

District: Forest Grove

Date: May 10, 2023

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,861,686.82	\$6,613.16	\$1,868,299.98
		Project Work:	(\$262,475.00)
		Advertised Value:	\$1,605,824.98



District: Forest Grove

Date: May 10, 2023

Timber Description

Location:

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	24	0	98
Alder (Red)	16	0	95

Volume by Grade	2S	3S & 4S 6"- 11"	Camprun	Total
Douglas - Fir	3,270	664	0	3,934
Alder (Red)	0	0	58	58
Total	3,270	664	58	3,992

Comments: LOCAL POND VALUES, MARCH 2023

WESTERN REDCEDAR AND OTHER CEDARS: STUMPAGE PRICE = POND VALUE - DOUG-FIR LOGGING COST \$854.06 = \$1,167.00 - \$312.94

BIGLEAF MAPLE AND OTHER HARDWOODS: STUMPAGE PRICE = POND VALUE - DOUG-FIR LOGGING COST \$29.06 = \$342.00 - \$312.94

NOBLE FIR AND OTHER CONIFERS: STUMPAGE PRICE = POND VALUE - DOUG-FIR LOGGING COST \$249.06 = \$562.00 - \$312.94

BRANDING AND PAINTING ALLOWANCE = \$2.00/MBF

FUEL COST ALLOWANCE = \$5.00/GAL

HAULING COST ALLOWANCE = \$1,250/DAY

OTHER COSTS (WITH PROFIT & RISK ADDED): None

OTHER COSTS (NO PROFIT & RISK ADDED):

EQUIPMENT CLEANING: 3 PIECES @ \$1,000/PIECE = \$3,000

MACHINE TIME TO BLOCK/WATERBAR ROADS AND SKID TRAILS: 20 HOURS X \$150/HOUR = \$3,000

MACHINE TIME TO PILE LANDING SLASH: 10 HOURS X \$150/HOUR = \$1,500

TOTAL OTHER COSTS (NO P&R) = \$7,500

SLASH TREATMENT: 10 ACRES X \$250/ACRE = \$2,500

ROAD MAINTENANCE (INCLUDES SPOT ROCKING, GRADING, & ROLLING): MOVE IN: \$2,760.20 GENERAL ROAD MAINT: 9.11 miles X \$2,292.94 = \$20,888.68 TOTAL ROAD MAINTENANCE: \$23,648.88 / 3,992 MBF = \$5.92 /MBF



District: Forest Grove

Date: May 10, 2023

	Log	gging Conditions
Combination#: 1	Douglas - Fir Alder (Red)	80.00% 80.00%
Logging System: yarding distance: tree size:	Cable: Medium Tower >40 - <70 Medium (800 ft) Mature / Regen Cut (900 Bft/tree), 3-	Process: Harvester Head Delimbing downhill yarding: No 5 logs/MBF
loads / day: cost / mbf: machines:	12 \$126.73 Log Loader (A) Forwarder Harvester Tower Yarder (Medium)	bd. ft / load: 4800
Combination#: 2	Douglas - Fir Alder (Red)	20.00% 20.00%
Logging System: yarding distance: tree size:	Shovel Short (400 ft) Mature / Partial Cut (900 Bft/tree), 3-	·
loads / day: cost / mbf: machines:	19 \$96.28 Forwarder Harvester	bd. ft / load: 4100



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Logging Costs			
Operating Seasons: 2.00	Profit Risk: 15%		
Project Costs: \$262,475.00	Other Costs (P/R): \$0.00		
Slash Disposal: \$2,500.00	Other Costs: \$7,500.00		

Miles of Road		Road Maintenance:	\$5.92
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	2.0	4.8
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 -	Fir								
\$120.64	\$6.04	\$8.71	\$132.81	\$0.00	\$40.23	\$0.63	\$2.00	\$1.88	\$312.94
Alder (Red	4)								
\$120.64	\$6.22	\$8.71	\$218.75	\$0.00	\$53.15	\$0.63	\$2.00	\$1.88	\$411.98

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$786.17	\$473.23	\$0.00
Alder (Red)	\$0.00	\$526.00	\$114.02	\$0.00



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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	3,934	\$473.23	\$1,861,686.82
Alder (Red)	58	\$114.02	\$6,613.16

Gro	Gross Timber Sale Value			
Reco	overy: \$1,868,2	99.98		
Prepared By: Adrian Torres	;	Phone: 503-359-7460		

TIMBER SALE SUMMARY Round Bell #FG-341-2024-W00887-01

- **1.** <u>Location</u>: The sale is located in portions of Section 6, T2N, R5W; portions of Section 1, T2N, R6W; and portions of Section 31, T3N, R5W, W.M., Washington County, Oregon.
- 2. <u>Type of Sale</u>: This timber sale is 112 net acres of Modified Clearcut. The timber will be sold on a recovery basis at a sealed bid auction.
- 3. <u>Revenue Distribution</u>: 100% BOF; 100% Washington County.
- **4.** <u>Sale Acreage</u>: Acres are net of stream buffers, road prisms, and Green Tree Retention Areas. Acreage was determined using ESRI ArcMap GIS Pro software.
- 5. <u>Cruise</u>: The timber sale was cruised by ODF Cruisers in April of 2023. For more information, see Cruise Report.
- 6. <u>Timber Description</u>: The Timber Sale Area consists of a well-stocked, partially thinned 73-year old Douglas-fir stand with minor amounts of western hemlock, western redcedar, grand fir and red alder. This timber stand has an average of 172 ft² of basal area per acre, an average Douglas-fir DBH of 24 inches, and an estimated average net Douglas-fir volume of approximately 35.1 MBF per acre.
- 7. <u>Topography and Logging Method</u>: Slopes within the Timber Sale Area range from 5% to 80% with mostly north aspects. The Timber Sale Area is 80% cable-based yarding and 20% ground-based yarding. The average horizontal skid trail length is approximately 200 feet, and the maximum is approximately 500 feet. The average cable road length is 600 feet, and the maximum is approximately 1,400 feet.
- 8. <u>Access</u>: All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove, travel north on Highway 47 through Banks, then merge onto Highway 26. Continue on Highway 26 westbound for approximately 11.5 miles to Timber Road. Turn left onto Timber Road and proceed south for approximately 3 miles to Cochran Road. Turn right onto Cochran Road and continue for 3.8 miles to Round Top Road. Turn left onto Round Top Road and continue for 1.1 miles to access the northeastern portion of the Timber Sale Area. Note: Directions to the timber sale was altered to reflect the closure of Timber Road, south of the town of Timber, through 2023.

9. Projects:

Project No. 1: Dirt Road Construction Project No. 2: Road Improvement Project No. 3: Road Vacating Total Credit for all Projects \$5,030.20 \$221,285.97 \$36,158.83 \$262,475.00

PROJECT COST SUMMARY SHEET

Timber Sale:	Roun	d Bell	
Sale Number:	FG-341-2024	-W00887-01	
PROJECT NO. 1: DIRT ROAD CONSTRUCTIO	N		
ROJECT NO. 1. DIKT ROAD CONSTRUCTION	IN		
	Road Segment	Length	Cost
	K to L	14+80	\$4,441.30
		14+80 stations	
		0.28 miles	
		Move-in =	\$131.55
		TOTAL PROJECT COST =	\$4,572.85
		10% FUEL ADJUSTMENT =	\$5,030.14
PROJECT NO. 2: ROAD IMPROVEMENT			
	Road Segment	Length	Cost
	A to B	Length 94+95	\$9,093.82
	B to C		
		203+15	\$68,738.31
	C to D	95+00	\$84,373.38
	E to F G to H	7+80 2+90	\$9,869.45 \$6,085.88
	I to J	18+60	\$16,354.06
	1100	422+40 stations	ψ10,00 + .00
		8.00 miles	
Total Rock =			
	866 cy	1½" - 0	
	8,307 cy		
	120 cy	Riprap	
		Move-in =	\$6,654.22
		TOTAL PROJECT COST =	\$201,169.12
		10% FUEL ADJUSTMENT =	\$221,286.04
PROJECT NO. 3: ROAD VACATING			
	Road Segment	Longth	Cost
	V1 to V2	Length 23+60	
	V1 to V2 V3 to V4	23+60 30+50	\$11,057.00 \$18,089.70
	K to L	30+50 14+80	\$1,682.00
		68+90 stations	ψ1,002.00
		1.30 miles	
		Move-in =	\$2,042.97
		TOTAL PROJECT COST =	\$32,871.67

<u>10% FUEL ADJUSTMENT = \$36,158.83</u>

TOTAL CREDITS =	\$238,613.64
TOTAL CREDITS WITH 10% FUEL ADJUSTMENT =	\$262,475.00

	SUMM	ARY OF C	ONSTRUC	TION COST			
Timber Sale:		Round Bell		_	Sale Number:	FG-341-2024-W00887-01	
Road Segment:		A to B			Improvement:	94+95	stations
						1.80	miles
PROJECT NO. 2: ROAD IMPROVEMENT							
IMPROVEMENT							
Clearing & grubbing (scatter)	1.09	ac @	\$862.40	per acre =		\$940.01	
Clean culvert inlet & outlet, scatter waste	2	ea @	\$25.00	per ea =		\$50.00	
Remove existing culvert (82+65)	1	ea @	\$150.00	per ea =		\$150.00	
Reinstall existing culvert (82+65)	1	ea @	\$520.20	per ea =		\$520.20	
Construct settling pond	9	ea @	\$50.00	per ea =		\$450.00	
Improve turnout	6	ea @	\$33.00	per ea =		\$198.00	
Grade, ditch, & roll	94.95	sta @	\$36.00	per sta =		\$3,418.20	
				<u>דסד</u>	AL IMPROVEMEN	<u> COSTS =</u>	\$5,726.41
CULVERTS							
Culverts and Bands							
24" Diameter	50	LF @	\$29.00	per LF =		\$1,450.00	
Markers & Stakes							
Culvert markers	5	ea @	\$10.00	per ea =		\$50.00	
Additional Installation Cost							
Powerline locate service	2	hrs @	\$300.00	per hr =		\$600.00	

ROCK

TOTAL CULVERT COSTS = \$2,100.00

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost	
Subgrade rock			•				
Bedding and backfill	1½" - 0	\$2.65	\$12.77	\$0.50	48	\$764.16	
				Subtotal =	48	\$764.16	
			Totals	All Rock = 1½" - 0	48 48]	
				TO	TAL ROCH	K COSTS =	\$764.16
EROSION CONTROL Grass seed & fertilizer Straw mulch bale	1.09 4	ac @ ea @	\$425.00 \$10.00	per ac = per ea =		\$463.25 \$40.00	
				TOTAL EROSION	CONTRO	L COSTS =	\$503.25

TOTAL PROJECT COST = \$9,093.82

				CTION COST		FO 044 0004 W00007 04	
Timber Sale:		Round Be		_	Sale Number:	FG-341-202	4-W00887-01
Road Segment:	B1	to C - Page	e 1.	-	Improvement:	203+15 3.85	stations miles
PROJECT NO. 2: ROAD IMPROVEMENT							
IMPROVEMENT	_						
Clearing & grubbing (scatter)	2.34	ac @	\$1,078.00	per acre =		\$2,522.52	
Clean culvert inlet & outlet, scatter waste	6	ea @	\$50.00	per ea =		\$300.00	
Cutslope Layback End-haul (95+50 to 97+65)							
Excavate & load	614	су @	\$2.17	per cy =		\$1,332.38	
Haul to Waste Area	798	су @	\$2.78	per cy =		\$2,218.44	
Shape and compact waste material	798	су @	\$0.30	per cy =		\$239.40	
Sidecast Pullback End-haul (96+80 to 97+05)							
Excavate & load	373	су @	\$2.30	per cy =		\$857.90	
Haul to Waste Area	485	су @	\$2.78	per cy =		\$1,348.30	
Shape and compact waste material	485	су @	\$0.30	per cy =		\$145.50	
Sidecast Pullback End-haul (97+45 to 97+65)							
Excavate & load	299	су @	\$2.30	per cy =		\$687.70	
Haul to Waste Area	389	су @	\$2.78	per cy =		\$1,081.42	
Shape and compact waste material	389	су @	\$0.30	per cy =		\$116.70	
Cutslope Layback End-haul (98+15 to 99+05)							
Excavate & load	91	су @	\$2.17	per cy =		\$197.47	
Haul to Waste Area	119	су @	\$2.78	per cy =		\$330.82	
Shape and compact waste material	119	су @	\$0.30	per cy =		\$35.70	
Sidecast Pullback End-haul (98+15 to 98+75)							
Excavate & load	545	су @	\$2.30	per cy =		\$1,253.50	
Haul to Waste Area	709	су @	\$2.78	per cy =		\$1,971.02	
Shape and compact waste material	709	су @	\$0.30	per cy =		\$212.70	
Cutslope Layback End-haul (99+85 to 102+85)							
Excavate & load	355	су @	\$2.17	per cy =		\$770.35	
Haul to Waste Area	461	су @	\$2.78	per cy =		\$1,281.58	
Shape and compact waste material	461	су @	\$0.30	per cy =		\$138.30	
Cutslope Layback End-haul (104+85 to 106+45)							
Excavate & load	190	су @	\$2.17	per cy =		\$412.30	
Haul to Waste Area	247	су @	\$2.78	per cy =		\$686.66	
Shape and compact waste material	247	су @	\$0.30	per cy =		\$74.10	
Construct settling pond	21	ea @	\$25.00	per ea =		\$525.00	
Improve turnout	15	ea @	\$33.00	per ea =		\$495.00	
Construct roadside landing	3	ea @	\$165.00	per ea =		\$495.00	
(153+90,161+55,170+60)	055	-		•			
Excavate, place and & compact fill	255	cy @	\$5.07	per cy =		\$1,292.85	
Grade, ditch, & roll	203.15	sta @	\$36.00	per sta =		\$7,313.40	
CULVERTS					TOTAL IMPROVEMEN	NT COSTS =	\$28,336.01
Culverts and Bands	-						
18" Diameter	140	LF @	\$20.00	per LF =		\$2,800.00	
24" Diameter	70	LF @	\$29.00	per LF =		\$2,030.00	
Markers & Stakes	-	0		•			
Culvert markers	9	ea @	\$10.00	per ea =		\$90.00	
Additional Installation Cost		0		•		·	
Culvert at 168+95, trim	0.25	hrs @	\$175.00	per hr =		\$43.75	
Powerline locate service	6	hrs @	\$300.00	, per hr =		\$1,800.00	
		- 3	,			. ,	

TOTAL CULVERT COSTS = \$6,763.75

	SUMMARY OF CONSTRUCTION	COST		
Timber Sale:	Round Bell	Sale Number:	FG-341-202	4-W00887-01
Road Segment:	B to C - Page 2.	Improvement:	203+15	stations
			3.85	miles

PROJECT NO. 2: ROAD IMPROVEMENT ROCK

CK						
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Subgrade rock		ļ	ļ			•
Bedding and backfill	1½" - 0	\$2.65	\$17.01	\$0.50	144	\$2,903.04
Energy dissipator	Riprap	\$5.37	\$30.63	\$1.60	96	\$3,609.60
Fill armor	Riprap	\$5.37	\$30.63	\$1.60	24	\$902.40
		•		Subtotal =	264	\$7,415.04
Surfacing rock						•
Surfacing rock	1½" - 0	\$2.65	\$17.01	\$1.22	180	\$3,758.40
Spot rock	1½" - 0	\$2.65	\$17.01	\$1.22	250	\$5,220.00
Base rock	Jaw-run	\$8.51	\$4.72	\$1.22	580	\$8,381.00
Surfacing rock	1½" - 0	\$2.65	\$17.01	\$1.22	172	\$3,591.36
Roadside landing	Jaw-run	\$8.51	\$4.72	\$1.22	285	\$4,118.25
				Subtotal =	1,467	\$25,069.01

All Rock = 1,731 Totals 1½" - 0 746 Jaw-run 865 Riprap 120

TOTAL ROCK COSTS = \$32,484.05

EROSION CONTROL					
Grass seed & fertilizer	2.34	ac @	\$425.00	per ac =	\$994.50
Straw mulch bale	16	ea @	\$10.00	per ea =	\$160.00

TOTAL EROSION CONTROL COSTS = \$1,154.50

TOTAL PROJECT COST = \$68,738.31

	Timber Sale:	SUM	MARY OF Round Be		CTION COS	ST Sale Number:	FG-341-2024	-W00887-01
	Road Segment:		C to D		-	Improvement:	95+00 1.80	stations miles
PROJECT NO. 2: ROAD IMP	PROVEMENT							
IMPROVEMENT								
Clearing & grubbing (scatter)		1.10	ac @	\$1,078.00	per acre =		\$1,185.80	
Roadside brushing		1.13	mi @	\$1,166.67	per mi =		\$1,318.33	
Construct settling pond		6	ea @	\$25.00	per ea =		\$150.00	
Improve turnout		8	ea @	\$33.00	per ea =		\$264.00	
Improve landing		1	ea @	\$110.00	per ea =		\$110.00	
Grade & roll (outslope)		6.50	sta @	\$32.20	per sta =		\$209.30	
Grade, ditch, & roll		88.50	sta @	\$36.00	per sta =		\$3,186.00	
						TOTAL IMPROVEME	<u>NT COSTS =</u>	\$6,423.43
CULVERTS							_	
Culverts and Bands								
18" Diameter		70	LF @	\$20.00	per LF =		\$1,400.00	
Markers & Stakes								
Culvert markers		2	ea @	\$10.00	per ea =	-	\$20.00	

ROCK

TOTAL CULVERT COSTS = \$1,420.00

	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost
Subgrade rock						
Bedding and backfill	1½" - 0	\$2.65	\$17.83	\$0.50	48	\$1,007.04
				Subtotal =	48	\$1,007.04
Surfacing rock				-		
Surfacing rock	Jaw-run	\$8.51	\$4.10	\$1.22	5,035	\$69,634.05
Junction	Jaw-run	\$8.51	\$4.10	\$1.22	120	\$1,659.60
Turnout	Jaw-run	\$8.51	\$4.10	\$1.22	192	\$2,655.36
Landing	Jaw-run	\$8.51	\$4.10	\$1.22	80	\$1,106.40
				Subtotal =	5,427	\$75,055.41

\$425.00

 All Rock =
 5,475

 1½" - 0
 48

 Jaw-run
 5,427

per ac =

TOTAL ROCK COSTS = \$76,062.45

EROSION CONTROL Grass seed & fertilizer

1.10 ac @

\$467.50

TOTAL EROSION CONTROL COSTS = \$467.50

TOTAL PROJECT COST = \$84,373.38

	SUMM	IARY OF C	ONSTRUC	TION COST			
Timber Sale:		Round Be	ell	Sale	Number:	FG-341-202	4-W00887-01
Road Segment:		E to F		- Imp	rovement:	7+80	stations
-				- ·		0.15	miles
PROJECT NO. 2: ROAD IMPROVEMENT							
IMPROVEMENT							
Clearing & grubbing (scatter)	0.09	ac @	\$1,078.00	per acre =		\$97.02	
Construct roadside landing	1	ea @	\$165.00	per ea =		\$165.00	
Improve landing	1		\$110.00			\$110.00	
Grade, ditch, & roll	7.80	sta @	\$36.00	per sta =		\$280.80	
		_		TOTAL IMPR		<u>T COSTS =</u>	\$652.82
ROCK						_	
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placement/ Processing Cost \$/cy	Total CY	Rock Cost	
Surfacing rock		1		L		· · · · · · · · · · · · · · · · · · ·	
Surfacing rock	Jaw-run	\$8.51	\$5.05	\$1.22	413	\$6,104.14	
Junction	Jaw-run	\$8.51	\$5.05	\$1.22	48	\$709.44	
Roadside landing	Jaw-run	\$8.51	\$5.05	\$1.22	80	\$1,182.40	
Landing	Jaw-run	\$8.51	\$5.05	\$1.22	80	\$1,182.40	
				Subtotal =	621	\$9,178.38	
			Totals	All Rock = Jaw-run	621 621		
				<u>T0</u>	TAL ROCI	<u> COSTS =</u>	\$9,178.38
EROSION CONTROL Grass seed & fertilizer	0.09	ac @	\$425.00	per ac =		\$38.25	
				TOTAL EROSION	CONTRO	<u>L COSTS =</u>	\$38.25

TOTAL PROJECT COST = \$9,869.45

Timber Sala	-			TION COST	Solo Number	FC 244 202	4 1000007 01
Timber Sale: Road Segment:		Round Be G to H	11	-	Sale Number: Improvement:	2+90	stations
		0.011		-		0.05	miles
PROJECT NO. 2: ROAD IMPROVEMENT							
IMPROVEMENT	_						
Clearing & grubbing (scatter)	0.30	<u> </u>		per acre =		\$420.42	
Improve landing	1		\$157.00			\$157.00	
Grade, ditch, & roll	2.90	sta @	\$36.00	per sta =		\$104.40	
				TOTA	L IMPROVEMEN	<u> COSTS =</u>	\$681.82
CULVERTS	-						
Culverts and Bands							
18" Diameter	30	LF @	\$20.00	per LF =		\$600.00	
Markers & Stakes							
Culvert markers	1	ea @	\$10.00	per ea =		\$10.00	
				-	TOTAL CULVER	<u>r costs =</u>	\$610.00
ROCK	-						
	Rock Size	Base Cost \$/cy	Haul Cost \$/cy	Placemen Processing Co	Total CV	Rock Cost	
Subgrade rock	0.20	0001 4/03	<i>¢, c j</i>				
Bedding and backfill	11⁄2" - 0	\$2.65	\$16.63	\$0.50	24	\$474.72	
Dedding and backlin	1/2 - 0	ψ2.00	ψ10.05	+-	24	\$474.72	
Surfacing rock	1					Ψ+1+.12	
Surfacing rock	Jaw-run	\$8.51	\$3.05	\$1.22	154	\$1,968.12	
Junction	Jaw-run	\$8.51	\$3.05	\$1.22	24	\$306.72	
Landing	Jaw-run	\$8.51	\$3.05	\$1.22	150	\$1,917.00	
	<u> </u>			,	btotal = 328	\$4,191.84	
			T . 4 . 1 .	A 11 F		l	
			Totals		Rock = 352		
					1½" - 0 24		
				J	law-run 328		
					TOTAL ROCH	<u>(COS</u> TS =	\$4,666.56
EROSION CONTROL							
Grass seed & fertilizer	0.30	ac @	\$425.00	per ac =		\$127.50	
				TOTAL ERG	OSION CONTRO	L COSTS =	\$127.50

TOTAL PROJECT COST = \$6,085.88

	SUM	ARY OF C	CONSTRUC	CTION COST				
Timber Sale:		Round Be	ell in the second se	_	Sale	Number:	FG-341-202	4-W00887-01
Road Segment:		I to J		_	Impro	ovement:		stations
							0.35	miles
PROJECT NO. 2: ROAD IMPROVEMENT								
IMPROVEMENT								
Clearing & grubbing (scatter)	0.22	ac @	\$1,078.00	per acre =			\$237.16	
Improve landing	1	ea @	\$110.00	per ea =			\$110.00	
Grade, ditch, & roll	18.60	sta @	\$36.00	per sta =			\$669.60	
2001				<u>TC</u>	OTAL IMPR		IT COSTS =	\$1,016.76
ROCK								
	Rock	Base	Haul Cost	Placem	nent/			
	Size	Cost \$/cy	\$/cy	Processing	Cost \$/cy	Total CY	Rock Cost	
Surfacing rock								
Surfacing rock	Jaw-run	\$8.51	\$4.57	\$1.2	22	986	\$14,099.80	
Landing	Jaw-run	\$8.51	\$4.57	\$1.2	22	80	\$1,144.00	
					Subtotal =	1,066	\$15,243.80	
			Totals	A	All Rock =	1,066		
					Jaw-run	1,066		
					<u>T0</u>	TAL ROO	<u> K COSTS =</u>	\$15,243.80
EROSION CONTROL Grass seed & fertilizer	0.22	ac @	\$425.00	per a	c =		\$93.50	
				<u>TOTAL</u>	EROSION	CONTRO	<u> DL COSTS =</u>	\$93.50

TOTAL PROJECT COST = \$16,354.06

	SUMMA	ARY OF CC	NSTRUCI	TION COST	г				
Timber Sale:		Round Be	11		Sale Number: FG-341-202	24-W00887-01			
Road Segment:		K to L		_	Construction: 14+80 stations				
					<u>0.28</u> r	niles			
PROJECT NO. 1: DIRT ROAD CONSTRU	CTION								
CONSTRUCTION									
Clearing & grubbing (scatter)	1.70	ac @	\$1,078.00	per ac =	\$1,832.60				
Balanced road construction	13.15	sta @	\$110.00	per sta =	\$1,446.50				
Drift	1.65	sta @	\$180.00	per sta =	\$297.00				
Turnout	1	ea @	\$66.00	per ea =	\$66.00				
Turnaround	1	ea @	\$82.50	per ea =	\$82.50				
Landing	1	ea @	\$220.00	per ea =	\$220.00				
Grade & roll (outslope)	9.50	sta @	\$32.20	per sta =	\$305.90				
Grade, ditch, & roll	5.30	sta @	\$36.00	per sta =	\$190.80				
				TOTAL	CONSTRUCTION COSTS =	\$4,441.30			
PROJECT NO. 3: ROAD VACATING AND	BLOCK	NG							
Construct tank trap	1	ea @	\$55.00	per ea =	\$55.00				
Rip dirt road surface	14.80	sta @	\$25.00	per sta =	\$370.00				
Rip & narrow landing	1	ea @	\$150.00	per ea =	\$150.00				
Grass seed & fertilizer	1.08	ac @	\$425.00	per ac =	\$459.00				
Mulch	1.08	ac @	\$600.00	per ac =	\$648.00				
					TOTAL VACATE COST =	\$1,682.00			
					TOTAL PROJECT COST =	\$6,123.30			

SUMMARY OF CONSTRUCTION COST

Round Bell			Sale	e Number:	FG-341-20	24-W00887-01
V1 to V2				Vacating:	23+60	stations miles
ING					0.45	
1	ea @	\$55.00	per ea =		\$55.00	
29.00	sta @	\$50.00	per sta =	:	\$1,450.00	
2,900	cy @	\$1.90	, per sta =	:	\$5,510.00	
3	ea @	\$150.00	per ea =		\$450.00	
7	ea @	\$150.00	per ea =		\$1,050.00	
2.48					\$1,054.00	
2.48	<u> </u>	\$600.00	•		\$1,488.00	
	V1 to V2 ING 1 29.00 2,900 3 7 2.48	V1 to V2 ING 1 ea @ 29.00 sta @ 2,900 cy @ 3 ea @ 7 ea @ 2.48 ac @	V1 to V2 ING 1 ea @ \$55.00 29.00 sta @ \$50.00 29.00 cy @ \$1.90 3 ea @ \$150.00 7 ea @ \$150.00 2.48 ac @ \$425.00	V1 to V2 ING 1 ea @ \$55.00 per ea = 29.00 sta @ \$50.00 per sta = 2,900 cy @ \$1.90 per sta = 3 ea @ \$150.00 per ea = 7 ea @ \$150.00 per ea = 2.48 ac @ \$425.00 per ac =	V1 to V2 Vacating: ING 1 ea @ \$55.00 per ea = 29.00 sta @ \$50.00 per sta = 2,900 cy @ \$1.90 per sta = 3 ea @ \$150.00 per ea = 7 ea @ \$150.00 per ea = 2.48 ac @ \$425.00 per ac =	V1 to V2Vacating: $23+60$ 0.45ING1ea @\$55.00per ea =\$55.0029.00sta @\$50.00per sta =\$1,450.002,900cy @\$1.90per sta =\$5,510.003ea @\$150.00per ea =\$450.007ea @\$150.00per ea =\$1,050.002.48ac @\$425.00per ac =\$1,054.00

SUMMARY OF CONSTRUCTION COST

Timber Sale:	Round Bell		_	Sale	Number:	FG-341-20	24-W00887
Road Segment:	V3 to V4		-		Vacating:	30+50 0.58	stations miles
PROJECT NO. 3: ROAD VACAT	ING						
Construct tank trap	1	ea @	\$55.00	per ea =		\$55.00	
Rip rocked road surface	14.25	sta @	\$50.00	per sta =		\$712.50	
Sidecast pullback & fill removal	7,373	cy @	\$1.90	per sta =		\$14,008.70	
Rip & narrow landing	1	ea @	\$150.00	per ea =		\$150.00	
Remove existing culverts	1	ea @	\$150.00	per ea =		\$150.00	
	2.94	ac @	\$425.00	per ac =		\$1,249.50	
Grass seed & fertilizer	2.04		· · - • · • •			φ., <u> </u>	

SUMMARY OF CONSTRUCTION COST

Timber Sale: Round Bell

Sale Number: FG-341-2024-W00887-01

Equipment	Total	
Brush Cutter	\$642.29	
Grader	\$1,042.97	
Roller (smooth/grid) & Compactor	\$642.29	
Excavator (Large) - Equipment Cleaning	\$2,042.97	
Dozer (Large) - Equipment Cleaning	\$2,087.55	
Dump Truck (10cy +)	\$173.96	
Water Truck (2,500 Gal)	\$174.12	
	TOTAL MOVE-IN COSTS =	\$6,806.15
PROJECT No. 3 MOVE-IN & CLEANING COSTS		
Equipment	Total	
Excavator (Large) - Equipment Cleaning	\$2,042.97	
	TOTAL MOVE-IN COSTS =	\$2,042.97

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

	Timber Sale:	Roi	und Bell		
	Sale Number:	FG-341-20	24-W00887-01		
	Stockpile Name:	Rock Creek	Ridge Stockpile	-	
	1 1/2" - 0:	866 cy	_(truck measure)		
Т	otal truck yardage:	866 cy	_		
Move-in					
Move in excavator					\$793.18
Move in loader					\$704.85
Move in Dump Trucks	;				\$102.93
				Subtotal =	\$1,600.96
				Per CY =	\$1.85/cy
1 1/2"-0 Base Cost				_	
Load dump truck	\$0.80	/ cy x	866	cy =	\$692.80
				Subtotal =	\$692.80
				Per CY =	\$0.80

1 1/2"-0 Cost = **\$2.65/cy**

Sale	nber Sale: _ e Number: _ rry Name: _	FG-341-202	nd Bell 4-W00887-01 Bottom	_	
Total truck Total in place	Riprap: _ _ Jaw-run: _ < yardage: _ e yardage: _	120 cy 8,307 cy 8,427 cy 6,823 cy	_(truck meası _(truck meası _	,	
-	size - Pile: _ Swell: _ mpaction: _	5% 130% 116%	- -		
Move-in & Other Base Cost Quarry development & overbu Equipment cleaning & move in Move in & setup drill Move in loader Move in & setup crusher Move in Dump Trucks Clean up quarry				Subtotal =	\$6,875.56 \$2,335.38 \$832.12 \$1,135.40 \$1,832.56 \$540.00 \$500.00 \$14,051.02
				Per CY =	\$1.67/cy
<u>6"-0 Jaw-run Base Cost</u> Drill & shoot Push rock Oversize - Pile Load crusher Crush (Jaw-run) Load dump truck	\$2.80 \$0.80 \$0.80 \$0.80 \$2.10 \$0.80	/ cy x / cy x / cy x / cy x / cy x / cy x	6,726 8,744 437 8,307 8,307 8,307 8,307	cy = cy = cy = cy = cy = cy = cy = Subtotal =	+)
Riprap Base Cost (36" - 24" & 24" Load dump truck Rip rock	- 12") \$1.60 \$2.10	/ cy x / cy x	<u>120</u> 120	Per CY = _cy = _cy = Subtotal = Per CY =	\$6.85/cy \$192.00 \$252.00 \$444.00 \$3.70
Ripr Jaw-run Ba	rap Cost = _ ase Cost = _	\$5.37/cy \$8.51/cy	_		

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

CRUISE REPORT Round Bell #FG-341-2024-W00887-01

1. LOCATION:

The sale is located in portions of Section 6, T2N, R5W; portions of Section 1, T2N, R6W; and portions of Section 31, T3N, R5W, W.M., Washington County, Oregon.

2. CRUISE DESIGN:

The timber cruise was designed using an estimated coefficient of variation (CV) of 54%, average stand diameter of 23 inches, sampling error (SE) of 9% and a minimum of 100 grade trees.

3. SAMPLING METHOD:

The Timber Sale Area was cruised in April of 2023 with 35 variable radius grade plots using a 40 BAF prism. Plots were 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:

150 trees were measured and graded producing a cumulative sampling error of 4.7% on the Douglas-fir Basal Area and 5.4% on the Douglas-fir Net Board Foot Volume.

5. TREE MEASUREMENT AND GRADING:

All sample trees were measured and graded following the Official Log Scaling and Grading Rules as adopted by the NW Log Rules Advisory Group. 40 foot segments were favored.

- a) **Height Standards:** Total tree heights were measured to the nearest foot. Bole heights were calculated to a six-inch top.
- b) **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 SuperAce 2008 cruise software.
- b) **Deductions:** The following percent volume deductions are by species to account for the hidden defect and breakage. For conifers two percent was deducted. For hardwoods five percent was deducted.

7. CRUISERS:

The sale was cruised by ODF cruisers Adrian Torres, Colton Turner, Mark Savage, and Shamus Smith.

Prepared by: <u>Adrian Torres</u> 05-08-2023

Reviewed by:	Mark Savage	05-08-2023
• —	-	Date

TC PSTATS					OJECT : OJECT		TICS NBELL			PAGE DATE	1 4/25/2023
WP RGE	SC	TRACT]	ГҮРЕ		ACI	RES	PLOTS	TREES	CuFt	BdFt
F3N R5	31	00U1	(00MC			112.00	35	160	S	W
					TREES]	ESTIMATED TOTAL		ERCENT SAMPLE		
		PLOTS	TREES		PER PLOT		TREES		TREES		
TOTAL		35	160		4.6						
CRUISE DBH COUNT REFOREST COUNT BLANKS 100 %		35	160		4.6		7,439		2.2		
				STA	ND SUMM	ARY					
	s	AMPLE	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		143	53.2	23.7	128	33.5	163.4	35,947	35,839	7,647	7,647
DOUG FIR-S		9	6.1	17.6	49	2.5	103.4	55,747	55,057	7,047	7,047
R ALDER		6	5.2	17.6	75	1.7	6.9	543	543	169	169
BL MAPLE-S		1	1.7	11.0	35	0.3	1.1	2.0			
GR FIR		1	.3	28.0	137	0.2	1.1	278	278	58	58
TOTAL		160	66.4	22.5	114	38.6	182.9	36,768	36,660	7,874	7,874
CL 68.1		COEFF			SAMPLE	TREES -	BF	#	OF TREES R	EQ.	INF. POP.
SD: 1.0		VAR.%	S.E.%	L	OW	AVG	HIGH	#	OF TREES R	EQ. 10	
			S.E.% 5.3	L				#		-	
SD: 1.0 DOUG FIR		VAR.%		L	OW	AVG	HIGH	#		-	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S		VAR.% 63.5	5.3	L	OW 847	AVG 895	HIGH 942	#		-	
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER		VAR.% 63.5	5.3	L	OW 847	AVG 895	HIGH 942	#		-	
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S		VAR.% 63.5	5.3	L	OW 847	AVG 895	HIGH 942	#		-	
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL		VAR.% 63.5 48.1	5.3 21.4	L	0W 847 101 764	AVG 895 128 811	HIGH 942 156 858		5 215	<u>10</u> 54]
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR		VAR.% 63.5 48.1 73.4	5.3 21.4		0W 847 101 764	AVG 895 128	HIGH 942 156 858		5	<u>10</u> 54	1
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1		VAR.% 63.5 48.1 73.4 COEFF	5.3 21.4 5.8		0W 847 101 764 SAMPLE	AVG 895 128 811 2 TREES -	HIGH 942 156 858 CF		5 215 OF TREES R	10 54 EQ.	INF. POP.
SD:1.0DOUG FIRDOUG FIR-SR ALDERBL MAPLE-SGR FIRTOTALCL68.1SD:1.0		VAR.% 63.5 48.1 7 <i>3.4</i> COEFF VAR.%	5.3 21.4 5.8 S.E.%		0W 847 101 764 SAMPLE 0W 178	AVG 895 128 811 2 TREES - AVG 186	HIGH 942 156 858 CF HIGH		5 215 OF TREES R	10 54 EQ.	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR-S R ALDER		VAR.% 63.5 48.1 7 <i>3.4</i> COEFF VAR.%	5.3 21.4 5.8 S.E.%		DW 847 101 764 SAMPLE DW	AVG 895 128 811 2 TREES - AVG	HIGH 942 156 858 CF HIGH		5 215 OF TREES R	10 54 EQ.	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3	5.3 21.4 5.8 <u>S.E.%</u> 4.5		0W 847 101 764 SAMPLE 0W 178	AVG 895 128 811 2 TREES - AVG 186	HIGH 942 156 858 CF HIGH 195		5 215 OF TREES R	10 54 EQ.	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR DOUG FIR BL MAPLE-S R ALDER BL MAPLE-S GR FIR		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6		0W 847 101 764 SAMPLE 0W 178 31	<u>AVG</u> 895 128 <u>811</u> C TREES - <u>AVG</u> 186 42	<u>НІGH</u> 942 156 <u>858</u> СF <u>НІGH</u> 195 53		5 215 OF TREES R 5	10 54 EQ. 10	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4	5.3 21.4 5.8 <u>S.E.%</u> 4.5		DW 847 101 764 SAMPLE DW 178 31 161	<u>AVG</u> 895 128 811 2 TREES - AVG 186 42 169	HIGH 942 156 858 CF HIGH 195	#	5 215 OF TREES R 5 160	10 54 EQ. 10 40	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0	L	0W 847 101 764 SAMPLE 0W 178 31 161 TREES/A	AVG 895 128 811 2 TREES - AVG 186 42 169 ACRE	<u>НІGH</u> 942 156 <u>858</u> СF <u>НІGH</u> 195 53 <i>178</i>	#	5 OF TREES R 5 160 OF PLOTS R	10 54 EQ. 10 40 EQ.	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0		VAR.% 63.5 48.1 73.4 COEFF VAR.% 63.4 COEFF VAR.%	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 S.E.%	L	DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 101	AVG 895 128 811 C TREES - AVG 186 42 169 AVG AVG	<u>НІGH</u> 942 156 <u>858</u> СF <u>НІGH</u> 195 53 <i>178</i> НІGH	#	5 215 OF TREES R 5 160	10 54 EQ. 10 40	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR BL MAPLE-S GR FIR TOTAL		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5	L	DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 49	AVG 895 128 811 CTREES - AVG 186 42 169 AVG 53	<u>НІGH</u> 942 156 <u>858</u> СF <u>НІGH</u> 195 53 <i>178</i> <u>НІGH</u> 57	#	5 OF TREES R 5 160 OF PLOTS R	10 54 EQ. 10 40 EQ.	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR BL MAPLE-S GR FIR TOTAL		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5 50.4	L	DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 49 3	AVG 895 128 811 CTREES - AVG 186 42 169 AVG 53 6	HIGH 942 156 858 CF HIGH 195 53 <i>178</i> HIGH 57 9	#	5 OF TREES R 5 160 OF PLOTS R	10 54 EQ. 10 40 EQ.	INF. POP.
SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3 332.4	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5	L	DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 49	AVG 895 128 811 CTREES - AVG 186 42 169 AVG 53	<u>НІGH</u> 942 156 858 СF <u>НІGH</u> 195 53 <i>178</i> <u>НІGH</u> 57 9 8	#	5 OF TREES R 5 160 OF PLOTS R	10 54 EQ. 10 40 EQ.	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR BL MAPLE-S GR FIR TOTAL		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5 50.4 56.1	L	DW 847 101 764 SAMPLE DW 0W 178 31 161 TREES/A DW 49 3 2 2	AVG 895 128 811 CTREES - AVG 186 42 169 AVG 53 6 5	HIGH 942 156 858 CF HIGH 195 53 <i>178</i> HIGH 57 9	#	5 OF TREES R 5 160 OF PLOTS R	10 54 EQ. 10 40 EQ.	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR DOUG FIR BL MAPLE-S R ALDER BL MAPLE-S		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3 332.4 591.6	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5 50.4 56.1 99.9	L	DW 847 101 764 SAMPLE DW 0W 178 31 161 TREES/A DW 49 3 2 0	AVG 895 128 811 CTREES - AVG 186 42 169 AVG 53 6 5 2	HIGH 942 156 858 CF HIGH 195 53 178 HIGH 57 9 8 3	#	5 OF TREES R 5 160 OF PLOTS R	10 54 EQ. 10 40 EQ.	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3 332.4 591.6 591.6 591.6 48.8	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5 50.4 56.1 99.9 99.9	L	DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 3 2 0 0 61	AVG 895 128 811 C TREES - AVG 186 42 169 AVG 53 6 5 2 0 66	HIGH 942 156 858 CF HIGH 195 53 178 HIGH 57 9 8 3 1 72	#	5 OF TREES R 5 160 OF PLOTS R 5 95	10 54 EQ. 10 EQ. 10 24	INF. POP.
SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR DOUG FIR-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR-S R ALDER DOUG FIR-S R ALDER BL MAPLE-S GR FIR BL MAPLE-S GR FIR		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3 332.4 591.6 591.6	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5 50.4 56.1 99.9 99.9		DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 3 2 0 0 61	AVG 895 128 811 CTREES - AVG 186 42 169 AVG 53 6 5 2 0	HIGH 942 156 858 CF HIGH 195 53 178 HIGH 57 9 8 3 1 72	#	5 215 OF TREES R 5 160 OF PLOTS R 5	10 54 EQ. 10 EQ. 10 24	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR DOUG FIR BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR BL MAPLE-S GR FIR BL MAPLE-S GR FIR TOTAL CL 68.1		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3 332.4 591.6 591.6 48.8 COEFF	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5 50.4 56.1 99.9 99.9 99.9 8.2		DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 49 3 2 0 0 61 BASAL A	AVG 895 128 811 CTREES - AVG 186 42 169 AVG 53 6 5 2 0 66 AVG	HIGH 942 156 858 CF HIGH 195 53 <i>178</i> HIGH 57 9 8 3 1 72 8 RE	#	5 OF TREES R 5 160 OF PLOTS R 5 95 OF PLOTS R	10 54 EQ. 10 EQ. 10 24 EQ.	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR DOUG FIR DOUG FIR SD: 1.0 CL 68.1 SD: 1.0 DOUG FIR OUG FIR ODUG FIR DOUG FIR DOUG FIR DOUG FIR DOUG FIR DOUG FIR DOUG FIR BL MAPLE-S R ALDER BL MAPLE-S GR FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 CL 68.1 SD: 1.0		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3 332.4 591.6 591.6 48.8 COEFF VAR.%	5.3 21.4 5.8 S.E.% 4.5 26.6 5.0 S.E.% 7.5 50.4 56.1 99.9 99.9 8.2 S.E.%		DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 49 3 2 0 0 61 BASAL A DW	AVG 895 128 811 CTREES - AVG 186 42 169 AVG 53 6 5 2 0 66 CRE AVG 53 6 5 2 0 66	HIGH 942 156 858 CF HIGH 195 53 178 HIGH 57 9 8 3 1 72 RE HIGH	#	5 OF TREES R 5 160 OF PLOTS R 5 95 OF PLOTS R	10 54 EQ. 10 EQ. 10 24 EQ.	INF. POP.
SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 DOUG FIR-S R ALDER		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3 332.4 591.6 591.6 48.8 COEFF VAR.% 28.1	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5 50.4 56.1 99.9 99.9 99.9 8.2 <u>S.E.%</u> 4.7		DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 49 3 2 0 61 BASAL A DW 156	AVG 895 128 811 CTREES - AVG 186 42 169 ACRE AVG 53 6 5 2 0 66 CREA/ACI AVG 163	НІGH 942 156 858 CF HIGH 195 53 178 НІGH 57 9 8 3 1 72 8 E НІGH 171	#	5 OF TREES R 5 160 OF PLOTS R 5 95 OF PLOTS R	10 54 EQ. 10 EQ. 10 24 EQ.	INF. POP.
SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S CL 68.1 SD: 1.0 DOUG FIR-S CL 68.1 SD: 1.0 DOUG FIR-S CL 68.1		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3 332.4 591.6 591.6 591.6 48.8 COEFF VAR.% 28.1 255.6	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5 50.4 56.1 99.9 99.9 99.9 8.2 <u>S.E.%</u> 4.7 43.2		DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 49 3 2 0 61 BASAL A DW 156 6	AVG 895 128 811 CTREES - AVG 186 42 169 AVG 53 6 5 2 0 66 AVG AVG 163 10	HIGH 942 156 858 CF HIGH 195 53 178 HIGH 57 9 8 3 1 72 8 E HIGH 171 15	#	5 OF TREES R 5 160 OF PLOTS R 5 95 OF PLOTS R	10 54 EQ. 10 EQ. 10 24 EQ.	INF. POP.
SD: 1.0 DOUG FIR DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER BL MAPLE-S GR FIR TOTAL CL 68.1 SD: 1.0 DOUG FIR-S R ALDER		VAR.% 63.5 48.1 73.4 COEFF VAR.% 53.3 59.7 63.4 COEFF VAR.% 44.3 298.3 332.4 591.6 591.6 591.6 591.6 48.8 COEFF VAR.% 28.1 255.6 331.4	5.3 21.4 5.8 <u>S.E.%</u> 4.5 26.6 5.0 <u>S.E.%</u> 7.5 50.4 56.1 99.9 99.9 99.9 8.2 <u>S.E.%</u> 4.7 43.2 56.0		DW 847 101 764 SAMPLE DW 178 31 161 TREES/A DW 49 3 2 0 61 BASAL A DW 156 6 3	AVG 895 128 811 CTREES - AVG 186 42 169 AVG 53 6 5 2 0 66 CRE AVG 163 10 7	HIGH 942 156 858 CF HIGH 195 53 178 HIGH 57 9 8 3 1 72 8 E HIGH 171 15 11	#	5 OF TREES R 5 160 OF PLOTS R 5 95 OF PLOTS R	10 54 EQ. 10 EQ. 10 24 EQ.	INF. POP.

TC PSI	TATS				PROJECT project		<u>STICS</u> unbell			PAGE DATE	2 4/25/2023
TWP	RGE	SC	TRACT	TYI	PE	A	CRES	PLOTS	TREES	CuFt	BdFt
T3N	R5	31	00U1	00M	C		112.00	35	160	S	W
CL	68.1		COEFF		NET BI	F/ACRE			# OF PLOTS R	REQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15
DOU	G FIR		32.2	5.4	33,893	35,839	37,785				
DOU	G FIR-S										
R AL	DER		323.8	54.7	246	543	840				
BL M	IAPLE-S										
GR F	IR		591.6	99.9	0	278	556				
TOT	AL		29.7	5.0	34,818	36,660	38,502		35	9	4
CL	68.1		COEFF		NET C	UFT FT/A	CRE		# OF PLOTS F	REQ.	INF. POP.
SD:	1.0		VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15
DOU	G FIR		30.2	5.1	7,258	7,647	8,037				
DOU	G FIR-S										
R AL	DER		318.4	53.8	78	169	260				
BL M	IAPLE-S										
GR F	IR		591.6	99.9	0	58	115				
TOT	AL		26.9	4.5	7,517	7,874	8,232		29	7	-

TC	C PSPCSTGR Species, Sort Grade - Board Foot Volumes (Project)																			
ΤΊ	T3N RR	5W S31	Ty00MC		112.00		Project:	RC	DUNB								Page Date		1 25/202	
							Acres		112.0	DO							Time	2:	:19:30	PM
			%					Pere	cent of N	Net Boar	rd Foot	Volume					Avera	age Log	g	Logs
	SS	So Gr	Net	Bd. Ft	. per Acre		Total		Log Sca	ale Dia.			Log	Length		Ln	Dia	Bd	CF/	Per
Spp	Т	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														24	9		0.00	1.5
DF		2M	83	.3	29,887	29,790	3,337			38	62	0		0	100	40	16	444	2.22	67.1
DF		3M	15	.2	5,423	5,412	606		99	1		1	1	6	92	38	8	103	0.75	52.3
DF		4M	2		636	636	71		100			21	79			23	6	29	0.40	21.9
DF	Totals	5	98	.3	35,947	35,839	4,014		17	32	51	0	2	1	97	37	12	251	1.46	142.9
DF	S	CU														25	8		0.00	9.6
DF	Totals	5														25	8		0.00	9.6
RA		CU														15	7		0.00	3.7
RA		CR	100		543	543	61		81	19		19	27	16	38	31	9	96	0.96	5.7
RA	Totals	s	1		543	543	61		81	19		19	27	16	38	25	8	58	0.73	9.4
BM	S	CU														17	7		0.00	1.7
BM	Total	ls														17	7		0.00	1.7
GF		2M	95		265	265	30			29	71				100	40	17	495	2.43	.5
GF		3M	5		13	13	1		100					100		34	6	50	0.63	.3
GF	Totals	s	1		278	278	31		5	28	67			5	95	38	13	347	1.89	.8
T -1				0.2	26.760	26.660	4.105		10	22	<i>.</i>				0.6	25		222	1.05	164.4
Tota	ıls			0.3	36,768	36,660	4,106		18	32	51	1	2	1	96	35	11	223	1.37	1

TC I	PSTNDSU	JM				5	Stand T	Table St	ummary				Page Date:	1 4/25/20	23
TT3N	RR5W S	31 Ty00MC	2	112.	00		Project	t R	OUNBEI	L			Time:	2:19:3	IPM
							Acres		112.0	0			Grown Year:		
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	T o t a l s Cunits	MBF
DF	10	1	88	75	2.095	1.14	2.10	12.8	60.0	.76	27	126	85	30	14
DF	11 12	1	88 88	90 80	1.732 1.455	1.14 1.14	1.73 1.46	10.7 18.5	40.0 70.0	.53 .77	19 27	69 102	59 86	21 30	8 11
DF DF	12	1	86	103	2.138	2.29	4.28	18.1	70.0	2.21	27	321	247	30 87	36
DF	15	1	89	101	.931	1.14	1.86	21.7	95.0	1.15	40	177	129	45	20
DF	17	1	85	116	.725	1.14	1.45	29.1	120.0	1.20	42	174	135	47	19
DF	18	3	89	118	1.940	3.43	3.88	33.0	140.0	3.65	128	543	409	143	61
DF	19	5	88	125	2.902	5.71	8.13	30.7	128.6	7.11	249	1,045	796	279	117
DF	20 21	1 8	86 87	135 124	.524 3.801	1.14 9.14	1.57 9.50	32.9 40.7	146.7 173.0	1.47 11.03	52 387	230 1,644	165 1,235	58 433	26 184
DF DF	21	8 7	87 87	124	3.031	9.14 8.00	9.30 9.09	40.7	175.0	11.03	375	1,044	1,235	433	184 194
DF	23	12	87	131	4.753	13.71	13.47	45.9	206.8	17.62	618	2,785	1,973	692	312
DF	24	16	87	135	5.821	18.29	17.10	50.1	224.5	24.42	857	3,838	2,735	960	430
DF	25	9	88	143	3.017	10.29	9.05	56.4	261.9	14.56	511	2,370	1,630	572	265
DF	26	13	87	142	4.030	14.86	12.71	58.2	271.7	21.06	739	3,453	2,359	828	387
DF	27	8 14	87 86	138 140	2.299 3.742	9.14 16.00	6.90	63.2	290.8 316.7	12.43	436	2,006	1,392 2,450	488 860	225 408
DF DF	28 29	14 6	86	140	1.495	6.86	11.49 4.48	66.8 71.9	337.8	21.88 9.19	768 322	3,640 1,515	1,029	361	408 170
DF DF	30	7	87	145	1.630	8.00	5.12	74.9	372.7	10.93	384	1,909	1,224	430	214
DF	31	6	88	149	1.308	6.86	4.14	85.8	433.2	10.13	355	1,794	1,134	398	201
DF	32	6	86	150	1.228	6.86	3.89	90.8	455.3	10.07	353	1,770	1,127	396	198
DF	33	4	88	149	.770	4.57	2.31	102.0	524.2	6.71	236	1,210	752	264	136
DF	34	6	88	149	1.088	6.86	3.44	103.6	540.5	10.17	357	1,862	1,139	400	208
DF	36 37	3	87	144	.485	3.43	1.46	118.5	618.9	4.91 1.45	172 51	901 245	550 162	193 57	101
DF DF	57 54	1	85 87	125 165	.153 .072	1.14 1.14	.46 .29	110.7 226.9	533.3 1315.0	1.45	65	245 378	208	57	27 42
DF	Totals	143	87	128	53.165	163.43	141.35	54.1	253.5	217.95	7,647	35,839	24,411	8,565	4,014
RA	12	1	74	79	1.455	1.14	1.46	20.2	60.0	.81	29	87	91	33	10
RA	13	1	74	55	1.240	1.14	1.24	20.0	50.0	.68	25	62	77	28	7
RA	15	1	92	85	.931	1.14	.93	32.3	150.0	.83	30	140	93	34	16
RA	18	1	74	79	.647	1.14	.65	42.6	130.0	.76	28	84	85	31	9
RA	20	1	74	96	.524	1.14	1.05	24.6	100.0	.71	26	105	79	29	12
RA	24 Totals	1	74	67	.364	1.14	.36	86.9	180.0	.87	32	65	97	35	7
RA GF	28	6	77 87	75 137	.267	6.86 1.14	5.68 .80	29.8 71.9	95.6 346.7	4.66	169 58	543 278	522	190 65	61
GF	Totals	1		137	.267	1.14	.80	71.9	346.7	1.27	58	278	142	65	31
BM S	11	1	72		1.732	1.14									
BM S	Totals	1	72	35	1.732	1.14									
DF S	11	1	86	20	1.732	1.14									
DF S	16	2	85	35	1.637	2.29									
DF S	20	2	86	83	1.048	2.29									
DF S	21	1	85	120	.475	1.14									
DF S	22	2	86 57	61 25	.866	2.29									
DF S	25 Totals	1	57 84	25	.335	1.14									
DF S Totals	rotals	9	84	49	6.093	10.29	1/7 0/	52.2	2400	172.00	1071	36 660	25.074	0 010	1 104
TOTALS		160	86	114	66.417	182.86	147.84	53.3	248.0	223.88	7,874	36,660	25,074	8,819	4,106

TC	PLOGSTVB
TC	PLOGSTVB

Log Stock Table - MBF

TC PLO	GSTVB				Log S	Stock '	Table -	MBF								
TT3N RR5W S31 Ty00MC 112.00					Project: ROUNBELL Acres 112.00							Page 1 Date 4/25/2023 Time 2:19:29PM				
s	So Gr	Log	Gross	Def Net	%		1	<u>Net Volu</u>	ne by S	caling D	iamete	<u>r in Inche</u>	es			
Spp Т	rt de	Len	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+
DF	2M	14	1	1	.0						1					
DF	2M	34	5	5	.1						5					
DF	2M	40	3,342	3,331	83.0						405	463	1525	641	259	37
DF	3M	20	4	4	.1				1	3						
DF	3M	26	1	1	.0				1							
DF	3M	28	1	1	.0			1								
DF	3M	30	4	4	.1			4								
DF	3M	32	23	23	.6			20	3							
DF	3M	34	12	12	.3			12								
DF	3M	36	22	22	.6			19	3							
DF	3M	38	27	27	.7			25	2							
DF	3M	40	513	512	12.7			78	127	299	8					
DF	4M	12	1	1	.0			1								
DF	4M	14	3	3	.1			2	0							
DF	4M	18	7	7	.2			7								
DF	4M	20	4	4	.1			4								
DF	4M	22	4	4	.1			4								
DF	4M	24	23	23	.6			14	9							
DF	4M	26	9	9	.2			9								
DF	4M	28		7				7								
DF	4M	30	14	14	.3			14								
DF	Totals		4,026	4,014	97.8			221	146	302	419	463	1525	641	259	37
RA	CR	16		5							5					
RA	CR	20		7							7					
RA	CR	30		16				7		9						
RA	CR	34		10				10								
RA	CR	40	23	23	37.8					23				 		
RA	Totals		61	61				17		32	12					
GF	2M	40	30	30	95.2							9		21		
GF	3M	34	1	1	4.8			1								
GF	Totals		31	31	.8			1				9		21		
Total	All Species		4,118	4,106	100.0			240	146	334	430	472	1525	662	259	37

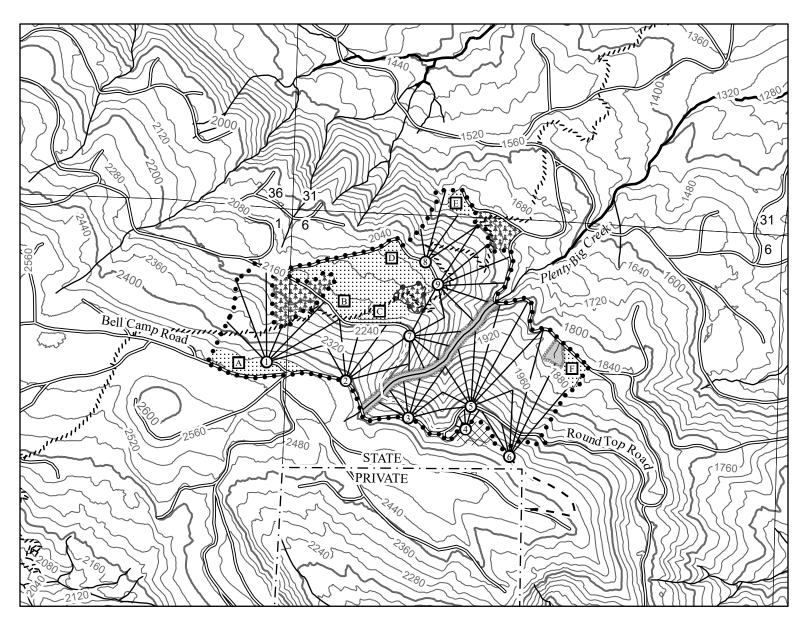
VOLUME SUMMARY (Shown in MBF) Round Bell FG-341-2024-W00887-01 May 2023

TIMBER SALE AREA: Modified Clearcut (112 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	Camp Run	TOTAL
	Cruise Volume	3,337	606	71	0	4,014
Douglas-fir	Hidden D&B (2%)	(67)	(12)	(1)	(0)	(80)
Douglas-III	NET TOTAL	3,270	594	70	0	3,934
	% of Total	83	15	2	0	
	Cruise Volume	0	0	0	61	61
Red alder	Hidden D&B (5%)	(0)	(0)	(0)	(3)	(3)
	NET TOTAL	0	0	0	58	58
	% of Total	0	0	0	100	

SALE TOTAL

SPECIES	2 SAW	3 SAW	4 SAW	Camp Run	TOTAL
Douglas-fir	3,270	594	70	0	3,934
Red alder	0	0	0	58	58
Total	3,270	594	70	58	3,992



Legend

- • Timber Sale Boundary
- Stream Buffer Boundary
- -. ODF Ownership
- · Boundary
- Posted Reserve Tree Area Boundary
- Surfaced Road
- = = = : Unsurfaced Road
- - New Road Construction
- ····· Recreational Trail
- ----- Type-F Stream
- Stream Buffer
- Cable Yarding Area
- Tractor Yarding Area
- O Cable Landing
- - Tractor Landing
 - $\stackrel{*}{\searrow}$ No Harvest Area
 - Section Line
 - 40 Foot Contour Band
 - 200 Foot Contour Band

LOGGING PLAN

FOR TIMBER SALE CONTRACT #FG-341-2024-W00887-01 PORTIONS OF SECTION 31, T3N, R5W, PORTIONS OF SECTION 6, T2N, R5W, PORTIONS OF SECTION 1, T2N, R6W, W.M., WASHINGTON COUNTY, OREGON

> Forest Grove District GIS May, 2023 This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.

APROXIMATE NET	ACRES
TRACTOR	CABLE

TOTAL 22 90

1:12,000

$$1 \text{ inch} = 1,000 \text{ feet}$$

 500
 1,000
 2,000

 Feet