

District: Klamath/Lake

Date: July 19, 2024

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$162,344.87	\$0.00	\$162,344.87
		Project Work:	(\$119,209.55)
		Advertised Value:	\$43,135.32



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Timber Description

Location:

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
White Fir	15	100	98
Ponderosa Pine	10	100	95
Lodgepole Pine	11	100	95

Volume by Grade	3S & 4S 6"- 11"	6" - 11"	Camprun	Total
White Fir	348	0	0	348
Ponderosa Pine	0	139	0	139
Lodgepole Pine	0	0	3,046	3,046
Total	348	139	3,046	3,533

Comments: Pond Values Used: Local Pond Values, June 2024

Log Markets: Klamath Falls and Medford.

Other Costs (no Profit & Risk): None

Other Costs (with Profit & Risk to be added): None

ROAD MAINTENANCE Move-in: \$400.00

General Road Maintenance: 29 miles x \$270 per mile x 1 bladings = \$7.830.00

Total Road Maintenance: \$8,230.00, \$2.33 per Mbf



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	Logging Conditions			
Combination#: 1	White Fir Ponderosa Pine Lodgepole Pine	100.00% 100.00% 100.00%		
Logging System:	Wheel Skidder	Process: Feller Buncher		
yarding distance: tree size:	Medium (800 ft) Small / Thinning 10in (90 Bft/tree), 18-	downhill yarding: Yes 20 logs/MBF		
loads / day:	12.25	bd. ft / load: 4275		
cost / mbf:	\$190.96			
machines:	Log Loader (B) Stroke Delimber (B) Feller Buncher w/ Delimber Tire Skidder			



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Logging Costs			
Operating Seasons: 1.00	Profit Risk: 10%		
Project Costs: \$119,209.55	Other Costs (P/R): \$0.00		
Slash Disposal: \$0.00	Other Costs: \$0.00		

Miles of Road		Road Maintenance: \$	2.33
Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
White Fir	\$0.00	3.0	4.3
Ponderosa Pine	\$0.00	5.0	4.6
Lodgepole Pine	\$0.00	5.0	4.6



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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
White Fir									
\$190.96	\$2.38	\$1.24	\$98.84	\$0.00	\$29.34	\$0.00	\$2.00	\$0.00	\$324.76
Ponderosa	a Pine								
\$190.96	\$2.45	\$1.24	\$57.07	\$0.00	\$25.17	\$0.00	\$2.00	\$0.00	\$278.89
Lodgepole	e Pine								
\$190.96	\$2.45	\$1.24	\$57.07	\$0.00	\$25.17	\$0.00	\$2.00	\$0.00	\$278.89

Specie	Amortization	Pond Value	Stumpage	Amortized
White Fir	\$0.00	\$427.00	\$102.24	\$0.00
Ponderosa Pine	\$0.00	\$290.00	\$11.11	\$0.00
Lodgepole Pine	\$0.00	\$320.00	\$41.11	\$0.00



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Summary

Amortized

Specie	MBF	Value	Total
White Fir	0	\$0.00	\$0.00
Ponderosa Pine	0	\$0.00	\$0.00
Lodgepole Pine	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
White Fir	348	\$102.24	\$35,579.52
Ponderosa Pine	139	\$11.11	\$1,544.29
Lodgepole Pine	3,046	\$41.11	\$125,221.06

	Gross Timber Sale Value		
	Recovery:	\$162,344.87	
Prepared By:	Chris Weekly	Phone: 541-883-5681	

Other Costs

		ŀ	Road Maintenance			
	Move-in cost (grader):	\$400.0	0			
Nun	nber of Miles to be Bladed:	2	9			
	Number of Bladings:		1			
	Total Miles:	2	9			
I	Miles/Hour for Equipment:	0.	5			
Cost/	Hour (grader with operator):	\$135.0	0			
	Total Grading Hours:	5	8			
	Grading Cost:	\$7,830.0	0			
	Total Cost:	\$8,230.0	0			
	Cost/Mbf:	\$2.3	3			
LP	3,046 Mbf	86%	Average Load	4.0 Mbf	No. of Loads	762
WF	348 Mbf	10%	Average Load	4.0 Mbf	No. of Loads	87
PP	139 Mbf	4%	Average Load	4.0 Mbf	No. of Loads	35
Total:	3533 Mbf				Total Loads	883
Assume:	4 Trucks/Day					
	4 Trips/Day					
_	16 Loads per Day					
	55 Hauling Days					

Project Costs

Project #1 Road Improvement and Construction

Improvement

Move in Cost Cat: \$500

	Points	Distance(ft)	Feet/Hour	Hours	Cost/Hour	Cost
Open/Clear/Shape	E to F	1,935	1000	1.94	\$150.00	\$290.25
Open/Clear/Shape	S to T	274	1000	0.27	\$150.00	\$41.10
Open/Clear/Shape	A to B	761	1000	0.76	\$150.00	\$114.15
Open/Clear/Shape	C to D	3,153	1000	3.15	\$150.00	\$472.95
Open/Clear/Shape	G to H	2,311	1000	2.31	\$150.00	\$346.65
Open/Clear/Shape	I to J	11,386	1000	11.39	\$150.00	\$1,707.90
Open/Clear/Shape	K to L	2,103	1000	2.10	\$150.00	\$315.45
Open/Clear/Shape	M to N	3,783	1000	3.78	\$150.00	\$567.45
Open/Clear/Shape	O to P	5,364	1000	5.36	\$150.00	\$804.60
Open/Clear/Shape	Q to R	2,282	1000	2.28	\$150.00	\$342.30
Open/Clear/Shape	U to V	2,067	1000	2.07	\$150.00	\$310.05
Open/Clear/Shape	W to X	1,488	1000	1.49	\$150.00	\$223.20
Open/Clear/Shape	N to Y	8,666	1000	8.67	\$150.00	\$1,299.90
Open/Clear/Shape	V to Z	2,800	1000	2.80	\$150.00	\$420.00
Open/Clear/Shape	2A to 2B	1,510	1000	1.51	\$150.00	\$226.50
Open/Clear/Shape	2C to 2D	4,702	1000	4.70	\$150.00	\$705.30
Open/Clear/Shape	2E to 2F	1,401	1000	1.40	\$150.00	\$210.15
Open/Clear/Shape	2G to 2H	770	1000	0.77	\$150.00	\$115.50
Open/Clear/Shape	2I to 2J	2,400	1000	2.40	\$150.00	\$360.00
Open/Clear/Shape	2K to 2L	3,180	1000	3.18	\$150.00	\$477.00
Open/Clear/Shape	2M to 2N	1,872	1000	1.87	\$150.00	\$280.80
Open/Clear/Shape	20 to 2P	2,038	1000	2.04	\$150.00	\$305.70
Open/Clear/Shape	N to 2Q	2,686	1000	2.69	\$150.00	\$402.90
Open/Clear/Shape	2R to 2S	3,107	1000	3.11	\$150.00	\$466.05
Open/Clear/Shape	2T to 2U	2,566	1000	2.57	\$150.00	\$384.90
Open/Clear/Shape	2S to 2V	501	1000	0.50	\$150.00	\$75.15
Open/Clear/Shape	2W to 2X	152	1000	0.15	\$150.00	\$22.80
Open/Clear/Shape	2Y to 2Z	1,039	1000	1.04	\$150.00	\$155.85
Open/Clear/Shape	3A to 3B	1,061	1000	1.06	\$150.00	\$159.15
Open/Clear/Shape	3C to 3D	1,210	1000	1.21	\$150.00	\$181.50
Open/Clear/Shape	3E to 3F	1,282	1000	1.28	\$150.00	\$192.30
Open/Clear/Shape	3G to 3J	1,263	1000	1.26	\$150.00	\$189.45
Open/Clear/Shape	3H to 3I	284	1000	0.28	\$150.00	\$42.60
	Т	otal 81,397		81.40		\$12,209.55

Project Costs

Project #1 Road Improvement and Construction						
	F	Project #1 Summa	ry			
	Move In Cos	ts	\$500.00			
	Improvement Co	st s	\$12,209.55			
	Project # 1 Tot	al 🤤	512,709.55			
	per M	bf	\$3.60			
	Project #2 Fell, Skid	d, and Pile Subme	rchantable Material			
	Total Sub	-Sawlog Volume:	579 MBF			
	-		675.00			
	F	ell and Skid/MBF:				
		Sort/MBF:		_		
		Total		=		
		per MBF	\$16.39			
		Landing Slash Pilir	NG CONTRACTOR OF CONTRACTOR			
Numbe	er of Landings: 87		IB			
Numbe						
Shovel Time:	1 Hour per Landing	Cost per Hour:	\$150.00	Total Cost	\$13,050.00	
Cat Time:	1 Hour per Landing	Cost per Hour:		Total Cost	\$13,050.00	
					+,	
		Total	\$26,100.00			
		per MBF		=		
		P 0	<i>\</i>			
	F	Project #2 Summa	ry			
		-				
Fell, Skid, Pil	e Submerchantable Materi	al \$57,900.00				
	Landing Slash Pilir					
	Total Co		-			
	per M	bf \$23.78	=			
	· -	, -				

Project Costs

Project #3 Waterbarring

Skid Trail Waterbarring

- 75 Number of Landings
- 2 Hours per Landing
- \$150.00 Cost per Hour (Cat)

\$22,500.00 Total

\$6.37 per Mbf

Project #3 Summary

Waterbarring:	\$22,500.00
Total:	\$22,500.00
per Mbf:	\$6.37

Cost Summary All Projects

Project No.1 - Road Improvement and Construction	\$12,709.55
Project No.2 - Fell, Skid, and Pile Submerchantable Material	\$84 <i>,</i> 000.00
Project No.3 - Waterbarring	\$22,500.00
Total Cost	\$119,209.55
per Mbf	\$33.74



"STEWARDSHIP IN FORESTRY"

Cruise Report

SALE NAME: Bearly Adequate - GNA

LEGAL DESCRIPTION:

Located in Section(s) 15, 16, 17, 18, 19, 20, 21, 22, 28, 29 and 30 of T25S, R11E, Willamette Meridian, Klamath County, Oregon

BOUNDARY LINES:

Unit boundaries are unmarked.

ACREAGE:

Gross Sale Acreage:	1,684 Acres
Exclusion Acreage:	152 Acres
Net Sale Acreage:	1,532 Acres

Mapping was accomplished using Avenza pdf Maps with the data processed through ArcMap.

TREATMENT:

The Timber Sale is a purchaser select, partial cut harvest.

CRUISE METHOD:

Variable plot cruise with a ratio of two count plot for every measure plot. Fixed plot cruise for sub-merchantable material was 5 - 9 inch DBH for all species.

BASAL AREA FACTOR:

A basal area factor of 10 was used for all variable cruise plots. Fixed plots were cruised at $1/_{50}$ of an acre

PLOT DESIGNATION:

Plot centers were established at every plot with pink flag wire stakes with the corresponding plot number. Blue and white stripped flagging was attached to the nearest available tree branch.

SAMPLE SIZE CALCULATIONS:

AREA	CV%	DESIRED SE%	ACRES
Area 1	85%	12%	1,532

Number of Plots = $\frac{T^2C^2}{A^2}$

C = Coefficient of Variation in Percent (Taken from inventory data)

 $\mathbf{T} =$ Number of Standard Errors

A = Desired Sampling Error for a sale of this size and value

$$N = (\underline{1)^2(100)^2}_{(12)^2} = 50 \text{ plots}$$

Measurements and Grading:

- Ratio of two count plot for every measure plot.
- DBH and Height were measured on all "in" trees for measure plots.
- Pulp volume and sawlog volume cruised.
- All trees were graded using the segment system.
- Nested fixed plot cruise for all submerchantable material (5" to 9" DBH).

TREE HEIGHT:

All trees were measured to a fixed diameter outside bark. This height is usually taken as high up the bole as possible, where the cruiser can clearly see the bole, and the taper remains constant (usually 6 or 8 inches). The log segments are broken out and graded accordingly.

MINIMUM D.B.H:

5.0" DBH.

<u>DIAMETER STANDARDS</u>:

1" diameter class

BTR:

Standard ratios were used. See attached species tables.

FORM FACTOR:

Form factor was measured or estimated at 16' for each tree. Each tree was assigned its own FF.

FORM POINT:

All trees were sighted at DBH.

VOLUME COMPUTATION:

All cruise data was input and run at the district on Atterbury's Super Ace program.

FINAL CRUISE RESULTS:

CV%	SE%	ACRES
60.4	8.5	1,532

TIMBER DESCRIPTION

SAWLOG VOLUME:

This volume was obtained from the variable plot cruise. All material graded camprun. See grade table for minimum standards.

Species	Ave. DBH	Acres	Gross Vol/Acre (bf)	Net Vol/Acre (bf)	Net Sale Vol (Mbf)
Lodgepole pine	10.6	1,532	2,048	1,988	3,046
White fir	12.4	1,532	227	227	348
Ponderosa pine	10.1	1,532	98	91	139
		Total	2,373	2,306	3,533

TOTAL SAWLOG VOLUME

TOTAL NET SAWLOG VOLUME: 3,533 MBF

GREEN PULP VOLUME:

This volume was obtained by combining material from the fixed plot cruise with non-saw material from the variable plot cruise.

All material was graded green pulp, see grade table for minimum standards.

Species	Acres	Vol/Acre (bf)	Sale Vol (Mbf)
Lodgepole pine	919	179	165
White fir	919	95	87
Ponderosa pine	919	36	33
Total		310	285

FIXED PLOT CRUISE

VARIABLE PLOT CRUISE

Species	Acres	Vol/Acre (bf)	Sale Vol (Mbf)
Lodgepole pine	1,532	144	221
White fir	1,532	0	0
Ponderosa pine	1,532	48	74
Total		192	294

TOTAL GREEN PULP VOLUME: 579 Mbf

ТС ТІ	C TLOGSTVB Log Stock Table - MBF Project: BW1																		
T025 I Twp 025	Rg	-		RI ec Tract 28 GNA			Type VARI		Acres Plots 1532.00 50		Sample Trees 73			25 R011 S28 TV Page 1 Date 1/12/2 Fime 6:52					
S	So G	So Gr Log Gross % Net %Net Volume by Scaling Diameter in					ter in Ir	ches			_								
Spp T	rt de	e	Len	MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
LP	CR	CR	16	87	77 1.6	863	26.4			473	261	129							
LP	CR	CR	20	53	87 8.5	491	15.0			437	54								
LP	CR	CR	24	49	3.1	479	14.7			422	58								
LP		CR		23		231	7.1			231									
LP	CR	CR	32	99	98 1.7	981	30.0			514	378		89						
LP	CR	GP	10	2	29	29	.9		29										
LP	CR	GP	12	2	29	29	.9			29									
LP	CR	GP	16	11	5	115	3.5		25	90									
LP	CR	GP	20	4	18	48	1.5			48									
LP		Tota	ıls	3,35	59 2.7	3,267	85.4		54	2244	750	129	89						
PP	CR	CR	16	15	50 7.2	139	65.5			80	59								
PP –	CR	GP	12																
PP		GP	14	3	37	37	17.3			37									
PP	CR	GP	16	1	9	19	8.9	19	Ð										
PP	CR	GP	18	1	8	18	8.3	18	8										
PP		Tota	ıls	22	23 4.8	213	5.6	3	6	117	59								
WF	CR	CR	17	4	14	44	12.8			44									
WF	CR	CR	27	6	54	64	18.5				64								
WF	CR	CR	34	23	39	239	68.8			142		97							
WF		Tota	ıls	34	18	348	9.1			187	64	97							
Total All	Species			3,93	30 2.6	3,827	100.0	36	5 54	2548	874	225	89						

Species, Sort Grade - Board Foot Volumes (Type) Page 1 Т TSPCSTGR Project: BW1 Date 1/12/2024 Time 6:52:22AM T025 R011 S28 TVARI T025 R011 S28 TVARI Sample Trees Twp Tract Туре Plots Rge Sec Acres CuFt BdFt GNA VARI 73 025 011 28 1532.00 50 1 Е Percent Net Board Foot Volume Average Log % Logs S So Gr Net Bd. Ft. per Acre Total Log Scale Dia. Log Length CF/ Ln Dia Bd Per T rt ad BdFt Spp Def% Gross Net Net MBF Ft In Ft 6-11 12-16 17+ 12-20 21-30 31-35 36-99 Lf /Acre 4-5 97 2.9 2,048 1,988 3,045 22 7 39 0.49 LP CRCR 93 3 44 23 32 50.4LP CR GP 7 221 100 15 5 15 0.25 9.9 144 144 25 75 85 2,193 2,132 3,267 96 48 22 30 60.3 2.7 2 3 21 7 0.46 LP Totals 35 PP CRCR 65 7.2 98 91 139 100100 16 7 28 0.45 3.3 48 48 100 15 4 10 0.22 PP CR GP 35 73 50 50 4.8 6 139 213 83 100 PP Totals 4.8 146 17 15 5 17 0.32 8.0 WF CR CR 100 227 227 348 100 13 18 69 26 7 60 0.64 3.8 9 227 227 348 100 13 18 69 3.8 WF Totals 26 7 60 0.64 Type Totals 2,498 3,827 95 2 48 20 35 0.46 72.2 2.6 2,565 2 32 20 7

TC TSTA	ATS				S7 projec	TATIST	ICS BW1			PAGE DATE 1	1 1/12/2024
TWP	RGE	SECT 7	ГКАСТ		ТҮРЕ	ACI		PLOTS	TREES	CuFt	BdFt
025	011	28	GNA		VARI	1.	532.00	50	215	1	Е
				TI	REES		ESTIMATED FOTAL		ERCENT AMPLE		
		PLOTS	TREES	PI	ER PLOT		TREES	Т	REES		
TOTA	L	50	215		4.3						
CRUIS	SE	16	72		4.5		105,817		.1		
	COUNT										
REFO		32	143		4.5						
COUN BLAN		32 2	145		4.5						
100 %		2									
				STANI	O SUMM	ARY					
		SAMPLE	TREES		BOLE	REL	BASAL	GROSS	NET	GROSS	NET
		TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
LP PIN	NE	60	58.4	10.6	25	11.0	36.0	2,193	2,132	570	570
P PINI		7	6.8	10.1	21	1.2	3.8	146	139	39	39
WHIT		5	3.8	12.4	32	0.9	3.2	227	227	64	64
ΤΟΤΑ	AL	72	69.1	10.7	25	13.2	43.0	2,565	2,498	673	673
CONI		LIMITS OF T			DENT			OD			
C			OF 100 THE VO								
CL:	68.1 %	COEFI				E TREES -		#	OF TREES F	-	INF. POP.
SD: LP PIN	1.0	VAR.% 67.0		LOV	V 39	AVG 43	HIGH 47		5	10	1:
P PINI		42.0			18	21	25				
WHIT		61.4	30.5		53	76	99				
ТОТА	AL	71.0	8.4		40	43	47		201	50	22
CL:	68.1 %	COEF	F		SAMPLE	E TREES -	CF	#	OF TREES F	REQ.	INF. POP.
SD:	1.0	VAR.9		LOV		AVG	HIGH		5	10	1:
LP PIN P PINI		60.3 34.7			11 5	12 6	12 7				
WHIT		50.6			16	21	26				
тота		64.3			11	12	13		165	41	18
CL:	68.1 [%]	COEFI	F		TREES/A	ACRE		#	OF PLOTS F	REO	INF. POP.
SD:	1.0	VAR.%	6 S.E.%	LOV		AVG	HIGH		5	10	1:
LP PIN	NE	72.8	10.3		52	58	64				
P PINI		280.3			4	7	10				
WHIT TOTA		218.6 61.9			3 63	4 69	5 75		153	<i>3</i> 8	12
CL:		COEFI				AREA/ACH		#	OF PLOTS F		INF. POP.
SD: LP PIN		VAR.9 71.0		LOV	v 32	AVG 36	HIGH 40		5	10	1:
P PINI		280.8			2	4	5				
WHIT		213.5			2	3	4				
ТОТА	AL	58.2	8.2		39	43	47		135	34	1:
CL:	68.1 %	COEFI	F		NET BF/	ACRE		#	OF PLOTS F	REQ.	INF. POP.
SD:		VAR.9		LOV		AVG	HIGH		5	10	1:
LP PIN P PINI		71.4		1,	917 83	2,132 139	2,347 195				
WHIT		285.6 215.2			83 158	139 227	195 296				
тота		60.4			285	2,498	2,711		145	36	10
CL:	68.1 %	COEFI	F		NET CUI	FT FT/ACI	RE	#	OF PLOTS F	REO.	INF. POP.
SD:	1.0	VAR.%	6 S.E.%	LOV		AVG	HIGH	"	5	10	1:
LP PIN		70.6			513	570	627		-		
	E	285.2	40.3		23	39	55				
P PINI WHIT		213.3	30.1		45	64	84				

TC TST	ATS				PROJE	STATIS CT	TICS BW1			PAGE DATE	2 1/12/2024
TWP	RGE	SECT	TRAC	СТ	TYPE	А	CRES	PLOTS	TREES	CuFt	BdFt
025	011	28	GNA		VARI	I 1,532.00		50	215	1	Е
CL:	68.1%	CO	EFF		NET C		# OF PLO	INF. POP.			
SD:	1.0	VA	R.	S.E.%	LOW	AVG	HIGH		5	10	15
ΤΟΤΑ	TOTAL		9.0	8.3	617	673	729		139	35	15

