"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sunset Summit SI
Sale 341-13-22

District: **Astoria** **Date:** **December 03, 2012**

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$958,978.76	$326.87	$959,305.63
		Project Work:	$(16,552.00)
		Advertised Value:	$942,753.63

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Sunset Summit SI
Sale 341-13-22

District: **Astoria** **Date:** **December 03, 2012**

timber description

Location: Portions of Sections 23 and 24, T4N, R7W, W.M., Clatsop County, Oregon.

Stand Stocking: 80%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	17	0	97
Western Hemlock / Fir	13	0	97
Alder (Red)	20	0	95

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	1,692	1,067	125	0	2,884
Western Hemlock / Fir	2	51	12	0	65
Alder (Red)	0	0	0	1	1
Total	1,694	1,118	137	1	2,950

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Sunset Summit SI
Sale 341-13-22

District: **Astoria** **Date:** **December 03, 2012**

comments:

Pond Values Used: 3rd Quarter Calendar Year 2012.

Expected Log Markets: Warrenton, OR; Mist, OR; Clatskanie, OR; Tillamook, OR; Forest Grove, OR.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost
$789.67/MBF = $975/MBF - $185.33/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):
100% Branding and Painting: $1/MBF x 2,950 MBF = $2,950
Machine washing for noxious weed compliance = $2,000
TOTAL Other Costs (with Profit & Risk to be added) = $4,950

Other Costs (No Profit & Risk added):
Vacate, pull culvert at 9+25 and crunch dirt road segment 1A-1B after harvest:
$50/station x 11 stations = $550
Equipment time to pull culvert at 9+25 = $475
(2 hrs X $77/hr = $154)
(Equipment move in = $321)
Total = $1,025
Snag Creation: 46 snags x $45/snag = $2,070
TOTAL Other Costs (No Profit & Risk added) = $3,095

"STEWARDSHIP IN FORESTRY"

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District: **Astoria** **Date:** **December 03, 2012**

logging conditions

combination#: 1

	Douglas - Fir	77.00%
	Western Hemlock / Fir	77.00%
	Alder (Red)	77.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Shovel **Process**: Manual Delimbing
tree size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 9.0 **bd. ft / load:** 4,500
cost / mbf: $61.84

machines: Shovel Logger

combination#: 2

	Douglas - Fir	23.00%
	Western Hemlock / Fir	23.00%
	Alder (Red)	23.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Medium Tower >40 - <70 **Process**: Manual Delimbing
tree size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 7.0 **bd. ft / load:** 4,500
cost / mbf: $109.84

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

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sunset Summit SI
Sale 341-13-22

District: **Astoria** **Date:** **December 03, 2012**

logging costs

Operating Seasons:	1.00	**Profit Risk:**	14.00%
Project Costs:	$16,552.00	**Other Costs (P/R):**	$4,950.00
Slash Disposal:	$0.00	**Other Costs:**	$3,095.00

Miles of Road

Road Maintenance: $2.83

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	4.5
Western Hemlock / Fir	$0.00	2.0	4.0
Alder (Red)	$0.00	2.0	3.5

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sunset Summit SI
Sale 341-13-22

District: **Astoria** **Date:** **December 03, 2012**

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$72.88	$2.91	$1.49	$78.30	$1.68	$22.02	$0.00	$5.00	$1.05	$185.33
Western Hemlock / Fir									
$72.88	$2.91	$1.49	$88.10	$1.68	$23.39	$0.00	$5.00	$1.05	$196.50
Alder (Red)									
$72.88	$2.97	$1.49	$102.63	$1.68	$25.43	$0.00	$5.00	$1.05	$213.13

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$512.82	$327.49	$0.00
Western Hemlock / Fir	$0.00	$419.54	$223.04	$0.00
Alder (Red)	$0.00	$540.00	$326.87	$0.00

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
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Sale 341-13-22

District: **Astoria** **Date:** **December 03, 2012**

summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	$0.00	$0.00
Western Hemlock / Fir	0	$0.00	$0.00
Alder (Red)	0	$0.00	$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	2,884	$327.49	$944,481.16
Western Hemlock / Fir	65	$223.04	$14,497.60
Alder (Red)	1	$326.87	$326.87

Gross Timber Sale Value

Recovery: $959,305.63

Prepared by: Jasen McCoy **Phone:** 503-325-5451

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Sunset Summit SI

NEW CONSTRUCTION:

Project No. 1

	Road segment		Length/Sta	Cost	
Dirt Roads	1A-1B		10.85	$5,070	
	TOTALS	0.21 miles	10.85		$5,070

ROAD IMPROVEMENT:

Road segment		Length/Sta	Cost	
I1-I2, I3-I4, I5-I6, I7-I8		31.60	$4,811	
TOTALS	0.60 miles	31.60		$4,811

SPECIAL PROJECTS:

Project Work Road Maintenance	$744

MOVE IN:

Equipment	Cost	
Dozer (D8)	$1,406	
Dump Trucks (12 cy x 4)	$652	
F E Loader (C966)	$778	
Grader (14G)	$778	
Excavator (C330)	$1,406	
Water Truck (2,500 gal)	$190	
Rubber Tired Skidder (C518)	$717	
TOTAL		$5,927

GRAND TOTAL **$16,552**

Compiled By: J. McCoy Date: 11/09/2012

Project No. 1 New Road Construction

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Sunset Summit SI
ROADS: 1A-1B (10+85)

NEW CONSTRUCTION: 10.85 **STATIONS** 0.21 **MILES**
IMPROVEMENT: _____ **STATIONS** _____ **MILES**

CLEARING & GRUBBING

Method	Acres/amount		Rate	=	Cost
Scatter Outside of R/W	1.0	x	$1,337.00	=	$1,337.00

SUB TOTAL FOR CLEARING & GRUBBING $1,337

EXCAVATION

1A-1B

Balanced Construction Field Design $/sta.	6.80	x	$122.00	=	$829.60
Borrow Site excavation and sidecast pull back $/hr	6.00	x	$155.00	=	$930.00
Landing Construction	1.00	x	$389.00	=	$389.00

SUB TOTAL FOR EXCAVATION $2,149

Other/miscellaneous:

CULVERT MATERIALS AND INSTALLATION

Location	Dia/type	Lineal ft.	Rate	Cost
1A to 1B				
9+25	18"CPP	30	$19.53	$585.90

SPECIAL PROJECTS Description	Quantity	Rate	Cost
Labor 1 hr. @$40.00 hr. for borrow area	1	$40.00	$40.00
Grass seed mix 5lbs X $1.60/lb	5	$1.60	$8.00
Straw bales @$10.73 ea. X 5 bales for borrow area	5	$10.73	$53.65
Compact fill w/ rubber tired skidder (1A to 1B)	2	$92.00	$184.00

SUB TOTAL FOR OTHER $872

Grand Total: **$4,357**

Project No. 1 New Road Construction

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Sunset Summit SI
ROAD: 1A-1B (10+85)

NEW CONSTRUCTION: 10.85 **STATIONS** 0.21 **MILES**
IMPROVEMENT: 0.00 **STATIONS** 0.00 **MILES**

SURFACING			Stations/ amount		Rate/ sta/amt	Cost
Subgrade prep:	Description					
	Outslope		10.85	x	$18.35	$199.10

ROAD SEGMENT	1A to 1B			POINT TO POINT 1A to 1B		Sta. to Sta. 0+00 to 10+85					
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per		Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Surfacing Rock	1 1/2"-0" Crushed	0+00 to 0+50	N/A	Station	40	Stations	0.5	20	$7.34	$147	
Surfacing Rock	6"-0" pit-run	9+00 to 9+75		Station	100	Stations	0.5	50	$7.34	$367	
Total Rock for Road Segment:			1A to 1B					70			$514

SUB TOTAL FOR SURFACING **$713**

Project No. 1 Road Improvement

SUMMARY OF CONSTRUCTION COSTS

SALE NAME:	Sunset Summit SI	**NEW CONSTRUCTION:**	0.00 **STATIONS**	0.00 **MILES**
ROAD:	I1-I2 (13+00), I3-I4 (12+90), I5-I6 (1+80), I7-I8 (3+90)	**IMPROVEMENT:**	31.60 **STATIONS**	0.60 **MILES**

SURFACING

Subgrade prep: Description	Stations/ amount	x	Rate/ sta/amt	Cost
Grade, Shape and Ditch	31.60	x	$24.83	$784.63

ROAD SEGMENT	**I1 to I2**			**POINT TO POINT** I1 to I2		**Sta. to Sta.** 0+00 to13+00					
Application	**Rock Size and Type**	**Location**	**Depth of Rock (inches)**	**Volume (CY) per**		**Number of**		**TOTAL VOLUME (CY)**	**Rate/ Sta./ amt.**	**Cost**	
Subgrade Leveling	1 1/2"-0" Crushed	I1 to I2	N/A	N/A	N/A	N/A	N/A	110	$7.34	$807	
Surfacing Rock	1 1/2"-0" Crushed	I1 to I2	3	Station	19	Stations	13.0	247	$7.34	$1,813	
Landing Rock	6"-0" pit-run	I2	N/A	N/A	N/A	N/A	N/A	30	$7.34	$220	
Total Rock for Road Segment:				I1 to I2				387			$2,841

ROAD SEGMENT	**I3 to I4**			**POINT TO POINT** I3 to I4		**Sta. to Sta.** 0+00 to 12+90					
Application	**Rock Size and Type**	**Location**	**Depth of Rock (inches)**	**Volume (CY) per**		**Number of**		**TOTAL VOLUME (CY)**	**Rate/ Sta./ amt.**	**Cost**	
Landing Rock	6"-0" pit-run	I4	N/A	N/A	N/A	N/A	N/A	30	$7.34	$220	
Total Rock for Road Segment:				I3 to I4				30			$220

ROAD SEGMENT	**I5 to I6**			**POINT TO POINT** I5 to I6		**Sta. to Sta.** 0+00 to 1+80					
Application	**Rock Size and Type**	**Location**	**Depth of Rock (inches)**	**Volume (CY) per**		**Number of**		**TOTAL VOLUME (CY)**	**Rate/ Sta./ amt.**	**Cost**	
Landing Rock	6"-0" pit-run	I6	N/A	N/A	N/A	N/A	N/A	30	$7.34	$220	
Total Rock for Road Segment:				I5 to I6				30			$220

ROAD SEGMENT	**I7 to I8**			**POINT TO POINT** I7 to I8		**Sta. to Sta.** 0+00 to 3+90					
Application	**Rock Size and Type**	**Location**	**Depth of Rock (inches)**	**Volume (CY) per**		**Number of**		**TOTAL VOLUME (CY)**	**Rate/ Sta./ amt.**	**Cost**	
Landing Rock	6"-0" pit-run	I8	N/A	N/A	N/A	N/A	N/A	30	$7.34	$220	
Total Rock for Road Segment:				I7 to I8				30			$220

Description	No.sta	Rate/sta	Cost
Water, Process & Compact rock:	6.50	$56.48	$367
Process & Compact rock:	6.50	$24.28	$158

24"-6"	**6"-0"pr**	**4"-0"**	**1 1/2"-0"**	**3/4"-0"**	**Total**
0	170	0	377	0	547

SUB TOTAL FOR SURFACING **$4,811**

ROCK COST

SALE NAME: Sunset Summit SI
PROJECT: Proect No. 1
QUARRY: Sterling Ranch Quarry & Quartz Creek Stockpile
MATERIAL: Pit Run & 1 1/2 "-0" Crushed Rock
DATE: 10/16/2012
BY: J. McCoy

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES 50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	Total Haul
PIT RUN										
I1 to I2	13.00	30			1.50	1.50	0.50	0.19	0.20	3.89
I3 to I4	12.90	30			1.50	1.50	0.25	0.20	0.10	3.55
I5 to I6	1.80	30			1.50	1.50	0.25	0.11	0.10	3.46
I7 to I8	3.90	30			1.00	1.00	0.84	0.20	0.20	3.24
1A to 1B	10.85	50			1.00	0.50	0.50	0.50	0.48	2.98
Crushed										
I1 to I2	13.00	358			1.00	1.00	1.00	0.48	0.52	4.00
1A to 1B	10.85	20			1.00	0.50	0.50	0.50	0.38	2.88
TOTAL	66.30	548								**AVERAGE HAUL**
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL					**1.08**	**1.02**	**0.82**	**0.42**	**0.43**	**3.76**
								Average Round Trip Distance (miles)	7.53	

ROCK HAUL:

Truck type: D20 No. trucks:
Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks: 4
Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
Delay min.: 5 Efficiency: 85%

Ave haul: $4.94 /cy
Load: $0.84 /cy
Spread: $1.56 /cy

Production: cy/day = 511

ROCK HAUL COSTS 548 cy @ **$7.34 /cy**

Road Maintenance Cost Summary

Sale: Sunset Summit SI
Date: 15-Oct-12
By: J. McCoy

MBF: 2,950
$$/MBF: $2.83

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Final Road Maintenance	Grader 14G	$675	1	10	$93	$1,605
	Dump Truck 12CY x 2	$141	2	8	$73	$1,309
	FE Loader C966	$675	1	8	$77	$1,291
	Excavator C315	$699	1	8	$94	$1,451
	Vibratory Roller	$675	1	10	$72	$1,395
	Water Truck 2,500 gallon	$165	1	10	$83	$995
	Labor	$0	1	8	$38	$304
Total						$8,350

Production Rates

Production Rates	Miles/day	Distance(miles)	Days
Grader	1.5	1.6	1.1
Vibratory Roller*	1.5	1.6	1.1

*Final Road Maintenance Only

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Road Maintenance after completion of Projects

Sale: Sunset Summit SI
Date: 24-Oct-12
By: J. McCoy

Type	Equipment/Rationale			Hours	Rate	Cost	
Final Haul Road Maintenance Haul Route	Grader 14G			8	$93	$744	
Total							$744

Production Rates	Miles/day	Distance(miles)	Days
Grader	4.0	3.9	1.0
Vibratory Roller	4.0	3.9	1.0

Sunset Summit SI
TIMBER CRUISE REPORT
FY 2013

1. **Sale Area Location:** Areas 1 & 2 are located in portions of Sections 23 and 24, T4N, R7W, W.M., Clatsop County, Oregon.

2. **Fund Distribution:** BOF 100%
   Tax Code 8-01 (100%) Special Comment: LCR obligation of $743.03 (Project #35594D04)

3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Non-Thinnable	Existing R/W	New R/W	GTRA	Stream Buffer	Net Acres	Survey Method
1	Partial Cut	199	19	8	0	1	18	153	GIS
2	R/W	1	0	0	N/A	0	0	1	GIS
TOTALS		**200**	**19**	**8**	**0**	**1**	**18**	**154**	

4. Cruisers and Cruise Dates: Area 1 was cruised by Jasen McCoy and Kevin Berry on June 12, 13, and 14, 2012.

5. Cruise Method and Computation:
Area 1 is a partial cut thinning unit and was variable plot cruised using a 40 BAF. These plots are located on a 3 chain by 11 chain grid, with every third plot measured and graded. A total of 48 plots were sampled, with 16 measured and graded plots, and 32 count plots*. Red alder and cedar are reserve species, and were recorded as "leave" trees.

* Statistic reports "cruise" and "count" plot totals vary due to three count plots with measured and graded snags and one count plot with a measured and graded hemlock leave tree.

Area 2 R/W The right-of-way volume within the harvest areas was calculated by multiplying Area 2 R/W acreage by the average volume per acre from the plots in Area 1. In-sale right-of-way totals 1 acre.

All cruisers used Corvallis MicroTechnology (CMT) and/or Allegro data collectors, and were downloaded to the Atterbury Super A.C.E. program in District for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Astoria district office.

AREA	CRUISE	TRACT	TYPE	ACRES
1	T4NR7W24	AREA1	TAKE	153
2	T4NR7W24	AREA2	R/W	1

6. Timber Description: Area 1 is a partial cut thinning unit, approximately 65 years old, consisting of Douglas-fir stands mixed with hemlock and true fir. This stand will be thinned to a SDI of 30% (140 Sq.Ft.BA), removing approximately 81 trees per acre and 18.9 MBF/acre. The average Douglas-fir tree size to be harvested is 17.4 inches DBH, with an average height of 66 feet to a merchantable top (6 inch d.i.b.). The average hemlock tree/true fir size is 13 inches DBH and 50 feet to a merchantable top (6 inch d.i.b.). The "biggest and best" trees were recorded as "leave" trees to meet a target residual basal area of 140 ft^2/acre. Hardwoods do not count towards the residual basal area.

Area 2 R/W is similar to the timber description mentioned above for Area 1. The average volume (net) is approximately 47.9 MBF/acre.

7. Statistical Analysis and Stand Summary: (See "Statistics" - Type Reports, attached)

Statistics for Stand B.F. volumes

Area	Estimated CV	Target SE%	Actual CV	Actual SE%
1	40%	7%	24.5%	3.5%

8. Volumes by Species and Log Grade: (See "Species, Sort, Grade" - Project Report, attached).
Volumes by Species and Grade for All Sale Areas: (MBF) Volumes do not include "in-growth."

Species	DBH	Net Vol.	2 Saw	3 Saw	4 Saw	CampRun	% D & B	% Sale
Douglas-fir	17.4"	2,884	1,692	1,067	125	0	<1%	98%
Hemlock/True-fir	13.0"	65	2	51	12	0	<1%	2%
Alder	20.5"	1	0	0	0	1	<1%	<1
TOTALS		**2,950**				1		

9. Approvals:

Prepared by: Jasen McCoy **Date:** 6/18/12

Unit Forester Approval: [signature] **Date:** 10/30/12

10. Attachments:

Cruise Designs and Maps – 3 pages
Volume Report - 3 pages
Statistics Reports - 5 pages
Log Stock Tables - 3 page
Stand Table Summary – 1 page

X:\Jewell_Unit\Timber Sales\2013\SSSI\Sale Prep\SSSI_CruiseReport.docx

Revised August, 2002

CRUISE DESIGN
ASTORIA DISTRICT

Sale Name: Sunset Summit SI **Area(s)** 1

Harvest Type: (PC)

Approx. Cruise Acres: 154 Estimated **CV%** 40 Net BF **SE% Objective** 7 Net BF

Planned Sale Volume: 2,505 MBF **Estimated Sale Area Value/Acre:** $4,500/Ac (15 MBF/Ac.)

A. Cruise Goals: (a) Grade minimum 100 conifer: (b) Sample 46 cruise plots (16 grade/ 30 count); (c) Other goals X Determine "automark" thinning standards; X Determine log grades for sale value; X Determine snag and leave tree species and sizes.

B. Cruise Design:

1. **Plot Cruises:** BAF 40 (Full point; Half point) (circle one)
   Cruise Line Direction(s) 135° (SE/NW)
   Cruise Line Spacing 11 (chains)
   Cruise Plot Spacing 3 (chains)
   Count/Grade Ratio 2:1

The BA target is 140 sq. ft. Alternate selecting 3-4 leave trees per plot. Mark Leave trees with an "L" using yellow paint on grade plots. Cruise all take and leave trees. If a cruise line ends up paralleling in a buffer, boundary or a road offset by 1 chain and continue. All cedars are leave trees and count towards the leave tree basal area. Hardwoods are also a reserve species, but will not count towards the leave tree BA. Grade alder as camprun-sawlogs (30 net BF minimum). Record all snags as SN and estimate diameter and total height. Cruise to maximize 40' log lengths.

C. Tree Measurements:

1. **Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods. Record dbh to nearest ½" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

2. **Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.

3. **Top Cruise Diameter (TCD):** Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.

4. **Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.

5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

6. **Species, Sort, and Grade Codes:**

A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)

B. Sort: Use code "1" (Domestic).

C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; 0 = Cull

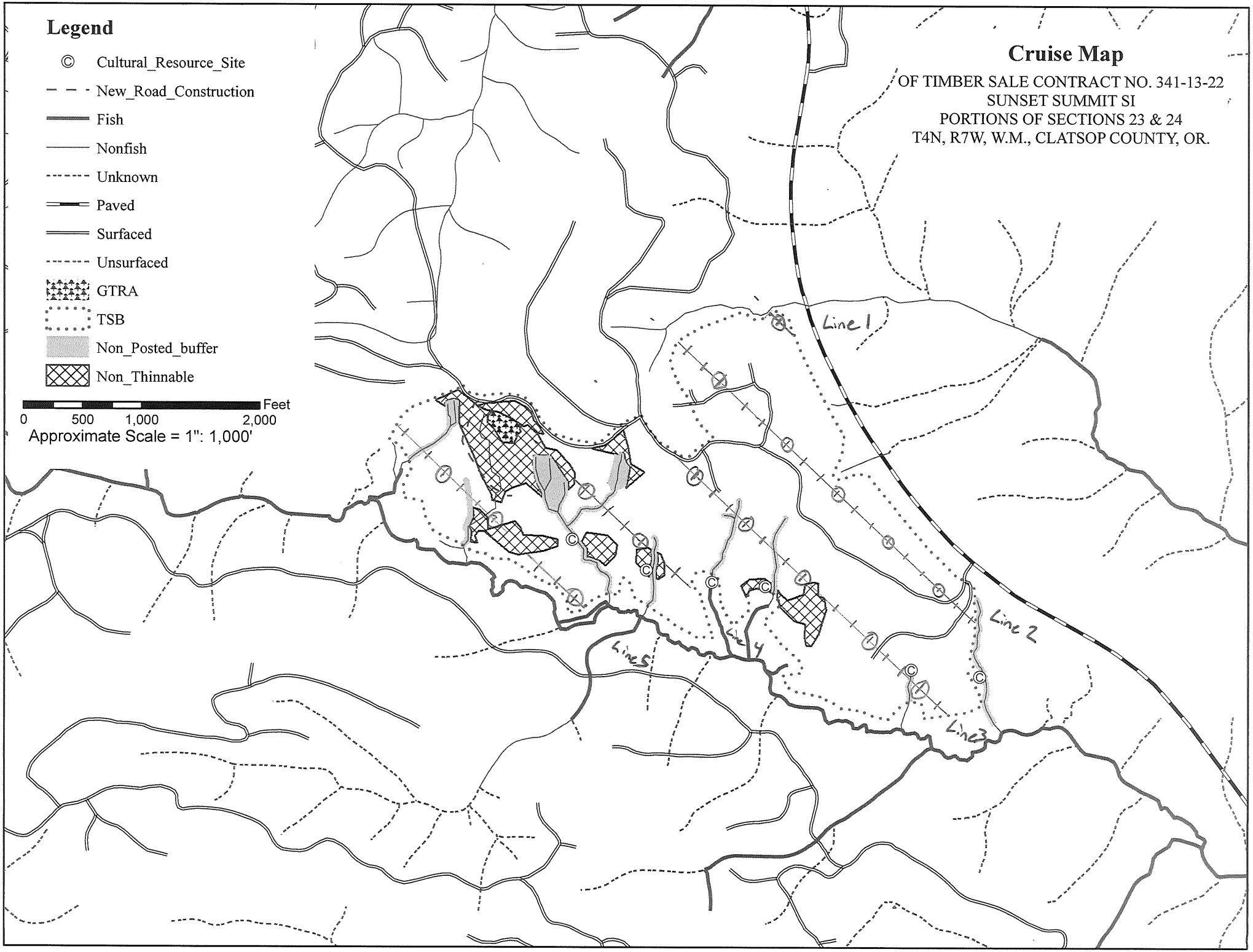
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.

8. **Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at inter-visible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.

9. **Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape (with dbh on back) Biltmore Stick, Compass, Cruise Cards in Tatum OR Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.

10. **Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: Jasen McCoy
Approved by: 
Date: 6/11/12


Legend
Cultural_Resource_Site
New_Road_Construction
Fish
Nonfish
Unknown
Paved
Surfaced
Unsurfaced
GTRA
TSB
Non_Posted_buffer
Non_Thinnable
Feet
0
500
1,000
2,000
Approximate Scale = 1": 1,000'
Cruise Map
OF TIMBER SALE CONTRACT NO. 341-13-22
SUNSET SUMMIT SI
PORTIONS OF SECTIONS 23 & 24
T4N, R7W, W.M., CLATSOP COUNTY, OR.
Line 1
Line 2
Line 3
Line 4
Line 5

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

TT4N RR7W S24 TyTAK	153.00
TT4N RR7W S24 TyR/W	1.00

Project: SSSI
Acres 154.00

Page 1
Date 6/18/2012
Time 1:26:45PM

Spp	S T	So Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Bd Ft	CF/ Lf	Logs Per /Acre
D		DOCU														11		0.00	7.6
D		DO2S	58	.7	11,072	10,990	1,692		1	64	35	4		1	95	38	313	1.96	35.2
D		DO3S	37	.2	6,938	6,927	1,067	1	94	5		0	5	17	77	36	87	0.69	79.8
D		DO4S	5	.0	813	813	125		100			56	25	6	12	20	28	0.46	29.5
D	**Totals**		98	.5	18,824	18,730	2,884	0	40	39	20	5	3	7	85	32	123	1.00	152.1
NF		DO2S	3	13.4	9	8	1			25	75				100	40	434	2.53	.0
NF		DO3S	75	.3	191	191	29		100	0			0	100	0	32	70	0.66	2.7
NF		DO4S	22		54	54	8		100			100				16	20	0.31	2.7
NF	**Totals**		1	.7	255	253	39		97	1	2	21	0	75	3	24	46	0.55	5.5
H		DO2S			1	1	0			100					100	40	219	1.54	.0
H		DO3S	85		144	144	22	0	100			0	0		100	40	120	1.00	1.2
H		DO4S	15		24	24	4		100			100				14	20	0.36	1.2
H	**Totals**		1		169	169	26	0	99	1		14	0		86	27	70	0.84	2.4
A		DOCR	100		1	1	0		11	89		5	6		89	30	135	1.36	.0
A	**Totals**		0		1	1	0		11	89		5	6		89	30	135	1.36	.0
Totals				0.5	19,249	19,153	2,950	0	41	39	20	5	3	8	84	32	120	0.99	160.0

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: SSSI

Page 1
Date 6/18/2012
Time 1:27:22PM

TT4N RR7W S24 TTAKE

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
T4N	R7W	24	AREA1	TAKE	153.00	48	45	1	W

TT4N RR7W S24 TTAKE

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Bd Ft	CF/ Lf	Logs Per /Acre
D		DO	CU														11		0.00	7.6
D		DO	2S	58	.7	10,912	10,833	1,657		1	65	34	4		1	95	38	311	1.96	34.8
D		DO	3S	37	.2	6,923	6,912	1,058	1	94	5		0	5	17	77	36	87	0.69	79.6
D		DO	4S	5		809	809	124		100			56	25	6	13	20	28	0.46	29.4
D	**Totals**			98	.5	18,644	18,554	2,839	0	40	40	20	5	3	7	85	32	122	1.00	151.5
NF		DO	3S	77		190	190	29		100					100		32	70	0.66	2.7
NF		DO	4S	23		54	54	8		100			100				16	20	0.31	2.7
NF	**Totals**			1		244	244	37		100			22		78		24	45	0.54	5.4
H		DO	3S	85		143	143	22		100						100	40	120	1.00	1.2
H		DO	4S	15		24	24	4		100			100				14	20	0.36	1.2
H	**Totals**			1		167	167	26		100			14			86	27	70	0.83	2.4
Type Totals					.5	19,056	18,965	2,902	0	41	39	19	5	3	8	84	32	119	0.98	159.3

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: SSSI

Page 1
Date 6/18/2012
Time 1:27:42PM

TT4N RR7W S24 TR/W

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
T4N	R7W	24	AREA2	R/W	1.00	48	109	1	W

TT4N RR7W S24 TR/W

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Bd Ft	CF/ Lf	Logs Per /Acre
D		DO	CU														10		0.00	9.2
D		DO	2S	76	1.6	35,587	35,007	35		4	37	59	1		3	96	39	393	2.28	89.0
D		DO	3S	20	.2	9,217	9,200	9	1	92	7		1	9	14	76	35	93	0.77	99.0
D		DO	4S	4	3.1	1,431	1,387	1		100			63	25	3	8	19	29	0.54	48.2
D	**Totals**			95	1.4	46,236	45,593	46	0	24	30	45	3	3	6	89	33	186	1.39	245.4
NF		DO	2S	77	13.4	1,443	1,250	1			25	75				100	40	434	2.53	2.9
NF		DO	3S	19	24.0	402	305	0		81	19			24	57	19	31	72	0.88	4.2
NF		DO	4S	4		65	65	0		100			100				16	22	0.38	3.0
NF	**Totals**			3	15.2	1,910	1,620	2		19	23	58	4	4	11	81	29	160	1.45	10.1
H		DO	2S	45		220	220	0			100					100	40	219	1.54	1.0
H		DO	3S	49		238	238	0	9	91			6	9		85	32	88	0.86	2.7
H		DO	4S	6		26	26	0		100			100				16	20	0.45	1.3
H	**Totals**			1		484	484	0	5	50	46		8	5		87	30	97	0.99	5.0
A		DO	CR	100		197	197	0		11	89		5	6		89	30	135	1.36	1.5
A	**Totals**			0		197	197	0		11	89		5	6		89	30	135	1.36	1.5
Type Totals					1.9	48,826	47,895	48	0	24	30	45	3	3	6	89	32	183	1.39	261.9

TC PSTATS

PROJECT STATISTICS

PROJECT SSSI

DATE 6/18/2012

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
T4N	R7	24	AREA1	00PC	154.00	48	335	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	48	335	7.0		
CRUISE	20	115	5.8	19,331	.6
DBH COUNT					
REFOREST					
COUNT	28	192	6.9		
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
DOUGLEAV	56	36.8	25.5	93		130.0	26,631	26,130	6,112	6,111
DOUG FIR	43	77.4	17.4	66		128.3	18,644	18,554	4,852	4,852
NFIRLEAV	3	1.7	27.2	105	1	6.7	1,583	1,302	342	339
SNAG	6	3.7	17.0	81		5.8				
NOB FIR	1	2.7	13.0	50	1	2.5	244	244	71	71
HEMLEAV	3	1.4	18.1	64		2.5	304	304	90	90
WHEMLOCK	1	1.2	16.0	55		1.7	167	167	54	54
ALDRLEAV	2	.7	20.5	62		1.7	197	197	60	60
TOTAL	*115*	*125.5*	*20.2*	*74*		*279.2*	*47,769*	*46,897*	*11,580*	*11,577*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - BF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUGLEAV	49.0	6.5	803	859	915			
DOUG FIR	67.3	10.2	325	362	399			
NFIRLEAV	30.9	21.4	616	783	951			
SNAG								
NOB FIR								
HEMLEAV	20.2	14.0	192	223	255			
WHEMLOCK								
ALDRLEAV			270	270	270			
TOTAL	*74.7*	*7.0*	*546*	*587*	*628*	*223*	*56*	*25*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	TREES/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUGLEAV	33.1	4.8	35	37	39			
DOUG FIR	76.8	11.1	69	77	86			
NFIRLEAV	253.2	36.5	1	2	2			
SNAG	353.7	51.0	2	4	6			
NOB FIR	391.4	56.4	1	3	4			
HEMLEAV	399.6	57.6	1	1	2			
WHEMLOCK	484.7	69.9	0	1	2			
ALDRLEAV	692.8	99.9	0	1	1			
TOTAL	*48.7*	*7.0*	*117*	*126*	*134*	*95*	*24*	*11*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	BASAL AREA/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUGLEAV	22.4	3.2	126	130	134			
DOUG FIR	58.9	8.5	117	128	139			
NFIRLEAV	257.6	37.2	4	7	9			
SNAG	374.0	53.9	3	6	9			
NOB FIR	391.4	56.4	1	3	4			
HEMLEAV	391.4	56.4	1	3	4			
WHEMLOCK	484.7	69.9	1	2	3			

PROJECT STATISTICS

PROJECT SSSI

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
T4N	R7	24	AREA1	00PC	154.00	48	335	1	W

BASAL AREA/ACRE

CL 68.1 SD: 1.00	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
ALDRLEAV	692.8	99.9	0	2	3			
TOTAL	*21.6*	*3.1*	*270*	*279*	*288*	*19*	*5*	*2*

NET BF/ACRE

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUGLEAV	25.6	3.7	25,167	26,130	27,092			
DOUG FIR	59.0	8.5	16,976	18,554	20,132			
NFIRLEAV	251.2	36.2	830	1,302	1,774			
SNAG								
NOB FIR	391.4	56.4	106	244	382			
HEMLEAV	392.1	56.6	132	304	475			
WHEMLOCK	484.7	69.9	50	167	284			
ALDRLEAV	692.8	99.9	0	197	393			
TOTAL	*24.5*	*3.5*	*45,243*	*46,897*	*48,552*	*24*	*6*	*3*

TC PSTATS

PROJECT STATISTICS

PROJECT SSSI

DATE 6/18/2012

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
T4N	R7	24	AREA1	TAKE	153.00	48	159	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	48	159	3.3		
CRUISE	15	45	3.0	12,432	.4
DBH COUNT					
REFOREST					
COUNT	30	114	3.8		
BLANKS	3				
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	43	77.4	17.4	66		128.3	18,644	18,554	4,852	4,852
NOB FIR	1	2.7	13.0	50	1	2.5	244	244	71	71
WHEMLOCK	1	1.2	16.0	55		1.7	167	167	54	54
TOTAL	*45*	*81.3*	*17.3*	*65*		*132.5*	*19,056*	*18,965*	*4,977*	*4,977*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	**SAMPLE TREES - BF** LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	67.3	10.2	325	362	399			
NOB FIR								
WHEMLOCK								
TOTAL	*69.4*	*10.3*	*315*	*351*	*388*	*192*	*48*	*21*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	**TREES/ACRE** LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	76.8	11.1	69	77	86			
NOB FIR	391.4	56.4	1	3	4			
WHEMLOCK	484.7	69.9	0	1	2			
TOTAL	*75.2*	*10.8*	*72*	*81*	*90*	*226*	*56*	*25*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	**BASAL AREA/ACRE** LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	58.9	8.5	117	128	139			
NOB FIR	391.4	56.4	1	3	4			
WHEMLOCK	484.7	69.9	1	2	3			
TOTAL	*58.1*	*8.4*	*121*	*133*	*144*	*135*	*34*	*15*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	**NET BF/ACRE** LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	59.0	8.5	16,976	18,554	20,132			
NOB FIR	391.4	56.4	106	244	382			
WHEMLOCK	484.7	69.9	50	167	284			
TOTAL	*58.3*	*8.4*	*17,371*	*18,965*	*20,560*	*136*	*34*	*15*

TC PSTATS

PROJECT STATISTICS

PROJECT SSSI

DATE 6/18/2012

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
T4N	R7	24	AREA2	R/W	1.00	48	328	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	48	328	6.8		
CRUISE	17	109	6.4	116	93.6
DBH COUNT					
REFOREST					
COUNT	31	214	6.9		
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	99	109.0	20.8	76		258.3	46,236	45,593	11,113	11,112
NOB FIR	4	4.2	20.0	73	2	9.2	1,910	1,620	427	424
WHEMLOCK	4	2.5	17.5	61		4.2	484	484	146	146
R ALDER	2	.7	20.5	62		1.7	197	197	60	60
TOTAL	*109*	*116.4*	*20.7*	*76*		*273.3*	*48,826*	*47,895*	*11,746*	*11,743*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - BF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	67.1	6.7	600	643	687			
NOB FIR	66.3	37.9	391	630	869			
WHEMLOCK	27.5	15.7	171	203	234			
R ALDER			270	270	270			
TOTAL	*69.1*	*6.6*	*579*	*620*	*661*	*190*	*48*	*21*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	TREES/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	55.6	8.0	100	109	118			
NOB FIR	271.3	39.1	3	4	6			
WHEMLOCK	301.4	43.5	1	2	4			
R ALDER	692.8	99.9	0	1	1			
TOTAL	*49.6*	*7.2*	*108*	*116*	*125*	*98*	*25*	*11*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	BASAL AREA/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	32.9	4.7	246	258	271			
NOB FIR	258.4	37.3	6	9	13			
WHEMLOCK	296.4	42.7	2	4	6			
R ALDER	692.8	99.9	0	2	3			
TOTAL	*27.4*	*4.0*	*263*	*273*	*284*	*30*	*7*	*3*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	NET BF/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	32.3	4.7	43,467	45,593	47,720			
NOB FIR	245.2	35.4	1,047	1,620	2,193			
WHEMLOCK	297.6	42.9	276	484	692			
R ALDER	692.8	99.9	0	197	393			
TOTAL	*27.6*	*4.0*	*45,990*	*47,895*	*49,799*	*30*	*8*	*3*

TC PSTATS

PROJECT STATISTICS

PROJECT SSSI

DATE 6/18/2012

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
T4N	R7	24	AREA1	LEAV	153.00	48	176	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	48	176	3.7		
CRUISE	20	70	3.5	6,773	1.0
DBH COUNT					
REFOREST					
COUNT	28	94	3.4		
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
DOUGLEAV	56	36.8	25.5	93		130.0	26,631	26,129	6,112	6,111
NFIRLEAV	3	1.7	27.2	105	1	6.7	1,583	1,302	342	339
SNAG	6	3.7	17.0	81		5.8				
HEMLEAV	3	1.4	18.1	64		2.5	304	304	90	90
ALDRLEAV	2	.7	20.5	62		1.7	197	197	60	60
TOTAL	*70*	*44.3*	*24.6*	*91*		*146.7*	*28,714*	*27,932*	*6,604*	*6,600*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - BF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUGLEAV	49.0	6.5	803	859	915			
NFIRLEAV	30.9	21.4	616	783	951			
SNAG								
HEMLEAV	20.2	14.0	192	223	255			
ALDRLEAV			270	270	270			
TOTAL	*63.6*	*7.6*	*682*	*738*	*794*	*162*	*40*	*18*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	TREES/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUGLEAV	33.1	4.8	35	37	39			
NFIRLEAV	253.2	36.5	1	2	2			
SNAG	353.7	51.0	2	4	6			
HEMLEAV	399.6	57.6	1	1	2			
ALDRLEAV	692.8	99.9	0	1	1			
TOTAL	*23.1*	*3.3*	*43*	*44*	*46*	*21*	*5*	*2*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	BASAL AREA/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUGLEAV	22.4	3.2	126	130	134			
NFIRLEAV	257.6	37.2	4	7	9			
SNAG	374.0	53.9	3	6	9			
HEMLEAV	391.4	56.4	1	3	4			
ALDRLEAV	692.8	99.9	0	2	3			
TOTAL			*147*	*147*	*147*			

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	NET BF/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUGLEAV	25.6	3.7	25,167	26,129	27,092			
NFIRLEAV	251.2	36.2	830	1,302	1,774			
SNAG								
HEMLEAV	392.1	56.6	132	304	475			
ALDRLEAV	692.8	99.9	0	197	393			
TOTAL	*18.8*	*2.7*	*27,173*	*27,932*	*28,691*	*14*	*4*	*2*

TC TLOGSTVB

Log Stock Table - MBF

Project: SSSI

TT4N RR7W S24 TTAK

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
T4N	R7W	24	AREA1	TAKE	153.00	48	45

TT4N RR7W S24 TTAK

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Date 6/18/2012
Time 1:30:29PM

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+
D		DO	CU	6																
D		DO	CU	8																
D		DO	CU	10																
D		DO	CU	14																
D		DO	CU	16																
D		DO	CU	18																
D		DO	2S	12	14		14	.5								14				
D		DO	2S	20	57		57	2.0						23		35				
D		DO	2S	32	20		20	.7						20						
D		DO	2S	40	1,578	.8	1,566	55.2				21		308	623	540	75			
D		DO	3S	12	2		2	.1				2								
D		DO	3S	22	5		5	.2				5								
D		DO	3S	24	23		23	.8		10		13								
D		DO	3S	26	21		21	.7			21									
D		DO	3S	28	7		7	.3				7								
D		DO	3S	32	168		168	5.9			63	41	64							
D		DO	3S	34	12		12	.4			12									
D		DO	3S	38	13		13	.4			13									
D		DO	3S	40	809	.2	807	28.4			231	222	303	52						
D		DO	4S	12	8		8	.3			3	5								
D		DO	4S	14	11		11	.4			9	2								
D		DO	4S	16	31		31	1.1			28	4								
D		DO	4S	18	5		5	.2			5									
D		DO	4S	20	13		13	.5			7	6								
D		DO	4S	22	16		16	.5			16									
D		DO	4S	26	16		16	.5			16									
D		DO	4S	32	8		8	.3			8									
D		DO	4S	40	16		16	.5			16									
D		Totals			2,853		2,839	97.8		10	446	328	367	402	623	588	75			
NF		DO	3S	32	29		29	77.8				29								
NF		DO	4S	16	8		8	22.2			8									
NF		Totals			37		37	1.3			8	29								
H		DO	3S	40	22		22	85.7				22								
H		DO	4S	14	4		4	14.3			4									
H		Totals			26		26	.9			4	22								
Total All Species					2,916		2,902	100.0		10	458	379	367	402	623	588	75			

TC TLOGSTVB

Log Stock Table - MBF

Project: SSSI

TT4N RR7W S24 TR/W

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
T4N	R7W	24	AREA2	R/W	1.00	48	109

TT4N RR7W S24 TR/W

Date 6/18/2012

Time 1:30:29PM

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+
D		DO	CU	6																
D		DO	CU	8																
D		DO	CU	10																
D		DO	CU	14																
D		DO	CU	16																
D		DO	CU	18																
D		DO	2S	12	0		0	.2								0				
D		DO	2S	20	0		0	.7						0		0				
D		DO	2S	32	1	5.6	1	2.4						0		1	0			
D		DO	2S	34	0		0	.1						0						
D		DO	2S	36	0		0	.8								0				
D		DO	2S	40	34	1.5	33	72.6				0	1	3	7	13	7	2		
D		DO	3S	12	0		0	.0				0								
D		DO	3S	20	0		0	.1			0		0							
D		DO	3S	22	0		0	.3				0	0							
D		DO	3S	24	0		0	.8		0	0	0	0	0						
D		DO	3S	26	0		0	.5			0	0	0							
D		DO	3S	28	0		0	.3				0	0							
D		DO	3S	32	1		1	2.6			0	0	0	0						
D		DO	3S	34	0		0	.3			0		0							
D		DO	3S	38	0		0	.2			0									
D		DO	3S	40	7	.3	7	15.1			1	2	3	0	0					
D		DO	4S	12	0		0	.5			0	0	0							
D		DO	4S	14	0		0	.3			0	0	0							
D		DO	4S	16	0		0	.7			0	0	0							
D		DO	4S	18	0		0	.2			0	0								
D		DO	4S	20	0		0	.2			0	0								
D		DO	4S	22	0		0	.2			0									
D		DO	4S	24	0		0	.1				0								
D		DO	4S	26	0		0	.3			0	0								
D		DO	4S	28	0	7.2	0	.2			0									
D		DO	4S	32	0		0	.1			0									
D		DO	4S	40	0	23.2	0	.3			0	0								
D		Totals			46	1.4	46	95.2		0	3	3	5	4	7	14	7	2		
NF		DO	2S	40	1	13.4	1	77.2						0	0	0	1			
NF		DO	3S	24	0		0	2.0				0								
NF		DO	3S	26	0		0	2.5				0								
NF		DO	3S	32	0		0	10.7				0								
NF		DO	3S	40	0	62.1	0	3.6							0					
NF		DO	4S	14	0		0	.9				0								
NF		DO	4S	16	0		0	3.1			0									
NF		Totals			2	15.2	2	3.4			0	0		0	0	0	1			
H		DO	2S	40	0		0	45.5						0						
H		DO	3S	20	0		0	3.0			0									
H		DO	3S	25	0		0	4.6		0										
H		DO	3S	40	0		0	41.6				0	0							
H		DO	4S	14	0		0	3.1			0									
H		DO	4S	18	0		0	2.2			0									

TC TLOGSTVB

Log Stock Table - MBF

Project: SSSI

TT4N RR7W S24 TR/W

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
T4N	R7W	24	AREA2	R/W	1.00	48	109

TT4N RR7W S24 TR/W

Date 6/18/2012

Time 1:30:29PM

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+
H		Totals			0		0	1.0		0	0	0	0	0						
A		DO	CR	18	0		0	5.3			0									
A		DO	CR	22	0		0	5.8			0									
A		DO	CR	40	0		0	88.9						0						
A		Totals			0		0	.4			0			0						
Total All Species					49	1.9	48	100.0		0	3	3	5	5	8	14	8	2		

TC TSTNDSUM

Stand Table Summary

Project DEMO

TT4N RR7W S24 TTAK

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
T4N	R7W	24	AREA1	TAKE	153.00		

TT4N RR7W S24 TTAK
Page: 1
Date: 10/30/20
Time: 11:28:55AM

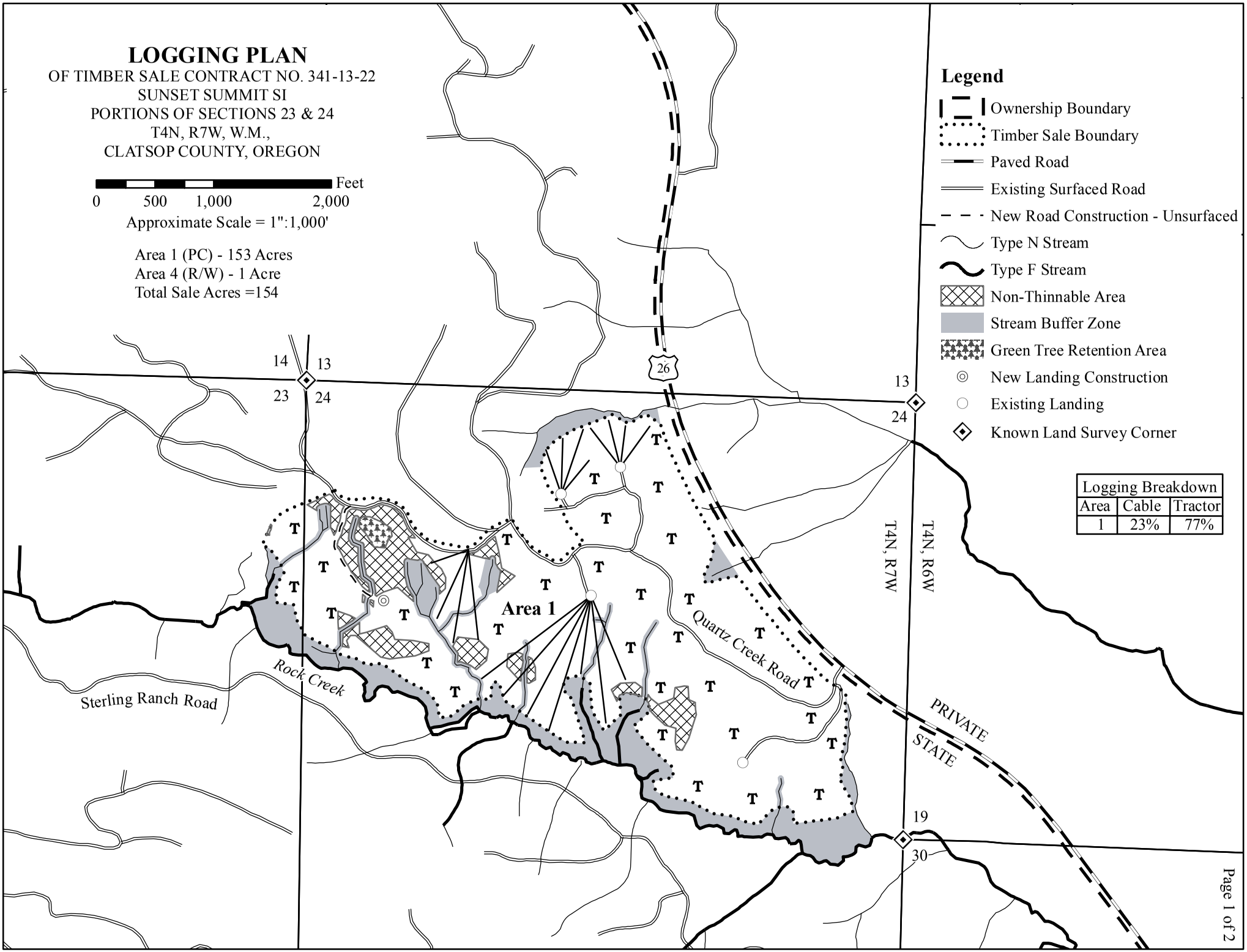
Spc	ST	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
D		10	2	83	74	10.944	5.97	10.94	14.5	55.0		159	602		243	92
D		11	2	84	68	9.045	5.97	9.04	15.0	50.0		136	452		208	69
D		12	1	86	84	3.800	2.98	7.60	12.0	45.0		91	342		140	52
D		13	1	84	69	3.238	2.98	3.24	24.0	70.0		78	227		119	35
D		14	3	85	93	8.375	8.95	16.75	18.5	65.0		310	1,089		474	167
D		15	2	86	127	4.864	5.97	12.16	22.8	88.0		277	1,070		424	164
D		16	1	85	83	2.137	2.98	4.27	22.5	75.0		96	321		147	49
D		17	2	86	102	3.787	5.97	7.57	28.5	105.0		216	795		330	122
D		18	2	87	107	3.378	5.97	6.76	37.0	130.0		250	878		382	134
D		19	2	89	100	3.032	5.97	6.06	39.5	137.5		239	834		366	128
D		20	3	90	104	4.104	8.95	8.21	44.5	161.7		365	1,327		559	203
D		21	1	88	126	1.241	2.98	2.48	50.0	240.0		124	596		190	91
D		22	6	87	110	6.783	17.91	16.96	42.0	165.3		712	2,804		1,090	429
D		23	2	86	123	2.069	5.97	5.17	53.8	212.0		278	1,096		426	168
D		24	2	84	91	1.900	5.97	3.80	42.5	140.0		161	532		247	81
D		25	3	87	104	2.627	8.95	7.00	52.3	211.2		366	1,480		560	226
D		26	3	86	120	2.428	8.95	7.29	55.8	228.9		406	1,667		622	255
D		27	3	87	93	2.252	8.95	4.50	68.5	251.7		309	1,133		472	173
D		28	1	88	141	.698	2.98	2.09	77.7	376.7		163	789		249	121
D		29	1	85	109	.651	2.98	1.95	59.3	266.7		116	521		177	80
D		Totals	43	86	94	77.352	128.33	143.86	33.7	129.0		4,852	18,554		7,424	2,839
NF		13	1	85	73	2.712	2.50	5.42	13.0	45.0		71	244		108	37
NF		Totals	1	85	73	2.712	2.50	5.42	13.0	45.0		71	244		108	37
H		16	1	86	71	1.194	1.67	2.39	22.5	70.0		54	167		82	26
H		Totals	1	86	71	1.194	1.67	2.39	22.5	70.0		54	167		82	26
Totals			45	86	93	81.258	132.50	151.68	32.8	125.0		4977	18,965		7,614	2,902

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-13-22
SUNSET SUMMIT SI
PORTIONS OF SECTIONS 23 & 24
T4N, R7W, W.M.,
CLATSOP COUNTY, OREGON

Feet
0 500 1,000 2,000
Approximate Scale = 1":1,000'

Area 1 (PC) - 153 Acres
Area 4 (R/W) - 1 Acre
Total Sale Acres =154



LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-13-22
SUNSET SUMMIT SI
PORTIONS OF SECTIONS 23 & 24
T4N, R7W, W.M.,
CLATSOP COUNTY, OREGON

Feet
0 500 1,000 2,000
Approximate Scale = 1":1,000'

Area 1 (PC) - 153 Acres
Area 4 (R/W) - 1 Acre
Total Sale Acres =154