86	123	.582	1.90	1.75	48.5	220.0	2.45	85	384	2	1	0	
DFX	Totals	11	83	74		10.274	22.18	15.36	36.0	144.4	16.24	553	2,217	16	6	2	
DF		26	1	86	138	.517	1.90	1.55	60.6	273.3	2.71	94	424	3	1	0	
DF		27	1	86	157	.479	1.90	2.40	42.4	220.0	2.91	101	527	3	1	1	
DF		28	2	80	17	.891	3.81										
DF		30	3	81	17	1.177	5.71										
DF		31	1	80	17	.363	1.90										
DF		32	3	81	17	1.023	5.71										
DF		33	4	80	17	1.293	7.62										
DF		34	1	80	17	.302	1.90										
DF		36	4	80	17	1.078	7.62										
DF		37	2	81	17	.506	3.81										
DF		39	5	81	17	1.147	9.52										
DF		40	2	80	17	.438	3.81										
DF		42	2	80	17	.394	3.81										
DF		43	2	81	17	.381	3.81										
DF		44	1	80	17	.180	1.90										
DF		45	4	80	17	.685	7.62										
DF		48	3	81	17	.455	5.71										
DF	Totals	41	81	28		11.308	78.10	3.95	49.5	241.0	5.62	195	951	6	2	1	
RA		9	1	80	54	4.312	1.90	4.31	8.3	30.0		36	129		0	0	
RA		11	1	80	46	2.784	1.90	2.78	10.2	40.0		28	111		0	0	
RA		13	1	80	98	2.066	1.90	4.13	13.6	50.0		56	207		1	0	
RA		15	2	83	44	3.104	3.81	1.55	34.0	90.0		53	140		1	0	

TAKE

TAKE

LEAVE

TC TSTNDSUM

Stand Table Summary

Project FOSSADL

T03N R08W S17 T0395

T03N R08W S17 T0395

Twp Rge Sec Tract
03N 08W 17 AREA 3 **B**

Type Acres Plots Sample Trees
0395 1.00 21 167

Page: 2
Date: 8/18/03
Time: 10:56:48AM

S Spec	T	Sample			Av Ht	Trees/ BA/		Logs Acres	Average Log		Net Tons/ Acres	Net Cu.Ft. Acres	Net Bd.Ft Acres	Totals		
		DBH	Trees	16'		Tot	Acres		Acres	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits
RA	17	1	87	57	1.208	1.90	2.42	18.4	70.0		44	169			0	0
RA	18	1	87	17	1.078	1.90										
RA	19	1	87	17	.967	1.90										
RA	20	1	86	44	.873	1.90	.87	40.1	60.0		35	52			0	0
RA	21	1	86	17	.792	1.90										
RA	25	1	87	17	.559	1.90										
RA	Totals	11	83	49	17.744	20.95	16.07	15.7	50.3		253	809			3	1
WH	26	4	91	17	2.066	7.62										
WH	27	1	82	147	.692	2.83	2.77	58.0	220.0	4.60	160	609		5	2	1
WH	29	2	90	17	.831	3.81										
WH	30	1	90	17	.388	1.90										
WH	32	1	91	17	.341	1.90										
WH	36	1	90	17	.269	1.90										
WH	37	1	90	17	.256	1.90										
WH	40	1	90	17	.216	1.90										
WH	41	1	91	17	.208	1.90										
WH	43	1	91	17	.189	1.90										
WH	48	1	91	17	.155	1.90										
WH	Totals	15	90	33	5.611	29.50	2.77	58.0	220.0	4.60	160	609		5	2	1
OC	22	1	90	17	.722	1.90										
OC	32	1	89	17	.341	1.90										
OC	Totals	2	90	17	1.063	3.81										
RC	10	2	77	17	6.985	3.81										
RC	13	1	78	17	2.066	1.90										
RC	18	1	77	17	1.078	1.90										
RC	19	2	78	17	1.905	3.81										
RC	20	1	77	17	.873	1.90										
RC	25	4	77	17	2.235	7.62										
RC	26	1	78	17	.517	1.90										
RC	27	1	78	17	.479	1.90										
RC	28	2	77	17	.891	3.81										
RC	29	2	77	17	.831	3.81										
RC	31	1	77	17	.363	1.90										
RC	32	1	78	17	.335	1.90										
RC	34	1	78	17	.302	1.90										
RC	38	1	77	17	.242	1.90										
RC	39	2	77	17	.458	3.81										
RC	40	2	77	17	.439	3.81										
RC	41	2	77	17	.416	3.81										
RC	42	1	77	17	.198	1.90										
RC	46	1	77	17	.168	1.90										
RC	49	2	77	17	.292	3.81										
RC	55	1	77	17	.116	1.90										
RC	Totals	32	77	17	21.188	60.95										
SS	36	1	90	17	.269	1.90										
SS	57	1	90	17	.109	1.90										
SS	Totals	2	90	17	.379	3.81										
Totals		167	85	40	150.618	323.97	91.73	27.9	106.3	68.52	2556	9,746		69	26	10

LEAVE

Stand Table Summary																
Project FOSSADL																
T03N R08W S17 T0450										T03N R08W S17 T0450						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page: 1								
03N	08W	17	AREA 4	0450	1.00	24	145	Date: 12/31/03								
								Time: 9:25:26AM								
S Spec	T	Sample			Av Ht	Trees/ Acres	BA/ Acres	Logs Acres	Average Log		Net Tons/ Acres	Net Cu.Ft. Acres	Net Bd.Ft. Acres	Totals		
		DBH	Trees	16'					Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits
RA	10	1	80	36	2.568	1.40	2.57	5.4	20.0	14	51		0	0		
RA	11	5	81	62	10.610	7.00	8.49	12.4	45.0	105	382		1	0		
RA	12	11	80	65	19.815	15.40	21.60	16.0	56.3	345	1,217		3	1		
RA	13	15	79	82	22.897	21.01	36.51	15.1	49.6	551	1,810		6	2		
RA	14	9	80	88	11.887	12.60	18.48	18.1	70.0	334	1,293		3	1		
RA	15	8	80	99	9.263	11.20	18.46	18.1	69.9	335	1,290		3	1		
RA	16	13	80	98	13.105	18.21	24.20	23.4	86.3	567	2,088		6	2		
RA	17	8	80	93	7.110	11.20	12.44	27.6	96.8	343	1,204		3	1		
RA	18	8	80	99	6.440	11.20	12.90	30.1	104.9	388	1,353		4	1		
RA	19	5	79	83	3.587	7.00	6.46	31.9	103.8	206	671		2	1		
RA	20	3	82	70	1.965	4.20	1.98	39.6	140.0	79	278		1	0		
RA	21	2	79	75	1.170	2.80	2.34	34.4	107.6	81	252		1	0		
RA	22	2	80	65	1.066	2.80	2.13	34.7	110.2	74	235		1	0		
RA	30	1	79	52	.285	1.40	.29	73.0	80.0	21	23		0	0		
RA	Totals	91	80	81	111.768	127.44*	168.85	20.4	71.9	3,443	12,148		34	12		
DF	11	4	76	56	13.859	8.78	17.82	8.2	26.5	4.69	146	473	5	1	0	
DF	13	3	78	83	7.349	6.81	12.04	15.5	48.3	5.81	187	582	6	2	1	
DF	17	1	74	82	1.722	2.56	3.44	22.0	55.0	2.28	76	189	2	1	0	
DF	18	2	84	75	1.843	3.21	3.07	24.4	96.7	2.24	75	297	2	1	0	
DF	20	2	81	17	1.253	2.80										
DF	21	1	83	147	.845	2.03	2.54	38.3	160.0	2.85	97	406	3	1	0	
DF	22	3	80	161	2.196	5.78	8.25	34.3	140.7	8.28	283	1,161	8	3	1	
DF	23	2	81	144	1.447	4.18	4.34	39.1	175.6	4.95	170	762	5	2	1	
DF	24	3	84	188	1.637	5.12	5.45	54.6	289.5	8.63	297	1,577	9	3	2	
DF	25	1	80	17	.421	1.40										
DF	26	4	81	66	1.706	6.23	2.17	50.3	237.5	3.15	109	516	3	1	1	
DF	28	1	80	134	.485	2.13	1.46	65.3	263.3	2.72	95	383	3	1	0	
DF	29	2	86	101	.677	3.13	1.52	65.5	350.0	2.84	100	531	3	1	1	
DF	32	1	81	136	.382	2.13	1.15	86.2	366.7	2.80	99	420	3	1	0	
DF	37	1	83	136	.272	2.03	.82	117.0	556.7	2.69	96	455	3	1	0	
DF	38	1	81	142	.271	2.13	1.08	93.9	452.5	2.86	102	491	3	1	0	
DF	Totals	32	79	84	36.365	60.48	65.14	29.7	126.5	56.79	1,932	8,243	57	19	8	
WH	9	1	90	72	3.828	1.69	3.83	12.0	50.0	1.52	46	191	2	0	0	
WH	11	1	91	71	2.507	1.65	5.01	10.0	35.0	1.60	50	175	2	1	0	
WH	12	1	79	43	2.609	2.19	2.61	15.0	30.0	1.23	39	78	1	0	0	
WH	15	2	81	83	3.678	4.22	7.36	20.0	57.8	4.52	147	425	5	1	0	
WH	16	1	87	103	1.380	1.81	2.76	26.5	95.0	2.22	73	262	2	1	0	
WH	17	1	81	68	1.386	2.08	2.77	22.0	50.0	1.84	61	139	2	1	0	
WH	20	1	89	122	.642	1.40	1.93	37.0	143.3	2.10	71	276	2	1	0	
WH	31	1	88	127	.337	1.77	1.01	90.7	413.3	2.61	92	418	3	1	0	
WH	35	1	90	134	.210	1.40	.63	121.7	613.3	2.16	77	386	2	1	0	
WH	39	1	78	170	.277	2.30	1.11	99.5	442.5	3.10	110	491	3	1	0	
WH	Totals	11	85	77	16.854	20.51	29.01	26.4	98.0	22.89	767	2,842	23	8	3	
DFX	12	1	75	48	3.223	2.49	3.22	14.3	30.0	1.45	46	97	1	0	0	
DFX	14	1	81	17	1.310	1.40										
DFX	20	2	82	84	1.524	3.39	2.70	32.1	130.0	2.56	87	351	3	1	0	
DFX	22	1	80	17	.526	1.40										
DFX	Totals	5	78	48	6.583	8.68	5.93	22.4	75.6	4.01	133	448	4	1	0	
WHX	11	1	78	42	3.662	2.24	3.66	11.0	30.0	1.30	40	110	1	0	0	

Doug-fir
LEAVE

HEMLOCK
LEAVE

Doug-fir
TAKE

HEMLOCK
TAKE

*Net (minus wildlife tree volume) of Alder RA = 127.44 - 2.72 = 124.72 FT³/ACRE

TC TSTNDSUM													Stand Table Summary			
Project FOSSADL																
T03N R08W S17 T0450										T03N R08W S17 T0450						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	Date:		Time:					
03N	08W	17	AREA 4	0450	1.00	24	145	2	12/31/03		9:25:26AM					
S	Sample	FF	Av Ht	Trees/	BA/	Logs	Average Log	Net	Net	Totals						
Sp	T	DBH	Trees	16'	Tot	Acres	Acres	Acres	Net	Net	Tons/	Cu.Ft.	Bd.Ft	Tons	Cunits	MBF
											Acres	Acres	Acres			
WHX	Totals	1	78	42	3.662	2.24	3.66	11.0	30.0	1.30	40	110	1	0	0	
BM	15	1	86	17	1.126	1.40										
BM	Totals	1	86	17	1.126	1.40										
SS	13	1	89	17	1.643	1.40										
SS	14	1	90	17	1.310	1.40										
SS	16	1	90	17	.955	1.40										
SS	18	1	89	17	.810	1.40										
SS	Totals	4	89	17	4.718	5.60										
Totals		145	80	77	181.076	226.35	272.59	23.2	87.3	84.98	6314	23,791	85	63	24	

HEMLOCK
TAKE

SPRUCE
LEAVE

TC TSTNDSUM		Stand Table Summary															
Project FOSSADL											T03N R08W S17 T0550						
T03N R08W S17 T0550											T03N R08W S17 T0550						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page: 1			Date: 8/18/03						
03N	08W	17	AREA 5	0550	1.00	24	145	Time: 10:58:15AM									
S Spec	T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
RA		10	1	80	36	2.568	1.40	2.57	7.0	20.0		18	51		0	0	
RA		11	5	81	62	10.610	7.00	12.73	10.2	40.0		129	509		1	1	
RA		12	11	80	65	19.815	15.40	21.60	15.9	55.4		344	1,198		3	1	
RA		13	15	79	82	22.897	21.01	36.51	15.1	49.6		551	1,810		6	2	
RA		14	9	80	88	11.887	12.60	18.48	18.1	70.0		334	1,293		3	1	
RA		15	8	80	99	9.263	11.20	18.46	18.1	69.9		335	1,290		3	1	
RA		16	13	80	98	13.105	18.21	24.20	23.4	86.3		567	2,088		6	2	
RA		17	8	80	93	7.110	11.20	12.44	27.6	96.8		343	1,204		3	1	
RA		18	8	80	99	6.440	11.20	12.90	30.1	104.9		388	1,353		4	1	
RA		19	5	79	83	3.587	7.00	6.46	31.9	103.8		206	671		2	1	
RA		20	3	82	70	1.965	4.20	1.98	39.6	140.0		79	278		1	0	
RA		21	2	79	75	1.170	2.80	2.34	35.9	112.6		84	263		1	0	
RA		22	2	80	65	1.066	2.80	2.13	34.7	110.2		74	235		1	0	
RA		30	1	79	52	.285	1.40	.29	73.0	80.0		21	23		0	0	
RA	Totals		91	80	81	111.768	127.44	173.09	20.1	70.9		3,474	12,267		35	12	
DF		11	4	76	56	13.859	8.78	17.82	7.9	26.5		4.50	140	473	5	1	0
DF		13	3	78	83	7.349	6.81	12.04	14.9	44.4		5.59	180	534	6	2	1
DF		17	1	74	82	1.722	2.56	3.44	21.5	55.0		2.23	74	189	2	1	0
DF		18	2	84	75	1.843	3.21	3.07	24.3	93.3		2.23	75	287	2	1	0
DF		20	2	81	17	1.253	2.80										
DF		21	1	83	147	.845	2.03	2.54	38.3	163.3		2.85	97	414	3	1	0
DF		22	3	80	161	2.196	5.78	8.25	34.3	140.7		8.28	283	1,161	8	3	1
DF		23	2	81	144	1.447	4.18	4.34	39.1	175.6		4.95	170	762	5	2	1
DF		24	3	84	188	1.637	5.12	5.45	54.6	289.5		8.63	297	1,577	9	3	2
DF		25	1	80	17	.421	1.40										
DF		26	4	81	66	1.706	6.23	2.17	50.3	237.5		3.15	109	516	3	1	1
DF		28	1	80	134	.485	2.13	1.46	65.3	263.3		2.72	95	383	3	1	0
DF		29	2	86	101	.677	3.13	1.52	65.5	350.0		2.84	100	531	3	1	1
DF		32	1	81	136	.382	2.13	1.15	86.2	366.7		2.80	99	420	3	1	0
DF		37	1	83	136	.272	2.03	.82	117.0	556.7		2.69	96	455	3	1	0
DF		38	1	81	142	.271	2.13	1.08	93.9	452.5		2.86	102	491	3	1	0
DF	Totals		32	79	84	36.365	60.48	65.14	29.4	125.8		56.30	1,916	8,194	56	19	8
WH		9	1	90	72	3.828	1.69	3.83	12.0	50.0		1.52	46	191	2	0	0
WH		11	1	91	71	2.507	1.65	5.01	10.0	35.0		1.60	50	175	2	1	0
WH		12	1	79	43	2.609	2.19	2.61	16.0	40.0		1.31	42	104	1	0	0
WH		15	2	81	83	3.678	4.22	7.36	20.0	57.8		4.52	147	425	5	1	0
WH		16	1	87	103	1.380	1.81	2.76	26.5	95.0		2.22	73	262	2	1	0
WH		17	1	81	68	1.386	2.08	2.77	20.0	45.0		1.67	55	125	2	1	0
WH		20	1	89	122	.642	1.40	1.93	37.0	143.3		2.10	71	276	2	1	0
WH		31	1	88	127	.337	1.77	1.01	90.7	413.3		2.61	92	418	3	1	0
WH		35	1	90	134	.210	1.40	.63	121.7	613.3		2.16	77	386	2	1	0
WH		39	1	78	170	.277	2.30	1.11	99.5	442.5		3.10	110	491	3	1	0
WH	Totals		11	85	77	16.854	20.51	29.01	26.3	98.4		22.81	764	2,854	23	8	3
DFX		12	1	75	48	3.223	2.49	3.22	13.7	30.0		1.40	44	97	1	0	0
DFX		14	1	81	17	1.310	1.40										
DFX		20	2	82	84	1.524	3.39	2.70	32.0	130.0		2.55	87	351	3	1	0
DFX		22	1	80	17	.526	1.40										
DFX	Totals		5	78	48	6.583	8.68	5.93	22.1	75.6		3.95	131	448	4	1	0
WHX		11	1	78	42	3.662	2.24	3.66	11.0	30.0		1.30	40	110	1	0	0

LEAVE

LEAVE

TAKE

TAKE

TC TSTNDSUM													Stand Table Summary		
Project FOSSADL															
T03N R08W S17 T0550										T03N R08W S17 T0550					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	Date:		Time:				
03N	08W	17	AREA 5	0550	1.00	24	145	2	8/18/03		10:58:15AM				
S Spc T	Sample DBH	FF Trees	Av Ht 16' Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft Acre	Totals			
							Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
WHX	Totals	1	78	42	3.662	2.24	3.66	11.0	30.0	1.30	40	110	1	0	0
BM	15	1	86	17	1.126	1.40									
BM	Totals	1	86	17	1.126	1.40									
SS	13	1	89	17	1.643	1.40									
SS	14	1	90	17	1.310	1.40									
SS	16	1	90	17	.955	1.40									
SS	18	1	89	17	.810	1.40									
SS	Totals	4	89	17	4.718	5.60									
Totals		145	80	77	181.076	226.35	276.84	22.8	86.2	84.36	6325	23,873	84	63	24



"STEWARDSHIP IN FORESTRY"

Foss Alder

Volume Summary

Area 1						
41 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Alder	125.8	85	10.7	439	10%	395
TOTAL				439		395

Area 2						
39 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	30.7	157	4.8	187	5%	178
Hemlock	24.1	143	3.4	133	5%	126
TOTAL				320		304

Area 3 A						
8 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	8	200	1.6	13	5%	12
Hemlock	88	195	17.2	138	5%	131
TOTAL				151		143

Area 3 B						
21 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	22.2	200	4.4	92	5%	87
Hemlock	104.7	195	20.4	428	5%	407
TOTAL				520		494



"STEWARDSHIP IN FORESTRY"

Foss Alder

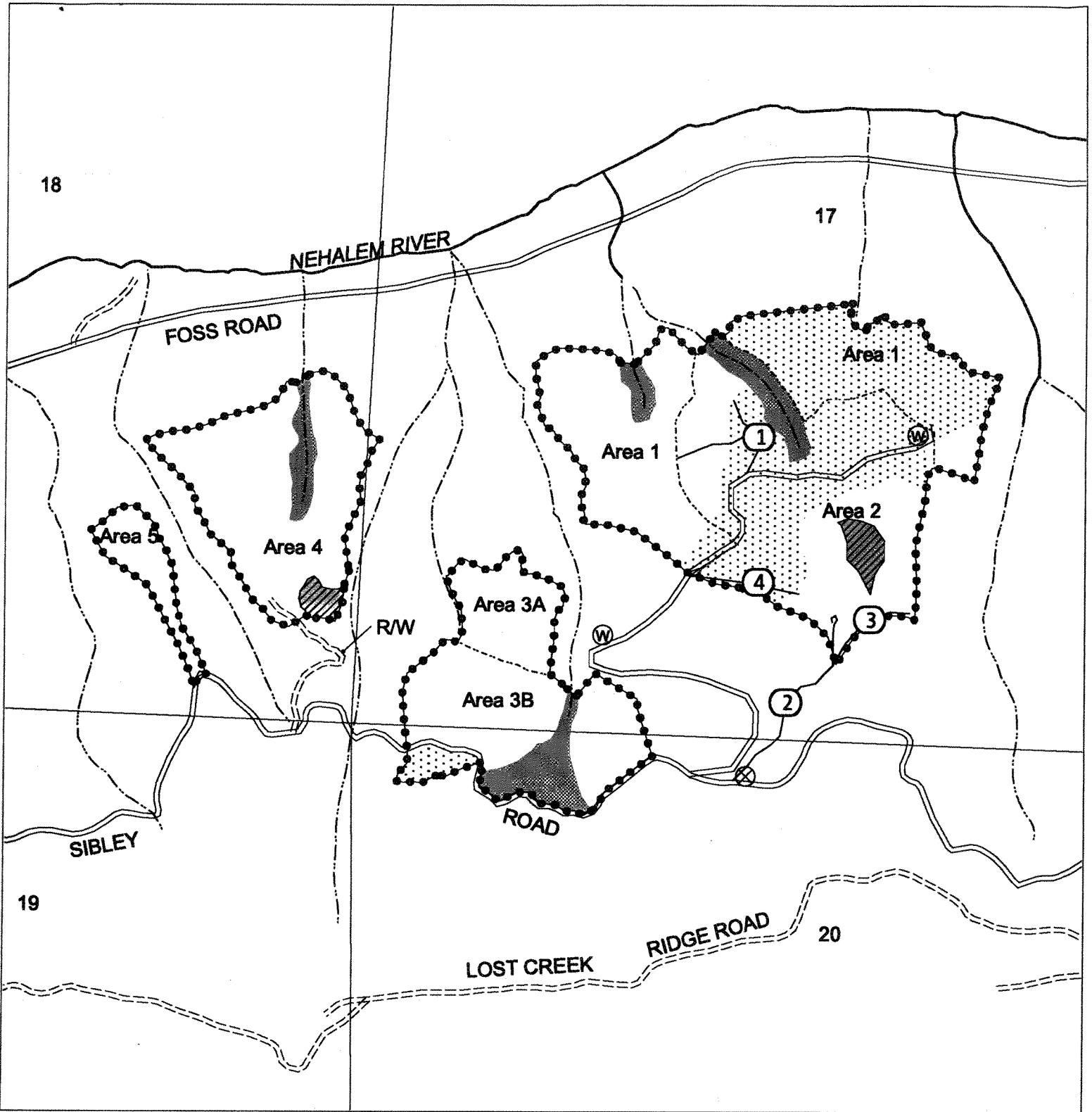
Volume Summary

Area 4						
25 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	8.7	215	1.9	48	5%	46
Hemlock	2.2	212	0.5	13	5%	12
Alder	124.7	104	13.0	325	10%	293
TOTAL				386		351

Area 5						
5 acres						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	8.7	215	1.9	10	5%	10
Hemlock	2.2	212	0.5	3	5%	3
Alder	127.4	104	13.2	66	10%	59
TOTAL				79		72

Area Right of Way						
1 acre						
SPECIES	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	42	145	6.1	6	5%	6
Hemlock	100	160	16.0	16	5%	15
TOTAL				22		21

TOTAL SALE VOLUME		
SPECIES	MBF	Net Vol. (MBF)
Douglas-fir	356	339
Hemlock	731	694
Alder	830	747
TOTAL	1917	1780



- Tractor landing
- Cable landing
- ▲ Domestic water supply
- ⊗ Block
- Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- ▧ Buffer zone
- ▨ Non-required thinning
- ⊂ Green tree retention area
- Setting boundary
- Area boundary
- Sale boundary
- Ownership boundary
- Type-F stream
- Type-N stream
- ==== Surfaced 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. 341-04-56
 Foss Alder
 Portions of sections 17, 18, and 20, T3N, R8W, W. M.
 Tillamook County, Oregon

Area	Type of Operation	Acres	
		Gross	Net
1	Clearcut	43	41
2	Partial Cut	44	39
3	Partial Cut	33	29
4	Clearcut	29	25
5	Clearcut	5	5
R/W	Clearcut	1	1
Total		155	140



OREGON DEPARTMENT OF FORESTRY
WRITTEN PLAN

SALE NAME: Foss Alder

PROTECTED RESOURCES: Unnamed tributaries to Nehalem River

LOCATION: Portions of Sections 17 and 18, T3N, R8W, W.M., Tillamook County, Oregon.

HARVEST ACTIVITIES: Logging cables strung across Type F stream for cable harvesting

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

PROTECTION MEASURES:

YARDING and FELLING:

- Adjacent trees will be felled away from or parallel to the RMA when possible.
- If trees or logs fall or slide into a stream channel they shall not be limbed, bucked, or removed without approval from ODF.
- When cable yarding lines are strung across the Type F stream RMA's, they will be at least 150 feet apart and pulled out of the RMA prior to rigging the next yarding road.
- Operator will minimize disturbances in the RMA and take all necessary precautions to protect RMA components.

PROJECT WORK ACTIVITIES: Fills over 15 feet tall will be constructed for approximately 150 feet.

PROTECTION MEASURES:

- Fill material will be placed and compacted in 8 inch lifts. Fill slopes will be constructed at a 1½:1 fill width to height ratio. Toe of fill shall not be placed on slopes with gradients greater than 50% (unless a bench is available as a catch).
- All disturbed soil will be grass seeded, fertilized and mulched to minimize erosion.
- Waterbars will be installed on vacated road segments to divert water from existing road surface.

PREPARED BY: David Wells, Forester, North Unit, and
Vanessa Stone, Road Specialist
August 2003