



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Jesters Boot
Sale AT-341-2023-W00981-01

District: Astoria

Date: February 16, 2023

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,270,429.71	\$77,461.20	\$1,347,890.91
		Project Work:	(\$163,456.00)
		Advertised Value:	\$1,184,434.91



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District: Astoria

Date: February 16, 2023

Timber Description

Location:

Stand Stocking: 30%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	23	0	97
Western Hemlock / Fir	16	0	96
Alder (Red)	15	0	96

Volume by Grade	2S	3S & 4S 6"-11"	8" - 9"	10" - 11"	12"+	6" - 7"	Total
Douglas - Fir	1,505	277	0	0	0	0	1,782
Western Hemlock / Fir	571	738	0	0	0	0	1,309
Alder (Red)	0	0	68	116	88	88	360
Total	2,076	1,015	68	116	88	88	3,451

Comments: Pond Values Used: Local Pond Values, February, 2023.

Expected Log Markets: Mist, Willamina, Banks, Clatskanie, Tillamook, Warrenton, Eugene, Longview, WA, Elma, WA, Chehalis, WA, and Vancouver, WA.

PRICING:

Western Red Cedar and other Cedars stumpage = pond value - (Douglas-fir) logging cost.
\$1,003.79/MBF = \$1,380/MBF - \$376.21/MBF

Sitka Spruce = pond value - (Douglas-fir) logging cost.
\$153.79/MBF = \$530/MBF - \$376.21/MBF

Other hardwoods = pond value - (Douglas-fir) logging cost.
\$73.79/MBF = \$450/MBF - \$376.21

Fuel cost allowance based on month local pond values were collected.

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

Machine Washing for Invasive Weed Compliance = \$2,000

Ditch Filters:

Bales of straw 12 @ \$12.06/bale = \$144.72.00

4 hours of labor @ \$45/hr = \$180.00

Waterbar and block Unsurfaced Roads:

Move in C315 Excavator @ \$905/move in = \$905

4 hrs w/C315 to construct 8 to 12 waterbars @ \$114/hr = \$456

TOTAL Other Costs (with Profit & Risk to be added): \$3,685.72

Other Costs (No Profit & Risk added):

None.

ROAD MAINTENANCE

(See attached Road Maintenance Cost Summary Sheet)

TOTAL Road Maintenance: \$17,608/3,451 MBF = \$5.10/MBF



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Logging Conditions

Combination#: 1
 Douglas - Fir 93.00%
 Western Hemlock / Fir 93.00%
 Alder (Red) 93.00%

Logging System: Shovel **Process:** Manual Falling/Delimiting
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 8 **bd. ft / load:** 5000
cost / mbf: \$187.51
machines: Shovel Logger

Combination#: 2
 Douglas - Fir 7.00%
 Western Hemlock / Fir 7.00%
 Alder (Red) 7.00%

Logging System: Shovel **Process:** Manual Falling/Delimiting
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:** 5000
cost / mbf: \$136.37
machines: Shovel Logger



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Logging Costs

Operating Seasons: 3.00	Profit Risk: 12%
Project Costs: \$163,456.00	Other Costs (P/R): \$3,685.72
Slash Disposal: \$0.00	Other Costs: \$0.00

Miles of Road

Road Maintenance: \$5.10

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	5.0
Western Hemlock / Fir	\$0.00	2.0	4.8
Alder (Red)	\$0.00	2.0	3.9



"STEWARDSHIP IN FORESTRY"

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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$183.93	\$5.25	\$15.12	\$128.75	\$1.07	\$40.09	\$0.00	\$2.00	\$0.00	\$376.21
Western Hemlock / Fir									
\$183.93	\$5.30	\$15.12	\$135.42	\$1.07	\$40.90	\$0.00	\$2.00	\$0.00	\$383.74
Alder (Red)									
\$183.93	\$5.30	\$15.12	\$166.67	\$1.07	\$44.65	\$0.00	\$2.00	\$0.00	\$418.74

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$866.89	\$490.68	\$0.00
Western Hemlock / Fir	\$0.00	\$686.29	\$302.55	\$0.00
Alder (Red)	\$0.00	\$633.91	\$215.17	\$0.00



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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	1,782	\$490.68	\$874,391.76
Western Hemlock / Fir	1,309	\$302.55	\$396,037.95
Alder (Red)	360	\$215.17	\$77,461.20

Gross Timber Sale Value

Recovery: \$1,347,890.91

Prepared By: Justin Bush

Phone: 503-325-5451

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Jesters Boot
Date: February 15, 2023
By: Ryan Simpson CB

MBF: 3,451
\$/MBF: \$5.10

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost	
Interim Operations	Grader 14G	\$875	1	8	\$113	\$1,779	
	Vibratory Roller	\$875	1	4	\$87	\$1,223	
Final Road Maintenance	Grader 14G	\$875	1	32	\$113	\$4,491	
	Dump Truck 12CY	\$184	1	16	\$89	\$1,608	
	Rubber tired backhoe	\$361	1	8	\$87	\$1,057	
	Vibratory Roller	\$875	1	32	\$87	\$3,659	
	Water Truck 2,500 gallon	\$214	1	16	\$101	\$1,830	
	Labor				8	\$45	\$360
Subtotal	Additional costing for fuel				10%	\$1,601	\$16,007
Total							\$17,608

Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	2.5	2.5	1.0	8
Vibratory Roller	2.5	2.5	0.5	4

Final Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	1.5	5.9	3.9	31
Vibratory Roller	1.5	5.9	3.9	31

Process and Compact:

Wage Road 2.9 Miles

Buster Creek Mainline 1.6 Miles

Nettle Creek Road 0.5 Miles

Unnamed Spurs 0.9 Miles

Total 5.9 Miles

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Jester Boot

Project No. 1: ROAD CONSTRUCTION:

<u>Road segment</u>	<u>Length (Sta)</u>	<u>Length (Mile)</u>	<u>Cost</u>	<u>With additional</u>
Unsurfaced	<u>6.55</u>	<u>0.12</u>	<u>\$6,588.95</u>	<u>\$7,248</u>
1A to 1B, 1C to 1D, and 1E to 1F				
Surfaced				
1G to 1H	<u>23.00</u>	<u>0.44</u>	<u>\$29,531.63</u>	<u>\$32,485</u>
Road Maint.			<u>\$1,726.28</u>	<u>\$1,899</u>
Move-In			<u>\$2,548.22</u>	<u>\$2,803</u>
TOTALS	<u>29.55</u>	<u>0.56</u>		<u>\$40,395</u>

Project No. 2: ROAD IMPROVEMENT:

<u>Road segment</u>	<u>Length (Sta)</u>	<u>Length (Mile)</u>	<u>Cost</u>	
l1 to l2, l3 to l4, and l5 to l6	<u>194.00</u>	<u>3.67</u>	<u>\$81,346.42</u>	<u>\$89,481</u>
Road Maint.			<u>\$3,887.72</u>	<u>\$4,276</u>
Move-In			<u>\$5,738.78</u>	<u>\$6,313</u>
TOTALS	<u>194.00</u>	<u>3.67</u>		<u>\$90,973</u>

SPECIAL PROJECTS (Move-In and Road Maint. are included separately as needed, for each Special Project):

<u>Description</u>	<u>Length (Sta)</u>	<u>Cost</u>	
Proj. 3 Road Vacating	<u>46.15</u>	<u>\$9,439.00</u>	<u>\$10,383</u>
Proj. 4 Stream Enhancement	<u>N/A</u>	<u>\$7,789.00</u>	<u>\$8,568</u>
TOTAL			<u>\$17,228</u>

10% Increase Fuel Allowance \$14,859.60

GRAND TOTAL \$163,456

Compiled By: C. Hatcher CB

Date: 02/06/2023

Move In and Maintenance Calculator for Construction and Improvement

SALE NAME: Jesters Boot

Project No. 1: ROAD CONSTRUCTION:

<u>Road segment</u>	<u>Length/Sta</u>	<u>Length/Mile</u>	<u>Cost</u>	
Unsurfaced	6.55	0.12	\$6,589	
1A to 1B, 1C to 1D, and 1E to 1F				
Surfaced				
1G to 1H	23.00	0.44	\$29,531.63	
TOTALS	29.55	0.56		\$36,121

Project No. 2: ROAD IMPROVEMENT:

<u>Road segment</u>	<u>Length/Sta</u>	<u>Length/Mile</u>	<u>Cost</u>	
11 to 12, 13 to 14, and 15 to 16	194.00	3.67	\$81,346	
TOTALS	194.00	3.67		\$81,346

MOVE IN (Construction & Improvement Only)

<u>Equipment</u>	<u>Length/Mile</u>	<u>Cost</u>	
Vibratory Roller		\$875.00	
D8 Dozer		\$1,581.00	
C315 Excavator		\$905.00	
C330 Excavator		\$1,581.00	
C966 Loader		\$875.00	
14 G Grader		\$875.00	
Water Truck (2,500 gal)		\$214.00	
20cy Highway Dump w/ pup trailer (3x)		\$645.00	
10-12cy Highway Dump (4x)		\$736.00	
TOTAL			\$8,287.00

ROAD MAINTENANCE (Construction & Improvement Only)

	<u>Length (Mile)</u>	<u>Cost</u>	
Final Project Road Maintenance	5.15	\$5,614.00	
TOTAL			\$5,614.00

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Jesters Boot STATIONS 0.00 MILES
 ROAD: 1A to 1B (1.5), 1C to 1D (1.5), 1E to 1F (3.5), 1G to 1H (23.0) STATIONS 29.55 STATIONS 0.56 MILES
 POINTS: NEW CONSTRUCTION: IMPROVEMENT:

Method	Acres/amount	X	Rate	=	Cost
Unsurfaced					
1A to 1B, 1C to 1D, and 1E to 1F	0.45	X	\$ 1,503	=	\$678.01
Surfaced					
1G to 1H	2.11	X	\$ 1,503	=	\$3,174.38
SUB TOTAL FOR CLEARING & GRUBBING					\$3,852

Material	Cy/amount	X	Rate	=	Cost
1A to 1B					
0+00 to 1+50	1.5	X	\$138.00	=	\$207.00
1C to 1D					
0+00 to 1+50	1.5	X	\$138.00	=	\$207.00
1E to 1F					
0+00 to 3+55	3.55	X	\$138.00	=	\$489.90
2+00	1.0	X	\$114.00	=	\$114.00
1G to 1H					
0+00 to 23+00	1,120	X	\$2.02	=	\$2,262.40
0+00 to 23+00	330	X	\$4.50	=	\$1,485.00
0+00 to 23+00	1,450	X	\$0.79	=	\$1,145.50
21+00 to 23+00	2.0	X	\$49.00	=	\$98.00
6+00, 12+00, 18+00	3.0	X	\$114.00	=	\$342.00
22+00	1.0	X	\$114.00	=	\$114.00
SUB TOTAL FOR EXCAVATION					\$6,465

Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
1G to 1H									
4+20	18" CPP	30	\$21.95	\$658.50					\$0.00
21+60	18" CPP	50	\$21.95	\$1,097.50					\$0.00
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION									
Other/miscellaneous:									
Culvert stakes & markers:									
			2	\$23.00				\$46.00	
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION									\$1,802
Subtotal of Clearing, Exc., Culv.									\$12,119

SURFACING		Description	Stations/ amount	Rate/ sta/amt	Cost
Subgrade prep: 1D, 1E to 1F (0+00 to 1+00), 1G to 1H					
Grade, Shape and Ditch 16'			27.00	\$27.91	\$753.57
1E to 1F (1+00 to 3+55)			2.55	\$20.63	\$52.61
All Segments			29.55	\$22.69	\$670.49

ROAD SEGMENT	1A to 1B		POINT TO POINT		Sta. to Sta. 0+00 to 1+50	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
	Rock Size and Type	Depth of Rock (inches)	Volume (CY) per station	Number of junctions				
Application	4"-0" crushed	8	50	1.00	50	50	\$8.64	\$432
Base Rock	1 1/2"-0" crushed	N/A	22	1	22	22	\$8.64	\$190
Junctions	1A to 1B				72			\$622
Total Rock for Road Segment:								

ROAD SEGMENT	1C to 1D		POINT TO POINT		Sta. to Sta. 0+00 to 1+50	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
	Rock Size and Type	Depth of Rock (inches)	Volume (CY) per station	Number of junctions				
Application	4"-0" crushed	8	50	1.00	50	50	\$8.64	\$432
Base Rock	1 1/2"-0" crushed	N/A	22	1	22	22	\$8.64	\$190
Junctions	1C to 1D				72			\$622
Total Rock for Road Segment:								

ROAD SEGMENT	1E to 1F		POINT TO POINT		Sta. to Sta. 0+00 to 3+55	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
	Rock Size and Type	Depth of Rock (inches)	Volume (CY) per station	Number of junctions				
Application	4"-0" crushed	8	50	1.00	50	50	\$8.64	\$432
Base Rock	1 1/2"-0" crushed	N/A	22	1	22	22	\$8.64	\$190
Junctions	1E to 1F				72			\$622
Total Rock for Road Segment:								

ROAD SEGMENT	1G to 1H		POINT TO POINT		Sta. to Sta. 0+00 to 23+00	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
	Rock Size and Type	Depth of Rock (inches)	Volume (CY) per station	Number of junctions				
Application	4"-0" crushed	10	63	23.00	1,449	1,449	\$8.64	\$12,519
Base Rock	1 1/2"-0" crushed	N/A	22	2	44	44	\$8.64	\$380
Junctions	1 1/2"-0" crushed	4	25	23.00	575	575	\$8.64	\$4,968
Surface Rock	6+00, 12+00,							
Turnouts	4"-0" crushed	N/A	22	3	66	66	\$8.64	\$570
Turnouts	1 1/2"-0" crushed	N/A	22	3	66	66	\$8.64	\$570
Junctions	1G to 1H				2,200			\$19,008
Total Rock for Road Segment:								

Processing:

Description	No. sta	Rate/sta	Cost
Water, Process & Compact Base Rock (4"-0"):	26.00	\$63.48	\$1,650.48
Water, Process & Compact Base Rock (1 1/2"-0"):	23.00	\$63.48	\$1,460.04
SUB TOTAL FOR SURFACING			\$24,001

SPECIAL PROJECTS

Description	Cost

SUB TOTAL FOR SPECIAL PROJECTS

\$0
 Subtotal of Surfacing & Spec. Proj. \$24,001
 Subtotal of Clearing, Exc., Culv. \$12,119

GRAND TOTAL

\$36,121

Compiled By: C. Hatcher

Date: 02/03/2023

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Jesters Boot
 ROAD: 11 to 12 (150.7), 13 to 14 (20.5), and 15 to 16 (22.8)

NEW CONSTRUCTION: STATIONS
 IMPROVEMENT: 194.00 STATIONS

0.00 MILES
 3.67 MILES

Method	Acres/amount	X	Rate	=	Cost
0+00 to 1+00, 2+45 to 8+65, 11+50 to 17+15, 18+05 to 22+80	C330/hr	5	\$175.00	=	\$875.00
SUB TOTAL FOR CLEARING & GRUBBING					\$875

Material	Cy/amount	X	Rate	=	Cost
11 to 12 140+00 Fish Pipe Installation					\$32,288.13
13 to 14 See attached cost sheet					
0+00 to 20+50 Establish ditches and remove storm debris	C315/hr	4.0	\$114.00	=	\$456.00
Additional cuvert 0+00 installation time	C315/hr	2.0	\$114.00	=	\$228.00
15 to 16 0+00 to 1+00, 2+45 to 8+65, 11+50 to 17+15, scatter on site.	C330/hr	8.0	\$175.00	=	\$1,400.00
Additional cuvert 0+00 installation time	C315/hr	1.0	\$114.00	=	\$114.00
10+45 Waste Area Site Prep	C330/hr	2.0	\$175.00	=	\$350.00
Establish ditches	C315/hr	3.0	\$114.00	=	\$342.00
SUB TOTAL FOR EXCAVATION					\$35,178

Location	Dia/type	Lineal ft.	Rate	Cost
11 to 12 140+00	102" ACSP	60	\$17,774.00	\$0.00
13 to 14 0+00	18" CPP	60	\$21.95	\$1,317.00
6+70	18" CPP	40	\$21.95	\$878.00
15 to 16 0+00	18" CPP	50	\$21.95	\$1,097.50

Description	Quantity	Rate	Cost
Other/miscellaneous:			
Culvert stakes & markers:			
6' x 2 1/2' white Carsonite posts	3	\$23.00	\$69.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION \$21,136

Subtotal of Clearing, Exc., Culv. **\$57,189**

SURFACING

Subgrade prep:	Description	Stations/ amount	Rate/ sta/amt	Cost
All "m" Segments	Grade, Shape and Ditch 16'	43.30	\$27.91	\$1,208.50
All "n" Segments	Subgrade Compaction	43.30	\$22.69	\$982.48
15 to 16 (4+60 to 8+65)	Spot Grading w/14G	16.00	\$113.00	\$1,808.00
11 to 12 (0+00 to 150+77)				
15 to 16 (4+60 to 8+65)				
(11+50 to 17+15)	Reestablish ditches and scatter waste w/ backhoe	9.70	\$36.28	\$351.92
				\$0.00

Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				11 to 12	11 to 12			
				Volume (CY) per	Number of			
Surface Leveling Rock	1 1/2"-0" crushed	15+35 (2), 26+45 (2), 58+00 (2), 75+00 (2), 97+40 (1), 99+55 (1)	N/A	load	11	110	\$8.64	\$950
Culvert Bedding Reinforcement	6"-0" pit-run	140+00	N/A	load	11	66	\$9.94	\$656
Culvert Bedding and Backfill	1 1/2"-0" crushed	140+00	N/A	load	11	198	\$5.39	\$1,067
Stream Bed Retention	24"-6" riprap	140+00	N/A	load	11	44	\$8.63	\$360
Inlet / Outlet Channel Armor	24"-6" riprap	140+00	N/A	load	11	44	\$8.63	\$380
Fill Armor	24"-6" riprap	140+00	N/A	load	11	143	\$8.63	\$1,234
Road Base Reconstruction	4"-0" crushed	140+00	10	station	63	57	\$8.64	\$490
Road Surface Reconstruction	1 1/2"-0" crushed	140+00	4	station	25	23	\$8.64	\$194
Total Rock for Road Segment:			11 to 12			684		\$5,351

Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				13 to 14	13 to 14			
				Volume (CY) per	Number of			
Leveling Rock	1 1/2"-0" crushed		N/A	load	11	66	\$8.64	\$570
Culvert Bedding and Backfill	1 1/2"-0" crushed	0+00, 6+70	N/A	culvert	44	88	\$5.39	\$474
Turnaround	1 1/2"-0" crushed	11+60	N/A	turnaround	22	22	\$8.64	\$190
Surfacing	4"-0" crushed	13+00 to 20+50	4	station	25	188	\$8.64	\$1,620
Traction Rock	1 1/2"-0" crushed	13+00 to 19+00	2	station	13	78	\$8.64	\$674
Turnouts	1 1/2"-0" crushed	15+65	N/A	turnout	22	22	\$8.64	\$190
Landings	6"-0" pit-run	20+50	N/A	landing	55	55	\$9.94	\$547
Total Rock for Road Segment:			13 to 14			519		\$4,265

Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				15 to 16	15 to 16			
				Volume (CY) per	Number of			
Surfacing	1 1/2"-0" crushed	0+00 to 22+80	4	station	25	570	\$8.64	\$4,925
Junctions	1 1/2"-0" crushed	0+00	N/A	junction	22	22	\$8.64	\$190
Culvert Bedding and Backfill	1 1/2"-0" crushed	0+00	N/A	culvert	44	44	\$5.39	\$237
Turnouts	1 1/2"-0" crushed	4+05, 6+55, 11+00, 17+15, 22+80	N/A	turnout	22	110	\$8.64	\$950
Total Rock for Road Segment:			15 to 16			746		\$6,302

Processing:		Description		No. sta	Rate/sta	Cost							
Water, Process & Compact:				31.20	\$63.48	\$1,981							
Traction Rock Water, Process & Compact				6.90	\$63.48	\$438							
24"-12" rr	0	24"-6" rr	0	6"-4" pr	0	4"-0" crushed	1	1/2"-0" crushed	1,353	0	0	1,949	\$22,689
24"-6" rr	231	12"-6" rr	0	6"-4" pr	0	4"-0" crushed	244	1/2"-0" crushed	1,353	0	0	1,949	\$22,689
24"-6" rr	231	12"-6" rr	0	6"-4" pr	0	4"-0" crushed	244	1/2"-0" crushed	1,353	0	0	1,949	\$22,689
SPECIAL PROJECTS													
Description													
pit-run development													
riprap development													
SUB TOTAL FOR SPECIAL PROJECTS													
Cyl/Amount													
Rate													
Cost													
121													
\$2.92													
\$353.32													
231													
\$4.83													
\$1,115.73													
Subtotal of Surfacing & Spec. Proj.													
\$24,156													
Subtotal of Clearing, Exc., Culv.													
\$57,189													
GRAND TOTAL													
\$81,346													

Compiled By: C. Hatcher Date: 02/01/2023

Projects Road Maintenance Cost Summary

Sale: Jesters Boot
Date: 25-Jan-23
By: C. Hatcher CB

Type	Equipment/Rationale	Hours	Rate	Cost
Project Work	Grader 14G	20	\$113	\$2,260
Final Haul	Dump Truck 12CY	6	\$89	\$534
Road	FE Loader C966	6	\$94	\$564
Maintenance	Vibratory Roller	12	\$87	\$1,044
	Water Truck 2,500 gallon	12	\$101	\$1,212
Total				\$5,614

Production Rates	Miles/day	Distance(miles)	Days
Grader	1.5	5.15	3.4
Vibratory Roller	1.5	5.15	3.4

NOTE:

Wage Road (Spot Grading)	2.81	Miles
Hamilton Creek Road	2.12	Miles
Road to Waste Area 1	0.22	Miles
		Miles
TOTAL=	5.15	Miles

Jesters Boot Type F Crossing, 11 to 12 (*)

Date: 10/13/22

Compiled By: C. Hatcher

Sale Name: Jesters Boot (11 to 12 Sta. 140+00)

Construction Phase	QTY	Haul Cost/CY	Haul Cost	Equipment Hours						Labor	Culvert		Erosion Control		Total
				C330	C315	C315 Rock Hammer	24CY off Highway Dump	Pump	Tamper		Ft	\$/ft.	Acres	\$/Acre	
Walk equipment to site				1	1										
Unload and move cmp to site				4					4						
Existing Fill and Culvert removal/disposal				8				8							
Develop new inlet and outlet channels				5				5							
De-watering (w/pump) (24hrs/day)					1				10						
Excavate New Culvert Trench	1,500			20	20	1									
Haul Waste Material Offsite	1,200	4.50	\$ 5,400.00												
Place Reuseable Fill Material Onsite	300			3	3										
Build culvert bed compact w/pit-run and crushed rock	66	9.94		2					5	5					
Place culvert & compact flanks w/crushed rock	198	8.59		10					7	7					
Backfill Placement from Onsite	300			2											
Remaining Backfill Placement from Borrow Site	688	5.68	\$ 3,907.84	6											
Fill Compaction	988	0.79	\$ 780.52												
Develop Waste Area				2											
Compact/Shape Waste Area	1,200	0.45	\$ 540.00	4											
Place Stream and Streambed Retention	44	8.63		4											
Place Inlet and Outlet Channel Armor	44	8.63		4	3										
Place Riprap/Fill Armor	143	8.63		5											
Road subgrade prep. (station)	0.90	31.12	\$ 28.01												
Road Base Rock Processing(station)	0.90	63.48	\$ 57.13												
Road Surface Rock Processing (station)	0.90	63.48	\$ 57.13												
Seeding and Mulching:															
Total Hours				80	28	1	13	50	26						
Equipment Rates:				\$175	\$114	\$50	\$143	\$12	\$45						
Sub total :			\$ 10,771	\$14,000	\$3,192	\$50	\$1,859	\$600	\$144	\$1,170					\$ 31,786
102" Aluminized Steel Culvert (12 ga)	60										60	\$245.00			\$14,700
Bands											1	\$288.00			\$288
Neoprene Gasket											1	\$284.00			\$284
Lifting Lugs											4	\$75.00			\$300
Step Beveling (one end)											1	\$102.00			\$102
Freight to Astoria Area											2	\$1,050.00			\$2,100
Sub total Culvert Material Cost:															\$17,774

Total Installation Cost: **\$50,062**

Jesters Boot Timber Sale

Vacating Cost Summary

Segment	Cost
V1 to V2	\$5,665
V3 to V4	\$651
Vacating Cost	\$6,316.38
Mobilization	
C315 Excavator (x 1.5)	\$1,357.50
C330 Excavator	\$1,581.00
D10/12 Truck	\$184.00
Total Mobilization	\$3,122.50
Total Dollars	\$9,439

**Jesters Boot Thin Timber Sale
Vacating Costs V1 to V2**

Work Description	Station	C330	C315	D10/12 trk	Labor	Straw- bales	Seed-lbs
Block road	0+00		0.50				
Excavate fill and remove culvert.	4+00	12.00	8.00	1.00			
Excavate fill and remove culvert.	6+15	2.00		1.00			
Remove culvert.	7+45		1.00	1.00			
Remove culvert.	9+45		1.00	1.00			
Construct waterbar.	12+45		0.50				
Construct waterbar.	15+45		0.50				
Remove culvert.	18+80		1.00	1.00			
Construct waterbar.	21+80		0.50				
Remove culvert.	24+20		1.00	1.00			
Construct waterbar.	27+20		0.50				
Remove culvert.	31+50		1.00	1.00			
Construct waterbar.	34+50		0.50				
Remove culvert.	36+80		1.00	1.00			
Waterbar and block road	40+80		1.00				
Seed and mulch all vacated fills.					4.00	15	50
Total Quantity (Hours)		14.00	18.00	8.00	4	15	50
Rates		\$175.00	\$114.00	89.00	\$45.00	\$12.06	\$1.80
Total Dollars		\$2,450	\$2,052	712.00	\$180	\$181	\$90

Total Cost

\$5,665

*Trucking hours include time to haul culverts to an approved refuse site off of STATE land.

**Jesters Boot Thin Timber Sale
Vacating Costs V3-V4**

Work Description	Station	C315	Labor	Straw- bales	Seed-lbs
Block road	0+00	1.00			
Remove culvert.	1+70	2.00			
Construct waterbar.	3+70	0.50			
Construct waterbar.	5+35	0.50			
Seed and mulch all vacated fills.			2.00	8	5
Total Quantity (Hours)		4.00	2	8	5
Rates		\$114.00	\$45.00	\$12.06	\$1.80
Total Dollars		\$456	\$90	\$96	\$9

Total Cost

\$651

PIT RUN ROCK COST

SALE NAME: Jesters Boot
 PROJECT: No. 2
 QUARRY: Hamilton Quarry

MATERIAL: Pit Run

DATE: 02/06/2023
 BY: C. Hatcher

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
I1 to I2	150.70	66	4.5	0.5	3.0	3.0	0.57	0.1	0.1	11.77
I3 to I4	20.50	55	4.5	0.5	3.0	3.0	0.55	0.1	0.1	11.75
TOTAL	171.20	121								AVERAGE HAUL
CUBIC YARD WEIGHTED HAUL			4.5	0.5	3.0	3.0	0.6	0.1	0.1	
Average Round Trip Distance (miles)										23.52

ROCK HAUL:

Truck type: <u>D20</u>	No. trucks: _____	Ave haul: <u>\$7.54</u> /cy
Delay min.: <u>8</u>	Efficiency: <u>85%</u>	Load: <u>\$0.84</u> /cy
Truck type: <u>D12</u>	No. trucks: <u>7</u>	Spread: <u>\$1.56</u> /cy
Delay min.: <u>6</u>	Efficiency: <u>85%</u>	
Truck type: <u>D10</u>	No. trucks: _____	Production: cy/day = <u>586</u>
Delay min.: <u>5</u>	Efficiency: <u>85%</u>	

PIT RUN ROCK HAUL COSTS 121 cy @ **\$9.94 /cy**

RIP RAP ROCK COST

SALE NAME: Jesters Boot
 PROJECT: No. 2
 QUARRY: Hamilton Quarry

MATERIAL: Rip Rap

DATE: 02/06/2023
 BY: C. Hatcher

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
I1 to I2	150.70	231	4.5	0.5	3.0	3.0	0.57	0.1	0.1	11.77
TOTAL	150.70	231								
	STA./NO.	CU. YD.								AVERAGE HAUL
CUBIC YARD WEIGHTED HAUL			4.5	0.5	3.0	3.0	0.6	0.1	0.1	11.77
Average Round Trip Distance (miles)									23.54	

ROCK HAUL:

Truck type: D12 No. trucks: 7
 Delay min.: 6 Efficiency: 85%
 Ave haul: \$7.55 /cy
 Load: \$1.08 /cy
 Develop: _____ /cy

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

Production: cy/day = 586

RIP RAP ROCK HAUL COSTS 231 cy @ **\$8.63 /cy**

JESTERS BOOT

Stream Enhancement

Segment	Key Pieces		Site	w/out root wads	Key pieces with root wads	Placement method	Labor \$/Hr.	Labor Hours	C330 \$/Hr.	Excavator Hours	Number of Straw Bales	\$/Bale	Cost per Site
	w/out root wads	with root wads											
SE1-SE2	1	3	1	2	Ground-Based	\$45.00	1	\$175.00	3	2	\$12.06	\$594.12	
SE1-SE2	2	3	2	2	Ground-Based	\$45.00	1	\$175.00	3	2	\$12.06	\$594.12	
SE1-SE2	3	3	3	2	Ground-Based	\$45.00	1	\$175.00	3	2	\$12.06	\$594.12	
SE1-SE2	4	3	4	2	Ground-Based	\$45.00	1	\$175.00	3	2	\$12.06	\$594.12	
SE1-SE2	5	3	5	2	Ground-Based	\$45.00	1	\$175.00	3	2	\$12.06	\$594.12	
SE1-SE2	6	3	6	2	Ground-Based	\$45.00	1	\$175.00	3	2	\$12.06	\$594.12	
Total	18	18	12	12			6		18	12	Subtotal	\$3,565	

Move-in: \$ 1,581 Move-in: \$1,581

Transportation cost for pieces with root wads \$ 175 per piece 12 pieces Cost \$2,100

Additional cost for trees pushed over outside of Right-of-Way \$175.00 per hour 3 hours Cost \$525

Grass Seed: \$1.80 per lb. 10 lbs Seed \$18

Project Total **\$7,789**

*Ground-Based = C330 Excavator or equivalent

Site	Description:
1	Install five piece structure, two pieces with root wads attached.
2	Install five piece structure, two pieces with root wads attached.
3	Install five piece structure, two pieces with root wads attached.
4	Install five piece structure, two pieces with root wads attached.
5	Install five piece structure, two pieces with root wads attached.
6	Install five piece structure, two pieces with root wads attached.

*Pieces without rootwads must be at least 60' in length and at least 12" in diameter on small end.

*Pieces with rootwads must be at least 45' in length and at least 16" in diameter on small end.

**JESTERS BOOT
TIMBER CRUISE REPORT
FY 2023**

1. **Sale Area Location:** Portions of Sections 19, 20, 29, & 30, T5N, R6W, W.M., Clatsop County, OR.
2. **Fund Distribution:** BOF 100% Tax Code: 8-01 (100%)
3. **Sale Acreage by Area:**

Unit	Harvest Type	Gross Acres	Stream Buffer Acres	Existing R/W Acres	Reserve Tree Area	Group Selection Reserves	Group Selection Patches	New R/W Acres	New R/W Non-Stocked	Net Acres	Survey Method
1	Partial Cut	178	29	4	7	2	8	2	<1	126	GIS
1A	Group Selection	8	-	-	-	-	-	-	-	8	GIS
2	In-Unit R/W	2	-	-	-	-	-	-	<1	2	GIS
2	Out-of-Unit R/W	<1	-	-	-	-	-	-	<1	<1	GIS
TOTALS		188	29	4	7	2	8	2	<1	136	

4. Cruisers and Cruise Dates: Avery Petersen, John Czarnecki, Ryan Simson, and Kevin Berry (February, 2022)

5. Cruise Method and Computation:

Unit 1: Unit 1 was variable plot cruised with a 40 BAF. A total of 62 plots were sampled on a five by five chain spacing with a grade to count ratio of 1:1, resulting in 32 grade plots and 30 count plots*. The cruise design included 66 plots of which four were dropped from the cruise results after sale boundaries shifted.

Unit 1A: Unit 1A consists of three group selection areas within Unit 1. Volume calculations were made with data from the Unit 1 cruise after 22 plots were removed due to being in a dissimilar timber type and the acreage was adjusted accordingly. A total of 40 plots were included in the Unit 1A cruise with 21 grade plots and 19 count plots*.

Unit 2 (R/W): Right-of-way consists of new roads within Unit 1. Volumes for Unit 2 R/W were obtained utilizing the same method as was utilized for Unit 1A, and the acreages have been adjusted accordingly.

*The reported numbers of cruise and grade plots vary from those indicated in the SuperACE statistics reports due to measuring minor species on two of the count plots in the U1 cruise. Further variance in the U1_TAKE Statistics can be attributed to recording blank plots where the basal area did not meet the thinning specifications and no take trees were designated.

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

UNIT(s)	CRUISE	TRACT	TYPE	ACRES
1	JBOOT	U1	00PC	138

6. Timber Description:

Unit 1 is a partial cut with an average age of 82 years. The stand consists of Douglas-fir, western hemlock,

and red alder. Minor components of western redcedar, Sitka spruce, and bigleaf maple* are present in the unit. The average take Douglas-fir is approximately 23 inches DBH and 92 feet to a merchantable top. The average take western hemlock is approximately 16 inches DBH and 84 feet to a merchantable top. The average take red alder is approximately 15 inches DBH and 61 feet to a merchantable top. Average net volume to be harvested per acre is 22 MBF. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point. The target basal area for Unit 1 is 180 square feet. The target stand density index (SDI) is 36%.

Unit 1A consists of three group selection patch cuts within Unit 1 with a combined acreage of approximately eight acres. The average take Douglas-fir is approximately 26 inches DBH and 118 feet to a merchantable top. The average take western hemlock is approximately 18 inches DBH and 94 feet to a merchantable top. The average take red alder is approximately 13 inches DBH and 60 feet to a merchantable top. Average net volume to be harvested per acre is 65 MBF. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point.

Unit 2 (R/W) is similar to the timber description above in Unit 1A. Average net volume to be harvested per acre is 65 MBF.

*Less than 1 MBF of bigleaf maple volume was observed in the cruise data. This volume is insignificant and is not reported below as a component of the sale, however it may be encountered in rights-of-way.

7. Statistical Analysis and Stand Summary:

Statistics for Stand B.F. volumes

Unit	Estimated CV	Target SE%	Actual CV	Actual SE%
1	48%	11%	38.2%	4.9%

8. Volumes by Species and Log Grade:

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

Conifer

Species	DBH	Net Vol.	2 Saw	3 Saw	4 Saw	% D & B	% Sale
Douglas-fir	23"	1,782	1,505	244	33	6.0%	52%
western hemlock	16"	1,309	571	668	70	5.2%	38%
TOTALS	-	3,091	2,076	912	103	-	-

Hardwood*

Species	DBH	Net Vol.	12"+	10"-11"	8"-9"	6"-7"	% D & B	% Sale
red alder	15"	360	88	116	68	88	0.5%	10%
TOTALS	-	360	88	116	68	88	-	-

TOTAL VOLUME	3,451 MBF
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9. Approvals:

Prepared by: Justin Bush

Date: 02/15/2023

Unit Forester Approval: 

Date: 2/15/2023

10. Attachments: Cruise Design and Map (3 pages)
Volume Report (4 pages)
Statistics Report (8 pages)
Log Stock Table (2 pages)
Stand Table Summary (4 pages)

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Jesters BootUnit 1

Harvest Type: Partial Cut

Approx. Cruise Acres: 151 Estimated CV% 48 Net BF/Acre SE% Objective 11 Net BF/AcrePlanned Sale Volume : 2,300 MBF Estimated Sale Area Value/Acre: \$6,400/Acre

A. Cruise Goals: (a) Grade minimum 100 (take) trees
 (b) Sample 66 cruise plots (34 grade/ 32 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)
 Cruise Line Directions: 25°/205°
 Cruise Line Spacing: 5 chains (330 feet)
 Cruise Plot Spacing: 5 chains (330 feet)
 Grade/Count Ratio 1:1

Basal Area leave target is 180 sq. ft. Cruiser needs to select 4-5 leave trees per plot. Cruise all take and leave trees.

Take plots as marked on cruise map. Do not take plots in stream buffers. Stream buffers are posted at 50'. Map out non-thinnable areas larger than 1 acre, but do not drop plots.

All species other than Douglas-fir and red alder >11" DBH are reserved (leave trees). TAKE all alder >11" DBH.

DO NOT record 22' lengths; DO NOT record 12' or 32' lengths for hardwoods.

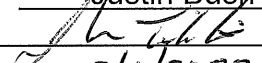
DO NOT RECORD SNAGS UNDER 12" DBH; DO NOT GRADE SNAGS ON COUNT PLOTS.

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 1/2" 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 < 20" dbh and 40% of dob @ FP for conifer trees > 20" 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 redcedar); NF (noble fir); SF (silver fir); A (red alder); M (bigleaf maple); SN (Snag). For "leave 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, 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 Douglas-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, Clinometer, Logger's Tape (with dbh on back), Compass, Allegro II 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: Justin Bush
 Approved by: 
 Date: 2/1/2022

TIMBER CRUISE

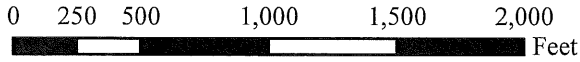
OF TIMBER SALE CONTRACT
 NO. AT-341-2023-W00981-01
 JESTERS BOOT
 PORTIONS OF SECTIONS 19, 20,
 29, & 30, T5N, R6W, W.M.,
 CLATSOP COUNTY, OREGON



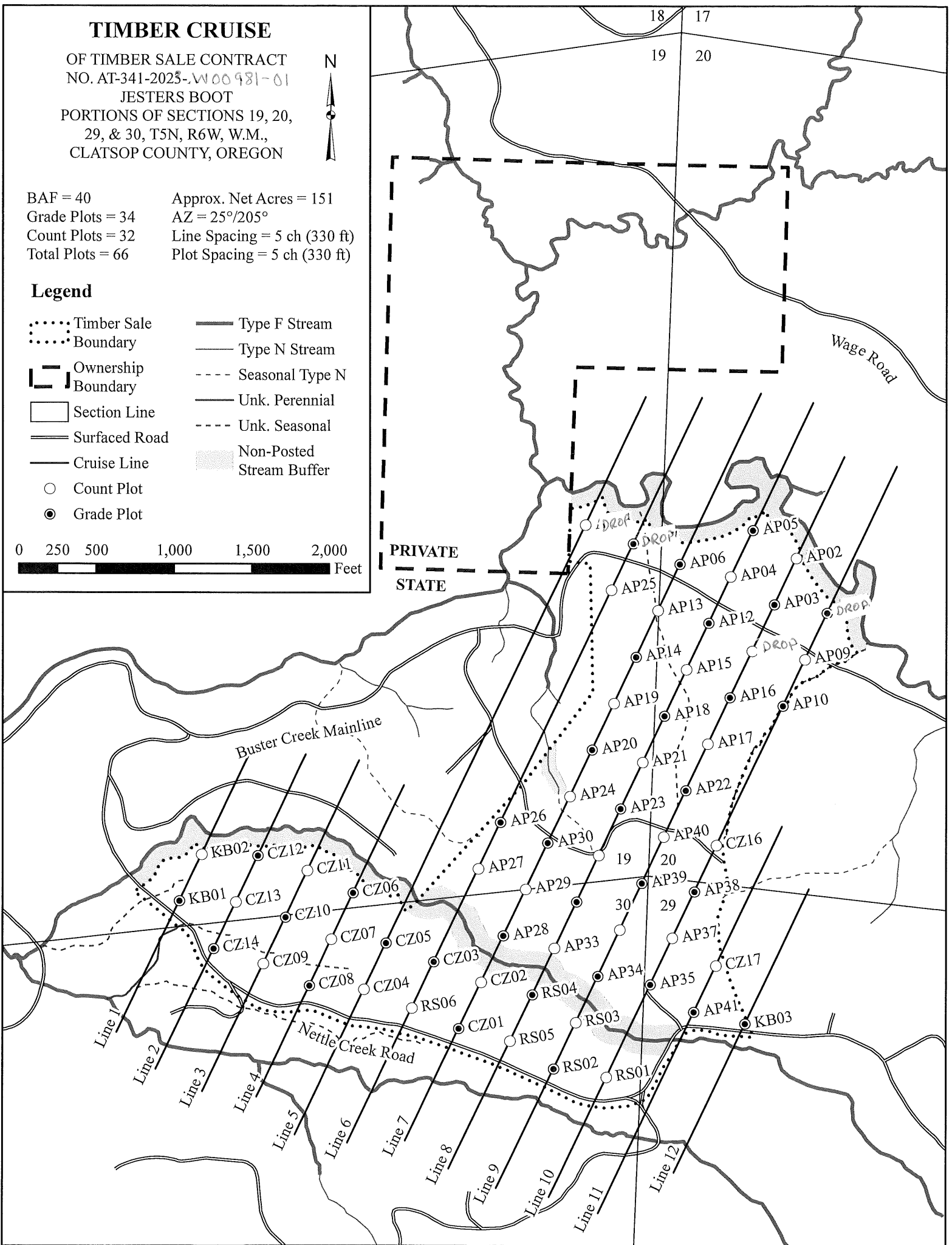
BAF = 40 Approx. Net Acres = 151
 Grade Plots = 34 AZ = 25°/205°
 Count Plots = 32 Line Spacing = 5 ch (330 ft)
 Total Plots = 66 Plot Spacing = 5 ch (330 ft)

Legend

- Timber Sale
- Boundary
- Ownership Boundary
- Section Line
- Surfaced Road
- Cruise Line
- Count Plot
- Grade Plot
- Type F Stream
- Type N Stream
- - - Seasonal Type N
- Unk. Perennial
- - - Unk. Seasonal
- Non-Posted Stream Buffer



PRIVATE
STATE



Species, Sort Grade - Board Foot Volumes (Project)

T05N R06W S30 TyGRP 8.00 T05N R06W S30 Ty00PC 126.00 T05N R06W S30 TyR/W 2.00		Project: JBOOT Acres 136.00	Page 1 Date 2/23/2023 Time 8:23:25AM
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S Spp	So Gr T rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre	
			Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf		
							4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
D	DO2S	84	6.1	11,785	11,067	1,505			36	64	0	0	2	98	39	16	424	2.32	26.1	
D	DO3S	14	5.3	1,890	1,791	244			96	1	3	6	6	26	63	35	9	92	0.74	19.5
D	DO4S	2	5.0	255	242	33			100			70	30		19	7	26	0.45	9.3	
D Totals		52	6.0	13,930	13,099	1,782 1,781			15	30	55	2	2	5	91	34	12	238	1.57	54.9
A	DO1S	24		644	644	88			100			12	88		38	14	259	1.70	2.5	
A	DO2S	32	.7	859	853	116			100				100		40	11	163	1.07	5.2	
A	DO3S	19	1.5	511	503	68			100			44	56		33	9	83	0.74	6.1	
A	DO4S	25		648	648	88			100			24	26	50	27	6	40	0.51	16.2	
A Totals		10	.5	2,662	2,648	360			76	24		6	18	76	31	8	88	0.80	30.0	
H	DOCU														16	7		0.00	1.1	
H	DO2S	43	5.5	4,442	4,197	571			78	22			0	100	40	14	292	1.66	14.4	
H	DO3S	51	5.0	5,168	4,909	668			95	3	1	1	0	14	85	37	9	104	0.71	47.0
H	DO4S	6	5.0	542	515	70			100			68	32		19	6	23	0.37	22.1	
H Totals		38	5.2	10,152	9,621	1,309 1,308			54	36	10	4	2	7	87	33	9	114	0.85	84.6
Totals			5.1	26,743	25,368	3,451 3,450			36	32	32	3	3	5	88	33	10	150	1.08	169.5

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)								Page 1										
		Project: JBOOT								Date 2/23/2023										
										Time 8:24:00AM										
T05N R06W S30 T00PC										T05N R06W S30 T00PC										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt											
05N	06W	30	UI_TAKE	00PC	126.00	62	95	1	W											
Spp	So	Gr	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln	Dia	Bd		CF/ Lf
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf	
D	DO	2S	83	6.2	10,431	9,781	1,232		36	64		0	2	98		39	16	418	2.31	23.4
D	DO	3S	14	5.3	1,756	1,663	210		99	1		5	6	27	61	35	9	89	0.73	18.6
D	DO	4S	3	5.0	250	238	30		100			68	32			19	6	26	0.45	9.1
D	Totals		52	6.1	12,437	11,682	1,472		16	31	53	2	2	5	91	34	12	228	1.53	51.2
H	DO	CU														16	6		0.00	1.0
H	DO	2S	39	5.4	3,363	3,181	401		84	16				100		40	14	278	1.61	11.4
H	DO	3S	55	5.0	4,722	4,486	565		96	4		1	0	14	85	38	9	103	0.70	43.6
H	DO	4S	6	5.0	498	473	60		100			68	32			19	6	23	0.36	20.6
H	Totals		37	5.2	8,583	8,140	1,026		59	35	6	5	2	8	86	33	9	106	0.81	76.5
A	DO	1S	24		609	609	77		100			14		86		37	14	256	1.71	2.4
A	DO	2S	33	.8	800	794	100		100					100		40	11	163	1.07	4.9
A	DO	3S	20	1.7	488	480	60		100				41	59		33	9	84	0.75	5.7
A	DO	4S	23		556	556	70		100			26	31	43		26	6	38	0.51	14.8
A	Totals		11	.6	2,454	2,439	307		75	25		6	19	75		31	8	88	0.82	27.7
Type Totals				5.2	23,473	22,261	2,805		38	31	30	3	4	6	87	33	10	143	1.06	155.4

Species, Sort Grade - Board Foot Volumes (Type)										Page 1										
T TSPCSTGR										Date 2/16/2023										
Project: JBOOT										Time 2:12:02PM										
T05N R06W S30 TGRP										T05N R06W S30 TGRP										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt											
05N	06W	30	1GRP	GRP	8.00	40	140	1	W											
Spp	So	Gr	% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
								Log Scale Dia.				Log Length				Ln	Dia	Bd		CF/ Lf
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft		
H	DO	CU														15	11		0.00	2.7
H	DO	2S	60	5.8	18,031	16,991	136		64	36			0	100		40	15	332	1.80	51.2
H	DO	3S	36	5.0	10,792	10,247	82	88	3	10		1	1	13	85	37	9	113	0.77	90.4
H	DO	4S	4	5.0	1,094	1,039	8	100				65	35			19	6	25	0.39	41.8
H	Totals		44	5.5	29,917	28,278	226	35	40	25		3	2	5	91	34	10	152	1.05	186.0
D	DO	2S	88	5.5	28,848	27,261	218		32	68		0	0	2	98	39	17	457	2.34	59.6
D	DO	3S	11	5.0	3,579	3,400	27	77	3	19		8	3	17	72	34	9	111	0.86	30.7
D	DO	4S	1	5.0	313	298	2	100				90	10			17	7	26	0.46	11.3
D	Totals		48	5.4	32,741	30,959	248	9	29	62		2	1	4	94	35	13	305	1.81	101.6
A	DO	1S	20		1,075	1,075	9		100					100		40	14	277	1.66	3.9
A	DO	2S	30		1,599	1,599	13	100						100		40	11	167	1.03	9.6
A	DO	3S	15		801	801	6	100					68	32		32	8	75	0.66	10.7
A	DO	4S	35		1,808	1,808	14	100				15	7	78		32	6	52	0.48	34.9
A	Totals		8		5,283	5,283	42	80	20			5	13	82		34	8	89	0.71	59.1
Type Totals				5.0	67,941	64,520	516	27	33	41		3	2	4	92	34	11	186	1.22	346.7

T05N R06W S30 TR/W										T05N R06W S30 TR/W				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt					
05N	06W	30	U2_R/W	R/W	2.00	40	140	1	W					

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre			
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft		CF/ Lf		
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99							
H		DO	CU															15	11		0.00	2.7	
H		DO	2S	60	5.8	18,031	16,991	34			64	36				0	100	40	15	332	1.80	51.2	
H		DO	3S	36	5.0	10,792	10,247	20			88	3	10		1	1	13	85	37	9	113	0.77	90.4
H		DO	4S	4	5.0	1,094	1,039	2			100				65	35			19	6	25	0.39	41.8
H	Totals			44	5.5	29,917	28,278	57			35	40	25		3	2	5	91	34	10	152	1.05	186.0
D		DO	2S	88	5.5	28,848	27,261	55				32	68		0	0	2	98	39	17	457	2.34	59.6
D		DO	3S	11	5.0	3,579	3,400	7			77	3	19		8	3	17	72	34	9	111	0.86	30.7
D		DO	4S	1	5.0	313	298	1			100				90	10			17	7	26	0.46	11.3
D	Totals			48	5.4	32,741	30,959	62			9	29	62		2	1	4	94	35	13	305	1.81	101.6
A		DO	1S	20		1,075	1,075	2				100					100	40	14	277	1.66	3.9	
A		DO	2S	30		1,599	1,599	3			100						100	40	11	167	1.03	9.6	
A		DO	3S	15		801	801	2			100					68	32	32	8	75	0.66	10.7	
A		DO	4S	35		1,808	1,808	4			100				15	7	78	32	6	52	0.48	34.9	
A	Totals			8		5,283	5,283	11			80	20			5	13	82	34	8	89	0.71	59.1	
Type Totals					5.0	67,941	64,520	129			27	33	41		3	2	4	92	34	11	186	1.22	346.7

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	JBOOT		DATE	2/15/2023		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
05N	06W	30	U1	00PC	138.00	62	470	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		62	470	7.6						
CRUISE		34	237	7.0	19,887	1.2				
DBH COUNT REFOREST COUNT		27	220	8.1						
BLANKS		1								
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	74	19.8	29.7	124	17.5	95.5	27,086	25,582	5,543	5,266
HEMLEAV	53	30.2	20.0	87	14.7	65.8	14,873	13,996	3,437	3,265
DOUG FIR	41	19.8	22.6	92	11.7	55.5	12,437	11,682	2,827	2,686
WHEMLOCK	35	31.1	15.6	84	10.5	41.3	8,583	8,140	2,133	2,026
R ALDER	18	14.8	15.0	61	4.7	18.1	2,454	2,439	694	694
ALDRLEAV	8	22.7	10.7	45	4.3	14.2	1,533	1,533	459	459
SNAG	4	2.6	23.3	102	1.6	7.7				
SPRUCELV	1	1.8	18.0	45	0.8	3.2	164	164	80	80
MAPLELV	3	1.3	16.8	41	0.5	1.9	54	45	19	19
TOTAL	<i>237</i>	<i>144.1</i>	<i>19.6</i>	<i>82</i>	<i>68.4</i>	<i>303.2</i>	<i>67,183</i>	<i>63,581</i>	<i>15,192</i>	<i>14,495</i>
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		
DOUGLEAV	33.7	3.9	1,381	1,437	1,494					
HEMLEAV	70.2	9.6	598	662	726					
DOUG FIR	55.0	8.6	818	895	971					
WHEMLOCK	69.9	11.8	315	357	399					
R ALDER	67.5	16.3	171	204	237					
ALDRLEAV	14.4	5.4	65	69	72					
SNAG										
SPRUCELV										
MAPLELV	86.6	59.9	13	33	53					
TOTAL	<i>76.8</i>	<i>5.0</i>	<i>782</i>	<i>823</i>	<i>864</i>	<i>235</i>	<i>59</i>	<i>26</i>		
CL: 68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	81.0	10.3	18	20	22					
HEMLEAV	95.8	12.2	27	30	34					
DOUG FIR	118.0	15.0	17	20	23					
WHEMLOCK	164.3	20.8	25	31	38					
R ALDER	238.0	30.2	10	15	19					
ALDRLEAV	295.1	37.4	14	23	31					
SNAG	376.1	47.7	1	3	4					
SPRUCELV	407.8	51.7	1	2	3					
MAPLELV	787.4	99.9	0	1	3					
TOTAL	<i>51.3</i>	<i>6.5</i>	<i>135</i>	<i>144</i>	<i>153</i>	<i>105</i>	<i>26</i>	<i>12</i>		
CL: 68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	75.2	9.5	86	95	105					
HEMLEAV	92.1	11.7	58	66	74					
DOUG FIR	124.8	15.8	47	55	64					
WHEMLOCK	159.8	20.3	33	41	50					

STATISTICS
PROJECT JBOOT

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
05N	06W	30	U1	00PC	138.00	62	470	1	W
CL: 68.1%	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15	
R ALDER	236.1	30.0	13	18	23				
ALDRLEAV	293.6	37.3	9	14	19				
SNAG	372.3	47.2	4	8	11				
SPRUCELV	407.8	51.7	2	3	5				
MAPLELV	787.4	99.9	0	2	4				
TOTAL	29.7	3.8	292	303	315	35	9	4	
CL: 68.1%	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DOUGLEAV	76.7	9.7	23,091	25,582	28,072				
HEMLEAV	101.4	12.9	12,195	13,996	15,797				
DOUG FIR	126.7	16.1	9,803	11,682	13,560				
WHEMLOCK	166.1	21.1	6,425	8,140	9,855				
R ALDER	264.3	33.5	1,621	2,439	3,257				
ALDRLEAV	296.9	37.7	955	1,533	2,110				
SNAG									
SPRUCELV	407.8	51.7	79	164	249				
MAPLELV	787.4	99.9	0	45	90				
TOTAL	38.2	4.9	60,497	63,581	66,665	58	15	6	

TC PSTATS		PROJECT STATISTICS							PAGE	1	
		PROJECT		JBOOT			DATE		2/23/2023		
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
05N	06	30	1GRP	GRP	136.00	142	740	1	W		
05N	06W	30	U1 TAKE	00PC							
05N	06W	30	U2 R/W	R/W							
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL		142	740	5.2							
CRUISE		69	374	5.4	9,636	3.9					
DBH COUNT											
REFOREST											
COUNT		60	365	6.1							
BLANKS		13									
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
WHEMLOCK		169	33.9	16.0	85	11.8	47.4	10,152	9,621	2,486	2,361
DOUG FIR		161	20.7	23.0	95	12.5	59.8	13,930	13,099	3,119	2,963
R ALDER		44	16.2	14.7	61	5.0	19.2	2,662	2,648	748	748
TOTAL		374	70.9	18.1	82	29.7	126.4	26,743	25,368	6,352	6,072
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		
WHEMLOCK		75.2	5.8	524	557	589					
DOUG FIR		48.5	3.8	1,120	1,164	1,209					
R ALDER		71.4	10.8	182	204	226					
TOTAL		75.5	3.9	746	777	807	228	57	25		
CL	68.1	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK		227.5	19.1	27	34	40					
DOUG FIR		183.7	15.4	18	21	24					
R ALDER		318.5	26.7	12	16	21					
TOTAL		136.0	11.4	63	71	79	738	185	82		
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK		210.3	17.6	39	47	56					
DOUG FIR		184.4	15.5	51	60	69					
R ALDER		324.9	27.2	14	19	24					
TOTAL		125.3	10.5	113	126	140	627	157	70		
CL	68.1	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK		211.0	17.7	7,918	9,621	11,323					
DOUG FIR		178.7	15.0	11,137	13,099	15,062					
R ALDER		353.9	29.7	1,862	2,648	3,434					
TOTAL		125.5	10.5	22,698	25,368	28,038	629	157	70		

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT JBOOT				DATE	2/23/2023	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
05N	06W	30	U1 TAKE	00PC	126.00	62	178	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL	62	178	2.9							
CRUISE	27	94	3.5		8,279		1.1			
DBH COUNT										
REFOREST										
COUNT	24	83	3.5							
BLANKS	11									
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	41	19.8	22.6	92	11.7	55.5	12,437	11,682	2,827	2,686
WHEMLOCK	35	31.1	15.6	84	10.5	41.3	8,583	8,140	2,133	2,026
R ALDER	18	14.8	15.0	61	4.7	18.1	2,454	2,439	694	694
TOTAL	94	65.7	17.9	81	27.1	114.8	23,473	22,261	5,654	5,406
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	55.0	8.6	818	895	971					
WHEMLOCK	69.9	11.8	315	357	399					
R ALDER	67.5	16.3	171	204	237					
TOTAL	83.4	8.6	514	562	610	278	69	31		
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	118.0	15.0	17	20	23					
WHEMLOCK	164.3	20.8	25	31	38					
R ALDER	238.0	30.2	10	15	19					
TOTAL	80.7	10.2	59	66	72	260	65	29		
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	124.8	15.8	47	55	64					
WHEMLOCK	159.8	20.3	33	41	50					
R ALDER	236.1	30.0	13	18	23					
TOTAL	73.7	9.3	104	115	126	217	54	24		
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	126.7	16.1	9,803	11,682	13,560					
WHEMLOCK	166.1	21.1	6,425	8,140	9,855					
R ALDER	264.3	33.5	1,621	2,439	3,257					
TOTAL	79.9	10.1	20,004	22,261	24,517	255	64	28		

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	JBOOT		DATE	2/16/2023		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
05N	06W	30	1GRP	GRP	8.00	40	281	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		40	281	7.0						
CRUISE		21	140	6.7	1,085	12.9				
DBH COUNT										
REFOREST										
COUNT		18	141	7.8						
BLANKS		1								
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
WHEMLOCK	67	69.4	18.1	94	29.1	124.0	29,917	28,278	6,931	6,584
DOUG FIR	60	31.3	25.8	118	22.4	114.0	32,741	30,959	6,794	6,454
R ALDER	13	34.9	13.4	60	9.3	34.0	5,283	5,283	1,422	1,422
TOTAL	140	135.7	19.2	91	62.1	272.0	67,941	64,520	15,146	14,460
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		
WHEMLOCK	72.3	8.8	555	609	663					
DOUG FIR	44.8	5.8	1,184	1,256	1,329					
R ALDER	76.9	22.2	159	204	249					
TOTAL	71.4	6.0	798	849	900	203	51	23		
CL: 68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	87.3	13.8	60	69	79					
DOUG FIR	108.1	17.1	26	31	37					
R ALDER	241.9	38.2	22	35	48					
TOTAL	54.2	8.6	124	136	147	117	29	13		
CL: 68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	82.3	13.0	108	124	140					
DOUG FIR	95.9	15.1	97	114	131					
R ALDER	223.8	35.4	22	34	46					
TOTAL	39.3	6.2	255	272	289	62	15	7		
CL: 68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	86.7	13.7	24,405	28,278	32,150					
DOUG FIR	94.9	15.0	26,316	30,959	35,602					
R ALDER	222.9	35.2	3,423	5,283	7,143					
TOTAL	43.8	6.9	60,060	64,520	68,980	76	19	8		

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	JBOOT		DATE	2/16/2023		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
05N	06W	30	U2 R/W	R/W	2.00	40	281	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		40	281	7.0						
CRUISE		21	140	6.7	271	51.6				
DBH COUNT										
REFOREST										
COUNT		18	141	7.8						
BLANKS		1								
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
WHEMLOCK	67	69.4	18.1	94	29.1	124.0	29,917	28,278	6,931	6,584
DOUG FIR	60	31.3	25.8	118	22.4	114.0	32,741	30,959	6,794	6,454
R ALDER	13	34.9	13.4	60	9.3	34.0	5,283	5,283	1,422	1,422
TOTAL	140	135.7	19.2	91	62.1	272.0	67,941	64,520	15,146	14,460
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		
WHEMLOCK	72.3	8.8	555	609	663					
DOUG FIR	44.8	5.8	1,184	1,256	1,329					
R ALDER	76.9	22.2	159	204	249					
TOTAL	71.4	6.0	798	849	900	203	51	23		
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.	INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	87.3	13.8	60	69	79					
DOUG FIR	108.1	17.1	26	31	37					
R ALDER	241.9	38.2	22	35	48					
TOTAL	54.2	8.6	124	136	147	117	29	13		
CL: 68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.	INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	82.3	13.0	108	124	140					
DOUG FIR	95.9	15.1	97	114	131					
R ALDER	223.8	35.4	22	34	46					
TOTAL	39.3	6.2	255	272	289	62	15	7		
CL: 68.1 %	COEFF	NET BF/ACRE					# OF PLOTS REQ.	INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
WHEMLOCK	86.7	13.7	24,405	28,278	32,150					
DOUG FIR	94.9	15.0	26,316	30,959	35,602					
R ALDER	222.9	35.2	3,423	5,283	7,143					
TOTAL	43.8	6.9	60,060	64,520	68,980	76	19	8		

STATISTICS
PROJECT JBOOT

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
05N	06W	30	U1 LEAVE	00PC	128.00	62	292	1	W
CL: 68.1%		COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
SPRUCELV		407.8	51.7	79	164	249			
MAPLELV		787.4	99.9	0	45	90			
TOTAL		30.8	3.9	39,707	41,320	42,933	38	9	4

Log Stock Table - MBF

T05N R06W S30 TyGRP	8.00
T05N R06W S30 Ty00PC	126.00
T05N R06W S30 TyR/W	2.00

Project: **JBOOT**
Acres **136.00**

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	40+
D		DO 2S	16	0	5.0	0	.0						0						
D		DO 2S	24	5	5.0	5	.3						5						
D		DO 2S	30	1	5.0	1	.0						1						
D		DO 2S	32	28	5.0	27	1.5						10	8	9				
D		DO 2S	34	1	5.0	1	.0							1					
D		DO 2S	36	37	5.0	35	2.0							23	2	10			
D		DO 2S	40	1,531	6.1	1,437	80.6							122	226	527	401	161	
D		DO 3S	16	5	5.0	5	.3					0	4	0					
D		DO 3S	20	9	5.0	9	.5					2	4	3					
D		DO 3S	24	5	5.0	5	.3						5						
D		DO 3S	26	3	5.0	3	.2						3						
D		DO 3S	28	4	5.0	3	.2				3								
D		DO 3S	30	3	5.0	3	.2				0	3							
D		DO 3S	32	41	6.7	38	2.1				9	18	11						
D		DO 3S	34	27	5.0	25	1.4				7	4	15						
D		DO 3S	36	14	5.0	14	.8				4	8	1	1					
D		DO 3S	38	1	5.0	1	.1					1	0						
D		DO 3S	40	145	5.0	137	7.7				40	19	71		2	2	3		
D		DO 4S	12	1	5.0	1	.1				1								
D		DO 4S	14	2	5.0	2	.1				2	0							
D		DO 4S	16	12	5.0	12	.7				10	1							
D		DO 4S	18	3	5.0	3	.2					3							
D		DO 4S	20	6	5.0	5	.3				2	4							
D		DO 4S	24	1	5.0	1	.1				1								
D		DO 4S	28	0	5.0	0	.0				0								
D		DO 4S	30	9	5.0	8	.5				8								
D		Totals		1,894	6.0	1,781	51.6				88	63	115	163	238	548	403	164	
A		DO 1S	28	11		11	3.0						11						
A		DO 1S	40	77		77	21.3						17	59					
A		DO 2S	36	11		11	3.2						11						
A		DO 2S	40	105		105	29.0						105						
A		DO 3S	24	8		8	2.3					8							
A		DO 3S	30	22		22	6.2					22							
A		DO 3S	36	12		12	3.3					12							
A		DO 3S	40	27	3.8	26	7.3					26							

Log Stock Table - MBF

T05N R06W S30 TyGRP	8.00
T05N R06W S30 Ty00PC	126.00
T05N R06W S30 TyR/W	2.00

Project: JBOOT
Acres 136.00

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+		
A		DO	4S	14	3		3	.8			3											
A		DO	4S	16	10		10	2.9			10											
A		DO	4S	18	5		5	1.5			5											
A		DO	4S	20	2		2	.7			2											
A		DO	4S	26	2		2	.5			2											
A		DO	4S	28	6		6	1.7			6											
A		DO	4S	30	15		15	4.2			15											
A		DO	4S	36	6		6	1.7			6											
A		DO	4S	38	9		9	2.4			9											
A		DO	4S	40	26		26	7.2			26											
A		DO	4S	45	3		3	.9			3											
A		Totals			362		360	10.4			88	68	116	28	59							
H		DO	2S	32	1	5.0	1	.1					1									
H		DO	2S	40	603	5.5	570	43.6					194	189	134	53						
H		DO	3S	16	8	5.0	7	.5					7									
H		DO	3S	26	2	5.0	2	.2			0	2										
H		DO	3S	28	1	5.0	1	.0			0	0										
H		DO	3S	32	88	5.0	84	6.4			38	29	18									
H		DO	3S	34	9	5.0	8	.6			7	1										
H		DO	3S	36	20	5.0	19	1.4			5	14										
H		DO	3S	40	575	5.0	547	41.8			52	165	297	23	2	5	3					
H		DO	4S	14	0	5.0	0	.0			0											
H		DO	4S	16	30	5.0	29	2.2			25	4										
H		DO	4S	18	7	5.0	7	.5			7	0										
H		DO	4S	20	12	5.0	11	.9			11											
H		DO	4S	24	10	5.0	9	.7			9											
H		DO	4S	26	9	5.0	9	.7			9											
H		DO	4S	28	5	5.0	5	.4			5											
H		Totals			1,381	5.2	1,308	37.9			169	214	322	218	189	136	58	3				
Total		All Species			3,637	5.1	3,450	100.0			345	346	553	409	487	684	460	167				

TC		PSTNDSUM		Stand Table Summary						Page		1					
												Date:		2/23/2023			
T05N R06W S30 TyGRP				8.00		Project				JBOOT		Time:		7:49:11AM			
T05N R06W S30 Ty00PC				126.00		Acres				136.00		Grown Year:					
T05N R06W S30 TyR/W				2.00													
S Spc	T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
D		10	3	88	96	2.555	1.39	5.11	10.5	42.7		53	218		73	30	
D		12	1	85	67	1.596	1.25	1.60	14.2	38.0		23	61		31	8	
D		13	1	88	60	1.360	1.25	1.36	22.8	66.5		31	90		42	12	
D		18	4	84	136	1.498	2.65	4.49	26.1	92.5		117	416		160	57	
D		19	3	86	119	.708	1.39	2.12	30.7	110.8		65	235		89	32	
D		21	5	87	145	1.622	3.90	4.87	39.7	162.5		193	791		263	108	
D		22	9	87	140	.687	1.81	2.06	45.3	179.5		93	370		127	50	
D		23	12	87	144	1.932	5.57	5.80	48.3	197.5		280	1,145		381	156	
D		24	5	86	160	.488	1.53	1.51	55.1	238.1		83	359		113	49	
D		25	12	87	139	1.635	5.57	4.99	57.7	249.8		288	1,246		391	169	
D		26	11	86	145	1.172	4.32	3.55	61.2	259.2		217	921		296	125	
D		27	9	86	162	.456	1.81	1.44	68.7	310.7		99	447		134	61	
D		28	15	87	155	1.076	4.60	3.36	73.5	343.9		247	1,155		335	157	
D		29	8	87	166	.122	.56	.43	74.2	359.0		32	153		43	21	
D		30	12	87	163	.653	3.21	2.58	72.5	363.6		187	940		255	128	
D		31	6	85	147	.532	2.79	1.65	79.1	356.6		130	588		177	80	
D		32	12	85	147	.574	3.21	1.80	90.4	428.4		162	770		221	105	
D		33	9	86	155	.704	4.18	2.13	95.0	449.7		203	960		276	131	
D		34	7	86	149	.641	4.04	1.94	103.6	482.7		202	939		274	128	
D		35	8	85	157	.438	2.93	1.36	115.6	570.7		157	774		213	105	
D		36	2	89	192	.020	.14	.08	109.5	619.9		9	49		12	7	
D		37	5	85	160	.205	1.53	.65	128.2	662.3		84	433		114	59	
D		39	2	85	166	.017	.14	.05	154.5	804.3		8	41		11	6	
D		Totals	161	86	128	20.689	59.79	54.92	53.9	238.5		2,963	13,099		4,030	1,781	
H		10	6	86	70	4.507	2.46	6.76	11.7	44.3		79	300		108	41	
H		11	6	84	117	3.725	2.46	7.45	14.2	54.6		106	407		144	55	
H		13	6	89	108	2.667	2.46	6.67	16.9	66.5		113	443		153	60	
H		14	6	87	105	2.299	2.46	4.60	22.1	80.7		102	371		138	51	
H		15	14	86	113	4.117	5.05	9.24	23.2	91.4		215	845		292	115	
H		16	18	87	133	5.282	7.37	15.84	25.5	103.4		404	1,639		549	223	
H		17	9	85	113	2.339	3.69	5.54	26.9	94.8		149	526		202	72	
H		18	19	87	140	3.632	6.42	11.67	31.5	130.1		368	1,518		500	206	
H		19	6	88	148	1.248	2.46	3.75	39.4	167.8		148	629		201	85	
H		20	9	89	134	.750	1.64	2.25	40.6	177.9		91	400		124	54	
H		21	9	86	121	.681	1.64	1.53	46.2	167.5		71	256		96	35	
H		22	15	87	142	.775	2.05	2.38	48.5	207.4		115	493		157	67	
H		23	2	85	144	.047	.14	.14	55.4	240.7		8	34		11	5	
H		24	3	82	139	.391	1.23	1.17	52.3	202.7		61	238		83	32	
H		25	6	88	163	.120	.41	.40	60.0	288.8		24	115		33	16	
H		26	14	86	161	.258	.95	.85	66.8	314.7		57	267		77	36	
H		27	13	84	147	.996	3.96	2.99	73.8	330.3		220	987		300	134	
H		31	2	82	155	.026	.14	.08	102.9	497.2		8	39		11	5	
H		33	4	82	161	.046	.27	.14	108.9	513.0		15	71		20	10	
H		37	2	88	159	.018	.14	.05	148.2	791.7		8	43		11	6	
H		Totals	169	86	117	33.924	47.37	83.49	28.3	115.2		2,361	9,621		3,211	1,308	
A		9	3	86	52	2.540	1.12	2.54	11.5	43.4		29	110		40	15	
A		10	2	86	60	.353	.19	.35	19.0	70.0		7	25		9	3	
A		12	4	87	68	.490	.38	.73	16.7	53.3		12	39		17	5	
A		13	4	87	77	2.226	2.05	4.45	13.9	45.5		62	202		84	28	
A		14	7	87	92	2.969	3.17	5.94	20.8	70.6		123	419		168	57	
A		15	8	87	102	3.344	4.10	6.84	26.7	98.5		183	674		249	92	
A		17	4	86	82	1.302	2.05	2.60	26.8	82.7		70	215		95	29	

TC PSTNDSUM		Stand Table Summary								Page 2						
										Date: 2/23/2023						
T05N R06W S30 TyGRP 8.00 T05N R06W S30 Ty00PC 126.00 T05N R06W S30 TyR/W 2.00		Project JBOOT				Time: 7:49:11AM		Acres 136.00				Grown Year:				
S Sp	T	DBH	Sample Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
				FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
A		18	4	87	97	1.161	2.05	2.32	33.7	111.9		78	260		107	35
A		19	1	86	75	.472	.93	.94	30.5	100.0		29	94		39	13
A		20	6	87	135	1.029	2.24	2.57	46.6	190.0		120	489		163	66
A		22	1	86	93	.352	.93	.70	49.5	170.0		35	120		47	16
A		Totals	44	87	86	16.237	19.24	30.01	24.9	88.2		748	2,648		1,017	360
Totals			374	86	113	70.851	126.39	168.42	36.1	150.6		6,072	25,368		8,258	3,450

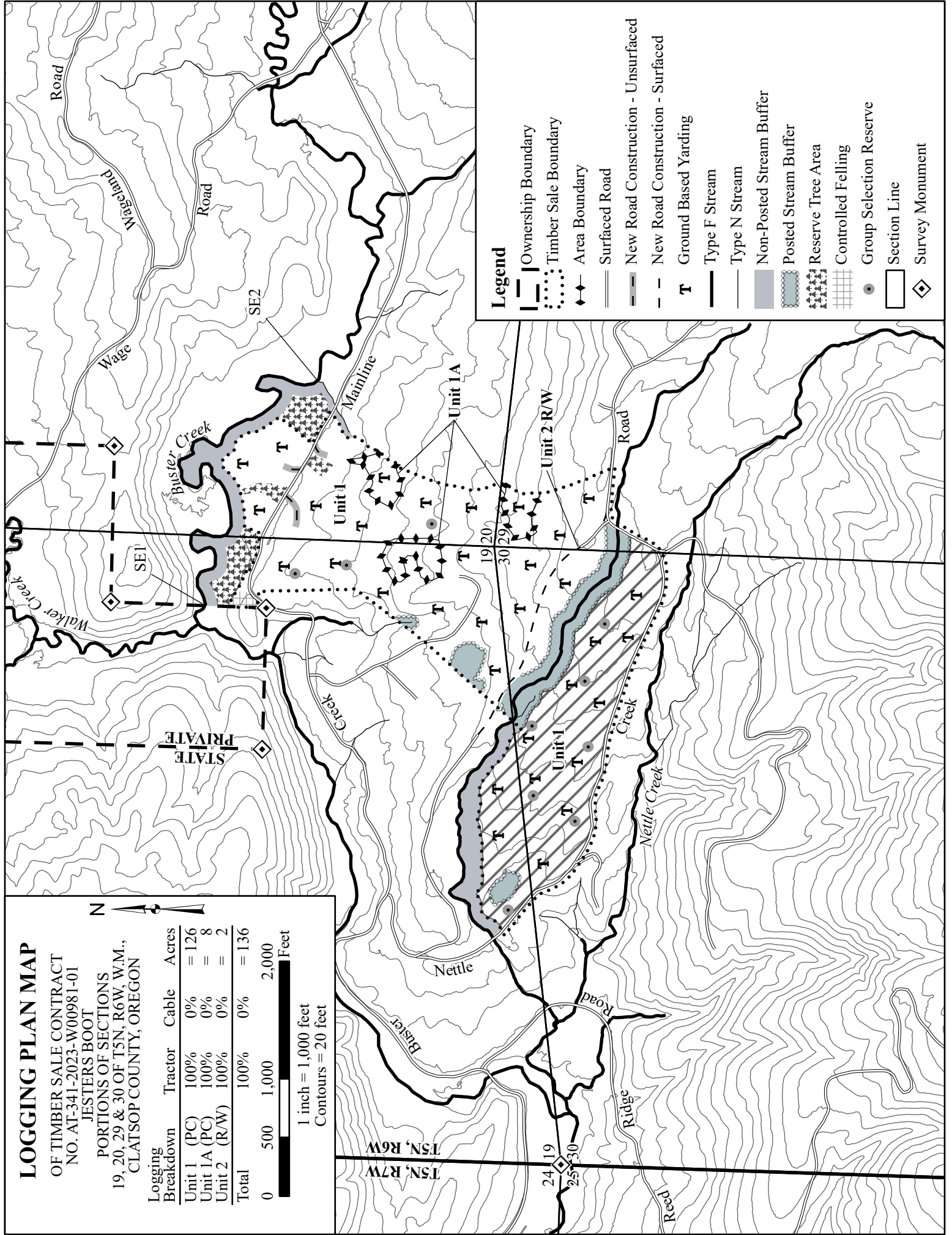
TC TSTNDSUM		Stand Table Summary														
Project JBOOT																
T05N R06W S30 T00PC								T05N R06W S30 T00PC								
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1							
05N	06W	30	U1_LEAVE	00PC	128.00	62	144	Date:	02/15/20							
								Time:	9:59:23AM							
S Spc	T	Sample			Av	Trees/ BA/ Logs			Average Log		Net	Net	Totals			
		DBH	Trees	FF	Ht	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.	Tons	Cunits	MBF
				16'	Tot	Acres	Acres	Acres	Cu.Ft.	Bd.Ft.	Acres	Acres				
DL		18	1	88	136	.730	1.29	2.19	31.7	133.0		69	291		89	37
DL		22	3	88	149	1.466	3.87	4.40	48.6	207.9		214	915		273	117
DL		23	1	88	138	.447	1.29	1.34	48.8	205.8		65	276		84	35
DL		24	2	89	153	.821	2.58	2.88	50.1	228.0		144	656		184	84
DL		25	2	86	156	.757	2.58	3.03	50.2	229.2		152	694		195	89
DL		26	4	87	149	1.400	5.16	4.55	61.9	286.5		282	1,303		360	167
DL		27	4	87	159	1.298	5.16	4.54	65.6	317.6		298	1,443		382	185
DL		28	6	87	161	1.811	7.74	6.64	68.8	339.4		457	2,253		585	288
DL		29	5	86	163	1.407	6.45	4.78	73.0	344.2		349	1,646		447	211
DL		30	6	86	169	1.577	7.74	6.05	74.3	361.8		449	2,188		575	280
DL		31	3	86	162	.739	3.87	2.71	82.9	414.5		225	1,123		287	144
DL		32	8	86	161	1.848	10.32	6.24	92.1	446.5		575	2,785		735	357
DL		33	7	86	158	1.521	9.03	4.78	99.3	477.2		475	2,280		608	292
DL		34	3	87	163	.614	3.87	2.05	106.5	544.3		218	1,114		279	143
DL		35	6	87	158	1.159	7.74	3.86	106.4	543.4		411	2,099		526	269
DL		36	4	85	159	.730	5.16	2.37	114.0	576.6		271	1,368		346	175
DL		37	4	87	170	.691	5.16	2.42	120.7	629.7		292	1,523		374	195
DL		38	3	87	152	.492	3.87	1.47	120.9	610.1		178	900		228	115
DL		39	1	85	166	.156	1.29	.47	154.5	804.3		72	375		92	48
DL		42	1	85	155	.134	1.29	.40	175.4	867.7		71	349		90	45
DL		Totals	74	87	158	19.797	95.48	67.16	78.4	380.9		5,266	25,582		6,740	3,274
HL		10	1	82	48	2.276	1.24	2.28	6.6	28.5		15	65		19	8
HL		13	1	89	112	1.347	1.24	2.69	13.3	47.5		36	128		46	16
HL		14	3	83	64	3.484	3.72	4.65	18.3	54.6		85	254		109	32
HL		15	2	89	102	2.024	2.48	4.05	24.2	92.6		98	375		125	48
HL		16	1	88	124	.889	1.24	1.78	30.9	114.0		55	203		70	26
HL		17	2	88	136	1.575	2.48	3.94	30.4	114.0		120	449		153	57
HL		18	3	90	117	2.108	3.72	5.62	31.5	124.7		177	701		226	90
HL		19	2	86	117	1.261	2.48	3.15	35.0	129.2		110	407		141	52
HL		20	3	88	140	1.707	3.72	5.12	37.8	169.9		194	870		248	111
HL		21	5	86	130	2.581	6.21	6.71	44.0	168.1		295	1,128		378	144
HL		22	8	87	141	3.763	9.93	11.29	47.6	201.1		537	2,270		687	291
HL		23	1	85	144	.430	1.24	1.29	55.4	240.7		72	311		92	40
HL		24	3	85	137	1.186	3.72	3.16	57.6	230.4		182	728		233	93
HL		25	4	88	158	1.457	4.97	4.74	59.3	278.4		281	1,318		360	169
HL		26	8	86	159	2.694	9.93	8.76	66.1	308.4		579	2,700		741	346
HL		27	2	87	166	.625	2.48	1.87	78.2	372.1		147	697		188	89
HL		31	1	83	155	.237	1.24	.71	102.9	497.2		73	353		94	45
HL		33	2	82	161	.418	2.48	1.25	108.9	513.0		137	643		175	82
HL		37	1	89	159	.166	1.24	.50	148.2	791.7		74	395		95	51
HL		Totals	53	86	120	30.229	65.81	73.56	44.4	190.3		3,265	13,996		4,179	1,792
AL		9	1	86	60	4.016	1.77	4.02	14.0	60.0		56	241		72	31
AL		10	2	87	60	6.506	3.55	6.51	18.0	65.0		117	423		150	54
AL		11	2	87	81	5.377	3.55	10.75	11.0	32.5		118	349		151	45
AL		12	3	86	65	6.777	5.32	9.04	18.5	57.5		167	520		214	67
AL		Totals	8	87	66	22.675	14.19	30.31	15.1	50.6		459	1,533		587	196
SL		18	1	82	55	1.825	3.23	1.83	44.0	90.0		80	164		103	21
SL		Totals	1	82	55	1.825	3.23	1.83	44.0	90.0		80	164		103	21
ML		14	1	66	79	.604	.65	.60	18.0	50.0		11	30		14	4

Stand Table Summary																
TC TSTNDSUM																
Project JBOOT																
T05N R06W S30 T00PC										T05N R06W S30 T00PC						
Twp Rge Sec Tract				Type		Acres		Plots		Sample Trees		Page: 2				
05N 06W 30 U1_LEAVE				00PC		128.00		62		144		Date: 02/15/2010				
											Time: 9:59:23AM					
S SpC	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	16'				Tot	Net				Net	Tons	Cunits	MBF
ML		18	1	56	46	.365	.65									
ML		20	1	74	55	.296	.65	.30	26.0	50.0	8	15		10	2	
ML		Totals		3	65	64	1.264	1.94	.90	20.6	50.0	19	45	24	6	
SN		18	1	89	94	1.095	1.94									
SN		25	1	88	135	.568	1.94									
SN		26	1	88	114	.525	1.94									
SN		29	1	89	63	.422	1.94									
SN		Totals		4	89	102	2.610	7.74								
Totals			143	86	111	78.402	188.39	173.76	52.3	237.8	9088	41,320		11,633	5,289	

LOGGING PLAN MAP

OF TIMBER SALE CONTRACT
 NO. AT-341-2023-W00981-01
 JESTERS BOOT
 PORTIONS OF SECTIONS
 19, 20, 29 & 30 OF T5N, R6W, W.M.,
 CLATSOP COUNTY, OREGON

Logging Breakdown	Tractor	Cable	Acres
Unit 1 (PC)	100%	0%	= 126
Unit 1A (PC)	100%	0%	= 8
Unit 2 (R/W)	100%	0%	= 2
Total	100%	0%	= 136



Legend

- Ownership Boundary
- Timber Sale Boundary
- Area Boundary
- Surfaced Road
- New Road Construction - Unsurfaced
- New Road Construction - Surfaced
- Ground Based Yarding
- Type F Stream
- Type N Stream
- Non-Posted Stream Buffer
- Posted Stream Buffer
- Reserve Tree Area
- Controlled Felling
- Group Selection Reserve
- Section Line
- Survey Monument