



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Little Nicky Thin
Sale AT-341-2024-W00986-01

District: Astoria

Date: May 17, 2023

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$609,869.97	\$749.49	\$610,619.46
		Project Work:	(\$156,102.88)
		Advertised Value:	\$454,516.58



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
 Little Nicky Thin
 Sale AT-341-2024-W00986-01

District: Astoria

Date: May 17, 2023

Timber Description

Location:

Stand Stocking: 50%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	13	0	97
Western Hemlock / Fir	16	0	96
Red Cedar	12	0	96
Alder (Red)	11	0	95

Volume by Grade	2S	3S & 4S 6"-11"	3S	Camprun	Total
Douglas - Fir	87	1,564	0	0	1,651
Western Hemlock / Fir	60	264	0	0	324
Red Cedar	0	0	1	0	1
Alder (Red)	0	0	0	3	3
Total	147	1,828	1	3	1,979

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

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

Fuel cost allowances are based on the month local pond values were collected.

PRICING:

Spruce = pond value - (Douglas-fir) logging cost.
\$177.24/MBF = \$530/MBF - \$352.76/MBF

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

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

Ditch Filters:

16 bales of straw @ \$12/bale = \$192
4 hours of labor (installation/removal) @ \$45/hr = \$180

Install and Remove Temporary Stream Crossing w/C312:

2 Hrs w/C312 Excavator @ \$114/hr = \$228
2 Hrs Labor @ \$45/hr = \$90
4 Straw Bales @ \$12.06/bale = \$48.24
Total = \$366.24

Remove Cross drains, Waterbar and block unsurfaced road segments:

1E to 1F, 1G to 1H, 1I to 1J, 1K to 1L, 1Q to 1R.

Excavator C315:

2 move-ins @ \$905/move-in = \$1,810
16 hours of excavator @ \$114/hr = \$1,824
Deliver servicable salvaged culverts to ODF office(unsalvageable to recycle): Pickup and culvert trailer 2 hours @ \$48.00/Hr = \$96.00
Total = \$3,730

TOTAL Other Costs (with Profit & Risk to be added):\$6,078.24

Other Costs (No Profit & Risk added): None

ROAD MAINTENANCE

(See attached Road Maintenance Cost Summary Sheet)

TOTAL Road Maintenance: \$27,613/1,979 MBF = \$13.95/MBF



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Little Nicky Thin Sale AT-341-2024-W00986-01

District: Astoria

Date: May 17, 2023

Logging Conditions

Combination#: 1

Douglas - Fir	44.00%
Western Hemlock / Fir	44.00%
Red Cedar	44.00%
Alder (Red)	44.00%

Logging System: Shovel **Process:** Manual Falling/Delimiting

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

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 11 **bd. ft / load:** 4400

cost / mbf: \$154.96

machines: Shovel Logger

Combination#: 2

Douglas - Fir	55.00%
Western Hemlock / Fir	55.00%
Red Cedar	55.00%
Alder (Red)	55.00%

Logging System: Cable: Small Tower <=40 **Process:** Manual Falling/Delimiting

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

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 8 **bd. ft / load:** 4200

cost / mbf: \$221.18

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

Combination#: 3

Douglas - Fir	1.00%
Western Hemlock / Fir	1.00%
Red Cedar	1.00%
Alder (Red)	1.00%

Logging System: Shovel **Process:** Manual Falling/Delimiting

yarding distance: Short (400 ft) **downhill yarding:** No

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 14 **bd. ft / load:** 4900

cost / mbf: \$145.78

machines: Shovel Logger



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
 Little Nicky Thin
 Sale AT-341-2024-W00986-01

District: Astoria

Date: May 17, 2023

Logging Costs

Operating Seasons: 2.00	Profit Risk: 12%
Project Costs: \$156,102.88	Other Costs (P/R): \$6,468.24
Slash Disposal: \$0.00	Other Costs: \$0.00

Miles of Road

Road Maintenance: \$13.95

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

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	4.3
Western Hemlock / Fir	\$0.00	3.0	4.7
Red Cedar	\$0.00	3.0	4.5
Alder (Red)	\$0.00	3.0	4.5



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Little Nicky Thin
Sale AT-341-2024-W00986-01

District: Astoria

Date: May 17, 2023

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$191.29	\$14.37	\$4.44	\$99.81	\$3.27	\$37.58	\$0.00	\$2.00	\$0.00	\$352.76
Western Hemlock / Fir									
\$191.29	\$14.51	\$4.44	\$92.20	\$3.27	\$36.69	\$0.00	\$2.00	\$0.00	\$344.40
Red Cedar									
\$191.29	\$14.51	\$4.44	\$96.29	\$3.27	\$37.18	\$0.00	\$2.00	\$0.00	\$348.98
Alder (Red)									
\$191.29	\$14.65	\$4.44	\$97.22	\$3.27	\$37.30	\$0.00	\$2.00	\$0.00	\$350.17

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$672.37	\$319.61	\$0.00
Western Hemlock / Fir	\$0.00	\$595.56	\$251.16	\$0.00
Red Cedar	\$0.00	\$1,167.00	\$818.02	\$0.00
Alder (Red)	\$0.00	\$600.00	\$249.83	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Little Nicky Thin
Sale AT-341-2024-W00986-01

District: Astoria

Date: May 17, 2023

Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,651	\$319.61	\$527,676.11
Western Hemlock / Fir	324	\$251.16	\$81,375.84
Red Cedar	1	\$818.02	\$818.02
Alder (Red)	3	\$249.83	\$749.49

Gross Timber Sale Value

Recovery: \$610,619.46

Prepared By: Avery Petersen

Phone: 503-338-1363

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Little Nicky Thin
Date: May 9, 2023
By: Avery Petersen CB

MBF: 1,979
\$\$/MBF: \$13.12

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Interim Operations Entries (2)	Grader 14G	\$875	2	16	\$113	\$3,558
	Dump Truck	\$184	1	6	\$89	\$718
	Rubber Tired Backhoe	\$361	1	4	\$87	\$709
Final Road Maintenance Haul Route	Grader 14G	\$875	1	56	\$113	\$7,203
	Dump Truck 12CY (2 @ \$119)	\$184	2	24	\$89	\$2,504
	Rubber Tired Backhoe	\$361	1	8	\$94	\$1,113
	Vibratory Roller	\$875	1	56	\$87	\$5,747
	C315 Excavator	\$905	1	8	\$114	\$1,817
	Water Truck 2,500 gallon Labor	\$214	1	20	\$101	\$2,234
				8	\$45	\$360
Total						\$25,963

Interim Operations Road Maintenance

Production Rates	Miles/day	Distance(miles)	Days	Hours
Grader	3.0	6.0	2.0	16

Final Road Maintenance Processing

Production Rates	Miles/day	Distance(miles)	Days	Hours
Grader	1.6	8.2	5.0	40
Vibratory Roller	1.6	8.2	5.0	40

Final Road Maintenance Nicolai

Production Rates	Miles/day	Distance(miles)	Days	Hours
Grader	5.1	10.4	2.0	16
Vibratory Roller	5.1	10.4	2.0	16

Water process and compact: Crushed rock roads

Greasy Spoon crushed rock road: 1.0 Miles

Fishhawk Loop crushed rock road: 1.0 Miles

Porter Ridge crushed rock road: 1.5 Miles

Unnamed crushed rock spur roads: 4.7 miles

Water, Grade & Process Total : 8.2 Miles

Water process and compact portions: crushed rock roads

Nicolai Mainline: 10.4 miles

Process Portions Total: 10.4 miles

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Little Nicky Thin

Project No. 1: ROAD CONSTRUCTION:

<u>Road segment</u>	<u>Length (Sta)</u>	<u>Length (Mile)</u>	<u>Cost</u>
Unsurfaced			
1A to 1B, 1C to 1D, 1M to 1N	33.85	0.64	\$15,308.92
1O to 1P, 2A to 2B			
Surfaced			
1A to 1B, 1E to 1F, 1G to 1H, 1I to 1J, 1K to 1L, 1Q to 1R	30.50	0.58	\$35,625.32
Road Maint.			\$2,978.50
Move-In			\$3,992.78
TOTALS	64.35	1.22	\$57,906

Project No. 2: ROAD IMPROVEMENT:

<u>Road segment</u>	<u>Length (Sta)</u>	<u>Length (Mile)</u>	<u>Cost</u>
11 to 12, 13 to 14, 15 to 16, 17 to 18, 19 to 110, 111 to 112	686.95	13.01	\$56,731.47
113 to 114, 115 to 116, 117 to 118, 119 to 120, 121 to 122, 123 to 124, 125 to 126, 127 to 128, 129 to 130, 131 to 132, 133 to 134			
Road Maint.			\$3,317.50
Move-In			\$4,447.22
TOTALS		13.01	\$64,496

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

<u>Description</u>	<u>Length/Vol.</u>	<u>Cost</u>
Proj. 3 Jaw-Run Crushing	1,843 cy	\$17,631.00
Proj. 4 Vacating	0.1 Miles	\$1,879.00
TOTAL		\$19,510
10% Increase Fuel Allowance		\$14,191

GRAND TOTAL **\$156,102.88**

Compiled By: Brittany West CB

Date: 05/09/2023

Move In and Maintenance Calculator for Construction and Improvement

SALE NAME: Little Nicky Thin

Project No. 1: ROAD CONSTRUCTION:

<u>Road segment</u>	<u>Length/Sta</u>	<u>Length/Mile</u>	<u>Cost</u>
Unsurfaced			
1A to 1B, 1C to 1D, 1M to 1N	33.85	0.64	\$15,309
1O to 1P, 2A to 2B			
Surfaced			
1A to 1B, 1E to 1F, 1G to 1H, 1I to 1J, 1K to 1L, 1Q to 1R	30.50	0.58	\$35,625
TOTALS	64.35	1.22	\$50,934

Project No. 2: ROAD IMPROVEMENT:

<u>Road segment</u>	<u>Length/Sta</u>	<u>Length/Mile</u>	<u>Cost</u>
11 to 12, 13 to 14, 15 to 16,	686.95	13.01	\$56,731
17 to 18, 19 to 110, 111 to 112			
113 to 114, 115 to 116, 117 to 118,			
119 to 120, 121 to 122, 123 to 124,			
125 to 126, 127 to 128, 129 to 130,			
131 to 132, 133 to 134			
TOTALS	686.95	13.01	\$56,731

MOVE IN (Construction & Improvement Only)

	<u>Equipment</u>	<u>Length/Mile</u>	<u>Cost</u>
Vibratory Roller			\$875
D8 Dozer			\$1,581
C315 Excavator			\$905
C330 Excavator			\$1,581
C966 Loader			\$875
14 G Grader			\$875
Water Truck (2,500 gal)			\$214
Dump Truck 20cy (x2)			\$430
Dump Truck 10cy (x6)			\$1,104
TOTAL			\$8,440.00

ROAD MAINTENANCE (Construction & Improvement Only)

	<u>Length/Mile</u>	<u>Cost</u>
Final Project Road Maintenance	6.01	\$6,296.00
TOTAL		\$6,296.00

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Little Nicky Thin
 ROAD: 1A to 1B (1.25), 1C to 1D (7.00), 1E to 1F (4.75),
 1G to 1H (9.60), 1I to 1J (15.35), 1K to 1L (3.00),
 1M to 1N (16.25), 1O to 1P (4.25), 1Q to 1R (1.15),
 2A to 2B (1.75)

NEW CONSTRUCTION: 64.35 STATIONS 1.22 MILES
 IMPROVEMENT: STATIONS 0.00 MILES

POINTS:

CLEARING & GRUBBING						
Method	Acres/amount	x	Rate	=	Cost	
Unsurfaced						
1E to 1F, 1G to 1H Scatter outside of right of way	2.33	x	\$ 1,503	=	\$3,503.89	
1I to 1J, 1K to 1L, 1Q to 1R						
Surfaced						
1A to 1B, 1C to 1D, 1M to 1N, 1O to 1P, 2A to 2B Scatter outside of right of way	2.80	x	\$ 1,503	=	\$4,209.50	
SUB TOTAL FOR CLEARING & GRUBBING						
					\$7,713	

EXCAVATION						
Material	Cy/amount	x	Rate	=	Cost	
1A to 1B						
1+25 Reconstruct existing landing (C330/hr)	0.50	x	\$175.00	=	\$87.50	
1C to 1D						
0+00 to 7+00 Common drift (\$/cy)	1,028	x	\$2.02	=	\$2,076.56	
Embankment compaction (\$/cy)	1,028	x	\$0.79	=	\$812.12	
Cut slope rounding (\$/sta)	4	x	\$49.00	=	\$205.80	
Landing construction (\$/ldg)	1	x	\$438.00	=	\$438.00	
1E to 1F						
0+00 to 4+25 Reconstruct existing road grade (D8/hr)	3	x	\$178.00	=	\$534.00	
Reconstruct Landing (D8/hr)	1	x	\$178.00	=	\$178.00	
1G to 1H						
0+00 to 9+60 Common drift (\$/cy)	877	x	\$2.02	=	\$1,771.54	
Embankment compaction (\$/cy)	877	x	\$0.79	=	\$692.83	
Cut slope rounding (\$/sta)	3	x	\$49.00	=	\$166.60	
Landing construction (\$/ldg)	1	x	\$438.00	=	\$438.00	
1I to 1J						
0+00 to 15+35 Balanced construction (\$/sta)	15	x	\$138.00	=	\$2,118.30	
Landing construction (\$/ldg)	1	x	\$438.00	=	\$438.00	
1K to 1L						
0+00 to 3+00 Balanced construction (\$/sta)	3	x	\$138.00	=	\$414.00	
Landing construction (\$/ldg)	1	x	\$438.00	=	\$438.00	
1M to 1N						
0+00 to 10+70, 14+25 to 16+25 Reconstruct existing road grade (C330/hr)	8	x	\$175.00	=	\$1,400.00	
10+70 to 14+25 End-haul excavation (\$/cy)	547	x	\$4.50	=	\$2,461.50	
Waste material compaction (\$/cy)	547	x	\$0.45	=	\$246.15	
Cut slope rounding (\$/sta)	16	x	\$49.00	=	\$796.25	
11+85 Install energy dissipator (\$/dissipator)	1	x	\$203.00	=	\$203.00	
1O to 1P						
0+00 to 4+25 Reconstruct existing road grade (C330/hr)	2	x	\$175.00	=	\$350.00	
Reconstruct Landing (D8/hr)	1	x	\$178.00	=	\$178.00	
1Q to 1R						
0+00 to 1+15 Balanced construction (\$/sta)	1.15	x	\$138.00	=	\$158.70	
Landing construction (\$/ldg)	1	x	\$438.00	=	\$438.00	
2A to 2B						
0+00 to 1+75 Balanced construction (\$/sta)	2	x	\$138.00	=	\$241.50	
Landing construction (\$/ldg)	1	x	\$438.00	=	\$438.00	
SUB TOTAL FOR EXCAVATION						
					\$17,720	

CULVERT MATERIALS AND INSTALLATION									
Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
1K to 1L					1M to 1N				
2+00	18" CPP	30	\$21.95	\$658.50	9+55	18" CPP	30	\$21.95	\$658.50
					11+85	18" CPP	30	\$21.95	\$658.50
					12+90	18" CPP	30	\$21.95	\$658.50
Other/miscellaneous:					Description				
					Quantity				
					Rate				
					Cost				
Culvert stakes & markers:					6' X 2 1/2" white fiberglass (Carsonite) posts				
					3				
					\$23.00				
					\$69.00				
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION									
									\$2,703

Subtotal of Clearing, Exc., Culv.

\$28,137

SURFACING

Subgrade prep:	Description	Stations/ amount	Rate/ sta./amt	Cost
Surfaced	Grade, Shape and Ditch 16'	1A-1B (1.25), 1C-1D (7.0), 1M-1N (16.10-1P (4.25), 2A-2B (1.75)	x	\$851.26
Subgrade Compaction	All segments	Surfaced	x	\$22.69
		Unsurfaced	x	\$768.06
Unsurfaced	Grade, Shape and Outslope 14'	1E-1F (4.75), 1G-1H (9.60), 1I-1J (15.35), 1K-1L (3), 1Q-1R (1.15)	x	\$698.33

ROAD SEGMENT	1A to 1B		POINT TO POINT		Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per station				
Base Rock	6"-0" jaw-run	0+00 to 1+25	12	80	1.25	100	\$6.48	\$648
Total Rock for Road Segment: 1A to 1B 100								

ROAD SEGMENT	1C to 1D		POINT TO POINT		Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per station				
Junction Rock	1 1/2"-0" crushed	0+00	N/A	11	junctions	11	\$3.90	\$43
Junction Rock	4"-0" crushed	0+00	N/A	11	junctions	11	\$6.48	\$71
Base Rock	4"-0" crushed	0+00 to 6+00	10	63	stations	378	\$6.48	\$2,449
Turnaround	4"-0" crushed	5+90	10	22	turnarounds	22	\$6.48	\$143
Traction Rock	1 1/2"-0" crushed	0+00 to 5+80	2	13	stations	75	\$3.90	\$294
Base Rock	6"-0" jaw-run	6+00 to 7+00	12	86	stations	86	\$6.48	\$557
Landings	6"-0" jaw-run	7+00	N/A	77	landings	77	\$6.48	\$499
Total Rock for Road Segment: 1C to 1D 660								

ROAD SEGMENT	1E to 1F		POINT TO POINT		Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per station				
Junction Rock	1 1/2"-0" crushed	0+00	N/A	11	junctions	11	\$3.90	\$43
Base Rock	6"-0" jaw-run	0+00 to 1+00	8	50	stations	50	\$6.48	\$324
Total Rock for Road Segment: 1E to 1F 61								

ROAD SEGMENT	1G to 1H		POINT TO POINT		Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per station				
Junction Rock	4"-0" crushed	0+00	N/A	11	junctions	11	\$6.48	\$71
Base Rock	6"-0" jaw-run	0+00 to 1+00	8	50	stations	50	\$6.48	\$324
Total Rock for Road Segment: 1G to 1H 61								

ROAD SEGMENT		11 to 1J		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	Number of	0+00 to 15+35	Number of			
Junction Rock	4"-0" crushed	0+00	N/A	11 junctions	1.00	junctions	1.00	11	\$6.48	\$71
Base Rock	6"-0" jaw-run	0+00 to 1+00	8	50 station	1.00	stations	1.00	50	\$6.48	\$324
Total Rock for Road Segment: 11 to 1J 61 \$395										
ROAD SEGMENT		1K to 1L		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	Number of	0+00 to 3+00	Number of			
Junction Rock	4"-0" crushed	0+00	N/A	11 junctions	1.00	junctions	1.00	11	\$6.48	\$71
Base Rock	6"-0" jaw-run	0+00 to 1+00	8	50 station	1.00	stations	1.00	50	\$6.48	\$324
Total Rock for Road Segment: 1K to 1L 61 \$395										
ROAD SEGMENT		1M to 1N		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	Number of	0+00 to 16+25	Number of			
Junction Rock	1 1/2"-0" crushed	0+00	N/A	11 junction	1	junctions	1	11	\$3.90	\$43
Junction Rock	4"-0" crushed	0+00	N/A	11 junction	1	junctions	1	11	\$6.48	\$71
Base Rock	4"-0" crushed	0+00 to 16+25	10	63 station	16.25	stations	16.25	1,024	\$6.48	\$6,634
Turnouts	4"-0" crushed	6+15, 16+25	10	22 turnout	2.00	turnouts	2.00	44	\$6.48	\$285
Turnarounds	4"-0" crushed	6+15, 16+25	10	22 turnaround	2.00	turnarounds	2.00	44	\$6.48	\$285
Total Rock for Road Segment: 1M to 1N 1,134 \$7,318										
ROAD SEGMENT		1O to 1P		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	Number of	0+00 to 4+25	Number of			
Junction Rock	4"-0" crushed	0+00	N/A	11 junction	1	junctions	1	11	\$6.48	\$71
Base Rock	4"-0" crushed	0+00 to 3+25	10	63 station	3.25	stations	3.25	205	\$6.48	\$1,327
Base Rock	6"-0" jaw-run	3+25 to 4+25	12	86 station	1.00	stations	1.00	86	\$6.48	\$557
Landings	6"-0" jaw-run	4+25	N/A	77 landing	1	landings	1	77	\$6.48	\$499
Total Rock for Road Segment: 1O to 1P 379 \$2,454										
ROAD SEGMENT		2A to 2B		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	Number of	0+00 to 1+75	Number of			
Junction Rock	1 1/2"-0" crushed	0+00	N/A	11 junction	1	junctions	1	11	\$3.90	\$43
Base Rock	4"-0" crushed	0+00 to 0+75	8	50 station	0.75	stations	0.75	38	\$6.48	\$243
Base Rock	6"-0" jaw-run	0+75 to 1+75	12	86 station	1.00	stations	1.00	86	\$6.48	\$557
Landings	6"-0" jaw-run	1+75	N/A	55 landing	1	landings	1	55	\$6.48	\$356
Total Rock for Road Segment: 2A to 2B 190 \$1,200										

Processing:		Description	No. sta	Rate/sta	Cost
		Water, Process & Compact Base Rock (4"-0" and 6"-0" jaw-run):	34.50	\$63.48	\$2,190.18
		Traction Rock Water, Process & Compact	5.80	\$63.48	\$368.20

		6"-0"jr	4"-0" crushed	1 1/2"-0" crushed	Total
		767	1,820	119	2,706
SUB TOTAL FOR SURFACING					\$22,797

SPECIAL PROJECTS		Description	Cy/Amount	Rate	Cost

SUB TOTAL FOR SPECIAL PROJECTS					\$0

GRAND TOTAL **\$50,934**

Subtotal of Surfacing & Spec. Proj. \$22,797
Subtotal of Clearing, Exc., Culv. \$28,137

Compiled By: Brittany West

Date: 05/09/2023

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Little Nicky Thin
 ROAD: 11 to 12 (297.15), 13 to 14 (47.70), 15 to 16 (136.55),
 17 to 18 (6.30), 19 to 110 (13.0), 111 to 112 (70.30),
 113 to 114 (17.85), 115 to 116 (2.65), 117 to 118 (5.00),
 119 to 120 (16.00), 121 to 122 (1.10), 123 to 124 (5.50),
 125 to 126 (32.70), 127 to 128 (21.65), 129- to 130 (2.3)
 131 to 132 (6.2), 133 to 134 (5.00)

NEW CONSTRUCTION: _____ STATIONS _____ 0.00 MILES
 IMPROVEMENT: 686.95 STATIONS _____ 13.01 MILES

POINTS: _____

CLEARING & GRUBBING						
Method	Acres/amount	x	Rate	=	Cost	
125-126 Clear debris from the road prism (C315/hr)	2	x	114	=	\$228.00	
SUB TOTAL FOR CLEARING & GRUBBING					\$228	

EXCAVATION						
Material	Cyl/amount	x	Rate	=	Cost	
11 to 12 84+85, 85+85, 253+10 Install rock ditch filters (C315/hr)	2.0	x	\$114.00	=	\$228.00	
0+00 to 297+15 Clean all culvert inlets and outlets (C315/hr)	16.0	x	\$114.00	=	\$1,824.00	
260+10 to 260+40 Ditch improvement (C315/hr)	1.0	x	\$114.00	=	\$114.00	
223+95, 275+20 Install energy dissipator (\$/dissipator)	2.0	x	\$203.00	=	\$406.00	
253+10 Remove debris from culvert inlet (C315/hr)	1.0	x	\$114.00	=	\$114.00	
13 to 14 0+00 to 47+70 Clean all culvert inlets and outlets (C315/hr)	4.0	x	\$114.00	=	\$456.00	
3+60 Remove debris from culvert inlet (C315/hr)	1.0	x	\$114.00	=	\$114.00	
45+90, 46+90 Install rock ditch filters (C315/hr)	2.0	x	\$114.00	=	\$228.00	
15 to 16 117+30 Construct roadside landing (C330/hr)	2.00	x	\$175.00	=	\$350.00	
17 to 18 Block existing dirt spur (C315/hr)	1.00	x	\$114.00	=	\$114.00	
					\$0.00	
19 to 110 11+65 Construct ditchout (C315/hr)	1.00	x	\$114.00	=	\$114.00	
11+65 to 13+00 Restablish ditch and improve ditchout (C315/hr)	1.00	x	\$114.00	=	\$114.00	
111 to 112 35+30 Install rock ditch filters (C315/hr)	0.50	x	\$114.00	=	\$57.00	
57+90 Construct roadside landing (C330/hr)	2.00	x	\$175.00	=	\$350.00	
60+15 Redefine ditch, improve drainage (C315/hr)	0.50	x	\$114.00	=	\$57.00	
64+00 Construct roadside landing (C330/hr)	2.00	x	\$175.00	=	\$350.00	
113 to 114 0+00 Install energy dissipator (\$/dissipator)	2.00	x	\$203.00	=	\$406.00	
115 to 116 Construct landing (\$/ldg)	1.00	x	\$438.00	=	\$438.00	
121 to 122 Restablish drainage (C315/hr)	1.0	x	\$114.00	=	\$114.00	
123 to 124 Remove debris from road prism. (C315/hr)	1.0	x	\$114.00	=	\$114.00	
125 to 126 32+00 Subgrade reconstruction (C330/hr)	4.0	x	\$175.00	=	\$700.00	
32+70 Construct waterbar, block road (C315/hr)	2.0	x	\$114.00	=	\$228.00	
29+85 to 32+00 Restablish ditch and improve ditchout (C315/hr)	1.00	x	\$114.00	=	\$114.00	
		x		=	\$0.00	
		x		=	\$0.00	
		x		=	\$0.00	
SUB TOTAL FOR EXCAVATION					\$7,104	

CULVERT MATERIALS AND INSTALLATION									
Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
11 to 12					111 to 112				
89+05	18" CPP	30	\$21.94	\$658.20	34+20	18" CPP	30	\$21.94	\$658.20
223+95	18" CPP	30	\$21.94	\$658.20	113 to 114				
239+90	18" CPP	40	\$21.94	\$877.60	0+00	18" CPP	40	\$21.94	\$877.60
275+20	18" CPP	40	\$21.94	\$877.60	125 to 126				
13 to 14					31+50	18" CPP	30	\$21.94	\$658.20
42+80	18" CPP	30	\$21.94	\$658.20					

Other/miscellaneous:	Description	Quantity	Rate	Cost
Culvert stakes & markers:	6' X 2 1/2" white fiberglass (Carsonite) posts	20	\$23.00	\$460.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION \$6,384

Subtotal of Clearing, Exc., Culv. **\$13,716**

SURFACING		Subgrade prep:		Description		Stations/ amount	Rate/ sta./amt	Cost
				15-16 (37.55), 17-18 (6.3), 19-110 (13), 111-112 (70.3), 113-114 (47.85), 115-116 (2.65), 117-118 (5), 119-120 (16), 121-122 (1.1), 123-124 (5.5), 125-126 (32.7), 127-128 (21.65), 129-130 (2.3), 131-132 (6.2), 133-134 (5)	243.10	\$27.91	\$6,784.66	
				19-110 (7.7), 113-114 (5.85), 125-126 (32.7), 127-128 (14)	60.40	\$22.69	\$1,370.48	
				11-12 (297.15), 13-14 (47.7), 15-16 (99)	24.00	\$113.00	\$2,712.00	
				19-110 (13), 125-126 (32.7), 129-130 (2.3) (Grader, Backhoe).	48.00	\$36.28	\$1,741.44	
ROAD SEGMENT		11 to 12	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Application	Rock Size and Type	Location	Depth of Rock (inches)	11 to 12 Volume (CY) per	Number of			
Rock Ditch Filters	6" 4" pit-run	84+85, 85+65, 253+10	N/A	3 filter series	3	\$6.48	\$214	
Catch Basin Armoring	6" 4" pit-run	236+40	N/A	catch basin	1	\$6.48	\$71	
		89+05, 223+95, 239+90, 275+20	N/A					
Culvert Bedding and Backfill	1 1/2"-0" crushed	223+95, 275+20	N/A	culvert	4	\$3.90	\$515	
Culvert Energy Dissipator	24"-6" riprap	275+20	N/A	dissipator	2	\$6.48	\$143	
Total Rock for Road Segment:			11 to 12		198		\$942	
ROAD SEGMENT		13 to 14	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Application	Rock Size and Type	Location	Depth of Rock (inches)	13 to 14 Volume (CY) per	Number of			
Surface Leveling Rock	1 1/2"-0" crushed	3+60	N/A	load	1	\$3.90	\$43	
Rock Ditch Filters	6" 4" pit-run	45+90, 46+90	N/A	3 filter series	2	\$6.48	\$143	
Culvert Bedding and Backfill	1 1/2"-0" crushed	42+80	N/A	culvert	1	\$3.90	\$129	
Total Rock for Road Segment:			13 to 14		66		\$314	
ROAD SEGMENT		15 to 16	POINT TO POINT	Sta. to Sta.	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
Application	Rock Size and Type	Location	Depth of Rock (inches)	15 to 16 Volume (CY) per	Number of			
Landings	6"-0" jaw-run	117+30	N/A	landing	1	\$6.48	\$570	
Total Rock for Road Segment:			15 to 16		88		\$570	

ROAD SEGMENT		17 to 18		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	landings	0+00 to 6+30 Number of	44			
Landings	6"-0" jaw-run	1+20	N/A	landings	44	landings	1	44	\$6.48	\$285
Total Rock for Road Segment: \$285										
ROAD SEGMENT		19 to 110		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	0+00 to 13+00 Number of	193	7.7			
Surfacing	4"-0" crushed	0+00 to 7+70	4	station	25	stations	7.7	193	\$6.48	\$1,247
Surface Leveling Rock	4"-0" crushed	6+00	N/A	load	11	loads	1	11	\$6.48	\$71
Turnouts	4"-0" crushed	6+00	N/A	turnout	11	turnouts	1	11	\$6.48	\$71
Junctions	1 1/2"-0" crushed	0+00	N/A	junction	11	junctions	1	11	\$3.90	\$43
Landings	6"-0" jaw-run	6+30	N/A	landings	110	landings	1	110	\$6.48	\$713
Total Rock for Road Segment: \$2,146										
ROAD SEGMENT		111 to 112		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	0+00 to 70+30 Number of	99	9			
Surface Leveling Rock	1 1/2"-0" crushed	3+00, 8+90, 21+80, 23+90, 32+00, 35+30, 40+60, 57+00, 60+15	N/A	load	11	loads	9	99	\$3.90	\$386
Culvert Bedding and Backfill	1 1/2"-0" crushed	34+20	N/A	culvert	33	culverts	1	33	\$3.90	\$129
Rock Ditch Filters	6"-4" pit run	35+30	N/A	3 filter series	11	series	1	11	\$6.48	\$71
Landings	6"-0" jaw-run	57+90, 64+00, 70+30	N/A	landings	77	landings	3	231	\$6.48	\$1,497
Total Rock for Road Segment: \$2,083										
ROAD SEGMENT		113 to 114		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	0+00 to 17+85 Number of	88	8			
Surface Leveling Rock	4"-0" crushed	0+00 to 12+00	N/A	load	11	loads	8	88	\$6.48	\$570
Surfacing	1 1/2"-0" crushed	12+00 to 17+85	2	station	13	stations	5.85	76	\$3.90	\$297
Culvert Bedding and Backfill	1 1/2"-0" crushed	0+00	N/A	culvert	33	culverts	1	33	\$3.90	\$129
Culvert Energy Dissipator	24"-6" riprap	0+00	N/A	dissipator	11	dissipators	1	11	\$6.48	\$71
Turnouts	4"-0" crushed	8+95	N/A	turnout	22	turnouts	1	22	\$6.48	\$143
Landings	6"-0" jaw-run	17+85	N/A	landings	55	landings	1	55	\$6.48	\$356
Total Rock for Road Segment: \$1,566										

ROAD SEGMENT		115 to 116		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	115 to 116	0+00 to 2+65	Number of			
Surface Leveling Rock	4"-0" crushed	0+00 to 2+65	N/A	load	11	loads	2	22	\$6.48	\$143
Junctions	4"-0" crushed	0+00	N/A	junction	22	junctions	1	22	\$6.48	\$143
Landings	6"-0" jaw-run	2+65	N/A	landing	77	landings	1	77	\$6.48	\$499
Total Rock for Road Segment:								121		\$784
ROAD SEGMENT		117 to 118		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	117 to 118	0+00 to 5+00	Number of			
Surface Leveling Rock	4"-0" crushed	0+00 to 5+00	N/A	load	11	loads	4	44	\$6.48	\$285
Landings	6"-0" jaw-run	5+00	N/A	landing	77	landings	1	77	\$6.48	\$499
Total Rock for Road Segment:								121		\$784
ROAD SEGMENT		119 to 120		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	119 to 120	0+00 to 16+00	Number of			
Landings	6"-0" jaw-run	16+00	N/A	landing	66	landings	1	66	\$6.48	\$428
Total Rock for Road Segment:								66		\$428
ROAD SEGMENT		121 to 122		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	121 to 122	0+00 to 1+10	Number of			
Surfacing	4"-0" crushed	0+00 to 1+00	4	station	25	stations	1	25	\$6.48	\$162
Junctions	4"-0" crushed	0+00	N/A	junction	11	junctions	1	11	\$6.48	\$71
Landings	6"-0" jaw-run	1+10	N/A	landing	66	landings	1	66	\$6.48	\$428
Total Rock for Road Segment:								102		\$661
ROAD SEGMENT		125 to 126		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	125 to 126	0+00 to 32+70	Number of			
Surfacing	1 1/2"-0" crushed	0+00 to 13+95	3	station	19	stations	13.95	265	\$3.90	\$1,034
Junctions	1 1/2"-0" crushed	0+00, 13+95	N/A	junction	22	junctions	2	44	\$3.90	\$172
Turnaround	1 1/2"-0" crushed	10+95	N/A	turnaround	22	turnaround	2	44	\$3.90	\$172
Surfacing	4"-0" crushed	31+70	4	station	25	stations	17.75	444	\$6.48	\$2,876
Turnouts	4"-0" crushed	10+95, 29+85	N/A	turnout	11	turnouts	2	22	\$6.48	\$143
Culvert Bedding and Backfill	1 1/2"-0" crushed	31+50	N/A	culvert	33	culverts	1	33	\$3.90	\$129
Surfacing	6"-0" jaw-run	31+70 to	12	station	86	stations	1	86	\$6.48	\$557
Road Subgrade Reconst.	6"-0" jaw-run	32+00	N/A	load	11	loads	6	66	\$6.48	\$428
Total Rock for Road Segment:								1,004		\$5,509

ROAD SEGMENT		127 to 128		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	Number of	0+00 to 21+65				
Surfacing	1 1/2"-0" crushed	0+00 to 14+15	3	station	19	stations	14.15	269	\$3.90	\$1,049
Junctions	1 1/2"-0" crushed	13+40	N/A	junction	11	junctions	1	11	\$3.90	\$43
Turnouts	1 1/2"-0" crushed	4+15, 13+40	N/A	turnout	11	turnouts	2	22	\$3.90	\$86
Surface Leveling Rock	1 1/2"-0" crushed	13+40	N/A	load	11	loads	1	11	\$3.90	\$43
Total Rock for Road Segment:		127 to 128						313		\$1,220

ROAD SEGMENT		129 to 130		POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	Number of	0+00 to 2+30				
Surfacing	4"-0" crushed	0+00 to 2+30	4	station	25	stations	2.3	58	\$6.48	\$373
Junctions	4"-0" crushed	0+00	N/A	junction	11	junctions	1	11	\$6.48	\$71
Total Rock for Road Segment:		129 to 130						69		\$444

Processing:	Description	No. sta	Rate/sta	Cost
Water, Process & Compact	15-16(37.55), 19-110 (7.7), 111-112 (70.3), 113-114(119-120)(8.20), 125-126 (32.7), 127-128 (14.15)	193.75	\$63.48	\$12,300
	Traction Rock Water, Process & Compact	113-114(5.85)	\$63.48	\$371

Application	Rock Size and Type	Location	Depth of Rock (inches)	Volume (CY) per	Number of	TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost	
	24"-6" rr			6"-4" pr	6"-0"jr	4"-0" crushed	1 1/2"-0" crushed	Total	
			33	66	966	983	1,127	3,175	\$43,016

SPECIAL PROJECTS		Description	Cy/Amount	Rate	Cost
SUB TOTAL FOR SPECIAL PROJECTS					\$0
GRAND TOTAL					\$56,731

Compiled By: Brittany West Date: 05/09/2023

Subtotal of Surfacing & Spec. Proj: \$43,016
 Subtotal of Clearing, Exc., Culv. \$13,716

Projects Road Maintenance Cost Summary

Sale: Little Nicky Thin
Date: 08-May-23
By: Brittany West

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	16	\$113	\$1,808
Final Haul	Dump Truck 12CY	8	\$87	\$696
Road	FE Loader C966	8	\$94	\$752
Maintenance	Vibratory Roller	16	\$89	\$1,424
	Water Truck 2,500 gallon	16	\$101	\$1,616
Total				\$6,296

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

NOTE: Nicolai (Viewpoint Quarry to Fishhawk Loop) 6.01 Miles
TOTAL= 6.01 Miles

SUMMARY OF ROCK DEVELOPMENT AND CRUSHING COSTS

PROJECT NO. 3 Timber Sale Name: Little Nicky Thin
 Quarry: Viewpoint Swell: _____
 Location: SE1/4, SE 1/4 Sec. 4, T7N, R6W Shrink: 16%
 County: Clatsop
 By: Brittany West Loading Hopper: Yes
 Date: 05/22/2023

ROCK SIZE	REJECT	GRADATION	STOCKPILE CU. YDS.	TRUCK MEAS CU. YDS.	TOTAL CU. YDS.
3/4"-0"		CR			
1-1/2"-0"		CR			
6"-0"		CR		1,810	1,810
6"-0"		CR			
24"-6"		RR		33	33
36"		RR			
TOTAL CUBIC YARDS OF ROCK:				1,843	1,843

1) MOBILIZATION & SET UP:

EQUIPMENT	QUANTITY	RATE	COST	EQUIPMENT	QUANTITY	RATE	COST
Dump Trucks	1	\$184	\$184				
Drill & Compressor	1	\$1,581	\$1,581				
Powder	1	\$395	\$395				
Excavator	1	\$1,581	\$1,581				
Loader	1	\$905	\$905				
1 Stage Crusher	1	\$1,626	\$1,626				

SUB TOTAL FOR MOBILIZATION \$6,272

EQUIPMENT SET UP	TIMES	RATE	COST
1 Stage Crusher	1	\$1,131	\$1,131

SUB TOTAL FOR SET UP COSTS \$1,131

TOTAL MOBILIZATION & SET UP COSTS **\$7,403**

2) CLEARING & GRUBBING

DESCRIPTION	QUANTITY	UNIT	RATE	COST

TOTAL CLEARING & GRUBBING COSTS

3) EXCAVATION

MATERIAL DESCRIPTION	QUANTITY	UNIT	RATE	COST

TOTAL EXCAVATION COSTS

4) DEVELOP ROCK

ROCK SUMMARY			METHOD	%	QUANTITY	RATE	COST
Type	Cu. yd.	Vol. Weight					
jaw run	1,810	98%	Ripping	50%	922	\$3.40	\$3,133
pit run	0	0	Drill & shoot	50%	922	\$3.50	\$3,225
rip rap	33	2%	Oversize red	5%	91	\$6.90	\$624
Total	1,843		Other				
reject							

TOTAL ROCK DEVELOPMENT COSTS

\$6,983

5) CALIBRATION & TESTING

DESCRIPTION	NO.	\$/TEST	COST
Calibrate			
Calibrate			
Test			
Test			

TOTAL CALIBRATION & TESTING COSTS

6) FEEDING & LOADING

DESCRIPTION	CU. YD. QUANTITY	COST CU. YD.	TOTAL COST
Dig & Feed Rock	1,810	\$0.68	\$1,237

TOTAL FEEDING & LOADING COSTS

\$1,237

7) ROCK CRUSHING

ROCK SIZE	ROCK TYPE	CU. YD. QUANTITY	CRUSHER TYPE	HOURLY PRODUCTION	RATE CU. YD.	TOTAL COST
3/4"-0"	crushed					
1-1/2"-0"	crushed					
6"-0"	jaw run	1,810	1 stage w/s	180	\$0.83	\$1,508
6"-0"						

TOTAL ROCK CRUSHING COSTS

\$1,508

8) STOCKPILING

STOCKPILE SITE PREPARATION

Equipment	Hours	Rate	Total
Dozer		\$120.00	
Compactor		\$72.00	
Grader		\$90.00	
Excavator		\$138.00	

Rock for Floor (CY)	\$/CY Haul	Total

SUB TOTAL

**HAUL & STOCKPILE
STOCKPILE LOCATION**

	SIZE	# of TRUCKS	CU. YDS.	RATE	COST
1.					
2.					
3.					
4.					
5.					
6.					

SUB TOTAL

TOTAL STOCKPILING COSTS

9) MISCELLANEOUS COSTS

DESCRIPTION	COST
Final Quarry Dev., Access Road Const., Waterbarring, Drainage, Block Quarry Access	\$500

TOTAL MISCELLANEOUS COSTS

\$500

10) GRAND TOTAL:

\$17,631

\$/Cubic Yard

\$9.74

Footnotes:

Little Nicky Timber Sale**Vacating Cost Summary**

Segment	Cost
V1 to V2	\$676
V3	\$114
Vacating Cost	\$789.60
C315 Excavator	\$905.00
D10/12 Truck	\$184.00
Total Mobilization	\$1,089.00
Total Dollars	\$1,879

**Little Nicky Timber Sale
Vacating Costs V1 to V2**

Work Description	Station	C330	C315	D10/12 trk	Labor	Straw- bales	Seed-lbs
Construct a waterbar and a road block.	0+00		1.00				
Excavate fill and remove culvert.	1+10		2.00				
Construct waterbar.	3+95		1.00				
Seed and mulch vacated fill.	0+00 to 5+30				2.00	10	5
Total Quantity (Hours)		0.00	4.00	0.00	2	10	5
Rates		\$175.00	\$114.00	89.00	\$45.00	\$12.06	\$1.80
Total Dollars		\$0	\$456	0.00	\$90	\$121	\$9

Total Cost

\$676

**Little Nicky Thin Timber Sale
Vacating Costs V3**

Work Description	Station	C315	Labor	Straw- bales	Seed-lbs
Waterbar and block dirt spur.	0+00	1.00			
Total Quantity (Hours)		1.00	0	0	0
Rates		\$114.00	\$45.00	\$12.06	\$1.80
Total Dollars		\$114	\$0	\$0	\$0

Total Cost

\$114

**LITTLE NICKY THIN
TIMBER CRUISE REPORT
FY 2023**

1. **Sale Area Location:** Portions of Sections 26, 27, 34, & 35, T7N, R6W, W.M., Clatsop County, OR.
2. **Fund Distribution:** BOF 79.33% Tax Code: 8-01 (20.72%) 30-05 (79.28%)
CSL 20.67%
3. **Sale Acreage by Area:**

Unit	Harvest Type	Gross Acres	Stream Buffer Acres	Existing R/W Acres	New R/W Acres	New R/W Non-Stocked	Net Acres	Survey Method
1	Partial Cut	263	21	8	3	2	229	GIS
2	Partial Cut	36	2	1	<1	-	33	GIS
3	Partial Cut	26	<1	1	<1	-	25	GIS
4	R/W	3	-	-	-	-	3	LxW
TOTALS		328	23	10	3	2	290	

4. **Cruisers and Cruise Dates:** Avery Petersen, John Czarnecki, Ryan Simpson, and Justin Bush (May, 2023)

5. Cruise Method and Computation:

Units 1, 2, and 3: Units 1, 2, and 3 were variable plot cruised with a 27.78 BAF. A total of 85 plots were sampled on a five by eight chain spacing with a grade to count ratio of 1:2, resulting in 31 grade plots and 54 count plots*. The cruise design included 86 plots of which one was dropped.

Unit 4 (R/W): Right-of-way consists of new roads and landings within Units 1, 2, and 3. There are approximately two acres of non-stocked right-of-way. Volumes from the U123 cruise were applied to stocked portions of the Unit 4 R/W and the acreage has been adjusted accordingly.

*The reported numbers of count and grade plots vary from those indicated in the U123_TAKE Statistics due to recording blank plots where the basal area did not meet the thinning specifications and no take trees were designated.

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

UNIT(s)	CRUISE	TRACT	TYPE	ACRES
1, 2, 3, and 4	LNTHIN	U123	00PC	290

6. Timber Description:

Unit 1, 2, and 3 are partial cuts consisting of several different stands. Approximately two thirds of the sale averages 45 years old, and the remaining third averages 37. The stands consist of Douglas-fir, western hemlock, and red alder. A minor component of western redcedar is present in these units. The average take Douglas-fir is approximately 13 inches DBH and 51 feet to a merchantable top. The average take western hemlock is approximately 16 inches DBH and 51 feet to a merchantable top. Average net volume to be harvested per acre is 6.6 MBF. All trees were cruised to a merchantable top of six inches DIB, 40% of form point, or an otherwise anticipated break point. The target basal area for Units 1, 2, and 3 is 140 square feet. The target stand density index (SDI) is 36%.

Unit 4 (R/W) is similar to the stands in Units 1, 2, 3. The average Douglas-fir is approximately 16 inches DBH and 61 feet to a merchantable top. The average western hemlock is approximately 17 inches DBH and 61 feet to a merchantable top. The average take red alder is approximately 11 inches DBH and 30 feet to a merchantable top. The average take western redcedar is approximately 12 inches DBH and 33 feet to a merchantable top. Average net volume to be harvested per acre is 24 MBF.

7. Statistical Analysis and Stand Summary:

Statistics for Stand B.F. volumes

Unit	Estimated CV	Target SE%	Actual CV	Actual SE%
1, 2, and 3	30%	13%	33%	3.6%

8. Volumes by Species and Log Grade:

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

Conifer

Species	DBH	Net Vol.	2 Saw	3 Saw	4 Saw	% D & B	% Sale
Douglas-fir	13"	1,651	87	1,280	284	1.0%	52%
Western hemlock	16"	324	60	198	66	0.3%	38%
Western redcedar	12"	1	-	1	-	0%	
TOTALS	-	1,976	147	1,479	350	-	-

Hardwood*

Species	DBH	Net Vol.	12"+	10"-11"	8"-9"	6"-7"	% D & B	% Sale
Red alder	11"	3	-	1	1	1	0%	10%
TOTALS	-	3	-	1	1	1	-	-

TOTAL VOLUME	1,979 MBF
---------------------	------------------

9. Approvals:

Prepared by: Justin Bush Date: 05/09/2023
 Unit Forester Approval: *[Signature]* Date: 5/23/23

- 10. Attachments:** Cruise Design and Map (3 pages)
 Volume Report (3 pages)
 Statistics Report (6 pages)
 Log Stock Table (2 pages)
 Stand Table Summary (3 pages)

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Little Nicky Thin

Units 1, 2, & 3

Harvest Type: Partial Cut

Approx. Cruise Acres: 288 Estimated CV% 30 Net BF/Acre SE% Objective 13 Net BF/Acre

Planned Sale Volume : 2,891 MBF Estimated Sale Area Value/Acre: \$2,275/Acre

A. **Cruise Goals:** (a) Grade minimum 80 trees
(b) Sample 86 cruise plots (31 grade/ 55 count); (c) Other goals (Determine "automark" thinning standards; X Determine log grades for sale value; X Determine snag and leave tree species and sizes.

B. **Cruise Design:**

1. **Plot Cruises:** BAF 27.78 (Full point)
Cruise Line Directions **Unit 1:** 163°/343°
Unit 2: 7°/187°
Unit 3: 166°/346°
Cruise Line Spacing: 8 ch. (528 ft)
Cruise Plot Spacing: 5 ch. (330 ft)
Grade/Count Ratio 1:2

Basal Area leave target is 130-150 sq. ft. Cruiser needs to select 5 leave trees per plot. Cruise all take and leave trees.

Take plots as marked on cruise map. Do not take plots in stream buffers. Stream buffers are 25' non-posted. Map out non-thinnable areas larger than 1 acre, but do not drop plots.

All cedar and alder will be reserved. Record all snags as SN.

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

DO NOT RECORD 22' LENGTHS.

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

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

C. **Tree Measurements:**

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 8" for hardwoods. Record dbh to nearest $\frac{1}{2}$ " for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD):** Minimum top outside bark is 7" for conifers and 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 7" outside bark for trees < 20" dbh and 40% of dob @ FP for conifer trees > 20" dbh.

4. **Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.
5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree. Hardwoods shall be recorded in 8' and 10' multiples.
6. **Species, Sort, and Grade Codes:**
 - A. **Species:** Record as D (Douglas-fir); H (western hemlock); S (Sitka Spruce); C (Western redcedar); NF (noble fir); SF (silver fir); A (red alder); M (bigleaf maple); SN (Snag). For "leave trees", add an "L" to the species code (such as DL, HL, CL, etc.)
 - B. **Sort:** Use code "1" (Domestic).
 - C. **Grade:** A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camp Run; 0 = Cull
Hardwoods: Alder Grades: 12" + = 1 Sawmill; 10"-12" = 2 Sawmill; 10"-8" = 3 Sawmill; and 8"-6" 4 Sawmill, 0 = Cull.
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than Douglas-fir and spruce.
8. **Standard Field Procedures: Plot Type Cruises:** Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at inter-visible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.
9. **Cruising Equipment:** Relaskop, Rangefinder, Clinometer, Logger's Tape (with dbh on back), Compass, Allegro II Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue Flagging, Yellow Paint.
10. **Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

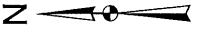
Cruise Design by: Ryan Simpson

Approved by: 

Date: 5/2/23

TIMBER CRUISE MAP

OF TIMBER SALE CONTRACT
 NO. AT-341-2024-W00986-01
 LITTLE NICKY THIN
 PORTIONS OF SECTIONS
 26, 27, 34, & 35 OF T7N, R6W, W.M.,
 CLATSOP COUNTY, OREGON

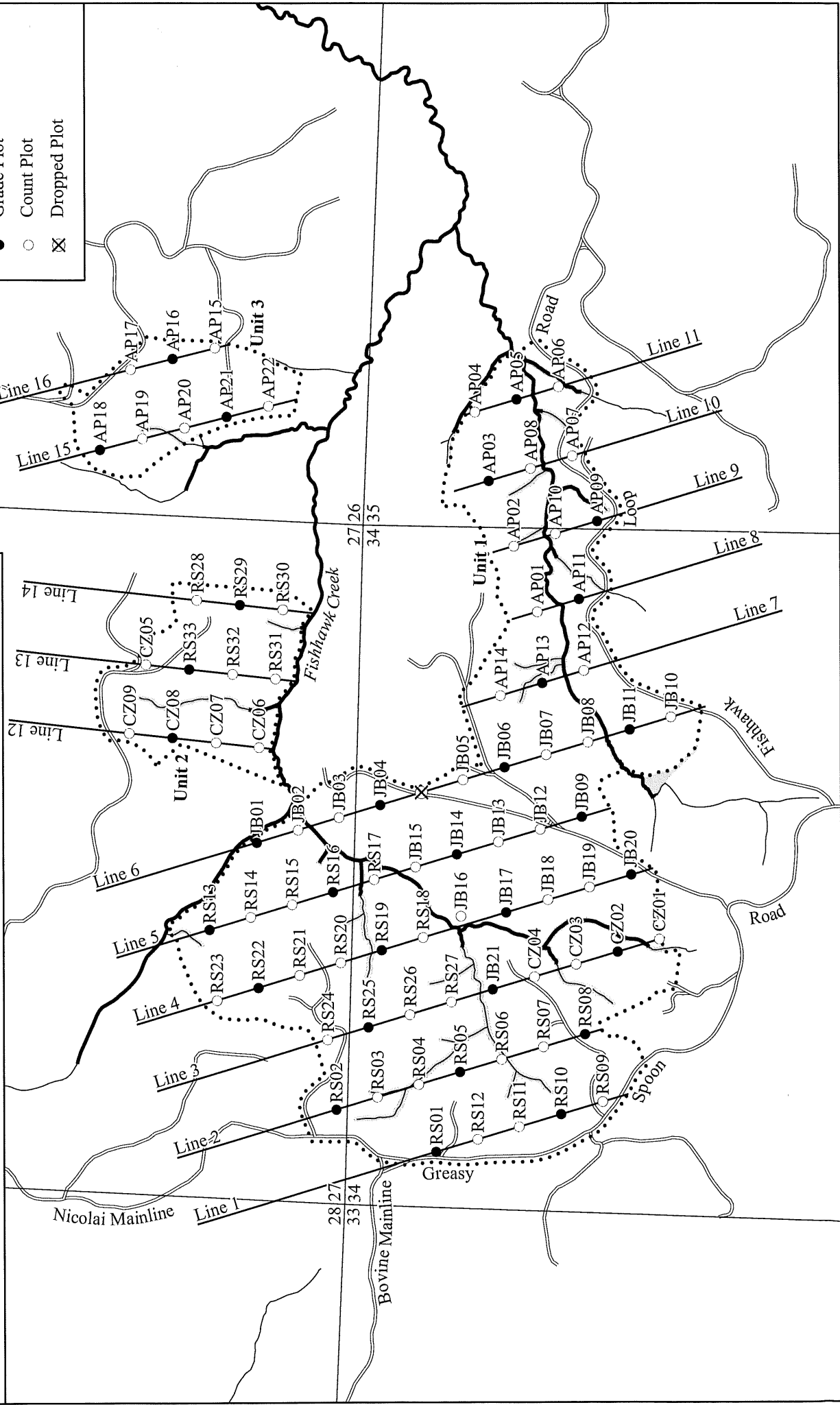


Unit	Approximate Net Acres	Line Azimuth	Count Plots	Grade Plots	Total
Unit 1 (PC):	229	163°/343°	41	25	66
Unit 2 (PC):	33	79°/187°	8	3	11
Unit 3 (PC):	25	166°/346°	5	3	8
Subtotal:	287		54	31	85
Unit 4 (R/W):	3				
Total Net Acres:	290				

Line Spacing: 8 ch. (528 ft.)
 Plot Spacing: 5 ch. (330 ft.)
 BAF: 27.78
 BA Target: 130 - 150 sq. ft.

Legend

- ⋯ Timber Sale Boundary
- Surfaced Road
- Type F Stream
- Type N Stream
- ▨ Non-Posted Stream Buffer
- Cruise Line
- Grade Plot
- Count Plot
- ⊗ Dropped Plot



Species, Sort Grade - Board Foot Volumes (Project)

T07N R06W S34 Ty00PC 287.00		Project: LNTHIN	Page 1
T07N R06W S34 TyR/W 3.00		Acres 290.00	Date 5/9/2023
			Time 8:41:43AM

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre	
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf		
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
D		DOCU																17	12		0.00	1.3
D		DO2S		5	2.2	305	298	87			100	0	28	20	33	19		28	13	162	1.50	1.8
D		DO3S		77	1.1	4,461	4,413	1,280		100			1	6	24	69		36	8	89	0.70	49.6
D		DO4S		18	.5	983	978	284		100			52	48				20	6	25	0.41	38.5
D Totals				83	1.0	5,749	5,690	1,651	1,650	95	5	0	11	14	21	54		29	7	62	0.63	91.3
H		DOCU																6	17		0.00	1.3
H		DO2S		18	1.6	211	208	60			99	1	38	0	1	60		28	14	217	1.92	1.0
H		DO3S		61	.1	682	682	198		100	0		0	33	0	67		35	8	97	0.88	7.0
H		DO4S		21		227	227	66		100			39	61				22	7	32	0.52	7.2
H Totals				16	.3	1,121	1,117	324		81	19	0	15	33	0	52		27	9	68	0.80	16.4
C		DO3S		34		1	1	0		100					100			40	6	60	0.67	.0
C		DO4S		66		1	1	0		100				100				29	6	36	0.47	.0
C Totals				0		2	2	1		100				66	34			32	6	42	0.53	.0
A		DOCU																17	12		0.00	.0
A		DO2S		19		2	2	1		100			38	62				25	10	96	0.93	.0
A		DO3S		25		2	2	1		100			29	71				26	9	63	0.71	.0
A		DO4S		56		5	5	1		100			59	32	10			22	6	27	0.44	.2
A Totals				0		9	9	3		100			47	47	5			22	7	37	0.52	.2
Totals					0.9	6,881	6,817	1,979	1,977	93	7	0	12	17	17	54		29	8	63	0.65	108.0

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)								Page 1											
		Project: LNTHIN								Date 5/9/2023											
										Time 8:43:04AM											
T07N R06W S34 T00PC										T07N R06W S34 T00PC											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
07N	06W	34	U123_TAKE	00PC	287.00	85	63	1	W												
Spp	S	So	Gr	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln	Dia	Bd	CF/ Lf	
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf	
D		DO	CU														17	12		0.00	1.3
D		DO	2S	4	2.6	242	235	68		100			35	26	40		26	13	149	1.47	1.6
D		DO	3S	78	1.1	4,392	4,344	1,247		100			1	6	24	69	36	8	89	0.70	48.9
D		DO	4S	18	.5	968	963	276		100			52	48			20	6	25	0.41	38.0
D	Totals			84	1.1	5,602	5,542	1,591		96	4		11	14	21	54	29	7	62	0.62	89.8
H		DO	CU														6	17		0.00	1.3
H		DO	2S	17	1.6	194	191	55		100			42		58		27	14	216	1.95	.9
H		DO	3S	62		673	673	193		100				33	67		35	8	97	0.88	6.9
H		DO	4S	21		226	226	65		100			39	61			22	7	32	0.52	7.1
H	Totals			16	.3	1,094	1,090	313		82	18		15	33	51		27	9	67	0.80	16.2
Type Totals					.9	6,695	6,633	1,904		94	6		12	17	17	54	28	8	63	0.65	106.0

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)								Page 1											
		Project: LNTHIN								Date 5/9/2023											
										Time 8:45:39AM											
T07N R06W S34 TR/W										T07N R06W S34 TR/W											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
07N	06W	34	U4 R/W	R/W	3.00	85	228	1	W												
Spp	S	So	Gr	%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
					Net	Def%	Gross		Net	Log Scale Dia.				Log Length				Ln	Dia		Bd
				BdFt				Net MBF	4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft		
D		DO	CU														13	11		0.00	3.4
D		DO	2S	31	.7	6,365	6,318	19		99	1		2	1	8	88	38	13	234	1.59	27.0
D		DO	3S	56	.7	11,127	11,053	33	100				1	9	22	68	36	8	96	0.78	114.6
D		DO	4S	13	.2	2,390	2,386	7	100				42	58			21	6	27	0.42	89.5
D	Totals			81	.6	19,882	19,756	59		68	32	0	6	12	15	66	30	8	84	0.80	234.5
H		DO	CU														8	17		0.00	1.7
H		DO	2S	49	1.6	1,820	1,790	5		92	8		7	5	6	81	36	13	229	1.73	7.8
H		DO	3S	41	2.4	1,516	1,480	4	94	6			1	24	5	70	35	8	92	0.84	16.0
H		DO	4S	10		362	362	1	100				46	54			21	6	28	0.50	13.1
H	Totals			15	1.8	3,698	3,633	11		48	47	4	9	18	5	69	29	9	94	0.97	38.7
A		DO	CU														17	12		0.00	.8
A		DO	2S	19		174	174	1	100				38	62			25	10	96	0.93	1.8
A		DO	3S	25		220	220	1	100				29	71			26	9	63	0.71	3.5
A		DO	4S	56		492	492	1	100				59	32	10		22	6	27	0.44	18.0
A	Totals			4		886	886	3		100			47	47	5		22	7	37	0.52	24.2
C		DO	3S	34		61	61	0	100						100		40	6	60	0.67	1.0
C		DO	4S	66		118	118	0	100				100				29	6	36	0.47	3.3
C	Totals			1		179	179	1		100			66	34			32	6	42	0.53	4.3
Type Totals					.8	24,645	24,454	73		67	33	1	8	15	13	64	30	8	81	0.80	301.7

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	LNTHIN		DATE	5/9/2023		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
07N	06W	34	U123	00PC	290.00	85	650	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	PER PLOT	TREES	TREES		
TOTAL		85	650	7.6						
CRUISE		31	226	7.3	49,040		.5			
DBH COUNT										
REFOREST										
COUNT		54	423	7.8						
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUGLEAV	113	68.8	17.0	68	26.3	108.2	14,257	14,190	4,043	4,043
DOUG FIR	52	52.7	13.4	51	14.0	51.3	5,602	5,542	1,609	1,609
HEMLEAV	27	11.1	18.0	66	4.6	19.6	2,492	2,438	723	723
ALDRLEAV	13	19.3	11.1	30	3.9	13.1	886	886	281	281
WHEMLOCK	10	8.8	15.6	51	3.0	11.8	1,094	1,090	343	343
SNAG	8	4.0	15.4	59	1.3	5.2				
CEDLEAV	3	4.3	11.8	33	1.0	3.3	179	179	73	73
TOTAL	226	169.1	15.2	56	54.5	212.4	24,509	24,326	7,071	7,071
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	50.5	4.7	234	246	257					
DOUG FIR	54.0	7.5	120	129	139					
HEMLEAV	45.8	9.0	240	264	287					
ALDRLEAV	71.8	20.7	45	56	68					
WHEMLOCK	66.2	22.0	123	158	193					
SNAG										
CEDLEAV	35.3	24.4	33	43	54					
TOTAL	66.3	4.4	186	195	203	175	44	19		
CL: 68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	40.0	4.3	66	69	72					
DOUG FIR	95.5	10.4	47	53	58					
HEMLEAV	173.7	18.8	9	11	13					
ALDRLEAV	210.3	22.8	15	19	24					
WHEMLOCK	188.9	20.5	7	9	11					
SNAG	246.5	26.7	3	4	5					
CEDLEAV	445.5	48.3	2	4	6					
TOTAL	39.8	4.3	162	169	176	63	16	7		
CL: 68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	37.8	4.1	104	108	113					
DOUG FIR	94.7	10.3	46	51	57					
HEMLEAV	169.1	18.3	16	20	23					
ALDRLEAV	203.7	22.1	10	13	16					
WHEMLOCK	187.1	20.3	9	12	14					
SNAG	238.9	25.9	4	5	7					
CEDLEAV	443.1	48.0	2	3	5					
TOTAL	29.4	3.2	206	212	219	35	9	4		
CL: 68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		

TC TSTATS				STATISTICS				PAGE	2	
				PROJECT	LNTHIN		DATE	5/9/2023		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
07N	06W	34	U123	00PC	290.00	85	650	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	
DOUGLEAV		41.2	4.5	13,556	14,190	14,823				
DOUG FIR		97.2	10.5	4,959	5,542	6,126				
HEMLEAV		169.7	18.4	1,990	2,438	2,886				
ALDRLEAV		196.1	21.2	697	886	1,074				
WHEMLOCK		190.4	20.6	865	1,090	1,315				
SNAG										
CEDLEAV		445.4	48.3	93	179	266				
TOTAL		<i>33.0</i>	<i>3.6</i>	<i>23,455</i>	<i>24,326</i>	<i>25,197</i>	<i>44</i>	<i>11</i>	<i>5</i>	

TC PSTATS		PROJECT STATISTICS							PAGE	1	
		PROJECT		LNTHIN			DATE		5/9/2023		
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
07N	06	34	U123 TAKE	00PC	290.00	170	845	1	W		
07N	06W	34	U4 R/W	R/W							
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL			170	845	5.0						
CRUISE			54	288	5.3	18,158	1.6				
DBH COUNT											
REFOREST											
COUNT			98	555	5.7						
BLANKS			18								
100 %											
STAND SUMMARY											
		SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR		217	53.4	13.4	51	14.3	52.4	5,749	5,690	1,651	1,651
WHEMLOCK		47	9.0	15.7	51	3.0	12.0	1,121	1,117	350	350
R ALDER		13	.2	11.1	30	0.0	.1	9	9	3	3
SNAG		8	.0	15.4	59	0.0	.1				
WR CEDAR		3	.0	11.8	33	0.0	.0	2	2	1	1
TOTAL		288	62.6	13.8	51	17.4	64.6	6,881	6,817	2,005	2,005
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR		61.6	4.2	182	190	198					
WHEMLOCK		56.6	8.2	201	219	237					
R ALDER		71.8	20.7	45	56	68					
SNAG											
WR CEDAR		35.3	24.4	33	43	54					
TOTAL		67.2	4.0	175	182	189	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		
DOUG FIR		162.6	12.5	47	53	60					
WHEMLOCK		277.5	21.3	7	9	11					
R ALDER		313.0	24.0	0	0	0					
SNAG		361.7	27.7	0	0	0					
WR CEDAR		636.1	48.7	0	0	0					
TOTAL		148.2	11.4	56	63	70	877	219	97		
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR		159.9	12.3	46	52	59					
WHEMLOCK		273.7	21.0	9	12	14					
R ALDER		304.2	23.3	0	0	0					
SNAG		351.5	26.9	0	0	0					
WR CEDAR		632.7	48.5	0	0	0					
TOTAL		145.0	11.1	57	65	72	840	210	93		
CL	68.1	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR		161.6	12.4	4,985	5,690	6,394					
WHEMLOCK		275.9	21.1	881	1,117	1,353					
R ALDER		294.1	22.5	7	9	11					
SNAG											
WR CEDAR		636.0	48.7	1	2	3					
TOTAL		147.8	11.3	6,045	6,817	7,589	872	218	97		

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT LNTHIN		DATE 5/9/2023				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
07N	06W	34	U123 TAKE	00PC	287.00	85	195	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
				PLOTS	TREES	TREES	TREES			
TOTAL	85	195	2.3							
CRUISE	23	62	2.7	17,654			4			
DBH COUNT										
REFOREST										
COUNT	44	132	3.0							
BLANKS	18									
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUG FIR	52	52.7	13.4	51	14.0	51.3	5,602	5,542	1,609	1,609
WHEMLOCK	10	8.8	15.6	51	3.0	11.8	1,094	1,090	343	343
TOTAL	62	61.5	13.7	51	17.0	63.1	6,695	6,633	1,951	1,951
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	54.0	7.5	120	129	139					
WHEMLOCK	66.2	22.0	123	158	193					
TOTAL	56.8	7.2	124	134	144	129	32	14		
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	95.5	10.4	47	53	58					
WHEMLOCK	188.9	20.5	7	9	11					
TOTAL	83.1	9.0	56	62	67	276	69	31		
CL: 68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	94.7	10.3	46	51	57					
WHEMLOCK	187.1	20.3	9	12	14					
TOTAL	81.4	8.8	58	63	69	264	66	29		
CL: 68.1 %	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	97.2	10.5	4,959	5,542	6,126					
WHEMLOCK	190.4	20.6	865	1,090	1,315					
TOTAL	84.7	9.2	6,024	6,633	7,241	286	72	32		

TC TSTATS				STATISTICS				PAGE	1	
PROJECT				LNTNH				DATE	5/9/2023	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
07N	06W	34	U4 R/W	R/W	3.00	85	650	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		85	650	7.6						
CRUISE DBH COUNT REFOREST COUNT		31	226	7.3	504	44.8				
BLANKS		54	423	7.8						
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	165	121.1	15.5	61	40.5	159.5	19,882	19,756	5,658	5,658
WHEMLOCK	37	19.3	17.3	61	7.6	31.4	3,698	3,633	1,091	1,091
R ALDER	13	19.3	11.1	30	3.9	13.1	886	886	281	281
SNAG	8	4.0	15.4	59	1.3	5.2				
WR CEDAR	3	4.3	11.8	33	1.0	3.3	179	179	73	73
TOTAL	226	168.1	15.2	57	54.4	212.4	24,645	24,454	7,103	7,103
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	58.6	4.6	199	209	218					
WHEMLOCK	53.0	8.7	215	235	256					
R ALDER	71.8	20.7	45	56	68					
SNAG										
WR CEDAR	35.3	24.4	33	43	54					
TOTAL	66.3	4.4	186	195	203	175	44	19		
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	48.9	5.3	115	121	128					
WHEMLOCK	150.3	16.3	16	19	22					
R ALDER	210.3	22.8	15	19	24					
SNAG	246.5	26.7	3	4	5					
WR CEDAR	445.5	48.3	2	4	6					
TOTAL	36.3	3.9	161	168	175	53	13	6		
CL: 68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	46.7	5.1	151	159	168					
WHEMLOCK	146.4	15.9	26	31	36					
R ALDER	203.7	22.1	10	13	16					
SNAG	238.9	25.9	4	5	7					
WR CEDAR	443.1	48.0	2	3	5					
TOTAL	29.4	3.2	206	212	219	35	9	4		
CL: 68.1 %	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR	49.5	5.4	18,697	19,756	20,816					
WHEMLOCK	148.0	16.0	3,050	3,633	4,215					
R ALDER	196.1	21.2	697	886	1,074					
SNAG										
WR CEDAR	445.4	48.3	93	179	266					
TOTAL	34.6	3.8	23,536	24,454	25,371	48	12	5		

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT LNTHIN		DATE 5/9/2023				
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
07N	06W	34	U123 LEAVE	00PC	287.00	85	457	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL	85	457	5.4							
CRUISE	31	164	5.3	30,878		.5				
DBH COUNT										
REFOREST										
COUNT	54	293	5.4							
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DOUGLEAV	113	68.8	17.0	68	26.3	108.2	14,257	14,190	4,043	4,043
HEMLEAV	27	11.1	18.0	66	4.6	19.6	2,492	2,438	723	723
ALDRLEAV	13	19.3	11.1	30	3.9	13.1	886	886	281	281
SNAG	8	4.0	15.4	59	1.3	5.2				
CEDLEAV	3	4.3	11.8	33	1.0	3.3	179	179	73	73
TOTAL	<i>164</i>	<i>107.6</i>	<i>16.0</i>	<i>59</i>	<i>37.4</i>	<i>149.4</i>	<i>17,814</i>	<i>17,693</i>	<i>5,120</i>	<i>5,120</i>
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	SAMPLE TREES - BF					# OF TREES REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	50.5	4.7	234	246	257					
HEMLEAV	45.8	9.0	240	264	287					
ALDRLEAV	71.8	20.7	45	56	68					
SNAG										
CEDLEAV	35.3	24.4	33	43	54					
TOTAL	<i>63.1</i>	<i>4.9</i>	<i>207</i>	<i>218</i>	<i>229</i>	<i>159</i>	<i>40</i>	<i>18</i>		
CL: 68.1 %	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	40.0	4.3	66	69	72					
HEMLEAV	173.7	18.8	9	11	13					
ALDRLEAV	210.3	22.8	15	19	24					
SNAG	246.5	26.7	3	4	5					
CEDLEAV	445.5	48.3	2	4	6					
TOTAL	<i>40.0</i>	<i>4.3</i>	<i>103</i>	<i>108</i>	<i>112</i>	<i>64</i>	<i>16</i>	<i>7</i>		
CL: 68.1 %	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	37.8	4.1	104	108	113					
HEMLEAV	169.1	18.3	16	20	23					
ALDRLEAV	203.7	22.1	10	13	16					
SNAG	238.9	25.9	4	5	7					
CEDLEAV	443.1	48.0	2	3	5					
TOTAL	<i>19.2</i>	<i>2.1</i>	<i>146</i>	<i>149</i>	<i>152</i>	<i>15</i>	<i>4</i>	<i>2</i>		
CL: 68.1 %	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUGLEAV	41.2	4.5	13,556	14,190	14,823					
HEMLEAV	169.7	18.4	1,990	2,438	2,886					
ALDRLEAV	196.1	21.2	697	886	1,074					
SNAG										
CEDLEAV	445.4	48.3	93	179	266					
TOTAL	<i>20.8</i>	<i>2.3</i>	<i>17,293</i>	<i>17,693</i>	<i>18,092</i>	<i>17</i>	<i>4</i>	<i>2</i>		

Log Stock Table - MBF

T07N R06W S34 Ty00PC	287.00
T07N R06W S34 TyR/W	3.00

Project: LNTHIN
Acres 290.00

Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches													
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+		
D		DO 2S	16	0		0	.0														
D		DO 2S	20	24		24	1.4							24						0	
D		DO 2S	24	17		17	1.1						17								
D		DO 2S	32	29	6.2	28	1.7						28								
D		DO 2S	34	1	1.3	1	.1						1			0					
D		DO 2S	36	0		0	.0						0								
D		DO 2S	38	0		0	.0						0								
D		DO 2S	40	16		16	1.0						11		5	1					
D		DO 3S	14	9		9	.6					9									
D		DO 3S	18	0		0	.0					0									
D		DO 3S	24	0		0	.0				0	0									
D		DO 3S	26	40		40	2.4					19	21								
D		DO 3S	28	16		16	.9			0	16										
D		DO 3S	30	24	7.3	22	1.3				0	22									
D		DO 3S	32	282	3.6	272	16.5			65	183	24									
D		DO 3S	34	41		41	2.5			40	0	1									
D		DO 3S	36	43		43	2.6			24	19	0									
D		DO 3S	38	91		91	5.5			90		0									
D		DO 3S	40	748		746	45.2			100	204	442									
D		DO 4S	10	6		6	.4			6											
D		DO 4S	12	0		0	.0			0											
D		DO 4S	14	6		6	.4			6											
D		DO 4S	16	41		41	2.5			35	6										
D		DO 4S	18	23		23	1.4			23											
D		DO 4S	20	72	2.0	70	4.3			54	16										
D		DO 4S	24	91		91	5.5			41	49										
D		DO 4S	26	29		29	1.8			29											
D		DO 4S	28	0		0	.0			0											
D		DO 4S	30	17		17	1.0			17											
D		Totals		1,667	1.0	1,650	83.5			532	512	519	57	28	1	0					
H		DO 2S	12	0		0	.0									0					
H		DO 2S	14	0		0	.0							0							
H		DO 2S	20	23		23	7.1							23							
H		DO 2S	24	0		0	.0						0								
H		DO 2S	30	0		0	.1						0								
H		DO 2S	32	0		0	.1									0					
H		DO 2S	40	37	2.7	36	11.2						2	34	0						

Log Stock Table - MBF

T07N R06W S34 Ty00PC	287.00
T07N R06W S34 TyR/W	3.00

Project: LNTHIN
Acres 290.00

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+	
H	DO	3S	18	0		0	.0					0								
H	DO	3S	24	0		0	.1				0									
H	DO	3S	28	0		0	.0			0										
H	DO	3S	30	65		65	20.1			11	24	30								
H	DO	3S	32	0	5.5	0	.1			0	0									
H	DO	3S	34	0		0	.0			0										
H	DO	3S	36	21		21	6.4			21										
H	DO	3S	38	21		21	6.4			21										
H	DO	3S	40	91		91	28.0			0	14	76		0						
H	DO	4S	12	0		0	.0			0										
H	DO	4S	16	0		0	.0			0										
H	DO	4S	18	7		7	2.2			7										
H	DO	4S	20	19		19	5.7			10	8									
H	DO	4S	24	34		34	10.4			9	24									
H	DO	4S	26	7		7	2.1			7										
H	DO	4S	28	0		0	.0			0										
H	Totals			325		324	16.4			86	71	107	3	57	1					
C	DO	3S	40	0		0	34.1			0										
C	DO	4S	28	0		0	21.4			0										
C	DO	4S	30	0		0	44.5			0										
C	Totals			1		1	.0			1										
A	DO	2S	20	0		0	7.4					0								
A	DO	2S	30	0		0	12.2					0								
A	DO	3S	20	0		0	7.2				0									
A	DO	3S	30	0		0	17.6				0									
A	DO	4S	12	0		0	5.9			0										
A	DO	4S	18	0		0	8.8			0										
A	DO	4S	20	0		0	17.9			0										
A	DO	4S	28	0		0	17.6			0										
A	DO	4S	38	0		0	5.4			0										
A	Totals			3		3	.1			1	1	1								
Total	All Species			1,995		1,977	100.0			620	583	626	60	86	2	0				

TC PSTNDSUM		Stand Table Summary							Page 2							
									Date: 5/9/2023							
T07N R06W S34 Ty00PC 287.00 T07N R06W S34 TyR/W 3.00		Project LNTHIN					Time: 1:00:39PM									
		Acres 290.00					Grown Year:									
S Spec T	DBH	Sample Trees	FF 16'	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
								Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
SN	Totals	8	89	59	.042	.05										
Totals		288	85	79	62.615	64.62	105.45	19.0	64.7		2,005	6,817		5,813	1,977	

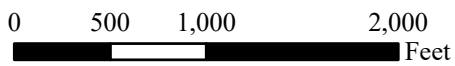
TC TSTNDSUM	Stand Table Summary															
Project LNTHIN																
T07N R06W S34 T00PC										T07N R06W S34 T00PC						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1							
07N	06W	34	U123_LEAVE	00PC	287.00	85	164	Date:	05/09/20:							
								Time:	12:54:48PM							
S Spc	T	DBH	Sample Trees	Av FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DL		11	3	85	75	4.406	2.87	5.86	13.3	45.0		78	264		223	76
DL		12	5	86	72	6.311	4.79	11.40	11.2	35.5		128	405		367	116
DL		13	3	87	105	3.116	2.87	6.23	17.0	60.0		106	374		304	107
DL		14	3	86	89	2.687	2.87	5.37	17.7	60.0		95	322		272	93
DL		15	9	86	93	7.163	8.62	14.33	20.9	74.4		300	1,065		860	306
DL		16	11	84	88	7.712	10.53	14.69	24.4	81.8		358	1,201		1,027	345
DL		17	11	86	97	6.830	10.53	14.88	26.9	94.2		400	1,401		1,149	402
DL		18	14	86	97	7.679	13.40	15.36	33.2	114.6		510	1,761		1,462	505
DL		19	14	86	100	6.844	13.40	15.63	33.6	116.3		525	1,818		1,506	522
DL		20	20	85	104	8.868	19.15	22.14	34.8	123.3		770	2,729		2,209	783
DL		21	7	85	101	2.825	6.70	6.45	41.1	146.0		265	941		761	270
DL		22	8	85	107	2.901	7.66	6.53	49.3	176.7		322	1,153		923	331
DL		23	3	85	103	.995	2.87	2.65	42.6	165.0		113	438		325	126
DL		25	1	85	112	.281	.96	.84	47.7	190.0		40	160		115	46
DL		28	1	83	108	.224	.96	.67	51.7	233.3		35	157		100	45
DL		Totals	113	86	94	68.842	108.18	143.03	28.3	99.2		4,043	14,190		11,605	4,072
HL		11	1	85	70	1.062	.73	1.06	19.0	60.0		20	64		58	18
HL		14	2	84	74	1.410	1.45	2.82	16.6	54.5		47	154		134	44
HL		15	3	85	82	1.841	2.18	3.68	20.7	64.9		76	239		218	69
HL		18	6	86	102	2.527	4.36	5.90	32.2	112.1		190	661		545	190
HL		19	2	81	76	.738	1.45	1.48	32.8	100.0		48	148		139	42
HL		20	2	87	84	.666	1.45	1.33	40.0	125.0		53	166		153	48
HL		21	2	86	92	.619	1.45	1.24	48.2	170.0		60	210		171	60
HL		22	3	84	83	.851	2.18	1.70	46.3	149.8		79	255		226	73
HL		23	1	80	73	.263	.73	.53	31.5	105.0		17	55		48	16
HL		24	3	81	96	.723	2.18	1.69	48.0	167.1		81	282		233	81
HL		25	1	85	90	.213	.73	.64	41.0	193.3		26	124		75	35
HL		27	1	83	79	.183	.73	.37	71.5	220.0		26	80		75	23
HL		Totals	27	85	85	11.096	19.61	22.43	32.2	108.7		723	2,438		2,075	700
AL		8	1	87	17	2.613	1.01	2.61	5.0	20.0		13	52		37	15
AL		10	4	86	36	7.432	4.02	7.43	9.4	24.8		70	184		200	53
AL		11	2	87	39	3.165	2.01	3.16	11.0	30.0		35	95		100	27
AL		12	2	86	61	2.499	2.01	3.72	14.3	50.0		53	186		153	53
AL		14	2	86	75	1.994	2.01	3.99	16.7	59.9		67	239		192	69
AL		15	2	87	64	1.617	2.01	2.44	17.6	53.3		43	130		123	37
AL		Totals	13	86	44	19.320	13.07	23.35	12.0	37.9		281	886		806	254
CL		10	1	85	62	1.997	1.09	2.00	13.0	40.0		26	80		75	23
CL		13	1	81	48	1.278	1.09	1.28	15.0	30.0		19	38		55	11
CL		14	1	81	67	1.019	1.09	1.02	27.0	60.0		28	61		79	18
CL		Totals	3	83	59	4.295	3.27	4.29	16.9	41.8		73	179		209	51
SN		13	2	89	80	1.418	1.31									
SN		14	1	89	37	.611	.65									
SN		15	2	89	59	1.065	1.31									
SN		16	1	88	19	.499	.65									
SN		19	1	88	80	.350	.65									
SN		36	1	89	20	.092	.65									
SN		Totals	8	89	59	4.036	5.23									
Totals			164	86	81	107.589	149.36	193.11	26.5	91.6		5120	17,693		14,694	5,078

LOGGING PLAN MAP

OF TIMBER SALE CONTRACT
 NO. AT-341-2024-W00986-01
 LITTLE NICKY THIN
 PORTIONS OF SECTIONS
 26, 27, 34 & 35 OF
 T7N R6W, W.M.,
 CLATSOP COUNTY, OREGON



Logging Breakdown	Tractor	Cable	Acres
Unit 1 (PC)	53%	47%	229
Unit 2 (PC)	21%	79%	33
Unit 3 (PC)	0%	100%	25
Unit 4 (R/W)	100%	0%	3
Total	45%	55%	290



1 Inch = 1,000 Feet
 Contours = 20 feet



Legend

- Timber Sale Boundary
- Section Line
- Ownership Boundary
- Early Felling
- Operationally Restricted
- Reforestation Area
- Existing Landing
- Landing to be Constructed
- Cable Based Yarding
- Ground Based Yarding
- Underground Fiber Optic Line
- Surfaced Roads
- Type F Stream
- Type N Stream
- Seasonal Stream
- Non-Posted Buffer
- New Road Construction - Unsurfaced
- New Road Construction - Surfaced
- Temporary Stream Crossing