

Sale FG-341-2021-W00260-01

District: Forest Grove Date: August 25, 2020

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$2,236,760.72	\$27,788.40	\$2,264,549.12
		Project Work:	(\$114,000.00)
		Advertised Value:	\$2,150,549.12



Sale FG-341-2021-W00260-01

District: Forest Grove Date: August 25, 2020

Timber Description

Location: Portions of Sections 34 & 35, T3N, R6W, W.M., and portions of Section 3, T2N, R6W, W.M., Washington County, Oregon

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)	
Douglas - Fir	20	0	98	
Western Hemlock / Fir	23	0	98	
Alder (Red)	16	0	95	

Volume by Grade	28	3S & 4S 6"- 11"	Camprun	Total
Douglas - Fir	3,325	1,155	0	4,480
Western Hemlock / Fir	538	184	0	722
Alder (Red)	0	0	135	135
Total	3,863	1,339	135	5,337

Comments: Pond Values Used: Local Pond Values, June 2020.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost: \$919.76/MBF = \$1,118/MBF - \$198.24/MBF

BRANDING AND PAINTING COST ALLOWANCE = \$2.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$950 daily truck cost.

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

Other Costs (No Profit & Risk added):

Machine Time to Block/Waterbar Roads, and Skid Trails:

10 hours x \$150/hour = \$1.500

Machine Time to Pile Landing Slash and Sort Firewood:

20 hours x \$150/hour = \$3,000

Equipment Cleaning: 3 pieces x \$1,000/Piece = \$3,000

Slash Disposal: 15 acres x \$200/acre = \$3,000

TOTAL Other Costs (No Profit & Risk added) = \$10,500

ROAD MAINTENANCE

Normal Road Maintenance(includes move-in, grading, rolling, and spot rocking):

13.0 miles x \$2,651.53/mile = \$34,469.89

TOTAL Road Maintenance: \$34,469.89/5,337MBF = \$6.45/MBF



Sale FG-341-2021-W00260-01

District: Forest Grove Date: August 25, 2020

Logging Conditions

Combination#: 1 Douglas - Fir 69.50%

Western Hemlock / Fir 70.00% Alder (Red) 65.33%

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

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 12 bd. ft / load: 4600

cost / mbf: \$108.70

machines: Log Loader (A)

Stroke Delimber (A) Tower Yarder (Medium)

Combination#: 2 Douglas - Fir 30.50%

Western Hemlock / Fir 30.00% Alder (Red) 34.67%

Logging System: Shovel Process: Manual Delimbing

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

tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF

loads / day: 14 bd. ft / load: 4600

cost / mbf: \$51.67

machines: Shovel Logger



Sale FG-341-2021-W00260-01

District: Forest Grove Date: August 25, 2020

Logging Costs

Operating Seasons: 1.00

Profit Risk: 15%

Project Costs: \$114,000.00

Other Costs (P/R): \$0.00

Slash Disposal: \$0.00

Other Costs: \$10,500.00

Miles of Road

Road Maintenance:

\$6.45

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	4.6
Western Hemlock / Fir	\$0.00	2.0	4.6
Alder (Red)	\$0.00	2.0	3.0



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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 -	Douglas - Fir										
\$91.31	\$6.58	\$0.82	\$70.22	\$0.00	\$25.34	\$0.00	\$2.00	\$1.97	\$198.24		
Western H	emlock	/ Fir									
\$91.59	\$6.58	\$0.82	\$105.33	\$0.00	\$30.65	\$0.00	\$2.00	\$1.97	\$238.94		
Alder (Red)											
\$88.93	\$6.77	\$0.82	\$166.25	\$0.00	\$39.42	\$0.00	\$2.00	\$1.97	\$306.16		

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$654.01	\$455.77	\$0.00
Western Hemlock / Fir	\$0.00	\$508.90	\$269.96	\$0.00
Alder (Red)	\$0.00	\$512.00	\$205.84	\$0.00



Sale FG-341-2021-W00260-01

District: Forest Grove Date: August 25, 2020

Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	4,480	\$455.77	\$2,041,849.60
Western Hemlock / Fir	722	\$269.96	\$194,911.12
Alder (Red)	135	\$205.84	\$27,788.40

Gross Timber Sale Value

Recovery: \$2,264,549.12

Prepared By: Kenton Burns **Phone:** 503-359-7477

TIMBER SALE SUMMARY Mishmash #FG-341-2021-W00260-01

- **1.** <u>Location</u>: Portions of Sections 34 & 35, T3N, R6W, W.M., and portions of Section 3, T2N, R6W, W.M., Washington County, Oregon.
- 2. <u>Type of Sale</u>: This timber sale is 116 net acres of Modified Clearcut, and 2 acres of Right-of-Way Timber. The timber will be sold on a recovery basis at a sealed bid auction.
- **3.** Revenue Distribution: 100% BOF, Washington County.
- **4.** <u>Sale Acreage</u>: Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcMap GIS software.
- **5.** <u>Cruise</u>: The Timber Sale was cruised by ODF Cruisers in July of 2020. For more information, see Cruise Report.
- **Timber Description:** The Timber Sale Area consists of an over-stocked 70 year old Douglas-fir stand with minor amounts of western hemlock, noble fir, and red alder. The stand has an average of 230 ft² of basal area (all species), an average Douglas-fir DBH of 20 inches, and an estimated average net Douglas-fir volume of approximately 39 MBF per acre.
- 7. <u>Topography and Logging Method</u>: Slopes within the Timber Sale Area range from 5% to 65%, and variable in aspect. 70% of the harvest area is cable yarding and 30% is tractor yarding. The average cable corridor length is 800 feet and the maximum is 1,500 feet. The average horizontal skid trail length is approximately 250 feet and the maximum is approximately 750 feet.
- **8.** Access: All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove, travel north on Highway 8 to its junction with Highway 6. Turn left and travel west approximately 3.5 miles to Timber road. Turn right, proceed north on Timber road approximately 6.5 miles, and turn left onto Cochran road. Continue west on Cochran road for 3.8 miles to the Round Top road and turn left. Continue an additional 3.5 miles and bear right onto Bell Camp road. Continue west on Bell Camp road for 2 miles and turn onto the spur on the right. Continue another 0.6 miles to the east side of the Timber Sale Area.

9. Projects:

Project No. 1: Rocked Road Construction	\$52,458.92
Project No. 2: Dirt Road Construction	\$1,304.05
Project No. 3: Road Improvement	\$57,310.10
Project No. 4: Road Vacating	\$2,926.93

Total Credit for all Projects: \$114,000.00

PROJECT COST SUMMARY SHEET

Timber Sale: Mishmash
Sale Number: FG-341-2021-W00260-01

Sale Number:	FG-341-202	1-W00260-01	
PROJECT NO. 1: ROCKED ROAD CONSTRUC	CTION & RECONST	RUCTION	
			Coot
	Road Segment	Length	Cost
	B to C	15+40	\$26,346.51
	D to E	16+35	\$18,278.84
	F to G	1+00	\$986.80
	I to J	3+10	\$3,458.54
	1100		φ3,430.34
		35+85 stations	
		0.68 miles	
Total Rock =			
	3,127 cy	Jaw-run	
	375 cy	Pit-run	
	72 cy	Riprap	
	,		
		Move-in =	\$3,388.24
		TOTAL PROJECT COST =	\$52,458.92
PROJECT NO. 2: DIRT ROAD CONSTRUCTIO	N		
	Road Segment	Length	Cost
•	L to M	1+75	\$1,219.83
•	L to IVI	1+75 stations	Ψ1,210.00
		0.03 miles	
		0.00 1111100	
		Move-in =	\$84.23
		TOTAL PROJECT COST =	\$1,304.05
PROJECT NO. 3: ROAD IMPROVEMENT			
	Dood Comment	Longth	Coot
	Road Segment	Length	Cost
	A to B	80+90	\$34,129.31
	H to I	21+35	\$4,586.80
	A to K	131+60	\$14,892.43
•	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	233+85 stations	ψ,σσ=σ
		4.43 miles	
Total Book		4.43 IIIIes	
Total Rock =	4.045	44/11 2	
	1,845 cy	1½" - 0	
	2,887 cy	Jaw-run	
		Move-in =	\$3,701.57
		TOTAL PROJECT COST =	\$57,310.10
PROJECT NO. 4: ROAD VACATING			
	Road Segment	Length	Cost
	L to M	1+75	\$783.96
		1+75 stations 0.03 miles	
			¢2 1/2 07
		Move-in =	\$2,142.97
		TOTAL PROJECT COST =	\$2,926.93
		TOTAL CREDITS =	\$114,000.00

Timbor Colo	Mishmash		ON COST	Cala Numbaru	FG-341-2021-W00260-01		
Timber Sale			n	_			
Road Segment	t:	A to B		_	Improvement:	80+90 1.53	stations miles
						1.00	1111103
PROJECT NO. 3							
IMPROVEMENT	_						
Clearing & grubbing (scatter)	0.93	ac @		per acre =		\$1,002.54	
Roadside brushing (light)	1.53	mi @	\$850.00	per mi =		\$1,302.37	
Clean ditch & scatter waste material	40.45	sta @	\$60.00	per sta =		\$2,427.00	
Clean culvert inlet & outlet, scatter waste	3	ea @	\$25.00	per ea =		\$75.00	
Road widening							
Excavate & load	53	cy @	\$1.64	per cy =		\$87.47	
Haul	60	cy @	\$0.59	per cy =		\$35.56	
Shape and compact waste material	60	cy @		per cy =		\$18.08	
Construct Settling Ponds	6	ea @	\$25.00	per ea =		\$150.00	
Construct Roadside 50' landing	2	ea @	\$165.00	per ea =		\$330.00	
Grade, ditch, & roll	80.90	sta @	\$36.00	per sta =		\$2,912.40	
				TOTAL	IMPROVEMEN	IT COSTS	CO COT 44
CULVERTS				TOTAL	<u>IMPROVEMEN</u>	<u> </u>	\$8,637.41
Culverts and Bands	_						
18" Diameter	60	LF @	¢20.00	portE		¢4 200 00	
Markers & Stakes	60	LF @	\$20.00	per LF =		\$1,200.00	
Culvert Markers	-	aa @	#40.00			¢ E0.00	
Culvert Markers	5	ea @	\$10.00	per ea =		\$50.00	
				_	-0.741 01111/5		4.050.00
DOCK					OTAL CULVER	<u> </u>	\$1,250.00
ROCK							
	Rock	Base	Haul Cost	Placeme	nt/		
	Size	Cost \$/cy	\$/cy	Processi	ng Total CY	Rock Cost	
	SIZE	COSt \$/Cy	φ/су	Cost \$/c	у		
Subgrade rock							
Bedding and backfill	1½" - 0	\$0.88	\$2.50	\$0.50		\$186.40	
	_			Subtotal	= 48	\$186.40	
Surfacing rock				_			
Surfacing rock	Jaw-run		\$1.85	\$1.10		\$23,449.50	
Junction	Jaw-run	\$6.22	\$1.85	\$1.10		\$220.02	
Turnout	Jaw-run	\$6.22	\$1.85	\$1.10		\$128.34	
				Subtotal	= 2,596	\$23,797.86	
						i	
			Totals	All Ro			
					- 0 = 48		
				Jaw-ı	run = 2,644		
					TOTAL DOG	OK COCTO	COO OO 4 O 7
					TOTAL ROC	CK COSTS =	\$23,984.27
EROSION CONTROL	_						
Grass seed & fertilizer	0.47	ac @	\$425.00	per ac :	=	\$197.63	
Straw Mulch Bale	6	ea@	\$10.00	per ea :	=	\$60.00	
							^
				TOTAL ERO	SION CONTRO	DL COSTS =	\$257.63
					TOTAL PROJE	CT COST =	\$34,129.31
					. 3	 =	ΨO 1, 120.01

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Timber Sale:		Mishmas	h	Sa	e Number:	FG-341-20)21-W00260-0
Road Segment:		B to C		_ Co	nstruction:	15+40	stations
				_		0.29	miles
							=
PROJECT NO. 1							
CONSTRUCTION		_					
Clearing & grubbing (scatter)	1.77		\$1,078.00			\$1,908.06	
Balanced road construction	13.40		\$110.00			\$1,474.00	
Turnouts	2	ea @	\$66.00	per ea =		\$132.00	
Turnarounds	2	ea @	\$82.50	per ea =		\$165.00	
Roadside 50' landing	2		\$165.00			\$330.00	
_anding	1	ea @		per ea =		\$220.00	
Grade, ditch, & roll	15.40	sta @				\$554.40	
Stade, ditch, & foll	13.40	sia w	φ30.00	per sta –		ψ554.40	-
				TOTAL CON	STRUCTIC	N COSTS =	\$5,143.46
CULVERTS							
Culverts and Bands							
18" Diameter	120	LF @	\$20.00	per LF =		\$2,400.00	
24" Diameter	60	LF@		per LF =		\$1,740.00	
Markers & Stakes			·	•		. ,	
Culvert markers	6	ea @	\$10.00	per ea =		\$60.00	
	ŭ	• • •	Ψ.σ.σσ	po. 00		ψοσ.σσ	
				<u>TOT</u>	AL CULVEF	RT COSTS =	\$4,200.00
ROCK							
	Б.	_		Placement/			
	Rock	Base	Haul Cost	Processing	Total CY	Rock Cost	
	Size	Cost \$/cy	\$/cy	Cost \$/cy		THOUSE COOL	
Subgrade rock				σουι φισή			_
Bedding and backfill	1½" - 0	\$0.88	\$2.50	\$0.50	0	\$0.00	1
Energy dissipator	Riprap	\$4.08	\$3.68	\$1.60	72	\$673.59	-
Fill armor	Κιριαρ				0		_
	Dit mun	\$0.00	\$0.00	\$1.60		\$0.00	4
Subgrade reinforcement	Pit-run	\$3.28	\$3.68	\$0.75 Subtotal =	375 447	\$2,889.52 \$3,563.10	-
Surfacing rock	Ī			Subiolal =	447	φ3,303.10	J
Base rock	Jaw-run	\$6.22	\$2.46	\$1.22	1,001	\$9,907.38	1
Junction	Jaw-run	\$6.22	\$2.46	\$1.22	24	\$237.54	
Turnout	Jaw-run		\$2.46	\$1.22	58	\$574.05	
Turnaround	Jaw-run		\$2.46	\$1.22	20	\$197.95	
Roadside landing	Jaw-run		\$2.46	\$1.22	95	\$940.26	
Landing	Jaw-run	\$6.22	\$2.46	\$1.22	95	\$940.26	
				Subtotal =	1,293	\$12,797.44	
			Tarala	All David	1 7 40	Ī	
			Totals	All Rock =	1		
				Jaw-run =	,		
				Pit-run =			
				Riprap =	72		
				-	OTAL DOG	N COOTO	640 000 5
				<u>1</u>	UTAL ROC	CK COSTS =	\$16,360.5
EROSION CONTROL							
Grass seed & fertilizer	0.89	ac @	\$500.00	per ac =		\$442.50	
Straw mulch (bale)	20	ea @	\$10.00	per ea =		\$200.00	
, , , , , , , , , , , , , , , , , , , ,			+ . 5.55	1		+ ======	-
				TOTAL EROSIO	N CONTRO	DL COSTS =	\$642.50
							AAA A 4A =

TOTAL PROJECT COST = \$26,346.51

Timber Sale: Mishmash Sale Number: FG-341-2021-W00260-0° Road Segment: D to E Construction: 16+35 stations of include of incl
PROJECT NO. 1
PROJECT NO. 1
CONSTRUCTION
Clearing & grubbing (scatter) 1.88 ac @ \$1,078.00 per ac = \$2,026.64
Balanced road construction 15.50 sta @ \$110.00 per sta = \$1,705.00
Drift 0.85 sta @ \$180.00 per sta = \$153.00
Remove large stump 4.00 ea @ \$82.50 per ea = \$330.00
Turnouts 2 ea @ \$66.00 per ea = \$132.00
Turnarounds 1 ea @ \$82.50 per ea = \$82.50
Roadside 50' landing 1 ea @ \$165.00 per ea = \$165.00
Landing 1 ea @ \$220.00 per ea = \$220.00
Grade, ditch, & roll 16.35 sta @ \$36.00 per sta =\$588.60
TOTAL CONSTRUCTION COSTS = \$5,402.74
ROCK
Placement/
Rock Base Haul Cost Processing Total CY Rock Cost
Size Cost \$/cy \$/cy Cost \$/cy Rock Cost
Surfacing rock Jaw-run \$6.22 \$1.72 \$1.22 1,063 \$9,732.11
Jaw-run \$6.22 \$1.72 \$1.22 1,003 \$9,732.11 Junction Jaw-run \$6.22 \$1.72 \$1.22 24 \$219.78
Turnout Jaw-run \$6.22 \$1.72 \$1.22 58 \$531.13
Turnaround Jaw-run \$6.22 \$1.72 \$1.22 20 \$183.15
Roadside landing Jaw-run \$6.22 \$1.72 \$1.22 95 \$869.96
Landing Jaw-run \$6.22 \$1.72 \$1.22 95 \$869.96
Subtotal = 1,355 \$12,406.10
Gustotal = 1,000 ψ12,400.10
Totals All Rock = 1,355
Jaw-run = 1,355
<u>TOTAL ROCK COSTS = \$12,406.10</u>
EROSION CONTROL
Grass seed & fertilizer 0.94 ac @ \$500.00 per ac = \$470.00
0.34 at & \$000.00 per at = \$\frac{470.00}{}\$
TOTAL EROSION CONTROL COSTS = \$470.00
<u>TOTAL PROJECT COST = \$18,278.84</u>

Timber Sale:	Mishmash			Sal	e Number:	FG-341-20	021-W00260-01
Road Segment:		F to G		_ Co	nstruction:		stations
						0.02	miles
PROJECT NO. 1							
CONSTRUCTION							
Clearing & grubbing (scatter)	0.12	ac @	\$1,078.00	per ac =		\$129.36	
Balanced road construction	1.00	sta @	\$110.00	per sta =		\$110.00	
Wide junction	0.50	sta @	\$110.00	per sta =		\$55.00	
Grade, ditch, & roll	1.00	sta @	\$36.00	per sta =		\$36.00	-
				TOTAL CONS	TRUCTIO	N COSTS =	\$330.36
ROCK	_						
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost	
Surfacing rock		<u>l</u>	<u>l</u>		1	1	ı
Base rock	Jaw-run	\$6.22	\$1.59	\$1.22	65	\$586.79]
Junction	Jaw-run	\$0.00	\$0.00	\$1.22	33	\$39.65	
•	•	•	•	Subtotal =	98	\$626.44	
			Totals	All Rock = Jaw-run =]	
				TC	TAL ROC	K COSTS =	\$626.44
EROSION CONTROL							
Grass seed & fertilizer	0.06	ac @	\$500.00	per ac =		\$30.00	
			<u>T</u>	OTAL EROSION	CONTRO	L COSTS =	\$30.00
				<u> TOT</u> /	AL PROJE	CT COST =	\$986.80

Timber Sale		Mishmasl	h		Sale Number:	FG-341-202	1-W00260-01
Road Segment		H to I		-	Improvement:	21+35 0.40	stations miles
PROJECT NO. 3							
IMPROVEMENT	_						
Clearing & grubbing (scatter)	0.25	ac @	\$1,078.00	per acre =		\$269.50	
"Y" Junction	1.00	sta @		per sta =		\$110.00	
Improve Turnouts	2	ea @	\$33.00	per ea =		\$66.00	
Grade, ditch, & roll	21.35	sta @	\$36.00	per sta =		\$768.60	
				TOTAL II	MPROVEMENT	COSTS =	\$1,214.10
CULVERTS						_	
Culverts and Bands	_						
18" Diameter	40	LF @	\$20.00	per LF =		\$800.00	
Markers & Stakes							
Culvert Markers	1	ea @	\$10.00	per ea =		\$10.00	
				<u>TO</u>	TAL CULVERT	Γ COSTS =	\$810.00
ROCK	_						
	Deel	D	Havd Cast	Placemen	nt/		
	Rock	Base	Haul Cost	Processin	g Total CY	Rock Cost	
	Size	Cost \$/cy	\$/cy	Cost \$/cy	y		
Surfacing rock							
Spot rock	Jaw-run	\$6.22	\$3.01	\$1.10	150	\$1,549.12	
"Y" Junction	Jaw-run	\$6.22	\$3.01	\$1.10	65	\$671.29	
Turnout	Jaw-run	\$6.22	\$3.01	\$1.10	28	\$289.17	
				Subtotal	= 243	\$2,509.58	
			Totals	All Roo	ck = 243		
			. 014.0	Jaw-ri			
					<u> </u>		
					TOTAL ROCK	COSTS =	\$2,509.58
EROSION CONTROL	_						
Grass seed & fertilizer	0.13	ac @	\$425.00	per ac =	·	\$53.13	
			Т	OTAL EROS	ION CONTROL	COSTS =	\$53.13
			<u>-</u>				Ψ000
				T /	OTAL PROJEC	T COST -	\$4,586.80

Timber Sale:	e: Mishmash			Sale Number: FG-341-2021-W00260-			21-W00260-01
Road Segment:	t: I to J		Co	Construction: 3+10		stations	
				_		0.06	miles
PROJECT NO. 1							
CONSTRUCTION							
Clearing & grubbing (scatter)	0.36	ac @	\$1,078.00	per ac =		\$388.08	
Balanced road construction	3.10	sta @	\$110.00	per sta =		\$341.00	
Turnarounds	1	ea @	\$82.50	per ea =		\$82.50	
70' Landing	1	ea @	\$314.00	per ea =		\$314.00	
Grade, ditch, & roll	3.10	sta @	\$36.00	per sta =		\$111.60	
				TOTAL CONS	TRUCTION	N COSTS =	\$1,237.18
ROCK	•					•	
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost	
Surfacing rock							
Base rock	Jaw-run	\$6.22	\$3.14	\$1.22	202	\$2,131.36	
Landing	Jaw-run	\$6.22	\$3.14	\$1.22	180	\$1,903.95	
				Subtotal =	382	\$2,131.36	
			Totals	All Rock = Jaw-run =			
				<u>TC</u>	OTAL ROCI	K COSTS =	\$2,131.36
EROSION CONTROL Grass seed & fertilizer	0.18	ac @	\$500.00	per ac =		\$90.00	
			<u>T</u>	OTAL EROSION	I CONTRO	L COSTS =	\$90.00
				<u> TOT</u> .	AL PROJE	CT COST =	\$3,458.54

Timber Sale		Mishmash			e Number:	FG-341-202	1-W00260-01
Road Segment		A to K		_ Imp	provement:		stations
						2.49	miles
PROJECT NO. 3							
IMPROVEMENT							
Clearing & grubbing (scatter)	1.52	ac @	\$1,078.00	per acre =		\$1,638.56	
Clean culvert inlet & outlet, scatter waste	2	ea @	\$25.00	per ea =		\$50.00	
Improve Turnouts	11	ea @	\$33.00	per ea =		\$363.00	
Grade, ditch, & roll	131.60	sta @	\$36.00	per sta =		\$4,737.60	
				TOTAL IMP	ROVEMEN	NT COSTS =	\$6,789.16
CULVERTS				<u> </u>			ψο,
Markers & Stakes	_						
Culvert Markers	14	ea @	\$10.00	per ea =		\$140.00	
				<u>TOT</u> A	AL CULVER	RT COSTS =	\$140.00
ROCK	_						
	D. d	D		Placement/			
	Rock	Base	Haul Cost	Processing	Total CY	Rock Cost	
	Size	Cost \$/cy	\$/cy	Cost \$/cy			
Surfacing rock							
Spot rock	1½" - 0		\$2.19	\$1.10	500	\$2,086.71	
Surfacing rock	1½" - 0		\$2.19	\$1.22	1,172	\$5,031.88	
Junction	1½" - 0	+	\$2.19	\$1.10	48	\$200.32	
Turnout	1½" - 0	\$0.88	\$2.19	\$1.10	77	\$321.35	
				Subtotal =	1,797	\$7,640.27	
			Totals	All Rock =	1,797	Ī	
			Totals	1½" - 0 =	,		
				1/2 - 0 -	1,191		
				Т	OTAL ROC	CK COSTS =	\$7,640.27
EROSION CONTROL				<u>-</u>			Ţ.,O.O!
Grass seed & fertilizer	0.76	ac @	\$425.00	per ac =		\$323.00	
Craco cood a formizor	0.70	u0 😅	Ψ120.00	po. 40 =		\$020.00	
				TOTAL EROSIO	N CONTRO	DL COSTS =	\$323.00
				тот	AL PROJE	ECT COST =	\$14,892.43

Timber Sale:		Mishmasl	า	_	Sale Number: FG-34	41-2021-W00260-0
Road Segment:		L to M		-	Construction: 1+7	
PROJECT NO. 2						
CONSTRUCTION						
Clearing & grubbing (scatter)	0.09	ac @	\$1,078.00	per ac =	\$97.	.02
Balanced road construction	1.75	sta @	\$110.00	per sta =	\$192	2.50
Fill Construction						
Excavate & load	54	cy @	\$1.64	per cy =	\$88.	31
Haul fill material	70	cy @	\$4.05	per cy =	\$283	3.50
Place and Compact fill	70	cy @	\$2.90	per cy =	\$203	3.00
Landing	1	ea @	\$220.00	per ea =	\$220	.00
Grade, ditch, & roll	1.75	sta @	\$36.00	per sta =	<u>\$63.</u>	.00
				TOTAL C	CONSTRUCTION COST	TS = \$1,147.33
EROSION CONTROL						
Winterization blocking	1	ea @	\$50.00	per ea =	\$50.	.00
Grass seed & fertilizer	0.05	ac @	\$500.00	per ac =	\$22.	50
			<u>T</u>	OTAL ERO	SION CONTROL COST	TS = \$72.50
				•	TOTAL PROJECT COS	ST = \$1,219.83

Timber Sale:	Timber Sale:			Sale	Number:	FG-341-2	021-W00260-01
Road Segment:	L to M		•		Vacating:	1+75 0.03	stations miles
PROJECT NO. 4 ROAD VACAT	E					3.00	
Fill Removal							
Excavate & load	54	су @	\$1.64	per cy =		\$88.31	
Haul material	70	cy @	\$4.05	per cy =		\$283.50	
Place and Compact Material	70	cy @	\$2.90	per cy =		\$203.00	
Rip dirt road surface	1.00	sta @	\$25.00	per sta =		\$25.00	
Rip & narrow landing	1	ea @	\$150.00	per ea =		\$150.00	
Grass seed & fertilizer	0.08	ac @	\$425.00	per ac =		\$34.15	
	TOTAL PROJECT COST = \$783.9					\$783.96	

Timber Sale:	Mishmash	Sale Number:	FG-341-2021-W00260-01

Equipment	Total
Brush Cutter	\$592.17
Grader	\$976.59
Loader (Med. & Large)	\$855.76
Roller (smooth/grid) & Compactor	\$592.17
Excavator (Large) - Equipment Cleaning	\$1,976.59
Dozer (Large) - Equipment Cleaning	\$2,021.17
Dump Truck (10cy +)	\$159.58

TOTAL MOVE-IN COSTS = \$7,174.03

PROJECT No. 4, MOVE-IN, WITHIN AREA MOVE, & CLEANING COSTS

Equipment	Total
Excavator (Large) - Equipment Cleaning	\$1,976.59
Dump Truck (10cy +)	\$166.38

TOTAL MOVE-IN COSTS = \$2,142.97

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale: Mishmash
Sale Number: FG-341-2021-W00260-01
Stockpile Name: Standard Grade

1 1/2" - 0: ____1,845 cy (truck measure)

Total truck yardage: 1,845 cy

Move-in

Move in loader

Subtotal = \$153.90
Per CY = \$0.08/cy

1 1/2"-0 Base Cost

Load dump truck \$0.80 / cy x 1,845 cy = \$1,476.00

Load dump truck \$0.80 / cy x 1,845 cy = \$1,476.00 Subtotal = \$1,476.00 Per CY = \$0.80

1 1/2"-0 Cost = **\$0.88/cy**

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale: Mishmash

Sale	Number:	FG-341-202	21-W00260-01	_	
Quar	ry Name:	Bell	Bottom	- -	
	Pit-run	375 cy	(truck measu	re)	
	Rip-rap	72 cv	_(truck measu	,	
	Jaw-run:	6,014 cy	_ ` (truck measu	,	
Total truck	yardage:	6,461 cy			
Total in place	yardage:	5,231 cy	-		
Oversi	ize - Pile:	5%			
	Swell:	130%	_		
Cor	npaction:	116%	_		
Move-in & Other Base Cost					
Quarry development & overbui					\$1,073.32
Equipment cleaning & move in	excavator				\$2,005.50
Move in & setup crusher					\$1,505.50
Move in Dump Trucks					\$351.00
Gradation tests	\$71.50 /	2,000cy x	1	_tests =	\$71.50
				Subtotal =	\$5,006.82
D'' D				Per CY =	\$0.77/cy
Pit-Run	00.40	,	004		# 007.05
Drill & shoot	\$2.10	/ cy x	304	_cy =	\$637.65
Load dump truck	\$0.80	/ cy x	375	_cy =	\$300.00
				Subtotal =	\$937.65
D'a				Per CY =	\$2.50/cy
Rip-rap	¢2.40	/ 04 4	5 0	014	¢100.40
Drill & shoot	\$2.10 \$1.60	/ cy x	<u>58</u> 72	_cy =	\$122.43 \$115.20
Load dump truck	φ1.00	/ cy x	12	_cy =	
				Subtotal =	\$237.63
Jaw-run Base Cost				Per CY =	\$3.30/cy
Rip Rock	\$2.10	/ cy x	4,869	cy =	\$10,225.64
Oversize - Pile	\$0.80	/ cy x	317	_	\$253.21
Load crusher	\$0.80	/ cy x	6,014	_ cy =	\$4,810.92
Crush (Jaw-run)	\$2.10	/ cy x	6,014	_ cy =	\$12,628.67
Load dump truck	\$0.80	/ cy x	6,014	_ cy =	\$4,810.92
•	<u> </u>	•		Subtotal =	\$32,729.35
				Per CY =	\$5.44/cy
				Total =	\$38,911.45
Pit-run Ras	co Cost –	\$3.28/cv		:	·

Pit-run Base Cost = \$3.28/cy
Rip-rap Base Cost = \$4.08/cy
Jaw-run Base Cost = \$6.22/cy

CRUISE REPORT Mishmash #FG-341-2021-W00260-01

- **1. LOCATION:** Portions of Sections 34 & 35, T3N, R6W, W.M., and portions of Section 3, T2N, R6W, W.M., Washington County, Oregon.
- **2. CRUISE DESIGN:** Pre-cruise evaluation indicated that the stand's average DBH is approximately 19 inches with a Coefficient of Variation of about 55%. For sales of this size and approximate value, ODF cruise standards require a Sampling Error of 9% at a 68% confidence level, and a minimum sample size of 100 graded trees. Statistical analysis indicated that 37 variable radius plots utilizing a 40 BAF prism would produce an adequate sample size.
- **3. SAMPLING METHOD:** The Timber Sale Area was cruised in July, 2020. The Timber Sale Area was sampled with 40 variable radius grade plots laid out on a 5 chain x 5 chain grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.
- **4. CRUISE RESULTS:** 230 trees were measured and graded producing a cumulative Sampling Error of 5.2% on the Basal Area and 6.4% on the Board Foot Volume.

5. TREE MEASUREMENT AND GRADING:

All sample trees were measured and graded following Columbia River Log Scale grade rules and favored 40 foot segments.

- a) **Height Standards:** Total tree heights were measured to the nearest foot. For conifers, bole heights were calculated to a six inch top. For hardwoods, bole heights were calculated to a seven inch top.
- Diameter Standards: Diameters were measured outside bark at breast height to the nearest inch.
- c) Form Factors: Measured for each grade tree using a form point of 16 feet.

6. DATA PROCESSING:

- a) **Volumes and Statistics:** Cruise estimates and sampling statistics, were derived from Super Ace 2008 cruise software.
- b) **Deductions:** For conifers, two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage. For hardwoods, five percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.
- 7. CRUISERS: The sale was cruised by ODF cruisers Kenton Burns and Mark Savage.

Prepared by: Kenton Burns August 17, 2020
Name Date

Reviewed by: Mark Savage August 18, 2020
Name Date

TC PST	ΓATS				OJECT OJECT		STICS HMASH			PAGE DATE	1 7/20/2020
TWP	RGE	SC TRACT	Γ	TYPE		AC	RES	PLOTS	TREES	CuFt	BdFt
T2N	R6	03 00U1		00MC			116.00	40	230	S	W
					TREES		ESTIMATED TOTAL		ERCENT AMPLE		
		PLOTS	TREES		PER PLOT		TREES	,	TREES		
TOTA	AL	40	230		5.8						
	COUNT OREST NT NKS	40	230		5.8		12,126		1.9		
100 /				STA	ND SUMM	ARY					
		SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
		TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
	G FIR	190	86.8	20.0	117	42.5	190.0	39,473	39,129	8,481	8,481
NOB		18	4.7	26.6	132	3.5	18.0	4,321	4,321	872	872
	EMLOCK	13	6.5	19.1	97	3.0	13.0	2,026	2,018	498	498
R AL		9 230	6.5 104.5	15.9 20.1	79 114	2.3 51.3	9.0 230.0	1,183 <i>47,004</i>	1,147 <i>46,616</i>	276 10,128	276 10,128
				20.1	117	31.3	250.0	17,001	70,010	10,120	10,120
CON		E LIMITS OF TE 8.1 TIMES OF	HE SAMPLE UT OF 100 THI	E VOLUME	WILL BE V	VITHIN TH	HE SAMPLE E	RROR			
CL	68.1	COEFF	7		SAMPL	E TREES -	BF	# (OF TREES R	EQ.	INF. POP.
SD:	1.0	VAR.%		L	OW	AVG	HIGH		5	10	15
	G FIR	66.5	4.8		763	801	840				
NOB	FIR EMLOCK	63.0 76.6	15.3 22.1		1,059 369	1,250 473	1,441 578				
R AL		60.7	21.4		169	216	262				
TOT		71.5					202				
		/1.5	4.7		757	795	832		204	51	23
CI	69.1							# (
CL SD:	68.1	COEFF	7	L	SAMPL	E TREES -	CF	# 1	OF TREES R	EQ.	INF. POP.
SD:	1.0	COEFF VAR.%	7	L		E TREES - AVG	CF HIGH	# (
SD:	1.0 G FIR	COEFF	S.E.%	L	SAMPL I	E TREES -	CF	# (OF TREES R	EQ.	INF. POP.
SD: DOUG NOB	1.0 G FIR	COEFF VAR.% 62.1	S.E.% 4.5	L	SAMPLI OW 163	E TREES - AVG 170	CF HIGH 178	# (OF TREES R	EQ.	INF. POP.
SD: DOUG NOB WHE R AL	1.0 G FIR FIR EMLOCK	COEFF VAR.% 62.1 56.9 69.4 57.7	5 S.E.% 4.5 13.8 20.0 20.4	L	SAMPLI OW 163 211 90 41	E TREES - AVG 170 245 113 51	CF HIGH 178 278 135 62	# (OF TREES R	EQ. 10	INF. POP.
SD: DOUG NOB WHE	1.0 G FIR FIR EMLOCK	COEFF VAR.% 62.1 56.9 69.4	5 S.E.% 4.5 13.8 20.0 20.4	L	SAMPLI OW 163 211 90	E TREES - AVG 170 245 113	CF HIGH 178 278 135	# (OF TREES R	EQ.	INF. POP.
SD: DOUG NOB WHE R AL	1.0 G FIR FIR EMLOCK	COEFF VAR.% 62.1 56.9 69.4 57.7	4.5 13.8 20.0 20.4 4.3	L	SAMPLI OW 163 211 90 41	E TREES - AVG 170 245 113 51 168	CF HIGH 178 278 135 62		OF TREES R	EQ. 10	INF. POP.
SD: DOUGNOB WHE R AL TOT. CL SD:	1.0 G FIR FIR EMLOCK DER AL 68.1 1.0	COEFF VAR.% 62.1 56.9 69.4 57.7 65.6 COEFF VAR.%	S.E.% 4.5 13.8 20.0 20.4 4.3		SAMPLI OW 163 211 90 41 161 TREES/	E TREES - AVG 170 245 113 51 168 ACRE AVG	CF HIGH 178 278 135 62 175		OF TREES R 5	EQ. 10	INF. POP.
SD: DOUG	1.0 G FIR FIR EMLOCK DER AL 68.1 1.0 G FIR	COEFF VAR.% 62.1 56.9 69.4 57.7 65.6 COEFF VAR.%	S.E.% 4.5 13.8 20.0 20.4 4.3 5.5 S.E.% 13.0		SAMPLE OW 163 211 90 41 161 TREES/	E TREES - AVG 170 245 113 51 168 ACRE AVG 87	CF HIGH 178 278 135 62 175 HIGH 98		OF TREES R 5 172 OF PLOTS R	EQ. 10 43 EQ.	INF. POP.
SD: DOUGNOB WHE R AL TOT. CL SD: DOUGNOB	1.0 G FIR FIR EMLOCK DER AL 68.1 1.0 G FIR FIR	COEFF VAR.% 62.1 56.9 69.4 57.7 65.6 COEFF VAR.% 82.3	S.E.% 4.5 13.8 20.0 20.4 4.3 5 S.E.% 13.0 22.7		SAMPLE OW 163 211 90 41 161 TREES/ OW 76 4	E TREES - AVG 170 245 113 51 168 ACRE AVG 87 5	CF HIGH 178 278 135 62 175 HIGH 98 6		OF TREES R 5 172 OF PLOTS R	EQ. 10 43 EQ.	INF. POP.
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SD: DOUGNOB WHE R AL TOT. CL SD: DOUGNOB WHE R AL TOT. CL SD: CL	1.0 G FIR FIR EMLOCK DER AL 68.1	COEFF VAR.% 62.1 56.9 69.4 57.7 65.6 COEFF VAR.% 82.3 143.6 235.7 376.6 68.6 COEFF VAR.% 37.2 141.9 189.4 355.7 32.9	S.E.% 4.5 13.8 20.0 20.4 4.3 S.E.% 13.0 22.7 37.2 59.5 10.8 5.9 22.4 29.9 56.2 5.2	L	SAMPLE OW 163 211 90 41 161 TREES/ OW 76 4 4 3 93 BASAL OW 179 14 9 4 218 NET BE	E TREES - AVG 170 245 113 51 168 ACRE AVG 87 5 7 105 AREA/AC 190 18 13 9 230	CF HIGH 178 278 135 62 175 HIGH 98 6 9 10 116 RE HIGH 201 22 17 14 242	# 1	OF TREES R 5 172 OF PLOTS R 5 188 OF PLOTS R 5	EQ. 10 43 EQ. 10 47 EQ. 10	INF. POP. 15 INF. POP. 15 INF. POP. 15
SD: DOUGNOB WHE R AL TOT. CL SD: DOUGNOB WHE R AL TOT. CL SD:	1.0 G FIR FIR EMLOCK DER AL 68.1	COEFF VAR.% 62.1 56.9 69.4 57.7 65.6 COEFF VAR.% 82.3 143.6 235.7 376.6 68.6 COEFF VAR.% 37.2 141.9 189.4 355.7 32.9 COEFF	S.E.% 4.5 13.8 20.0 20.4 4.3 5. S.E.% 13.0 22.7 37.2 59.5 10.8 5.9 22.4 29.9 56.2 5.2	L L	SAMPLE OW 163 211 90 41 161 TREES/ OW 76 4 4 3 93 BASAL OW 179 14 9 4 218 NET BE	E TREES - AVG 170 245 113 51 168 ACRE AVG 87 5 7 105 AREA/AC 190 18 13 9 230 ACRE AVG	CF HIGH 178 278 135 62 175 HIGH 98 6 9 10 116 REE HIGH 201 22 17 14 242 HIGH	# 1	OF TREES R 5 172 OF PLOTS R 5 188 OF PLOTS R 5	EQ. 10 43 EQ. 10 47 EQ. 10	INF. POP. 15 INF. POP. 15 INF. POP. 15
SD: DOUGNOB WHE R AL TOT. CL SD: DOUGNOB WHE R AL TOT. CL SD:	1.0 G FIR FIR EMLOCK DER AL 68.1	COEFF VAR.% 62.1 56.9 69.4 57.7 65.6 COEFF VAR.% 82.3 143.6 235.7 376.6 68.6 COEFF VAR.% 37.2 141.9 189.4 355.7 32.9	S.E.% 4.5 13.8 20.0 20.4 4.3 S.E.% 13.0 22.7 37.2 59.5 10.8 5.9 22.4 29.9 56.2 5.2 S.E.% 6.7	L L	SAMPLE OW 163 211 90 41 161 TREES/ OW 76 4 4 3 93 BASAL OW 179 14 9 4 218 NET BE	E TREES - AVG 170 245 113 51 168 ACRE AVG 87 5 7 105 AREA/AC 190 18 13 9 230	CF HIGH 178 278 135 62 175 HIGH 98 6 9 10 116 RE HIGH 201 22 17 14 242	# 1	OF TREES R 5 172 OF PLOTS R 5 188 OF PLOTS R 5	EQ. 10 43 EQ. 10 47 EQ. 10	INF. POP. 15 INF. POP. 15 INF. POP. 15
SD: DOUGNOB WHE R AL TOT. CL SD: DOUGNOB WHE R AL TOT. CL SD: DOUGNOB WHE R AL TOT. CL SD: DOUGNOB WHE R AL TOT. NOB	1.0 G FIR FIR EMLOCK DER AL 68.1	COEFF VAR.% 62.1 56.9 69.4 57.7 65.6 COEFF VAR.% 82.3 143.6 235.7 376.6 68.6 COEFF VAR.% 37.2 141.9 189.4 355.7 32.9 COEFF VAR.% 42.4	S.E.% 4.5 13.8 20.0 20.4 4.3 S.E.% 13.0 22.7 37.2 59.5 10.8 5.9 22.4 29.9 56.2 5.2 S.E.% 6.7	L L	SAMPLE OW 163 211 90 41 161 TREES/ OW 76 4 4 3 93 BASAL OW 179 14 9 4 218 NET BE OW 36,507	E TREES - AVG 170 245 113 51 168 ACRE AVG 87 5 7 105 AREA/AC 190 18 13 9 230 ACRE AVG 39,129	CF HIGH 178 278 135 62 175 HIGH 98 6 9 10 116 REE HIGH 201 22 17 14 242 HIGH 41,752	# 1	OF TREES R 5 172 OF PLOTS R 5 188 OF PLOTS R 5	EQ. 10 43 EQ. 10 47 EQ. 10	INF. POP. 15 INF. POP. 15 INF. POP. 15

TC PST	ATS				PROJECT PROJECT		STICS SHMASH			PAGE DATE	2 7/20/2020
TWP	RGE	SC	TRACT	TYP	E	A	CRES	PLOTS	TREES	CuFt	BdFt
T2N	R6	03	00U1	00M0	C		116.00	40	230	S	W
CL	68.1		COEFF		NET B	F/ACRE			# OF PLOTS	S REQ.	INF. POP.
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH		5	10	15
TOTA	A L		40.8	6.4	43,610	46,616	49,621		67	17	7
CL	68.1		COEFF		NET C	UFT FT/A	CRE		# OF PLOTS RI	EQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15
DOUG	G FIR		40.1	6.3	7,944	8,481	9,018				
NOB I	FIR		147.2	23.3	670	872	1,075				
WHE	MLOCK		188.7	29.8	350	498	647				
R ALI	DER		349.9	55.3	123	276	429				
TOTA	AL		37.5	5.9	9,527	10,128	10,728		56	14	6

TC	PSPCSTGR		\mathbf{S}_{l}	pecies, S	ort Gra	de - Board F	oot V	olum	es (Pr	oject)								
Т	2N RR6W S03	TyOOMC	,	116.00		Project:	MI	SHM	ASH							Page		1	
	21V KROW 303	Tyoonic		110.00		Acres		116.0	00							Date Time		20/202 :41:02	
		%				1	Perc	cent of 1	Net Boa	rd Foot	Volume					Avera	ige Log	2	Logs
	S So Gr	Net	Bd. Ft	. per Acre		Total		Log Sca	ale Dia.			Log l	Length		Ln			CF/	Per
Spp	T rt ad	BdFt	Def%	Gross	Net	Net MBF	4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	In	Ft	Lf	/Acre
DF	CU														10	17		0.00	1.1
DF	2M	74	1.0	29,380	29,087	3,374			40	60			0	100	40	16	442	2.23	65.8
DF	3M	23	.6	9,139	9,088	1,054		96	1	2		1	7	93	39	8	95	0.64	95.4
DF	4M	3		954	954	111		100			47	53			19	6	24	0.34	40.4
DF	Totals	84	.9	39,473	39,129	4,539		25	30	45	1	1	2	96	35	10	193	1.19	202.7
NF	2M	86		3,729	3,729	433			22	78			0	100	40	18	568	2.65	6.6
NF	3M	12		514	514	60		100				2	2	96	39	9	122	0.93	4.2
NF	4M	2		78	78	9	<u> </u>	100			33	67			23	6	28	0.40	2.8
NF	Totals	9		4,321	4,321	501		14	19	67	1	1	1	97	36	13	319	1.78	13.6
WH	CU									•				100	1	29		0.00	.4
WH WH	2M 3M	49 47	.8	1,009 948	1,001 948	116 110		63	70 9	30 28				100 100	40 39	14 9	320 131	1.85 0.85	3.1 7.2
WH	4M	4		69	69	8		100	,	20	64	36		100	19	6	23	0.40	3.0
									20	20				0.7					
WH	Totals	4	.4	2,026	2,018	234		33	39	28	2	1		97	34	10	147	1.06	13.8
RA	CU														2	15		0.00	.9
RA	R	100	3.0	1,183	1,147	133		56	32	12	2	12	19	67	31	9	105	0.80	10.9
	Totals	2	3.0	1,183	1,147	133		56	32	12	2	12	19	67	29			0.80	11.8
				· ·	-														
Tota	lls		0.8	47,004	46,616	5,407		25	30	45	1	2	2	95	35	10	193	1.20	241.8

TC	PSTNDSUM		Stand Tab	ole Summary	Page Date:	1
					Date:	7/20/2020
TT2	N RR6W S03 Ty00MC	116.00	Project	MISHMASH	Time:	1:41:02PM

116.00

Grown Year:

Acres

Spc T				Tot											
Spc T		Sample	FF	Av	Trees/	BA/	Logs	Average Net	Net	Tons/	Net Cu.Ft.	Net Bd.Ft.		Totals	
	DBH	Trees	16'	Ht	Acre	Acre	Acre	Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF
DF	9	3	87	84	6.791	3.00	6.79	9.5	53.3	1.83	64	362	212	74	42
DF	10	5	88	98	9.167	5.00	12.83	9.7	45.7	3.55	124	587	411	144	68
DF	11	3	87	85	4.546	3.00	7.58	10.4	44.0	2.24	78	333	259	91	39
DF	12	1	88	104	1.273	1.00	2.55	13.1	55.0	.95	33	140	110	39	16
DF	13	6	88	97	6.509	6.00	13.02	14.2	55.8	5.27	185	727	611	215	84
DF	14	6	88	106	5.613	6.00	11.23	18.6	82.5	5.94	209	926	690	242	107
DF	15	5	88	105	4.074	5.00	8.15	22.5	97.0	5.24	184	790	607	213	92
DF	16	3	88	114	2.149	3.00	4.30	27.4	120.0	3.36	118	516	390	137	60
DF	17	5	88	117	3.172	5.00	7.61	26.4	110.8	5.74	201	844	665	233	
DF	18	9	88	116	5.093	9.00	12.45	28.9	117.7	10.25	360	1,466	1,189	417	
DF	19	7	89	120	3.555	7.00	9.14	31.9	133.9	8.30	291	1,224	963	338	
DF	20	7	89	130	3.209	7.00	9.63	33.1	148.1	9.07	318	1,426	1,052	369	
DF	21	5	90	132	2.079	5.00	6.24	37.5	177.3	6.67	234	1,106	773	271	
DF	22	10	88	131	3.788	10.00	10.99	42.0	192.1	13.16	462	2,110	1,526	536	
DF	23	12	89	125	4.159	12.00	11.78	45.0	200.0	15.12	531	2,357	1,754	616	
DF	24 25	6 3	89 88	138 145	1.910 .880	6.00 3.00	5.41 2.64	50.8 57.0	235.3 265.6	7.84 4.29	275 150	1,273 701	909 498	319 175	
DF	26	12	88	143	3.255	12.00	10.04	60.8	287.6	17.39	610	2,886	2,017	708	
DF DF	27	5	87	142	1.258	5.00	4.02	61.9	293.8	7.09	249	1,182	823	289	
DF	28	13	85	147	3.040	13.00	9.35	69.1	318.7	18.42	646	2,982	2,137	750	
DF	29	14	85	143	3.052	14.00	9.59	71.5	333.0	19.54	686	3,194	2,266	795	
DF	30	4	85	145	.815	4.00	2.65	73.2	347.7	5.52	194	921	641	225	
DF	31	8	85	141	1.526	8.00	4.77	81.8	390.8	11.12	390	1,864	1,290	453	
DF	32	6	85	144	1.074	6.00	3.22	91.6	437.2	8.41	295	1,409	976	342	163
DF	33	9	85	158	1.515	9.00	5.05	92.6	468.3	13.34	468	2,365	1,547	543	274
DF	34	9	85	148	1.427	9.00	4.92	91.7	447.4	12.85	451	2,200	1,491	523	255
DF	35	4	84	140	.599	4.00	1.80	106.8	505.8	5.46	192	909	634	222	105
DF	36	4	82	141	.566	4.00	1.70	111.3	516.7	5.39	189	877	625	219	102
DF	37	1	82	154	.134	1.00	.40	127.8	633.3	1.46	51	254	170	60	30
DF	38	2	82	136	.254	2.00	.76	119.3	571.7	2.59	91	436	301	105	51
DF	39	1	85	143	.121	1.00	.36	135.9	690.0	1.40	49	250	162	57	29
DF	40	1	83	155	.115	1.00	.34	150.6	770.0	1.48	52	265	171	60	31
DF	42	1	80	155	.104	1.00	.31	160.7	800.0	1.43	50	249	166	58	29
DF	Totals	190	88	117	86.821	190.00	201.61	42.1	194.1	241.71	8,481	39,129	28,038	9,838	4,539
NF	18	1	89	92	.566	1.00	1.13	28.8	110.0	.78	33	124	91	38	14
NF	21	2	90	132	.832	2.00	2.49	36.9	173.3	2.21	92	432	256	107	50
NF	22	1	91	121	.379	1.00	1.14	37.0	166.7	1.01	42	189	117	49	22
NF	24	2	91	126	.637	2.00	1.91	47.2	216.7	2.17	90	414	251	105	48
NF	25	2	89	149	.587	2.00	1.76	58.1	276.7	2.45	102	487	285	119	
NF	27	1	85	132	.252	1.00	.75	59.9	253.3	1.08	45	191	126	52	
NF	28	1	91	142	.234	1.00	.70	72.7	373.3	1.22	51	262	142	59	
NF	31	1	90	150	.191	1.00	.57	94.5	496.7	1.30	54	284	151	63	
NF	32	2	90	150	.358	2.00	1.07	100.0	525.0	2.58	107	564	299	125	
NF	33	1	88	135	.168	1.00	.51	93.7	466.7	1.14	47	236	132	55	
NF	37	1	89	138	.134	1.00	.40	126.1	686.7	1.22	51 54	276	141	59	
NF	38 39	1	91 91	154 157	.127 .121	1.00 1.00	.38 .48	140.6 114.5	800.0 652.5	1.29 1.32	54 55	305 315	149 154	62 64	
NF NF	39 46	1		144	.087	1.00	.26	187.2	930.0	1.32	55 49	242	134	56	
NF	Totals	18		132	4.670	18.00	13.57	64.3	318.5	20.94	872	4,321	2,429	1,012	
	13	1	86	53	1.085	1.00	1.08	18.7	60.0	.65	20	65	75	23	
WH WH	15	3	86	90	2.445	3.00	4.07	23.2	84.0	3.03	95	342	351	110	
WH	19	1		137	.508	1.00	1.52	32.9	156.7	1.60	50	239	186	58	

TC	PSTNDSU	M				Stand Table Summary					Page Date:	2 7/20/20)20		
TT2N	RR6W S0)3 Ту00МС	2	116.0	00		Project Acres	t N	IISHMAS 116.0				Time: Grown Year:	1:41:0	2PM
S Spc T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Net Cu.Ft.	e Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Tons	Totals Cunits	MBF
WH	21	3	86	106	1.247	3.00	2.91	40.3	151.4	3.75	117	441	435	136	51
WH	22	1	83	115	.379	1.00	1.14	36.9	130.0	1.34	42	148	156	49	17
WH	24	1	89	130	.318	1.00	.95	52.6	253.3	1.61	50	242	187	58	28
WH	28	1	80	130	.234	1.00	.70	56.9	253.3	1.28	40	178	148	46	21
WH	32	1	80	122	.179	1.00	.54	84.2	343.3	1.45	45	184	168	52	21
WH	35	1	86	115	.150	1.00	.45	86.8	400.0	1.25	39	180	145	45	21
WH	Totals	13	86	97	6.544	13.00	13.37	37.3	150.9	15.95	498	2,018	1,850	578	234
RA	12	1	87	57	1.273	1.00	1.27	17.9	60.0	.63	23	76	73	26	9
RA	14	1	92	83	.935	1.00	1.87	13.6	50.0	.70	26	94	81	30	11
RA	15	1	90	74	.815	1.00	.81	30.2	120.0	.68	25	98	79	29	11
RA	16	3	92	90	2.149	3.00	4.30	23.8	105.0	2.81	102	451	326	119	52

25.3

40.5

55.7

25.3

42.3

1.00

1.00

1.00

9.00

230.00 239.46

.566

.416

.347

6.500

104.536

1.13

.83

.69

10.91

18

21

23

Totals

RA

RA

RA

RA

Totals

90 75

92

94 96

91

82

79

88 114

1

1

9

230

110.0

165.0

240.0

105.1

194.7

.79

.93

1.06

7.59

286.19

29

34

39

276

10,128

124

137

166

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46,616

91

107

123

881

33,198

33

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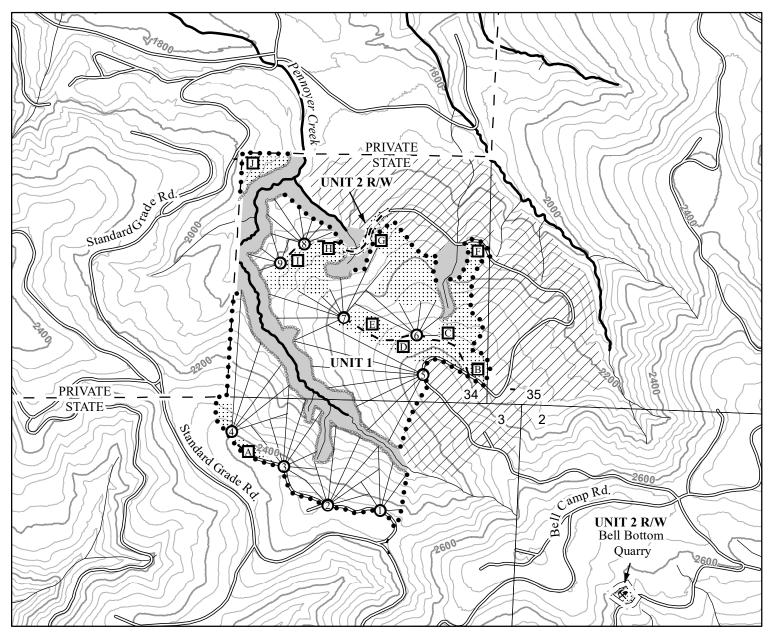
5,407

 TC
 PLOGSTVB
 Log Stock Table - MBF

 TT2N RR6W S03 Ty00MC
 116.00
 Project: MISHMASH Acres
 Page 1 Date 7/20/2020 Time 1:41:01PM

	l				1									111110		+1:01F	
S Spp T		Log Len	Gross MBF	Def Net % MBF	% Spc	2.2			-			r in Inche		20.22	24.20	20.20	40 :
~ F F					Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	2M			3.1 1							411	501	14 1259	706	202		
DF	2M	40	3,394	3,36	1 74.0						411	391	1239	796	303		
DF	3M	28	3		.1				3								
DF	3M	30	4		4 .1			3	1								
DF	3M	32	19	1	9 .4			17	3								
DF	3M	34	52	5	2 1.1			50	2								
DF	3M	36	46	4	6 1.0			43	3								
DF	3M	38	58	5	8 1.3			36	22								
DF	3M	40	878	87	2 19.2			173	334	328		13	8		17		
DF	4M	12	11	1	1 .2			9	1	1							
DF	4M	14	5		5 .1			5									
DF	4M	16	14	1	.3			14	1								
DF	4M	18	10	1	0 .2			9	1								
DF	4M	20	11	1	1 .2			10	1								
DF	4M	22	17	1	7 .4			16	1								
DF	4M	24	17	1	7 .4			17									
DF	4M	26	6		.1			6									
DF	4M	28	11	1	1 .2			11									
DF	4M	30	8		.2			8									
DF	Totals		4,579	4,53	9 83.9			426	372	329	411	604	1280	796	320		
NF	2M	34	2		2 .3						2						
NF	2M	36	3		.6						3						
NF	2M	40	428	42	8 85.4						22	60	133	109	85	18	
NF	3M	30	1		1 .2				1								
NF	3M	32	1		1 .3				1								
NF	3M	36	2		2 .3			2									
NF	3M	40	55	5	5 11.0			4	17	34	ļ						
NF	4M	12	0		0 .1				0								
NF	4M	16	1		1 .2			1									
NF	4M	18	2		2 .3			2									
NF	4M	26	1		1 .2			1									
NF	4M	28	2		2 .5			2									
NF	4M	30	3		3 .5			3									
NF	Totals		501	50	1 9.3			14	20	34	27	60	133	109	85	18	
WH	2M	40	117	11	6 49.6						23	58	20	16			

TC PLC	OGSTVB					Log S	Stock T	able -	MBF									
TT2N R	RR6W S03 Ty(00МС	110	5.00		Proje Acre		MIS	HMASI 116						Page Date Time	7/2	2 0/2020 41:01P	
s	So Gr I	∠og	Gross	Def	Net	%		1	let Volu	me by S	caling D	iamete	r in Inch	es				
Spp T	rt de I	∠en	MBF	%	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-
WH	3M	36	3		3	1.2			3									
WH	3M	38	8		8	3.2			8									
WH	3M	40	100		100	42.5			15	21	23	10		14	16			
WH	4M	12	1		1	.3			0	0								
WH	4M	16	1		1	.4			1									
WH	4M	18	2		2	.8			2									
WH	4M	20	1		1	.6			1									
WH	4M	26	2		2	.8			2									
WH	4M	28	1		1	.5			1									
WH	Totals		235		234	4.3			33	21	23	33	58	34	32			
RA	R	20	2		2	1.9			2									
RA	R	22	3		3	2.0			3									
RA	R	24	2		2	1.4			2									
RA	R	30	12		12	8.9						12						
RA	R	34	27	7.5	25	18.7			9					16				
RA	R	38	9		9	6.8			6	3								
RA	R	40	82	2.6	80	60.3				22	27	17	14					
RA	Totals		137	3.0	133	2.5			22	25	27	28	14	16				
Total	All Species		5,452		5,407	100.0			496	439	414	499	736	1464	937	405	18	3



Legend

- • • Timber Sale Boundary
- Stream Buffer Boundary
- __ : _ Right-of-Way Boundary
- Surfaced Roads
- - New Road Construction
- Type-N Stream
- Type-F Stream
- Stream Buffer
- O Cable Landing
- ☐ Tractor Landing
 - Cable Yarding Area
- Tractor Yarding Area
- /// Reforested Area
- ODF Ownership Boundary
- Section Lines
 - —— 40 Foot Countour Band
- —— 200 Foot Countour Band

Quarry

LOGGING PLAN

FOR TIMBER SALE CONTRACT #FG-341-2021-W00260-01 MISHMASH

PORTIONS OF SECTIONS 34 & 35, T3N, R6W, W.M., AND PORTIONS OF SECTION 3, T2N, R6W, W.M., WASHINGTON COUNTY, OREGON



This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.

1:12,000 1 inch = 1,000 feet

0	500	1,000	2,000
			Feet

APPROXIMATE NET ACRES

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_	,	TRACTOR	CABLE
	UNIT 1 UNIT 2 (R/W	35 V) 2	81 0
	TOTAL	37	81