



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Number Nine
Sale 341-12-13

District: Forest Grove

Date: December 07, 2011

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$795,459.69	\$8,962.20	\$804,421.89
		Project Work:	\$(42,000.00)
		Advertised Value:	\$762,421.89



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timber description

Location: Portions of Section 30, T3N, R6W, W.M., Tillamook County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	18	0	98
Alder (Red)	15	0	98

Volume by Grade	2S	3S	4S	Camprur	Total
Douglas - Fir	1,572	785	154	0	2,511
Alder (Red)	0	0	0	26	26
Total	1,572	785	154	26	2,537



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comments: Pond Values Used: 3rd Quarter Calendar Year 2011.

Western hemlock and Other Conifers Stumpage Price = Pond Value
minus Logging Cost:
 $\$255.52/\text{MBF} = \$455.00/\text{MBF} - \$199.48/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Cost:
 $\$700.52/\text{MBF} = \$900.00/\text{MBF} - \$199.48/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to \$740 daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: 2,537 MBF @ \$1/MBF = \$2,537
Total Other Costs (with Profit & Risk to be added) = \$2,537

Other Costs (No Profit & Risk added):
Firewood Sorting: 10 hrs @ \$150/hr = \$1,500
Covering Slash piles: \$200
Equipment Cleaning: 3 machines @ \$1,000 per machine = \$3,000
TOTAL Other Costs (No Profit & Risk added) = \$4,700

ROAD MAINTENANCE
Move-in: \$2,000
General Road Maintenance: 9 miles x \$1,000/mile = \$9,000
TOTAL: \$11,000 / 2,537 MBF = \$4.33/MBF



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logging conditions

combination#: 1 Douglas - Fir 90.00%
 Alder (Red) 90.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Medium Tower >40 - <70 **Process:** Manual Felling/Delimbing
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 6.0 **bd. ft / load:** 4,700
cost / mbf: \$122.70

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

combination#: 2 Douglas - Fir 10.00%
 Alder (Red) 10.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Manual Felling/Delimbing
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 6.0 **bd. ft / load:** 4,700
cost / mbf: \$88.82

machines: Shovel Logger



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logging costs

Operating Seasons:	1.00	Profit Risk:	10.00%
Project Costs:	\$42,000.00	Other Costs (P/R):	\$2,537.00
Slash Disposal:	\$0.00	Other Costs:	\$4,700.00

Miles of Road

Road Maintenance: \$4.33

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	3.0	4.7
Alder (Red)	\$0.00	2.0	4.0



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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$119.31	\$4.42	\$1.73	\$48.66	\$1.00	\$17.51	\$0.00	\$5.00	\$1.85	\$199.48
Alder (Red)									
\$119.31	\$4.42	\$1.73	\$85.77	\$1.00	\$21.22	\$0.00	\$5.00	\$1.85	\$240.30

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$516.27	\$316.79	\$0.00
Alder (Red)	\$0.00	\$585.00	\$344.70	\$0.00



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summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	2,511	\$316.79	\$795,459.69
Alder (Red)	26	\$344.70	\$8,962.20

Gross Timber Sale Value

Recovery: \$804,421.89

Prepared by: Peter Stone

Phone: 503-357-2191

TIMBER SALE SUMMARY

Number Nine

Contract No. 341-12-13

1. **Type of Sale:** The Timber Sale is an 82 acre Modified Clearcut (MC). The timber will be sold on a recovery basis at a sealed bid auction.
2. **Revenue Distribution:** 100% BOF; Tillamook County – Tax Code 56-1.
3. **Sale Acreage:** Acres are net of stream buffers and existing road prisms. Acreage was determined using ESRI ArcMap GIS software.
4. **Cruise Data:** The Timber Sale was cruised with a combination of Stand Level Inventory plots and ODF Cruiser plots. For more information see Cruise Report.
5. **Timber Description:** Timber Sale Area is medium to well stocked, 60 year old Douglas-fir stand with minor amounts of western hemlock, noble fir, and hardwoods. The average Douglas-fir DBH is approximately 18 inches. The estimated average net Douglas-fir volume is 31.2 MBF per acre.
6. **Topography and Logging Method:** Slopes within the sale are predominately east facing aspects ranging from 5% to 80%. The sale area is 90% cable-based yarding and 10% ground-based yarding.
7. **Access:** From Forest Grove, travel north on Highway 47 through Banks then merge onto Highway 26 westbound and continue for approximately 20 miles. Between the 31 and the 32 mile markers, turn south onto the Salmonberry Road and continue for approximately 8.8 miles to the junction of Salmonberry Road and Beaver Slide road. This is the northwest corner of the Timber Sale Area.
8. **Projects:**
 - Project No. 1 - construct and improve 2.23 miles of road - \$12,784.49
 - Project No. 2 - surface 2.23 miles of road - \$22,441.35
 - Project No. 3 - grass seed and fertilize - \$125.25

Equipment Move-in and Cleaning - \$6,605.48

Total rounded credit for project work is \$42,000.00

9. Other Costs:

Other Costs (with Profit & Risk to be added):

Brand and Paint: 2,537 MBF @ \$1/MBF = \$2,537

Total Other Costs (with Profit & Risk to be added) = \$2,537

Other Costs (No Profit & Risk added):

Firewood Sorting: 10 hrs @ \$150/hr = \$1,500

Covering Slash piles: \$200

Equipment Cleaning: 3 machines @ \$1,000 per machine = \$3,000

TOTAL Other Costs (No Profit & Risk added) = \$4,700

ROAD MAINTENANCE

Move-in: \$2,000

General Road Maintenance: 9 miles x \$1,000/mile = \$9,000

TOTAL: \$11,000 / 2,537 MBF = \$4.33/MBF

PROJECT COST SUMMARY SHEETTimber Sale: Number NineSale Number: 341-12-13**PROJECT NO. 1: ROAD CONSTRUCTION & IMPROVEMENT****CONSTRUCTION**

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A to B	8+60	\$2,214.74
C to D	3+80	\$1,153.03
	12+40 stations	
	0.23 miles	

SUBTOTAL CONSTRUCTION \$3,367.77**IMPROVEMENTS**

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
E to F	105+60	\$9,416.72
	105+60 stations	
	2.00 miles	

SUBTOTAL IMPROVEMENTS \$9,416.72**TOTAL PROJECT NO. 1 COST =** \$12,784.49**PROJECT NO. 2: SURFACING**

<u>Road Segment</u>	<u>Amount</u>	<u>Type</u>	<u>Cost</u>
A to B	660 cy	6"-0	\$5,695.80
C to D	387 cy	6"-0	\$3,254.67
E to F	2,256 cy	1½"-0	\$13,490.88
Total	1,047 cy	6"-0	
	2,256 cy	1½"-0	

TOTAL PROJECT NO. 2 COST = \$22,441.35**PROJECT NO. 3: GRASS SEED & FERTILIZE**

Grass seed and fertilize areas of disturbed soil.	\$125.25
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TOTAL PROJECT NO. 3 COST = \$125.25**MOVE IN & EQUIPMENT CLEANING** \$6,605.48**TOTAL ALL PROJECTS** \$41,956.57**TOTAL CREDITS** \$42,000.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: Number Nine
Road Segment: A to B

Timber Sale No. : 341-12-13
Construction: 8+60 stations
0.16 miles

PROJECT NO. 1**EXCAVATION**

Clearing and Grubbing (Scatter)	0.79	acres @	\$980.00	per acre =	\$773.92
Balanced Road Construction	8.60	sta @	\$90.00	per sta =	\$774.00
Construct Turnaround (1)	1	ea @	\$75.00	per ea =	\$75.00
Construct Turnout (1)	1	ea @	\$60.00	per ea =	\$60.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	8.60	sta @	\$28.70	per sta =	\$246.82

PROJECT NO. 1 TOTAL COST = \$2,214.74

PROJECT NO. 2:

SURFACING	10	" deep =	53 cy/sta		
A to B	456	cy of	6" - 0	@	\$8.63 per cy = \$3,935.28
Turnarounds (1)	16	cy of	6" - 0	@	\$8.63 per cy = \$138.08
Turnouts (1)	18	cy of	6" - 0	@	\$8.63 per cy = \$155.34
Junction	20	cy of	6" - 0	@	\$8.63 per cy = \$172.60
Landing (1)	150	cy of	6" - 0	@	\$8.63 per cy = \$1,294.50
Total =	660	cy of	6" - 0		

PROJECT NO. 2 TOTAL COST = \$5,695.80

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.39	acres @	\$220.00	per acre =	\$86.87
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PROJECT NO. 3 TOTAL COST = \$86.87

TOTAL COST = \$7,997.41

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Number Nine**
Road Segment: **C to D**

Timber Sale No. : **341-12-13**
Construction: **3+80** stations
0.07 miles

PROJECT NO. 1**EXCAVATION**

Clearing and Grubbing (Scatter)	0.35	acres @	\$980.00	per acre =	\$341.97
Balanced Road Construction	3.80	sta @	\$90.00	per sta =	\$342.00
Construct Turnaround (1)	1	ea @	\$75.00	per ea =	\$75.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	3.80	sta @	\$28.70	per sta =	\$109.06

PROJECT NO. 1 TOTAL COST = \$1,153.03

PROJECT NO. 2:

SURFACING	10	" deep =	53 cy/sta		
C to D	201	cy of	6" - 0	@	\$8.41 per cy = \$1,690.41
Turnarounds (1)	16	cy of	6" - 0	@	\$8.41 per cy = \$134.56
Junction	20	cy of	6" - 0	@	\$8.41 per cy = \$168.20
Landing (1)	150	cy of	6" - 0	@	\$8.41 per cy = \$1,261.50
Total =	387	cy of	6" - 0		

PROJECT NO. 2 TOTAL COST = \$3,254.67

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil.	0.17	acres @	\$220.00	per acre =	\$38.38
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PROJECT NO. 3 TOTAL COST = \$38.38

TOTAL COST = \$4,446.08

SUMMARY OF CONSTRUCTION COST

Timber Sale: Number Nine
Road Segment: E to F

Timber Sale No. : 341-12-13
Improvement: 105+60 stations
2.00 miles

PROJECT NO. 1

EXCAVATION

Pull Ditch and Scatter Waste Material	105.60	sta @	\$60.00	per sta =	\$6,336.00	
Grade and Roll	105.60	sta @	\$28.70	per sta =	\$3,030.72	
				TOTAL EXCAVATION COSTS=		\$9,366.72

CULVERTS - MATERIALS & INSTALLATION

Culvert Markers
5 markers \$50.00

TOTAL CULVERT COSTS = \$50.00

PROJECT NO. 1 TOTAL COST = \$9,416.72

PROJECT NO. 2:

SURFACING

	3	" deep =	20 cy/sta			
E to F	2,112	cy of	1½" - 0	@	\$5.98 per cy =	\$12,629.76
Curve Widening	20	cy of	1½" - 0	@	\$5.98 per cy =	\$119.60
Turnouts (14)	84	cy of	1½" - 0	@	\$5.98 per cy =	\$502.32
Junction	40	cy of	1½" - 0	@	\$5.98 per cy =	\$239.20
Total =	2,256	cy of	1½" - 0			

PROJECT NO. 2 TOTAL COST = \$13,490.88

TOTAL COST = \$22,907.60

ROCK DEVELOPMENT COST SUMMARY

Timber Sale: Number Nine

Sale Number: 341-12-13

Pit Name: Rock Pit

Swell: 1.30
Shrinkage: 1.16
Drill Pct.: 100%

Pit Run (trk measure) 1,029 cy
Total Truck Yardage: 1,029 cy
Total In Place Yardage: 792 cy

Scalp & Clear Overburden: \$1,500.00
Rip Rock: \$1.90 /cy x 792 cy = \$1,503.92
Load Dump Truck: \$0.70 /cy x 1,029 cy = \$720.30
Subtotal \$3,724.22

Equipment Cleaning \$1,000.00
Move in Excavator \$958.80
Clean Up Pit \$300.00
Subtotal \$1,258.80

PIT DEVELOPMENT COST \$4.84/cy

TOTAL PRODUCTION COST \$4,983.02

Move-In & Equipment Cleaning

Timber Sale:
Sale Number:

Number Nine
341-12-13

LOWBOY HAUL		
DIST. (mi)	ROAD	AVE SPEED (mph)
5.5	Main Lines	7
3.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Equipment Cleaning	Base Cost	Woods Cost	Pilot Cars	Within			Within		
						Area Move	Begin Mileage	End Mileage	Total Miles	Area Cost	Total Cost
0	Drill & Compressor		\$0.00	\$0.00		\$46.00	\$0.00	\$0.00	\$0.00	\$0.00	
0	Brush Cutter		\$0.00	\$0.00		\$4.00	\$0.00	\$0.00	\$0.00	\$0.00	
1	Graders		\$300.00	#####		\$3.65	\$0.00	\$0.00	\$0.00	\$615.78	
0	Loader (Small)		\$0.00	\$0.00	1	\$3.55	\$0.00	\$0.00	\$0.00	\$0.00	
1	Loader (Med. & Large)		\$414.39	#####	1	\$9.00	\$0.00	\$0.00	\$0.00	\$811.41	
1	Rollers (smooth/grid) & Compactors		\$308.59	#####		\$5.00	\$0.00	\$0.00	\$0.00	\$545.03	
0	Excavators (Small)		\$0.00	\$0.00		\$22.00	\$0.00	\$0.00	\$0.00	\$0.00	
0	Excavators (Med.)		\$0.00	\$0.00		\$35.50	\$0.00	\$0.00	\$0.00	\$0.00	
1	Excavators (Large)	\$1,000	\$466.14	#####	1	\$44.80	\$0.00	\$0.00	\$0.00	\$1,934.26	
0	Tired Backhoes/Skidlers		\$0.00	\$0.00		\$3.00	\$0.00	\$0.00	\$0.00	\$0.00	
0	Tractors (D6)		\$0.00	\$0.00	2	\$7.10	\$0.00	\$0.00	\$0.00	\$0.00	
0	Tractors (D7)		\$0.00	\$0.00	2	\$11.30	\$0.00	\$0.00	\$0.00	\$0.00	
1	Tractor (D8)	\$1,000	\$473.80	#####	2	\$15.10	\$0.00	\$0.00	\$0.00	\$1,899.78	
3	Dump Truck (10 cy +)		\$350.00	#####		\$2.85	\$0.00	\$0.00	\$0.00	\$605.90	
0	Dump Truck (Off Hiway)		\$0.00	\$0.00	1	\$4.75	\$0.00	\$0.00	\$0.00	\$0.00	
0	Water Truck (1500 Gal)		\$0.00	\$0.00		\$2.85	\$0.00	\$0.00	\$0.00	\$0.00	
1	Water Truck (2500 Gal)		\$111.67	\$81.65		\$2.85	\$0.00	\$0.00	\$0.00	\$193.32	
TOTAL MOVE-IN COSTS:											
										\$6,605.48	

CRUISE REPORT
Number Nine
341-12-13

1. CRUISE DESIGN AND SAMPLING INTENSITY:

In 2005 a portion of the Timber Sale Area was cruised with 11 Stand Level Inventory variable radius plots with a total of 56 measured trees. The plot data was grown forward to November, 2011. The Super Ace-generated cruise statistics report indicated that the Coefficient of Variation on the per acre basal area is 42% and the cumulative sampling error is 13%. Because the total tree count on these plots did not meet ODF standards for sample size, they were supplemented with an additional 7 variable radius plots in October, 2011. The cruise design assumed a Coefficient of Variation (CV%) of 44%, an average stand diameter of 17 inches, a desired sampling error (SE%) of 11% at a 68% confidence level, and a minimum sample size of 100 grade trees. The combined cruises produced an acceptable sampling error of 9.6% on the Douglas-fir board foot volume with a total of 137 total trees cruised

2. SAMPLING METHOD:

The inventory plots indicated an optimal 6 to 8 grade trees per plot could be realized with a variable radius plot using a 40 BAF prism. An additional cruise line was laid out in the sale area with plots spaced at 5 chains. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

3. TREE MEASUREMENT AND GRADING:

All grade plot trees were measured and graded following Columbia River Log Scale grade rules and favoring 40 foot segments.

a) **Height Standards:**

Total tree heights were measured to the nearest foot. Bole heights were calculated to a six inch top.

b) **Diameter Standards:** Diameters were measured outside bark at breast height to the nearest inch.

c) **Form Factors** were measured for each grade tree using a form point of 16 feet.

4. DATA PROCESSING

a) **Volumes and Statistics:** Cruised and grown forward volume estimates, and sampling statistics, were derived from Super Ace 2008 cruise software. Stand Level Inventory Plot data was grown forward to November 2011.

b) **Deductions:** Area 1 - Two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.

4. Cruisers: The sale was cruised by SLI contract and ODF cruisers.

Prepared by:

Peter Stone

Date

Reviewed by:

Eric Foucht

Date

Number Nine
341-12-13
Volume Summary (Shown in MBF)
November 2011

Area 1: Modified Clearcut (82 Acres)

SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	TOTAL
Douglas-fir	Cruise Volume	1,604	801	157		2,562
	In-Growth					
	Hidden D&B	(32)	(16)	(3)	(0)	(51)
	Total	1,572	785	154	0	2,511
	<i>% Total</i>	63	31	6		

SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	TOTAL
Red alder	Cruise Volume	0	0	0	27	27
	In-Growth					
	Hidden D&B	(0)	(0)	(0)	(1)	(1)
	Total	0	0	0	26	26
	<i>% Total</i>	0	0	0	100	

TC PSTATS			PROJECT STATISTICS						PAGE	1		
			PROJECT		NONINE				DATE	10/31/2011		
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt			
03_	06_	30	0	7416	82.00	18	137	S	W			
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL			18	137	7.6							
CRUISE			17	109	6.4	10,268	1.1					
DBH COUNT												
REFOREST												
COUNT			1	12	12.0							
BLANKS												
100 %												
STAND SUMMARY												
			SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR-T			103	119.4	17.8	86	48.8	205.6	31,450	31,250	7,343	7,343
WHEMLOCK-L			4	3.5	15.2	72	1.1	4.4	521	507	136	136
R ALDER-T			1	1.8	15.0	94	0.6	2.2	326	326	76	76
NOB FIR-L			1	.5	20.0	76	0.2	1.1	102	102	33	33
TOTAL			109	125.2	17.7	86	50.7	213.3	32,399	32,184	7,589	7,589
CONFIDENCE LIMITS OF THE SAMPLE												
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR												
CL	68.1	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
DOUG FIR-T			75.4	7.4	439	474	510					
WHEMLOCK-L			128.6	73.5	74	278	481					
R ALDER-T												
NOB FIR-L												
TOTAL			77.2	7.4	428	462	496	238	60	26		
CL	68.1	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
DOUG FIR-T			63.5	15.4	101	119	138					
WHEMLOCK-L			424.3	102.8		4	7					
R ALDER-T			424.3	102.8		2	4					
NOB FIR-L			424.3	102.8		1	1					
TOTAL			56.9	13.8	108	125	142	137	34	15		
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
DOUG FIR-T			38.7	9.4	186	206	225					
WHEMLOCK-L			424.3	102.8		4	9					
R ALDER-T			424.3	102.8		2	5					
NOB FIR-L			424.3	102.8		1	2					
TOTAL			32.6	7.9	196	213	230	45	11	5		
CL	68.1	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15			
DOUG FIR-T			39.7	9.6	28,242	31,250	34,257					
WHEMLOCK-L			424.3	102.8		507	1,028					
R ALDER-T			424.3	102.8		326	661					
NOB FIR-L			424.3	102.8		102	207					
TOTAL			34.9	8.4	29,466	32,184	34,902	51	13	6		

Log Stock Table - MBF

T03_R06_S30 Ty7416 82.00

Project: NONINE
Acres 82.00Page 1
Date 10/31/2011
Time 2:12:29PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	T		2M	20	10		10	.4									10			
DF	T		2M	30	10		10	.4					10							
DF	T		2M	40	1,593		1,584	61.8					309	402	512	326	35			
DF	T		3M	20	11		11	.4				11								
DF	T		3M	24	29		29	1.1			12	18								
DF	T		3M	30	49		49	1.9			4	45								
DF	T		3M	32	173		172	6.7		104	30	36	3							
DF	T		3M	40	546	1.1	540	21.1		97	61	370	12							
DF	T		4M	16	55		55	2.2		55										
DF	T		4M	20	31		31	1.2		31										
DF	T		4M	24	30		30	1.2		30										
DF	T		4M	30	35		35	1.4		35										
DF	T		4M	32	6	4.9	6	.2		6										
DF			Totals		2,579		2,562	97.1		357	106	480	335	402	512	326	44			
RA	T		R	30	27		27	100.0		7		19								
RA			Totals		27		27	1.0		7		19								
NF	L		3M	40	8		8	90.0				8								
NF	L		4M	20	1		1	10.0		1										
NF			Totals		8		8	.3		1		8								
WH	L		3M	32	11	10.5	10	23.7		6		4								
WH	L		3M	40	28		28	68.0			16			13						
WH	L		4M	16	3		3	7.2		3										
WH	L		4M	20	0		0	1.0		0										
WH			Totals		43	2.7	42	1.6		9	16	4		13						
Total			All Species		2,657		2,639	100.0		375	121	506	339	402	525	326	44			

TC		PSTNDSUM		Stand Table Summary										Page		1	
														Date:		10/31/2011	
T03_R06_S30 Ty7416				82.00		Project				NONINE		Time:		2:12:30PM			
						Acres				82.00		Grown Year:					
S Spec	T	DBH	Sample Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
				FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
DF	T	8	2	88	48	15.003	5.24	15.00	3.7	20.0	1.59	56	300	130	46	25	
DF	T	10	2	87	58	9.602	5.24	9.60	10.2	50.0	2.79	98	480	229	80	39	
DF	T	11	2	87	62	7.936	5.24	7.94	11.9	50.0	2.68	94	397	220	77	33	
DF	T	12	1	82	63	1.667	1.31	1.67	16.8	50.0	.80	28	83	66	23	7	
DF	T	13	2	88	71	5.682	5.24	5.68	21.1	70.0	3.41	120	398	280	98	33	
DF	T	14	3	86	80	4.899	5.24	8.57	15.4	61.4	3.75	132	527	308	108	43	
DF	T	15	3	86	92	4.268	5.24	8.54	19.3	72.5	4.68	164	619	384	135	51	
DF	T	16	7	88	90	10.315	14.40	20.63	22.8	92.7	13.40	470	1,913	1,099	386	157	
DF	T	17	5	88	95	7.476	11.78	14.95	26.4	108.3	11.26	395	1,620	923	324	133	
DF	T	18	11	87	90	11.854	20.95	23.71	28.6	108.8	19.31	677	2,578	1,583	555	211	
DF	T	19	6	88	99	5.985	11.78	13.30	31.7	122.0	12.02	422	1,623	985	346	133	
DF	T	20	4	87	107	3.601	7.86	10.80	27.3	108.9	8.41	295	1,176	690	242	96	
DF	T	21	4	88	98	3.266	7.86	7.62	37.4	153.6	8.11	285	1,170	665	233	96	
DF	T	22	7	88	105	5.952	15.71	14.88	39.2	158.7	16.64	584	2,361	1,365	479	194	
DF	T	23	5	87	110	3.176	9.16	7.71	46.4	196.5	10.19	358	1,516	836	293	124	
DF	T	24	11	87	110	7.085	22.26	21.25	41.6	182.7	25.19	884	3,884	2,066	725	319	
DF	T	25	2	89	124	.768	2.62	2.30	50.8	233.3	3.33	117	538	273	96	44	
DF	T	26	6	86	131	3.196	11.78	9.94	54.0	243.9	15.31	537	2,425	1,256	441	199	
DF	T	27	2	88	102	1.317	5.24	3.29	60.3	254.0	5.66	199	836	464	163	69	
DF	T	28	4	89	124	1.225	5.24	3.67	65.7	310.8	6.88	241	1,142	564	198	94	
DF	T	29	4	88	131	2.283	10.47	6.85	71.0	343.3	13.87	487	2,352	1,137	399	193	
DF	T	30	3	88	127	.800	3.93	2.40	74.6	344.4	5.10	179	827	418	147	68	
DF	T	32	5	87	123	1.641	9.16	4.92	80.5	378.6	11.29	396	1,864	926	325	153	
DF	T	34	1	88	134	.208	1.31	.62	101.8	510.0	1.81	63	318	148	52	26	
DF	T	36	1	86	130	.185	1.31	.56	112.5	546.7	1.78	63	304	146	51	25	
DF	T	Totals	103	87	86	119.388	205.56	226.42	32.4	138.0	209.29	7,343	31,250	17,162	6,022	2,562	
WHL		12	1	86	55	1.415	1.11	1.41	14.8	50.0	.67	21	71	55	17	6	
WHL		14	1	85	80	1.039	1.11	2.08	16.4	55.0	1.09	34	114	89	28	9	
WHL		16	1	86	80	.796	1.11	1.59	20.9	70.0	1.07	33	111	87	27	9	
WHL		28	1	85	111	.260	1.11	.78	60.8	270.0	1.52	47	210	124	39	17	
WHL		Totals	4	86	72	3.510	4.44	5.86	23.1	86.4	4.34	136	507	356	111	42	
RA	T	15	1	88	94	1.811	2.22	3.62	21.1	90.0	2.10	76	326	172	63	27	
RA	T	Totals	1	88	94	1.811	2.22	3.62	21.1	90.0	2.10	76	326	172	63	27	
NFL		20	1	83	76	.509	1.11	1.02	32.7	100.0	.80	33	102	66	27	8	
NFL		Totals	1	83	76	.509	1.11	1.02	32.7	100.0	.80	33	102	66	27	8	
Totals			109	87	86	125.218	213.33	236.93	32.0	135.8	216.53	7,589	32,184	17,756	6,223	2,639	

Species, Sort Grade - Board Foot Volumes (Project)

T03_R06_S30 Ty7416

82.00

Project: NONINE

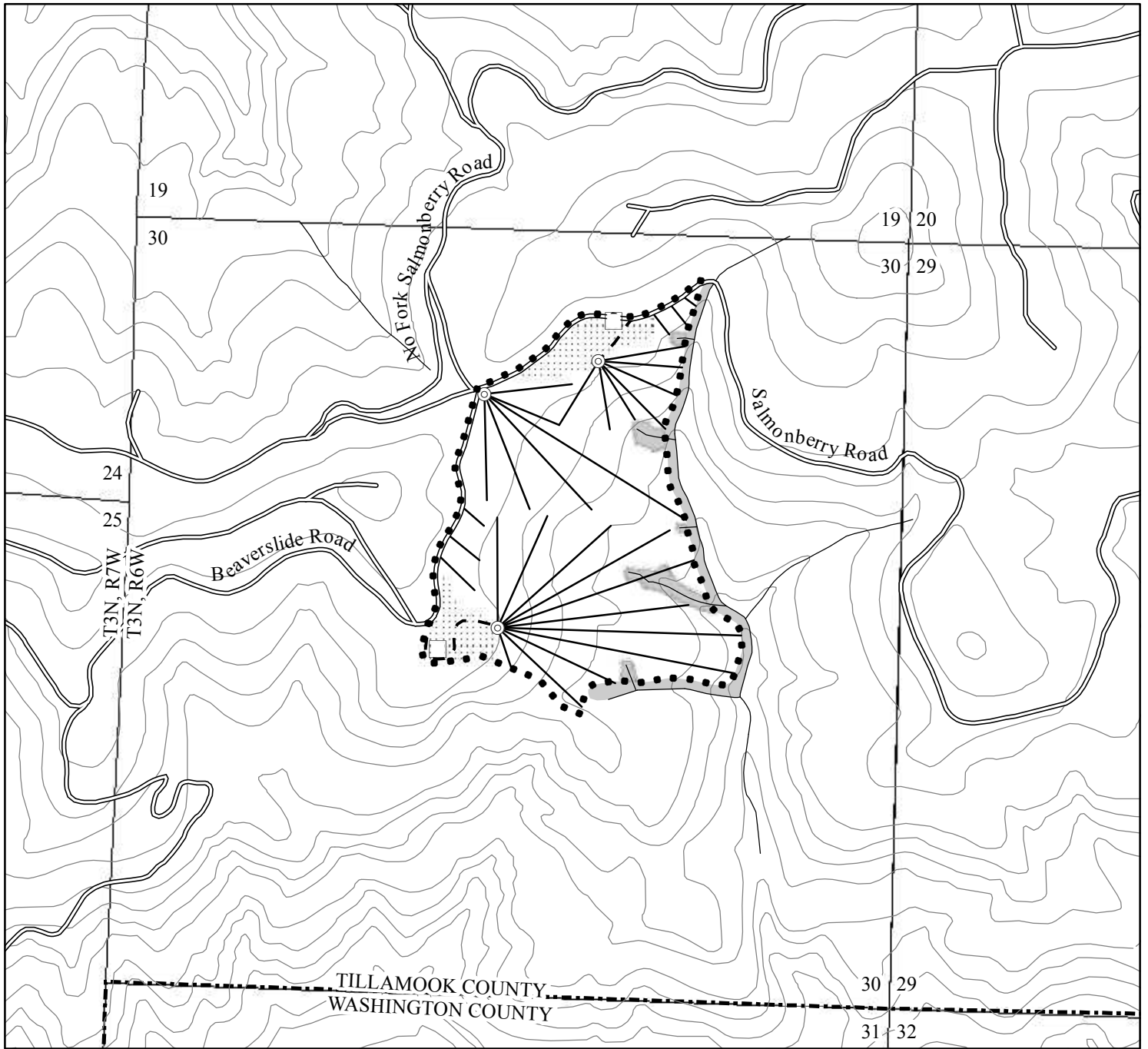
Acres 82.00

Page 1

Date 10/31/2011

Time 8:08:57AM

S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
DF	T	CU														17	10		0.00	2.3
DF	T	2M	62	.5	19,670	19,563	1,604			62	38	1	1		99	40	15	361	1.96	54.2
DF	T	3M	31	.9	9,861	9,771	801		98	2		1	10	21	67	36	8	100	0.72	97.9
DF	T	4M	7	.2	1,919	1,915	157		100			55	41	4		20	6	26	0.40	74.4
DF	Totals		97	.6	31,450	31,250	2,562		37	39	24	4	6	7	83	31	9	137	1.02	228.7
RA	T	R	100		326	326	27		100				100			30	9	90	0.70	3.6
RA	Totals		1		326	326	27		100				100			30	9	90	0.70	3.6
NF	L	3M	90		92	92	8		100					100		40	11	180	1.42	.5
NF	L	4M	10		10	10	1		100			100				20	6	20	0.43	.5
NF	Totals		0		102	102	8		100			10		90		30	9	100	1.09	1.0
WH	L	3M	91	3.0	479	465	38		56	11	34			26	74	36	9	123	0.90	3.8
WH	L	4M	9		42	42	3		100			100				16	6	20	0.33	2.1
WH	Totals		2	2.7	521	507	42		60	10	31	8		24	68	29	8	86	0.79	5.9
Totals				0.7	32,399	32,184	2,639		38	38	24	4	7	7	82	31	9	135	1.01	239.2



Legend

- • • • Timber Sale Boundary
- Roads
- - - New Road Construction
- Type N Stream
- ^ Cable Logging Area
- ▨ Tractor Logging Area
- ⊙ Cable Landing
- ▨ Posted Stream Buffer
- ▨ Unposted Stream Buffer
- - - County Line
- ~ 80 Foot Contour

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-12-13
 NUMBER NINE
 PORTIONS OF SECTION 30, T3N, R6W, W.M
 TILLAMOOK COUNTY, OREGON

Forest Grove District GIS
 November 2011

This product is for informational use and may not be
 suitable for legal, engineering, or surveying purposes.



APPROXIMATE NET ACRES
 TRACTOR CABLE

8 74

1 : 12,000

1 inch = 1,000 feet

