"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sally Ridge
Sale AT-341-2021-W00832-01

District: Astoria

Date: May 29, 2020

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$1,384,926.46	$17,817.84	$1,402,744.30
		Project Work:	($3,750.00)
		Advertised Value:	$1,398,994.30

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sally Ridge
Sale AT-341-2021-W00832-01

District: Astoria **Date: May 29, 2020**

Timber Description

Location: Portions of Sections 23 and 24 of T4N, R9W, W.M., Clatsop County, Oregon.

Stand Stocking: 80%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	26	0	97
Western Hemlock / Fir	17	0	95
Sitka Spruce	18	0	95
Alder (Red)	15	0	97

Volume by Grade	2S	3S & 4S 6"-11"	8" - 9"	10" - 11"	12"+	6" - 7"	Total
Douglas - Fir	2,875	401	0	0	0	0	3,276
Western Hemlock / Fir	49	61	0	0	0	0	110
Sitka Spruce	63	26	0	0	0	0	89
Alder (Red)	0	0	14	28	5	26	73
Total	2,987	488	14	28	5	26	3,548

Comments: Pond Values Used: Local Pond Values, April, 2020.

Expected Log Markets: Mist, Willamina, Banks, North Plains, Clatskanie, Tillamook, Wauna, Forest Grove, Warrenton, Eugene, Monroe, Noti, Longview, WA, Elma, WA, Chehalis, WA, and Vancouver, WA.

PRICING:

Slash Piling (See attached appraisal. Includes move-in and pile materials) = $9,271.33

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

Machine Washing for Invasive Weed Compliance = $2,000

Line Pull (3 Acres):
$20/MBF x 42 MBF/acre x 3 acres = $2,520

Controlled Felling (1.25 Acres):
$20/MBF x 42 MBF/acre x 1.25 acres = $1,050

Ditch Filters:
Bales of straw = 8 @ $12.06/bale = $96.48
3 hours of labor @ $45/hr = $135

TOTAL Other Costs (with Profit & Risk to be added): $5,801.48

Other Costs (No Profit & Risk added):
None.

ROAD MAINTENANCE
(See attached Road Maintenance Cost Summary Sheet)
TOTAL Road Maintenance: $19,595/3,548 MBF = $5.52/MBF

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District: Astoria **Date: May 29, 2020**

Logging Conditions

Combination#: 1

Douglas - Fir	52.00%
Western Hemlock / Fir	52.00%
Sitka Spruce	52.00%
Alder (Red)	52.00%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Manual Falling/Delimbing

yarding distance: Medium (800 ft) **downhill yarding:** No

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 11 **bd. ft / load:** 4300

cost / mbf: $139.53

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

Combination#: 2

Douglas - Fir	48.00%
Western Hemlock / Fir	48.00%
Sitka Spruce	48.00%
Alder (Red)	48.00%

Logging System: Shovel **Process:** Feller Buncher

yarding distance: Medium (800 ft) **downhill yarding:** No

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 11 **bd. ft / load:** 4250

cost / mbf: $75.68

machines: Feller Buncher w/ Delimber

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sally Ridge
Sale AT-341-2021-W00832-01

District: Astoria **Date: May 29, 2020**

Logging Costs

Operating Seasons:	2.00	**Profit Risk:**	10%
Project Costs:	$3,750.00	**Other Costs (P/R):**	$5,801.48
Slash Disposal:	$9,271.33	**Other Costs:**	$0.00

Miles of Road

Road Maintenance: $5.52

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	4.3
Western Hemlock / Fir	$0.00	2.0	4.0
Sitka Spruce	$0.00	2.0	5.0
Alder (Red)	$0.00	2.0	3.1

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sally Ridge
Sale AT-341-2021-W00832-01

District: Astoria **Date: May 29, 2020**

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
$108.88	$5.69	$2.47	$113.78	$1.64	$23.25	$2.61	$2.00	$0.00	$260.32
Western Hemlock / Fir									
$108.88	$5.80	$2.47	$124.69	$1.64	$24.35	$2.61	$2.00	$0.00	$272.44
Sitka Spruce									
$108.88	$5.80	$2.47	$99.75	$1.64	$21.85	$2.61	$2.00	$0.00	$245.00
Alder (Red)									
$108.88	$5.69	$2.47	$157.83	$1.64	$27.65	$2.61	$2.00	$0.00	$308.77

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$668.59	$408.27	$0.00
Western Hemlock / Fir	$0.00	$530.14	$257.70	$0.00
Sitka Spruce	$0.00	$459.46	$214.46	$0.00
Alder (Red)	$0.00	$552.85	$244.08	$0.00

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sally Ridge
Sale AT-341-2021-W00832-01

District: Astoria **Date: May 29, 2020**

Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	3,276	$408.27	$1,337,492.52
Western Hemlock / Fir	110	$257.70	$28,347.00
Sitka Spruce	89	$214.46	$19,086.94
Alder (Red)	73	$244.08	$17,817.84

Gross Timber Sale Value

Recovery: $1,402,744.30

Prepared By: Justin Bush **Phone:** 503-325-5451

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Sally Ridge
Date: May 28, 2020
By: Justin Bush FL

MBF: 3,548.00
$$/MBF: $5.52

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost	
Interim Operations	Grader 14G	$875	1	8	$113	$1,779	
	Dump Truck 12CY	$184	1	4	$89	$540	
	Vibratory Roller	$875	1	8	$87	$1,571	
	Rubber Tired Backhoe-small	$361	1	4	$87	$709	
Final Road Maintenance	Grader 14G	$875	1	32	$113	$4,491	
	Dump Truck 12CY	$184	2	16	$89	$1,792	
	FE Loader C966	$875	1	8	$94	$1,627	
	Vibratory Roller	$875	1	32	$87	$3,659	
	Water Truck 2,500 gallon	$214	1	16	$101	$1,830	
	Rubber Tired Backhoe-small	$361	1	8	$87	$1,057	
	Labor			8	$45	$360	
	Labor (Sweep rocks off highway)			4	$45	$180	
Total							**$19,595**

Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	2.5	2.0	0.8	8

Final Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	1.5	4.8	3.2	32
Vibratory Roller	1.5	4.8	3.2	32

Suess Alley Road = 1.5 miles
Cole Mountain Ridge Road = 0.3 miles
Cole Mountain Road = 1.2 miles
West Sally Ridge Road = 0.5 miles
Tie-Through = 0.3 miles
Sally Creek Road = 0.9 miles
In-unit Spur = 0.1 miles

Grade & Process Total = 4.8 Miles

Site Prep Appraisal

Sale Number: AT-341-2021-W00832-01
Sale Name: Sally Ridge
Date: 05/28/2020

Vegetation Type/Zone	Vegetation Type/Zone Code	Production Rate (hr/ac)	Estimated Piles/Acre	Landing Production Rate (hrs/30 acres)
Doug-fir	A	0.5	0.5	6
Hemlock/Fir	B	1.3	4.5	8
Hemlock/Spruce	C	1.8	6.0	10
Hemlock	D	1.8	6.0	8
Conifer/Hardwood	E	1.0	2.0	8
Whole Tree Yarding	F	0.5	0.5	12

Sale Area	Harvest Type	Veg Type/Zone	Ground Based Yarding Acres	Estimated Piling Hours/Area	Cost/Hour	Total Cost/Area	
1	MC	E	40	40	$145.00	$5,800.00	
					In-unit Piling	**Sub Total =**	$5,800.00

Sale Area	Number of Landings to be Piled	# cable acres per area	Total Cost/Area	Number of In-Unit Piles	Material Cost/Pile	Total Cost/Area	
1	16	44	$1,701.33	96	$5.00	$480.00	
*Cost includes separating firewood					Materials	**Sub Total =**	$480.00
					Landing Piling	**Sub Total =**	$1,701.33

Additonal Move-in allowance

Move-In Allowance	Number of Move-In's	Total Move-In Allowance		
$1,290.00	1	$1,290.00		
			Move-In	**Sub Total =**	$1,290.00

Slash Endhaul Dump Truck hrs	Cost/Hour	Total	Loader hrs	Cost/Hour	Total	
	$89.00	$0.00	0	$145.00	$0.00	
					Sub Total =	$0.00
					Grand Total =	**$9,271.33**

Sally Ridge
Project No 1 - Stream Enhancement

Location	Sites	Number of trees	Placement method	$/tree	Cost per Site
SE1-SE2	5	6	Cable Placement	$125.00	$3,750.00

Project Total	**$3,750**

Sally Ridge
TIMBER CRUISE REPORT
FY 2020

1. **Sale Area Location:** Portions of Sections 23 and 24 of T4N, R9W, W.M., Clatsop County, OR.

2. **Fund Distribution:** BOF 100% Tax Code: 10-04 (100%)

3. **Sale Acreage:**

Harvest Type	Gross Acres	Stream Buffer Acres	Existing R/W Acres	Green Tree Retention Area	Net Acres	Survey Method
Modified Clearcut	99	9	5	1	84	GIS

4. Cruisers and Cruise Dates: Avery Petersen, John Choate, Justin Bush, and Michele Huffman (5/15/2020 - 5/19/2020)

5. Cruise Method and Computation:

The Sally Ridge Timber Sale was stratified and variable plot cruised in two separate cruises, and then combined for final sale volumes.

Tract 1A was variable plot cruised with a 33.61 BAF. A total of 60 plots were sampled on a 2 by 6 chain spacing. The planned count to grade ratio was 2:1, resulting in 37 count plots and 23 grade plots*.

Tract 1B was variable plot cruised with a 40 BAF. A total of 32 plots were sampled on a 1.5 by 6 chain spacing. The planned count to grade ratio was 1:1, resulting in 17 count plots and 15 grade plots.

(*The reported numbers of cruise and grade plots vary from the those indicated in the SuperACE reports for both the combined Project Statistics and the 1A_TAKE Statistics due to measuring a minor conifer species on one count plot.)

Data was collected on Allegro 2 data collectors and downloaded to the Atterbury SuperACE 2008 program for computing. See the attached Cruise Designs for more details on the cruise method. The cruise calculations were processed in the Astoria District office.

CRUISE	TRACT	TYPE	ACRES
SALLYR	1A	00MC	62
SALLYR	1B	00MC	22

6. Timber Description:

Tract 1A is a modified clearcut with an average age of 82 years. This stand was previously thinned with the Cole Mountain Combination timber sale in 2006. The stand consists of Douglas-fir and minor components of western hemlock and Sitka spruce. The average Douglas-fir tree size for harvest is approximately 29 inches DBH and 119 feet to a merchantable top. The average western hemlock tree size for harvest is approximately 18 inches DBH and 60 feet to a merchantable top. The average Sitka spruce tree size for harvest is approximately 14 inches DBH and 28 feet to a merchantable top. Total average net volume to be harvested is 43 MBF per acre. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point.

Tract 1B is a modified clearcut with an average age of 80 years, consisting of Douglas-fir, red alder, Sitka spruce, and western hemlock. The average Douglas-fir tree size for harvest is approximately 20 inches DBH and 83 feet to a merchantable top. The average red alder tree size for harvest is approximately 15 inches DBH and 50 feet to a merchantable top. The average Sitka spruce tree size for harvest is approximately 23 inches

DBH and 49 feet to a merchantable top. The average western hemlock tree size for harvest is approximately 17 inches DBH and 61 feet to a merchantable top. Total average net volume to be harvested is 41 MBF per acre. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point.

When the two Tracts were combined, the average take Douglas-fir tree size for harvest is approximately 26 inches DBH and 103 feet to a merchantable top. The average take red alder tree size for harvest is approximately 15 inches DBH and 50 feet to a merchantable top. The average take Sitka spruce tree size for harvest is approximately 18 inches DBH and 37 feet to a merchantable top. Average take western hemlock tree size for harvest is approximately 17 inches DBH and 60 feet to a merchantable top. Snags average one per acre. Total average net volume to be harvested is 42 MBF per acre.

7. Statistical Analysis and Stand Summary:

Statistics for Stand B.F. volumes

Tract	Estimated CV	Target SE%	Actual CV	Actual SE%
1A	40.0%	9.0%	31.4%	4.0%
1B	50.0%	9.0%	48.9%	8.6%
1A & 1B (Combined)	-	-	40.7	4.2

8. Volumes by Species and Log Grade:

Volumes by Species and Grade for Timber Sale Area: (MBF) Volumes do not include "in-growth."

Conifer

Species	DBH	Net Vol.	2 Saw	3 Saw	4 Saw	% D & B	% Sale
Douglas-fir	26"	3,276	2,875	368	33	1.4%	92%
Western hemlock	17"	110	49	46	15	4.1%	3%
Sitka spruce	18"	89	63	17	9	7.0%	3%
TOTALS	--	**3,475**	**2,987**	**431**	**57**	--	--

Hardwood

Species	DBH	Net Vol.	12"+	10"-11"	8"-9"	6"-7"	% D & B	% Sale
Red alder	15"	73	5	28	14	26	0.0%	2%
TOTALS	--	**73**	**5**	**28**	**14**	**26**	--	--

TOTAL VOLUME	3,548 MBF

9. **Approvals:**

Prepared by: Justin Bush **Date:** 5/26/2020
Unit Forester Approval: [signature] **Date:** 6/11/2020

10. **Attachments:** Cruise Designs and Map (5 pages)
Volume Reports (3 pages)
Statistics Reports (6 pages)
Stand Table Summary (2 pages)
Log Stock Table (3 pages)

Revised August, 2002

CRUISE DESIGN
ASTORIA DISTRICT

Sale Name: Sally Ridge **Tract** 1A

Harvest Type: (MC) Modified Clearcut

Approx. Cruise Acres: 62 **Estimated CV%** 40 Net BF/Acre **SE% Objective** 9 Net BF/Acre

Planned Sale Volume : 2,418 MBF **Estimated Sale Area Value/Acre:** $15,600/Acre

A. **Cruise Goals:** (a) Grade minimum 70 conifer and 10 hardwood trees (b) Sample 63 cruise plots (23 grade/ 40 count); (c) Other goals (____ 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 33.61 (Full point)
   Cruise Line Directions: 137/317
   Cruise Plot Spacing 2 (chains) 132 (Feet)
   Cruise Line Spacing 6 (chains) 396 (Feet)
   Grade/Count Ratio 1:2

Take plots as marked on cruise map. All cedar will be reserved. Record all snags as SN.

DO NOT RECORD 12', 22' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS (For Conifer).

All hardwood will be measured to a G, or as appropriate.

C. **Tree Measurements:**

1. **Diameter:** Minimum DBH to cruise is 8" for conifers and 8" 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 conifer 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. Hardwoods shall be recorded in 8' and 10' multiples.

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; R = Camp Run; 0 = Cull
Hardwoods: Alder Grades: 12" + = 1 Sawmill; 10"-12" = 2 Sawmill; 10"-8" = 3 Sawmill; and 8"-6" 4 Sawmill, or R = Camp Run; 0 = Cull.
All Maple Camp Run = R

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: John Choate
Approved by: 5/14/2020
Date: 5/14/2020

Revised August, 2002

CRUISE DESIGN
ASTORIA DISTRICT

Sale Name: Sally Ridge **Tract** 1B

Harvest Type: (MC) Modified Clearcut

Approx. Cruise Acres: 22 **Estimated CV%** 50 Net BF/Acre **SE% Objective** 9 Net BF/Acre

Planned Sale Volume : 858 MBF **Estimated Sale Area Value/Acre:** $15,600/Acre

A. **Cruise Goals:** (a) Grade minimum 70 conifer and 10 hardwood trees (b) Sample 36 cruise plots (18 grade/ 18 count); (c) Other goals (____ 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)
   Cruise Line Directions: 86/266
   Cruise Plot Spacing 1.5 (chains) 99 (Feet)
   Cruise Line Spacing 6 (chains) 396 (Feet)
   Grade/Count Ratio 1:1

Take plots as marked on cruise map. All cedar will be reserved. Record all snags as SN.

DO NOT RECORD 12', 22' and 32' (for Hardwoods).

DO NOT RECORD 22' LENGTHS (For Conifer).

All hardwood will be measured to a G, or as appropriate.

C. **Tree Measurements:**

1. **Diameter:** Minimum DBH to cruise is 8" for conifers and 8" 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 conifer 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. Hardwoods shall be recorded in 8' and 10' multiples.

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; R = Camp Run; 0 = Cull
Hardwoods: Alder Grades: 12" + = 1 Sawmill; 10"-12" = 2 Sawmill; 10"-8" = 3 Sawmill; and 8"-6" 4 Sawmill, or R = Camp Run; 0 = Cull.
All Maple Camp Run = R

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: John Choate
Approved by: 5/14/2020
Date: 5/14/2020

CRUISE MAP

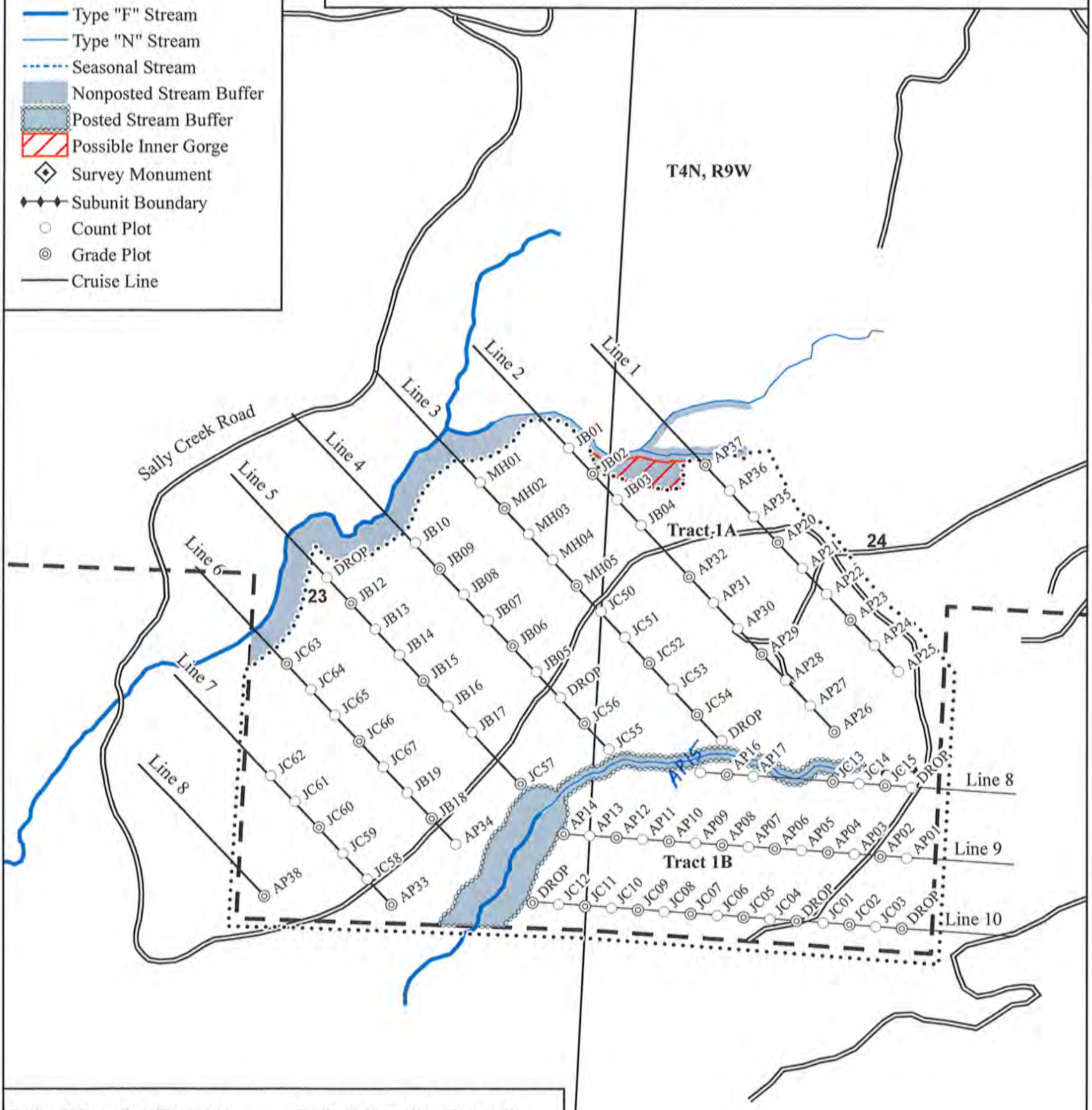
OF TIMBER SALE CONTRACT NO. AT-341-2021-W00832-01 SALLY RIDGE
PORTIONS OF SECTIONS 23 and 24 of T4N, R9W, W.M.,
CLATSOP COUNTY, OREGON

N

Approximate Net Acreage	MC Acres
Tract 1A =	62 Acres
Tract 1B =	22 Acres
Total =	84 Acres

Legend

- Ownership Boundary
- Timber Sale Boundary
- Paved Road
- Surfaced Road
- Type "F" Stream
- Type "N" Stream
- Seasonal Stream
- Nonposted Stream Buffer
- Posted Stream Buffer
- Possible Inner Gorge
- Survey Monument
- Subunit Boundary
- Count Plot
- Grade Plot
- Cruise Line



Cruise Information (Tract 1A)		Cruise Information (Tract 1B)	
Plots Total: 60	BAF: 33.61	Plots Total: 32	BAF: 40
Grade Plots: 23		Grade Plots: 15	
Count Plots: 37		Count Plots: 17	
Cruise Line Direction: 137*/317*		Cruise Line Directions: 86*/266*	
Plot Spacing: 2 Chains (132 Feet)		Plot Spacing: 1.5 Chains (99 Feet)	
Line Spacing 6 Chains (396 Feet)		Line Spacing 6 Chains (396 Feet)	

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T04N R09W S23 Ty00MC 62.00
T04N R09W S23 Ty00MC 22.00

Project: SALLYR
Acres 84.00

Date 5/20/2020
Time 11:10:21AM

Spp	S T	So Grad	% 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	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
D		DOCU		100.0	226											8	25		0.00	1.1
D		DO2S	87	.9	34,542	34,227	2,875			26	74		1	4	95	39	17	518	2.63	66.1
D		DO3S	11	.6	4,400	4,375	368		90	8	2	9	7	32	52	33	9	103	0.90	42.5
D		DO4S	2	1.9	406	399	33		100			62	38			20	7	29	0.52	13.8
D	**Totals**		92	1.4	39,573	39,001	3,276		11	24	65	2	2	7	89	35	13	316	1.92	123.4
S		DOCU		100.0	75											10	27		0.00	.2
S		DO2S	70	.6	750	745	63			32	68	5	9		86	38	18	505	3.34	1.5
S		DO3S	19	.4	208	207	17		86		14	1	11	66	22	33	7	68	1.03	3.0
S		DO4S	11		111	111	9		100			77	23			20	7	31	0.67	3.6
S	**Totals**		3	7.0	1,144	1,064	89		27	23	50	12	11	13	65	28	10	128	1.46	8.3
H		DOCU		100.0	56											6	17		0.00	.8
H		DO2S	44		586	586	49			67	33				100	40	15	341	2.07	1.7
H		DO3S	42		547	547	46		100				2	4	94	38	9	114	0.87	4.8
H		DO4S	14		177	177	15		100			26	46		28	24	6	34	0.52	5.2
H	**Totals**		3	4.1	1,365	1,309	110		55	30	15	4	7	2	88	30	9	105	0.96	12.5
A		DO1S	6		57	57	5			100				100		32	13	190	1.69	.3
A		DO2S	38		329	329	28		100					14	86	39	11	161	1.20	2.0
A		DO3S	20		170	170	14		100						100	40	9	120	0.78	1.4
A		DO4S	36		305	305	26		100			18	7		75	30	6	42	0.57	7.3
A	**Totals**		2		862	862	72 3		93	7		6	2	12	79	33	7	78	0.77	11.0
Totals				1.7	42,945	42,236	3,548		15	24	62	2	2	7	89	34	12	272	1.75	155.3

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: SALLYR

Page 1
Date 5/20/2020
Time 11:02:28AM

T04N R09W S23 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
04N	09W	23	1A_TAKE	00MC	62.00	60	109	1	W

T04N R09W S23 T00MC

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	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
D		DO	CU		100.0	253											8	27		0.00	1.0
D		DO	2S	91	1.0	38,304	37,924	2,351			21	79		1	5	94	39	18	556	2.80	68.2
D		DO	3S	8	.1	3,360	3,356	208		84	12	4	13	11	35	41	31	10	104	0.97	32.3
D		DO	4S	1		159	159	10		100			62	38			19	8	37	0.67	4.2
D	**Totals**			97	1.5	42,077	41,439	2,569		7	21	72	1	2	7	89	36	15	392	2.26	105.7
H		DO	2S	64		551	551	34			52	48				100	40	15	369	2.18	1.5
H		DO	3S	25		221	221	14		100				7		93	36	8	95	0.88	2.3
H		DO	4S	11		87	87	5		100			23			77	27	6	41	0.51	2.1
H	**Totals**			2		858	858	53		36	34	31	2	2		96	34	9	145	1.17	5.9
S		DO	CU		100.0	20											6	34		0.00	.1
S		DO	2S	25		87	87	5				100		100			24	35	1310	10.71	.1
S		DO	3S	49		168	168	10		76		24	2	13	84		31	7	71	0.84	2.4
S		DO	4S	26		89	89	6		100			75	25			20	7	30	0.63	3.0
S	**Totals**			1	5.5	364	344	21		63		37	21	38	41		25	8	63	0.86	5.5
Type Totals					1.5	43,299	42,642	2,644		8	21	71	1	2	7	89	35	14	364	2.16	117.1

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: SALLYR

Page 1
Date 5/20/2020
Time 11:10:52AM

T04N R09W S23 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
04N	09W	23	1B_TAKE	00MC	22.00	32	106	1	W

T04N R09W S23 T00MC

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	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
D		DO	CU		100.0	148											7	19		0.00	1.3
D		DO	2S	74	.6	23,941	23,807	524			49	51				100	40	15	395	2.11	60.2
D		DO	3S	22	1.1	7,328	7,248	159		98	2		3	2	28	67	36	9	102	0.82	71.3
D		DO	4S	4	2.6	1,103	1,074	24		100			62	38			20	6	26	0.48	40.6
D	**Totals**			78	1.2	32,519	32,130	707		25	37	38	3	2	6	89	33	11	185	1.31	173.4
A		DO	1S	6		218	218	5			100				100		32	13	190	1.69	1.1
A		DO	2S	38		1,255	1,255	28		100					14	86	39	11	161	1.20	7.8
A		DO	3S	20		651	651	14		100						100	40	9	120	0.78	5.4
A		DO	4S	36		1,166	1,166	26		100			18	7		75	30	6	42	0.57	27.8
A	**Totals**			8		3,290	3,290	72		93	7		6	2	12	79	33	7	78	0.77	42.2
S		DO	CU		100.0	230											11	25		0.00	.7
S		DO	2S	84	.6	2,618	2,601	57			35	65	5			95	38	17	477	3.18	5.4
S		DO	3S	10	1.1	323	319	7		100				7	39	54	36	7	64	1.26	4.9
S		DO	4S	6		173	173	4		100			80	20			20	7	33	0.72	5.3
S	**Totals**			8	7.5	3,343	3,093	68		16	30	54	9	2	4	85	31	11	189	1.92	16.4
H		DO	CU		100.0	215											6	17		0.00	3.1
H		DO	2S	26		684	684	15			100					100	40	14	290	1.87	2.4
H		DO	3S	57		1,464	1,464	32		100					5	95	39	9	124	0.86	11.8
H		DO	4S	17		430	430	9		100			28	72			23	6	31	0.52	13.8
H	**Totals**			6	7.7	2,793	2,579	57		73	27		5	12	3	80	29	9	83	0.83	31.0
Type Totals					2.0	41,945	41,091	904		33	33	34	4	2	6	87	33	10	156	1.21	263.0

TC PSTATS

PROJECT STATISTICS

PROJECT SALLYR

DATE 5/20/2020

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	09	23	1A_TAKE	00MC	84.00	92	486	1	W
04N	09W	23	1B_TAKE	00MC					

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	92	486	5.3		
CRUISE	39	214	5.5	5,351	4.0
DBH COUNT					
REFOREST					
COUNT	53	264	5.0		
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	166	43.0	25.5	103	30.1	151.8	39,573	39,001	8,286	8,252
S SPRUCE	21	6.7	18.4	37	2.9	12.3	1,144	1,064	351	339
R ALDER	14	7.6	14.9	50	2.4	9.2	862	862	280	280
WHEMLOCK	13	6.5	17.2	60	2.5	10.4	1,365	1,309	375	365
TOTAL	*214*	*63.7*	*23.0*	*86*	*38.3*	*183.7*	*42,945*	*42,236*	*9,293*	*9,236*

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	66.5	5.2	1,098	1,158	1,217			
S SPRUCE	126.2	28.2	318	443	568			
R ALDER	49.3	13.7	108	125	142			
WHEMLOCK	74.4	21.4	218	278	337			
TOTAL	*81.6*	*5.6*	*913*	*967*	*1,021*	*266*	*66*	*30*

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	80.2	8.4	39	43	47			
S SPRUCE	247.1	25.7	5	7	8			
R ALDER	311.4	32.4	5	8	10			
WHEMLOCK	213.2	22.2	5	6	8			
TOTAL	*63.4*	*6.6*	*59*	*64*	*68*	*160*	*40*	*18*

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	51.3	5.3	144	152	160			
S SPRUCE	222.1	23.1	9	12	15			
R ALDER	307.1	32.0	6	9	12			
WHEMLOCK	207.0	21.6	8	10	13			
TOTAL	*33.7*	*3.5*	*177*	*184*	*190*	*45*	*11*	*5*

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	51.3	5.3	36,917	39,001	41,085			
S SPRUCE	254.6	26.5	782	1,064	1,346			
R ALDER	303.5	31.6	589	862	1,134			
WHEMLOCK	217.1	22.6	1,013	1,309	1,605			
TOTAL	*40.7*	*4.2*	*40,445*	*42,236*	*44,026*	*66*	*17*	*7*

TC PSTATS

PROJECT STATISTICS

PROJECT SALLYR

DATE 5/26/2020

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	09	23	1A	00MC	84.00	92	497	1	W
04N	09W	23	1B	00MC					

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	92	497	5.4		
CRUISE	42	224	5.3	5,457	4.1
DBH COUNT					
REFOREST					
COUNT	50	256	5.1		
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	166	43.0	25.5	103	30.1	151.8	39,573	39,001	8,286	8,252
S SPRUCE	21	6.7	18.4	37	2.9	12.3	1,144	1,064	351	339
R ALDER	14	7.6	14.9	50	2.4	9.2	862	862	280	280
WHEMLOCK	13	6.5	17.2	60	2.5	10.4	1,365	1,309	375	365
SNAG	9	1.1	25.4	52	0.8	3.9				
WR CEDAR	1	.2	19.0	25	0.1	.3	7	7	4	4
TOTAL	*224*	*65.0*	*23.0*	*85*	*39.2*	*187.9*	*42,951*	*42,242*	*9,297*	*9,241*

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	66.5	5.2	1,098	1,158	1,217			
S SPRUCE	126.2	28.2	318	443	568			
R ALDER	49.3	13.7	108	125	142			
WHEMLOCK	74.4	21.4	218	278	337			
SNAG								
WR CEDAR								
TOTAL	*86.2*	*5.8*	*870*	*924*	*977*	*297*	*74*	*33*

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	80.2	8.4	39	43	47			
S SPRUCE	247.1	25.7	5	7	8			
R ALDER	311.4	32.4	5	8	10			
WHEMLOCK	213.2	22.2	5	6	8			
SNAG	414.8	43.2	1	1	2			
WR CEDAR	959.2	99.9	0	0	0			
TOTAL	*61.8*	*6.4*	*61*	*65*	*69*	*152*	*38*	*17*

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	51.3	5.3	144	152	160			
S SPRUCE	222.1	23.1	9	12	15			
R ALDER	307.1	32.0	6	9	12			
WHEMLOCK	207.0	21.6	8	10	13			
SNAG	373.4	38.9	2	4	5			
WR CEDAR	959.2	99.9	0	0	1			
TOTAL	*29.5*	*3.1*	*182*	*188*	*194*	*35*	*9*	*4*

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	51.3	5.3	36,917	39,001	41,085			
S SPRUCE	254.6	26.5	782	1,064	1,346			
R ALDER	303.5	31.6	589	862	1,134			
WHEMLOCK	217.1	22.6	1,013	1,309	1,605			

TC PSTATS

PROJECT STATISTICS

PROJECT SALLYR

DATE 5/26/2020

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	09	23	1A	00MC	84.00	92	497	1	W
04N	09W	23	1B	00MC					

CL 68.1		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.00	COEFF VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
SNAG								
WR CEDAR	959.2	99.9	0	7	13			
TOTAL	*40.7*	*4.2*	*40,453*	*42,242*	*44,032*	*66*	*17*	*7*

TC TSTATS

STATISTICS

PAGE 1

PROJECT SALLYR

DATE 5/20/2020

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	09W	23	1A	00MC	62.00	60	293	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	60	293	4.9		
CRUISE	26	114	4.4	2,642	4.3
DBH COUNT					
REFOREST					
COUNT	34	167	4.9		
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	95	32.7	28.8	119	27.6	148.4	42,077	41,439	8,539	8,502
WHEMLOCK	6	3.4	18.1	60	1.4	6.2	858	858	232	232
S SPRUCE	7	5.3	13.9	28	1.5	5.6	364	344	120	117
SNAG	6	1.2	24.8	45	0.8	3.9				
TOTAL	*114*	*42.6*	*26.6*	*101*	*31.8*	*164.1*	*43,299*	*42,642*	*8,891*	*8,851*

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	46.8	4.8	1,431	1,503	1,575			
WHEMLOCK	70.1	31.2	256	372	488			
S SPRUCE	228.8	93.1	22	320	618			
SNAG								
TOTAL	*63.5*	*5.9*	*1,215*	*1,292*	*1,369*	*161*	*40*	*18*

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	34.7	4.5	31	33	34			
WHEMLOCK	257.4	33.2	2	3	5			
S SPRUCE	309.8	40.0	3	5	7			
SNAG	376.9	48.6	1	1	2			
TOTAL	*43.0*	*5.5*	*40*	*43*	*45*	*74*	*18*	*8*

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	32.6	4.2	142	148	155			
WHEMLOCK	255.9	33.0	4	6	8			
S SPRUCE	295.7	38.1	3	6	8			
SNAG	356.1	45.9	2	4	6			
TOTAL	*23.9*	*3.1*	*159*	*164*	*169*	*23*	*6*	*3*

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	33.4	4.3	39,657	41,439	43,222			
WHEMLOCK	269.6	34.8	560	858	1,157			
S SPRUCE	287.9	37.1	216	344	472			
SNAG								
TOTAL	*31.4*	*4.0*	*40,917*	*42,642*	*44,367*	*39*	*10*	*4*

TC TSTATS

STATISTICS

PROJECT SALLYR

DATE 5/20/2020

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	09W	23	1B	00MC	22.00	32	204	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	32	204	6.4		
CRUISE	16	110	6.9	2,815	3.9
DBH COUNT					
REFOREST					
COUNT	16	89	5.6		
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	71	71.8	20.3	83	35.8	161.3	32,519	32,130	7,574	7,549
R ALDER	14	28.9	14.9	50	9.1	35.0	3,290	3,290	1,071	1,071
S SPRUCE	14	10.5	23.3	49	6.5	31.3	3,343	3,093	1,001	963
WHEMLOCK	7	15.1	16.5	61	5.5	22.5	2,793	2,579	779	738
SNAG	3	.9	27.2	78	0.7	3.8				
WR CEDAR	1	.6	19.0	25	0.3	1.3	25	25	17	17
TOTAL	*110*	*128.0*	*19.1*	*70*	*58.3*	*255.0*	*41,971*	*41,116*	*10,442*	*10,338*

CONFIDENCE LIMITS OF THE SAMPLE

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

SAMPLE TREES - BF

CL: 68.1 % / SD: 1.0	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	85.5	10.1	625	695	766			
R ALDER	49.3	13.7	108	125	142			
S SPRUCE	93.4	25.9	374	505	636			
WHEMLOCK	56.5	23.0	152	197	242			
SNAG								
WR CEDAR								
TOTAL	*102.8*	*9.8*	*489*	*542*	*595*	*422*	*106*	*47*

TREES/ACRE

CL: 68.1 % / SD: 1.0	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	100.8	17.8	59	72	85			
R ALDER	166.5	29.4	20	29	37			
S SPRUCE	148.4	26.2	8	11	13			
WHEMLOCK	160.7	28.4	11	15	19			
SNAG	538.6	95.1	0	1	2			
WR CEDAR	565.7	99.9	0	1	1			
TOTAL	*50.3*	*8.9*	*117*	*128*	*139*	*101*	*25*	*11*

BASAL AREA/ACRE

CL: 68.1 % / SD: 1.0	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	84.9	15.0	137	161	185			
R ALDER	163.6	28.9	25	35	45			
S SPRUCE	155.0	27.4	23	31	40			
WHEMLOCK	156.0	27.6	16	23	29			
SNAG	416.2	73.5	1	4	7			
WR CEDAR	565.7	99.9	0	1	2			
TOTAL	*37.7*	*6.7*	*238*	*255*	*272*	*57*	*14*	*6*

NET BF/ACRE

CL: 68.1 % / SD: 1.0	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	78.6	13.9	27,668	32,130	36,591			
R ALDER	161.2	28.5	2,353	3,290	4,226			
S SPRUCE	175.1	30.9	2,136	3,093	4,049			
WHEMLOCK	163.1	28.8	1,836	2,579	3,322			

TC TSTATS

STATISTICS

PROJECT SALLYR

DATE 5/20/2020

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	09W	23	1B	00MC	22.00	32	204	1	W

CL: 68.1 %
SD: 1.0

	COEFF VAR.	S.E.%	NET BF/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
SNAG								
WR CEDAR	565.7	99.9	0	25	51			
TOTAL	*48.9*	*8.6*	*37,567*	*41,116*	*44,665*	*95*	*24*	*11*

TC PSTNDSUM

Stand Table Summary

Page 1
Date: 5/20/2020

T04N R09W S23 Ty00MC 62.00
T04N R09W S23 Ty00MC 22.00

Project SALLYR
Acres 84.00

Time: 11:10:38AM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	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		12	1	88	44	.757	.59	.76	15.0	30.0		11	23		10	2
D		14	3	86	62	1.669	1.78	2.78	15.8	46.0		44	128		37	11
D		15	6	87	92	2.908	3.57	5.33	23.9	85.5		127	456		107	38
D		16	4	88	99	1.704	2.38	3.83	24.9	93.3		95	358		80	30
D		17	5	88	109	1.887	2.97	4.53	28.1	103.3		127	468		107	39
D		18	3	86	90	1.010	1.78	2.02	32.0	113.3		65	229		54	19
D		19	1	88	121	.302	.59	.91	30.7	116.7		28	106		23	9
D		20	6	88	112	1.892	4.13	4.87	37.1	139.4		181	679		152	57
D		21	8	89	136	2.907	6.99	8.47	43.4	184.3		368	1,562		309	131
D		22	8	89	125	2.437	6.43	6.65	47.3	200.4		315	1,333		264	112
D		23	10	88	137	2.642	7.62	7.72	51.4	218.7		397	1,689		333	142
D		24	6	88	147	1.669	5.24	5.01	58.8	257.0		294	1,287		247	108
D		25	12	88	152	3.568	12.16	11.38	60.8	270.0		692	3,073		581	258
D		26	7	88	144	1.735	6.40	5.21	67.2	304.2		350	1,584		294	133
D		27	5	88	146	1.310	5.21	4.07	69.1	311.7		281	1,269		236	107
D		28	8	87	141	1.766	7.55	5.30	75.4	346.3		399	1,835		335	154
D		29	6	89	150	1.143	5.24	3.56	83.1	398.2		296	1,417		249	119
D		30	15	90	157	3.297	16.18	10.83	86.6	435.9		938	4,721		788	397
D		31	8	88	156	1.547	8.11	5.08	92.9	455.3		472	2,314		397	194
D		32	7	87	155	1.346	7.51	4.56	94.3	475.3		430	2,166		361	182
D		33	5	89	155	.783	4.65	2.54	106.9	559.4		272	1,422		228	119
D		34	7	87	165	1.103	6.96	3.86	107.9	551.8		416	2,129		350	179
D		35	6	87	167	1.036	6.92	3.97	107.4	579.1		427	2,299		358	193
D		36	5	86	166	.737	5.21	2.54	123.2	639.2		312	1,621		262	136
D		37	1	86	169	.154	1.15	.62	111.5	577.5		69	357		58	30
D		38	4	88	169	.586	4.61	2.20	129.9	708.0		285	1,555		240	131
D		39	3	86	170	.417	3.46	1.53	132.7	709.1		203	1,084		171	91
D		40	2	87	163	.200	1.75	.67	154.8	800.9		104	536		87	45
D		42	2	83	162	.240	2.31	.84	155.1	774.3		130	650		109	55
D		45	2	84	160	.209	2.31	.73	170.4	892.9		125	653		105	55
D		Totals	166	88	133	42.963	151.80	122.36	67.4	318.7		8,252	39,001		6,932	3,276
H		13	2	87	78	1.736	1.60	2.65	20.3	70.3		54	186		45	16
H		15	2	88	64	1.304	1.60	1.99	22.5	70.0		45	139		38	12
H		16	2	86	56	1.206	1.68	1.81	23.0	73.3		42	133		35	11
H		17	1	85	92	.534	.84	1.07	25.0	90.0		27	96		22	8
H		19	1	88	117	.385	.76	1.15	34.3	136.7		40	158		33	13
H		20	1	89	113	.347	.76	1.04	37.0	150.0		39	156		32	13
H		21	1	86	89	.350	.84	.70	49.0	175.0		34	122		29	10
H		24	1	82	91	.268	.84	.54	48.0	170.0		26	91		22	8
H		27	1	86	79	.191	.76	.38	71.5	260.0		27	99		23	8
H		28	1	86	99	.177	.76	.35	91.0	360.0		32	128		27	11
H		Totals	13	87	78	6.498	10.44	11.68	31.2	112.0		365	1,309		306	110
S		11	2	84	42	1.790	1.18	1.79	13.5	40.0		24	72		20	6
S		12	1	82	17	.752	.59	.75	11.0	30.0		8	23		7	2
S		13	1	83	24	.634	.58	.63	13.0	30.0		8	19		7	2
S		14	1	82	33	.553	.59	.55	18.0	30.0		10	17		8	1
S		16	2	84	48	.842	1.18	.84	32.5	70.0		27	59		23	5
S		18	1	82	36	.334	.59	.33	31.0	50.0		10	17		9	1
S		20	1	82	37	.268	.58	.27	37.0	50.0		10	13		8	1
S		22	2	84	75	.443	1.17	.89	46.0	132.5		41	117		34	10
S		26	1	83	74	.159	.58	.32	65.5	220.0		21	70		17	6
S		27	2	83	80	.294	1.17	.59	73.0	240.0		43	141		36	12

TC PSTNDSUM

Stand Table Summary

Date: 5/20/2020

T04N R09W S23 Ty00MC 62.00
T04N R09W S23 Ty00MC 22.00

Project SALLYR
Acres 84.00

Time: 11:10:38AM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	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
S		30	1	83	82	.119	.58	.24	92.0	325.0		22	77		18	7
S		32	1	86	93	.105	.58	.21	119.5	465.0		25	97		21	8
S		34	1	83	81	.093	.58	.19	56.0	230.0		10	43		9	4
S		35	1	82	41	.087	.58	.09	114.0	70.0		10	6		8	1
S		37	1	85	99	.078	.58	.16	166.0	725.0		26	114		22	10
S		43	1	82	81	.058	.58	.12	186.5	715.0		22	83		18	7
S		47	1	82	90	.049	.59	.15	142.7	660.0		21	97		18	8
S		Totals	21	83	45	6.658	12.32	8.10	41.8	131.3		339	1,064		284	89
A		12	2	87	62	1.667	1.31	1.67	22.0	60.0		37	100		31	8
A		13	3	87	81	2.131	1.96	3.55	19.8	70.0		70	249		59	21
A		15	3	86	60	1.601	1.96	2.13	25.5	72.5		54	155		46	13
A		16	1	86	75	.469	.65	.94	25.5	85.0		24	80		20	7
A		18	3	86	68	1.112	1.96	1.85	32.4	92.0		60	170		50	14
A		20	2	87	58	.600	1.31	.90	39.0	120.0		35	108		29	9
A		Totals	14	87	68	7.580	9.17	11.04	25.4	78.0		280	862		236	72
Totals			214	87	110	63.698	183.72	153.19	60.3	275.7		9,236	42,236		7,758	3,548

TC PLOGSTVB

Log Stock Table - MBF

T04N R09W S23 Ty00MC 62.00
T04N R09W S23 Ty00MC 22.00

Project: SALLYR
Acres 84.00

Date 5/20/2020
Time 11:10:03AM

Spp	S T	So	Grade	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	7	100.0														
D		DO	CU	8	5	100.0														
D		DO	CU	10	6	100.0														
D		DO	2S	24	10		10	.3											10	
D		DO	2S	28	6		6	.2						6						
D		DO	2S	30	13		13	.4										13		
D		DO	2S	32	108		108	3.3						14	27	58	9			
D		DO	2S	36	18		18	.5						4	11	2				
D		DO	2S	38	2		2	.1						2						
D		DO	2S	40	2,744		2,717	82.9						204	295	839	821	532	25	
D		DO	3S	16	12		12	.4					5	7						
D		DO	3S	18	1		1	.0					1							
D		DO	3S	20	20	2.3	20	.6				1	14	5						
D		DO	3S	24	7		7	.2				2	5							
D		DO	3S	26	4		4	.1			1	1	2							
D		DO	3S	28	8		8	.2				4	2	2						
D		DO	3S	30	7		7	.2			2		5							
D		DO	3S	32	112		112	3.4			13	38	44	2	2	13				
D		DO	3S	34	6		6	.2			2	4								
D		DO	3S	36	20		20	.6			4	11	6							
D		DO	3S	38	7		7	.2				7								
D		DO	3S	40	165		164	5.0			20	31	106	7						
D		DO	4S	16	14		14	.4			11	3								
D		DO	4S	18	1		1	.0				1								
D		DO	4S	20	5		5	.2			2	3								
D		DO	4S	24	5		5	.2			2	3								
D		DO	4S	26	2		2	.1			1	1								
D		DO	4S	28	2		2	.1			2									
D		DO	4S	30	4	16.0	3	.1			3									
D		Totals			3,324	1.4	3,276	92.3			65	110	189	253	336	912	830	546	35	
S		DO	CU	6	1	100.0														
S		DO	CU	10	2	100.0														
S		DO	CU	12	3	100.0														
S		DO	2S	16	3		3	3.5										3		
S		DO	2S	24	5		5	6.0											5	
S		DO	2S	40	54		54	60.5						10		22	7	15		

TC PLOGSTVB

Log Stock Table - MBF

T04N R09W S23 Ty00MC 62.00
T04N R09W S23 Ty00MC 22.00

Project: SALLYR
Acres 84.00

Date 5/20/2020
Time 11:10:03AM

Spp	S T	Sort	Grade	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+
S		DO	3S	16	0		0	.3			0			
S		DO	3S	30	2		2	2.1		2				
S		DO	3S	32	11		11	12.5		5 4			3	
S		DO	3S	34	0		0	.3		0				
S		DO	3S	38	1		1	.6		1				
S		DO	3S	40	3		3	3.6		2 1				
S		DO	4S	16	2		2	2.1		2				
S		DO	4S	18	1		1	.6		1				
S		DO	4S	20	5		5	5.3		4 1				
S		DO	4S	24	1		1	.8		1				
S		DO	4S	26	1		1	1.6		1				
S		Totals			96	7.0	89	2.5		17 7	0 10	22	10 18	5
H		DO	CU	6	5	100.0								
H		DO	2S	40	49		49	44.7				33 16		
H		DO	3S	24	1		1	.9		1				
H		DO	3S	32	2		2	1.6		2				
H		DO	3S	36	7		7	6.7		3	4			
H		DO	3S	38	4		4	3.3		4				
H		DO	3S	40	32		32	29.3		18	14			
H		DO	4S	16	4		4	3.5		4				
H		DO	4S	24	1		1	1.2		1				
H		DO	4S	26	3		3	3.1		2 1				
H		DO	4S	30	2		2	1.8		2				
H		DO	4S	36	4		4	3.8		4				
H		Totals			115	4.1	110	3.1		19 23	18	33 16		
A		DO	1S	32	5		5	6.6			5			
A		DO	2S	34	4		4	5.2			4			
A		DO	2S	40	24		24	32.9			24			
A		DO	3S	40	14		14	19.8		14				
A		DO	4S	18	1		1	1.1		1				
A		DO	4S	20	4		4	5.3		4				
A		DO	4S	24	2		2	2.5		2				
A		DO	4S	36	6		6	8.7		6				

TC PLOGSTVB

Log Stock Table - MBF

T04N R09W S23 Ty00MC 62.00
T04N R09W S23 Ty00MC 22.00

Project: SALLYR
Acres 84.00

Date 5/20/2020
Time 11:10:03AM

Spp	S T	So Grt	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+
A		DO	4S	40	13		13	17.9			13									
A		Totals			72		72	2.0			26	14	28	5						
Total		All Species			3,607	1.7	3,548	100.0			127	154	235	267	369	951	840	564	40	

LOGGING PLAN MAP

MAP OF TIMBER SALE CONTRACT
NO. 341-2021-W00832-01
SALLY RIDGE
PORTIONS OF SECTIONS
23 and 24 of T4N, R9W, W.M.,
CLATSOP COUNTY, OREGON

N

Approximate Net Acreage	MC Acres
Unit 1 (MC) =	84 Acres
Total =	84 Acres

Logging Breakdown

	Cable	Ground
Unit 1	52%	48%

0 250 500 1,000 Feet 1 inch = 1,000 feet

Legend

- Ownership Boundary
- Timber Sale Boundary
- Paved Road
- Surfaced Road
- Existing Landing
- Designated Haul Route
- Type "F" Stream
- Type "N" Stream
- Nonposted Stream Buffer
- Posted Stream Buffer
- Reserve Tree Area
- Operationally Restricted Area
- Controlled Felling Area
- T Yarding Area - Ground Based
- Yarding Area - Cable Based
- Yarding Area - Line Pull
- Quarry
- Ⓢ Stockpile
- Survey Monument