Timber Sale Appraisal
Mill Shack

Sale AT-341-2025-W00987-01

District: Astoria

Date: June 13, 2024

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$2,329,748.28	$272,492.34	$2,602,240.62
		Project Work:	($169,082.00)
		Advertised Value:	$2,433,158.62

Timber Sale Appraisal
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District: Astoria **Date: June 13, 2024**

Timber Description

Location:

Stand Stocking: 80%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	20	0	97
Western Hemlock / Fir	18	0	95
Sitka Spruce	18	0	95
Alder (Red)	14	0	95

Volume by Grade	2S	3S & 4S 6"-11"	3S 12"+	8" - 9"	10" - 11"	12"+	6" - 7"	Total
Douglas - Fir	664	402	0	0	0	0	0	1,066
Western Hemlock / Fir	2,123	1,102	0	0	0	0	0	3,225
Sitka Spruce	2,223	1,644	45	0	0	0	0	3,912
Alder (Red)	0	0	0	523	93	29	297	942
Total	5,010	3,148	45	523	93	29	297	9,145

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

Expected Log Markets: Clatskanie, Warrenton, Forest Grove, Wauna, Tillamook, Mist, Longview, WA, Randle, WA, and Chehalis, WA.

PRICING:
Western Red Cedar and other Cedars stumpage = pond value - (Sitka spruce) logging cost.
$956.47/MBF = $1,200/MBF - $243.53/MBF

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

Machine Washing for Invasive Weed Compliance = $2,000

Ditch Filters:
24 bales of straw @ $12.06/bale = $289.44
4 hours of labor (installation/removal) @ $50/hr = $200

Close unsurfaced road segements, water bar and block (C315, 8 hours) $127/hr = $1,016.00

TOTAL Other Costs (with Profit & Risk to be added):$3,505.44

Other Costs (No Profit & Risk added): None

SLASH PILING
(See attached appraisal. Includes move-in and pile materials) = $27,142.

ROAD MAINTENANCE
(See attached Road Maintenance Cost Summary Sheet)
TOTAL Road Maintenance: $33,852/9145MBF = $3.70/MBF

District: Astoria **Date: June 13, 2024**

Logging Conditions

Combination#: 1

Douglas - Fir	82.00%
Western Hemlock / Fir	82.00%
Sitka Spruce	82.00%
Alder (Red)	82.00%

Logging System: Shovel **Process:** Feller Buncher
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 17 **bd. ft / load:** 4900
cost / mbf: $120.05
machines: Feller Buncher w/ Delimber

Combination#: 2

Douglas - Fir	18.00%
Western Hemlock / Fir	18.00%
Sitka Spruce	18.00%
Alder (Red)	18.00%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber
yarding distance: Medium (800 ft) **downhill yarding:** No
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 10 **bd. ft / load:** 4900
cost / mbf: $162.82
machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

Timber Sale Appraisal
Mill Shack
Sale AT-341-2025-W00987-01

District: Astoria **Date: June 13, 2024**

Logging Costs

Operating Seasons:	3.00	**Profit Risk:**	12%
Project Costs:	$169,082.00	**Other Costs (P/R):**	$3,505.44
Slash Disposal:	$27,142.00	**Other Costs:**	$0.00

Miles of Road

Road Maintenance: $3.70

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	4.0	5.3
Western Hemlock / Fir	$0.00	3.0	4.8
Sitka Spruce	$0.00	3.0	5.5
Alder (Red)	$0.00	4.0	4.8

Timber Sale Appraisal
Mill Shack

Sale AT-341-2025-W00987-01

District: Astoria

Date: June 13, 2024

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
$127.75	$3.81	$1.44	$60.73	$0.38	$23.29	$2.97	$2.00	$0.00	$222.37
Western Hemlock / Fir									
$127.75	$3.88	$1.44	$91.15	$0.38	$26.95	$2.97	$2.00	$0.00	$256.52
Sitka Spruce									
$127.75	$3.88	$1.44	$79.55	$0.38	$25.56	$2.97	$2.00	$0.00	$243.53
Alder (Red)									
$127.75	$3.88	$1.44	$68.36	$0.38	$24.22	$2.97	$2.00	$0.00	$231.00

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$760.54	$538.17	$0.00
Western Hemlock / Fir	$0.00	$566.46	$309.94	$0.00
Sitka Spruce	$0.00	$436.91	$193.38	$0.00
Alder (Red)	$0.00	$520.27	$289.27	$0.00

Timber Sale Appraisal
Mill Shack
Sale AT-341-2025-W00987-01

District: Astoria **Date: June 13, 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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,066	$538.17	$573,689.22
Western Hemlock / Fir	3,225	$309.94	$999,556.50
Sitka Spruce	3,912	$193.38	$756,502.56
Alder (Red)	942	$289.27	$272,492.34

Gross Timber Sale Value

Recovery: $2,602,240.62

Prepared By: John Czarnecki **Phone:** 503-325-5451

Site Prep Appraisal

Sale Number: AT-341-2025-W00987-01
Sale Name: Mill Shack
Date: 03/21/2024

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	F	83	42	$145.00	$6,017.50	
2	MC	E	46	46	$145.00	$6,670.00	
3	MC	F	56	28	$145.00	$4,060.00	
4	MC	F	31	16	$145.00	$2,247.50	
					In-unit Piling	**Sub Total =**	$18,995.00

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	8	0	$0.00	49.5	$5.00	$247.50	
2	7	0	$0.00	99	$5.00	$495.00	
3	17	49	$2,842.00	45	$5.00	$225.00	
4	8	0	$0.00	23.5	$5.00	$117.50	
					Materials	**Sub Total =**	$1,085.00

*Cost includes separating firewood

	Landing Piling	**Sub Total =**	$2,842.00

Additonal Move-in allowance

Move-In Allowance	Number of Move-In's	Total Move-In Allowance	
$1,290.00	1.5	$1,935.00	Brush Piler
$205.00	1	$205.00	Dump Truck (12cy)
			Move-In **Sub Total =** $2,140.00

Slash Endhaul

Dump Truck hrs	Cost/Hour	Total	Loader hrs	Cost/Hour	Total	
8	$99.00	$792.00	8	$161.00	$1,288.00	
					Sub Total =	$2,080.00
					Grand Total =	**$27,142.00**

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale:	Mill Shack	**MBF:**	9,145
Date:	April 1, 2024	**$$/MBF:**	$3.70
By:	Michele Huffman		

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost	
First Interim Operations and/or Snow Plowing	Grader 14G	$972	1	8	$126	$1,980	
Second Interim Operations and/or Snow Plowing	Grader 14G	$972	1	8	$126	$1,980	
	Dump Truck 12CY	$205	1	8	$99	$997	
	Rubber tired backhoe	$401	1	4	$97	$789	
	Vibratory Roller	$972	1	4	$97	$1,360	
Final Road Maintenance	Grader 14G	$972	1	60	$126	$8,532	
	Dump Truck 12CY	$205	2	32	$99	$3,578	
	FE Loader C966	$931	1	8	$108	$1,795	
	Vibratory Roller	$972	1	60	$97	$6,792	
	Water Truck 2,500 gallon	$238	1	30	$113	$3,628	
	Excavator (C315)	$1,005	1	8	$127	$2,021	
	Labor			8	$50	$400	
Total							**$33,852**

First and Second Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	3.0	6.0	2.0	16
Vibratory Roller	2.0	1.0	0.5	4

Final Road Maintenance: Grade, Process, and Compact

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	1.8	12.4	7.1	57
Vibratory Roller	1.8	12.4	7.1	57

Process and compact: All crushed rock roads

Shingle Mill Road = 7.9 Miles

Knob Point Road = 0.1 Miles

Coke Shack Road = 0.7 Miles

Shingle Shack Road = 1.9 Miles

Unnamed Spur Roads = 1.8 Miles

Grade & Process Total = 12.4 Miles

Shared road maintenance is anticipated with the Purchaser of the Shingle Knob Timber Sale and with private log haul.

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Mill Shack

Project No. 1: ROAD CONSTRUCTION:

Road segment	*Length (Sta)*	*Length (Mile)*	*Cost*	
Surfaced	42.50	0.80	$60,472.88	
1A to 1B (9.2) 3A to 3B,				
3C to 3D, 3E to 3F				
Unsurfaced	14.35	0.27	$6,712.42	
1A to 1B (5.5), 4A to 4B				
Road Maint.			$3,565.33	
Move-In			$4,154.09	
TOTALS	56.85	1.08		$74,905

Project No. 2: ROAD IMPROVEMENT:

Road segment	*Length (Sta)*	*Length (Mile)*	*Cost*	
I1 to I2, I3 to I4,	378.7	7.17	$84,471.58	
I5 to I6, I7 to I8,				
I19 to I10, I11 to I12				
Road Maint.			$4,482.67	
Move-In			$5,222.91	
TOTALS		7.17		$94,177

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

Description	*Length/Vol.*	*Cost*
TOTAL		

GRAND TOTAL **$169,082**

Compiled By: Brittany West CB Date: 04/17/2024

Move In and Maintenance Calculator for Construction and Improvement

SALE NAME: Mill Shack

Project No. 1: ROAD CONSTRUCTION:

Road segment	Length/Sta	Length/Mile	Cost	
Surfaced	42.50	0.80	$60,473	
1A to 1B (9.2) 3A to 3B, 3C to 3D, 3E to 3F				
Unsurfaced	14.35	0.27	$6,712.42	
1A to 1B (5.5), 4A to 4B				
TOTALS	56.85	1.08		$67,185

Project No. 2: ROAD IMPROVEMENT:

Road segment	Length/Sta	Length/Mile	Cost	
I1 to I2, I3 to I4, I5 to I6, I7 to I8, I19 to I10, I11 to I12	378.70	7.17	$84,472	
TOTALS	378.70	7.17		$84,472

MOVE IN (Construction & Improvement Only)

Equipment	Length/Mile	Cost	
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)		$478.00	
Dump Truck 10cy (x6)		$1,230.00	
TOTAL			$9,377.00

ROAD MAINTENANCE (Construction & Improvement Only)

	Length/Mile	Cost	
Final Project Maintenance	7.32	$8,048.00	
TOTAL			$8,048.00

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Mill Shack
ROAD: 1A to 1B (14.7), 3A to 3B (3.85), 3C to 3D (26.35), 3E to 3F (3.1), 4A to 4B (8.85)
POINTS:

NEW CONSTRUCTION: 56.85 **STATIONS** 1.08 **MILES**
IMPROVEMENT: **STATIONS** 0.00 **MILES**

CLEARING & GRUBBING

	Method	Acres/amount	x	Rate	=	Cost
Surfaced						
1A to 1B (9.2), 3A to 3B, 3C to 3D, 3E to 3F, 4A to 4B	Scatter outside of right of way	3.9	x	$ 1,669	=	$6,509.10
Unsurfaced						
1A to 1B (5.5), 4A to 4B	Scatter outside of right of way	1	x	$ 1,669	=	$1,669.00

SUB TOTAL FOR CLEARING & GRUBBING $8,178

EXCAVATION

	Material		Cy/amount	x	Rate	=	Cost
1A to 1B							
	Balanced construction	($/sta.)	14.7	x	$238.00	=	$3,498.60
	Ripping	(C330/hr)	8	x	$195.00	=	$1,560.00
3A to 3B							
	Balanced construction	($/sta.)	3.85	x	$238.00	=	$916.30
	Landing construction	($/ldg)	1	x	$487.00	=	$487.00
	Ripping	(C330/hr)	2	x	$195.00	=	$390.00
3C to 3D							
	Balanced construction	($/sta.)	26.35	x	$238.00	=	$6,271.30
	Construct landing	($/ldg)	3	x	$487.00	=	$1,461.00
	Ripping	(C330/hr)	10	x	$195.00	=	$1,950.00
3E to 3F							
	Balanced construction	($/sta.)	3.1	x	$238.00	=	$737.80
	Landing construction	($/ldg)	1	x	$487.00	=	$487.00
4A to 4B							
	Balanced construction	($/sta.)	8.85	x	$238.00	=	$2,106.30

SUB TOTAL FOR EXCAVATION $19,865

CULVERT MATERIALS AND INSTALLATION

Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
1A to 1B					**3C to 3D**				
0+00	18" ASCP	40	$45.98	$1,839.20	10+50	18" ASCP	30	$45.98	$1,379.40
7+65	18" ASCP	30	$45.98	$1,379.40	18+25	18" ASCP	30	$45.98	$1,379.40
8+65	24" ASCP	30	$54.98	$1,649.40					

	Description	Quantity	Rate	Cost
Other/miscellaneous:				
Culvert stakes & markers:	6' x 2 1/2" white fiberglass posts	5	$25.53	$127.65

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION $7,754

Subtotal of Clearing, Exc., Culv. ***$35,798***

SURFACING

Subgrade prep:

Description		Stations/ amount	x	Rate/ sta/amt	Cost
Grade, Shape and Ditch 16':	1A to 1B (9.2), 3A to 3B (3.85), 3C to 3D (26.35), 3E to 3F (3.1)	42.50	x	$30.98	$1,316.65
Grade, Shape, Outslope 14':	1A to 1B (5.5), 4A to 4B (8.85)	14.35	x	$22.89	$328.47
Subgrade Compaction:	1A to 1B (14.7), 3A to 3B (3.85), 3C to 3D (26.35), 3E to 3F (3.1) 4A to 4B (8.85)	56.85	x	$25.19	$1,432.05

ROAD SEGMENT	1A to 1B			POINT TO POINT		Sta. to Sta.					
Application	Rock Size and Type	Location	Depth of Rock (inches)	1A to 1B Volume (CY) per		0+00 to 14+70 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	4"-0" crushed	0+00 to 9+20	10	station	63	stations	9.2	580	$6.47	$3,750	
Turnarounds	4"-0" crushed	5+40, 9+20	10	turnaround	22	turnarounds	2	44	$6.47	$285	
Traction Rock	3/4"-0" crushed	0+00 to 7+65	2	station	13	stations	7.65	100	$6.47	$647	
Junction Rock	4"-0" crushed	0+00	N/A	junction	11	junctions	1	11	$6.47	$71	
Culvert Bedding and Backfill	3/4"-0" crushed	0+00, 7+65, 8+65	N/A	culvert	33	culverts	3	99	$6.47	$641	
Total Rock for Road Segment:			1A to 1B					834			$5,393

ROAD SEGMENT	3A to 3B			POINT TO POINT		Sta. to Sta.					
Application	Rock Size and Type	Location	Depth of Rock (inches)	3A to 3B Volume (CY) per		0+00 to 3+85 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	6"-0" pit-run	0+00 to 2+85	10	station	63	stations	2.85	180	$5.64	$1,013	
Base Rock	6"-0" pit-run	2+85 to 3+85	12	station	86	stations	1	86	$5.64	$485	
Traction Rock	3/4"-0" crushed	0+00 to 1+00	2	station	13	stations	1	13	$6.47	$84	
Junction Rock	3/4"-0" crushed	0+00	N/A	junction	11	junctions	1	11	$6.47	$71	
Landings	6"-0" pit-run	3+85	N/A	landing	88	landings	1	88	$5.64	$496	
Total Rock for Road Segment:			3A to 3B					378			$2,149

ROAD SEGMENT	3C to 3D			POINT TO POINT		Sta. to Sta.					
Application	Rock Size and Type	Location	Depth of Rock (inches)	3C to 3D Volume (CY) per		0+00 to 26+35 Number of		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Base Rock	4"-0" crushed	0+00 to 26+35	10	station	63	stations	26.35	1,660	$6.47	$10,741	
Junction Rock	3/4"-0" crushed	0+00, 26+35	N/A	junction	11	junctions	2	22	$6.47	$142	
Culvert Bedding and Backfill	3/4"-0" crushed	10+50, 18+25	N/A	culvert	33	culverts	2	66	$6.47	$427	
Turnarounds	4"-0" crushed	11+15, 21+65	12	turnaround	22	turnarounds	2	44	$6.47	$285	
Landings	6"-0" pit-run	5+55, 12+25, 22+75	N/A	landing	88	landings	3	264	$5.64	$1,489	
Total Rock for Road Segment:			3C to 3D					2,056			$13,084

ROAD SEGMENT	3E to 3F			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Application	Rock Size and Type	Location	Depth of Rock (inches)	3E to 3F Volume (CY) per		0+00 to 3+10 Number of					
Base Rock	6"-0" pit-run	0+00 to 2+10	10	station	63	stations	2.1	132	$5.64	$746	
Base Rock	6"-0" pit-run	2+10 to 3+10	12	station	86	stations	1	86	$5.64	$485	
Traction Rock	3/4"-0" crushed	0+00 to 1+00	2	station	13	stations	1	13	$6.47	$84	
Junction Rock	3/4"-0" crushed	0+00	N/A	junction	11	junctions	1	11	$6.47	$71	
Landings	6"-0" pit-run	3+10	N/A	landing	88	landings	1	88	$5.64	$496	
Total Rock for Road Segment:			3E to 3F					330			$1,883

ROAD SEGMENT	4A to 4B			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Application	Rock Size and Type	Location	Depth of Rock (inches)	4A to 4B Volume (CY) per		0+00 to 8+85 Number of					
Base Rock	6"-0" pit-run	0+00 to 1+00	8	station	50	stations	1	50	$5.64	$282	
Junction Rock	3/4"-0" crushed	0+00	N/A	junction	11	junctions	1	11	$6.47	$71	
Total Rock for Road Segment:			4A to 4B					61			$353

Processing:

Description	No.sta	Rate/sta	Cost
Water, Process & Compact Base Rock (4"-0"):	35.55	$70.47	$2,505.21
Water, Process & Compact Traction Rock (3/4"-0"):	9.65	$70.47	$680.04
Spread & Compact Base Rock (6"-0" pit run)	7.95	$39.35	$312.83

	6"-4"pr	6"-0"pr	4"-0" crushed	3/4"-0" crushed	Total	
SUB TOTAL FOR SURFACING		974	2,339	346	3,659	**$29,437**

SPECIAL PROJECTS

Description	Cy/Amount	Rate	Cost
pit-run development (C330/hr)	10	$ 195.00	$ 1,950.00

SUB TOTAL FOR SPECIAL PROJECTS $1,950

Subtotal of Surfacing & Spec. Proj. *$31,387*

Subtotal of Clearing, Exc.,Culv. *$35,798*

GRAND TOTAL **$67,185**

Compiled By: Brittany West

Date: 04/08/2024

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Mill Shack
ROAD: I1 to I2 (169.3), I3 to I4 (66.1), I5 to I6 (11.2), I7 to I8 (7.1), I9 to I10 (91), I11 to I12 (34)
POINTS:

NEW CONSTRUCTION: _____ STATIONS 0.00 MILES
IMPROVEMENT: 378.70 STATIONS 7.17 MILES

CLEARING & GRUBBING

Method	Acres/amount	x	Rate	=	Cost

SUB TOTAL FOR CLEARING & GRUBBING $0

EXCAVATION

	Material		Cy/amount	x	Rate	=	Cost
I1 to I2							
46+00, 66+60, 66+95	Install rock ditch filters	(C315/hr)	3.0	x	$127.00	=	$381.00
	Additional excavator time	(C315/hr)	2.0	x	$127.00	=	$254.00
46+20	Remove debris from culvert inlet	(C330/hr)	2.0	x	$195.00	=	$390.00
77+35, 115+00	Clean inlet, outlet and catch basin	(C315/hr)	2.0	x	$127.00	=	$254.00
0+00 to 169+30	Additonal ditch work	(C315/hr)	4.0	x	$127.00	=	$508.00
I3 to I4							
4+50, 11+30, 20+75, 23+20, 30+30,	Clean inlet, outlet and catch basin	(C315/hr)	5.0	x	$127.00	=	$635.00
34+15	Install rock ditch filters	(C315/hr)	1.0	x	$127.00	=	$127.00
37+70	Install dissipator	($/dissipator)	1.0	x	$225.33	=	$225.33
37+70	Jack outlet open	(Laborer/hr)	1.0	x	$50.00	=	$50.00
I5 to I6							
0+00 to 11+20	Reestablish ditches	(C315/hr)	2.0	x	$127.00	=	$254.00
	Remove debris from road prisim	(C315/hr)	1.0	x	$127.00	=	
0+00	Remove alder from culvert outlet	(C315/hr)	1.0	x	$127.00	=	$127.00
4+70	Clean inlet, outlet and catch basin	(C315/hr)	1.0	x	$127.00	=	$127.00
I7 to I8				x			
0+00 to 7+10	Reestablish ditches	(C315/hr)	1.0	x	$127.00	=	$127.00
I9 to I10							
41+70, 46+85, 69+10	Clean inlet, outlet and catch basin	(C315/hr)	3.0	x	$127.00	=	$381.00
I11 to I12							
0+40, 4+80	Clean inlet, outlet and catch basin	(C315/hr)	1.0	x	$127.00	=	$127.00
15+10	Construct turnaround	(C315/hr)	1.0	x	$127.00	=	$127.00
				x		=	$0.00
				x		=	$0.00
				x		=	$0.00

SUB TOTAL FOR EXCAVATION $4,094

CULVERT MATERIALS AND INSTALLATION

Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
I3 to I4									
58+20	18" CPP	30	$28.98	$869.40					

	Description	Quantity	Rate	Cost
Other/miscellaneous:				
Culvert stakes & markers:	6' x 2 1/2" white fiberglass posts	7		
				$0.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION $869

Subtotal of Clearing, Exc., Culv. ***$4,964***

SURFACING			Stations/ amount	x	Rate/ sta/amt	Cost
Subgrade prep:	Grade, Shape and Ditch 16':	I1 to I2 (169.3), I3 to I4 (66.1), I5 to I6 (11.2), I7 to I8 (7.1), I9 to I10 (91.05), I11 to I12 (34)	378.75	x	$30.98	$11,733.68
	Subgrade Compaction:	I1 to I2 (169.3), I3 to I4 (66.1), I5 to I6 (11.2), I7 to I8 (7.1), I9 to I10 (91.05), I11 to I12 (34)	378.75	x	$25.19	$9,540.71
	Sod Removal (Grader, Backhoe):	I3 to I4 (20.9), I7 to I8 (7.1)	28.00	x	$40.27	$1,127.56

ROAD SEGMENT	I1 to I2			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Application	Rock Size and Type	Location	Depth of Rock (inches)	I1 to I2 Volume (CY) per		0+00 to 169+30 Number of					
Surfacing	3/4"-0" crushed	0+00 to 169+30	2	station	13	stations	169.3	2,201	$8.53	$18,774	
Turnouts	3/4"-0" crushed	16+60, 23+50, 37+10, 49+80, 53+30, 79+95, 106+70, 113+85, 119+50, 139+70,	2	turnout	11	turnouts	13	143	$8.53	$1,220	
Junctions	3/4"-0" crushed	9+05, 32+70, 33+90, 54+55, 72+20, 92+40, 145+55, 146+75,	N/A	junction	11	junctions	10	110	$8.53	$938	
Rock Ditch Filters	6"-4" pit-run	46+00, 66+60, 66+95	N/A	3 filter series	11	3 filter series	3	33	$6.07	$200	
Total Rock for Road Segment:			I1 to I2					2,487			$21,132

ROAD SEGMENT	I3 to I4			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Application	Rock Size and Type	Location	Depth of Rock (inches)	I3 to I4 Volume (CY) per		0+00 to 66+10 Number of					
Surfacing	3/4"-0" crushed	0+00 to 11+20	2	station	13	stations	11.2	146	$8.53	$1,242	
Surface Leveling Rock	3/4"-0" crushed	11+20 to 24+15	N/A	load	11	loads	5	55	$8.53	$469	
Turnouts	3/4"-0" crushed	5+50	2	turnout	11	turnouts	1	11	$8.53	$94	
Junctions	3/4"-0" crushed	1+50	N/A	junction	11	junctions	1	11	$8.53	$94	
Culvert Bedding and Backfill	3/4"-0" crushed	58+20	N/A	culvert	33	culverts	1	33	$8.53	$281	
Rock Ditch Filters	6"-4" pit-run	34+15	N/A	5 filter series	11	5 filter series	1	11	$6.07	$67	
Culvert Energy Dissipator	24"-6" riprap	37+70	N/A	dissipator	11	dissipators	1	11	$6.07	$67	
Total Rock for Road Segment:			I3 to I4					278			$2,314

ROAD SEGMENT	I9 to I10			POINT TO POINT		Sta. to Sta.		TOTAL	Rate/	Cost	
Application	Rock Size and Type	Location	Depth of Rock (inches)	I9 to I10 Volume (CY) per		0+00 to 91+05 Number of		VOLUME (CY)	Sta./ amt.		
Surfacing	3/4"-0" crushed	0+00 to 35+40	3	station	19	stations	35.4	673	$7.11	$4,785	
Surfacing	3/4"-0" crushed	35+40 to 82+60	2	station	13	stations	47.2	614	$7.11	$4,366	
Turnouts	3/4"-0" crushed	~~3+15, 8+90,~~ 11+00, 15+90, 25+25, 29+70, 47+55,54+00, 60+90, 67+85, 71+30, 74+35, 82+60	N/A	turnout	11	turnouts	13	143	$7.11	$1,017	
Junctions	3/4"-0" crushed	0+00, 72+30	N/A	junction	11	junctions	2	22	$7.11	$156	
Total Rock for Road Segment:			I9 to I10					1,452			$10,324

ROAD SEGMENT	I11 to I12			POINT TO POINT		Sta. to Sta.		TOTAL	Rate/	Cost	
Application	Rock Size and Type	Location	Depth of Rock (inches)	I11 to I12 Volume (CY) per		0+00 to 34+00 Number of		VOLUME (CY)	Sta./ amt.		
Surfacing	3/4"-0" crushed	0+00 to 22+80	2	station	13	stations	22.8	296	$8.53	$2,528	
Subgrade Leveling Rock	4"-0" crushed	21+40	N/A	load	11	loads	2	22	$7.11	$156	
Turnouts	3/4"-0" crushed	7+75	2	turnout	11	turnouts	1	11	$8.53	$94	
Turnaround	4"-0" crushed	15+10	N/A	turnaround	22	turnaround	1	22	$7.11	$156	
Total Rock for Road Segment:			I11 to I12					351			$2,935

Processing:

Description	No.sta	Rate/sta	Cost
Water, Process & Compact:	285.90	$70.47	$20,147

	24"-6" rr	6"-4"pr	6"-0"pr	4"-0" crushed	3/4"-0" crushed	Total	
SUB TOTAL FOR SURFACING	11	44		44	4,469	4,568	**$79,254**

SPECIAL PROJECTS

Description	Cy/Amount	Rate	Cost
pit-run development (C330/hr)	1	$195.00	$195.00
riprap development	11	$5.36	$58.96

SUB TOTAL FOR SPECIAL PROJECTS **$254**

Subtotal of Surfacing & Spec. Proj. *$79,508*
Subtotal of Clearing, Exc.,Culv. *$4,964*

GRAND TOTAL **$84,472**

Compiled By: Brittany West Date: 04/08/2024

Projects Road Maintenance Cost Summary

Sale: Mill Shack
Date: 04/15/2024
By: Brittany West CB

Final Project Maintenance may be spot grading with some segments of full water, process, and compact. This will be determined by STATE when roads are assessed for Final Project Maintenance.

Type	Equipment/Rationale			Hours	Rate	Cost	
Project Work	Grader 14G			24	$129	$3,096	
Final Haul	Dump Truck 12CY			4	$99	$396	
Road	FE Loader C966			4	$105	$420	
Maintenance	Vibratory Roller			24	$97	$2,328	
	Water Truck 2,500 gallon			16	$113	$1,808	
Total							$8,048

NOTE:

Hunt Creek		0.53	Miles
Nicolai		1.50	Miles
Shingle Mill (Hwy to I1)		1.58	Miles
Shingle Mill (I2 to Knob Point Road)		3.05	Miles
Knob Point Road &		0.49	Miles
Knob Point Quarry Road		0.17	Miles
	TOTAL=	7.32	Miles

CRUSHED ROCK COST

SALE NAME: Mill Shack
PROJECT: Nos. 1 and 2
Stockpile: Hunt Creek

MATERIAL: 3/4"-0"

DATE: 04/09/2024
BY: Brittany West

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES 50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	Total Haul
I1 to I2	169.30	2,454	0.65	0.50	1.00	1.00	2.33	0.30	0.10	5.88
I3 to I4	66.10	256	0.65	0.50	1.00	2.10	2.96	0.30	0.10	7.61
I11 to I12	34.00	307	0.65	0.50	1.00	2.70	3.40	0.30	0.15	8.70
TOTAL	269.40	3,017								AVERAGE HAUL
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL			**0.65**	**0.50**	**1.00**	**1.27**	**2.49**	**0.30**	**0.11**	**6.31**
									Average Round Trip Distance (miles)	12.63

ROCK HAUL:

Truck type: D20 No. trucks: 2
Delay min.: 8 Efficiency: 85%

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

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

Ave haul: $7.07 /cy
Load: $0.53 /cy
Spread: $0.93 /cy

Production: cy/day = 957

CRUSHED ROCK HAUL COSTS 3,017 cy @ **$8.53 /cy**

CRUSHED ROCK COST

SALE NAME: Mill Shack
PROJECT: Nos. 1 and 2
Stockpile: Knob Point

MATERIAL: 3/4"-0" and 4"-0"

DATE: 04/09/2024
BY: Brittany West

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES 50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	Total Haul
1A to 1B	9.20	834			2.47	2.00	0.55	0.15	0.10	5.27
3A to 3B	3.85	24			2.00	1.00	0.45	0.33	0.10	3.88
3C to 3D	26.35	1,792			2.00	1.50	0.57	0.20	0.10	4.37
3E to 3F	3.10	24			1.50	1.13	0.20	0.15	0.10	3.08
4A to 4B	8.85	11					0.15	0.15	0.10	0.40
I9 to I10	91.05	1,452			2.00	1.50	0.57	0.15	0.10	4.32
I11 to I12	22.80	44			2.34	1.90	0.55	0.15	0.10	5.04
TOTAL	165.20	4,181								AVERAGE HAUL
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL					**2.09**	**1.60**	**0.56**	**0.17**	**0.10**	**4.52**
								Average Round Trip Distance (miles)		9.04

ROCK HAUL:

Truck type: D20 No. trucks: 2
Delay min.: 8 Efficiency: 85%

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

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

Ave haul: $5.07 /cy
Load: $0.53 /cy
Spread: $0.87 /cy

Production: cy/day = 1,334

CRUSHED ROCK HAUL COSTS 4,181 cy @ **$6.47 /cy**

PIT RUN ROCK COST

SALE NAME: Mill Shack
PROJECT: Nos. 1 and 2
QUARRY: Knob Point
MATERIAL: Pit Run
DATE: 04/09/2024
BY: Brittany West

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES 50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	Total Haul
3A to 3B	3.85	354			2.00	1.00	0.45	0.33	0.10	3.88
3C to 3D	26.35	264			2.00	1.50	0.57	0.20	0.10	4.37
3E to 3F	3.10	306			1.50	1.13	0.20	0.15	0.10	3.08
4A to 4B	9.20	50					0.15	0.15	0.10	0.40
I1 to I2	169.30	33			2.10	2.00	0.80	0.21	0.10	5.21
I3 to I4	66.10	22			2.00	1.50	0.54	0.15	0.10	4.29
TOTAL	277.90 STA./NO.	1,029 CU. YD.								AVERAGE HAUL
CUBIC YARD WEIGHTED HAUL					**1.8**	**1.2**	**0.4**	**0.2**	**0.1**	**3.65**

Average Round Trip Distance (miles) 7.30

ROCK HAUL:

Truck type:	D20	No. trucks:	
Delay min.:	8	Efficiency:	85%
Truck type:	D12	No. trucks:	6
Delay min.:	6	Efficiency:	85%
Truck type:	D10	No. trucks:	
Delay min.:	5	Efficiency:	85%

Ave haul:	$4.67	/cy
Load:	$0.53	/cy
Spread:	$0.44	/cy

Production: cy/day = 1,017

PIT RUN ROCK HAUL COSTS 1,029 cy @ **$5.64 /cy**

Mill Shack
TIMBER CRUISE REPORT
FY 2024

1. **Sale Area Location:** Portions of Sections 5, 6, 7, 17, & 18 of T7N, R6W, W.M., Clatsop County, OR.

2. **Fund Distribution:** BOF 100% Tax Code: 8-01 (100%)

3. **Sale Acreage by Area:**

Unit	Harvest Type	Gross Acres	Stream Buffer Acres	Reserve Tree Area	Existing R/W Acres	New R/W	Net Acres	Survey Method
1	Modified Clearcut	95	9	1	1	1	83	GIS
2	Modified Clearcut	70	12	9	1	-	48	GIS
3	Modified Clearcut	127	14	2	3	3	105	GIS
4	Modified Clearcut	37	4	<1	1	1	31	GIS
5	R/W	5	-	-	-	-	5	LxW
TOTALS		**334**	**39**	**12**	**6**	**5**	**272**	

4. Cruisers and Cruise Dates: Michele Huffman, Avery Petersen, John Czarnecki, Ryan Simpson, Kevin Berry, and Justin Bush (05/01/2024-05/06/2024)

5. Cruise Method and Computation:

Unit 1: Unit 1 was variable plot cruised with a 40 BAF. A total of 39 plots were sampled on an eight by three chain spacing with a count to grade ratio of 2:1, resulting in 13 grade plots and 26 count plots. One count plot was dropped. This plot was located on the timber sale boundary and the road.

Unit 2: Unit 2 was variable plot cruised with a 40 BAF. A total of 46 plots were sampled on a four and a half by two and a half chain spacing with a count to grade ratio of 2:1, resulting in 19 grade plots and 27 count plots. Nine plots were dropped as they were in the reserve tree areas.

Unit 3: Unit 3 was stratified into two timber cruises due to different timber types. One section of the unit was variable plot cruised with 54.45 BAF (Unit 3A) and the other part of the unit was variable plot cruised with a 40 BAF (Unit 3B). Unit 3A had a total of 27 plots that were sampled on a seven by three chain spacing with a count to grade ratio of 2:1, resulting in 10 grade plots and 17 count plots. 2 count plots were dropped due to their proximity to the road. Unit 3B had a total of 33 plots that were sampled on a six by three chain spacing with a count to grade ratio of 2:1, resulting in 14 grade plots and 19 count plots.

Unit 4: Unit 4 was stratified into two timber cruises due to different timber types. One section of the unit was variable plot cruised with a 40 BAF (Unit 4A) while the other section (Unit 24B) was cruised with a 40 BAF that was similar to the timber type found in Unit 2. Unit 4A had a total of 40 plots that were sampled on a four by two chain spacing with a count to grade ratio of 2:1, resulting in 25 count plots and 15 grade plots. Unit 24B had a total of 10 plots that were sampled on a four and a half by two and a half chain spacing with a count to grade ratio of 2:1, resulting in 6 count plots and 4 grade plots.

Unit 5 (R/W): Unit 5 (R/W) was separated into Unit 5A and Unit 5B to accurately reflect the stand types associated with in-unit road construction. Cruise data for Unit 5A was obtained from the Unit 1 and Unit 4 cruise and Unit 5B was obtained from the Unit 3B cruise and acreages have been adjusted accordingly.

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
1	MILSHACK	U1	00MC	83
2 & 4	MILSHACK	U24B	00MC	58
3	MILSHACK	U3A	00MC	56
3	MILSHACK	U3B	00MC	49
4	MILSHACK	U4A	00MC	21

6. Timber Description:

Unit 1: is a modified clearcut with an average of 55 years. The stand consists of Sitka spruce, with minor components of red alder, western hemlock, and Douglas-fir. The average take Sitka spruce is approximately 17 inches DBH and 76 feet to a merchantable top. The average take red alder is approximately 14 inches DBH and 58 feet to a merchantable top. The average take western hemlock is approximately 21 inches DBH and 84 feet to a merchantable top. The average take Douglas-fir is 17 inches DBH and 79 feet to a merchantable top. Average net volume to be harvested per acre is 40 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: is a modified clearcut with an average of 54 years. The stand consists of western hemlock, red alder, Sitka spruce, Douglas-fir, and noble fir. The average take western hemlock is approximately 14 inches DBH and 70 feet to a merchantable top. The average take red alder is approximately 12 inches DBH and 30 feet to a merchantable top. The average Sitka spruce is approximately 18 inches DBH and 45 feet to a merchantable top. The average take Douglas-fir is approximately 33 inches DBH and 81 feet to a merchantable top. The average take noble fir is approximately 32 inches DBH and 100 feet to a merchantable top. Average net volume to be harvested per acre is 27 MBF. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point.

Unit 3: is a modified clearcut with an average of 77 years. The stand consists of western hemlock, Douglas-fir, Sitka spruce, red alder, and noble fir. The average take western hemlock is approximately 21 inches DBH and 63 feet to a merchantable top. The average take Douglas-fir is approximately 20 inches DBH and 52 feet to a merchantable top. The average take Sitka spruce is approximately 18 inches DBH and 47 feet to a merchantable top. The average take red alder is approximately 17 inches DBH and 49 feet to a merchantable top. The average take noble fir is approximately 29 inches DBH and 77 feet to a merchantable top. Average net volume to be harvested per acre is 30 MBF. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point.

Unit 4: is a modified clearcut with an average of 60 years. The stand consists of Sitka spruce, Douglas-fir, red alder, western hemlock, and noble fir. The average take Sitka spruce is approximately 20 inches DBH and 64 feet to a merchantable top. The average take Douglas-fir is approximately 22 inches DBH and 72 feet to a merchantable top. The average take red alder is approximately 16 inches DBH and 56 feet to a merchantable top. The average take western hemlock is approximately 16 inches DBH and 52 feet to a merchantable top. The average take noble fir is approximately 30 inches DBH and 72 feet to a merchantable top. Average net volume to be harvested per acre is 37 MBF. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point.

Unit 5A (R/W) is similar to the timber description in Units 1 and 4. Average net volume to be harvested per acre is 31 MBF.

Unit 5B (R/W) is similar to the timber description in Unit 3B. Average net volume to be harvested per acre is 24 MBF.

7. Statistical Analysis and Stand Summary:

Statistics for Stand B.F. volumes

Type	Estimated CV	Target SE%	Actual CV	Actual SE%
U1	50.0%	11.0%	37.0%	5.9%
U24B	65.0%	11.0%	61.2%	8.2%
U3A	50.0%	11.0%	32.5%	6.3%
U3B	50.0%	11.0%	46.5%	8.2%
U4A	40.0%	12.0%	26.2%	4.1%

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
Sitka spruce	18"	3,912	2,223*	1,419*	270	1.2%	43%
Western hemlock	18"	3,014	1,937	898	179	2.7%	33%
Douglas-fir	20"	1,066	664	339	63	4.9%	12%
Noble fir	30"	211	186	25	-	1.4%	2%
TOTALS	--	**8,203**	**5,010**	**2,681**	**512**	--	--

*This sale includes approximately 45 MBF of Sitka Spruce that is larger than 24" DBH.

Hardwood

Species	DBH	Net Vol.	12"+	10"-11"	8"-9"	6"-7"	% D & B	% Sale
Red alder	14"	942	29	93	523	297	0.7%	10%
TOTALS	--	**942**	**29**	**93**	**523**	**297**	--	--

TOTAL VOLUME	9,145 MBF

9. Approvals:

Prepared by: John Czarnecki **Date:** 05/10/2024

Unit Forester Approval: [signature] **Date:** 5/16/2024

10. Attachments: Cruise Design and Map (14 pages)
Volume Report (7 pages)
Statistics Report (14 pages)
Log Stock Table (4 pages)
Stand Table Summary (3 pages)

Revised August, 2002

CRUISE DESIGN
ASTORIA DISTRICT

Sale Name: Mill Shack **Unit** U1

Harvest Type: Modified Clearcut

Approx. Cruise Acres: 83 **Estimated CV%** 50 Net BF/Acre **SE% Objective** 11% Net BF/Acre

Planned Sale Volume: 2,268 MBF **Estimated Sale Area Value/Acre:** $9,450/Acre

A. Cruise Goals: (a) Grade minimum 100 conifer trees.
(b) Sample 40 plots (13 grade/ 27 count); (c) Other goals (__ Determine "automark" thinning standards; X Determine log grades for sale value; ___ Determine snag and leave tree species and sizes.

B. Cruise Design:

1. Plot Cruises: BAF: 40

Unit 1:

Cruise Line Direction: Unit 1: 0°/180°
Cruise Line Spacing 8 (chains) 528 (feet)
Cruise Plot Spacing 3 (chains) 198 (feet)
Grade/Count Ratio 1:2

Take plots as marked on cruise map.

Grade minor species (true fir, 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 ½" for trees < 16", to nearest 1" for trees 16" - 24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

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

3. Top Cruise Diameter (TCD): Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 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 ≥ 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: [signature]
Date: 5/1/24

TIMBER CRUISE MAP

OF TIMBER SALE CONTRACT
NO. AT-341-2025-W00987-01
MILL SHACK
PORTIONS OF SECTIONS 5, 6, 7, 8, 17, & 18 OF T7N, R6W, W.M.,
CLATSOP COUNTY, OREGON

N

Unit	BAF	Plot Spacing	Line Spacing	Line Azimuth
1	40	3.0 ch.	8.0 ch.	0°/180°
2	40	2.5 ch.	4.5 ch.	0°/180°
3A	54.45	3.0 ch.	7.0 ch.	25°/205°
3B	40	3.0 ch.	6.0 ch.	45°/225°
4A	40	2.0 ch.	4.0 ch.	158°/338°
4B	40	2.5 ch.	4.5 ch.	0°/180°

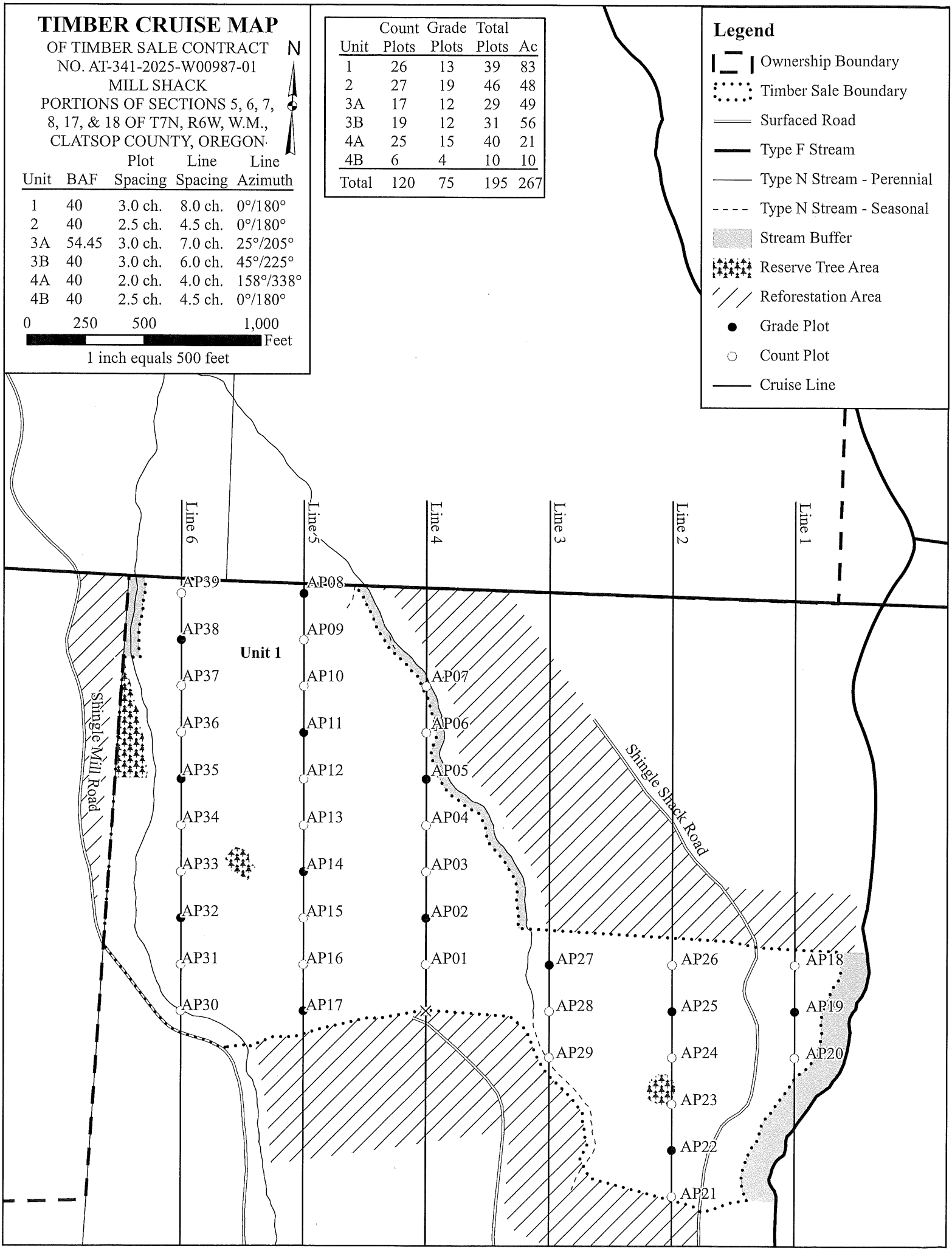
0 250 500 1,000 Feet

1 inch equals 500 feet

Unit	Count Plots	Grade Plots	Total Plots	Ac
1	26	13	39	83
2	27	19	46	48
3A	17	12	29	49
3B	19	12	31	56
4A	25	15	40	21
4B	6	4	10	10
Total	120	75	195	267

Legend

- Ownership Boundary
- Timber Sale Boundary
- Surfaced Road
- Type F Stream
- Type N Stream - Perennial
- Type N Stream - Seasonal
- Stream Buffer
- Reserve Tree Area
- Reforestation Area
- Grade Plot
- Count Plot
- Cruise Line



Revised August, 2002

CRUISE DESIGN
ASTORIA DISTRICT

Sale Name: Mill Shack **Units** U24B

Harvest Type: Modified Clearcut

Approx. Cruise Acres: 58 **Estimated CV%** 65 Net BF/Acre **SE% Objective** 11% Net BF/Acre

Planned Sale Volume: 1,638 MBF **Estimated Sale Area Value/Acre:** $9,100/Acre

A. Cruise Goals: (a) Grade minimum 80 conifer trees.
(b) Sample 65 plots (25 grade/ 40 count); (c) Other goals (__ Determine "automark" thinning standards; X Determine log grades for sale value; ___ Determine snag and leave tree species and sizes.

B. Cruise Design:

1. **Plot Cruises: BAF: 40**

Units 2 & 4B:

Cruise Line Direction: Unit 2 & 4B: 0°/180°
Cruise Line Spacing 4.5 (chains) 297 (feet)
Cruise Plot Spacing 2.5 (chains) 165 (feet)
Grade/Count Ratio 1:2

Take plots as marked on cruise map.

Grade minor species (true fir, 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 ½" for trees < 16", to nearest 1" for trees 16" - 24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

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

3. **Top Cruise Diameter (TCD):** Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 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 ≥ 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: [signature]
Date: 5/1/24

TIMBER CRUISE MAP

OF TIMBER SALE CONTRACT
NO. AT-341-2025-W00987-01
MILL SHACK
PORTIONS OF SECTIONS 5, 6, 7, 8, 17, & 18 OF T7N, R6W, W.M.,
CLATSOP COUNTY, OREGON

N

Unit	BAF	Plot Spacing	Line Spacing	Line Azimuth
1	40	3.0 ch.	8.0 ch.	0°/180°
2	40	2.5 ch.	4.5 ch.	0°/180°
3A	54.45	3.0 ch.	7.0 ch.	25°/205°
3B	40	3.0 ch.	6.0 ch.	45°/225°
4A	40	2.0 ch.	4.0 ch.	158°/338°
4B	40	2.5 ch.	4.5 ch.	0°/180°

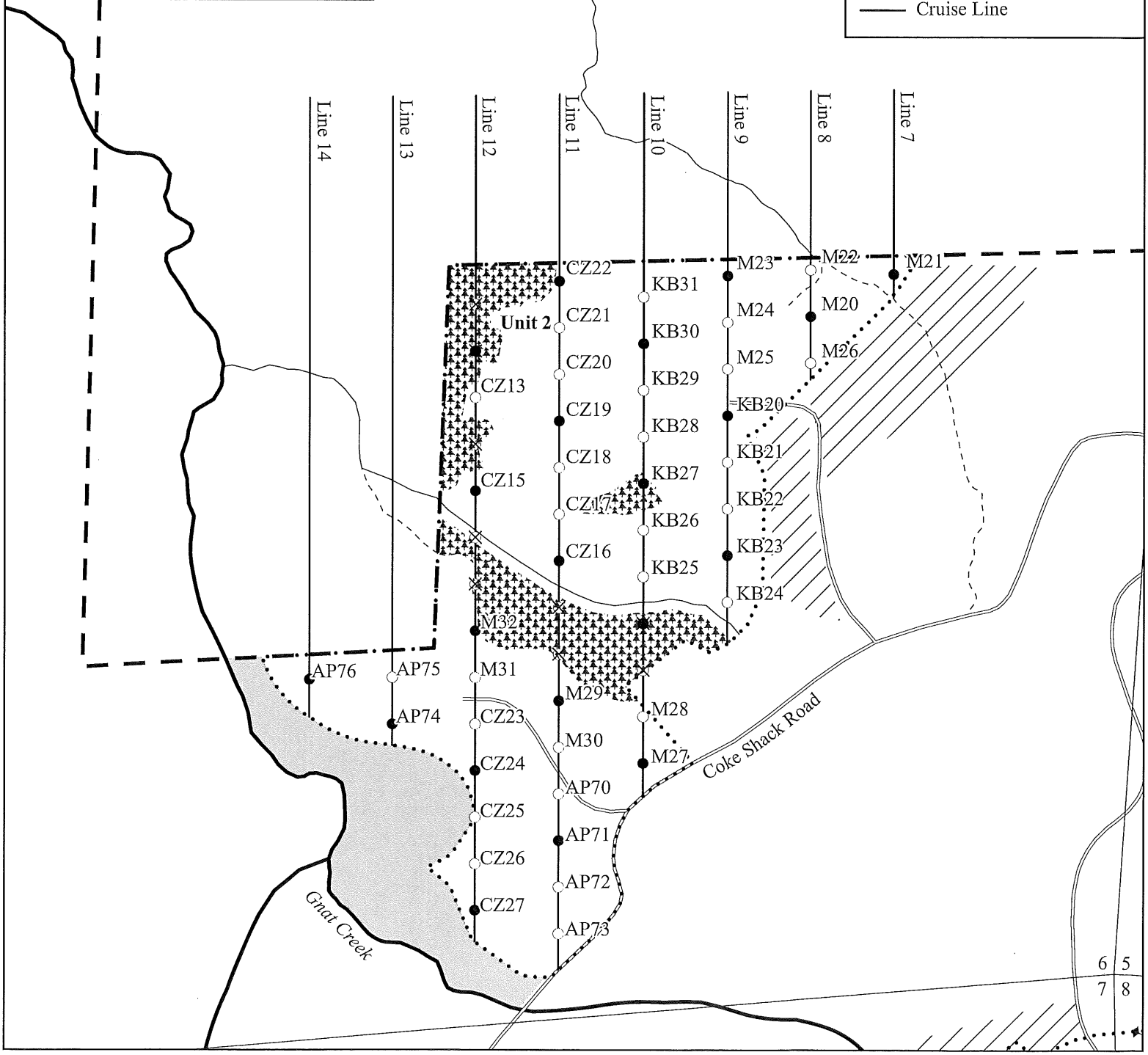
0 250 500 1,000 Feet

1 inch equals 500 feet

Unit	Count Plots	Grade Plots	Total Plots	Ac
1	26	13	39	83
2	27	19	46	48
3A	17	12	29	50
3B	19	12	31	55
4A	25	15	40	21
4B	6	4	10	10
Total	120	75	195	267

Legend

- Ownership Boundary
- Timber Sale Boundary
- Surfaced Road
- Type F Stream
- Type N Stream - Perennial
- Type N Stream - Seasonal
- Stream Buffer
- Reserve Tree Area
- Reforestation Area
- Grade Plot
- Count Plot
- Cruise Line



Revised August, 2002

CRUISE DESIGN
ASTORIA DISTRICT

Sale Name: Mill Shack **Unit** U3A

Harvest Type: Modified Clearcut

Approx. Cruise Acres: 56 **Estimated CV%** 50 Net BF/Acre **SE% Objective** 11% Net BF/Acre

Planned Sale Volume: 1,568 MBF **Estimated Sale Area Value/Acre:** $9,800/Acre

A. Cruise Goals: (a) Grade minimum 80 conifer trees.
(b) Sample 29 plots (10 grade/ 19 count); (c) Other goals (__ Determine "automark" thinning standards; X Determine log grades for sale value; ___ Determine snag and leave tree species and sizes.

B. Cruise Design:

1. **Plot Cruises: BAF: 54.45**

Unit 3A:

Cruise Line Direction: Unit 3A: 25°/205°
Cruise Line Spacing 7 (chains) 462 (feet)
Cruise Plot Spacing 3 (chains) 198 (feet)
Grade/Count Ratio 1:2

Take plots as marked on cruise map.

Grade minor species (true fir, 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 ½" for trees < 16", to nearest 1" for trees 16" - 24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

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

3. **Top Cruise Diameter (TCD):** Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 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 ≥ 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: 5/1/24

Revised August, 2002

CRUISE DESIGN
ASTORIA DISTRICT

Sale Name: Mill Shack **Unit** U3B

Harvest Type: Modified Clearcut

Approx. Cruise Acres: 49 **Estimated CV%** 50 Net BF/Acre **SE% Objective** 11% Net BF/Acre

Planned Sale Volume: 1,512 MBF **Estimated Sale Area Value/Acre:** $9,800/Acre

A. Cruise Goals: (a) Grade minimum 80 conifer trees.
(b) Sample 33 plots (14 grade/ 19 count); (c) Other goals (__ Determine "automark" thinning standards; X Determine log grades for sale value; ___ Determine snag and leave tree species and sizes.

B. Cruise Design:

1. Plot Cruises: BAF: 40

Unit 3B:

Cruise Line Direction: Unit 3B: 45°/225°
Cruise Line Spacing 6 (chains) 396 (feet)
Cruise Plot Spacing 3 (chains) 198 (feet)
Grade/Count Ratio 1:2

Take plots as marked on cruise map.

Grade minor species (true fir, 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 ½" for trees < 16", to nearest 1" for trees 16" - 24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

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

3. Top Cruise Diameter (TCD): Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 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 ≥ 12", knots > 2½" inside scaling cylinder affecting > 50% of log)

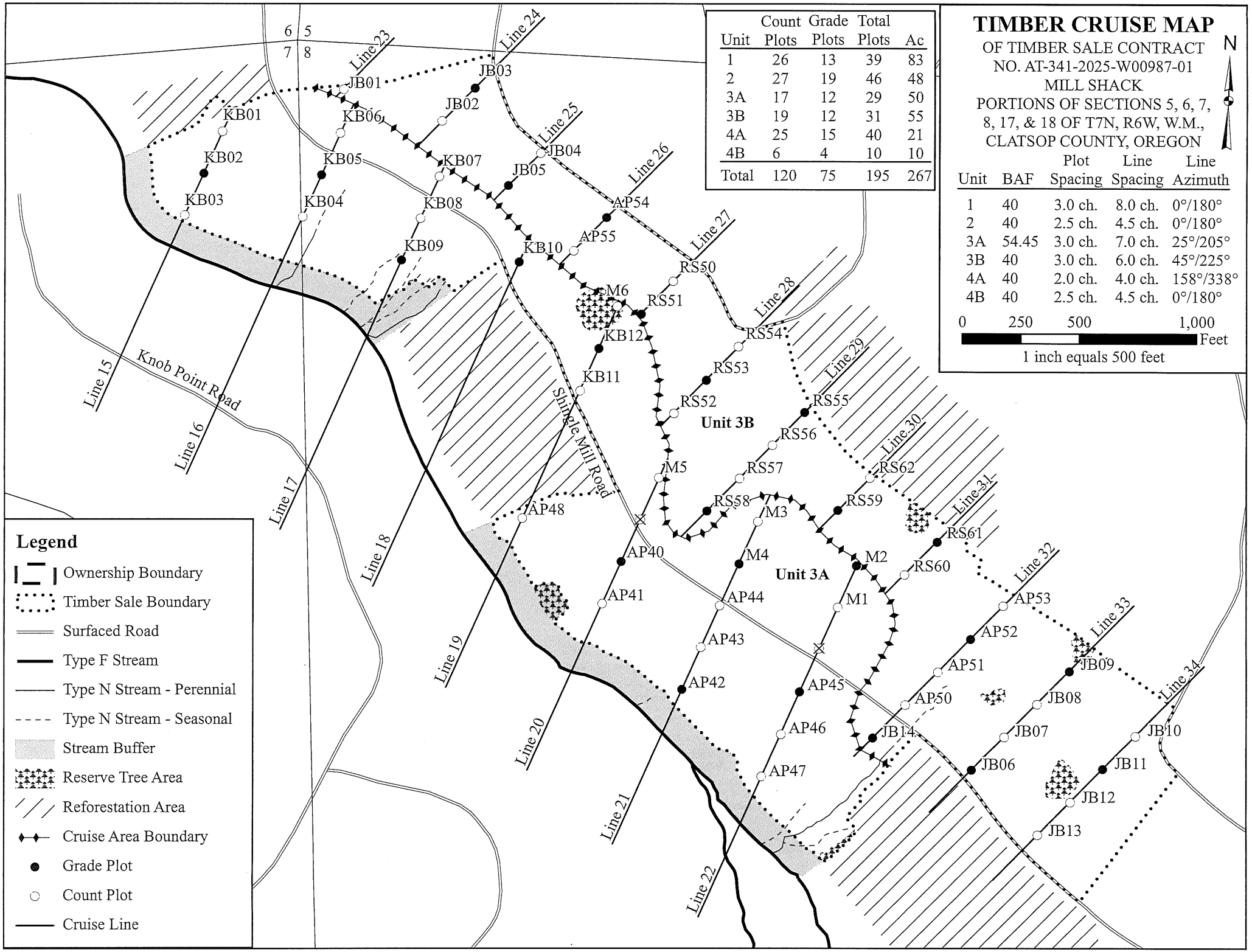
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally 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: 5/1/24


TIMBER CRUISE MAP
OF TIMBER SALE CONTRACT
NO. AT-341-2025-W00987-01
MILL SHACK
PORTIONS OF SECTIONS 5, 6, 7, 8, 17, & 18 OF T7N, R6W, W.M.,
CLATSOP COUNTY, OREGON
N
Unit | Count Plots | Grade Plots | Total Plots | Ac
1 | 26 | 13 | 39 | 83
2 | 27 | 19 | 46 | 48
3A | 17 | 12 | 29 | 50
3B | 19 | 12 | 31 | 55
4A | 25 | 15 | 40 | 21
4B | 6 | 4 | 10 | 10
Total | 120 | 75 | 195 | 267
Unit | BAF | Plot Spacing | Line Spacing | Line Azimuth
1 | 40 | 3.0 ch. | 8.0 ch. | 0°/180°
2 | 40 | 2.5 ch. | 4.5 ch. | 0°/180°
3A | 54.45 | 3.0 ch. | 7.0 ch. | 25°/205°
3B | 40 | 3.0 ch. | 6.0 ch. | 45°/225°
4A | 40 | 2.0 ch. | 4.0 ch. | 158°/338°
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1 inch equals 500 feet
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Surfaced Road
Type F Stream
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Stream Buffer
Reserve Tree Area
Reforestation Area
Cruise Area Boundary
Grade Plot
Count Plot
Cruise Line
Unit 3B
Unit 3A
Knob Point Road
Shingle Mill Road
Line 15
Line 16
Line 17
Line 18
Line 19
Line 20
Line 21
Line 22
Line 23
Line 24
Line 25
Line 26
Line 27
Line 28
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Revised August, 2002

CRUISE DESIGN
ASTORIA DISTRICT

Sale Name: Mill Shack **Unit** U4A

Harvest Type: Modified Clearcut

Approx. Cruise Acres: 21 **Estimated CV%** 40 Net BF/Acre **SE% Objective** 12% Net BF/Acre

Planned Sale Volume: 630 MBF **Estimated Sale Area Value/Acre:** $10,500/Acre

A. Cruise Goals: (a) Grade minimum 100 conifer trees.
(b) Sample 40 plots (15 grade/ 25 count); (c) Other goals (__ Determine "automark" thinning standards; X Determine log grades for sale value; ___ Determine snag and leave tree species and sizes.

B. Cruise Design:

1. **Plot Cruises: BAF: 40**

Unit 4A:

Cruise Line Direction: Unit 4A: 158°/338°
Cruise Line Spacing 4 (chains) 264 (feet)
Cruise Plot Spacing 2 (chains) 132 (feet)
Grade/Count Ratio 1:2

Take plots as marked on cruise map.

Grade minor species (true fir, 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 ½" for trees < 16", to nearest 1" for trees 16" - 24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.

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

3. **Top Cruise Diameter (TCD):** Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 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 ≥ 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: [signature]
Date: 5/6/24

TIMBER CRUISE MAP

OF TIMBER SALE CONTRACT
NO. AT-341-2025-W00987-01
MILL SHACK
PORTIONS OF SECTIONS 5, 6, 7, 8, 17, & 18 OF T7N, R6W, W.M.,
CLATSOP COUNTY, OREGON

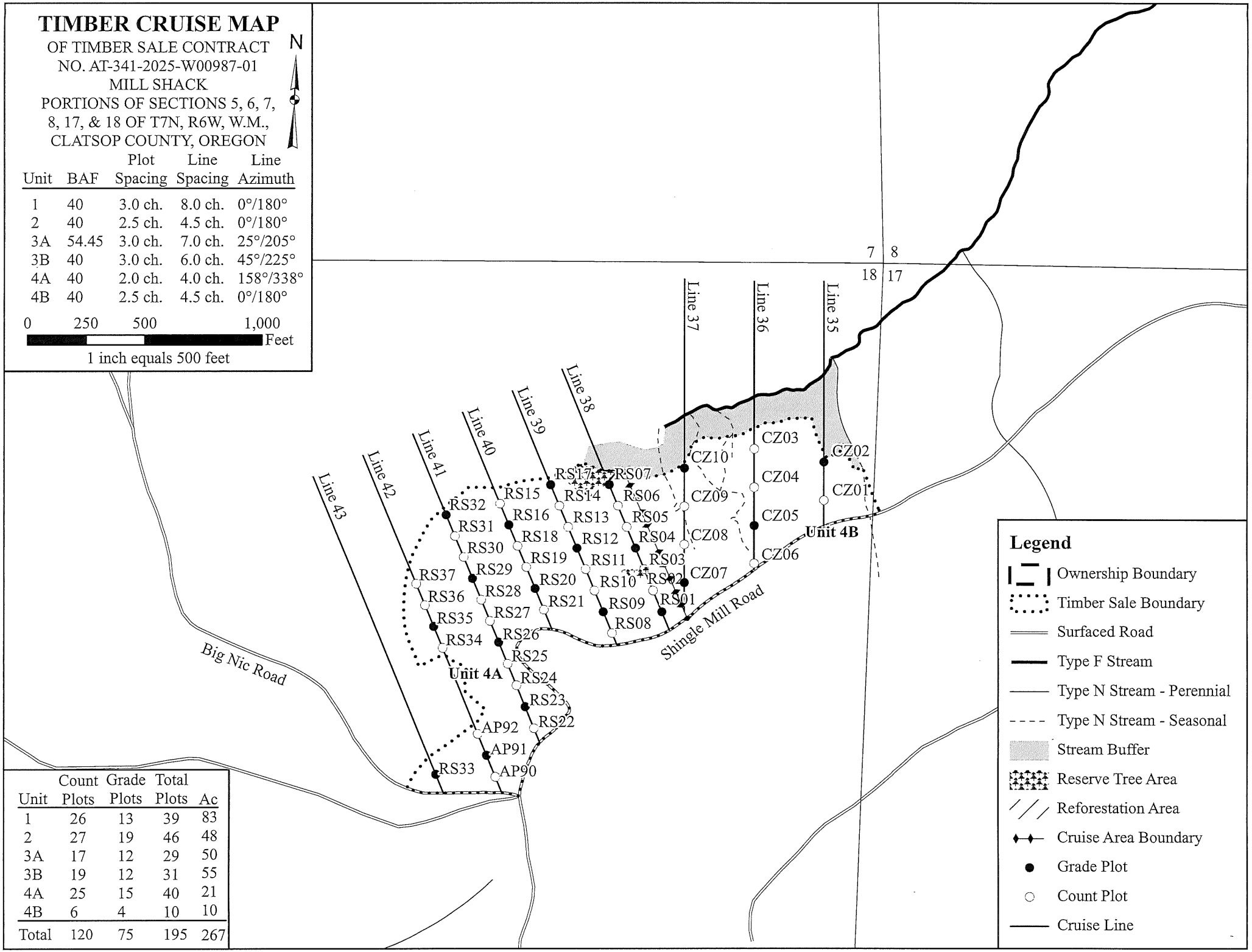
N

Unit	BAF	Plot Spacing	Line Spacing	Line Azimuth
1	40	3.0 ch.	8.0 ch.	0°/180°
2	40	2.5 ch.	4.5 ch.	0°/180°
3A	54.45	3.0 ch.	7.0 ch.	25°/205°
3B	40	3.0 ch.	6.0 ch.	45°/225°
4A	40	2.0 ch.	4.0 ch.	158°/338°
4B	40	2.5 ch.	4.5 ch.	0°/180°

0 250 500 1,000 Feet

1 inch equals 500 feet

Unit	Count Plots	Grade Plots	Total Plots	Ac
1	26	13	39	83
2	27	19	46	48
3A	17	12	29	50
3B	19	12	31	55
4A	25	15	40	21
4B	6	4	10	10
Total	120	75	195	267



TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T07N R06W S05 Ty00MC
THRU
T07N R06W S18 Ty00MC

Project: MILSHACK
Acres 272.00

Date 5/21/2024
Time 9:39:46AM

Spp	S T	So Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
S		DOCU														11	14		0.00	2.4
S		DO2S	56	.6	8,220	8,172	2,223		4	57	39	0	2	5	94	39	14	321	2.01	25.5
S		DO3S	37	2.3	5,342	5,219	1,419		87	5	8	2	3	27	69	36	9	106	0.86	49.1
S		DO4S	7	.5	997	992	270		100			57	43			20	6	28	0.47	35.1
S	**Totals**		43	1.2	14,559	14,383	3,912		41	34	25	5	5	12	78	31	9	128	1.10	112.1
A		DO1S	3	1.7	110	108	29			100			28	72		29	13	180	1.59	.6
A		DO2S	9		342	342	93		38	62			26	11	63	36	12	177	1.39	1.9
A		DO3S	56		1,922	1,922	523		100			1	11	14	74	37	9	100	0.77	19.3
A		DO4S	32	1.9	1,115	1,093	297		83	17		38	20	23	19	22	7	38	0.55	28.9
A	**Totals**		10	.7	3,489	3,465	942 ~~943~~		85	15		12	16	18	53	28	8	68	0.71	50.7
H		DOCU														7	19		0.00	1.9
H		DO2S	64	2.2	7,279	7,121	1,937		4	59	38	1	4	10	86	39	9	187	1.27	38.1
H		DO3S	30	4.7	3,461	3,300	898		69	14	17	4	6	15	75	37	6	74	0.69	44.7
H		DO4S	6	1.3	667	658	179	1	99			44	40	15	1	23	7	31	0.56	21.0
H	**Totals**		33	2.9	11,407	11,079	3,014	0	29	42	29	4	7	11	78	34	7	105	0.91	105.6
D		DOCU														7	14		0.00	2.1
D		DO2S	62	5.9	2,593	2,440	664		1	38	61		0	4	96	39	15	347	2.47	7.0
D		DO3S	32	4.2	1,299	1,245	339	1	86	2	11	1	8	29	61	34	8	95	0.98	13.0
D		DO4S	6	.5	231	230	63		100			43	53	4		21	6	28	0.51	8.3
D	**Totals**		12	5.1	4,123	3,915	1,066 ~~1,065~~	0	34	24	41	3	6	12	79	30	10	129	1.33	30.4
NF		DOCU														4	24		0.00	.2
NF		DO2S	88	1.5	696	685	186			16	84		4	1	95	39	19	585	3.38	1.2
NF		DO3S	12	.6	93	93	25		100			4	17	34	45	32	9	97	1.26	1.0
NF	**Totals**		2	1.4	789	778	2.11 ~~212~~		12	14	74	1	6	5	89	33	15	331	2.49	2.4
Totals				2.2	34,367	33,620	9,145	0	40	33	27	5	7	12	76	32	9	112	1.00	301.2

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: MILSHACK

Page 1
Date 5/21/2024
Time 10:00:33AM

T07N R06W S05 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
07N	06W	05	UNIT1	00MC	83.00	39	76	1	W

T07N R06W S05 T00MC

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
S		DO	CU														6	23		0.00	.8
S		DO	2S	59	.3	18,505	18,452	1,531		6	55	39			4	96	39	14	314	1.94	58.7
S		DO	3S	34	.4	10,672	10,633	883		97	3		1	1	27	71	37	8	95	0.73	112.1
S		DO	4S	7		1,970	1,970	164		100			55	45			21	6	28	0.41	70.2
S	**Totals**			76	.3	31,147	31,055	2,578		43	34	23	4	3	12	81	32	9	128	1.02	241.8
A		DO	2S	9		690	690	57			100			42		58	36	12	191	1.51	3.6
A		DO	3S	73		5,296	5,296	440		100					12	88	38	8	102	0.76	52.1
A		DO	4S	18		1,245	1,245	103		100			76	15		10	19	6	25	0.40	50.3
A	**Totals**			18		7,231	7,231	600		90	10		13	7	9	71	29	7	68	0.68	106.0
H		DO	2S	77		1,020	1,020	85			100					100	40	14	309	1.94	3.3
H		DO	3S	23		302	302	25		100						100	40	8	92	0.80	3.3
H	**Totals**			3		1,322	1,322	110		23	77					100	40	11	200	1.37	6.6
D		DO	2S	37		448	448	37				100				100	40	17	460	2.80	1.0
D		DO	3S	60		727	727	60		100					23	77	36	8	94	0.68	7.7
D		DO	4S	3		29	29	2		100			100				16	8	30	0.63	1.0
D	**Totals**			3		1,204	1,204	100		63		37	2		14	84	34	9	125	0.92	9.6
Type Totals					.2	40,904	40,812	3,387		51	30	19	5	4	11	80	32	9	112	0.94	364.1

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: MILSHACK

Date 5/21/2024

Time 10:00:04AM

T07N R06W S06 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
07N	06W	06	UNIT24B	00MC	58.00	56	132	1	W

T07N R06W S06 T00MC

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
H		DO	CU														7	18		0.00	1.5
H		DO	2S	71	1.4	13,527	13,338	774			41	59		6	5	89	39	6	123	0.78	108.2
H		DO	3S	23	2.5	4,495	4,381	254		87	10	3	2	15	10	73	38	4	37	0.36	119.1
H		DO	4S	6	.7	1,036	1,029	60	3	97			50	45	4		22	6	29	0.51	35.1
H	**Totals**			69	1.6	19,057	18,748	1,087	0	26	32	42	3	11	6	80	36	5	71	0.56	263.9
A		DO	1S	18	1.7	504	495	29			100			28	72		29	13	180	1.59	2.7
A		DO	2S	19		505	505	29		100					34	66	37	11	154	1.22	3.3
A		DO	3S	15		395	395	23		100			24	27	49		24	8	53	0.60	7.4
A		DO	4S	48	7.2	1,374	1,275	74		100			41	29	23	7	23	6	32	0.48	40.3
A	**Totals**			10	3.9	2,778	2,670	155		81	19		23	23	38	16	24	7	50	0.63	53.7
S		DO	CU														8	32		0.00	.3
S		DO	2S	45		1,480	1,480	86			40	60		7		93	37	17	455	2.88	3.3
S		DO	3S	47	2.4	1,585	1,547	90		68		32	2	6	1	91	37	9	131	1.16	11.8
S		DO	4S	8		236	236	14		100			75	25			19	6	23	0.59	10.1
S	**Totals**			12	1.2	3,302	3,264	189		40	18	42	6	8	1	85	29	9	128	1.29	25.4
D		DO	CU														10	31		0.00	.2
D		DO	2S	69	2.5	1,234	1,204	70				100				100	40	20	660	3.76	1.8
D		DO	3S	31	4.3	543	520	30		42	18	41		7	8	85	37	12	227	2.00	2.3
D	**Totals**			6	3.0	1,777	1,723	100		13	5	82		2	3	95	37	16	396	2.77	4.4
NF		DO	2S	97	2.4	744	727	42			15	85		10	4	85	36	19	601	3.30	1.2
NF		DO	3S	3		18	18	1		100			100				20	9	50	0.85	.4
NF	**Totals**			3	2.4	762	744	43		2	14	83	2	10	4	83	32	17	474	2.95	1.6
Type Totals					1.9	27,676	27,150	1,575	0	31	27	42	5	11	8	76	34	6	78	0.65	349.0

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T07N R06W S08 Ty00MC 56.00
T07N R06W S08 Ty00MC 49.00

Project: MILSHACK
Acres 105.00

Date 5/21/2024
Time 10:01:45AM

Spp	S T	So Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
H		DOCU														7	20		0.00	3.7
H		DO2S	59	2.9	10,166	9,869	1,036		6	68	25	1	2	14	83	37	14	289	2.12	34.1
H		DO3S	34	5.8	6,098	5,746	603		61	16	23	5	3	18	75	35	9	127	1.22	45.1
H		DO4S	7	1.7	1,093	1,074	113		100			41	37	22		23	7	32	0.58	33.4
H		**Totals**	54	3.8	17,357	16,689	1,752		31	46	23	5	4	16	75	31	10	143	1.40	116.4
D		DOCU														7	14		0.00	5.0
D		DO2S	62	7.6	4,680	4,323	454			42	58			5	95	39	15	329	2.45	13.1
D		DO3S	31	5.4	2,269	2,146	225	2	87		11	1	10	33	56	34	8	90	1.01	23.9
D		DO4S	7		486	486	51		100			41	54	5		21	6	28	0.50	17.7
D		**Totals**	22	6.4	7,435	6,955	730	1	34	26	40	3	7	14	76	29	10	117	1.31	59.7
S		DOCU														14	10		0.00	3.3
S		DO2S	37	3.6	1,677	1,616	170			60	40			14	86	38	14	297	2.00	5.4
S		DO3S	51	10.4	2,442	2,188	230		58	15	27	1	1	38	59	35	11	166	1.44	13.2
S		DO4S	12	2.4	503	491	52		100			60	40			19	7	29	0.59	17.2
S		**Totals**	14	7.1	4,622	4,295	451		41	30	29	7	5	25	62	27	10	110	1.22	39.1
NF		DOCU														4	23		0.00	.5
NF		DO2S	85	1.1	1,252	1,239	130			16	84				100	40	19	588	3.42	2.1
NF		DO3S	15	.7	216	214	22		100				14	36	50	33	9	102	1.29	2.1
NF		**Totals**	5	1.0	1,468	1,453	153		15	14	71		2	5	93	33	15	307	2.42	4.7
A		DO3S	31		494	494	52		100				100			30	11	130	1.07	3.8
A		DO4S	69		1,097	1,097	115		55	45			20	45	35	29	9	99	1.01	11.1
A		**Totals**	5		1,590	1,590	167		69	31			45	31	24	30	10	107	1.02	14.9
Totals				4.6	32,472	30,983	3,253	0	34	37	29	4	7	17	72	30	10	132	1.35	234.8

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: MILSHACK

Date 5/21/2024

Time 10:03:13AM

T07N R06W S18 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
07N	06W	18	UNIT 4A	00MC	21.00	40	112	1	W

T07N R06W S18 T00MC

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
S		DO	CU														7	17		0.00	9.2
S		DO	2S	63	.5	19,759	19,669	413			63	37	0	7	3	89	38	15	339	2.16	58.1
S		DO	3S	31	.6	9,498	9,438	198		87	4	9	3	13	24	60	34	9	109	1.03	86.7
S		DO	4S	6	.4	1,717	1,711	36		100			53	47			21	7	31	0.54	55.2
S	**Totals**			82	.5	30,974	30,819	647		32	41	27	4	11	9	75	31	10	147	1.32	209.1
D		DO	2S	81	2.2	4,308	4,214	88		6	62	32		3	2	95	39	14	301	2.04	14.0
D		DO	3S	13	2.4	708	691	15		100			6	18	41	36	32	9	84	0.92	8.2
D		DO	4S	6	5.3	299	283	6		100			41	59			22	7	30	0.57	9.6
D	**Totals**			14	2.4	5,315	5,188	109		24	50	26	3	8	7	82	32	10	163	1.44	31.9
H		DO	CU														10	14		0.00	.3
H		DO	2S	73		482	482	10		21	52	27	10		27	63	36	14	248	1.79	1.9
H		DO	3S	7		46	46	1		100			59	41			23	7	42	0.71	1.1
H		DO	4S	20		127	127	3		100			13			87	32	6	53	0.41	2.4
H	**Totals**			2		656	656	14		42	38	20	14	3	20	63	31	9	115	1.00	5.7
A		DO	2S	44		255	255	5		100						100	40	11	180	1.32	1.4
A		DO	3S	36		210	210	4		100					100		32	9	90	0.84	2.3
A		DO	4S	20		113	113	2		100			100				18	7	30	0.49	3.8
A	**Totals**			2		578	578	12		100			19		36	44	27	8	77	0.86	7.5
NF		DO	CU														10	29		0.00	.2
NF		DO	2S	90	3.5	436	421	9			12	88		40		60	36	19	537	3.29	.8
NF		DO	3S	10		44	44	1		100				100			28	10	100	1.18	.4
NF	**Totals**			1	3.2	480	465	10		9	11	80		46		54	31	18	333	2.55	1.4
Type Totals					.8	38,003	37,705	792		32	41	27	4	11	9	75	31	10	148	1.32	255.6

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: MILSHACK

Date 5/21/2024

Time 10:13:12AM

T07N R06W S05 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
07N	06W	05	U5ARW	00MC	2.00	98	213	1	W

T07N R06W S05 T00MC

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
H		DO	CU														6	15		0.00	1.4
H		DO	2S	71	1.3	8,214	8,105	16			44	56		6	5	89	39	6	127	0.80	63.8
H		DO	3S	23	2.4	2,714	2,648	5		87	10	3	2	17	10	72	38	4	38	0.37	70.0
H		DO	4S	6	.7	623	619	1	2	98			52	44	4		22	6	29	0.52	21.1
H	**Totals**			36	1.5	11,551	11,372	23	0	26	34	40	3	11	6	80	36	5	73	0.57	156.3
S		DO	CU														7	26		0.00	.5
S		DO	2S	57	.3	8,196	8,175	16		5	54	41		1	4	95	39	14	325	2.01	25.2
S		DO	3S	36	.7	5,151	5,114	10		92	2	6	1	2	22	75	37	8	100	0.79	51.3
S		DO	4S	7		918	918	2		100			58	42			20	6	27	0.44	33.7
S	**Totals**			45	.4	14,265	14,207	28		43	32	26	4	4	10	82	32	9	128	1.06	110.6
A		DO	1S	7	1.7	340	334	1			100			28	72		29	13	180	1.59	1.8
A		DO	2S	14		569	569	1		60	40			17	20	63	36	11	167	1.32	3.4
A		DO	3S	48		2,023	2,023	4		100			3	4	17	76	35	8	91	0.73	22.3
A		DO	4S	31	5.0	1,339	1,272	3		100			52	24	16	8	21	6	29	0.46	43.8
A	**Totals**			13	1.7	4,271	4,198	8		87	13		17	14	21	48	27	7	59	0.66	71.4
D		DO	CU														10	31		0.00	.1
D		DO	2S	60	2.0	899	881	2				100				100	40	19	614	3.54	1.4
D		DO	3S	39	2.4	576	562	1		67	10	23		4	15	81	36	9	140	1.14	4.0
D		DO	4S	1		10	10	0		100			100				16	8	30	0.63	.3
D	**Totals**			5	2.2	1,486	1,453	3		27	4	69	1	1	6	92	35	12	245	1.78	5.9
NF		DO	2S	97	2.4	532	519	1			15	85		10	4	85	36	19	601	3.30	.9
NF		DO	3S	3		13	13	0		100			100				20	9	50	0.85	.3
NF	**Totals**			2	2.4	545	532	1		2	14	83	2	10	4	83	32	17	474	2.95	1.1
Type Totals					1.1	32,117	31,762	64	0	41	29	30	5	8	10	77	33	7	92	0.77	345.4

T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: MILSHACK

Page 1
Date 5/21/2024
Time 10:13:43AM

T07N R06W S08 T00MC

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
07N	06W	08	U5BRW	00MC	3.00	32	107	1	W

T07N R06W S08 T00MC

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
H		DO	CU														7	18		0.00	7.4
H		DO	2S	58	3.3	5,562	5,379	16			73	27	4	9	4	83	36	15	292	2.36	18.4
H		DO	3S	32	1.3	3,000	2,960	9		67	18	15	15	3	4	77	33	10	126	1.30	23.4
H		DO	4S	10		861	861	3		100			56	39	6		22	7	31	0.66	27.6
H	**Totals**			37	2.4	9,423	9,201	28		31	48	21	12	10	4	74	27	11	120	1.42	76.8
D		DO	CU														6	13		0.00	6.5
D		DO	2S	54	2.5	4,270	4,163	12			81	19			11	89	39	13	254	2.03	16.4
D		DO	3S	31	2.8	2,435	2,367	7		100				5	45	50	34	8	81	0.94	29.0
D		DO	4S	15		1,074	1,074	3		100			41	54	5		21	6	28	0.50	39.0
D	**Totals**			31	2.2	7,779	7,604	23		45	45	10	6	9	21	64	28	8	84	1.06	90.9
S		DO	CU														14	10		0.00	7.3
S		DO	2S	34	1.3	2,181	2,152	6			67	33			24	76	37	13	254	1.82	8.5
S		DO	3S	48	2.0	3,062	3,002	9		81	19		2		53	45	35	10	138	1.18	21.7
S		DO	4S	18	2.4	1,111	1,084	3		100			60	40			19	7	29	0.59	38.0
S	**Totals**			25	1.8	6,355	6,239	19		56	32	11	11	7	34	48	25	9	83	0.99	75.5
NF		DO	CU														4	23		0.00	1.1
NF		DO	2S	86	2.0	1,474	1,445	4			31	69				100	40	17	489	2.97	3.0
NF		DO	3S	14	1.3	238	235	1		100				28	72		31	9	80	1.12	3.0
NF	**Totals**			7	1.9	1,712	1,680	5		14	26	60		4	10	86	30	15	238	2.13	7.0
Type Totals					2.2	25,268	24,723	74		41	42	18	9	9	17	65	27	10	99	1.19	250.2

TC PSTATS

PROJECT STATISTICS

PROJECT MILSHACK

DATE 5/21/2024

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
07N	06	05	U5ARW	00MC	THR	272.00	325	1,981	1	W
07N	06W	18	UNIT 4A	00MC						

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	325	1981	6.1		
CRUISE	134	799	6.0	43,160	1.9
DBH COUNT					
REFOREST					
COUNT	182	1114	6.1		
BLANKS	9				
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
S SPRUCE	277	54.0	17.7	67	22.0	92.5	14,559	14,383	3,847	3,847
WHEMLOCK	298	55.8	17.3	67	21.9	91.1	11,407	11,079	3,285	3,285
DOUG FIR	121	16.8	20.3	56	8.4	37.9	4,123	3,915	1,214	1,214
R ALDER	79	31.1	13.5	48	8.4	31.1	3,489	3,465	1,013	1,013
NOB FIR	19	1.0	29.7	79	0.9	4.8	789	778	192	192
SNAG	5	.0	20.3	35	0.0	.0				
TOTAL	*799*	*158.7*	*17.2*	*62*	*62.0*	*257.4*	*34,367*	*33,620*	*9,553*	*9,553*

CONFIDENCE LIMITS OF THE SAMPLE

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

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - BF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
S SPRUCE	71.9	4.3	361	378	394			
WHEMLOCK	69.5	4.0	385	402	418			
DOUG FIR	83.7	7.7	312	338	364			
R ALDER	63.7	7.2	107	116	124			
NOB FIR	77.1	18.2	734	897	1,060			
SNAG								
TOTAL	*83.3*	*3.0*	*354*	*365*	*375*	*277*	*69*	*31*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - CF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
S SPRUCE	63.3	3.8	96	99	103			
WHEMLOCK	58.2	3.4	108	112	116			
DOUG FIR	69.2	6.3	95	101	108			
R ALDER	61.4	6.9	32	34	37			
NOB FIR	54.1	12.7	183	209	236			
SNAG								
TOTAL	*69.7*	*2.5*	*97*	*100*	*102*	*194*	*49*	*22*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	TREES/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
S SPRUCE	226.6	12.6	47	54	61			
WHEMLOCK	286.3	15.9	47	56	65			
DOUG FIR	289.6	16.0	14	17	20			
R ALDER	318.9	17.7	26	31	37			
NOB FIR	621.8	34.5	1	1	1			
SNAG	907.9	50.3	0	0	0			
TOTAL	*136.2*	*7.5*	*147*	*159*	*171*	*740*	*185*	*82*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	BASAL AREA/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
S SPRUCE	203.3	11.3	82	92	103			
WHEMLOCK	192.7	10.7	81	91	101			
DOUG FIR	272.3	15.1	32	38	44			
R ALDER	324.5	18.0	25	31	37			

TC PSTATS

PROJECT STATISTICS

PROJECT **MILSHACK**

DATE 5/21/2024

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
07N	06	05	U5ARW	00MC	THR	272.00	325	1,981	1	W
07N	06W	18	UNIT 4A	00MC						

BASAL AREA/ACRE

CL 68.1 SD: 1.00	COEFF VAR.	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
NOB FIR	579.8	32.1	3	5	6			
SNAG	1138.4	63.1	0	0	0			
TOTAL	*111.0*	*6.2*	*242*	*257*	*273*	*492*	*123*	*55*

NET BF/ACRE

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
S SPRUCE	225.3	12.5	12,587	14,383	16,179			
WHEMLOCK	200.7	11.1	9,847	11,079	12,312			
DOUG FIR	275.8	15.3	3,316	3,915	4,513			
R ALDER	338.0	18.7	2,816	3,465	4,114			
NOB FIR	554.0	30.7	539	778	1,017			
SNAG								
TOTAL	*121.3*	*6.7*	*31,360*	*33,620*	*35,881*	*588*	*147*	*65*

TC TSTATS

STATISTICS

PAGE 1

PROJECT MILSHACK

DATE 5/21/2024

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	06W	05	UNIT1	00MC	83.00	39	237	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	39	237	6.1		
CRUISE	14	76	5.4	14,022	.5
DBH COUNT					
REFOREST					
COUNT	25	153	6.1		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
S SPRUCE	56	105.6	17.2	76	41.2	171.3	31,147	31,055	8,030	8,030
R ALDER	16	55.7	13.6	58	15.3	56.4	7,231	7,231	2,100	2,100
WHEMLOCK	2	3.3	21.3	84	1.8	8.2	1,322	1,322	363	363
DOUG FIR	2	4.3	17.4	79	1.7	7.2	1,204	1,204	306	306
TOTAL	*76*	*168.9*	*16.2*	*70*	*60.3*	*243.1*	*40,904*	*40,812*	*10,799*	*10,799*

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
S SPRUCE	61.4	8.2	390	425	460			
R ALDER	34.2	8.8	130	143	155			
WHEMLOCK	35.8	33.5	276	415	554			
DOUG FIR	82.8	77.5	92	410	728			
TOTAL	*70.2*	*8.0*	*335*	*365*	*394*	*197*	*49*	*22*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
S SPRUCE	55.6	7.4	99	107	115			
R ALDER	34.4	8.9	38	41	45			
WHEMLOCK	24.5	23.0	87	113	138			
DOUG FIR	83.2	77.9	23	105	186			
TOTAL	*63.1*	*7.2*	*86*	*93*	*100*	*159*	*40*	*18*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
S SPRUCE	78.5	12.6	92	106	119			
R ALDER	125.4	20.1	45	56	67			
WHEMLOCK	255.0	40.8	2	3	5			
DOUG FIR	335.1	53.6	2	4	7			
TOTAL	*33.2*	*5.3*	*160*	*169*	*178*	*44*	*11*	*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
S SPRUCE	71.3	11.4	152	171	191			
R ALDER	124.7	19.9	45	56	68			
WHEMLOCK	254.5	40.7	5	8	12			
DOUG FIR	335.1	53.6	3	7	11			
TOTAL	*29.8*	*4.8*	*231*	*243*	*255*	*36*	*9*	*4*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
S SPRUCE	71.5	11.4	27,501	31,055	34,610			
R ALDER	124.4	19.9	5,792	7,231	8,670			
WHEMLOCK	254.9	40.8	783	1,322	1,862			
DOUG FIR	335.1	53.6	558	1,204	1,849			
TOTAL	*37.0*	*5.9*	*38,398*	*40,812*	*43,226*	*55*	*14*	*6*

STATISTICS

PROJECT MILSHACK

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	06W	05	UNIT1	00MC	83.00	39	237	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

STATISTICS

PROJECT MILSHACK

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	06W	06	UNIT24B	00MC	58.00	56	312	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	56	312	5.6		
CRUISE	25	132	5.3	12,035	1.1
DBH COUNT					
REFOREST					
COUNT	27	165	6.1		
BLANKS	4				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
WHEMLOCK	89	141.9	13.6	70	38.6	142.1	19,057	18,748	5,354	5,354
R ALDER	21	46.1	12.0	30	10.5	36.4	2,778	2,670	825	825
S SPRUCE	14	17.0	17.8	45	6.9	29.3	3,302	3,264	958	958
DOUG FIR	6	2.1	32.9	81	2.1	12.1	1,777	1,723	444	444
NOB FIR	2	.5	31.6	100	0.5	2.9	762	744	149	149
TOTAL	*132*	*207.5*	*14.0*	*59*	*59.5*	*222.9*	*27,676*	*27,150*	*7,730*	*7,730*

CONFIDENCE LIMITS OF THE SAMPLE

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

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	70.9	7.5	417	451	485			
R ALDER	89.1	19.9	70	87	105			
S SPRUCE	92.0	25.5	308	413	518			
DOUG FIR	24.3	10.8	792	888	985			
NOB FIR	77.4	72.5	492	1,790	3,088			
TOTAL	*92.5*	*8.0*	*395*	*429*	*464*	*341*	*85*	*38*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	60.8	6.4	112	120	127			
R ALDER	85.0	19.0	22	27	32			
S SPRUCE	82.8	22.9	86	112	138			
DOUG FIR	22.4	10.0	205	228	250			
NOB FIR	64.1	60.1	137	344	551			
TOTAL	*77.6*	*6.7*	*105*	*112*	*120*	*240*	*60*	*27*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	182.7	24.4	107	142	176			
R ALDER	230.1	30.7	32	46	60			
S SPRUCE	232.9	31.1	12	17	22			
DOUG FIR	218.9	29.2	1	2	3			
NOB FIR	377.3	50.4	0	1	1			
TOTAL	*125.4*	*16.7*	*173*	*208*	*242*	*628*	*157*	*70*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	92.6	12.4	125	142	160			
R ALDER	234.4	31.3	25	36	48			
S SPRUCE	221.8	29.6	21	29	38			
DOUG FIR	216.9	29.0	9	12	16			
NOB FIR	363.8	48.6	1	3	4			
TOTAL	*61.2*	*8.2*	*205*	*223*	*241*	*150*	*37*	*17*

STATISTICS

PROJECT MILSHACK

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	06W	06	UNIT24B	00MC	58.00	56	312	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
WHEMLOCK	95.2	12.7	16,366	18,748	21,130			
R ALDER	240.9	32.2	1,811	2,670	3,529			
S SPRUCE	218.9	29.2	2,310	3,264	4,218			
DOUG FIR	217.2	29.0	1,223	1,723	2,223			
NOB FIR	368.5	49.2	378	744	1,111			
TOTAL	*61.2*	*8.2*	*24,932*	*27,150*	*29,367*	*149*	*37*	*17*

TC PSTATS

PROJECT STATISTICS

PROJECT MILSHACK

DATE 5/21/2024

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	06	08	UNIT 3A	00MC	105.00	60	371	1	W
07N	06W	08	UNIT 3B	00MC					

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	60	371	6.2		
CRUISE	24	160	6.7	13,592	1.2
DBH COUNT					
REFOREST					
COUNT	36	210	5.8		
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
WHEMLOCK	73	59.9	21.1	63	31.7	145.5	17,357	16,689	5,084	5,084
DOUG FIR	50	34.3	20.0	52	16.7	74.7	7,435	6,955	2,279	2,279
S SPRUCE	27	23.8	17.5	47	9.5	39.7	4,622	4,295	1,279	1,279
R ALDER	3	9.4	16.5	49	3.4	14.0	1,590	1,590	452	452
NOB FIR	7	2.1	29.4	77	1.8	10.0	1,468	1,453	379	379
TOTAL	*160*	*129.5*	*20.1*	*56*	*63.4*	*283.8*	*32,472*	*30,983*	*9,473*	*9,473*

CONFIDENCE LIMITS OF THE SAMPLE

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

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - BF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
WHEMLOCK	54.4	6.5	326	348	371			
DOUG FIR	76.8	11.1	247	278	309			
S SPRUCE	94.1	18.4	220	269	319			
R ALDER	57.2	39.5	119	197	274			
NOB FIR	29.0	11.8	564	640	716			
TOTAL	*68.2*	*5.5*	*306*	*323*	*341*	*186*	*46*	*21*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	SAMPLE TREES - CF LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
WHEMLOCK	49.1	5.8	101	107	114			
DOUG FIR	64.9	9.4	82	90	99			
S SPRUCE	86.6	17.0	65	79	92			
R ALDER	52.3	36.2	35	55	75			
NOB FIR	28.6	11.7	152	172	192			
TOTAL	*60.4*	*4.8*	*94*	*99*	*104*	*146*	*36*	*16*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	TREES/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
WHEMLOCK	99.1	12.8	52	60	68			
DOUG FIR	125.4	16.2	29	34	40			
S SPRUCE	226.6	29.2	17	24	31			
R ALDER	399.4	51.5	5	9	14			
NOB FIR	315.5	40.7	1	2	3			
TOTAL	*53.1*	*6.8*	*121*	*129*	*138*	*113*	*28*	*13*

CL 68.1 SD: 1.0	COEFF VAR.%	S.E.%	BASAL AREA/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
WHEMLOCK	83.5	10.8	130	146	161			
DOUG FIR	121.4	15.7	63	75	86			
S SPRUCE	182.1	23.5	30	40	49			
R ALDER	399.4	51.5	7	14	21			
NOB FIR	296.1	38.2	6	10	14			
TOTAL	*41.2*	*5.3*	*269*	*284*	*299*	*68*	*17*	*8*

PROJECT STATISTICS

PROJECT MILSHACK

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	06	08	UNIT 3A	00MC	105.00	60	371	1	W
07N	06W	08	UNIT 3B	00MC					

CL 68.1 COEFF **NET BF/ACRE** # OF PLOTS REQ. INF. POP.

SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	96.4	12.4	14,615	16,689	18,764			
DOUG FIR	135.1	17.4	5,743	6,955	8,167			
S SPRUCE	175.2	22.6	3,324	4,295	5,266			
R ALDER	399.4	51.5	771	1,590	2,410			
NOB FIR	300.6	38.8	890	1,453	2,017			
TOTAL	*52.4*	*6.8*	*28,888*	*30,983*	*33,078*	*110*	*27*	*12*

TC TSTATS

STATISTICS

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PROJECT MILSHACK

DATE 5/21/2024

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	06W	18	UNIT 4A	00MC	21.00	40	277	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	40	277	6.9		
CRUISE	18	111	6.2	2,675	4.2
DBH COUNT					
REFOREST					
COUNT	22	145	6.6		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
S SPRUCE	87	104.6	19.8	64	50.3	224.0	30,974	30,819	8,418	8,418
DOUG FIR	15	14.9	22.2	72	8.5	40.0	5,315	5,188	1,484	1,484
R ALDER	2	3.8	15.6	56	1.3	5.0	578	578	171	171
WHEMLOCK	5	3.5	16.2	52	1.2	5.0	656	656	175	175
NOB FIR	2	.6	30.0	72	0.5	3.0	480	465	109	109
TOTAL	*111*	*127.4*	*20.0*	*64*	*62.0*	*277.0*	*38,003*	*37,705*	*10,357*	*10,357*

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
S SPRUCE	65.5	7.0	359	386	413			
DOUG FIR	58.3	15.6	359	425	491			
R ALDER	38.6	36.1	105	165	225			
WHEMLOCK	79.0	39.2	188	310	432			
NOB FIR	54.9	51.4	445	915	1,385			
TOTAL	*66.6*	*6.3*	*369*	*393*	*418*	*177*	*44*	*20*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
S SPRUCE	53.3	5.7	97	103	109			
DOUG FIR	47.0	12.5	103	118	133			
R ALDER	40.4	37.8	30	49	68			
WHEMLOCK	61.3	30.5	56	81	105			
NOB FIR	51.8	48.5	109	212	314			
TOTAL	*54.5*	*5.2*	*99*	*105*	*110*	*118*	*30*	*13*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
S SPRUCE	64.7	10.2	94	105	115			
DOUG FIR	159.2	25.2	11	15	19			
R ALDER	450.6	71.2	1	4	6			
WHEMLOCK	518.9	82.0	1	4	6			
NOB FIR	379.5	59.9	0	1	1			
TOTAL	*45.8*	*7.2*	*118*	*127*	*137*	*84*	*21*	*9*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
S SPRUCE	48.5	7.7	207	224	241			
DOUG FIR	156.9	24.8	30	40	50			
R ALDER	450.6	71.2	1	5	9			
WHEMLOCK	412.6	65.2	2	5	8			
NOB FIR	355.7	56.2	1	3	5			
TOTAL	*26.2*	*4.1*	*266*	*277*	*288*	*27*	*7*	*3*

STATISTICS

PROJECT **MILSHACK**

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	**06W**	**18**	**UNIT 4A**	**00MC**	21.00	40	277	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
S SPRUCE	48.4	7.6	28,463	30,819	33,175			
DOUG FIR	156.4	24.7	3,906	5,188	6,470			
R ALDER	450.6	71.2	166	578	989			
WHEMLOCK	384.2	60.7	258	656	1,054			
NOB FIR	356.1	56.3	203	465	726			
TOTAL	*26.5*	*4.2*	*36,125*	*37,705*	*39,284*	*28*	*7*	*3*

STATISTICS

PROJECT MILSHACK

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	06W	05	U5ARW	00MC	2.00	98	559	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	98	559	5.7		
CRUISE	40	213	5.3	379	56.2
DBH COUNT					
REFOREST					
COUNT	53	323	6.1		
BLANKS	5				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
WHEMLOCK	93	83.5	13.7	70	23.1	85.7	11,551	11,372	3,240	3,240
S SPRUCE	70	51.7	17.3	70	20.4	84.9	14,265	14,207	3,740	3,740
R ALDER	37	49.5	12.7	40	12.2	43.3	4,271	4,198	1,253	1,253
DOUG FIR	8	2.7	25.7	80	1.9	9.8	1,486	1,453	373	373
SNAG	3	1.6	16.8	38	0.6	2.4				
NOB FIR	2	.4	31.6	100	0.4	2.0	545	532	107	107
TOTAL	*213*	*189.4*	*14.9*	*62*	*59.2*	*228.2*	*32,117*	*31,762*	*8,712*	*8,712*

CONFIDENCE LIMITS OF THE SAMPLE

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

SAMPLE TREES - BF

CL: 68.1 % / SD: 1.0	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
WHEMLOCK	70.4	7.3	415	448	481			
S SPRUCE	67.6	8.1	388	423	457			
R ALDER	64.4	10.6	99	111	123			
DOUG FIR	40.9	15.4	650	769	887			
SNAG								
NOB FIR	77.4	72.5	492	1,790	3,088			
TOTAL	*88.2*	*6.0*	*375*	*399*	*424*	*311*	*78*	*35*

SAMPLE TREES - CF

CL: 68.1 % / SD: 1.0	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
WHEMLOCK	60.3	6.2	112	119	126			
S SPRUCE	61.7	7.4	100	108	116			
R ALDER	62.4	10.2	30	33	36			
DOUG FIR	39.9	15.1	167	197	226			
SNAG								
NOB FIR	64.1	60.1	137	344	551			
TOTAL	*75.8*	*5.2*	*98*	*104*	*109*	*229*	*57*	*25*

TREES/ACRE

CL: 68.1 % / SD: 1.0	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
WHEMLOCK	246.4	24.9	63	83	104			
S SPRUCE	143.2	14.4	44	52	59			
R ALDER	182.1	18.4	40	50	59			
DOUG FIR	291.4	29.4	2	3	4			
SNAG	461.1	46.5	1	2	2			
NOB FIR	446.1	45.0	0	0	1			
TOTAL	*105.7*	*10.7*	*169*	*189*	*210*	*446*	*111*	*50*

BASAL AREA/ACRE

CL: 68.1 % / SD: 1.0	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
WHEMLOCK	139.8	14.1	74	86	98			
S SPRUCE	135.5	13.7	73	85	97			
R ALDER	182.3	18.4	35	43	51			
DOUG FIR	256.0	25.8	7	10	12			

STATISTICS

PROJECT MILSHACK

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	06W	05	U5ARW	00MC	2.00	98	559	1	W

CL: 68.1%	COEFF		BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
SNAG	458.2	46.2	1	2	4			
NOB FIR	433.5	43.8	1	2	3			
TOTAL	*51.2*	*5.2*	*216*	*228*	*240*	*105*	*26*	*12*

CL: 68.1 %	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	141.9	14.3	9,743	11,372	13,002			
S SPRUCE	137.9	13.9	12,230	14,207	16,184			
R ALDER	182.6	18.4	3,424	4,198	4,972			
DOUG FIR	258.2	26.1	1,074	1,453	1,832			
SNAG								
NOB FIR	437.8	44.2	297	532	767			
TOTAL	*55.3*	*5.6*	*29,989*	*31,762*	*33,535*	*122*	*31*	*14*

TC TSTATS

STATISTICS

PAGE 1

PROJECT MILSHACK

DATE 5/21/2024

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	**06W**	**08**	**U5BRW**	**00MC**	3.00	32	225	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	32	225	7.0		
CRUISE	13	107	8.2	456	23.5
DBH COUNT					
REFOREST					
COUNT	19	118	6.2		
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
WHEMLOCK	36	43.7	20.9	51	22.7	103.8	9,423	9,201	2,996	2,996
DOUG FIR	40	57.6	17.5	46	23.0	96.3	7,779	7,604	2,655	2,655
S SPRUCE	23	47.0	16.1	43	16.5	66.2	6,355	6,239	1,912	1,912
NOB FIR	6	3.0	27.8	75	2.4	12.5	1,712	1,680	453	453
SNAG	2	.8	24.1	31	0.5	2.5				
TOTAL	*107*	*152.1*	*18.4*	*47*	*65.5*	*281.3*	*25,268*	*24,723*	*8,016*	*8,016*

CONFIDENCE LIMITS OF THE SAMPLE

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

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	56.9	9.5	251	278	304			
DOUG FIR	82.2	13.0	179	206	232			
S SPRUCE	80.0	17.0	165	199	233			
NOB FIR	26.8	11.9	525	597	668			
SNAG								
TOTAL	*75.6*	*7.3*	*228*	*246*	*264*	*228*	*57*	*25*

CL: 68.1 %	COEFF		**SAMPLE TREES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	51.7	8.6	80	88	96			
DOUG FIR	69.8	11.0	62	70	77			
S SPRUCE	73.6	15.7	50	60	69			
NOB FIR	28.9	12.9	142	163	184			
SNAG								
TOTAL	*67.1*	*6.5*	*72*	*78*	*83*	*180*	*45*	*20*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	95.9	16.9	36	44	51			
DOUG FIR	100.0	17.7	47	58	68			
S SPRUCE	174.1	30.8	33	47	61			
NOB FIR	310.0	54.8	1	3	5			
SNAG	565.7	99.9	0	1	2			
TOTAL	*56.9*	*10.1*	*137*	*152*	*167*	*129*	*32*	*14*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	85.9	15.2	88	104	119			
DOUG FIR	97.8	17.3	80	96	113			
S SPRUCE	156.1	27.6	48	66	85			
NOB FIR	286.6	50.6	6	13	19			
SNAG	565.7	99.9	0	3	5			
TOTAL	*43.7*	*7.7*	*260*	*281*	*303*	*76*	*19*	*8*

STATISTICS

PROJECT MILSHACK

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
07N	06W	08	U5BRW	00MC	3.00	32	225	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
WHEMLOCK	86.8	15.3	7,790	9,201	10,611			
DOUG FIR	112.3	19.8	6,096	7,604	9,111			
S SPRUCE	155.6	27.5	4,524	6,239	7,953			
NOB FIR	292.6	51.7	811	1,680	2,548			
SNAG								
TOTAL	*46.5*	*8.2*	*22,694*	*24,723*	*26,751*	*86*	*22*	*10*

TC PLOGSTVB

Log Stock Table - MBF

T07N R06W S05 Ty00MC
THRU
T07N R06W S18 Ty00MC

Project: MILSHACK
Acres 272 ~~251.00~~

Date 5/21/2024
Time 10:31:10AM

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	2S	12	1		1	.0							1					
S		DO	2S	24	3		3	.1								3				
S		DO	2S	26	16		16	.4						4	6		5			
S		DO	2S	28	9	3.6	8	.2							3	6				
S		DO	2S	30	9		9	.2							9					
S		DO	2S	32	100	1.5	99	2.5						55	40	4				
S		DO	2S	34	5		5	.1						5						
S		DO	2S	36	165		165	4.2					26	20	85	34				
S		DO	2S	38	31		31	.8						31						
S		DO	2S	40	1,896		1,885	48.2					63	369	322	974	148	9		
S		DO	3S	14	2		2	.1						2						
S		DO	3S	16	13		13	.3			2	5	4			2				
S		DO	3S	18	2		2	.0					0	1						
S		DO	3S	20	4		4	.1				1	3							
S		DO	3S	24	11		11	.3				2	9							
S		DO	3S	26	9	20.8	7	.2				2	5							
S		DO	3S	28	18		18	.4			8	10								
S		DO	3S	30	8	7.2	8	.2			6	2								
S		DO	3S	32	310		307	7.9			42	109	136	13			7			
S		DO	3S	34	74	2.1	73	1.9			5	20	16	20		12				
S		DO	3S	36	89		89	2.3				45	44							
S		DO	3S	38	12		12	.3			12									
S		DO	3S	40	900	2.9	874	22.3			194	237	322	18	3	35	29	36		
S		DO	4S	12	9		9	.2			3	5	0							
S		DO	4S	14	4		4	.1			2	2								
S		DO	4S	16	90		90	2.3			72	18								
S		DO	4S	18	19		19	.5			13	7								
S		DO	4S	20	31		31	.8			28	2								
S		DO	4S	24	27		27	.7			27									
S		DO	4S	26	24		24	.6			24									
S		DO	4S	28	8	17.8	6	.2			6									
S		DO	4S	30	59		59	1.5			59									
S		Totals			3,960	1.2	3,912	42.8			504	467	628	540	469	1070	189	46		
A		DO	1S	24	9	5.9	8	.9							8					
A		DO	1S	32	21		21	2.2						21						
A		DO	2S	30	24		24	2.6						24						

TC PLOGSTVB

Log Stock Table - MBF

T07N R06W S05 Ty00MC
THRU
T07N R06W S18 Ty00MC

Project: MILSHACK
Acres 272 ~~251.00~~

Date 5/21/2024
Time 10:31:10AM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
A		DO	2S	32	10		10	1.1					10							
A		DO	2S	40	59		59	6.2					25	33						
A		DO	3S	20	6		6	.6			6									
A		DO	3S	24	6		6	.7			6									
A		DO	3S	30	52		52	5.5					52							
A		DO	3S	32	45		45	4.8				33	12							
A		DO	3S	34	26		26	2.8				26								
A		DO	3S	36	27		27	2.8			27									
A		DO	3S	40	361		361	38.3			27	267	68							
A		DO	4S	16	67	3.5	65	6.9			65									
A		DO	4S	18	26		26	2.7			26									
A		DO	4S	20	22		22	2.3			22									
A		DO	4S	24	34		34	3.6			27	7								
A		DO	4S	26	10		10	1.1			10									
A		DO	4S	28	7		7	.8			7									
A		DO	4S	30	9		9	.9			9									
A		DO	4S	32	72	3.4	69	7.4			17				52					
A		DO	4S	36	47	2.4	45	4.8			6	40								
A		DO	4S	38	10		10	1.1			10									
A		Totals			949		943	10.3			264	373	166	79	60					
H		DO	2S	18	1		1	.0								1				
H		DO	2S	20	10		10	.3								10				
H		DO	2S	24	52	3.7	50	1.7						15	11	14		10		
H		DO	2S	26	15	4.2	14	.5						5			9			
H		DO	2S	30	9		9	.3						4	5					
H		DO	2S	32	148		147	4.9					36	86	17	8				
H		DO	2S	34	37		37	1.2								37				
H		DO	2S	36	40		40	1.3					31	9						
H		DO	2S	40	1,668	2.4	1,628	54.0					2	295	353	685	264	28		
H		DO	3S	16	13		13	.4					4			9				
H		DO	3S	20	22	2.4	22	.7			0	8	13							
H		DO	3S	24	30		30	1.0				2	28							
H		DO	3S	26	13	13.2	11	.4			8		3							
H		DO	3S	28	10	4.5	9	.3			4	4	2							
H		DO	3S	30	6		6	.2			0	3	2							
H		DO	3S	32	116	2.0	114	3.8			31	27	41	2		13				

TC PLOGSTVB

Log Stock Table - MBF

T07N R06W S05 Ty00MC
THRU
T07N R06W S18 Ty00MC

Project: MILSHACK
Acres 272 ~~251.00~~

Date 5/21/2024
Time 10:31:10AM

Spp	ST	So	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
H		DO	3S	34	23	8.1	21	.7				3	6			13				
H		DO	3S	36	56		55	1.8			45	7	3							
H		DO	3S	38	44		44	1.4			21	9	13							
H		DO	3S	40	610	6.0	573	19.0			60	112	164	51	47	67	72			
H		DO	4S	12	9	22.6	7	.2			1	4	2							
H		DO	4S	16	18		18	.6			13	5								
H		DO	4S	18	5		5	.2			3	2								
H		DO	4S	20	48		48	1.6		2	33	13	1							
H		DO	4S	24	27		27	.9			22	5								
H		DO	4S	26	8		8	.3			8									
H		DO	4S	28	26		26	.8			26									
H		DO	4S	30	11	4.0	10	.3			10									
H		DO	4S	32	28		28	.9			28									
H		DO	4S	36	2		2	.1			2									
H		Totals			3,103	2.9	3,014	33.0		2	314	203	352	468	433	857	345	39		
D		DO	2S	24	2		2	.2							2					
D		DO	2S	32	14	2.1	14	1.3							14					
D		DO	2S	34	13	9.4	12	1.1						12						
D		DO	2S	40	675	5.9	635	59.7					5	138	57	322	112			
D		DO	3S	20	5	10.3	4	.4					4							
D		DO	3S	24	3	7.6	3	.2				1	2							
D		DO	3S	26	4		4	.3				1	2							
D		DO	3S	28	18		18	1.7				12	6							
D		DO	3S	30	4		4	.4			2		2							
D		DO	3S	32	99	3.9	95	9.0		4	45	23	20	3						
D		DO	3S	34	4		4	.4			4									
D		DO	3S	36	20	3.4	20	1.8			3		16							
D		DO	3S	38	9		9	.8					9							
D		DO	3S	40	188	5.1	178	16.8			11	48	79	3			25	12		
D		DO	4S	14	9		9	.9			9									
D		DO	4S	16	8	1.2	8	.8			4	4								
D		DO	4S	18	4		4	.4			4									
D		DO	4S	20	6		6	.5			6									
D		DO	4S	24	15		15	1.4			14	1								
D		DO	4S	26	3		3	.2			3									
D		DO	4S	28	4	5.5	4	.4			4									

TC PLOGSTVB

Log Stock Table - MBF

T07N R06W S05 Ty00MC
THRU
T07N R06W S18 Ty00MC

Project: MILSHACK
Acres 272 ~~251.00~~

Page 4
Date 5/21/2024
Time 10:31:10AM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
D		DO	4S	30	11		11	1.1			11									
D		DO	4S	32	3		3	.3			3									
D		Totals			1,121	5.1	1,065	11.6		4	124	90	145	156	73	322	137	12		
NF		DO	2S	24	4	8.4	4	1.7												4
NF		DO	2S	30	4		4	2.1							4					
NF		DO	2S	32	2		2	.9						2						
NF		DO	2S	40	179	1.4	177	83.4							1	77	83			16
NF		DO	3S	20	1		1	.5				1								
NF		DO	3S	24	2		2	.8					2							
NF		DO	3S	26	2		2	.8				2								
NF		DO	3S	28	1		1	.4					1							
NF		DO	3S	32	5		5	2.1				5								
NF		DO	3S	34	4	3.7	4	1.9				2	2							
NF		DO	3S	38	11		11	5.4					11							
NF		Totals			215	1.4	212	2.3				9	16	2	6	77	83			19
Total		All Species			9,348	2.2	9,145	100.0		6	1205	1144	1308	1245	1041	2326	754	97		19

TC PSTNDSUM

Stand Table Summary

Page 1
Date: 5/21/2024

T07N R06W S05 Ty00MC
THRU
T07N R06W S18 Ty00MC

Project MILSHACK
Acres 272.00

Time: 10:16:11AM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
S		10	4	83	23	1.815	.99	1.81	7.9	20.0		14	36		39	10
S		11	7	86	73	3.967	2.62	5.40	14.4	45.9		78	248		212	67
S		12	10	85	106	5.999	4.71	12.00	16.7	61.0		200	732		545	199
S		13	15	85	79	5.959	5.49	10.05	18.9	60.0		190	603		517	164
S		14	15	86	78	4.682	5.01	7.44	22.2	77.3		165	575		449	156
S		15	15	86	88	3.541	4.35	6.92	24.3	88.1		169	610		458	166
S		16	13	87	80	1.990	2.78	3.98	25.9	90.8		103	361		280	98
S		17	29	86	94	6.512	10.26	14.48	29.5	106.0		427	1,535		1,162	417
S		18	12	85	100	2.385	4.21	5.58	33.2	118.4		185	660		503	180
S		19	16	86	87	2.308	4.54	4.99	36.2	129.2		181	645		492	176
S		20	10	84	109	1.660	3.62	4.09	42.0	166.2		172	680		467	185
S		21	8	85	78	.742	1.79	1.48	44.8	143.9		66	214		181	58
S		22	17	86	102	2.158	5.70	5.39	49.6	193.4		267	1,042		726	283
S		23	20	86	101	2.408	6.95	5.86	54.2	211.5		318	1,241		864	337
S		24	34	85	104	4.181	13.14	11.00	55.0	216.2		604	2,378		1,644	647
S		25	8	86	116	.803	2.74	2.16	64.6	259.7		139	561		379	152
S		26	5	84	115	.417	1.54	1.14	58.1	250.4		66	286		181	78
S		27	5	83	81	.285	1.13	.62	68.0	262.9		42	163		115	44
S		28	11	84	100	.830	3.55	2.10	73.8	285.0		155	599		422	163
S		29	5	84	96	.496	2.27	1.24	80.6	302.3		100	375		272	102
S		30	6	84	103	.366	1.79	1.02	80.3	357.7		82	363		222	99
S		31	2	82	101	.087	.45	.17	117.5	455.0		20	79		55	21
S		33	2	84	99	.067	.40	.17	101.4	468.0		17	78		46	21
S		36	5	88	88	.253	1.79	.48	142.6	523.2		68	250		185	68
S		37	2	80	92	.061	.45	.12	109.0	455.0		13	55		36	15
S		40	1	67	80	.023	.20	.05	94.0	305.0		4	14		12	4
S		Totals	277	85	90	53.994	92.47	109.73	35.1	131.1		3,847	14,383		10,464	3,912
H		2	2	85	166	15.921	.35	31.84	1.0			32			87	
H		9	2	89	38	.786	.35	.79	7.0	20.0		6	16		15	4
H		10	7	87	55	2.052	1.12	2.05	12.1	41.4		25	85		68	23
H		11	4	84	53	1.053	.69	1.05	15.0	45.0		16	47		43	13
H		12	5	84	69	2.550	2.00	4.02	14.8	49.9		59	200		162	55
H		14	8	80	43	1.586	1.70	1.59	20.9	44.3		33	70		90	19
H		15	12	86	82	3.297	4.05	6.31	23.4	83.6		148	527		401	143
H		16	11	84	82	3.805	5.31	6.89	27.1	92.3		187	636		509	173
H		17	7	87	85	1.394	2.20	2.57	33.5	115.4		86	296		234	81
H		18	15	87	79	1.880	3.32	3.37	34.7	111.7		117	376		318	102
H		19	12	84	64	1.862	3.67	3.23	32.9	96.4		106	312		289	85
H		20	19	84	83	3.066	6.69	5.67	42.6	133.6		242	758		657	206
H		21	20	83	86	2.387	5.74	4.77	44.4	144.6		212	690		576	188
H		22	9	86	96	.556	1.47	1.24	49.1	181.6		61	226		166	61
H		23	21	85	90	2.857	8.24	6.12	52.3	189.7		320	1,160		869	316
H		24	15	84	82	1.336	4.20	2.78	53.9	187.9		150	523		408	142
H		25	22	83	91	1.876	6.40	4.06	62.0	219.8		252	892		685	243
H		26	27	81	80	2.435	8.98	4.85	66.7	207.1		323	1,004		880	273
H		27	18	84	93	.863	3.43	1.90	71.8	265.4		136	504		371	137
H		28	9	84	92	.631	2.70	1.34	80.8	264.8		108	356		295	97
H		29	21	84	81	1.171	5.37	2.42	75.8	281.4		183	680		499	185
H		30	10	83	84	1.216	5.97	2.50	85.1	303.1		213	758		579	206
H		31	6	83	84	.228	1.20	.46	94.3	353.0		43	161		117	44
H		32	1	86	82	.207	1.15	.41	100.0	295.0		41	122		112	33
H		33	5	85	86	.311	1.85	.68	103.3	367.0		70	250		191	68
H		34	3	86	77	.129	.82	.26	106.3	409.2		28	106		75	29

TC PSTNDSUM

Stand Table Summary

Page 2
Date: 5/21/2024

T07N R06W S05 Ty00MC
THRU
T07N R06W S18 Ty00MC

Project MILSHACK
Acres 272.00

Time: 10:16:11AM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
H		35	4	83	100	.104	.69	.21	139.8	552.5		29	115		79	31
H		37	3	81	92	.201	1.50	.40	146.8	515.5		59	207		161	56
H		Totals	298	85	103	55.760	91.14	103.79	31.7	106.7		3,285	11,079		8,936	3,014
D		10	4	84	27	1.639	.89	1.64	7.0	20.0		11	33		31	9
D		12	2	80	56	.569	.45	.57	17.0	50.0		10	28		26	8
D		13	6	83	56	1.454	1.34	1.94	15.0	40.0		29	78		79	21
D		14	6	82	78	1.869	2.00	2.90	19.3	69.2		56	201		153	55
D		15	4	81	57	.728	.89	1.09	19.0	53.3		21	58		56	16
D		16	5	83	67	.788	1.10	1.26	23.7	67.4		30	85		81	23
D		17	1	86	82	.131	.21	.26	26.0	85.0		7	22		18	6
D		18	6	82	56	.759	1.34	1.01	30.5	70.0		31	71		84	19
D		19	4	85	94	1.130	2.22	2.26	27.7	91.3		63	206		170	56
D		20	14	82	78	1.434	3.13	2.46	37.8	105.8		93	260		253	71
D		21	6	83	79	.543	1.31	1.09	39.1	112.9		42	123		115	33
D		22	14	83	85	1.172	3.09	2.42	42.7	129.0		103	312		281	85
D		23	7	83	89	.855	2.47	1.71	51.3	156.4		88	268		239	73
D		25	3	82	75	.191	.65	.38	52.6	152.1		20	58		55	16
D		26	5	82	112	.477	1.76	1.25	59.6	221.8		75	278		203	76
D		27	7	86	90	1.092	4.34	2.18	72.3	224.9		158	491		429	134
D		28	4	83	97	.648	2.77	1.30	80.7	277.4		105	360		285	98
D		29	2	83	49	.097	.45	.10	89.0	180.0		9	18		24	5
D		30	5	84	96	.224	1.10	.49	84.8	327.3		42	160		113	44
D		31	2	86	97	.084	.44	.17	100.5	420.0		17	71		46	19
D		32	6	83	98	.404	2.26	.84	99.6	347.6		84	294		229	80
D		34	2	81	89	.070	.44	.14	109.0	385.0		15	54		41	15
D		35	2	84	82	.348	2.33	.70	112.0	390.0		78	271		212	74
D		39	2	82	116	.053	.44	.11	124.5	570.0		13	61		36	16
D		40	2	83	93	.050	.44	.10	156.0	550.0		16	56		43	15
D		Totals	121	83	74	16.809	37.85	28.36	42.8	138.0		1,214	3,915		3,303	1,065
A		9	4	86	25	1.713	.76	1.71	6.0	20.0		10	34		28	9
A		10	8	87	30	2.776	1.51	2.78	8.3	27.5		23	76		62	21
A		11	8	87	68	4.433	2.93	6.08	13.7	44.5		83	270		227	73
A		12	12	86	70	4.689	3.68	7.45	14.9	48.7		111	363		302	99
A		13	8	87	74	3.174	2.93	5.53	18.0	62.8		100	347		271	94
A		14	13	87	85	5.607	5.99	11.21	20.5	71.5		230	802		625	218
A		15	8	86	75	5.008	6.15	8.55	24.5	84.4		209	722		570	196
A		16	2	87	76	.777	1.08	1.55	25.5	90.0		40	140		108	38
A		18	7	87	88	1.151	2.03	2.30	35.3	119.3		81	275		221	75
A		19	6	87	66	.577	1.14	1.15	31.3	103.3		36	119		98	32
A		20	2	86	55	.497	1.08	.99	30.5	100.0		30	99		82	27
A		22	1	87	72	.682	1.80	1.36	44.0	160.0		60	218		163	59
A		Totals	79	87	68	31.084	31.08	50.67	20.0	68.4		1,013	3,465		2,757	943
NF		25	5	88	94	.261	.89	.52	64.8	253.9		34	133		92	36
NF		27	6	86	96	.273	1.09	.62	67.5	266.9		42	167		115	45
NF		32	3	85	94	.367	2.05	.73	109.5	425.4		80	312		218	85
NF		35	2	81	92	.058	.39	.12	123.5	440.0		14	51		39	14
NF		40	3	90	128	.049	.43	.13	162.3	866.2		22	116		59	32
NF		Totals	19	86	96	1.008	4.84	2.13	90.3	365.4		192	778		523	212
SN		15	1	88	49	.005	.01									
SN		18	2	89	30	.007	.01									

Stand Table Summary

Date: 5/21/2024

T07N R06W S05 Ty00MC
THRU
T07N R06W S18 Ty00MC

Project MILSHACK

Acres 272.00

Time: 10:16:11AM

Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
SN		22	1	89	32	.005	.01									
SN		27	1	88	30	.003	.01									
SN		Totals	5	89	35	.020	.05									
Totals			799	85	88	158.675	257.43	294.69	32.4	114.1		9,553	33,620		25,983	9,145

LOGGING PLAN MAP

OF TIMBER SALE CONTRACT
NO. AT-341-2025-W00987-01
MILL SHACK
PORTIONS OF SECTIONS 5, 6, 7, 8, 17 & 18 OF T7N, R6W, W.M.,
CLATSOP COUNTY, OREGON

Unit	Tractor	Cable	Acres
Unit 1 (MC)	100%	0%	83
Unit 2 (MC)	100%	0%	48
Unit 3 (MC)	53%	47%	105
Unit 4 (MC)	100%	0%	31
Unit 5 (R/W)	100%	0%	5
Total	82%	18%	272

0 500 1,000 2,000 Feet

1 inch = 1,000 feet
Contours = 40 feet

N

T8N, R6W
T7N, R6W

31 32
6 5

PRIVATE
STATE

Unit 1

Unit 2

STATE
PRIVATE

Shingle Mill Road

Coke Shack Road

Shingle Shack Road

Gnat Creek

6 5
7 8

Legend

- Ownership Boundary
- Timber Sale Boundary
- Paved Road
- Surfaced Road
- New Road Construction-Surfaced
- New Road Construction-Unsurfaced
- Existing Landing
- Landing to be Constructed
- T Ground Based Yarding
- Cable Based Yarding
- Type F Stream
- Type N Stream - Perennial
- Type N Stream - Seasonal
- Non-Posted Stream Buffer
- Posted Stream Buffer
- Reforestation Area
- Reserve Tree Area
- Controlled Felling
- Seasonally Restricted Area
- Recreation Trails
- Section Line
- Survey Monument
- Gate

LOGGING PLAN MAP

OF TIMBER SALE CONTRACT
NO. AT-341-2025-W00987-01
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PORTIONS OF SECTIONS 5, 6, 7, 8, 17 & 18 OF T7N, R6W, W.M.,
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0 500 1,000 2,000 Feet

1 inch = 1,000 feet
Contours = 40 feet

N

6 5
7 8

7 8
18 17

Shingle Shack Road
McNary
Creek
Unit 3
Gnat
Creek
Shingle Mill Road
Trail
Shingle Mill Road
Road
Point
Unit 4
Knob
Big Nic Road
Knob Loop Trail

Legend

- Ownership Boundary
- Timber Sale Boundary
- Paved Road
- Surfaced Road
- New Road Construction-Surfaced
- New Road Construction-Unsurfaced
- Existing Landing
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- T Ground Based Yarding
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