



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Ebsen Jarvie Thin
Sale AT-341-2025-W01071-01

District: Astoria

Date: July 10, 2024

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$836,835.67	\$1,290.74	\$838,126.41
		Project Work:	(\$174,748.00)
		Advertised Value:	\$663,378.41



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Timber Description

Location:

Stand Stocking: 40%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	12	0	97
Western Hemlock / Fir	25	0	95
Alder (Red)	10	0	95

Volume by Grade	2S	3S & 4S 6"-11"	3S 12"+	Camprun	Total
Douglas - Fir	483	1,907	33	0	2,423
Western Hemlock / Fir	283	50	11	0	344
Alder (Red)	0	0	0	22	22
Total	766	1,957	44	22	2,789

Comments: Pond Values Used: Local Pond Values, March, 2024.

Expected Log Markets: Tillamook, Warrenton, Forest Grove, Mist, Eugene, Willamina, Molalla, Wauna, Longview, WA, and Vancouver, WA.

PRICING:

Western Red Cedar and other Cedars stumpage = pond value - (Douglas-fir) logging cost.

\$815.43/MBF = \$1,200/MBF - \$384.57/MBF

Sitka Spruce stumpage = pond value - (Douglas-fir) logging cost.

\$105.43/MBF = \$490/MBF - \$384.57/MBF

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

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

Ditch Filters:

10 bales of straw @ \$13.39/bale = \$133.90

4 hours of labor @ \$50/hr = \$200

Line-Pull Yarding:

2 acres @ 1 acre/day x \$400 labor/day = \$800

(\$800/2,789 MBF = \$0.29/MBF)

TOTAL Other Costs (with Profit & Risk to be added):\$3,133.90

Other Costs (No Profit & Risk added):

None.

ROAD MAINTENANCE

(See attached Road Maintenance Cost Summary Sheet)

TOTAL Road Maintenance: \$/MBF = \$9.40/MBF

Slash Piling

(See attached site prep appraisal sheet)

Total: \$3,626



Timber Sale Appraisal
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Logging Conditions

Combination#: 1 Douglas - Fir 70.00%
 Western Hemlock / Fir 70.00%
 Alder (Red) 70.00%

Logging System: Cut To Length **Process:** Harvester Head Delimbing
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF
loads / day: 7.5 **bd. ft / load:** 4600
cost / mbf: \$205.91
machines: Harvester
 Forwarder

Combination#: 2 Douglas - Fir 26.00%
 Western Hemlock / Fir 26.00%
 Alder (Red) 26.00%

Logging System: Cable: Small Tower <=40 **Process:** Manual Falling/Delimbing
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
loads / day: 6 **bd. ft / load:** 4200
cost / mbf: \$294.91
machines: Log Loader (A)
 Tower Yarder (Small)

Combination#: 3 Douglas - Fir 4.00%
 Western Hemlock / Fir 4.00%
 Alder (Red) 4.00%

Logging System: Shovel **Process:** Feller Buncher
yarding distance: Short (400 ft) **downhill yarding:** No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 17 **bd. ft / load:** 5500
cost / mbf: \$106.95
machines: Feller Buncher w/ Delimber



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Logging Costs

Operating Seasons: 3.00	Profit Risk: 12%
Project Costs: \$174,748.00	Other Costs (P/R): \$3,133.90
Slash Disposal: \$3,626.00	Other Costs: \$0.00

Miles of Road

Road Maintenance: \$9.40

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	4.3
Western Hemlock / Fir	\$0.00	3.0	5.0
Alder (Red)	\$0.00	2.0	4.5



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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									
\$225.09	\$9.68	\$4.72	\$99.81	\$1.12	\$40.85	\$1.30	\$2.00	\$0.00	\$384.57
Western Hemlock / Fir									
\$225.09	\$9.87	\$4.72	\$87.50	\$1.12	\$39.40	\$1.30	\$2.00	\$0.00	\$371.00
Alder (Red)									
\$225.09	\$9.87	\$4.72	\$145.83	\$1.12	\$46.40	\$1.30	\$2.00	\$0.00	\$436.33

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$684.58	\$300.01	\$0.00
Western Hemlock / Fir	\$0.00	\$690.51	\$319.51	\$0.00
Alder (Red)	\$0.00	\$495.00	\$58.67	\$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	2,423	\$300.01	\$726,924.23
Western Hemlock / Fir	344	\$319.51	\$109,911.44
Alder (Red)	22	\$58.67	\$1,290.74

Gross Timber Sale Value

Recovery: \$838,126.41

Prepared By: Michele Huffman

Phone: 503-325-5451

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Ebsen Jarvie Thin
Date: March 22, 2024
By: Michele Huffman *CB*

MBF: 2,789
\$/MBF: \$9.40

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
First Interim Operations	Grader 14G	\$972	1	8	\$126	\$1,980
Second Interim Operations	Grader 14G	\$972	1	8	\$126	\$1,980
	Dump Truck 12CY	\$205	1	8	\$99	\$997
	Rubber tired backhoe	\$401	1	4	\$97	\$789
Final Road Maintenance	Grader 14G	\$972	1	68	\$126	\$9,540
	Dump Truck 12CY	\$205	2	24	\$99	\$2,786
	Rubber tired backhoe	\$401	1	8	\$97	\$1,177
	Vibratory Roller	\$972	1	26	\$97	\$3,494
	Water Truck 2,500 gallon	\$238	1	16	\$113	\$2,046
	Excavator (C315)-Move-in w/ project no. 3		1	8	\$127	\$1,016
	Labor			8	\$50	\$400
Total						\$26,205

First and Second Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	5.0	5.0	1.0	8

Final Road Maintenance: Grade Only

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	2.0	10.8	5.4	43

Final Road Maintenance: Process and Compact

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	1.5	4.8	3.2	26
Vibratory Roller	1.5	4.8	3.2	26

Process and compact:
Ebsen Road: 1 Mile
Unnamed Spurs: 3.8 Miles
Grade only:
Ebsen Road: 2.3 Miles
Hamilton Creek Road: 2.1 Miles
Tidewater Loop Road: 1.6 Miles
Sarajarvie Ridge Road: 2.5 Miles
Sarajarvie Creek Road: 2.4 Miles
Grade & Process Total = 4.8 Miles
Grade Only Total = 10.9 Miles

Site Prep Appraisal

Sale Number: AT-341-2025-W01071-01

Sale Name: Ebsen Jarvie Thin

Date: 03/20/2024

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	
6	MC	B	11	14	\$145.00	\$2,073.50	
					In-unit Piling	Sub Total =	\$2,073.50
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	
6	3	0	\$0.00	52.5	\$5.00	\$262.50	
					Materials	Sub Total =	\$262.50
*Cost includes separating firewood							
					Landing Piling	Sub Total =	\$0.00
Move-In Allowance	Additional Move-In allowance Number of Move-In's	Total Move-In Allowance					
\$1,290.00	1	\$1,290.00	Brush Piler				
\$205.00	0	\$0.00	Dump Truck (12cy)				
					Move-In	Sub Total =	\$1,290.00
Slash Endhaul	Dump Truck hrs	Cost/Hour	Total	Loader hrs	Cost/Hour	Total	
	0	\$99.00	\$0.00	0	\$161.00	\$0.00	
						Sub Total =	\$0.00
Grand Total =							\$3,626.00

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Ebsen Jarvie Thin
Date: March 22, 2024
By: Michele Huffman *CB*

MBF: 2,789
\$/MBF: \$9.40

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
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	Dump Truck 12CY	\$205	2	24	\$99	\$2,786
	Rubber tired backhoe	\$401	1	8	\$97	\$1,177
	Vibratory Roller	\$972	1	26	\$97	\$3,494
	Water Truck 2,500 gallon	\$238	1	16	\$113	\$2,046
	Excavator (C315)-Move-in w/ project no. 3		1	8	\$127	\$1,016
	Labor			8	\$50	\$400
Total						\$26,205

First and Second Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	5.0	5.0	1.0	8

Final Road Maintenance: Grade Only

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	2.0	10.8	5.4	43

Final Road Maintenance: Process and Compact

Production Rates	Miles/day	Distance (miles)	Days	Hours
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Process and compact:
Ebsen Road: 1 Mile
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Grade only:
Ebsen Road: 2.3 Miles
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Date: 03/20/2024

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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	
6	MC	B	11	14	\$145.00	\$2,073.50	
					In-unit Piling	Sub Total =	\$2,073.50
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	
6	3	0	\$0.00	52.5	\$5.00	\$262.50	
					Materials	Sub Total =	\$262.50
					Landing Piling	Sub Total =	\$0.00
Move-In Allowance	Additional Move-in allowance	Number of Move-In's	Total Move-In Allowance				
\$1,290.00		1	\$1,290.00	Brush Piler			
\$205.00		0	\$0.00	Dump Truck (12cy)			
					Move-In	Sub Total =	\$1,290.00
Slash Endhaul	Dump Truck hrs	Cost/Hour	Total	Loader hrs	Cost/Hour	Total	
	0	\$99.00	\$0.00	0	\$161.00	\$0.00	
						Sub Total =	\$0.00
Grand Total =							\$3,626.00

*Cost includes separating firewood

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Ebsen Jarvie Thin

Project No. 1: ROAD CONSTRUCTION:

<u>Road segment</u>	<u>Length (Sta)</u>	<u>Length (Mile)</u>	<u>Cost</u>
Unsurfaced			
1A to 1B	11.80	0.22	\$4,785.60
Surfaced			
1C to 1D, 5A to 5B, 6A to 6B, 6C to 6D	11.40	0.22	\$15,745.90
Road Maint.			\$330.30
Move-In			\$1,100.04
TOTALS	23.20	0.44	\$21,962

Project No. 2: ROAD IMPROVEMENT, SUFACE ROCK REPLACEMENT, AND ROAD MAINTENANCE:

<u>Road segment</u>	<u>Length (Sta)</u>	<u>Length (Mile)</u>	<u>Cost</u>
I1 to I2, I3 to I4, I5 to I6,	893.4	16.92	\$130,891.83
I7 to I8, I9 to I10, I11 to I12,			
I13 to I14, I15 to I16, I17 to I18,			
I19 to I20, I21 to I22, I23 to I24,			
I25 to I26, I27 to I28, I29 to I30,			
I31 to I32, I33 to I34, I35 to I36			
Road Maint.			\$2,105.70
Move-In			\$7,012.96
TOTALS	893.40	16.92	\$140,010

SPECIAL PROJECTS (Move-In included in cost for Special Project):

<u>Description</u>	<u>Length/Vol.</u>	<u>Cost</u>
Proj. 3 Road Vacating	0.4	\$12,776.00
TOTAL		\$12,776

GRAND TOTAL **\$174,748**

Compiled By: Cole Hatcher CB

Date: 03/04/2024

Move In and Maintenance Calculator for Construction and Improvement

SALE NAME: Ebsen Jarvie Thin

Project No. 1: ROAD CONSTRUCTION:

<u>Road segment</u>	<u>Length/Sta</u>	<u>Length/Mile</u>	<u>Cost</u>
Unsurfaced			
1A to 1B	11.80	0.22	\$4,785.60
Surfaced			
1C to 1D, 5A to 5B, 6A to 6B, 6C to 6D	11.40	0.22	\$15,745.90
TOTALS	23.20	0.44	\$20,531

Project No. 2: ROAD IMPROVEMENT, SUFACE ROCK REPLACEMENT, AND ROAD MAINTENANCE:

<u>Road segment</u>	<u>Length/Sta</u>	<u>Length/Mile</u>	<u>Cost</u>
l1 to l2, l3 to l4, l5 to l6,	893.40	16.92	\$130,892
l7 to l8, l9 to l10, l11 to l12,			
l13 to l14, l15 to l16, l17 to l18,			
l19 to l20, l21 to l22, l23 to l24,			
l25 to l26, l27 to l28, l29 to l30,			
l31 to l32, l33 to l34, l35 to l36			
TOTALS	893.40	16.92	\$130,892

MOVE IN (Construction & Improvement Only)

<u>Equipment</u>	<u>Length/Mile</u>	<u>Cost</u>
Vibratory Roller		\$972.00
D8 Dozer		\$1,755.00
C315 Excavator		\$1,005.00
C330 Excavator		\$1,755.00
C966 Loader		\$972.00
14 G Grader		\$972.00
Water Truck (2,500 gal)		\$238.00
Dump Truck 20cy (x2)		\$239.00
Dump Truck 10cy (x6)		\$205.00
TOTAL		\$8,113.00

ROAD MAINTENANCE (Construction & Improvement Only)

	<u>Length/Mile</u>	<u>Cost</u>
Final Project Maintenance	0.3	\$2,436.00
TOTAL		\$2,436.00

SALE NAME: Ebsen Jarvie Thin
 ROAD: 1A to 1B (11.8), 1C to 1D (1.5), 5A to 5B (0.5),
 6A to 6B (6.5), 6C to 6D (2.9)

EXCAVATION					
#	Material	Cy/amount	X	=	Cost
1A to 1B					
0+00 to 11+80	Balanced construction	\$/sta			
4+40, 8+30	Construct turnaround w/ C315	\$/hr	x	=	\$1,817.20
1C to 1D					
0+00 to 1+50	Balanced construction	\$/sta			
0+50	Construct landing	\$/ldg	x	=	\$231.00
5A to 5B					
0+00 to 0+50	Balanced construction	\$/sta			
0+50	Construct landing	\$/ldg	x	=	\$487.00
6A to 6B					
0+00 to 6+50	Balanced construction	\$/sta			
6+50	Construct landing	\$/ldg	x	=	\$1,001.00
6C to 6D					
0+00 to 2+90	Balanced construction	\$/sta			
2+90	Construct landing	\$/ldg	x	=	\$446.60
SUB TOTAL FOR EXCAVATION					
					\$487.00

[illegible]

SURFACING		Subgrade prep:		Description		Stations/ amount	Rate/ sta/amt	Cost
		All segments		Grade, Shape and Ditch 16'				
		All segments		Subgrade Compaction				
						23.20	x	\$718.74
						23.20	x	\$584.41

ROAD SEGMENT		1A to 1B		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	1A to 1B		0+00 to 11+80				
				Volume (CY) per	station	Number of	junctions			
Base Rock	4"-0" crushed	0+00 to 1+50	8	50	station	1.50		75	\$4.79	\$359
Junction	1 1/2"-0" crushed	0+00	N/A	22	junction	1		22	\$4.79	\$105
Total Rock for Road Segment:								97		\$465

ROAD SEGMENT		1C to 1D		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	1C to 1D		0+00 to 1+50				
				Volume (CY) per	station	Number of	landings			
Base Rock	6"-0" pit-run	0+00 to 1+50	12	86	station	1.50		129	\$6.55	\$845
Landings	6"-0" pit-run	0+50	N/A	77	landing	1		77	\$6.55	\$504
Total Rock for Road Segment:								206		\$1,349

ROAD SEGMENT		5A to 5B		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	5A to 5B		0+00 to 0+50				
				Volume (CY) per	station	Number of	junctions			
Base Rock	6"-0" pit-run	0+00 to 0+50	12	86	station	0.50		43	\$6.55	\$282
Junction	4"-0" crushed	0+00	N/A	22	junction	1		22	\$4.79	\$105
Landings	6"-0" pit-run	0+50	N/A	77	landing	1		77	\$6.55	\$504
Total Rock for Road Segment:								142		\$891

ROAD SEGMENT		6A to 6B		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	6A to 6B		0+00 to 6+50				
				Volume (CY) per	station	Number of	junctions			
Base Rock	4"-0" crushed	0+00 to 6+50	10	63	station	6.5		410	\$4.79	\$1,962
Junction	1 1/2"-0" crushed	0+00	N/A	22	junction	1		22	\$4.79	\$105
Turnouts	4"-0" crushed	3+85	N/A	33	turnout	1		33	\$4.79	\$158
Landings	6"-0" pit-run	0+50	N/A	88	landing	1		88	\$6.55	\$576
Total Rock for Road Segment:								553		\$2,801

ROAD SEGMENT		6C to 6D		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	6C to 6D		0+00 to 2+90				
				Volume (CY) per	station	Number of	junctions			
Base Rock	4"-0" crushed	0+00 to 2+90	10	63	station	2.9		183	\$4.79	\$875
Junction	1 1/2"-0" crushed	0+00	N/A	22	junction	1		22	\$4.79	\$105
Landings	6"-0" pit-run	2+90	N/A	88	landing	1		88	\$6.55	\$576
Total Rock for Road Segment:								293		\$1,557

SALE NAME: Ebson, Jarvie Thin
ROAD: 11 to 12 (270.95), 13 to 14 (106+65), 15 to 16 (3.9), 17 to 18 (15.4), 19 to 110 (1.2),
NEW CONSTRUCTION: STATIONS
IMPROVEMENT: 893.40 STATIONS
0.00 MILES
16.92 MILES

Excavation	Material	Cy/amount	X	Rate	=	Cost
11 to 12						
7+60	Construct turnaround w/ C/315	\$/hr	X	\$127.00	=	\$254.00
143+60	Repair Inlet w/ C315	\$/hr	X	\$127.00	=	\$127.00
245+75	Install dissipator and armor w/ C330	\$/hr	X	\$195.00	=	\$585.00
13 to 14						
0+00 to 103+65	Clear debris from road prism w/ C315	\$/hr	X	\$127.00	=	\$762.00
37+05, 40+50, 60+75, 80+60	Install series rock ditch filters w/ C315 Install free draining ditch and buttressing w/ fabric, Slope pullback and construct drivable ditch w/ C330	\$/hr	X	\$127.00	=	\$762.00
44+05 to 46+25	4.5oz non-woven fabric for french drain	\$/hr	X	\$195.00	=	\$1,950.00
44+05 to 46+25	10oz non-woven fabric for buttress	\$/sq.yd	X	\$1.37	=	\$419.22
44+05 to 46+25	4.5oz woven fabric for subgrade	\$/sq.yd	X	\$3.62	=	\$1,107.72
44+05 to 46+25	Haul waste to waste areas	\$/lf	X	\$1.37	=	\$301.40
15 to 16						
0+90	Install series rock ditch filters w/ C315	\$/hr	X	\$4.99	=	\$748.50
113 to 114						
39+75, 72+35	Install series rock ditch filters w/ C315	\$/hr	X	\$127.00	=	\$254.00
55+55	Construct turnaround w/ C/315	\$/hr	X	\$127.00	=	\$381.00
62+35, 65+40	Replace culvert and fill w/ C330	\$/hr	X	\$195.00	=	\$254.00
137+15	Install dissipator w/ C315	\$/dissipator	X	\$225.33	=	\$1,560.00
115 to 116						
7+65	Construct turnaround w/ C/315	\$/hr	X	\$25.33	=	\$225.33
119 to 120						
0+00 to 171+00	Clear debris from road prism w/ C315	\$/hr	X	\$127.00	=	\$254.00
56+80	Install series rock ditch filters w/ C315	\$/hr	X	\$127.00	=	\$508.00
91+25	Install dissipator w/ C330	\$/dissipator	X	\$127.00	=	\$381.00
127 to 128						
30+50	Install series rock ditch filters w/ C315	\$/hr	X	\$225.33	=	\$225.33
131 to 132						
0+00 to 4+00	Clear debris from road prism w/ C315	\$/hr	X	\$127.00	=	\$127.00
2+75	Construct turnaround w/ C/315	\$/hr	X	\$127.00	=	\$254.00
133 to 134						
0+00 to 6+00	Clear debris from road prism w/ C315	\$/hr	X	\$127.00	=	\$254.00
135 to 136						
9+05	Clear inside of curve for curve widening w/ C315	\$/hr	X	\$127.00	=	\$127.00
9+30, 17+45	Construct turnaround w/ C/315	\$/hr	X	\$127.00	=	\$381.00
11+85, 12+65	Install dissipator w/ C330	\$/dissipator	X	\$225.33	=	\$225.33
20+50	Dig trench and replace culvert w/ C330	\$/hr	X	\$195.00	=	\$1,170.00
20+50	Haul backfill w/ 11cy dump truck	\$/hr	X	\$105.00	=	\$420.00
20+50	Haul waste w/ 11cy dump truck	\$/hr	X	\$105.00	=	\$420.00
12+85, 19+55, 20+50	Install series rock ditch filters w/ C315 Develop and load backfill from Tidewater No. 1 Quarry w/ C330	\$/hr	X	\$127.00	=	\$381.00
			X	\$195.00	=	\$780.00

SUB TOTAL FOR EXCAVATION

\$15,853

CULVERT MATERIALS AND INSTALLATION									
Location	Dialtype	Lineal ft.	Rate	Cost	Location	Dialtype	Lineal ft.	Rate	Cost
I1 to I2					I35 to I36				
76+00	18" CPP	30	\$24.37	\$731.10	6+00	18" CPP	30	\$24.37	\$731.10
245+75	18" CPP	40	\$24.37	\$974.80	11+65	18" CPP	30	\$24.37	\$731.10
I3 to I4					12+65	18" CPP	30	\$24.37	\$731.10
44+05 to 46+25	12" Perf CPP	220	\$11.55	\$2,541.00	20+50	30" ACSP	50	\$53.03	\$2,651.50
52+85	24" CPP	30	\$33.74	\$1,012.20	23+60	18" CPP	30	\$24.37	\$731.10
53+65	18" CPP	30	\$24.37	\$731.10					
55+45	18" CPP	30	\$24.37	\$731.10					
64+00	18" CPP	30	\$24.37	\$731.10					
77+20	18" CPP	40	\$24.37	\$974.80					
92+35	18" CPP	30	\$24.37	\$731.10					
I13 to I14									
39+75	24" CPP	50	\$33.74	\$1,687.00					
43+90	18" CPP	40	\$24.37	\$974.80					
56+65	18" CPP	40	\$24.37	\$974.80					
62+35	18" CPP	50	\$24.37	\$1,218.50					
65+40	18" CPP	50	\$24.37	\$1,218.50					
69+95	18" CPP	30	\$24.37	\$731.10					
100+90	18" CPP	40	\$24.37	\$974.80					
137+15	18" CPP	30	\$24.37	\$731.10					
152+20	18" CPP	50	\$24.37	\$1,218.50					
161+00	18" CPP	30	\$24.37	\$731.10					
161+70	18" CPP	40	\$24.37	\$974.80					
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION									
Other/miscellaneous:									
Culvert stakes & markers:									
Description					Quantity		Rate		Cost
Installation of 6' X 2 1/2" white fiberglass (Carsonite) posts					24		\$25.53		\$612.72
Subtotal of Clearing, Exc., Culv.									\$26,782
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION									\$44,195

ROAD SEGMENT		15 to 16	Depth of Rock (inches)	Location	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type				15 to 16	Volume (CY) per	0+00 to 3+90	Number of			
Rock Ditch Filters	6"-4" pit-run		N/A	0+90	3 filter series	11	3 filter series	1	11	\$6.55	\$72
Total Rock for Road Segment:									11		\$72
ROAD SEGMENT		17 to 18	Depth of Rock (inches)	Location	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type				17 to 18	Volume (CY) per	0+00 to 15+40	Number of			
Surfacing	4"-0" crushed		4	0+00 to 15+40	station	25	stations	15.4	385	\$4.79	\$1,844
Turnouts	4"-0" crushed		N/A	2+75, 5+65	turnout	11	turnouts	2	22	\$4.79	\$105
Landings	6"-0" pit-run		N/A	15+40	landing	44	landings	1	44	\$6.55	\$288
Total Rock for Road Segment:									451		\$2,238
ROAD SEGMENT		19 to 110	Depth of Rock (inches)	Location	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type				19 to 110	Volume (CY) per	0+00 to 1+20	Number of			
Surfacing	4"-0" crushed		4	0+00 to 1+20	station	25	stations	1.2	30	\$4.79	\$144
Landings	6"-0" pit-run		N/A	1+20	landing	44	landings	1	44	\$6.55	\$288
Total Rock for Road Segment:									74		\$432
ROAD SEGMENT		111 to 112	Depth of Rock (inches)	Location	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type				111 to 112	Volume (CY) per	0+00 to 25+75	Number of			
Turnouts	6"-0" pit-run		N/A	9+80	load	11	loads	4	44	\$6.55	\$288
Surface Leveling Rock	1 1/2"-0" crushed		N/A		load	11	loads	5	55	\$4.79	\$263
Total Rock for Road Segment:									99		\$552
ROAD SEGMENT		113 to 114	Depth of Rock (inches)	Location	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type				113 to 114	Volume (CY) per	0+00 to 168+80	Number of			
Rock Ditch Filters	6"-4" pit-run		N/A	39+75 (2), 72+35	3 filter series	11	3 filter series	3	33	\$6.55	\$216
Culvert Bedding/Backfill				39+75 (5), 43+90 (4), 58+65 (4), 62+35 (5), 65+40 (5), 69+95 (3), 100+90 (4), 137+15 (3), 152+20 (5), 161+00 (3), 161+70 (4)							
Turnaround	1 1/2"-0" crushed		N/A	55+55	load	11	loads	45	495	\$4.79	\$2,371
Surface Leveling Rock	1 1/2"-0" crushed		N/A		turnaround	33	turnarounds	1	33	\$4.79	\$158
Total Rock for Road Segment:									110		\$527
ROAD SEGMENT		115 to 116	Depth of Rock (inches)	Location	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type				115 to 116	Volume (CY) per	0+00 to 11+20	Number of			
Surfacing	4"-0" crushed		4	0+00 to 11+20	station	25	stations	11.2	280	\$4.79	\$1,341
Turnaround	4"-0" crushed		N/A	7+65, 10+20	turnaround	33	turnarounds	2	66	\$4.79	\$316
Landings	6"-0" pit-run		N/A	11+20	landing	33	landings	1	33	\$6.55	\$216
Total Rock for Road Segment:									379		\$1,873
ROAD SEGMENT		117 to 118	Depth of Rock (inches)	Location	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type				117 to 118	Volume (CY) per	0+00 to 3+60	Number of			
Surfacing	4"-0" crushed		4	0+00 to 3+60	station	25	stations	3.6	90	\$4.79	\$431
Landings	6"-0" pit-run		N/A	3+60	landing	33	landings	1	33	\$6.55	\$216
Total Rock for Road Segment:									123		\$647

ROAD SEGMENT		119 to 120	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location		Volume (CY) per	Number of			
Turnaround	4"-0" crushed	59+30	N/A	turnaround 22	turnarounds 1	22	\$4.79	\$105
Rock Ditch Filters	6"-4" pit-run	66+80	N/A	3 filter series 11	3 filter series 3	33	\$6.55	\$216
Culvert Dissipator Rock	24"-6" riprap	91+25	N/A	load 11	loads 2	22	\$6.16	\$136
Surface Leveling Rock	1 1/2"-0" crushed	N/A	N/A	load 11	loads 7	77	\$4.79	\$369
Total Rock for Road Segment:			119 to 120			154		\$826
ROAD SEGMENT		121 to 122	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location		Volume (CY) per	Number of			
Surface Leveling Rock	4"-0" crushed	N/A	N/A	load 11	loads 3	33	\$4.79	\$158
Total Rock for Road Segment:			121 to 122			33		\$158
ROAD SEGMENT		123 to 124	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location		Volume (CY) per	Number of			
Surface Leveling Rock	4"-0" crushed	N/A	N/A	load 11	loads 2	22	\$4.79	\$105
Total Rock for Road Segment:			123 to 124			22		\$105
ROAD SEGMENT		125 to 126	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location		Volume (CY) per	Number of			
Surface Leveling Rock	4"-0" crushed	N/A	N/A	load 11	loads 2	22	\$4.79	\$105
Total Rock for Road Segment:			125 to 126			22		\$105
ROAD SEGMENT		127 to 128	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location		Volume (CY) per	Number of			
Rock Ditch Filters	6"-4" pit-run	30+50	N/A	3 filter series 11	3 filter series 2	22	\$6.55	\$144
Turnaround	4"-0" crushed	33+85	N/A	turnaround 22	turnarounds 1	22	\$4.79	\$105
Surface Leveling Rock	4"-0" crushed	N/A	N/A	load 11	loads 5	55	\$4.79	\$263
Total Rock for Road Segment:			127 to 128			99		\$513
ROAD SEGMENT		129 to 130	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location		Volume (CY) per	Number of			
Surface Leveling Rock	4"-0" crushed	N/A	N/A	load 11	loads 2	22	\$4.79	\$105
Total Rock for Road Segment:			129 to 130			22		\$105
ROAD SEGMENT		131 to 132	Depth of Rock (inches)	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location		Volume (CY) per	Number of			
Junctions	1 1/2"-0" crushed	0+00	N/A	junction 22	junctions 1	22	\$4.79	\$105
Surfacing	4"-0" crushed	0+00 to 4+00	4	station 25	stations 4	100	\$4.79	\$479
Turnaround	4"-0" crushed	33+85	N/A	turnaround 33	turnarounds 1	33	\$4.79	\$158
Landings	6"-0" pit-run	4+00	N/A	landing 33	landings 1	33	\$6.55	\$216
Total Rock for Road Segment:			131 to 132			188		\$959

ROAD SEGMENT										
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				135 to 136	Volume (CY) per	0+00 to 23+70	Number of			
Surfacing	4"-0" crushed	0+00 to 23+70	4		25 station	23.7 stations	593	\$4.79	\$2,838	
Traction Rock	1 1/2"-0" crushed	0+00 to 12+65	2	station	13	12.65 stations	165	\$4.79	\$790	
Turnouts	1 1/2"-0" crushed	4+85	N/A	turnout	22	1 turnouts	22	\$4.79	\$105	
Culvert Bedding/Backfill	1 1/2"-0" crushed	6+00 (3), 11+85 (3), 12+65 (5), 20+50 (6), 23+60 (4)	N/A	load	11	21 loads	231	\$4.79	\$1,106	
		9+05	N/A	load	11	4 loads	44	\$4.79	\$211	
		9+30, 17+45	N/A	turnaround	33	2 turnarounds	66	\$4.79	\$316	
Turnaround	4" 0" crushed	11+85 (1), 12+65 (1), 20+50 (2)	N/A	load	11	4 loads	44	\$6.16	\$271	
Culvert Dissipator Rock	24"-6" riprap	12+85 (2), 19+55, 20+15	N/A	3 filter series	11	3 filter series	44	\$6.55	\$288	
Rock Ditch Filters	6'-4" pit-run	20+15	N/A	load	11	3 loads	33	\$4.79	\$158	
Subgrade Reinforcement	4" 0" crushed	18+65	N/A							
Total Rock for Road Segment:				135 to 136			1,242		\$6,085	

Processing:	Description	No. sta	Rate/sta	Cost
Water, Process & Compact: 11-12 (sta. 9+00 to 11+00, 42+60 to 59+55, 96+55 to 98+90, 172+35 to 185+50, 199+00 to 208+70), 13-14, 17-18, 19-20, 115-116, 117-118, 119-120 (Sta. 130+50 to 155+15), 131-132, and 135 to 136				
		234.55	\$70.47	\$16,529
	Traction Rock Water, Process & Compact: 135-136 (Sta. 0+00 to 12.65)	12.65	\$70.47	\$891
SUB TOTAL FOR SURFACING				
24"-12" rr	77	176	0	5,366
				\$85,431

SPECIAL PROJECTS		Description		Cy/Amount		Rate		Cost	
		Mulch for waste areas and Hamilton Creek sidecast pulldist (\$/straw bale)		10		\$13.39		\$133.90	
		Seed for waste areas and Hamilton Creek sidecast pulldist (\$/lb of seed)		5		\$2.00		\$10.00	
		pit-run development		495		\$1.50		\$742.50	
		riprap development		253		\$1.50		\$379.50	
SUB TOTAL FOR SPECIAL PROJECTS								\$1,266	
GRAND TOTAL								\$66,697	
								\$44,195	
								\$130,892	

Subtotal of Surfacing & Spec. Proj. \$66,697
Subtotal of Clearing, Exc., Culv. \$44,195

Compiled By: Cole H Date: 02/13/2024

MATERIAL: 1 1/2"-0" & 4"-0"

DATE: 02/13/2024
BY: Cole H

ROCK HAUL:

Ave haul:	\$3.93	/cy
Load:	\$0.33	/cy
Spread:	\$0.53	/cy
Production: cy/day = 1,723		

CRUSHED ROCK HAUL COSTS 4,961 cy @ \$4.79 /cy

MATERIAL: Pit Run

DATE: 02/13/2024
BY: Cole H

ROCK HAUL:

Production: cy/day = 1,009

PIT RUN ROCK HAUL COSTS	997 cy @	\$6.55 /cy
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RIP RAP ROCK COST

SALE NAME:	Ebsen Jarvie Thin
PROJECT:	Project No. 2
QUARRY:	Hamilton Creek

MATERIAL: Rip Rap

DATE: 02/13/2024
BY: Cole H

[illegible]

ROCK HAUL:

Truck type:	<u>D12</u>	No. trucks:	<u>7</u>
Delay min.:	<u>6</u>	Efficiency:	<u>85%</u>
Truck type:	<u>D10</u>	No. trucks:	<u>7</u>
Delay min.:	<u>5</u>	Efficiency:	<u>85%</u>

Ave haul:	\$5.49	/cy
Load:	\$0.67	/cy
Develop:		/cy

Production: cy/day = 1,009

RIP RAP ROCK HAUL COSTS 253 cy @ \$6.16 /cy

Ebsen Jarvie Thin
Vacating Costs (Total)

Work Description	Stations	C330	C315	D10/12 trk	Labor	Straw- bales	Seed-lbs
V1 to V2	1.00	4		1	2	4	1
V3			4		2	3	1
V4		5			2	4	1
V5		8			3	6	1
V6		8			3	5	2
V7		4			2	4	1
1A to 1B	11.80	5		1	2	3	1
I33 to I34	6.00		2				
Total Quantity (Hours)		34	6	2	16	29	8
Mobilization		\$1,755.00	\$2,010.00	\$205.00	\$0.00	\$0.00	\$0.00
Rates		\$195.00	\$127.00	\$105.00	\$50.00	\$13.39	\$2.00
Total Dollars		\$8,385	\$2,772	\$415	\$800	\$388	\$16.00

Total Cost **\$12,776.31**
Total Stations **18.80**
Total Miles **0.4**

\$12,776

Projects Road Maintenance Cost Summary

Sale: Ebsen Jarvie Thin
Date: 23-Feb-24
By: Cole H *CB*

Type	Equipment/Rationale			Hours	Rate	Cost
Project Work	Grader 14G			11	\$126	\$1,386
Final Haul	Dump Truck 12CY			2	\$105	\$210
Road	FE Loader C966			2	\$105	\$210
Maintenance	Vibratory Roller			3	\$97	\$291
	Water Truck 2,500 gallon			3	\$113	\$339
Total						\$2,436

Production Rates

Grader

Vibratory Roller

Miles/day	Distance(miles)	Days
1.5	0.30	0.2
1.5	0.30	0.2

NOTE: Tidewater No.2 Quarry	0.30	Miles
		Miles
Grader Hours - Spot Grading	8.00	Hours
		Miles
	TOTAL= 0.30	Miles

EBSEN JARVIE THIN TIMBER CRUISE REPORT FY 2025

1. **Sale Area Location:** Portions of Sections 21, 22, 23, 26, 27, 28, 32, & 33, T6N, R7W, W.M., Clatsop County, OR.
2. **Fund Distribution:** BOF 100% Tax Code: 8-01 (96.22%) 8-02 (3.78%)
3. **Sale Acreage by Area:**

Unit	Harvest Type	Gross Acres	Stream Buffer Acres	Reserve Tree Area	Existing R/W Acres	New R/W Acres	Out-of-Unit R/W Acres	Net Acres	Survey Method
1	Partial Cut	144	24	-	5	1	-	114	GIS
2	R/W	2	-	-	-	-	-	2	LxW
3	Partial Cut	27	6	-	1	-	-	20	GIS
4	Partial Cut	58	7	-	3	-	-	48	GIS
5	Partial Cut	155	26	-	6	-	-	123	GIS
6	Modified Clearcut	16	4	<1	<1	1	-	11	GIS
TOTALS		402	67	<1	15	2	-	318	

4. Cruisers and Cruise Dates: Avery Petersen, John Czarnecki, Ryan Simpson, Michele Huffman, and Justin Bush (03/11/24 – 03/13/24)

5. Cruise Method and Computation:

Units 1, 3, 4, and 5: Units 1, 3, 4, and 5 were variable plot cruised with a 33.61 BAF. A total of 116 plots were sampled on a 12 by 2.5 chain spacing with a grade to count ratio of 1:3, resulting in 30 grade plots and 86 count plots*.

Unit 6: Unit 6 was variable plot cruised with a 54.45 BAF. A total of 14 plots were sampled on a 4.5 by 2 chain spacing with a grade to count ratio of 1:1, resulting in eight grade plots and six count plots.

Unit 2 (R/W): Right-of-way consists of new roads and landings within Units 1 and 6 respectively. Cruise data for Unit 2 was obtained from the combined U1345 and U6 cruises and acreages have been adjusted accordingly, attributing one acre of right-of-way to the U1345 cruise and the other acre to the U6 cruise.

*The reported numbers of grade and cruise plots vary from those indicated in the SuperACE reports for both the U1345 and U1345_LEAVE Statistics due to measuring a tree on a count plot. The number of reported count and grade plots for the U1345_TAKE Statistics vary from those indicated in the SuperACE reports due to recording 14 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, 3, 4, & 5	EJTHIN	U1345_TAKE	00PC	305
2 (R/W)	EJTHIN	RW_U1345 & RW_U6	RW	2
6	EJTHIN	U6	00MC	11

6. Timber Description:

Unit 1, 3, 4, and 5 are partial cuts consisting of 305 acres with an average age of 35 years. The stands consist of Douglas-fir with minor components of western hemlock, red alder, and western redcedar. The average take

Douglas-fir is approximately 11 inches DBH and 39 feet to a merchantable top. The average net volume to be harvested per acre is 6 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 Units 1, 3, 4, and 5 is 140 square feet. The target stand density index (SDI) is 36%.

Unit 6 is a modified clearcut with an average age of 81 years. The stand consists of Douglas-fir, western hemlock, and red alder. A minor component of Sitka spruce is present in this stand. The average Douglas-fir is 27 inches DBH and 108 feet to a merchantable top. The average western hemlock is 25 inches DBH and 92 feet to a merchantable top. One red alder was sampled in the cruise at 10 inches DBH and 37 feet to a merchantable top. The average net volume to be harvested per acre is 78 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) consists of approximately one acre of timber from Unit 1 and one acre from Unit 6. Unit 2 (R/W) is similar to the timber description for Unit 1 and Unit 6. Average net volume to be harvested per acre is 50 MBF.

7. Statistical Analysis and Stand Summary:

Statistics for Stand B.F. volumes

Unit	Estimated CV	Target SE%	Actual CV	Actual SE%
1, 3, 4, and 5	40%	13%	25.5%	2.4%
6	40%	10%	20.1%	5.6%

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	12"	2,423	483	1,323	617	4.1%	87%
Western hemlock	25"	344	283	54	7	12.5%	12%
TOTALS	-	2,767	766	1,377	624	-	-

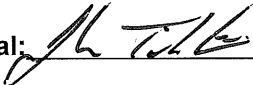
Hardwood

Species	DBH	Net Vol.	12"+	10"-11"	8"-9"	6"-7"	% D & B	% Sale
Red alder	10"	22	0	0	0	22	15.5%	1%
TOTALS	-	22	0	0	0	22	-	-

TOTAL VOLUME	2,789 MBF
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9. Approvals:

Prepared by: Ryan Simpson/Michele Huffman Date: 04/05/2024

Unit Forester Approval:  Date: 4/22/2024

10. **Attachments:** Cruise Design and Maps (9 pages)
Volume Report (4 pages)
Statistics Report (11 pages)
Log Stock Table (2 pages)
Stand Table Summary (2 pages)

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Ebsen Jarvie Thin

Units U1345

Harvest Type: Partial Cut

Approx. Cruise Acres: 305 **Estimated CV%** 40 Net BF/Acre **SE% Objective** 13 Net BF/Acre

Planned Sale Volume : 1,969 MBF **Estimated Sale Area Value/Acre:** \$2,546/Acre

A. Cruise Goals: (a) Grade minimum 80 trees

(b) Sample 118 cruise plots (31 grade/ 87 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 33.61 (Full point)

Cruise Line Directions **Unit 1:** 93°/273°

Cruise Line Directions **Unit 3:** 240°/60°

Cruise Line Directions **Unit 4:** 135°/315°

Cruise Line Directions **Unit 5:** 70°/250°

Cruise Line Spacing: 12 ch. (792 ft)

Cruise Plot Spacing: 2.5 ch. (165 ft)

Grade/Count Ratio 1:3

Basal Area leave target is 140 sq. ft. Cruiser needs to select 4 leave trees per plot. Cruise all take and leave trees.

All cedar will be reserved. All minor species will be the first priority leave trees. Take trees should be Douglas-fir where available. Record all snags as SN.

Take plots as marked on cruise map.

Grade minor species (true fir, spruce, cedar, maple, etc.) on count plots if encountered.

DO NOT: record any 22' log lengths, or any 12', 24', or 32' log lengths for hardwoods.

DO NOT: record snags < 15" DBH or record snag measurements on count plots.

C. Tree Measurements:

1. Diameter: Minimum DBH to cruise is 8" for conifers and 8" for hardwoods.

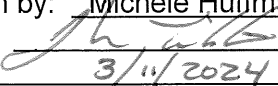
Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16" - 24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

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 6" 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 red cedar); NF (Noble fir); GF (Grand 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, or R = Camp Run; 0 = Cull.
All Maple Camp Run = R
- Grade oversized 3-SAW (DIB $\geq$ 12", knots $>$ 2½" inside scaling cylinder affecting $>$ 50% of log)
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), Compass, Allegro II Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint, Permanent Marker.
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: Michele Huffman

Approved by: 

Date: 3/11/2024

CRUISE MAP

OF TIMBER SALE CONTRACT
EBSEN JARVIE THIN
PORTIONS OF SECTIONS
21, 22, 23, 26, 27, 28, 32, & 33
OF T6N, R7W, W.M.,
CLATSOP COUNTY, OREGON

U1345 Cruise

Approximate Net Acres: 305

BAF: 33.61

Grade Plots: 30

Count Plots: 86

Total Plots: 116

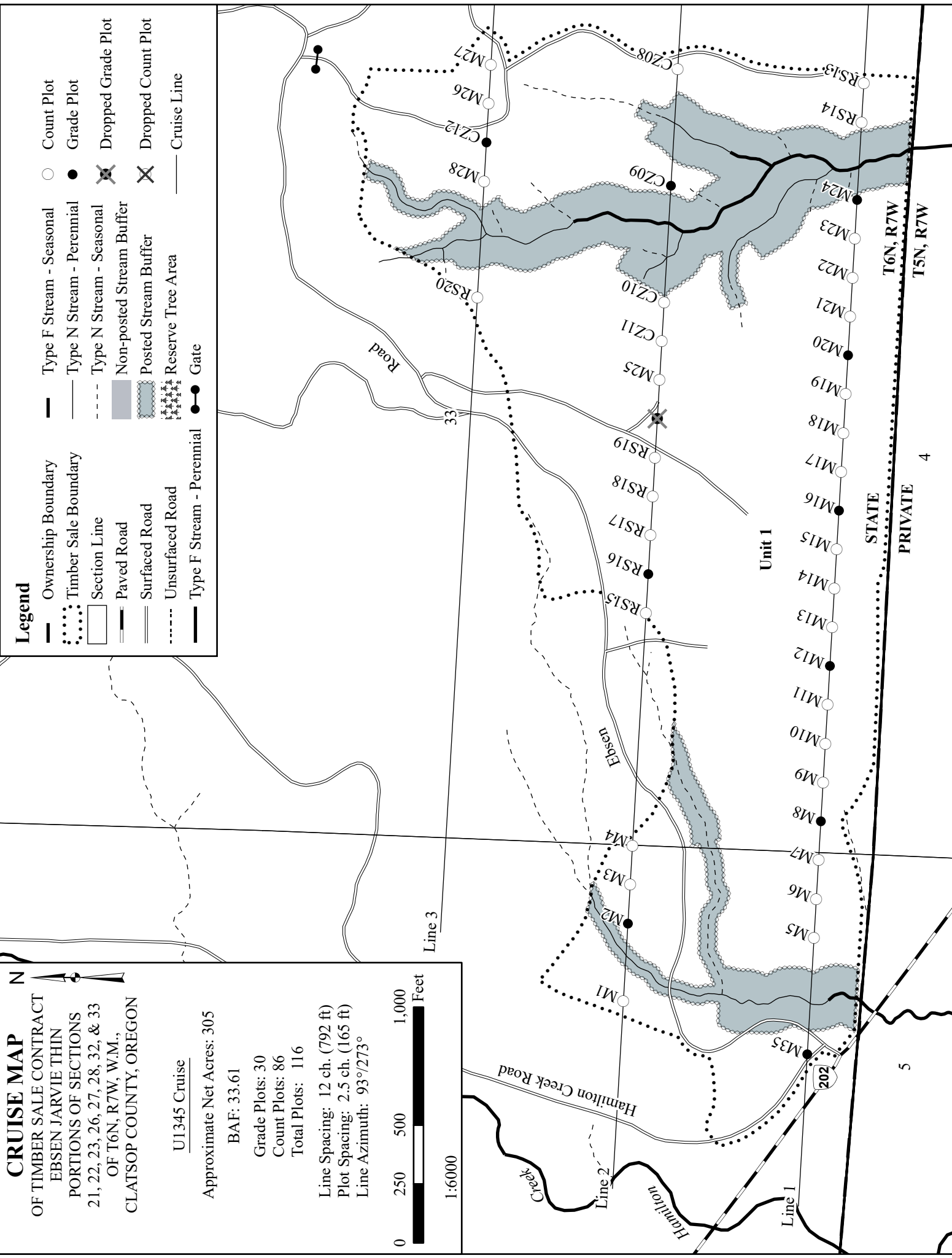
Line Spacing: 12 ch. (792 ft)

Plot Spacing: 2.5 ch. (165 ft)

Line Azimuth: 93°/273°



1:6000



Legend

-  Ownership Boundary
-  Timber Sale Boundary
-  Section Line
-  Paved Road
-  Surfaced Road
-  Unsurfaced Road
-  Type F Stream - Perennial
-  Type F Stream - Seasonal
-  Type N Stream - Perennial
-  Type N Stream - Seasonal
-  Non-posted Stream Buffer
-  Posted Stream Buffer
-  Reserve Tree Area
-  Gate
-  Count Plot
-  Grade Plot
-  Cruise Line

CRUISE MAP

OF TIMBER SALE CONTRACT
EBSEN JARVIE THIN
PORTIONS OF SECTIONS
21, 22, 23, 26, 27, 28, 32, & 33
OF T6N, R7W, W.M.,
CLATSOP COUNTY, OREGON



U1345 Cruise

Approximate Net Acres: 305

BAF: 33.61

Grade Plots: 30

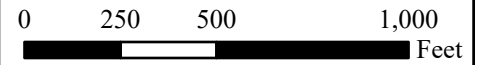
Count Plots: 86

Total Plots: 116

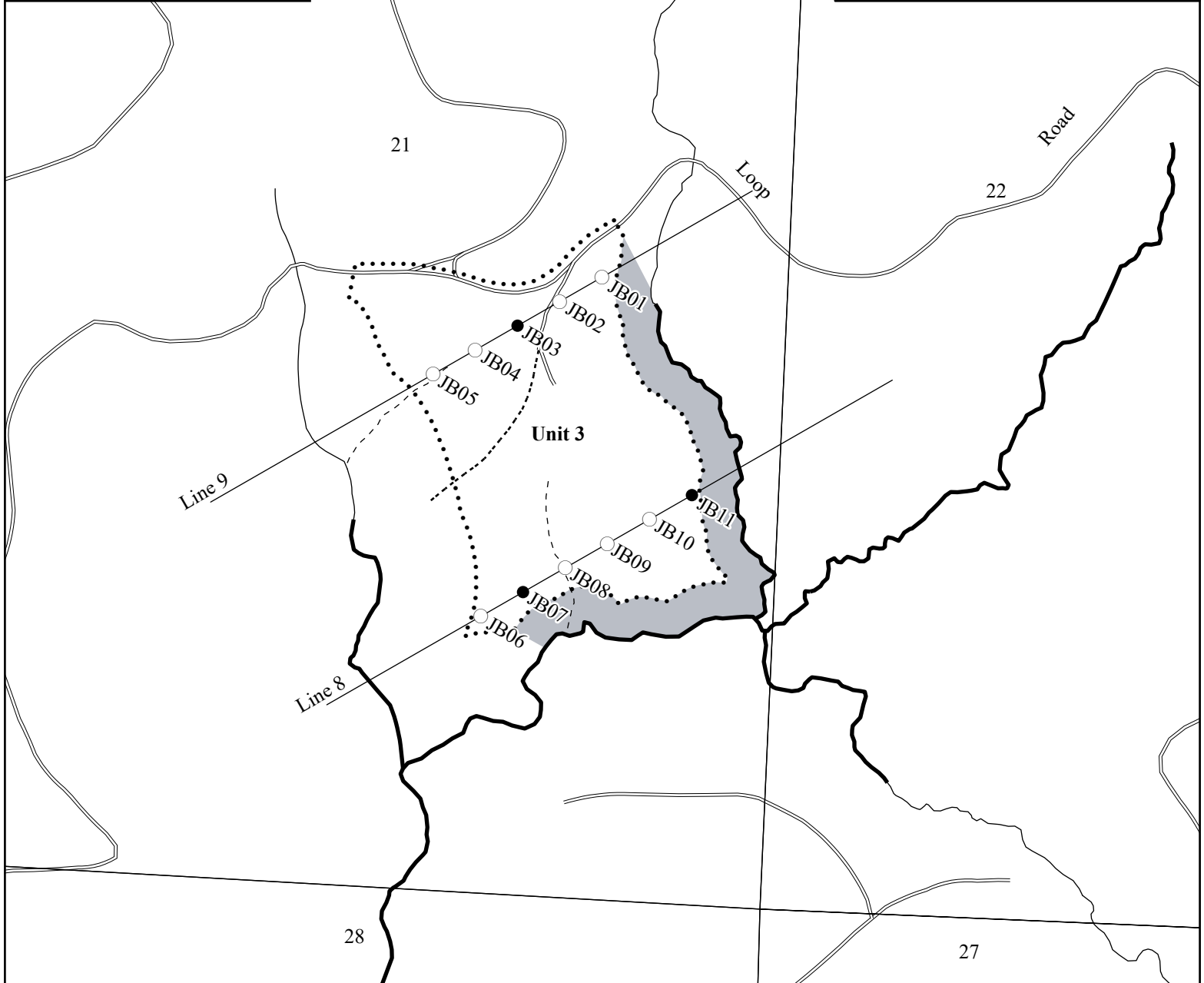
Line Spacing: 12 ch. (792 ft)

Plot Spacing: 2.5 ch. (165 ft)

Line Azimuth: 240°/60°



1:6000



CRUISE MAP

OF TIMBER SALE CONTRACT
EBSEN JARVIE THIN
PORTIONS OF SECTIONS
21, 22, 23, 26, 27, 28, 32, & 33
OF T6N, R7W, W.M.,
CLATSOP COUNTY, OREGON

U1345 Cruise

Approximate Net Acres: 305

BAF: 33.61

Grade Plots: 30

Count Plots: 86

Total Plots: 116

Line Spacing: 12 ch. (792 ft)

Plot Spacing: 2.5 ch. (165 ft)

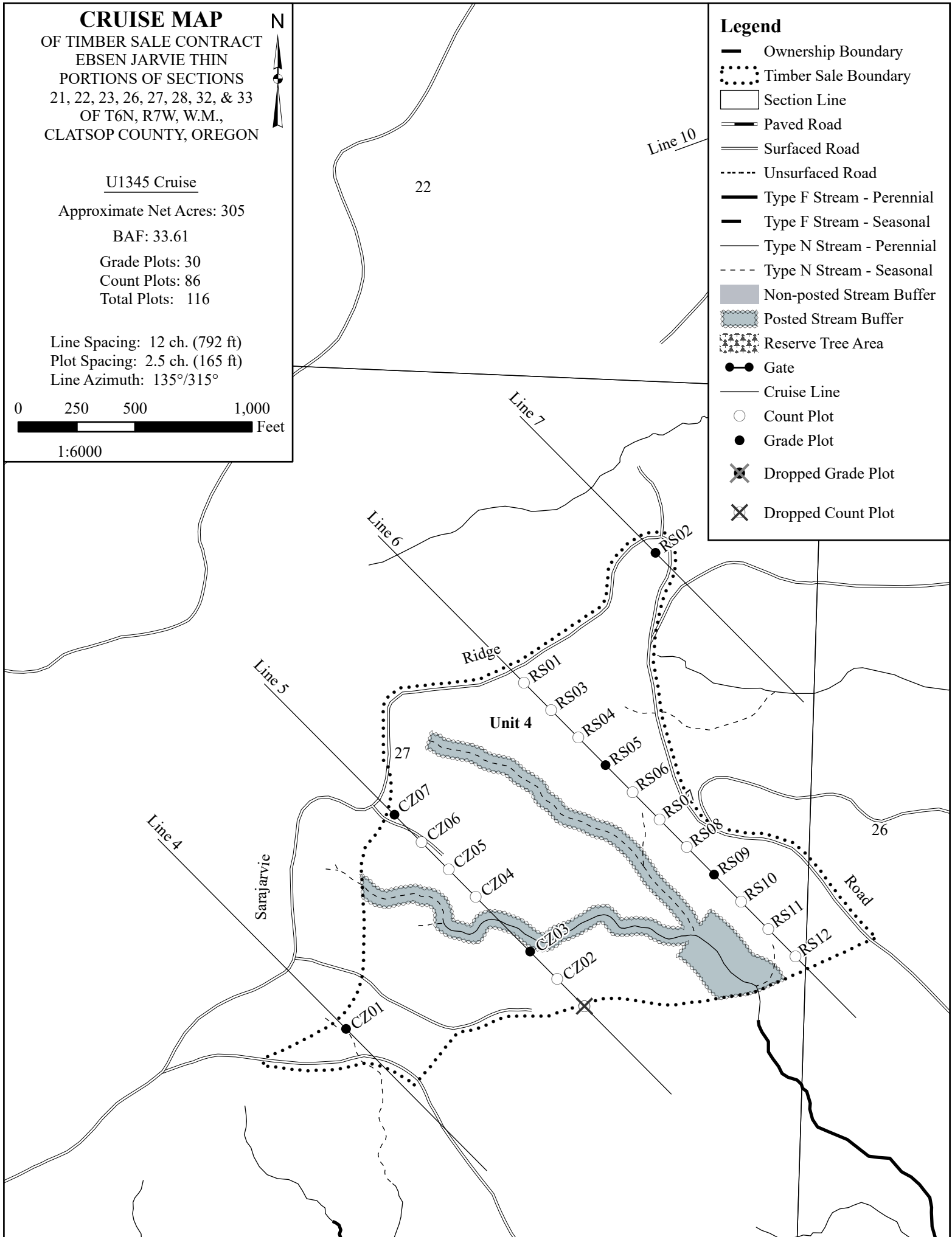
Line Azimuth: 135°/315°

0 250 500 1,000 Feet
1:6000



Legend

- Ownership Boundary
- ⋯ Timber Sale Boundary
- ▭ Section Line
- ▬ Paved Road
- ▬ Surfaced Road
- ⋯ Unsurfaced Road
- ▬ Type F Stream - Perennial
- ▬ Type F Stream - Seasonal
- ▬ Type N Stream - Perennial
- ⋯ Type N Stream - Seasonal
- Non-posted Stream Buffer
- ▨ Posted Stream Buffer
- ▨ Reserve Tree Area
- Gate
- Cruise Line
- Count Plot
- Grade Plot
- ⊗ Dropped Grade Plot
- ⊗ Dropped Count Plot



CRUISE MAP

OF TIMBER SALE CONTRACT
EBSEN JARVIE THIN
PORTIONS OF SECTIONS
21, 22, 23, 26, 27, 28, 32, & 33
OF T6N, R7W, W.M.,
CLATSOP COUNTY, OREGON

U1345 Cruise

Approximate Net Acres: 305

BAF: 33.61

Grade Plots: 30

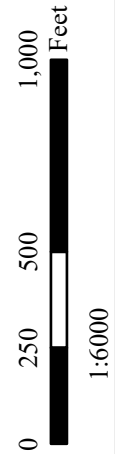
Count Plots: 86

Total Plots: 116

Line Spacing: 12 ch. (792 ft)

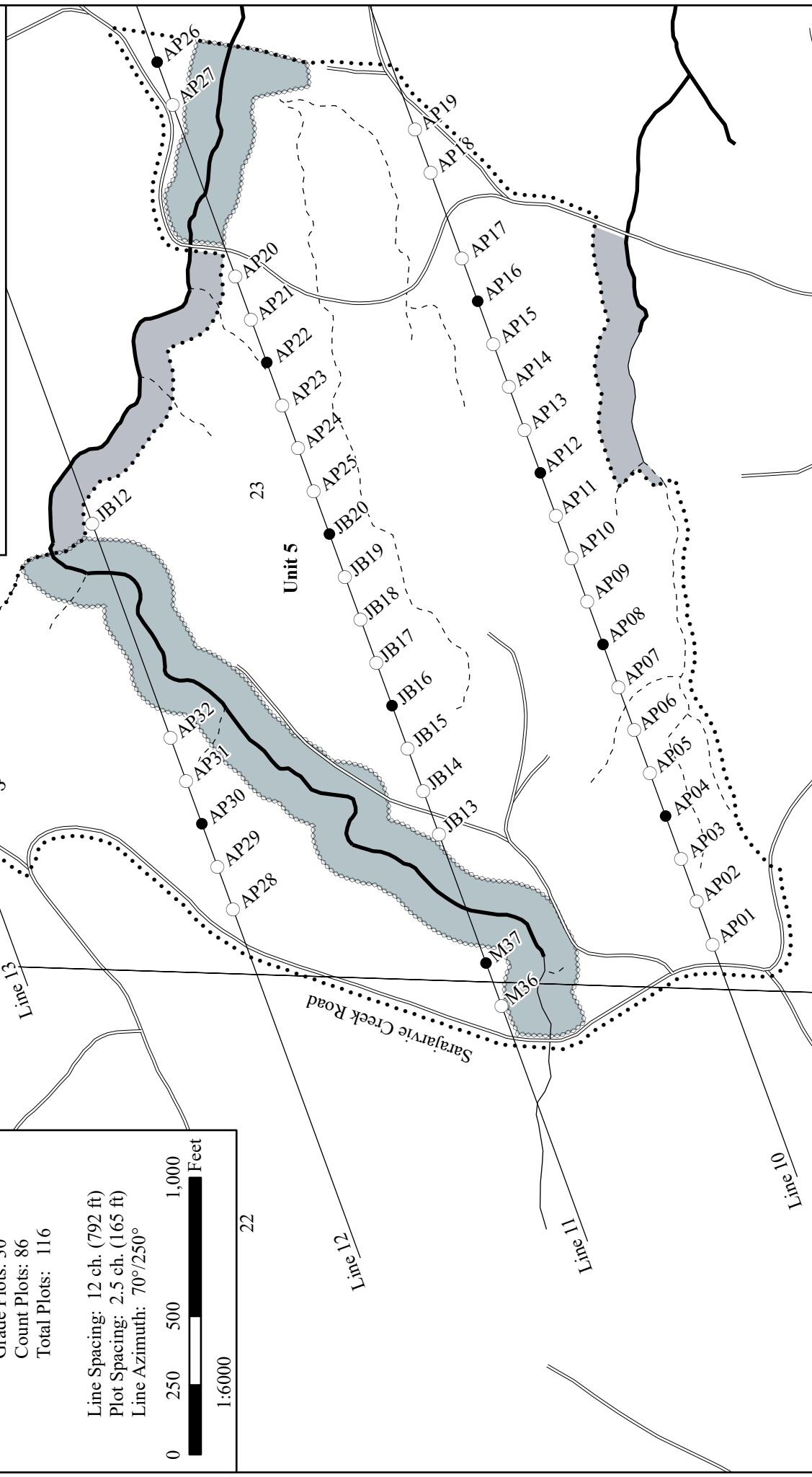
Plot Spacing: 2.5 ch. (165 ft)

Line Azimuth: 70°/250°



Legend

- Type N Stream - Seasonal
- Non-posted Stream Buffer
- ▨ Posted Stream Buffer
- ▩ Reserve Tree Area
- Gate
- Cruise Line
- Count Plot
- Grade Plot
- Ownership Boundary
- ⋯ Timber Sale Boundary
- Section Line
- ▬ Paved Road
- ▬ Surfaced Road
- ⋯ Unsurfaced Road
- Type F Stream - Perennial
- Type F Stream - Seasonal
- Type N Stream - Perennial



**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Ebsen Jarvie Thin

Units U6

Harvest Type: Modified Clearcut

Approx. Cruise Acres: 11 **Estimated CV%** 40 Net BF/Acre **SE% Objective** 10 Net BF/Acre

Planned Sale Volume : 660 MBF **Estimated Sale Area Value/Acre:** \$26,125/Acre

A. Cruise Goals: (a) Grade minimum 50 trees
(b) Sample 14 cruise plots (8 grade/ 6 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 54.45 (Full point)*
Cruise Line Directions **Unit 6:** 211°/31°,
Cruise Line Spacing: 4.5 ch. (297 ft)
Cruise Plot Spacing: 2 ch. (132 ft)
Grade/Count Ratio 1:1

*Cruise two grade plots concurrently (two cruisers) to determine if a smaller BAF (40) is necessary to achieve cruise goals prior to cruising remaining plots.

Record all snags as SN. Cruise minor species on count plots (e.g., spruce, cedar, maple..).

Take plots as marked on cruise map.

DO NOT: record any 22' log lengths, or any 12', 24', or 32' log lengths for hardwoods.

DO NOT: record snags < 15" DBH or record snag measurements on count plots.

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 6" 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.

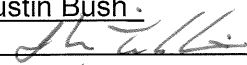
6. Species, Sort, and Grade Codes:

- A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); GF (Grand 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, or R = Camp Run; 0 = Cull.
All Maple Camp Run = R

Grade oversized 3-SAW (DIB $\geq$ 12", knots $> 2\frac{1}{2}$ " inside scaling cylinder affecting $> 50\%$ of log)

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), Compass, Allegro II Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint, Permanent Marker.
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: 3/11/2024

CRUISE MAP

OF TIMBER SALE CONTRACT
EBSEN JARVIE THIN
PORTIONS OF SECTIONS
21, 22, 23, 26, 27, 28, 32, & 33
OF T6N, R7W, W.M.,
CLATSOP COUNTY, OREGON



U6 Cruise

Approximate Net Acres: 11

BAF: 54.45

Grade Plots: 8

Count Plots: 6

Total Plots: 14

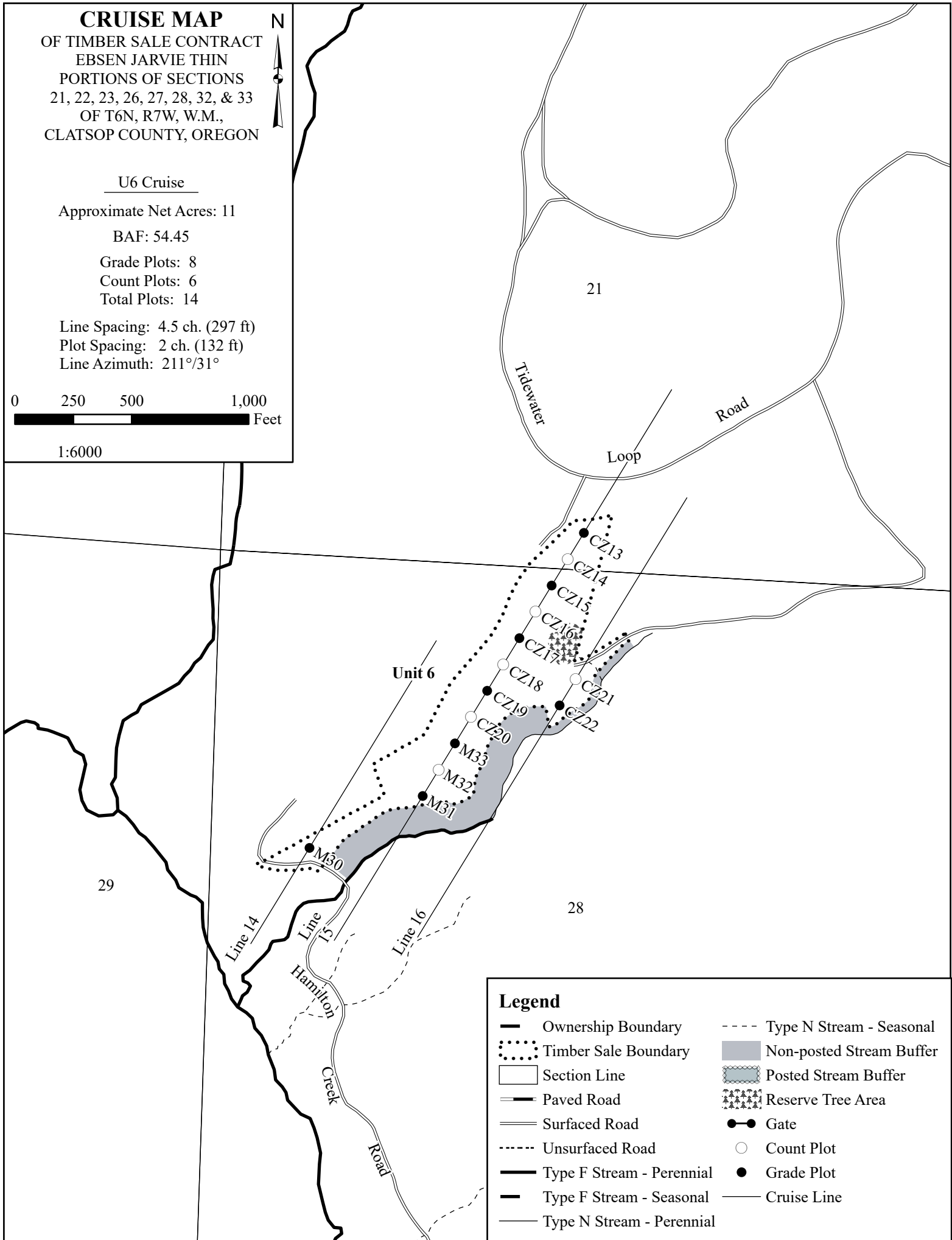
Line Spacing: 4.5 ch. (297 ft)

Plot Spacing: 2 ch. (132 ft)

Line Azimuth: 211°/31°

0 250 500 1,000
Feet

1:6000



Legend

- | | |
|-----------------------------|--------------------------------|
| — Ownership Boundary | ----- Type N Stream - Seasonal |
| ⋯ Timber Sale Boundary | ■ Non-posted Stream Buffer |
| □ Section Line | ▨ Posted Stream Buffer |
| — Paved Road | ▤ Reserve Tree Area |
| — Surfaced Road | ● Gate |
| --- Unsurfaced Road | ○ Count Plot |
| — Type F Stream - Perennial | ● Grade Plot |
| — Type F Stream - Seasonal | — Cruise Line |
| — Type N Stream - Perennial | |

Species, Sort Grade - Board Foot Volumes (Project)

*All Take*T06N R07W S27 TyRW
THRU
T06N R07W S28 Ty00MCProject: EJTHIN
Acres 318.00Page 1
Date 4/5/2024
Time 10:15:05AM

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	DOCU																13	7		0.00	10.5
D	DO2S	19	10.8	1,702	1,519	483			32	68	0	3		97			39	17	439	2.34	3.5
D	DO3S	55	3.3	4,303	4,159	1,323		98	1	2	4	4	25	67			35	7	72	0.62	58.0
D	DO4S	26	.1	1,941	1,939	617		100			45	55					21	6	26	0.37	75.7
D Totals		87	4.1	7,946	7,617	2,423 2,422		79	7	14	14	17	14	56			27	7	52	0.56	147.6
A	DOCU																16	7		0.00	.0
A	DO2S	1		1	1	0		100					30	70			37	10	140	1.02	.0
A	DO3S	2		1	1	0		100					63	37			34	8	83	0.69	.0
A	DO4S	97	16.0	84	70	22		100			1		1	99			36	6	50	0.44	1.4
A Totals		1	15.5	87	73	22 23		100			1		2	97			36	6	50	0.45	1.5
H	DOCU																6	18		0.00	.3
H	DO2S	82	12.0	1,010	889	283			46	54	2	3	5	91			38	16	372	2.22	2.4
H	DO3S	15	15.6	202	170	54		80	6	14	12	8	9	71			35	10	105	0.93	1.6
H	DO4S	3	10.0	26	24	7		100			100						15	8	23	0.53	1.0
H Totals		12	12.5	1,237	1,083	344		15	39	46	5	4	5	86			31	13	203	1.60	5.3
Totals			5.4	9,270	8,773	2,789 2,790		71	11	18	13	15	13	60			27	7	57	0.60	154.4

Species, Sort Grade - Board Foot Volumes (Type)										Page	1								
Project: EJTHIN										Date	4/5/2024								
										Time	7:44:07AM								
T06N R07W S27 T00PC										T06N R07W S27 T00PC									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
06N	07W	27	U1345_TAKE	00PC	305.00	116	55	1	W										
S So Gr T rt ad Spp		%	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
		Net BdFt	Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Dia	Bd	CF/		
							4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft In	Ft	Lf		
D DO CU															13 7		0.00	10.9	
D DO 3S		66	2.8	4,147	4,030	1,229		100		4	3	26	67	35 7		70	0.61	57.8	
D DO 4S		34		1,994	1,994	608		100		45	55			21 6		26	0.37	77.8	
D Totals		100	1.9	6,142	6,024	1,837		100		17	21	17	45	26 7		41	0.48	146.4	
Type Totals			1.9	6,142	6,024	1,837		100		17	21	17	45	26 7		41	0.48	146.4	

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page		1							
				Project: EJTHIN										Date		4/5/2024							
														Time		7:44:35AM							
T06N R07W S28 T00MC										T06N R07W S28 T00MC													
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		CuFt		BdFt					
06N		07W		28		U6 TAKE		00MC		11.00		14		54		1		W					
S So Gr T rt ad Spp				%		Bd. Ft. per Acre Def% Gross Net			Total Net MBF		Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
				Net BdFt							Log Scale Dia.				Log Length				Ln Dia Bd CF/ Ft In Ft Lf				
D		DO 2S		85		10.8 44,975 40,120		441		32 68				3 97				39 17 440 2.35			91.1		
D		DO 3S		14		10.8 7,403 6,604		73		59 12 29				9 13 19 59				31 10 119 1.05			55.4		
D		DO 4S		1		10.0 437 393		4		100				77 23				18 7 22 0.45			17.8		
D		Totals		61		10.8 52,815 47,118		518		9 29 62				2 5 3 91				34 14 287 1.84			164.3		
H		DO CU																6 18 0.00			8.3		
H		DO 2S		82		12.0 26,752 23,555		259		46 54				2 3 5 91				38 16 372 2.22			63.2		
H		DO 3S		15		15.7 5,319 4,483		49		80 6 14				12 8 9 71				35 10 106 0.94			42.4		
H		DO 4S		3		10.0 692 623		7		100				100				15 8 23 0.53			26.9		
H		Totals		37		12.5 32,763 28,661		315		15 39 46				5 4 5 86				31 13 204 1.60			140.8		
A		DO 4S		100		16.7 2,139 1,783		20		100				100				36 6 50 0.44			35.7		
A		Totals		2		16.7 2,139 1,783		20		100				100				36 6 50 0.44			35.7		
Type Totals						11.6 87,718 77,562		853		13 32 55				3 4 4 89				33 12 228 1.58			340.7		

Species, Sort Grade - Board Foot Volumes (Project)

T06N R07W S27 TyRW 1.00
T06N R07W S28 TyRW 1.00

Unit 2 (R/W)

Project: EJTHIN
Acres 2.00

Page 1
Date 4/5/2024
Time 7:45:00AM

S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def%GrossNet			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre
								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		DOCU														11	8		0.00	6.9
D		DO2S	62	10.5	23,242	20,810	42			34	66	0	3		96	39	17	425	2.30	49.0
D		DO3S	31	5.1	11,007	10,442	21		87	4	9	4	7	18	72	35	9	99	0.81	105.6
D		DO4S	7	1.3	2,038	2,012	4		100			50	50			21	6	25	0.40	81.2
D Totals			67	8.3	36,287	33,263	67		33	23	44	4	7	6	83	30	9	137	1.09	242.7
A		DOCU														16	7		0.00	1.7
A		DO2S	11		212	212	0		100					30	70	37	10	140	1.02	1.5
A		DO3S	12		207	207	0		100					63	37	34	8	83	0.69	2.5
A		DO4S	77	11.3	1,576	1,397	3		100			6		4	90	34	6	48	0.45	29.1
A Totals			4	8.9	1,995	1,816	4		100			4		14	82	33	6	52	0.48	34.9
H		DOCU														6	18		0.00	4.1
H		DO2S	81	12.0	13,376	11,778	24			46	54	2	3	5	91	38	16	372	2.22	31.6
H		DO3S	16	14.8	2,825	2,407	5		82	5	13	11	8	9	73	35	9	100	0.89	24.0
H		DO4S	3	10.0	346	311	1		100			100				15	8	23	0.53	13.4
H Totals			29	12.4	16,548	14,496	29		16	39	46	5	3	5	86	31	12	198	1.55	73.2
Totals				9.6	54,830	49,576	99		31	26	43	5	6	6	84	31	10	141	1.12	350.7

PROJECT STATISTICS										PAGE	1
PROJECT										DATE	4/5/2024
EJTHIN											
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07	27	RW_U1345	RW	THR	318.00	260	1,220	1	W	
06N	07W	28	U6 TAKE	00MC							
All Take											
			TREES		ESTIMATED		PERCENT				
PLOTS			TREES		TOTAL		SAMPLE				
			PER PLOT		TREES		TREES				
TOTAL			260		1220		4.7				
CRUISE			70		340		4.9		33,796		
DBH COUNT									1.0		
REFOREST											
COUNT			176		873		5.0				
BLANKS			14								
100 %											
STAND SUMMARY											
SAMPLE			TREES		AVG		BOLE		REL		
TREES			/ACRE		DBH		LEN		DEN		
							BASAL		GROSS		
							AREA		BF/AC		
							NET		GROSS		
							BF/AC		CF/AC		
							NET		CF/AC		
DOUG FIR			272		103.0		11.9		40		
WHEMLOCK			49		1.9		24.6		91		
R ALDER			16		1.4		10.1		37		
SNAG			3		.0		24.3		62		
TOTAL			340		106.3		12.2		41		
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 149.0 9.0 293 322 351											
WHEMLOCK 63.7 9.1 679 747 815											
R ALDER 58.7 15.1 69 82 94											
SNAG											
TOTAL 133.7 7.2 343 369 396 714 178 79											
CL 68.1 COEFF SAMPLE TREES - CF # OF TREES REQ. INF. POP.											
SD: 1.0 VAR.% S.E.% LOW AVG HIGH 5 10 15											
DOUG FIR 126.2 7.6 70 76 82											
WHEMLOCK 54.7 7.8 160 174 187											
R ALDER 54.4 14.0 21 24 28											
SNAG											
TOTAL 115.4 6.3 82 87 92 532 133 59											
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 142.8 8.9 94 103 112											
WHEMLOCK 500.1 31.0 1 2 2											
R ALDER 1151.7 71.4 0 1 2											
SNAG 964.6 59.8 0 0 0											
TOTAL 137.9 8.5 97 106 115 760 190 84											
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 132.6 8.2 73 80 86											
WHEMLOCK 497.0 30.8 4 6 8											
R ALDER 1130.6 70.1 0 1 1											
SNAG 1327.6 82.3 0 0 0											
TOTAL 127.4 7.9 80 87 94 648 162 72											
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 144.4 8.9 6,935 7,617 8,299											
WHEMLOCK 503.8 31.2 745 1,083 1,421											
R ALDER 1124.6 69.7 22 73 124											
SNAG											

TC PSTATS				PROJECT STATISTICS				PAGE	2	
				PROJECT EJTHIN				DATE	4/5/2024	
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
06N	07	27	RW_U1345	RW	THR	318.00	260	1,220	1	W
06N	07W	28	U6 TAKE	00MC						
CL	68.1		COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL			149.9	9.3	7,958	8,773	9,588	898	224	100

TC PSTATS			PROJECT STATISTICS							PAGE 1		
			PROJECT		EJTHIN				DATE 4/5/2024			
TWP	RGE	SC	TRACT	TYPE		ACRES		PLOTS	TREES	CuFt	BdFt	
06N 06N	07 07W	27 28	RW_U1345 RW_U6	RW RW		2.00		130	853	1	W	
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES		PERCENT SAMPLE TREES				
TOTAL			130	853	6.6							
CRUISE			39	231	5.9	369		62.6				
DBH COUNT												
REFOREST												
COUNT			91	615	6.8							
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			188	125.5	17.2	61	48.7	201.8	36,287	33,263	8,590	8,023
WHEMLOCK			25	27.3	23.7	87	17.2	83.8	16,548	14,496	3,904	3,519
R ALDER			15	30.8	10.7	38	5.9	19.1	1,995	1,816	555	555
SNAG			3	.7	24.3	62	0.5	2.4				
TOTAL			231	184.4	17.5	61	73.5	307.2	54,830	49,576	13,048	12,097
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			151.1	11.0	246	276	307					
WHEMLOCK			66.2	13.5	634	733	832					
R ALDER			58.3	15.6	71	84	97					
SNAG												
TOTAL			141.3	9.3	281	310	338	797	199	89		
CL	68.1	COEFF	SAMPLE TREES - CF						# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5		10	15		
DOUG FIR			123.1	9.0	62	68	74					
WHEMLOCK			57.1	11.6	151	171	190					
R ALDER			54.3	14.5	21	25	28					
SNAG												
TOTAL			118.4	7.8	69	75	81	560	140	62		
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			67.6	5.9	118	126	133					
WHEMLOCK			346.3	30.3	19	27	36					
R ALDER			547.8	48.0	16	31	46					
SNAG			679.7	59.6	0	1	1					
TOTAL			120.3	10.5	165	184	204	578	144	64		
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			167.0	14.6	172	202	231					
WHEMLOCK			367.8	32.2	57	84	111					
R ALDER			486.1	42.6	11	19	27					
SNAG			937.9	82.2	0	2	4					
TOTAL			177.0	15.5	259	307	355	1,252	313	139		
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			237.0	20.8	26,354	33,263	40,173					
WHEMLOCK			378.2	33.1	9,692	14,496	19,301					
R ALDER			470.8	41.3	1,067	1,816	2,566					
SNAG												

PROJECT STATISTICS								PAGE	2	
TC PSTATS				PROJECT	EJTHIN			DATE	4/5/2024	
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07	27	RW_U1345	RW	2.00	130	853	1	W	
06N	07W	28	RW_U6	RW						
CL	68.1		COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL			223.4	19.6	39,871	49,576	59,280	1,993	498	221

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	EJTHIN	DATE 4/5/2024				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	27	U1345	00PC	305.00	116	751	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
PLOTS		TREES								
TOTAL		116	751	6.5						
CRUISE		31	176	5.7		70,215	.3			
DBH COUNT										
REFOREST										
COUNT		85	568	6.7						
BLANKS										
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
DOUGLEAV		104	97.2	15.0	57	30.8	119.4	13,405	13,173	3,926
DOUG FIR		55	104.6	11.4	39	22.0	74.2	6,142	6,024	1,856
ALDRLEAV		14	24.0	11.5	40	5.1	17.4	1,708	1,708	497
HEMLEAV		1	3.7	12.0	41	0.8	2.9	221	221	81
SNAG		2	.7	15.3	82	0.2	.9			
TOTAL		176	230.2	13.1	47	59.4	214.7	21,476	21,127	6,360
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		47.3	4.6	148	155	163				
DOUG FIR		55.8	7.5	62	67	72				
ALDRLEAV		57.7	16.0	73	86	100				
HEMLEAV										
SNAG										
TOTAL		63.0	4.7	114	120	126	158	40	18	
CL: 68.1 %	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15		
DOUGLEAV		44.1	4.3	44	46	48				
DOUG FIR		53.8	7.3	19	21	22				
ALDRLEAV		54.0	15.0	22	26	29				
HEMLEAV										
SNAG										
TOTAL		59.3	4.5	34	36	38	141	35	16	
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15		
DOUGLEAV		35.7	3.3	94	97	100				
DOUG FIR		65.1	6.0	98	105	111				
ALDRLEAV		214.7	19.9	19	24	29				
HEMLEAV		447.8	41.5	2	4	5				
SNAG		616.7	57.2	0	1	1				
TOTAL		32.1	3.0	223	230	237	41	10	5	
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		34.7	3.2	116	119	123				
DOUG FIR		65.1	6.0	70	74	79				
ALDRLEAV		206.3	19.1	14	17	21				
HEMLEAV		447.8	41.5	2	3	4				
SNAG		616.4	57.2	0	1	1				
TOTAL		25.0	2.3	210	215	220	25	6	3	

TC TSTATS				STATISTICS				PAGE	2
				PROJECT EJTHIN				DATE	4/5/2024
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
06N	07W	27	U1345	00PC	305.00	116	751	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
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		35.5	3.3	12,739	13,173	13,607			
DOUG FIR		68.3	6.3	5,642	6,024	6,406			
ALDRLEAV		202.3	18.8	1,387	1,708	2,028			
HEMLEAV		447.8	41.5	129	221	313			
SNAG									
TOTAL		25.5	2.4	20,627	21,127	21,626	26	6	3

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	EJTHIN			DATE	4/5/2024	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	27	U1345 TAKE	00PC	305.00	116	266	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL		116	266	2.3						
CRUISE		23	55	2.4	31,906			.2		
DBH COUNT										
REFOREST										
COUNT		79	211	2.7						
BLANKS		14								
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		55	104.6	11.4	39	22.0	74.2	6,142	6,024	1,856
TOTAL		55	104.6	11.4	39	22.0	74.2	6,142	6,024	1,856
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		55.8	7.5	62	67	72				
TOTAL		55.8	7.5	62	67	72	125	31	14	
CL: 68.1 %	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15		
DOUG FIR		53.8	7.3	19	21	22				
TOTAL		53.8	7.3	19	21	22	116	29	13	
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		65.1	6.0	98	105	111				
TOTAL		65.1	6.0	98	105	111	169	42	19	
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		65.1	6.0	70	74	79				
TOTAL		65.1	6.0	70	74	79	169	42	19	
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		68.3	6.3	5,642	6,024	6,406				
TOTAL		68.3	6.3	5,642	6,024	6,406	186	47	21	

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	EJTHIN			DATE	4/5/2024	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	27	U1345 LEAVE	00PC	305.00	116	485	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL		116	485	4.2						
CRUISE		31	121	3.9	38,310	.3				
DBH COUNT										
REFOREST										
COUNT		85	360	4.2						
BLANKS										
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
DOUGLEAV		104	97.2	15.0	57	30.8	119.4	13,405	13,173	3,926
ALDRLEAV		14	24.0	11.5	40	5.1	17.4	1,708	1,708	497
HEMLEAV		1	3.7	12.0	41	0.8	2.9	221	221	81
SNAG		2	.7	15.3	82	0.2	.9			
TOTAL		121	125.6	14.3	54	37.1	140.5	15,334	15,102	4,504
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		47.3	4.6	148	155	163				
ALDRLEAV		57.7	16.0	73	86	100				
HEMLEAV										
SNAG										
TOTAL		52.9	4.8	137	144	151	112	28	12	
CL: 68.1 %	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV		44.1	4.3	44	46	48				
ALDRLEAV		54.0	15.0	22	26	29				
HEMLEAV										
SNAG										
TOTAL		49.8	4.5	41	43	45	99	25	11	
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV		35.7	3.3	94	97	100				
ALDRLEAV		214.7	19.9	19	24	29				
HEMLEAV		447.8	41.5	2	4	5				
SNAG		616.7	57.2	0	1	1				
TOTAL		22.0	2.0	123	126	128	19	5	2	
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		34.7	3.2	116	119	123				
ALDRLEAV		206.3	19.1	14	17	21				
HEMLEAV		447.8	41.5	2	3	4				
SNAG		616.4	57.2	0	1	1				
TOTAL		11.2	1.0	139	141	142	5	1	1	
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		35.5	3.3	12,739	13,173	13,607				
ALDRLEAV		202.3	18.8	1,387	1,708	2,028				
HEMLEAV		447.8	41.5	129	221	313				
SNAG										
TOTAL		15.3	1.4	14,888	15,102	15,317	9	2	1	

TC TSTATS				STATISTICS				PAGE	2	
				PROJECT	EJTHIN			DATE	4/5/2024	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	27	U1345 LEAVE	00PC	305.00	116	485	1	W	
CL: 68.1%				COEFF			NET BF/ACRE		# OF PLOTS REQ.	
SD: 1.0				VAR.			S.E.%		LOW	
							AVG		HIGH	
							5		10	
									15	

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	EJTHIN	DATE 4/4/2024				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	28	U6	00MC	11.00	14	102	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL		14	102	7.3						
CRUISE		8	55	6.9	1,530	3.6				
DBH COUNT										
REFOREST										
COUNT		6	47	7.8						
BLANKS										
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		29	53.5	26.8	108	40.6	210.0	52,815	47,118	11,341
WHEMLOCK		24	49.1	24.7	92	32.9	163.4	32,763	28,661	7,686
R ALDER		1	35.7	10.0	37	6.1	19.4	2,139	1,783	570
SNAG		1	.8	30.0	44	0.7	3.9			
TOTAL		55	139.1	22.9	84	83.0	396.7	87,718	77,562	19,598
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		48.4	9.1	1,005	1,106	1,207				
WHEMLOCK		62.4	13.0	662	761	860				
R ALDER										
SNAG										
TOTAL		60.2	8.1	842	916	990	145	36	16	
CL: 68.1 %	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15		
DOUG FIR		42.8	8.1	215	234	253				
WHEMLOCK		53.4	11.1	157	177	196				
R ALDER										
SNAG										
TOTAL		52.7	7.1	187	201	215	111	28	12	
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		77.8	21.6	42	54	65				
WHEMLOCK		85.4	23.7	37	49	61				
R ALDER		302.9	83.9	6	36	66				
SNAG		374.2	103.6		1	2				
TOTAL		72.5	20.1	111	139	167	226	56	25	
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		64.2	17.8	173	210	247				
WHEMLOCK		82.7	22.9	126	163	201				
R ALDER		302.9	83.9	3	19	36				
SNAG		374.2	103.6		4	8				
TOTAL		15.6	4.3	380	397	414	10	3	1	
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		64.7	17.9	38,677	47,118	55,560				
WHEMLOCK		85.2	23.6	21,898	28,661	35,424				
R ALDER		302.9	83.9	287	1,783	3,279				
SNAG										
TOTAL		20.1	5.6	73,252	77,562	81,872	17	4	2	

STATISTICS
PROJECT EJTHIN

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
06N	07W	28	U6	00MC	11.00	14	102	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

TC PLOGSTVB			Log Stock Table - MBF																
T06N R07W S27 TyRW THRU T06N R07W S28 Ty00MC			Project: EJTHIN Acres 12.00										Page 2 Date 4/5/2024 Time 10:28:17AM						
S T Spp	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+	
A	DO 4S	20	0		0	.1			0										
A	DO 4S	34	0		0	.5			0										
A	DO 4S	36	26	16.6	22	92.6			22										
A	DO 4S	38	0		0	1.8			0										
A	DO 4S	40	0		0	.8			0										
A	Totals		28	15.5	23	.8			22	0	0								
H	DO 2S	12	5	16.4	4	1.1									4				
H	DO 2S	20	1	10.0	1	.3						1							
H	DO 2S	28	8	10.0	8	2.2							8						
H	DO 2S	32	14	10.0	13	3.7						4	4	5					
H	DO 2S	36	11	15.0	9	2.7								9					
H	DO 2S	40	281	11.9	248	72.0						45	23	86	35	58			
H	DO 3S	16	1	10.0	1	.2						1							
H	DO 3S	20	7	24.8	5	1.6					1	1			4				
H	DO 3S	26	2	10.0	2	.4				2									
H	DO 3S	30	4	17.8	3	.9					2	1							
H	DO 3S	32	4	10.0	3	1.0					3								
H	DO 3S	34	2	10.0	2	.5				2									
H	DO 3S	36	14	12.7	12	3.4			2	4	6								
H	DO 3S	40	32	16.0	27	7.7			3	6	13			4					
H	DO 4S	12	3	10.0	3	.8			2	1	0								
H	DO 4S	14	1	10.0	1	.1				1									
H	DO 4S	16	1	10.0	1	.2				1									
H	DO 4S	18	1	10.0	1	.2				1									
H	DO 4S	20	3	10.0	3	.8			1	1									
H	Totals		393	12.5	344	12.3			7	18	26	53	35	104	42	58			
Total	All Species		2,948	5.4	2,790	100.0			1162	744	75	104	93	244	232	124	12		

TC		PSTNDSUM										Stand Table Summary					Page		1	
		All Take															Date:		4/5/2024	
T06N R07W S27 TyRW THRU T06N R07W S28 Ty00MC					Project					EJTHIN					Time:		10:27:36AM			
					Acres					318.00					Grown Year:					
S Spec T	DBH	Sample Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals							
			FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF					
D	8	4	87	19	7.433	2.59	7.43	4.0	15.0		30	111		95	35					
D	9	10	80	37	14.889	6.49	11.75	7.2	27.5		85	323		271	103					
D	10	14	84	52	16.873	9.08	16.87	10.1	34.2		171	577		544	184					
D	11	9	85	65	4.035	2.61	4.04	15.5	54.8		63	222		199	70					
D	12	43	84	81	31.558	24.67	48.29	14.1	46.5		679	2,247		2,159	715					
D	13	29	85	70	14.185	13.01	19.84	16.5	50.0		328	993		1,042	316					
D	14	32	83	91	8.613	9.15	16.00	18.4	56.8		294	909		935	289					
D	15	18	83	91	3.455	4.20	6.91	21.7	65.5		150	453		476	144					
D	16	21	85	86	.058	.08	.11	23.6	79.3		3	9		9	3					
D	17	20	86	89	.049	.08	.10	27.5	93.7		3	9		9	3					
D	18	5	85	90	.011	.02	.02	30.8	99.9		1	2		2	1					
D	19	4	86	94	.008	.02	.02	36.4	121.2		1	2		2	1					
D	20	5	85	113	.252	.55	.76	28.1	103.7		21	78		68	25					
D	21	3	83	89	.005	.01	.01	42.1	133.0		0	1		1	0					
D	22	2	90	157	.104	.27	.31	48.3	207.0		15	64		48	20					
D	23	4	85	109	.097	.28	.29	36.4	145.0		11	42		33	13					
D	24	2	85	148	.087	.27	.26	51.6	216.0		13	56		43	18					
D	25	2	86	150	.080	.27	.24	55.2	231.0		13	56		42	18					
D	26	5	88	159	.149	.55	.45	66.3	318.3		30	143		94	45					
D	28	14	87	153	.447	1.91	1.53	64.2	307.9		99	472		313	150					
D	29	4	85	152	.119	.55	.36	76.7	345.0		27	123		87	39					
D	32	4	86	162	.098	.55	.34	83.2	407.6		28	140		91	44					
D	33	4	86	145	.092	.55	.28	96.0	451.5		27	125		84	40					
D	34	6	84	152	.130	.82	.43	92.3	442.8		40	192		127	61					
D	35	4	84	147	.082	.55	.29	91.3	441.0		26	126		83	40					
D	36	2	86	163	.039	.27	.15	92.7	479.2		14	74		46	24					
D	44	2	83	158	.026	.27	.08	174.3	861.0		14	67		43	21					
D	Totals	272	84	66	102.973	79.68	137.15	15.9	55.5		2,184	7,617		6,945	2,422					
H	12	1	86	62	.017	.01	.02	22.0	60.0		0	1		1	0					
H	18	4	85	123	.291	.51	.87	27.6	105.0		24	92		77	29					
H	19	4	86	115	.261	.51	.65	34.4	127.8		22	83		71	27					
H	20	2	88	101	.118	.26	.24	45.0	162.0		11	38		34	12					
H	21	4	86	92	.214	.51	.43	40.9	153.0		17	65		56	21					
H	23	2	86	120	.089	.26	.27	43.8	180.0		12	48		37	15					
H	24	4	82	112	.164	.51	.49	44.2	166.5		22	82		69	26					
H	25	2	86	54	.075	.26	.08	73.8	135.0		6	10		18	3					
H	27	6	83	119	.194	.77	.58	58.0	240.0		34	140		107	44					
H	28	2	85	145	.060	.26	.18	75.0	360.0		14	65		43	21					
H	29	2	71	127	.056	.26	.17	37.8	174.0		6	29		20	9					
H	30	2	80	140	.052	.26	.21	48.6	227.2		10	48		32	15					
H	31	4	86	133	.098	.51	.29	85.5	390.0		25	115		80	36					
H	34	2	86	129	.041	.26	.12	100.2	426.0		12	52		39	17					
H	35	2	86	116	.038	.26	.12	100.8	453.0		12	52		37	17					
H	36	2	85	117	.036	.26	.11	105.3	510.0		11	56		37	18					
H	37	2	86	122	.034	.26	.10	114.3	501.0		12	52		38	16					
H	38	2	86	122	.033	.26	.10	117.0	570.0		11	56		36	18					
H	Totals	49	85	114	1.871	6.18	5.02	52.1	215.8		261	1,083		831	344					
A	9	2	87	47	.020	.01	.01	14.0	60.0		0	1		0	0					
A	10	4	86	72	1.361	.74	1.36	16.0	50.1		22	68		69	22					
A	11	2	87	74	.013	.01	.02	14.0	50.0		0	1		1	0					
A	12	2	87	72	.011	.01	.02	15.1	50.3		0	1		1	0					
A	13	1	86	54	.005	.00	.00	23.0	60.0		0	0		0	0					

TC PSTNDSUM		Stand Table Summary								Page Date:		2 4/5/2024			
T06N R07W S27 TyRW THRU T06N R07W S28 Ty00MC					Project		EJTHIN		Time:		10:27:36AM				
					Acres		318.00		Grown Year:						
S Spc	T	Sample		Tot		Trees/ BA/ Logs Acre Acre Acre			Average Log		Net Net		Totals Tons Cunits MBF		
		DBH	Trees	FF 16'	Av Ht				Net Net Cu.Ft. Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre			
A		14	2	87	65	.008	.01	.01	22.0	66.7	0	1	1	0	
A		15	1	87	83	.003	.00	.01	24.0	85.0	0	1	1	0	
A		16	2	86	67	.006	.01	.01	22.0	77.5	0	1	1	0	
A		Totals	16	86	72	1.427	.79	1.44	16.1	50.7	23	73	74	23	
SN		15	1	89	95	.001	.00								
SN		16	1	88	68	.001	.00								
SN		30	1	88	44	.002	.01								
SN		Totals	3	88	62	.005	.01								
Totals		340	84	67		106.276	86.66	143.61	17.2	61.1	2,468	8,773	7,850	2,790	

LOGGING PLAN MAP

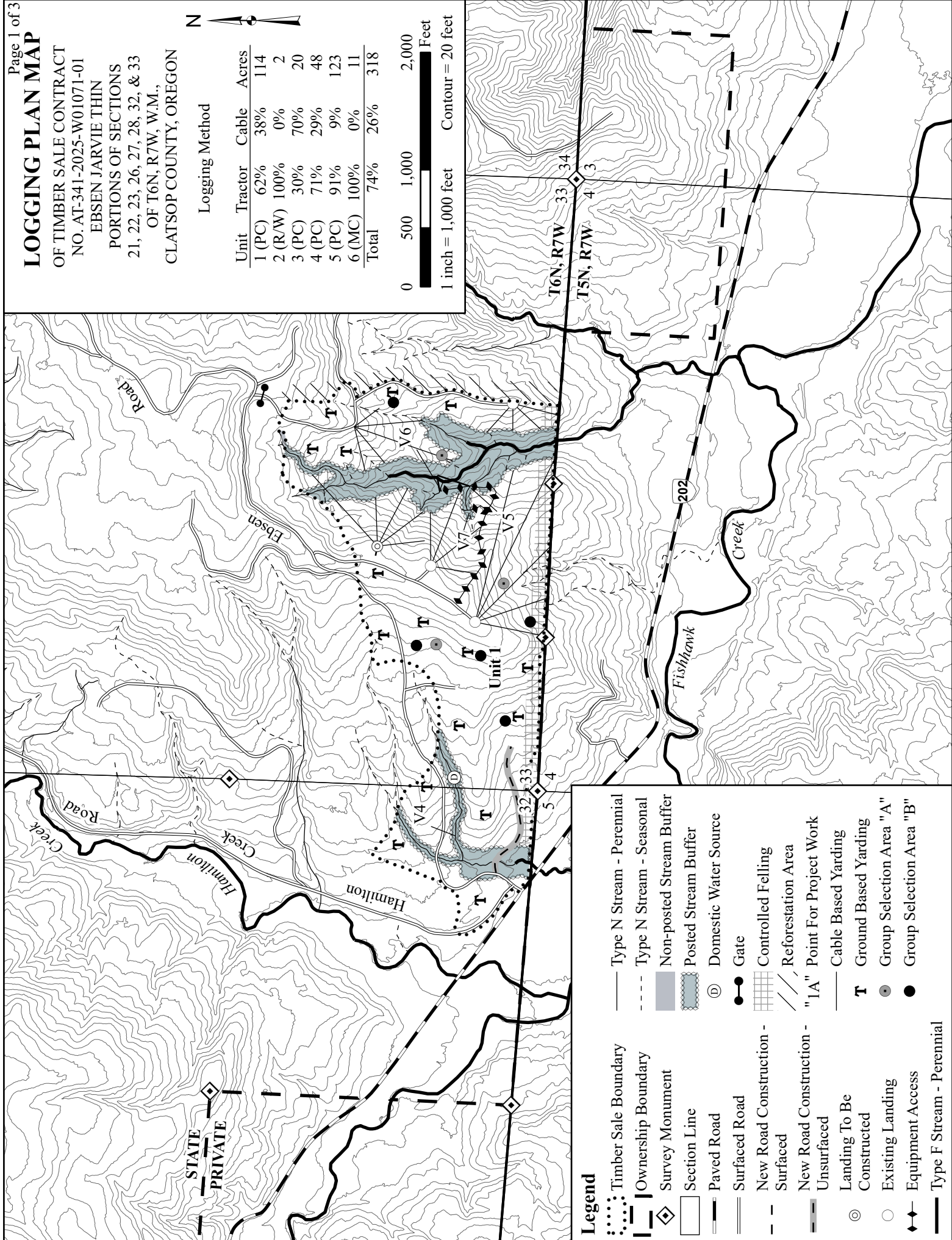
OF TIMBER SALE CONTRACT
NO. AT-341-2025-W01071-01
EBSEN JARVIE THIN
PORTIONS OF SECTIONS
21, 22, 23, 26, 27, 28, 32, & 33
OF T6N, R7W, W.M.,
CLATSOP COUNTY, OREGON

Logging Method

Unit	Tractor	Cable	Acres
1 (PC)	62%	38%	114
2 (R/W)	100%	0%	2
3 (PC)	30%	70%	20
4 (PC)	71%	29%	48
5 (PC)	91%	9%	123
6 (MC)	100%	0%	11
Total	74%	26%	318



1 inch = 1,000 feet Contour = 20 feet



Legend

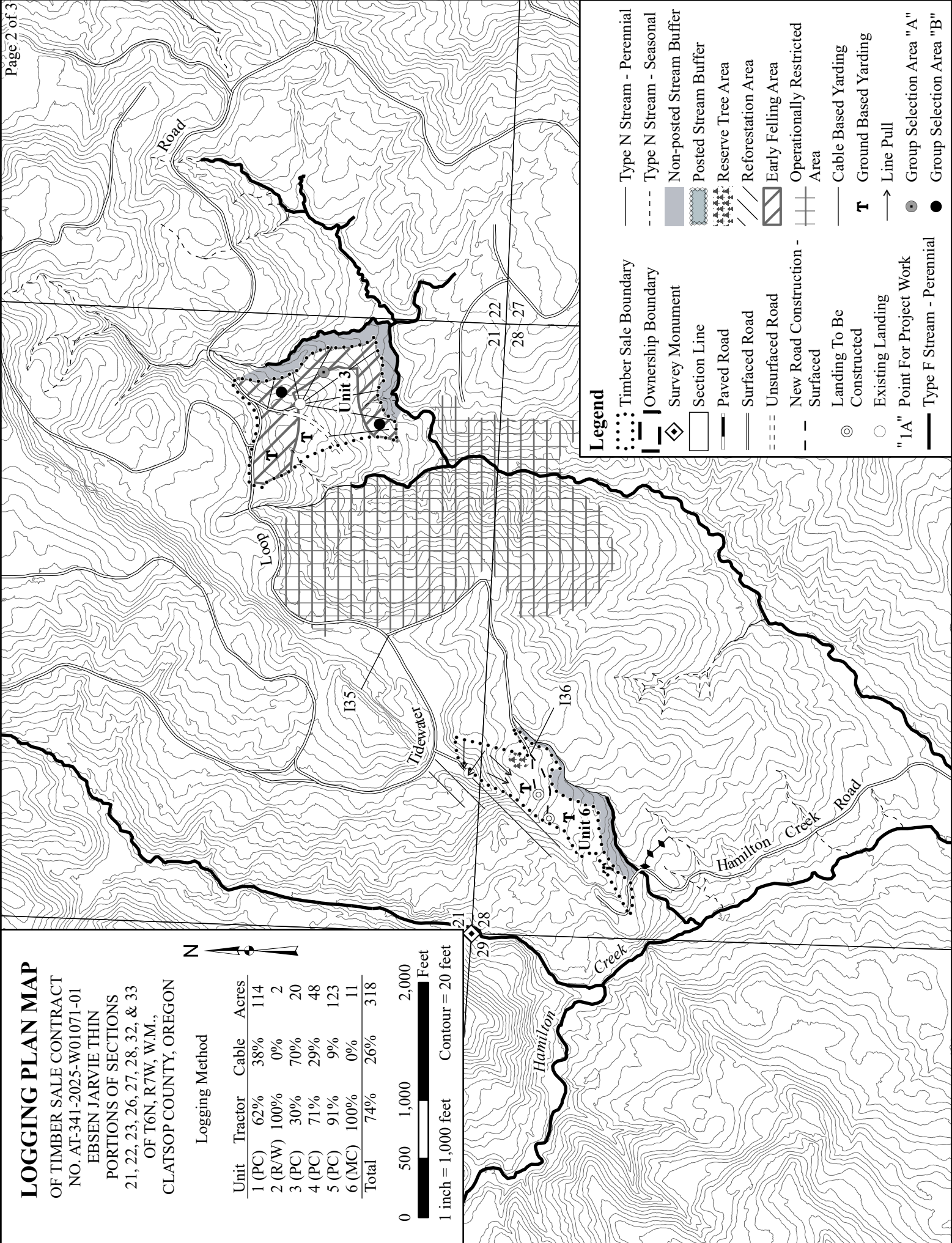
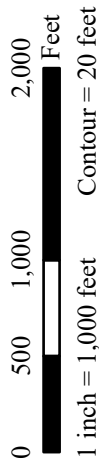
- Timber Sale Boundary
- Ownership Boundary
- Survey Monument
- Section Line
- Paved Road
- Surfaced Road
- New Road Construction - Surfaced
- New Road Construction - Unsurfaced
- Landing To Be Constructed
- Existing Landing
- Equipment Access
- Type F Stream - Perennial
- Type N Stream - Perennial
- Type N Stream - Seasonal
- Non-posted Stream Buffer
- Posted Stream Buffer
- Domestic Water Source
- Gate
- Controlled Felling
- Reforestation Area
- "1A" Point For Project Work
- Cable Based Yarding
- Ground Based Yarding
- Group Selection Area "A"
- Group Selection Area "B"

LOGGING PLAN MAP

OF TIMBER SALE CONTRACT
NO. AT-341-2025-W01071-01
EBSEN JARVIE THIN
PORTIONS OF SECTIONS
21, 22, 23, 26, 27, 28, 32, & 33
OF T6N, R7W, W.M.,
CLATSOP COUNTY, OREGON

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Unit	Tractor	Cable	Acres
1 (PC)	62%	38%	114
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4 (PC)	71%	29%	48
5 (PC)	91%	9%	123
6 (MC)	100%	0%	11
Total	74%	26%	318



Legend

- Timber Sale Boundary
- Ownership Boundary
- Survey Monument
- Section Line
- Paved Road
- Surfaced Road
- Unsurfaced Road
- New Road Construction - Surfaced
- Landing To Be Constructed
- Existing Landing
- "1A" Point For Project Work
- Type F Stream - Perennial
- Type N Stream - Perennial
- Type N Stream - Seasonal
- Non-posted Stream Buffer
- Posted Stream Buffer
- Reserve Tree Area
- Reforestation Area
- Early Felling Area
- Operationally Restricted Area
- Cable Based Yarding
- Ground Based Yarding
- Line Pull
- Group Selection Area "A"
- Group Selection Area "B"

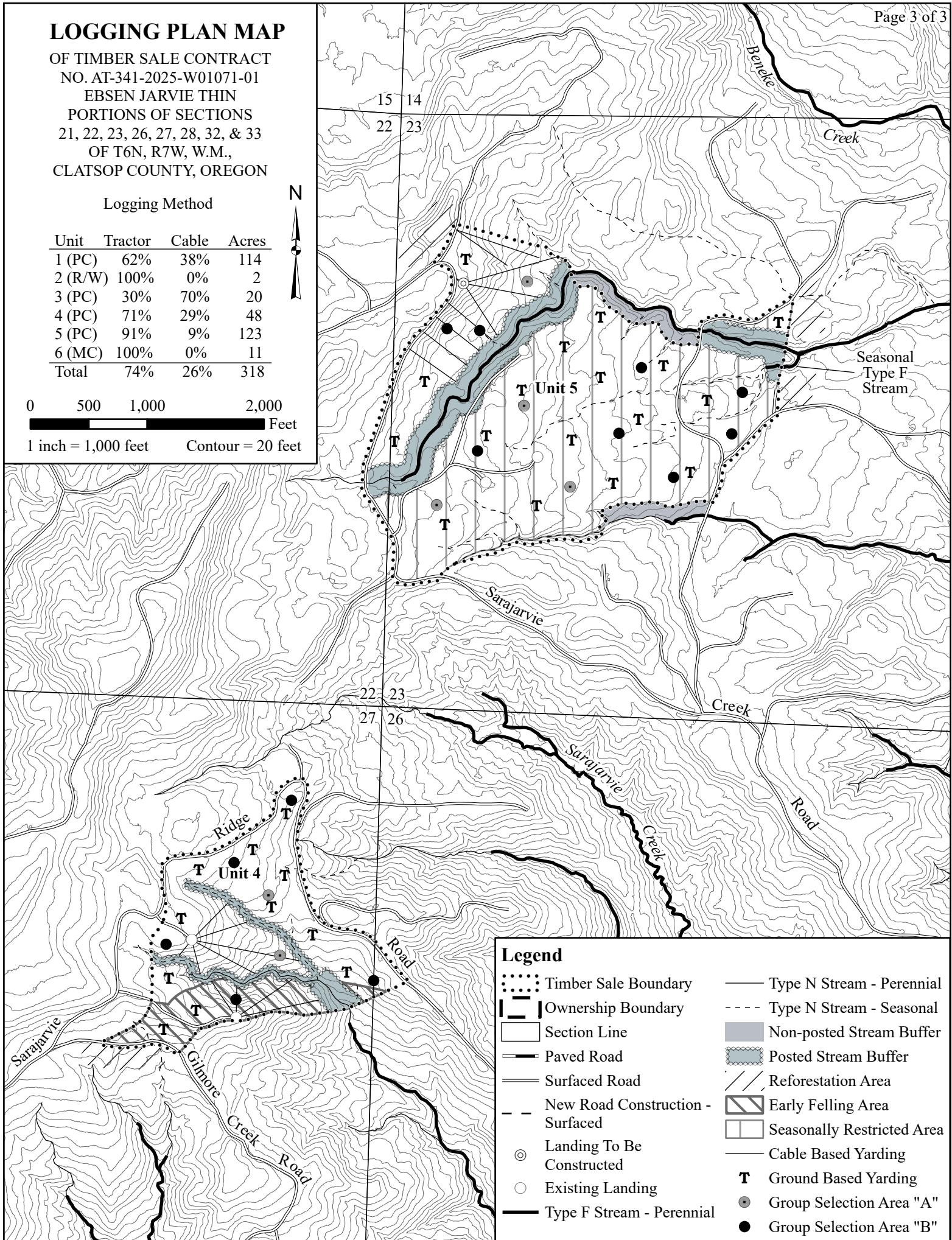
LOGGING PLAN MAP

OF TIMBER SALE CONTRACT
NO. AT-341-2025-W01071-01
EBSEN JARVIE THIN
PORTIONS OF SECTIONS
21, 22, 23, 26, 27, 28, 32, & 33
OF T6N, R7W, W.M.,
CLATSOP COUNTY, OREGON

Logging Method

Unit	Tractor	Cable	Acres
1 (PC)	62%	38%	114
2 (R/W)	100%	0%	2
3 (PC)	30%	70%	20
4 (PC)	71%	29%	48
5 (PC)	91%	9%	123
6 (MC)	100%	0%	11
Total	74%	26%	318

0 500 1,000 2,000
Feet
1 inch = 1,000 feet Contour = 20 feet

**Legend**

- | | |
|--------------------------------------|--------------------------------|
| ⋯ Timber Sale Boundary | — Type N Stream - Perennial |
| — Ownership Boundary | - - - Type N Stream - Seasonal |
| □ Section Line | ■ Non-posted Stream Buffer |
| — Paved Road | ▨ Posted Stream Buffer |
| — Surfaced Road | ▧ Reforestation Area |
| - - New Road Construction - Surfaced | ▩ Seasonally Restricted Area |
| ⊙ Landing To Be Constructed | — Cable Based Yarding |
| ○ Existing Landing | T Ground Based Yarding |
| — Type F Stream - Perennial | ● Group Selection Area "A" |
| | ● Group Selection Area "B" |