



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sunday Addition
Sale 341-13-16

District: Forest Grove

Date: July 17, 2012

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,076,277.36	\$0.00	\$1,076,277.36
		Project Work:	\$(28,250.00)
		Advertised Value:	\$1,048,027.36



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timber description

Location: Portions of Sections 12, 13, and 24, T1S, R6W, W.M. and portions of Sections 18 and 19, T1S, R5W, W.M., Washington County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	12	0	98

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	189	2,822	533	3,544
Total	189	2,822	533	3,544



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comments: Pond Values Used: 1st Quarter Calendar Year 2012.

Western Hemlock and Other Conifers Stumpage Price = Pond Value
minus Logging Cost:
\$213.59/MBF = \$410/MBF - \$196.41/MBF

Western redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Cost:
\$748.59/MBF = \$945/MBF - \$196.41/MBF

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus
Logging Cost:
\$353.59/MBF = \$550/MBF - \$196.41/MBF

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to \$780 daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: 3,544 MBF @ \$1/MBF = \$3,544
Total Other Costs (with Profit & Risk to be added) = \$3,544

Other Costs (No Profit & Risk added):
Blocking/Waterbarring Skid Roads: 10 hrs @ \$150/hr = \$1,500
Equipment Cleaning: 4 machines @ \$1,000/machine = \$4,000
Stimson Co. Road Use Fee: \$17,499.30
TOTAL Other Costs (No Profit & Risk added) = \$22,999.30

ROAD MAINTENANCE
Move-in: \$2,000
General Road Maintenance: 15.2 miles x \$1,000/mile = \$15,200
TOTAL: \$17,200 / 3,544 MBF = \$4.85/MBF



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logging conditions

combination#: 1 Douglas - Fir 91.31%
yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber
tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
loads / day: 4.0 **bd. ft / load:** 4,000
cost / mbf: \$89.89
machines: Stroke Delimber (B)

combination#: 2 Douglas - Fir 8.69%
yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process:** Stroke Delimber
tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
loads / day: 4.0 **bd. ft / load:** 4,000
cost / mbf: \$177.14
machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Small)



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logging costs

Operating Seasons:	2.00	Profit Risk:	15.00%
Project Costs:	\$28,250.00	Other Costs (P/R):	\$3,544.00
Slash Disposal:	\$0.00	Other Costs:	\$22,999.30

Miles of Road

Road Maintenance: \$4.85

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	4.2



Timber Sale Appraisal
 Sunday Addition
 Sale 341-13-16

"STEWARDSHIP IN FORESTRY"

District: Forest Grove

Date: July 17, 2012

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$97.47	\$4.95	\$2.47	\$54.91	\$1.00	\$24.12	\$0.00	\$5.00	\$6.49	\$196.41

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$500.10	\$303.69	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sunday Addition
Sale 341-13-16

District: Forest Grove

Date: July 17, 2012

summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	3,544	\$303.69	\$1,076,277.36

Gross Timber Sale Value

Recovery: \$1,076,277.36

Prepared by: Mark Savage

Phone: 503-359-7437

TIMBER SALE SUMMARY
Sunday Addition
Contract No. 341-13-16

1. **Type of Sale:** The Timber Sale is 272 acres of Partial Cut (PC) and 4 acres of Right-of-Way. The timber will be sold on a recovery basis at a sealed bid auction.
2. **Revenue Distribution:** 100% BOF; Washington County.
3. **Sale Acreage:** Acres are net of stream buffers and existing road prisms. Acreage was determined using ESRI ArcMap GIS software.
4. **Cruise:** The Timber Sale was cruised with ODF cruiser variable radius plots. Volume estimates and plot data statistics were computed using SuperACE timber cruise software. Estimated average net take tree volume is 12.8 MBF per acre. Right-of-Way volume was estimated from total per-acre stand volume. The right of way volume was then added to the thinning volume and reported as total sale volume. For more information see the Cruise Report
5. **Timber Description:** Timber Sale Area consists primarily of 45 year old Douglas-fir with minor amounts of western hemlock, noble fir, and hardwoods. The average DBH for this stand is approximately 14 inches.
6. **Topography and Logging Method:** Slopes within the sale vary in aspect and range from 5% to 75%. Area 1 is 91% ground-based yarding and 9% cable-based yarding. Area 2 is 100% ground-based yarding.
7. **Access:** From Forest Grove travel south on Highway 47 for approximately 5 miles and turn west onto Scoggins Valley Road. Continue 3.4 miles and turn left onto West Shore Road. Proceed 1.7 miles and turn left onto Lee Road. Drive 0.4 miles and turn right onto Stimson Mainline. Continue for approximately 9.1 miles, turn left onto Sunday Creek Road and proceed 2.5 miles to the timber sale area.
8. **Projects:**

<u>Project 1:</u> 1.14 miles of road construction	\$18,462.51
<u>Project 2:</u> Road vacating	\$1,625.00
<u>Project 3:</u> Grass seed, fertilize, and mulch	\$1,058.90
Move in and equipment cleaning (Sale Area & Vacating)	\$7,102.72
Total Credit for all Projects (rounded)	\$28,250.00

9. Other Costs:

Other Costs (with Profit & Risk added):

Brand and Paint: 3,544 MBF @ \$1.00/MBF	\$3,544.00
Total Other Costs (with Profit and Risk added):	\$3,544.00

Other Costs (no Profit & Risk added):

Blocking/Waterbarring Skid Roads: 10 hours @ \$150.00/hour	\$1,500.00
Equipment Cleaning: 4 machines @ \$1,000.00/machine	\$4,000.00
Stimson Lumber Co. Road Use Fee:	\$17,499.30
Total Other Costs (no Profit & Risk added):	\$22,999.30

Total Other Costs:	\$26,543.30
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PROJECT COST SUMMARY SHEET

Timber Sale: Sunday Addition

Sale Number: 341-13-16

PROJECT NO. 1: ROAD CONSTRUCTION

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
SA 1 to SA 2	18+50	\$7,400.93
SA 3 to SA 4	22+00	\$5,563.00
SA 5 to SA 6	5+95	\$1,605.27
SA 7 to SA 8	5+60	\$1,573.52
SA 9 to SA 10	6+60	\$1,741.22
SA 11 to SA 12	1+40	\$578.58
	<u>60+05 stations</u>	
	1.14 miles	

TOTAL PROJECT NO. 1 COST = \$18,462.51

PROJECT NO. 2: VACATING

<u>Road Segment</u>	<u>Cost</u>
SA 1 to SA 2	\$375.00
SA 3 to SA 4	\$500.00
SA 5 to SA 6	\$218.75
SA 7 to SA 8	\$218.75
SA 9 to SA 10	\$250.00
SA 11 to SA 12	\$62.50

TOTAL PROJECT NO. 2 COST = \$1,625.00

PROJECT NO. 3: GRASS SEED, FERTILIZE, & MULCH

<u>Grass seed and fertilize areas of disturbed soil.</u>	<u>\$1,058.90</u>
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TOTAL PROJECT NO. 3 COST = \$1,058.90

MOVE IN & EQUIPMENT CLEANING (Sale Area) \$5,367.15

MOVE IN & EQUIPMENT CLEANING (Vacating) \$1,735.57

TOTAL ALL PROJECTS \$28,249.13

TOTAL CREDITS \$28,250.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Sunday Addition**
Road Segment: **SA 3 to SA 4**

Timber Sale No. : 341-13-16
Construction : 22+00 stations
0.42 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	2.02	acres @	\$980.00	per acre =	\$1,979.60
Balanced Road Construction	22.00	sta @	\$90.00	per sta =	\$1,980.00
Construct Turnaround (1)	1	ea @	\$75.00	per ea =	\$75.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	22.00	sta @	\$28.70	per sta =	\$631.40
				TOTAL EXCAVATION COSTS=	\$4,951.00

CULVERTS - MATERIALS & INSTALLATION

Culverts

34	LF of 18"	<u>\$612.00</u>
		\$612.00

TOTAL CULVERT COSTS = **\$612.00**

PROJECT NO. 1 TOTAL COST = \$5,563.00

PROJECT NO. 2

Waterbar Construction	3.00	hours @	\$125.00	per hour =	\$375.00
Tanktrap Construction	1.00	hour @	\$125.00	per hour =	<u>\$125.00</u>

PROJECT NO. 2 TOTAL COST = \$500.00

PROJECT NO. 3

Grass seed and fertilize areas of disturbed soil.	1.01	acres @	\$220.00	per acre =	\$222.20
Mulch	0.30	acres @	\$600.00	per acre =	<u>\$180.00</u>

PROJECT NO. 3 TOTAL COST = \$402.20

TOTAL COST = \$6,465.20

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Sunday Addition**
Road Segment: **SA 7 to SA 8**

Timber Sale No. : 341-12-82
Construction : 5+60 stations
 0.11 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.56	acres @	\$980.00	per acre =	\$548.80
Balanced Road Construction	5.60	sta @	\$90.00	per sta =	\$504.00
Construct Turnaround (1)	1	ea @	\$75.00	per ea =	\$75.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	5.60	sta @	\$28.70	per sta =	\$160.72
				TOTAL EXCAVATION COSTS=	\$1,573.52

PROJECT NO. 1 TOTAL COST = \$1,573.52

PROJECT NO. 2

Waterbar Construction	0.75	hour @	\$125.00	per hour =	\$93.75
Tanktrap Construction	1.00	hour @	\$125.00	per hour =	\$125.00

PROJECT NO. 2 TOTAL COST = \$218.75

PROJECT NO. 3

Grass seed and fertilize areas of disturbed soil.	0.28	acres @	\$220.00	per acre =	\$61.60
Mulch	0.10	acres @	\$600.00	per acre =	\$60.00

PROJECT NO. 3 TOTAL COST = \$121.60

TOTAL COST = \$1,913.87

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Sunday Addition**
Road Segment: **SA 9 to SA 10**

Timber Sale No. : 341-13-16
Construction: 6+60 stations
 0.13 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.61	acres @	\$980.00	per acre =	\$597.80
Balanced Road Construction	6.60	sta @	\$90.00	per sta =	\$594.00
Construct Turnaround (1)	1	ea @	\$75.00	per ea =	\$75.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	6.60	sta @	\$28.70	per sta =	\$189.42
TOTAL EXCAVATION COSTS=					\$1,741.22

PROJECT NO. 1 TOTAL COST = \$1,741.22

PROJECT NO. 2

Waterbar Construction	1.00	hour @	\$125.00	per hour =	\$125.00
Tanktrap Construction	1.00	hour @	\$125.00	per hour =	\$125.00

PROJECT NO. 2 TOTAL COST = \$250.00

PROJECT NO. 3

Grass seed and fertilize areas of disturbed soil.	0.31	acres @	\$220.00	per acre =	\$67.10
Mulch	0.10	acres @	\$600.00	per acre =	\$60.00

PROJECT NO. 3 TOTAL COST = \$127.10

TOTAL COST = \$2,118.32

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Sunday Addition**
Road Segment: **SA 11 to SA 12**

Timber Sale No. : 341-13-16
Construction : 1+40 stations
 0.03 miles

PROJECT NO. 1

EXCAVATION

Clearing and Grubbing (Scatter)	0.13	acres @	\$980.00	per acre =	\$127.40
Balanced Road Construction	1.40	sta @	\$90.00	per sta =	\$126.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	1.40	sta @	\$28.70	per sta =	\$40.18
TOTAL EXCAVATION COSTS=					<u> \$578.58 </u>

PROJECT NO. 1 TOTAL COST = **\$578.58**

PROJECT NO. 2

Waterbar Construction	0.50	hour @	\$125.00	per hour =	\$62.50
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PROJECT NO. 2 TOTAL COST = **\$62.50**

PROJECT NO. 3

Grass seed and fertilize areas of disturbed soil.	0.07	acres @	\$220.00	per acre =	<u> \$14.30 </u>
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PROJECT NO. 3 TOTAL COST = **\$14.30**

TOTAL COST = **\$655.38**

Move-In & Equipment Cleaning

Timber Sale: Sunday Addition
 Sale Number: 341-13-16

LOWBOY HAUL (One-way)		
DIST. (mi)	ROAD	AVE SPEED (mph)
9.0	Main Lines	7
2.0	Steep Grades	2

Project No. 1

No.	EQUIPMENT DESCRIPTION	Equipment Cleaning	Base Cost	Woods Cost	Pilot Area Cars	Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within		Total Cost
										Area Cost	Area Cost	
0	Drill & Compressor		\$0.00	\$0.00		\$46.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Brush Cutter		\$0.00	\$0.00		\$4.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
1	Graders		\$300.00	\$347.15		\$3.65	0.0	0.0	0.0	\$0.00	\$0.00	\$647.15
0	Loader (Small)		\$0.00	\$0.00	1	\$3.55	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Loader (Med. & Large)		\$0.00	\$0.00	1	\$9.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
1	Rollers (smooth/grid) & Compactors		\$308.59	\$293.25		\$5.00	0.0	0.0	0.0	\$0.00	\$0.00	\$601.84
0	Excavators (Small)	\$0	\$0.00	\$0.00		\$22.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Excavators (Med.)	\$0	\$0.00	\$0.00		\$35.50	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
1	Excavators (Large)	\$1,000	\$466.14	\$496.80	1	\$44.80	0.0	0.0	0.0	\$0.00	\$0.00	\$1,962.94
0	Tired Backhoes/Skidders	\$0	\$0.00	\$0.00		\$3.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Tractors (D6)	\$0	\$0.00	\$0.00	2	\$7.10	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Tractors (D7)	\$0	\$0.00	\$0.00	2	\$11.30	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
1	Tractor (D8)	\$1,000	\$473.80	\$454.75	2	\$15.10	0.0	0.0	0.0	\$0.00	\$0.00	\$1,928.55
1	Dump Truck (10 cy +)		\$116.67	\$110.00		\$2.85	0.0	0.0	0.0	\$0.00	\$0.00	\$226.67
0	Dump Truck (Off Hiway)		\$0.00	\$0.00	1	\$4.75	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Water Truck (1500 Gal)		\$0.00	\$0.00		\$2.85	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Water Truck (2500 Gal)		\$0.00	\$0.00		\$2.85	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
TOTAL MOVE-IN COSTS:											\$5,367.15	

Move-In & Equipment Cleaning

Timber Sale: Sunday Addition
 Sale Number: 341-13-16

LOWBOY HAUL (One-way)		
DIST. (mi)	ROAD	AVE SPEED (mph)
9.0	Main Lines	7
2.0	Steep Grades	2

Vacating

No.	EQUIPMENT DESCRIPTION	Equipment Cleaning	Base Cost	Woods Cost	Pilot Area Move Cost (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within		Total Cost
									Area Cost	Area Cost	
0	Drill & Compressor		\$0.00	\$0.00	\$46.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Brush Cutter		\$0.00	\$0.00	\$4.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Graders		\$0.00	\$0.00	\$3.65	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Loader (Small)		\$0.00	\$0.00	\$3.55	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Loader (Med. & Large)		\$0.00	\$0.00	\$9.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Rollers (smooth/grid) & Compactors		\$0.00	\$0.00	\$5.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Excavators (Small)	\$0	\$0.00	\$0.00	\$22.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
1	Excavators (Med.)	\$1,000	\$330.44	\$405.13	\$35.50	0.0	0.0	0.0	\$0.00	\$0.00	\$1,735.57
0	Excavators (Large)	\$0	\$0.00	\$0.00	\$44.80	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Tired Backhoes/Skidders	\$0	\$0.00	\$0.00	\$3.00	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Tractors (D6)	\$0	\$0.00	\$0.00	\$7.10	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Tractors (D7)	\$0	\$0.00	\$0.00	\$11.30	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Tractor (D8)	\$0	\$0.00	\$0.00	\$15.10	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Dump Truck (10 cy +)		\$0.00	\$0.00	\$2.85	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Dump Truck (Off Hiway)		\$0.00	\$0.00	\$4.75	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Water Truck (1500 Gal)		\$0.00	\$0.00	\$2.85	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
0	Water Truck (2500 Gal)		\$0.00	\$0.00	\$2.85	0.0	0.0	0.0	\$0.00	\$0.00	\$0.00
TOTAL MOVE-IN COSTS:											\$1,735.57

**Sunday Addition
341-13-16
Volume Summary (Shown in MBF)
June 2012**

Area 1: Partial Cut (272 Acres)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL (MBF)
Douglas-fir	Cruise Volume	169	2793	528	3490
-2%	Hidden D&B	(3)	(56)	(11)	(70)
	Total	166	2737	517	3420
	<i>% Total</i>	<i>5</i>	<i>80</i>	<i>15</i>	

Area 2: Right-of-Way (4 Acres)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL (MBF)
Douglas-fir	Cruise Volume	23	87	16	126
-2%	Hidden D&B	(0)	(2)	(0)	(2)
	Total	23	85	16	124
	<i>% Total</i>	<i>19</i>	<i>68</i>	<i>13</i>	

SALE TOTALS

SPECIES	2 SAW	3 SAW	4 SAW	TOTAL (MBF)
Douglas-fir	189	2822	533	3544
Total	189	2822	533	3544

RESIDUAL STAND SPECIFICATIONS

SALE NAME: Sunday Addition
SALE NUMBER: 341-13-16

AREA 1

Residual QMD assumption (from leave tree cruise information) =

15

Target Relative Density =

140

	Minimum	Target	Maximum
Relative Density	34	36	39
Basal Area	130	140	150
Trees per Acre	106	114	122

$$RD = BA / \sqrt{DBH}$$

$$BA = \sqrt{DBH} (RD)$$

$$TPA = (BA/acre) / (BA/tree)$$

$$BA / tree = (\pi r^2) / (144)$$

**CRUISE REPORT
Sunday Addition
341-13-16**

1. CRUISE DESIGN:

The cruise design assumed a Coefficient of Variation (CV%) of 80%, an average stand diameter of 15 inches, a desired sampling error (SE%) of 11%, and a minimum sample size of 100 grade trees. Pre-cruise plots indicated that 5 or 6 take trees per plot could be realized with a 20 BAF prism. Plots were laid out on a 500 foot x 250 foot grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain. This cruise was initially setup with 23 variable radius grade plots and 63 variable radius count plots.

2. SAMPLING METHOD:

The Sale Area was cruised in 04/11/2012 with 23 variable radius grade plots and 58 variable radius count plots using a 20 BAF prism. 5 counts plots were dropped from the cruise. Cruisers 'thinned' plots from below to 140 ft² of basal area by assigning a 'Take' or 'Leave' status to each tree in every plot.

3. CRUISE RESULTS

107 trees were measured and graded producing a cumulative Basal Area sampling error of 6.5% and 6.6% on the Board Foot Volume.

4. TREE MEASUREMENT AND GRADING:

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

All grade plot 'Take' 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.

5. DATA PROCESSING

- a) **Volumes and Statistics,** Cruise volume estimates, and sampling statistics, were derived from Super Ace 2008 cruise software
- b) **Deductions:** Two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.

6. Cruisers: The sale was cruised by ODF cruisers Nate Hunter, Joe Koch, and Peter Stone.

Prepared by:

Mark Savage

Date

Reviewed by:

Eric Foucht

Date

Log Stock Table - MBF

T01S R06W S18 Ty0001 272.00

Project: SUNADD
Acres 272.00

Page 1
Date 6/12/2012
Time 3:40:20PM

Spp	S T	So Gr rt 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
DF	L	2M	40	1,397		1,384	27.1					1384						
DF	L	3M	32	562		562	11.0				562							
DF	L	3M	34	307		307	6.0				307							
DF	L	3M	40	2,271		2,271	44.5			326	1507	438						
DF	L	4M	12	20		20	.4			20								
DF	L	4M	14	26		26	.5			26								
DF	L	4M	18	88		88	1.7			88								
DF	L	4M	26	313		313	6.1			313								
DF	L	4M	30	129		129	2.5			129								
DF		Totals		5,113		5,100	59.4			902	2376	1822						
DF	T	2M	18	20		20	.6					20						
DF	T	2M	20	19		19	.6						19					
DF	T	2M	40	130		130	3.7					94	36					
DF	T	3M	20	18		18	.5					18						
DF	T	3M	26	18		18	.5				18							
DF	T	3M	28	61		61	1.7				49	11						
DF	T	3M	32	368	1.1	364	10.4			275	89							
DF	T	3M	33	11		11	.3				11							
DF	T	3M	34	19		19	.5				19							
DF	T	3M	36	18		18	.5				18							
DF	T	3M	38	38		38	1.1				38							
DF	T	3M	40	2,248		2,248	64.4			739	1001	507						
DF	T	4M	12	40		40	1.1			40								
DF	T	4M	14	76		76	2.2			76								
DF	T	4M	15	6	50.0	3	.1			3								
DF	T	4M	16	85		85	2.4			85								
DF	T	4M	18	46		46	1.3			46								
DF	T	4M	20	74		74	2.1			74								
DF	T	4M	21	18		18	.5			18								
DF	T	4M	22	9		9	.3			9								
DF	T	4M	23	10		10	.3			10								
DF	T	4M	24	24	24.7	18	.5			18								
DF	T	4M	26	22		22	.6			22								
DF	T	4M	27	7		7	.2			7								
DF	T	4M	28	13		13	.4			13								
DF	T	4M	30	76		76	2.2			76								

Log Stock Table - MBF

T01S R06W S18 Ty0001 272.00

Project: SUNADD
Acres 272.00

Page 2
Date 6/12/2012
Time 3:40:20PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Sp	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
DF	T	4M	36		13	83.3	2	.1			2								
DF	T	4M	40		30		30	.9			30								
DF		Totals			3,514		3,490	40.6			1628	1157	536	114	55				
Total		All Species			8,627		8,590	100.0			2530	3533	536	1936	55				

TC		PSTNDSUM		Stand Table Summary										Page 1		
														Date: 6/12/2012		
T01S R06W S18 Ty0001 272.00				Project SUNADD					Time: 3:40:22PM							
				Acres 272.00					Grown Year:							
S Sp	T	DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DFL		12	3	89	94	48.443	38.05	80.74	13.1	56.0	30.13	1,057	4,521	8,196	2,876	1,230
DFL		14	2	89	101	23.727	25.36	47.45	18.1	77.5	24.48	859	3,678	6,659	2,337	1,000
DFL		15	1	88	95	10.335	12.68	20.67	19.3	75.0	11.34	398	1,550	3,085	1,083	422
DFL		17	1	89	116	8.046	12.68	16.09	32.3	135.0	14.83	520	2,172	4,035	1,416	591
DFL		18	1	88	117	7.177	12.68	21.53	21.7	93.3	13.31	467	2,009	3,619	1,270	547
DFL		20	1	85	104	5.813	12.68	11.63	40.1	150.0	13.28	466	1,744	3,613	1,268	474
DFL		22	2	81	107	9.609	25.36	24.02	38.2	128.0	26.17	918	3,075	7,117	2,497	836
DFL	Totals		11	88	100	113.149	139.51	222.13	21.1	84.4	133.55	4,686	18,750	36,325	12,746	5,100
DF T		9	3	89	92	6.742	2.98	6.74	10.2	56.7	1.96	69	382	532	187	104
DF T		10	14	88	97	25.484	13.90	41.87	8.4	43.0	10.00	351	1,802	2,719	954	490
DF T		11	12	88	98	18.052	11.91	34.60	10.0	43.0	9.85	346	1,489	2,679	940	405
DF T		12	19	88	97	24.017	18.86	48.03	12.1	52.1	16.59	582	2,503	4,513	1,583	681
DF T		13	8	87	97	8.617	7.94	17.23	14.4	57.5	7.09	249	991	1,928	677	270
DF T		14	11	85	101	10.216	10.92	19.50	18.2	71.9	10.11	355	1,402	2,750	965	381
DF T		15	13	85	105	10.517	12.91	22.65	19.7	78.6	12.73	447	1,780	3,462	1,215	484
DF T		16	8	86	108	5.688	7.94	12.80	23.1	95.6	8.44	296	1,223	2,296	805	333
DF T		17	3	85	113	1.890	2.98	4.41	26.1	104.3	3.27	115	460	891	313	125
DF T		18	2	89	118	1.124	1.99	2.81	29.8	128.0	2.38	84	360	648	227	98
DF T		19	1	84	92	.504	.99	1.51	18.2	76.7	.78	28	116	213	75	32
DF T		20	1	90	115	.455	.99	1.37	30.2	133.3	1.18	41	182	320	112	50
DF T		21	1	83	115	.413	.99	.83	43.5	170.0	1.02	36	140	279	98	38
DF T	Totals		96	87	99	113.718	95.31	214.35	14.0	59.9	85.40	2,997	12,830	23,230	8,151	3,490
Totals			107	88	100	226.867	234.81	436.48	17.6	72.4	218.95	7,683	31,580	59,555	20,896	8,590

TC PSTATS		PROJECT STATISTICS							PAGE	1	
		PROJECT		SUNADD			DATE		6/12/2012		
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
01S	06	18	01	0001	272.00	81	955	S	W		
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL		81	955	11.8							
CRUISE		23	107	4.7	61,708	.2					
DBH COUNT											
REFOREST											
COUNT		58	693	11.9							
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-L	11	113.1	15.0	100	36.0	139.5	18,798	18,750	4,686	4,686	
DOUG FIR-T	96	113.7	12.4	99	27.1	95.3	12,918	12,830	2,997	2,997	
TOTAL	107	226.9	13.8	100	63.3	234.8	31,716	31,580	7,683	7,683	
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-L		47.5	15.0	172	203	233					
DOUG FIR-T				171	171	171					
TOTAL		19.7	2.1	171	175	179	15	4	2		
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-L				113	113	113					
DOUG FIR-T		60.6	6.7	106	114	121					
TOTAL				227	227	227					
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-L				140	140	140					
DOUG FIR-T		58.5	6.5	89	95	102					
TOTAL				235	235	235					
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-L				18,750	18,750	18,750					
DOUG FIR-T		59.1	6.6	11,988	12,830	13,672					
TOTAL				31,580	31,580	31,580					
CL	68.1	COEFF	NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L				4,686	4,686	4,686					
DOUG FIR-T		59.1	6.6	2,800	2,997	3,193					
TOTAL				7,683	7,683	7,683					



Legend

- Timber Sale Boundary
- Surfaced Road
- Unsurfaced Road
- - - New Construction
- - - Right-of-Way Boundary
- Cable Landing
- Tractor Landing
- ▤ Cable Yarding Area
- ▤ Tractor Yarding Area
- Type F Stream
- Type N Stream
- ▨ Stream Buffer
- ▨ ODF Ownership
- Section Line
- 80 Foot Contour

LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-13-16
 SUNDAY ADDITION
 PORTIONS OF SECTIONS 12, 13, & 24, T1S, R6W, W.M. AND
 PORTIONS OF SECTIONS 18, & 19, T1S, R5W, W.M.
 WASHINGTON COUNTY, OREGON

Forest Grove District GIS
 June 2012

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

1:15,840

1 inch = 1,320 feet



APPROXIMATE NET ACRES
 TRACTOR CABLE

	TRACTOR	CABLE
AREA 1	248	24
AREA 2	4	0
TOTAL	252	24