



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
V2 Loop Salvage
Sale AT-343-2024-W01118-01

District: Astoria

Date: July 19, 2023

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$77,347.32	\$2,600.00	\$79,947.32
		Project Work:	\$0.00
		Advertised Value:	\$79,947.32



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Timber Description

Location:

Stand Stocking: 80%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	97
Alder (Red)	12	0	93

Volume by Grade	2S	3S & 4S 6"-11"	Camprun	Total
Douglas - Fir	55	261	0	316
Alder (Red)	0	0	26	26
Total	55	261	26	342

Comments: Pond Values Used: July, 2023.

Expected Log Markets: Mist, OR; Forest Grove, OR; Longview, WA; Warrenton, OR, Wauna, OR.

PRICING

Western redcedar and other cedars stumpage = pond value - (Douglas-fir) logging cost.

\$500/MBF = \$912.97/MBF - \$412.97/MBF

Western hemlock stumpage = pond value - (Douglas-fir) logging cost.

\$180/MBF = \$592.97/MBF - \$412.97/MBF

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

Additional Felling & Bucking Costs: \$50/MBF X 342 MBF = \$17,100

Additional Move-in Allowance:

2 x Move-in for C325 @ \$1,610/move-in = \$3,220

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

TOTAL Other Costs (with Profit & Risk to be added) = \$22,320

Other Costs (No Profit & Risk added):

None

SLASH PILING

(See attached appraisal. Includes move-in and pile materials in Units 1 and 2) = \$1,577

ROAD MAINTENANCE

(See attached Road Maintenance Cost Summary Sheet)

TOTAL Road Maintenance: \$5,562/342 MBF = \$16.26/MBF



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Logging Conditions

Combination#: 1	Douglas - Fir	100.00%
	Alder (Red)	100.00%
Logging System:	Shovel	Process: Harvester Head Delimbing
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: 4000
cost / mbf:	\$178.57	
machines:	Forwarder	
	Harvester	



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Logging Costs

Operating Seasons: 1.00

Profit Risk: 12%

Project Costs: \$0.00

Other Costs (P/R): \$22,320.00

Slash Disposal: \$1,577.00

Other Costs: \$0.00

Miles of Road

Road Maintenance: \$16.26

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	4.8
Alder (Red)	\$0.00	2.0	3.8



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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$178.57	\$16.75	\$12.83	\$89.41	\$65.26	\$43.54	\$4.61	\$2.00	\$0.00	\$412.97
Alder (Red)									
\$178.57	\$17.40	\$12.83	\$175.98	\$65.26	\$54.00	\$4.61	\$2.00	\$0.00	\$510.65

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$657.74	\$244.77	\$0.00
Alder (Red)	\$0.00	\$610.65	\$100.00	\$0.00



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V2 Loop Salvage
Sale AT-343-2024-W01118-01

District: Astoria

Date: July 19, 2023

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	316	\$244.77	\$77,347.32
Alder (Red)	26	\$100.00	\$2,600.00

Gross Timber Sale Value

Recovery: \$79,947.32

Prepared By: John Tillotson

Phone: 503-325-5451

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: V2 Loop Salvage
Date: July 21, 2023
By: John Tillotson

MBF: 342
\$/MBF: \$16.26

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Final Road Maintenance	Grader 14G	\$972	1	16	\$126	\$2,988
	Dump Truck 12CY	\$205	1	8	\$99	\$997
	Rubber Tired Backhoe	\$401	1	8	\$97	\$1,177
	Labor			8	\$50	\$400
Total						\$5,562

First and Second Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
N/A				
N/A				

Final Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	4.0	8.0	2.0	16

Spot Grade and Shape as determined by State.

Roads within and adjacent to Units: 1.5 Miles
Spot Grade haul route: 4 Miles
Grade & Shape Total = 8 Miles

Site Prep Appraisal

Sale Number: AT-343-2024-W01118-01

Sale Name: V2 Loop Salvage

Date: 07/08/2023

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	0.4	0.3	12

Sale Area	Harvest Type	Veg Type/Zone	Ground Based Yarding Acres	Estimated Piling Hours/Area	Cost/Hour	Total Cost/Area	
1	MC	F	3	1	\$145.00	\$174.00	
2	MC	F	23	9	\$145.00	\$1,334.00	
						In-unit Piling	Sub Total= \$1,508.00
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	2	0	\$0.00	2.9	\$5.00	\$14.50	
2	4	0	\$0.00	10.9	\$5.00	\$54.50	
*Cost includes separating firewood					Materials	Sub Total=	\$69.00
Additional Move-in allowance					Landing Piling	Sub Total=	\$0.00
Move-In Allowance	Number of Move-In's	Total Move-In Allowance					
		\$0.00	Brush Piler				
		\$0.00	Dump Truck (12cy)		Move-In	Sub Total=	\$0.00
Slash Endhaul							
Dump Truck hrs	Cost/Hour	Total	Loader hrs	Cost/Hour	Total		
	\$99.00	\$0.00	6	\$145.00	\$870.00	Sub Total=	\$870.00
						Grand Total=	\$1,577.00

V2 LOOP SALVAGE TIMBER CRUISE REPORT FY 2023

1. **Sale Area Location:** Portions of Sections 35 and 36, T7N, R6W, W.M. and Sections 11,13 and 24, T6N, R6W, W.M., Clatsop County, OR.
2. **Fund Distribution:** BOF = 100% Tax Code = 8-01 (100%)
3. **Sale Acreage and Treatments by Unit:**

Unit	Original Cruised Sale Name	Harvest Type	Anticipated Salvage Acres	Survey Method
1	Stand Level Inventory (SLI)	Modified Clearcut	3	GIS
2	Vesper View	Modified Clearcut	23	GIS
3	Little Nicky Thin	Salvage/ITS	1	GIS
4	Little Nicky Thin	Salvage/ITS	1	GIS
TOTAL			28	

4. Cruise Method and Computations:

Volume results were derived from data collected from the (FY23) Little Nicky Thin timber sale cruise, the (FY18) Vesper View timber sale, and SLI and were extrapolated to the anticipated salvage area.

Based on field evaluations, Unit 1 volumes were adjusted to approximately 60% of the average tree volume from the SLI. This adjustment anticipates defect due to storm damage. Volumes in Units 3 and 4 are based upon the average take Douglas-fir tree in the Little Nicky Thin timber sale cruise, with the volume distributed evenly across both 3-saw and 4-sawmill grades (approximately 419 trees marked for salvage). Unit 2 volumes were adjusted to 80% of the anticipated residual volume from the Vesper View Area 3 "leave" stand, as cruised. This adjustment anticipates defect due to storm damage.

The cruise estimations were processed in the Astoria District office.

5. Timber Description:

Unit 1 (Modified Clearcut)- Unit 1 has not been previously thinned and is approximately 30 to 35 years old, consisting of moderate sized Douglas-fir and red alder. Windstorms have significantly damaged portions of this stand, resulting in several patches of leaning timber and windthrown trees.

Unit 2 (Modified Clearcut)- This stand was an "auto-mark" partial cut, and is approximately 44 years old, consisting of moderate sized Douglas-fir and red alder. Windstorms have significantly damaged portions of this stand, resulting in several patches of timber and windthrown trees.

Units 3 and 4 (Salvage/ITS)- Trees marked for salvage exist in road adjacent strips, and are approximately 30 to 35 years old, consisting of moderate sized Douglas-fir. A wildfire in late summer of 2022 has significantly damaged portions of these stands, resulting in strips of scorched crowns and damaged roots.

6. **Statistical Analysis and Stand Summary:** A statistical analysis was not calculated. Volume tables and statistical reports from the Vesper View Area 3 timber cruise, the Little Nicky Thin timber cruise, and the SLI data are attached as appropriate based upon the calculations made for the V2 Loop Salvage sale.

- 7. Volumes by Species and Sale Areas:** Volumes do not include "in-growth". The total net MBF volumes by species and grade are as follows:

Species	DBH	Net. Vol.	2 Saw	3 Saw	4 Saw	Sale%
Douglas-fir (Unit 2)	14"	237	44	158	35	68%
Douglas-fir (Units 3 &4)	13"	44	-	22	22	13%
Douglas-fir (Unit 1)	13"	35	11	20	4	10%
Totals	-	316	55	200	61	

Hardwood

Species	DBH	Net Vol.	% Sale
Red alder (Unit 2)	12"	23	
Red alder (Unit 1)	9"	3	
TOTALS	-	26	7%

TOTAL VOLUME	342 MBF
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8. Approvals:

Prepared by: Justin Bush Date: July 19, 2023

9. Attachments:

Volume Reports (1 page)
Statistical Reports (2 pages)
Stand Level Inventory Summary (2 pages)

Stand Details Table for Stand # 23778 (UNIT 1) (Note: Stand Measured in 2005)

Report Year: 2021

Filter: All Species

DBH Range: 6.0" - 999.0"

[Go to Basic Stand Report](#)

[Go to Stand Species Report](#)

[Go to Stand Structure Report](#)

[Go to Vegetation Report](#)

[Go to Detailed Plot Report](#)

Bigleaf Maple Summary Report

Species	DBH Class	DBH (in)	Height (ft)	BA / AC	Trees / Acre	Crown Ratio	BF / AC	CF / AC
Bigleaf Maple	6	6.4	62.3	0.31	1.40	23%	23	8
Bigleaf Maple	8	7.3	64.0	0.16	0.55	24%	19	5
Bigleaf Maple	Species Totals	6.7"	62.9'	0.5	1.94	23%	42	13

Cherry Summary Report

Species	DBH Class	DBH (in)	Height (ft)	BA / AC	Trees / Acre	Crown Ratio	BF / AC	CF / AC
Cherry	6	6.6	46.5	0.38	1.59	22%	26	8
Cherry	8	7.6	59.7	0.81	2.55	24%	46	15
Cherry	10	10.4	62.0	0.67	1.12	32%	50	13
Cherry	12	11.4	62.0	0.22	0.30	32%	20	5
Cherry	Species Totals	8.2"	58.3'	2.1	5.57	26%	142	41

Douglas-fir Summary Report

Species	DBH Class	DBH (in)	Height (ft)	BA / AC	Trees / Acre	Crown Ratio	BF / AC	CF / AC
Douglas-fir	6	6.5	49.2	1.76	7.61	25%	0	36
Douglas-fir	8	8.2	65.8	6.84	18.79	27%	492	188
Douglas-fir	10	10.1	80.3	25.19	45.41	30%	3,427	846
Douglas-fir	12	12.0	90.2	36.50	46.60	33%	5,611	1,354
Douglas-fir	14	13.9	94.3	53.19	50.46	38%	7,806	2,000
Douglas-fir	16	15.9	94.9	35.12	25.43	41%	4,747	1,279
Douglas-fir	18	17.8	96.9	24.34	14.02	44%	2,937	878
Douglas-fir	20	19.6	97.3	4.15	1.97	45%	456	146

Douglas-fir	22	21.1	98.2	0.31	0.13	45%	34	11
Douglas-fir	Species Totals	12.8"	90.7'	187.4	210.41	35%	25,509	6,738

Red Alder Summary Report

Species	DBH Class	DBH (in)	Height (ft)	BA / AC	Trees / Acre	Crown Ratio	BF / AC	CF / AC
Red Alder	6	6.8	47.5	0.04	0.17	14%	0	0
Red Alder	8	8.1	48.6	1.58	4.42	16%	59	23
Red Alder	10	9.6	61.6	2.66	5.30	19%	236	65
Red Alder	12	11.1	70.5	0.10	0.15	21%	10	2
Red Alder	Species Totals	8.9"	57.0'	4.4	10.04	18%	304	90

Stand #23778 Totals

Species	DBH Class	DBH (in)	Height (ft)	BA / AC	Trees / Acre	Crown Ratio	BF / AC	CF / AC
Stand Totals	---	12.5"	89.5'	194 ft²	228 TPA	34%	25,998	6,882 ft³

Stand #23778 data was used in the volume estimation for V2 Loop Salvage Unit 1.

T		Species, Sort Grade - Board Foot Volumes (Type)										Page		1							
Project: VESPERV												Date	7/14/2023								
												Time	2:41:14PM								
T06N R06W S13 T00PC										T06N R06W S13 T00PC											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
06N	06W	13	A3	00PC	23.00	36	152	1	W												
S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			-20% Total Net MBF	Percent Net Board Foot Volume								Average Log		Logs Per /Acre			
			Def%	Gross	Net	Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf				
DL	DO	CU																			
DL	DO	2S	18	1.2	2,442	2,412	44-55			20	80		10	10	16	64	32	12	176	1.44	13.7
DL	DO	3S	67	2.6	8,819	8,588	158-198			96	4		2	4	35	59	35	8	91	0.75	93.9
DL	DO	4S	15	3.4	1,975	1,907	35-44	6	94				49	43	8		22	6	25	0.41	75.4
DL	Totals		66	2.5	13,237	12,907	237-297	1	82	18			10	11	28	51	28	8	65	0.70	197.2
D	DO	CU															11	9		0.00	10.1
D	DO	2S	2		160	160	4	100							100		40	10	150	0.98	1.1
D	DO	3S	65	.7	3,487	3,461	80	100							33	67	37	7	77	0.60	44.7
D	DO	4S	33	1.4	1,775	1,751	40	4	96				51	18	19	12	21	6	28	0.41	63.2
D	Totals		28	.9	5,422	5,372	124	1	99				17	6	28	50	26	7	45	0.51	119.1
AL	DO	CU															16	5		0.00	2.5
AL	DO	CR	100	6.0	708	666	15	100					24	16	42	18	29	7	49	0.54	13.7
AL	Totals		3	6.0	708	666	12-15	100					24	16	42	18	27	7	41	0.49	16.2
AL	DO	CU															8	9		0.00	3.8
AL	DO	CR	100	3.2	609	589	14	100					49	34		17	23	7	36	0.51	16.4
AL	Totals		3	3.2	609	589	11-14	100					49	34		17	20	7	29	0.48	20.2
SN	DO	CU															39	6		0.00	2.1
SN	Totals																39	6		0.00	2.1
Type Totals				2.2	19,976	19,534	260-449	1	87	12			14	10	27	49	27	7	55	0.61	354.9

Volume calculations for V2 Loop Salvage Unit 2 are based upon 80% of the estimated residual stand (post-thinning) of Area 3 of the Vesper View timber sale.

TC TSTATS				STATISTICS				PAGE	1		
				PROJECT	VESPERV			DATE	4/26/2017		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
06N	06W	13	A3	00PC	113.00	36	262	1	W		
				TREES	ESTIMATED	PERCENT					
				PER PLOT	TOTAL	SAMPLE					
					TREES	TREES					
TOTAL		36	262	7.3							
CRUISE		21	151	7.2	25,134			.6			
DBH COUNT											
REFOREST											
COUNT		15	110	7.3							
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		84	103.6	14.4	55	30.9	117.3	13,457	12,907	3,831	
DOUG FIR		47	91.1	11.4	36	19.2	64.8	5,652	5,372	1,635	
ALDRLEAV		16	22.6	11.5	38	4.8	16.2	1,378	1,244	429	
SNAG		4	5.1	11.8	38	1.1	3.9	117		47	
TOTAL		151	222.4	12.9	45	56.3	202.2	20,604	19,522	5,942	
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		45.4	4.9	142	150	157					
DOUG FIR		76.1	11.1	68	76	85					
ALDRLEAV		53.8	13.9	53	62	70					
SNAG											
TOTAL		65.3	5.3	108	114	120	170	43	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		41.5	6.9	96	104	111					
DOUG FIR		95.4	15.9	77	91	106					
ALDRLEAV		191.9	32.0	15	23	30					
SNAG		327.3	54.5	2	5	8					
TOTAL		46.9	7.8	205	222	240	88	22	10		
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		31.6	5.3	111	117	123					
DOUG FIR		91.1	15.2	55	65	75					
ALDRLEAV		198.1	33.0	11	16	22					
SNAG		305.6	50.9	2	4	6					
TOTAL		35.6	5.9	190	202	214	51	13	6		
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		31.8	5.3	12,223	12,907	13,590					
DOUG FIR		94.6	15.8	4,526	5,372	6,218					
ALDRLEAV		216.2	36.0	796	1,244	1,692					
SNAG											
TOTAL		36.5	6.1	18,335	19,522	20,709	53	13	6		

TC TSTATS				STATISTICS				PAGE	1		
				PROJECT	LNTHIN			DATE	7/18/2023		
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					
					TREES	TREES					
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	
WHEMLOCK		10	8.8	15.6	51	3.0	11.8	1,094	1,090	343	
TOTAL		62	61.5	13.7	51	17.0	63.1	6,695	6,633	1,951	
CONFIDENCE LIMITS OF THE SAMPLE $DF = 5,542 \text{ BF/AC} \div 52.7 \text{ TPA} = 0.105 \text{ MBF/Tree}$											
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	

BF per Douglas-fir tree calculation applies to take trees within units 3 and 4 of V2 Loop Salvage.