



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Tin Man Alder
Sale AT-341-2025-W01058-01

District: Astoria

Date: October 23, 2024

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$132,019.58	\$96,705.96	\$228,725.54
		Project Work:	\$0.00
		Advertised Value:	\$228,725.54



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Tin Man Alder Sale AT-341-2025-W01058-01

District: Astoria

Date: October 23, 2024

Timber Description

Location:

Stand Stocking: 80%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	97
Western Hemlock / Fir	12	0	97
Sitka Spruce	17	0	97
Alder (Red)	16	0	95
Maple	23	0	95

Volume by Grade	2S	3S & 4S 6"-11"	3S 12"+	8" - 9"	10" - 11"	12"+	6" - 7"	Camprun	Total
Douglas - Fir	198	60	12	0	0	0	0	0	270
Western Hemlock / Fir	33	35	3	0	0	0	0	0	71
Sitka Spruce	15	8	7	0	0	0	0	0	30
Alder (Red)	0	0	0	139	106	120	101	0	466
Maple	0	0	0	0	0	0	0	34	34
Total	246	103	22	139	106	120	101	34	871

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

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

PRICING:

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

\$1,015.92/MBF = \$1,300/MBF - \$284.08/MBF

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

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

Ditch Filters:

6 bales of straw @ \$12/bale = \$72

2 hours of labor @ \$45/hr = \$90

TOTAL Other Costs (with Profit & Risk to be added):\$2,162.00

Other Costs (No Profit & Risk added):

None.

ROAD MAINTENANCE

(See attached Road Maintenance Cost Summary Sheet)

TOTAL Road Maintenance: \$12,133/871 MBF = \$13.93/MBF

Slash Piling

(See attached site prep appraisal sheet)

Total: \$10,779



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Tin Man Alder
Sale AT-341-2025-W01058-01

District: Astoria

Date: October 23, 2024

Logging Conditions

Combination#: 1	Douglas - Fir	100.00%
	Western Hemlock / Fir	100.00%
	Sitka Spruce	100.00%
	Alder (Red)	100.00%
	Maple	100.00%
Logging System:	Shovel	Process: Feller Buncher
yarding distance:	Short (400 ft)	downhill yarding: No
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF	
loads / day:	15	bd. ft / load: 4600
cost / mbf:	\$144.93	
machines:	Feller Buncher w/ Delimber	



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Tin Man Alder
Sale AT-341-2025-W01058-01

District: Astoria

Date: October 23, 2024

Logging Costs

Operating Seasons: 1.00

Profit Risk: 12%

Project Costs: \$0.00

Other Costs (P/R): \$2,162.00

Slash Disposal: \$10,779.00

Other Costs: \$0.00

Miles of Road

Road Maintenance: \$13.93

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	5.8
Western Hemlock / Fir	\$0.00	3.0	4.8
Sitka Spruce	\$0.00	3.0	5.0
Alder (Red)	\$0.00	3.0	4.0
Maple	\$0.00	2.0	4.0



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Tin Man Alder Sale AT-341-2025-W01058-01

District: Astoria

Date: October 23, 2024

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$144.93	\$14.35	\$5.04	\$74.00	\$2.48	\$28.90	\$12.38	\$2.00	\$0.00	\$284.08
Western Hemlock / Fir									
\$144.93	\$14.35	\$5.04	\$89.41	\$2.48	\$30.75	\$12.38	\$2.00	\$0.00	\$301.34
Sitka Spruce									
\$144.93	\$14.35	\$5.04	\$85.83	\$2.48	\$30.32	\$12.38	\$2.00	\$0.00	\$297.33
Alder (Red)									
\$144.93	\$14.63	\$5.04	\$109.38	\$2.48	\$33.18	\$12.38	\$2.00	\$0.00	\$324.02
Maple									
\$144.93	\$14.63	\$5.04	\$164.06	\$2.48	\$39.74	\$12.38	\$2.00	\$0.00	\$385.26

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$704.56	\$420.48	\$0.00
Western Hemlock / Fir	\$0.00	\$496.62	\$195.28	\$0.00
Sitka Spruce	\$0.00	\$451.50	\$154.17	\$0.00
Alder (Red)	\$0.00	\$526.82	\$202.80	\$0.00
Maple	\$0.00	\$450.00	\$64.74	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Tin Man Alder
Sale AT-341-2025-W01058-01

District: Astoria

Date: October 23, 2024

Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	270	\$420.48	\$113,529.60
Western Hemlock / Fir	71	\$195.28	\$13,864.88
Sitka Spruce	30	\$154.17	\$4,625.10
Alder (Red)	466	\$202.80	\$94,504.80
Maple	34	\$64.74	\$2,201.16

Gross Timber Sale Value

Recovery: \$228,725.54

Prepared By: Michele Huffman

Phone: 503-325-5451

Site Prep Appraisal

Sale Number: AT-341-2025-W01058-01

Sale Name: Tin Man Alder

Date: 05/29/2024

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	
1	MC	E	27	27	\$145.00	\$3,915.00	
2	MC	E	9	9	\$145.00	\$1,305.00	
In-unit Piling						Sub Total =	\$5,220.00
Sale Area	Number of Landings to be Piled	# cable acres per area	Total Cost/Area	Number of In-Unit Piles	Material Cost/Pile	Total Cost/Area	
1	5	0	\$0.00	59	\$5.00	\$295.00	
2	4	0	\$0.00	22	\$5.00	\$110.00	
*Cost includes separating firewood						Materials	Sub Total = \$405.00
Additional Move-in allowance						Landing Piling	Sub Total = \$0.00
Move-In Allowance	Number of Move-In's	Total Move-In Allowance					
\$1,290.00	1	\$1,290.00	Brush Piler				
						Move-In	Sub Total = \$1,290.00
Slash Endhaul			Piling of vine maple and other brushy species				
Dump Truck hrs	Cost/Hour	Total	Loader hrs	Cost/Hour	Total		
0	\$99.00	\$0.00	24	\$161.00	\$3,864.00		
						Sub Total =	\$3,864.00
						Grand Total =	\$10,779.00

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Tin Man Alder
Date: September 4, 2024
By: Michele Huffman

MBF: 871
\$\$/MBF: \$13.93

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Interim Road Maintenance	Grader 14G	\$972	1	8	\$126	\$1,980
Final Road Maintenance	Grader 14G	\$972	1	16	\$126	\$2,988
	Dump Truck 12CY	\$205	1	8	\$99	\$997
	Rubber tired backhoe	\$401	1	4	\$97	\$789
	Vibratory Roller	\$972	1	16	\$97	\$2,524
	Water Truck 2,500 gallon	\$238	1	8	\$113	\$1,142
	C315 Excavator	\$1,005	1	4	\$127	\$1,513
	Labor			4	\$50	\$200
Total						\$12,133

Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	2.5	2.5	1.0	8

Final Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	3.0	5.6	1.9	15
Vibratory Roller	3.0	5.6	1.9	15

Process and compact: All crushed rock roads

Osweg Creek Road 3.6 Miles

Unnamed Spurs 2.0 Miles

Grade & Process Total = 5.6 Miles

**Tin Man Alder
TIMBER CRUISE REPORT
FY 2025**

1. **Sale Area Location:** Portions of Section 3 of T4N, R7W, and Portions of Section 33 of T5N, R7W, W.M., Clatsop County, OR.
2. **Fund Distribution:** BOF 100% Tax Code: 8-01 (74.61%)
8-02 (25.39%)
3. **Sale Acreage by Area:**

Unit	Harvest Type	Gross Acres	Non-Stocked Area	Stream Buffer Acres	Reserve Tree Area	Existing R/W Acres	New R/W	Net Acres	Survey Method
1	Modified Clearcut	46	3	15	<1	1	-	27	GIS
2	Modified Clearcut	11	-	2	-	<1	-	9	GIS
TOTAL		57	3	17	<1	1	-	36	

4. **Cruisers and Cruise Dates:** Avery Petersen, John Czarnecki, and Michele Huffman (08/15/2024)

5. Cruise Method and Computation:

Unit 1: Unit 1 was variable plot cruised with a 33.61 BAF for conifers and hardwoods. A total of 29 plots were sampled on a 4 by 2.5 chain spacing with a count to grade ratio of 1:1, resulting in 16 grade plots and 13 count plots. Two count plots and two grade plots were dropped due to being located within a road prism, stream buffer, or non-stocked area. Plot numbers differ from those in the statistics due to a zero plot on one grade plot.

Unit 2: Unit 2 was variable plot cruised with a 33.61 BAF for conifers and hardwoods. A total of 11 plots were sampled on a 4 by 2.5 chain spacing with a count to grade ratio of 1:1, resulting in 6 grade plots and 5 count plots.

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

UNIT(s)	CRUISE	TRACT	TYPE	ACRES
Units 1 & 2	TINMAN	U12	00MC	36

6. Timber Description:

Unit 1/Unit 2 is a modified clearcut with an average age of 66 years. The stands consist of red alder and Douglas-fir, with minor components of western hemlock, Sitka spruce, and bigleaf maple. The average take red alder is approximately 16 inches DBH and 56 feet to a merchantable top. The average take Douglas-fir is approximately 21 inches DBH and 68 feet to a merchantable top. The average take western hemlock is approximately 12 inches DBH and 46 feet to a merchantable top. The average take Sitka spruce is approximately 17 inches DBH and 35 feet to a merchantable top. The average take bigleaf maple is approximately 23 inches DBH and 53 feet to a merchantable top. Average net volume to be harvested per acre is 24 MBF. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point.

7. Statistical Analysis and Stand Summary:

Statistics for Stand B.F. volumes

Type	Estimated CV	Target SE%	Actual CV	Actual SE%
U12	60.0%	12.0%	62.9%	9.9%

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	21"	270	198	63	9	0.8%	31%
Western hemlock	12"	71	33	36	2	0.8%	8%
Sitka spruce	17"	30	15	11	4	0.7%	3%
TOTALS	--	371	246	110	15	--	--

Hardwood

Species	DBH	Net Vol.	12"+	10"-11"	8"-9"	6"-7"	% D & B	% Sale
Red alder	16"	466	120	106	139	101	1%	54%
Bigleaf maple	23"	34	23	0	4	7	3.2%	4%
TOTALS	--	500	143	106	143	108	--	--

TOTAL VOLUME	871 MBF
---------------------	----------------

9. Approvals:

Prepared by: Michele Huffman Date: 09/04/2024
Unit Forester Approval:  Date: 10/26/2024

- 10. Attachments:** Cruise Design and Maps (4 pages)
Volume Report (1 page)
Statistics Report (2 pages)
Log Stock Table (3 pages)
Stand Table Summary (2 pages)

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Tin Man Alder

Units U12

Harvest Type: Modified Clearcut

Approx. Cruise Acres: 36 **Estimated CV%** 60 Net BF/Acre **SE% Objective** 12% Net BF/Acre

Planned Sale Volume: 850 MBF **Estimated Sale Area Value/Acre:** 9,714/Acre

- A. Cruise Goals:** (a) Grade minimum 75 conifer trees.
(b) Sample 44 plots (24 grade/20 count); (c) Other goals (Determine "automark" thinning standards; X Determine log grades for sale value; X Determine snag and leave tree species and sizes.

B. Cruise Design:

1. Plot Cruises: BAF: 33.61

Unit 1:

Cruise Line Direction: Unit 1: 74°254°

Unit 2: 0°180°

Cruise Line Spacing 4 (chains) 264 (feet)

Cruise Plot Spacing 2.5 (chains) 165 (feet)

Grade/Count Ratio 1:1

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 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

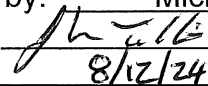
segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree. Hardwoods 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 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: Michele Huffman
Approved by: 
Date: 8/12/24

TIMBER CRUISE MAP

OF TIMBER SALE CONTRACT

NO. AT-341-2025-W01058-01

TIN MAN ALDER

PORTIONS OF SECTION 3 OF
T4N, R7W, AND PORTIONS OF
SECTION 33 OF T5N, R7W, W.M.,
CLATSOP COUNTY, OREGON



Approximate Net Acres

Unit 1 (MC) = 27

Unit 2 (MC) = 9

Total = 36

0 250 500 1,000
Feet

1 inch equals 500 Feet

Line Spacing: 4 chains (264 ft)

Plot Spacing: 2.5 chains (165 ft)

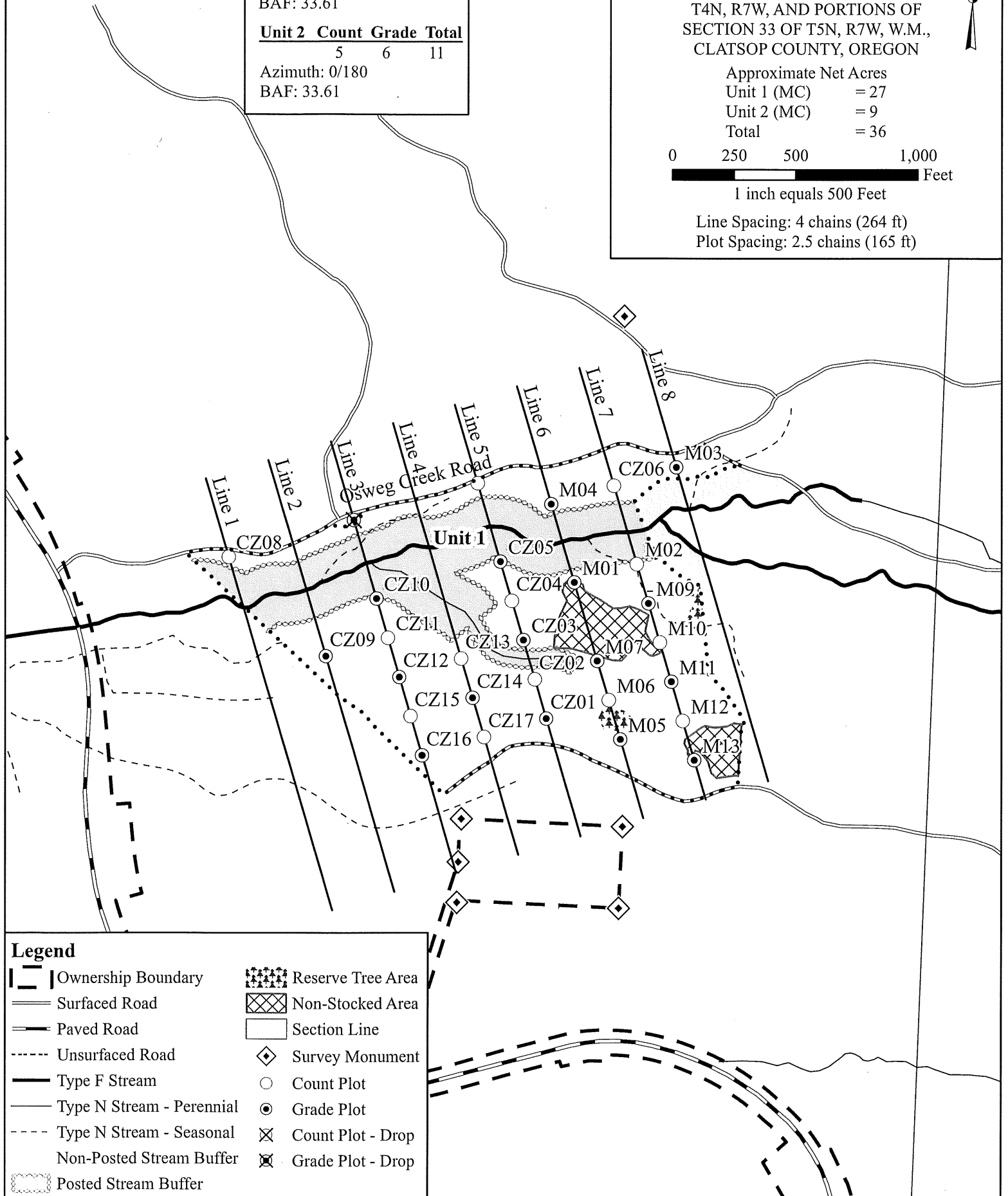
Cruise Plots

Unit 1	Count	Grade	Total
13	16	29	

Azimuth: 74/254
BAF: 33.61

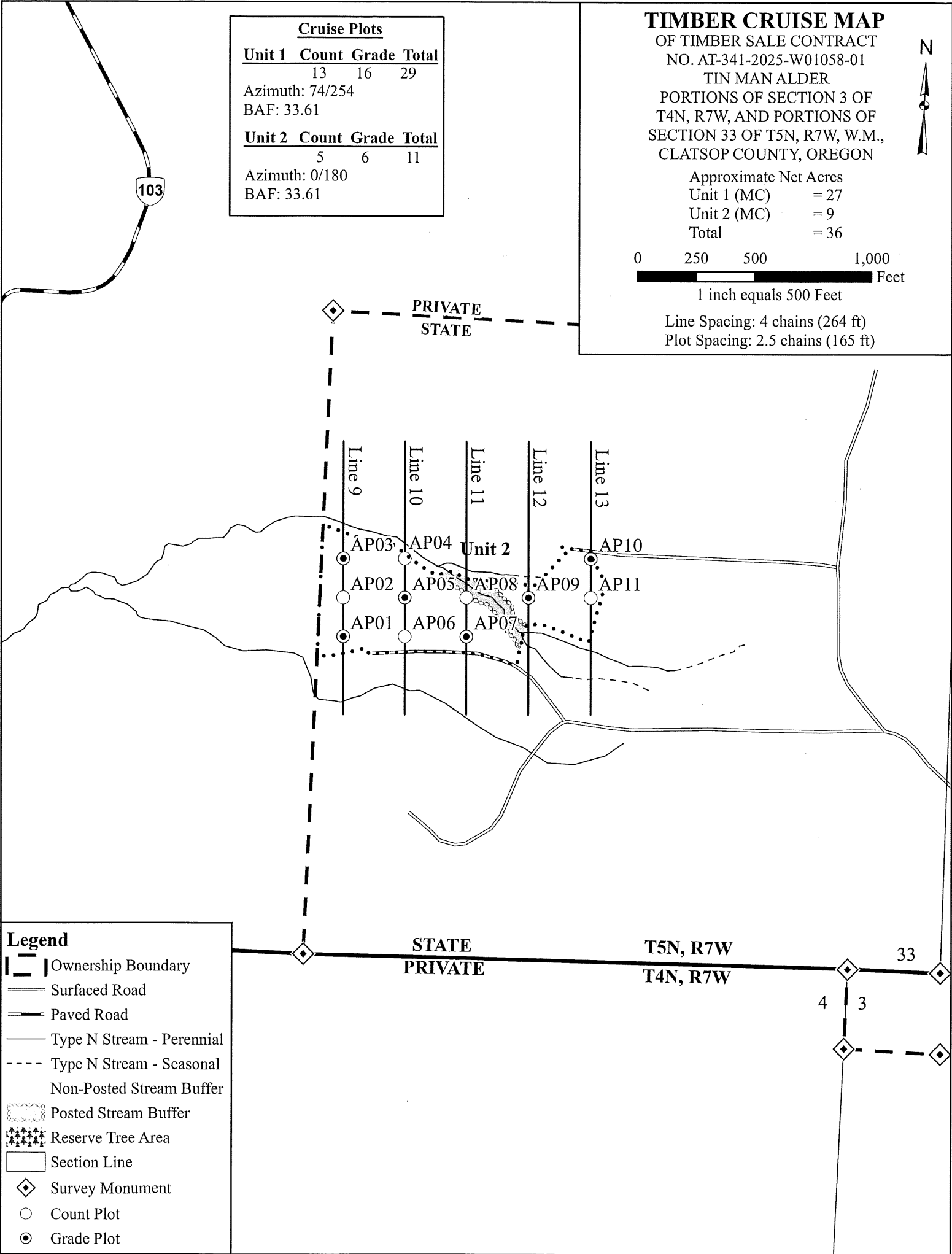
Unit 2	Count	Grade	Total
5	6	11	

Azimuth: 0/180
BAF: 33.61



Legend

- | | |
|---------------------------|-------------------|
| Ownership Boundary | Reserve Tree Area |
| Surfaced Road | Non-Stocked Area |
| Paved Road | Section Line |
| Unsurfaced Road | Survey Monument |
| Type F Stream | Count Plot |
| Type N Stream - Perennial | Grade Plot |
| Type N Stream - Seasonal | Count Plot - Drop |
| Non-Posted Stream Buffer | Grade Plot - Drop |
| Posted Stream Buffer | |



TC PSCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																	
T04N R07W S03 Ty00MC 36.00						Project: TINMAN Acres 36.00										Page 1 Date 9/4/2024 Time 9:52:16AM			
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		
A	DOCU																		
A	DO1S	25	2.2	3,402	3,329	120			100		4	10	4	81	36	13	202	1.60	16.5
A	DO2S	23	.2	2,946	2,939	106		68	23	9		5		95	38	11	183	1.34	16.1
A	DO3S	30	.3	3,877	3,866	139		91	9		0	4	19	77	37	9	109	0.88	35.5
A	DO4S	22	1.3	2,829	2,792	101		100			32	19	11	38	24	6	35	0.55	78.9
A Totals		53	1.0	13,054	12,926	466 465		64	34	2	8	9	9	73	30	8	85	0.88	152.3
D	DO2S	73	.6	5,529	5,494	198		2	30	68		3	1	96	38	16	480	2.74	11.4
D	DO3S	23	1.2	1,779	1,758	63		81	4	15	3	7	7	83	36	9	108	0.92	16.3
D	DO4S	4		237	237	9		100			49	24		27	22	6	30	0.51	7.9
D Totals		31	.8	7,546	7,489	270		24	23	54	2	5	2	91	34	11	210	1.52	35.6
H	DO2S	46		917	917	33			13	87			13	87	37	19	631	3.59	1.5
H	DO3S	51	1.6	1,023	1,006	36		91	9				17	83	38	8	84	0.83	11.9
H	DO4S	3		50	50	2		100			100				15	7	25	0.58	2.0
H Totals		8	.8	1,989	1,973	71		49	10	41	3		14	83	35	9	128	1.09	15.4
M	DOCU														10	25		0.00	1.3
M	DO1S	68	4.5	671	641	23			59	41				100	40	15	345	2.52	1.9
M	DO2S	12		104	104	4		100						100	40	11	180	1.83	.6
M	DO4S	20		185	185	7		100			15		16	69	34	7	62	0.80	3.0
M Totals		4	3.2	960	929	34 33		31	41	28	3		3	94	32	13	139	1.47	6.7
S	DOCU														20	9		0.00	1.2
S	DO2S	50	1.2	435	430	15				100	19			81	34	29	1161	6.40	.4
S	DO3S	35		297	297	11		29	40	31	4		36	60	35	10	129	1.15	2.3
S	DO4S	15	.7	124	123	4		100			43	57			22	7	35	0.70	3.5
S Totals		4	.7	855	849	30 31		25	14	61	17	8	13	62	26	9	114	1.16	7.4
Totals			1.0	24,405	24,167	871 870		48	28	24	6	7	7	80	31	9	111	1.04	217.4

TC PSTATS				PROJECT STATISTICS				PAGE 1				
				PROJECT	TINMAN	DATE		9/4/2024				
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt		
04N	07	03	U12	00MC		36.00	40	243	1	W		
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL			40	243	6.1							
CRUISE			21	121	5.8	4,532	2.7					
DBH COUNT												
REFOREST												
COUNT			18	122	6.8							
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
R ALDER			63	84.6	16.2	56	30.0	120.8	13,054	12,926	3,970	3,970
DOUG FIR			38	18.6	20.5	68	9.5	42.9	7,546	7,489	1,825	1,825
WHEMLOCK			7	12.4	16.5	46	4.5	18.5	1,989	1,973	583	583
BL MAPLE			6	4.3	22.5	53	2.5	11.8	960	929	311	311
S SPRUCE			7	6.0	16.8	35	2.3	9.2	855	849	229	229
TOTAL			121	125.9	17.2	55	49.0	203.1	24,405	24,167	6,917	6,917
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		
R ALDER		65.3	8.2	171	186	202						
DOUG FIR		96.6	15.7	773	916	1,060						
WHEMLOCK		129.2	52.6	179	377	575						
BL MAPLE		65.6	29.2	197	278	360						
S SPRUCE		153.7	62.5	228	609	989						
TOTAL		141.4	12.8	397	456	514	798	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		
R ALDER		56.8	7.1	53	57	61						
DOUG FIR		85.3	13.8	176	205	233						
WHEMLOCK		110.5	45.0	52	95	138						
BL MAPLE		44.7	19.9	75	94	112						
S SPRUCE		144.0	58.6	56	135	214						
TOTAL		115.8	10.5	100	112	124	536	134	60			
CL	68.1	COEFF		TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
R ALDER		76.9	12.2	74	85	95						
DOUG FIR		183.1	28.9	13	19	24						
WHEMLOCK		182.7	28.9	9	12	16						
BL MAPLE		233.9	37.0	3	4	6						
S SPRUCE		253.1	40.0	4	6	8						
TOTAL		51.1	8.1	116	126	136	104	26	12			
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		76.3	12.1	106	121	135						
DOUG FIR		172.2	27.2	31	43	55						
WHEMLOCK		169.5	26.8	14	18	23						
BL MAPLE		229.2	36.2	8	12	16						
S SPRUCE		232.7	36.8	6	9	13						
TOTAL		46.0	7.3	188	203	218	85	21	9			

PROJECT STATISTICS
PROJECT TINMAN

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	07	03	U12	00MC	36.00	40	243	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
R ALDER		80.3	12.7	11,287	12,926	14,565			
DOUG FIR		196.2	31.0	5,168	7,489	9,810			
WHEMLOCK		171.5	27.1	1,438	1,973	2,507			
BL MAPLE		232.2	36.7	588	929	1,270			
S SPRUCE		267.6	42.3	490	849	1,208			
TOTAL		62.9	9.9	21,764	24,167	26,569	158	40	18

TC PLOGSTVB		Log Stock Table - MBF																			
T04N R07W S03 Ty00MC 36.00					Project: TINMAN Acres 36.00										Page 1 Date 9/4/2024 Time 10:43:38AM						
S T Spp	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 1S	16	5		5	1.0								5							
A	DO 1S	24	6		6	1.3							6								
A	DO 1S	26	6		6	1.4							6								
A	DO 1S	34	5		5	1.1							5								
A	DO 1S	36	6		6	1.2							6								
A	DO 1S	40	94	2.8	92	19.7							64	28							
A	DO 2S	24	6		6	1.2						6									
A	DO 2S	40	100		100	21.5						67	7	9	9	9					
A	DO 3S	14	1		1	.1					1										
A	DO 3S	24	1		1	.2				1											
A	DO 3S	30	5		5	1.1					5										
A	DO 3S	32	12		12	2.6					6	6									
A	DO 3S	34	14		14	3.0					14										
A	DO 3S	36	7		7	1.5					7										
A	DO 3S	40	100		100	21.4				2	47	38	13								
A	DO 4S	12	3	9.5	2	.5				2											
A	DO 4S	14	2		2	.4				2											
A	DO 4S	16	12		12	2.5				12											
A	DO 4S	18	4		4	.8				4											
A	DO 4S	20	13		13	2.8				13											
A	DO 4S	24	10		10	2.2				10											
A	DO 4S	26	6	7.7	6	1.3				6											
A	DO 4S	30	3		3	.6				3											
A	DO 4S	32	9	6.2	9	1.8				9											
A	DO 4S	34	3		3	.6				3											
A	DO 4S	36	4		4	.8				4											
A	DO 4S	38	3		3	.7				3											
A	DO 4S	40	30		30	6.6				27	4										
A	Totals		470		465	53.5				99	83	117	106	41	9	9					
D	DO 2S	24	3	13.3	3	1.0							3								
D	DO 2S	30	3		3	1.3							3								
D	DO 2S	32	1		1	.6									1						
D	DO 2S	36	6		6	2.3					4		3								
D	DO 2S	40	185		184	68.2							12	20	50	46	43		13		
D	DO 3S	16	0		0	.1							0								
D	DO 3S	20	2		2	.6					1		1								

TC		PLOGSTVB		Log Stock Table - MBF																	
T04N.R07W S03 Ty00MC				36.00		Project:		TINMAN		Page		2		Date		9/4/2024		Time		10:43:38AM	
						Acres		36.00													
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+	
D		DO	3S	24	1		1	.4			1										
D		DO	3S	26	3	9.7	3	.9					1	1	1						
D		DO	3S	28	1		1	.2				1									
D		DO	3S	32	2		2	.6			1		1								
D		DO	3S	34	3		3	1.1				2	1								
D		DO	3S	36	5		5	1.8				3	2								
D		DO	3S	38	3		3	1.0			3										
D		DO	3S	40	46	1.1	45	16.7			12	11	12				10				
D		DO	4S	14	1		1	.2			1										
D		DO	4S	16	2		2	.7			2	0									
D		DO	4S	20	2		2	.6			2										
D		DO	4S	24	1		1	.4			1										
D		DO	4S	30	1		1	.3			1										
D		DO	4S	40	2		2	.9			2										
D		Totals			272		270	31.0			25	22	18	22	21	51	56	43	13		
H		DO	2S	32	4		4	5.9						4							
H		DO	2S	40	29		29	40.6								29					
H		DO	3S	32	6		6	8.5			6										
H		DO	3S	40	31	2.0	30	42.5			12	5	10	3							
H		DO	4S	12	1		1	1.0					1								
H		DO	4S	16	1		1	1.5			1										
H		Totals			72		71	8.2			20	5	10	3	4		29				
M		DO	1S	40	24	4.5	23	68.9					3	11	9						
M		DO	2S	40	4		4	11.1					4								
M		DO	4S	18	1		1	2.9				1									
M		DO	4S	32	1		1	3.2			1										
M		DO	4S	40	5		5	13.8			5										
M		Totals			35	3.2	33	3.8			6	1	4	3	11	9					
S		DO	2S	14	3		3	9.4											3		
S		DO	2S	40	13	1.5	13	41.2									13				
S		DO	3S	12	0		0	1.4					0								
S		DO	3S	32	4		4	12.6					4								
S		DO	3S	40	6		6	20.9			3				3						

Log Stock Table - MBF

T04N R07W S03 Ty00MC 36.00

Project: TINMAN
Acres 36.00

Page 3
Date 9/4/2024
Time 10:43:38AM

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+
S		DO	4S	16	1		1	2.4			1									
S		DO	4S	20	1		1	3.8			1									
S		DO	4S	26	2		2	7.9			2									
S		DO	4S	28	0	20.0	0	.4				0								
S		Totals			31		31	3.5			7	0		4		3		13		3
Total		All Species			879		870	100.0			156	111	148	138	77	73	94	56		16

TC PSTNDSUM		Stand Table Summary										Page 1			
												Date: 9/4/2024			
T04N R07W S03 Ty00MC 36.00					Project TINMAN					Time: 10:44:19AM					
					Acres 36.00					Grown Year:					
S Spec 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
A	10	1	86	61	3.497	1.91	3.50	14.0	50.0		49	175	18	6	
A	12	4	87	74	9.713	7.63	14.57	17.2	55.0		250	801	90	29	
A	13	6	86	76	12.584	11.44	23.10	16.6	55.4		384	1,281	138	46	
A	14	4	87	77	7.271	7.63	14.54	18.1	61.0		263	888	95	32	
A	15	7	87	75	10.988	13.35	17.31	25.6	83.0		442	1,437	159	52	
A	16	8	86	73	10.928	15.26	20.49	25.3	84.0		518	1,721	186	62	
A	17	4	86	70	4.840	7.63	8.47	29.0	90.0		246	762	88	27	
A	18	5	86	77	5.396	9.54	8.63	34.1	107.5		295	928	106	33	
A	19	7	87	74	6.781	13.35	12.59	34.2	110.0		431	1,385	155	50	
A	20	4	86	84	3.778	8.24	7.56	36.8	123.1		278	930	100	33	
A	21	1	87	86	.793	1.91	1.59	47.5	155.0		75	246	27	9	
A	22	7	86	70	5.057	13.35	8.67	44.0	128.3		381	1,113	137	40	
A	23	3	87	76	1.983	5.72	3.97	51.5	175.0		204	694	74	25	
A	24	1	87	97	.607	1.91	1.21	66.0	235.0		80	285	29	10	
A	32	1	86	84	.341	1.91	.68	106.0	410.0		72	280	26	10	
A	Totals	63	86	75	84.557	120.77	146.88	27.0	88.0		3,970	12,926	1,429	465	
D	13	2	81	61	2.447	2.26	2.45	22.5	60.0		55	147	20	5	
D	14	3	83	73	3.244	3.38	4.30	22.5	64.9		97	279	35	10	
D	15	4	86	74	3.740	4.51	5.64	23.3	68.4		131	386	47	14	
D	17	2	85	75	1.431	2.26	2.86	23.8	77.5		68	222	24	8	
D	18	2	87	66	1.276	2.26	1.91	31.0	86.7		59	166	21	6	
D	19	3	86	86	1.718	3.38	4.01	29.0	102.9		116	412	42	15	
D	22	1	86	140	.427	1.13	1.28	46.0	193.3		59	248	21	9	
D	23	2	85	137	.782	2.26	2.35	50.2	206.7		118	485	42	17	
D	27	2	84	142	.567	2.26	1.70	68.3	286.7		116	488	42	18	
D	28	2	86	142	.527	2.26	1.58	76.2	341.7		121	541	43	19	
D	30	3	85	141	.689	3.38	2.07	84.9	375.6		176	777	63	28	
D	31	1	86	137	.215	1.13	.65	87.3	380.0		56	245	20	9	
D	32	1	86	138	.202	1.13	.61	96.0	443.3		58	269	21	10	
D	34	1	82	157	.179	1.13	.54	114.7	540.0		62	290	22	10	
D	35	1	85	155	.169	1.13	.51	128.3	643.3		65	326	23	12	
D	36	1	86	148	.160	1.13	.48	127.0	630.0		61	302	22	11	
D	38	1	83	149	.143	1.13	.43	137.0	666.7		59	286	21	10	
D	39	1	88	140	.136	1.13	.41	146.0	773.3		60	315	21	11	
D	40	2	68	165	.258	2.26	.90	124.0	492.9		112	446	40	16	
D	43	1	85	140	.112	1.13	.34	175.3	880.0		59	295	21	11	
D	44	1	80	140	.107	1.13	.32	173.0	786.7		55	252	20	9	
D	45	1	83	157	.102	1.13	.31	205.3	1026.7		63	314	23	11	
D	Totals	38	84	90	18.632	42.85	35.63	51.2	210.2		1,825	7,489	657	270	
H	12	1	85	47	3.362	2.64	3.36	16.0	50.0		54	168	19	6	
H	14	2	86	58	4.941	5.28	4.94	29.0	70.0		143	346	52	12	
H	17	1	86	54	1.675	2.64	1.68	40.0	80.0		67	134	24	5	
H	18	1	89	71	1.494	2.64	2.99	28.5	100.0		85	299	31	11	
H	31	1	86	106	.504	2.64	1.51	77.3	343.3		117	519	42	19	
H	33	1	86	104	.445	2.64	.89	131.0	570.0		116	507	42	18	
H	Totals	7	86	59	12.421	18.49	15.37	37.9	128.4		583	1,973	210	71	
M	14	1	86	57	1.834	1.96	1.83	29.0	70.0		53	128	19	5	
M	23	1	86	77	.680	1.96	1.36	52.5	185.0		71	251	26	9	
M	25	1	87	61	.575	1.96	.58	73.0	180.0		42	104	15	4	
M	27	1	87	84	.493	1.96	.99	77.5	295.0		76	291	28	10	
M	31	1	87	65	.374	1.96	.37	90.0	190.0		34	71	12	3	

TC		PSTNDSUM		Stand Table Summary										Page		2			
														Date:		9/4/2024			
T04N R07W S03 Ty00MC 36.00				Project										TINMAN		Time:		10:44:19AM	
				Acres										36.00		Grown Year:			
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			
M		34	1	86	74	.311	1.96	.31	109.0	270.0		34	84		12	3			
M		Totals	6	86	66	4.267	11.76	5.44	57.1	170.8		311	929		112	33			
S		12	1	85	38	1.681	1.32	1.68	16.0	40.0		27	67		10	2			
S		14	1	82	61	1.235	1.32	1.24	29.0	70.0		36	86		13	3			
S		15	2	78	25	2.152	2.64	1.08	16.0	30.0		17	32		6	1			
S		19	1	83	61	.671	1.32	1.34	29.0	95.0		39	127		14	5			
S		35	1	88	117	.198	1.32	.59	115.7	590.0		69	350		25	13			
S		53	1	75	107	.086	1.32	.26	159.3	720.0		41	186		15	7			
S		Totals	7	82	44	6.023	9.24	6.18	37.0	137.3		229	849		82	31			
Totals		121		86	74	125.900	203.11	209.50	33.0	115.4		6,917	24,167		2,490	870			

LOGGING PLAN MAP

OF TIMBER SALE CONTRACT

NO. AT-341-2025-W01058-01

TIN MAN ALDER

PORTIONS OF SECTION 3 OF
T4N, R7W, AND PORTIONS OF
SECTION 33 OF T5N, R7W, W.M.,
CLATSOP COUNTY, OREGON

Approximate Net Acres

Unit 1 (MC) = 27

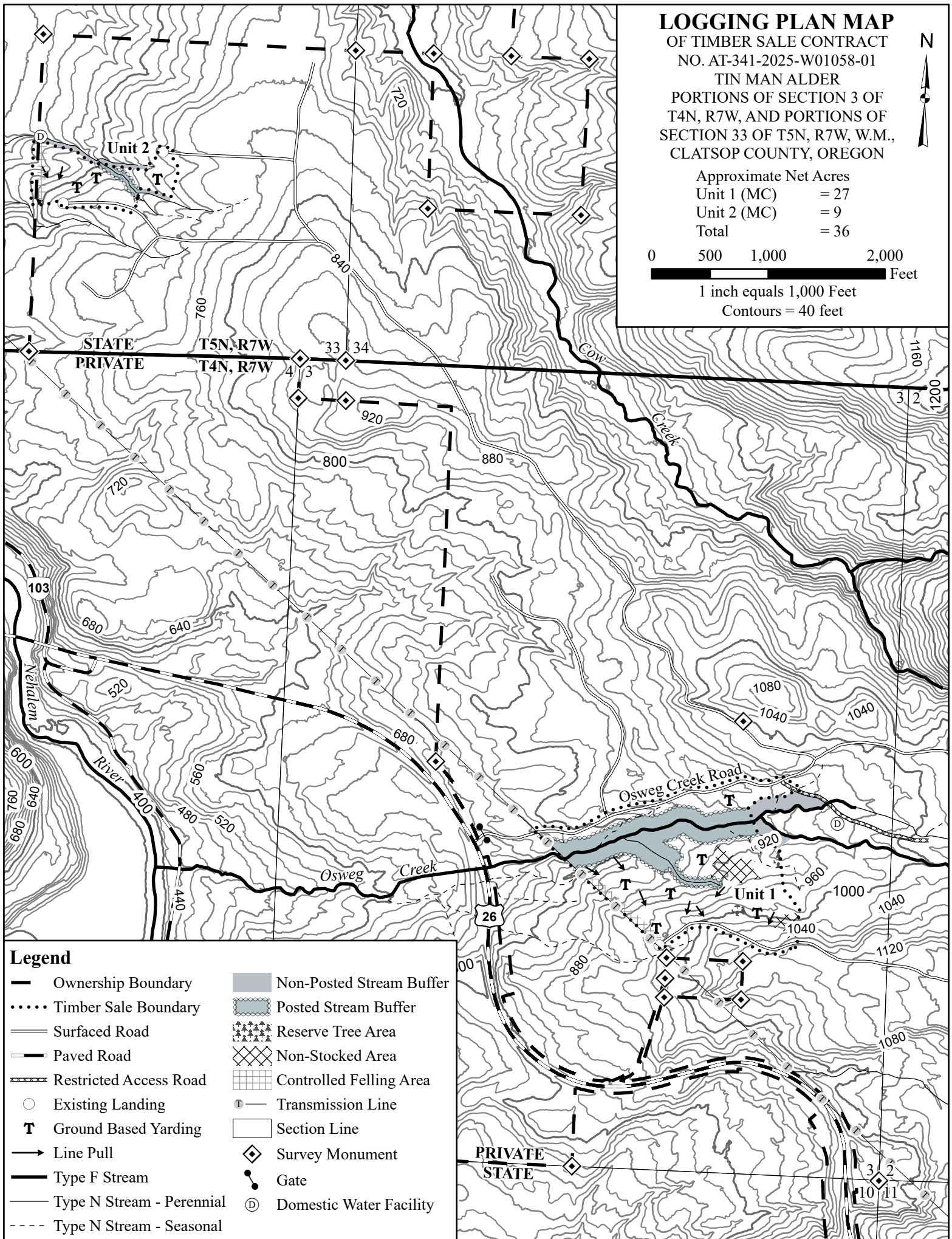
Unit 2 (MC) = 9

Total = 36

0 500 1,000 2,000
Feet

1 inch equals 1,000 Feet

Contours = 40 feet



Legend

- | | |
|--------------------------------|----------------------------|
| — Ownership Boundary | ■ Non-Posted Stream Buffer |
| Timber Sale Boundary | ■ Posted Stream Buffer |
| — Surfaced Road | ■ Reserve Tree Area |
| — Paved Road | ■ Non-Stocked Area |
| — Restricted Access Road | ■ Controlled Felling Area |
| ○ Existing Landing | — Transmission Line |
| ⊠ Ground Based Yarding | □ Section Line |
| → Line Pull | ◇ Survey Monument |
| — Type F Stream | ● Gate |
| — Type N Stream - Perennial | ⊙ Domestic Water Facility |
| - - - Type N Stream - Seasonal | |