



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Miller Minute
Sale WO-341-2026-W01271-01

District: West Oregon

Date: February 05, 2026

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$2,519,466.60	\$0.00	\$2,519,466.60
		Project Work:	(\$51,736.00)
		Advertised Value:	\$2,467,730.60



Timber Sale Appraisal Miller Minute Sale WO-341-2026-W01271-01

District: West Oregon

Date: February 05, 2026

Timber Description

Location: T11S R08W, Section 19; T11S R09W, Section 13

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	18	0	98

Volume by Grade	2S	3S & 4S 6"-11"	Total
Douglas - Fir	4,549	1,137	5,686
Total	4,549	1,137	5,686

Comments: Pond Values Used: Local Pond Values, January 2026

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost: \$238.10/MBF = \$543.00/MBF - \$304.90/MBF

Western redcedar and Other conifers Stumpage Price = Pond Value minus Logging Cost: \$1035.10/MBF = \$1340.00/MBF - \$304.90/MBF

Red alder and Other Hardwoods Stumpage Price = Pond Value minus logging cost: \$535.00 - \$304.90 = \$230.10/MBF

PULP (Conifer and Hardwood Price) = \$3.00/TON

Other Costs (with Profit & Risk to be added): Equipment Cleaning (Invasive Species): \$2,000
TOTAL Other Costs (Profit & Risk added) = \$2,000

Other Costs (No Profit & Risk added): None

ROAD MAINTENANCE

Move-in:(Roller, Grader) \$1,900

Final Road Maintenance: \$19,213.25

TOTAL Road Maintenance: \$21,113.25/5,686 = \$3.71/MBF

SLASH DISPOSAL

Move-In and Weed Wash = \$2,000

171 hours @ \$175/hr = \$29,837.50

Landing Slash Piling and sorting out firewood: 7 Landings @ \$200/Landing = \$1400

Total Slash Disposal = \$31,837.50



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Logging Conditions

Combination#: 1	Douglas - Fir	78.00%
Logging System:	Shovel	Process: Harvester Head Delimbing
yarding distance:	Short (400 ft)	downhill yarding: No
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	20	bd. ft / load: 4800
cost / mbf:	\$104.17	
machines:	Forwarder Harvester	

Combination#: 2	Douglas - Fir	22.00%
Logging System:	Cable: Medium Tower >40 - <70	Process: Manual Falling/Delimbing
yarding distance:	Short (400 ft)	downhill yarding: No
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	13.5	bd. ft / load: 4800
cost / mbf:	\$123.12	
machines:	Log Loader (A) Tower Yarder (Medium)	



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District: West Oregon

Date: February 05, 2026

Logging Costs

Operating Seasons: 2.00	Profit Risk: 12%
Project Costs: \$51,736.00	Other Costs (P/R): \$0.00
Slash Disposal: \$31,837.50	Other Costs: \$0.00

Miles of Road

Road Maintenance: \$3.71

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	4.2
Alder (Red)	\$0.00	2.0	3.8



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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$108.34	\$3.78	\$1.54	\$151.79	\$0.00	\$31.85	\$5.60	\$2.00	\$0.00	\$304.90

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$748.00	\$443.10	\$0.00



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Timber Sale Appraisal
Miller Minute
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District: West Oregon

Date: February 05, 2026

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	5,686	\$443.10	\$2,519,466.60

Gross Timber Sale Value

Recovery: \$2,519,466.60

Prepared By: Isabelle Doan

Phone: 541-929-3266

SUMMARY OF ALL PROJECT COSTS

Sale Name: Miller Minute

Date: May 2026

Time: 13:54

Project #1 - Construction

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A to B	5.3 sta	\$2,306
TOTALS	5.3 sta	\$2,306

Project #2 - Improvements

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
1 to 2	199.6 sta	\$28,216
2 to 3	16.5 sta	\$2,303
3 to 4	44.6 sta	\$6,024
5 to 6	3.8 sta	\$2,955
7 to 8	5.9 sta	\$237
9 to 10	9.4 sta	\$695
11 to 12	5.5 sta	\$780
13 to 14	2.0 sta	\$495
15 to 16	3.8 sta	\$642
17 to 18	23.4 sta	\$2,233
TOTALS	314.5 sta	\$44,580

Project #3 - Move in

	<u>Cost</u>
Excavator, C325 or equiv.	\$1,500
Dozer, D-6 or equiv.	\$950
Grader, Cat 14-G or equiv.	\$950
Vibratory roller	\$950
Road Brusher	\$500
TOTAL	\$4,850

GRAND TOTAL

\$51,736

Compiled by: Isabelle Doan

Date 05/05/2026

SUMMARY OF CONSTRUCTION COST

SALE Miller Minute Project # 1 LENGTH 5.3 sta
ROAD A to B

CLEARING AND GRUBBING

			<u>Rate</u>		
Road and Landing	0.37 ac	@	\$1,470.00	/acre =	\$544
TOTAL CLEARING AND GRUBBING =					\$544

EXCAVATION

			<u>Rate</u>		
Construct road	5.3 sta	@	\$152.00	/sta =	\$806
Construct landing	1 ldg	@	\$480.00	/ldg =	\$480
Shape subgrade (w/ grader)	5.3 sta	@	\$22.69	/sta =	\$120
Compact subgrade (w/ roller)	5.3 sta	@	\$17.50	/sta =	\$93
TOTAL EXCAVATION =					\$1,499

SURFACING

		<u>Size</u>	<u>Rate</u>		
Junction patch rock	10 CY	Jaw-Run	@	\$26.25	/CY = \$263
TOTAL ROCK COST =					\$263

Compiled by: Isabelle Doan
Date: May 5, 2026

GRAND TOTAL =====> \$2,306

SUMMARY OF CONSTRUCTION COST

SALE Miller Minute Project # 2 LENGTH 199.6 sta
ROAD 1 to 2

IMPROVEMENT

			<u>Rate</u>			
Process surface	115.4 sta	@	\$22.69	/sta	=	\$2,618
(w/ grader)						
Compact surface	115.4 sta	@	\$17.50	/sta	=	\$2,020
(w/ roller)						
Bank slough removal (w/excavator)	3.5 hrs	@	\$160.00	/hr	=	\$560
(Sta. 104+20, 125+00, 127+50, 154+40)						
Endhaul waste	40 CY	@	\$2.50	/CY	=	\$100
Ditch re-establishment	37.1 sta	@	\$48.00	/sta	=	\$1,781
(Sta. 106+50 to 112+90 , 119+80 to 138+50, 175+20 to 187+20)						
TOTAL IMPROVEMENT =						\$7,079

SURFACING

		<u>Size</u>	<u>Rate</u>			
Spot rock	150 CY	1½"-0"	@	\$28.61	/CY	= \$4,292
Surface rock (2" lift)	190 CY	1½"-0"	@	\$28.61	/CY	= \$5,436
(Sta. 7+30 to 25+00)						
Culvert bedding rock	170 CY	1½"-0"	@	\$28.61	/CY	= \$4,864
(8 culverts)						
TOTAL ROCK COST =						\$14,592

SPECIAL PROJECTS

			<u>Rate</u>			
Clean out culverts	4 culverts	@	\$25.00	ea	=	\$100
(inlets and outlets)						
Culvert disposal	4 culverts	@	\$100.00	ea	=	\$400
Cross drain culvert	250 ft	@	\$16.50	/ft	=	\$4,125
(7 @18"x30' and 1 @ 18"x40')						
Install culverts (w/ excavator)	12 hrs	@	\$160.00	/hr	=	\$1,920
TOTAL SPECIAL PROJECTS COST =						\$6,545

Compiled by: Isabelle Doan
Date: May 5, 2026

GRAND TOTAL =====> \$28,216

SUMMARY OF CONSTRUCTION COST

SALE	Miller Minute	Project #	2	LENGTH	16.5 sta
ROAD	2 to 3				

EXCAVATION

Widen road junction (w/ grader) (Sta. 0+00)	1 hr	@	<u>Rate</u> \$125.00	/hr	=	\$125
						TOTAL EXCAVATION = \$125

IMPROVEMENT

Process surface (w/ grader)	16.5 sta	@	<u>Rate</u> \$22.69	/sta	=	\$374
Compact surface (w/ roller)	16.5 sta	@	\$17.50	/sta	=	\$289
Ditch re-establishment (Sta. 4+10 to 5+10)	1.0 sta	@	\$48.00	/sta	=	\$48
						TOTAL IMPROVEMENT = \$711

SURFACING

Junction rock (Sta. 0+00)	10 CY	<u>Size</u> 3"-0"	@	<u>Rate</u> \$27.26	/CY	=	\$273
Spot rock	40 CY	1½"-0"	@	\$28.61	/CY	=	\$1,144
						TOTAL ROCK COST = \$1,417	

SPECIAL PROJECTS

Clean out culverts (inlets and outlets)	2 culverts	@	<u>Rate</u> \$25.00	ea	=	\$50
						TOTAL SPECIAL PROJECTS COST = \$50

Compiled by:	Isabelle Doan
Date:	May 5, 2026

GRAND TOTAL =====> \$2,303

SUMMARY OF CONSTRUCTION COST

SALE	Miller Minute	Project #	2	LENGTH	44.6 sta
ROAD	3 to 4				

EXCAVATION

			<u>Rate</u>				
Construct landing (Sta. 30+40)	1 hr	@	\$140.00	/hr	=	\$140	
Construct turnout (Sta. 18+00)	0.5 hrs	@	\$125.00	/hr	=	\$63	
						TOTAL EXCAVATION =	\$203

IMPROVEMENT

			<u>Rate</u>				
Process surface (w/ grader)	44.6 sta	@	\$22.69	/sta	=	\$1,012	
Compact surface (w/ roller)	44.6 sta	@	\$17.50	/sta	=	\$781	
Ditch re-establishment (Sta. 0+00 to 8+60)	8.6 sta	@	\$48.00	/sta	=	\$413	
Re-shapeand process turnaround (Sta.44+60)	0.5 hrs	@	\$125.00	/hr	=	\$63	
						TOTAL IMPROVEMENT =	\$2,269

SURFACING

		<u>Size</u>		<u>Rate</u>			
Spot rock	40 CY	1½"-0"	@	\$28.61	/CY	=	\$1,144
Landing rock (sta.30+40)	30 CY	Jaw-Run	@	\$26.25	/CY	=	\$788
Turnout rock (sta. 18+00)	20 CY	3"-0"	@	\$27.26	/CY	=	\$545
Turnaround rock (sta. 44+60)	40 CY	Jaw-Run	@	\$26.25	/CY	=	\$1,050
						TOTAL ROCK COST =	\$3,527

SPECIAL PROJECTS

			<u>Rate</u>				
Clean out culvert Sta. 26+10 (inlets and outlets)	1 culvert	@	\$25.00	ea	=	\$25	
						TOTAL SPECIAL PROJECTS COST =	\$25

Compiled by:	Isabelle Doan
Date:	May 5, 2026

GRAND TOTAL =====> \$6,024

SUMMARY OF CONSTRUCTION COST

SALE Miller Minute
ROAD 5 to 6

Project # 2

LENGTH 3.8 sta

IMPROVEMENT

			<u>Rate</u>			
Re-open road (w/ dozer)	3.8 sta	@	\$41.00	/sta	=	\$156
Re-open landing (w/ dozer)	0.5 hrs	@	\$140.00	/hr	=	\$70
Process surface (w/ grader)	7.6 sta	@	\$22.69	/sta	=	\$172
Compact surface (w/ roller)	7.6 sta	@	\$17.50	/sta	=	\$133

TOTAL IMPROVEMENT = \$531

SURFACING

		<u>Size</u>		<u>Rate</u>		
Surface rock (3"lift)	60 CY	3"-0"	@	\$27.26	/CY	= \$1,636
Landing rock (sta. 3+80)	30 CY	Jaw-Run	@	\$26.25	/CY	= \$788

TOTAL ROCK COST = \$2,424

Compiled by:
Date:

Isabelle Doan
May 5, 2026

GRAND TOTAL =====> \$2,955

SUMMARY OF CONSTRUCTION COST

SALE Miller Minute Project # 2 LENGTH 5.9 sta
ROAD 7 to 8

IMPROVEMENT

Process surface 5.9 sta @ Rate \$22.69 /sta = \$134
(w/ grader)

Compact surface 5.9 sta @ \$17.50 /sta = \$103
(w/ roller)

TOTAL IMPROVEMENT = \$237

Compiled by: Isabelle Doan
Date: May 5, 2026

GRAND TOTAL =====> \$237

SUMMARY OF CONSTRUCTION COST

SALE Miller Minute Project # 2 LENGTH 9.4 sta
ROAD 9 to 10

IMPROVEMENT

			<u>Rate</u>			
Road brushing (Light)	0.18 mi	@	\$880.00	/mi	=	\$158
Sod and debris removal (w/ grader)	9.4 sta	@	\$16.95	/sta	=	\$159
Process surface (w/ grader)	9.4 sta	@	\$22.69	/sta	=	\$213
Compact surface (w/ roller)	9.4 sta	@	\$17.50	/sta	=	\$165
TOTAL IMPROVEMENT =						\$695

Compiled by:
Date:

Isabelle Doan
May 5, 2026

GRAND TOTAL =====> \$695

SUMMARY OF CONSTRUCTION COST

SALE	Miller Minute	Project #	1	LENGTH	const	5.5 sta
ROAD	11 to 12					

IMPROVEMENT

			<u>Rate</u>			
Re-open road	5.5 sta	@	\$41.00	/sta	=	\$226
(w/ dozer)						
Re-open landing	0.5 hrs	@	\$140.00	/hr	=	\$70
(w/ dozer)						
Shape surface	5.5 sta	@	\$22.69	/sta	=	\$125
(w/ grader)						
Compact surface	5.5 sta	@	\$17.50	/sta	=	\$96
(w/ roller)						

TOTAL IMPROVEMENT = \$517

SURFACING

		<u>Size</u>	<u>Rate</u>			
Junction patch rock	10 CY	Jaw-Run	@	\$26.25	/CY	= \$263

TOTAL ROCK COST = \$263

Compiled by:	Isabelle Doan
Date:	May 5, 2026

GRAND TOTAL =====> \$780

SUMMARY OF CONSTRUCTION COST

SALE	Miller Minute	Project #	2	LENGTH	2.0 sta
ROAD	13 to 14				

IMPROVEMENT

			<u>Rate</u>			
Re-open road (w/ dozer)	2.0 sta	@	\$41.00	/sta	=	\$82
Re-open landing (w/ dozer)	0.5 hrs	@	\$140.00	/hr	=	\$70
Shape surface (w/ grader)	2.0 sta	@	\$22.69	/sta	=	\$45
Compact surface (w/ roller)	2.0 sta	@	\$17.50	/sta	=	\$35
TOTAL IMPROVEMENT =						\$232

SURFACING

		<u>Size</u>	<u>Rate</u>			
Junction patch rock	10 CY	Jaw-Run	@	\$26.25	/CY	= \$263
TOTAL ROCK COST =						\$263

Compiled by:	Isabelle Doan	GRAND TOTAL =====>	\$495
Date:	May 5, 2026		

SUMMARY OF CONSTRUCTION COST

SALE	Miller Minute	Project #	2	LENGTH	3.8 sta
ROAD	15 to 16				

IMPROVEMENT

			<u>Rate</u>			
Re-open road (w/ dozer)	3.8 sta	@	\$41.00	/sta	=	\$156
Re-open landing (w/ dozer)	0.5 hrs	@	\$140.00	/hr	=	\$70
Shape surface (w/ grader)	3.8 sta	@	\$22.69	/sta	=	\$86
Compact surface (w/ roller)	3.8 sta	@	\$17.50	/sta	=	\$67
TOTAL IMPROVEMENT =						\$379

SURFACING

		<u>Size</u>	<u>Rate</u>			
Junction patch rock	10 CY	Jaw-Run	@	\$26.25	/CY	= \$263
TOTAL ROCK COST =						\$263

Compiled by:	Isabelle Doan	GRAND TOTAL =====>	\$642
Date:	May 5, 2026		

SUMMARY OF CONSTRUCTION COST

SALE Miller Minute Project # 2 LENGTH 23.4 sta
ROAD 17 to 18

IMPROVEMENT

			<u>Rate</u>			
Re-open road (w/ dozer)	23.4 sta	@	\$41.00	/sta	=	\$959
Re-open landing (w/ dozer)	0.5 hrs	@	\$140.00	/hr	=	\$70
Shape surface (w/ grader)	23.4 sta	@	\$22.69	/sta	=	\$531
Compact surface (w/ roller)	23.4 sta	@	\$17.50	/sta	=	\$410

TOTAL IMPROVEMENT = \$1,970

SURFACING

		<u>Size</u>	<u>Rate</u>			
Junction patch rock	10 CY	Jaw-Run	@	\$26.25	/CY	= \$263

TOTAL ROCK COST = \$263

Compiled by: Isabelle Doan
Date: May 5, 2026

GRAND TOTAL =====> \$2,233

SUMMARY OF MAINTENANCE COST

SALE	Miller Minute	Final log haul Maintenance Cost Estimate (Costed in appraisal, not in project costs)
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
20	20	20
21	21	21
22	22	22
23	23	23
24	24	24
25	25	25
26	26	26
27	27	27
28	28	28
29	29	29
30	30	30
31	31	31
32	32	32
33	33	33
34	34	34
35	35	35
36	36	36
37	37	37
38	38	38
39	39	39
40	40	40
41	41	41
42	42	42
43	43	43
44	44	44
45	45	45
46	46	46
47	47	47
48	48	48
49	49	49
50	50	50
51	51	51
52	52	52
53	53	53
54	54	54
55	55	55
56	56	56
57	57	57
58	58	58
59	59	59
60	60	60
61	61	61
62	62	62
63	63	63
64	64	64
65	65	65
66	66	66
67	67	67
68	68	68
69	69	69
70	70	70
71	71	71
72	72	72
73	73	73
74	74	74
75	75	75
76	76	76
77	77	77
78	78	78
79	79	79
80	80	80
81	81	81
82	82	82
83	83	83
84	84	84
85	85	85
86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

Move-in	Grader	\$	950
	Vibratory Roller	\$	950

Road Segment	Length	Cost/Sta	Cost	Mileage
1 to 2	199.6	\$40.19	\$8,021.92	3.78
2 to 3	16.5	\$40.19	\$663.14	0.31
3 to 4	44.6	\$40.19	\$1,792.47	0.84
5 to 6	3.8	\$40.19	\$152.72	0.07
Total	264.5		\$10,630.25	5.00

Maintenance Rock:

Size	Volume	Cost/CY	Cost
1½"-0"	300	\$28.61	\$8,583.00

Grand Total	\$ 21,113.25
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TS Volume 5,686 MBF

Cost / MBF = \$3.71

Rock Haul Cost Computation

SALE NAME:	Miller Minute	DATE:	May 5, 2026
ROAD NAME:	All	CLASS:	Medium
ROCK SOURCE:	Rickard		10 CY truck
Route:	Hwy 20 to Cline Creek to Miller Creek		

TIME Computation:

Road speed time factors:

1.	55 MPH	31.2	MRT	34.0	minutes
2.	50 MPH		MRT	0.0	minutes
3.	45 MPH		MRT	0.0	minutes
4.	40 MPH		MRT	0.0	minutes
5.	35 MPH		MRT	0.0	minutes
6.	30 MPH		MRT	0.0	minutes
7.	25 MPH		MRT	0.0	minutes
8.	20 MPH		MRT	0.0	minutes
9.	15 MPH	8.2	MRT	32.8	minutes
10.	10 MPH		MRT	0.0	minutes
11.	05 MPH		MRT	0.0	minutes

Dump or spread time per RT		0.50	minutes
Total hauling cycle time for this setting (100% efficiency)		67.30	minutes

Operator efficiency correction	0.85	79.18	minutes
Job efficiency correction	0.90	87.98	minutes

Truck capacity (CY)	10.00	8.80	min/CY
Loading time, delay time per CY		0.25	min/CY
TIME (minutes) per cubic yard		9.05	min/CY

COST per CY computation

Cost of truck and operator per hour	\$100.00 /hr.
Cost of truck and operator per minute	\$1.67 /min

Cost per CY	\$15.11 /CY
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Size	Cost/Yd (Pit)	Cost Delivered w/o processing
1½" - 0"	\$ 13.50	\$28.61
3" - 0"	\$ 12.15	\$27.26
Jaw-Run	\$ 11.14	\$26.25
Pit-Run	\$ 9.45	\$24.56

TIMBER CRUISE REPORT

Miller Minute (WO-341-2026-W01271-01) FY 2026

1. **Sale Area Location:** Portions of Section 13, T11S, R09W; Portions of section 19 T11S, R08W, W.M., Lincoln County, Oregon.
2. **Fund Distribution:**
 - a. **Fund** BOF 41% CSL 59%
3. **Sale Acreage by Area:**

Unit	Treatment	Gross Acres	Stream Buffers	Slope Buffers	Existing Roads	New Roads	Green Tree Area	Net Sale Acres	Acreage Comp. Method
1	Clearcut	74	10	3	4	<1	-	57	GIS
2	Clearcut	103	14	1	7	-	2	79	GIS
Total		177	24	4	11	<1	2	136	GIS

4. **Cruisers and Cruise Dates:** The sale was cruised by Isabelle Doan, Jamie Gassner, and Jeff Kuust in January of 2026.
5. **Cruise Method and Computation:** The sale consists of two clearcut units. Unit 1 and 2 are clearcuts that were cruised using variable radius plot sampling on a 5 x 5 chain grid using a 40 BAF. A total of 47 plots were taken in Unit 1 and 2 with 23 measure plots and 24 count plots.

Measure plots were measured for DBH, height, form factor, grade, and defect. Data was entered into the Atterbury SuperACE cruise program to determine stand statistics and net board foot volume. Additional volume was removed to account for hidden defect and breakage.

Digital ortho photos, Lidar data, and GPS data were used to map the boundaries for the sale, and ArcPro GIS was used to determine gross and net acreage.

6. **Measurement Standards:** Tree heights were measured to the nearest foot, to a top diameter of 5 inches inside bark or to 40% of dob at 16' form point. Diameters at breast height (DBH) were measured to the nearest inch, and a form point of 16 feet was used to calculate form factor. Form factors were measured or estimated on every tree. Most trees were graded in 40-foot log segments unless breakage, defect, or length to top of grade cruise diameter warranted otherwise.
7. **Timber Description:** Timber in Unit 1 includes 50 acres of predominately 54-year-old Douglas-fir with some scattered red alder and 7 acres of predominately 20-year-old Douglas-fir with scattered Western redcedar and Western hemlock. Unit 2 includes 79 acres of predominately 58 year-old Douglas-fir with some scattered red alder. The average Douglas-fir to be removed is approximately 18 inches DBH, with an average total height of 95 feet. The average volume per acre to be harvested (net) is approximately 41.8 MBF/Acre.
8. **Statistical Analysis and Stand Summary:** (See attached "Statistics").

Unit	Target CV	Target SE	Actual CV	Actual SE
1&2	50%	8%	37.6	5.5

Note: Statistics shown are for conifer and hardwood trees combined. Percentages are for net board foot volume.

9. **Total Volume (MBF) by Species and Grade:** (See attached volume report “Species, Sort, Grade – Mbf by Species, Sort, Grade, Len, Dia Class”).

Unit	Species	Gross Cruise Volume	Cruised D & B	Cruised D & B (MBF)	Hidden D & B	Hidden D & B (MBF)	Net Sale Volume
1&2	Douglas-fir	5875	1.2%	(73)	2%	(116)	5686
Totals		5875	1.2%	73	2%	116	5686

Unit	Species	Ave. DBH	Net Vol.	2-Saw	3-Saw	4-Saw
1	Douglas-fir	18	Grade %	80%	18%	2%
			5686	4549	1023	114
Totals			5686	4549	1023	114

Attachments: Cruise Design
Cruise Maps
Statistics
Species, Sort Grade – Mbf by Species, Sort, Grade, Len, Dia Class
Stand Summary Report
Log Stock Table – MBF

Prepared by: Isabelle Doan

Date: 1/28/26

Unit Forester: 
Cody Valencia

Date: 1/30/26

CRUISE DESIGN WEST OREGON DISTRICT

Sale Name: Miller Minute **Area** 1 and 2

Harvest Type: CC

Approx. Cruise Acres: 139 **Estimated CV%** 50 /Acre **SE% Objective** 8 /Acre

Planned Sale Volume: 3.6 MMBF **Estimated Sale Area Value/Acre:** \$ 17,100

- A. Cruise Goals:** (a) Grade minimum 100 conifer trees:
 (b) Sample 48 cruise plots (24 grade: 24 count); (c) Other goals X Determine log grades for sale value; Determine take and leave tree species and sizes.

(Special cruising directions – leave trees etc.) Take plots as shown on map. Do not take plots in buffers.

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

DO NOT RECORD 22' LENGTHS.

B. Cruise Design:

- 1. Plot Cruises:** BAF 40 Full point
 Cruise Line Direction(s) 90, 270
 Cruise Line Spacing 5, 330 (chains) (feet)
 Cruise Plot Spacing 5, 330 (chains) (feet)
 Grade/Count Ratio 1:1

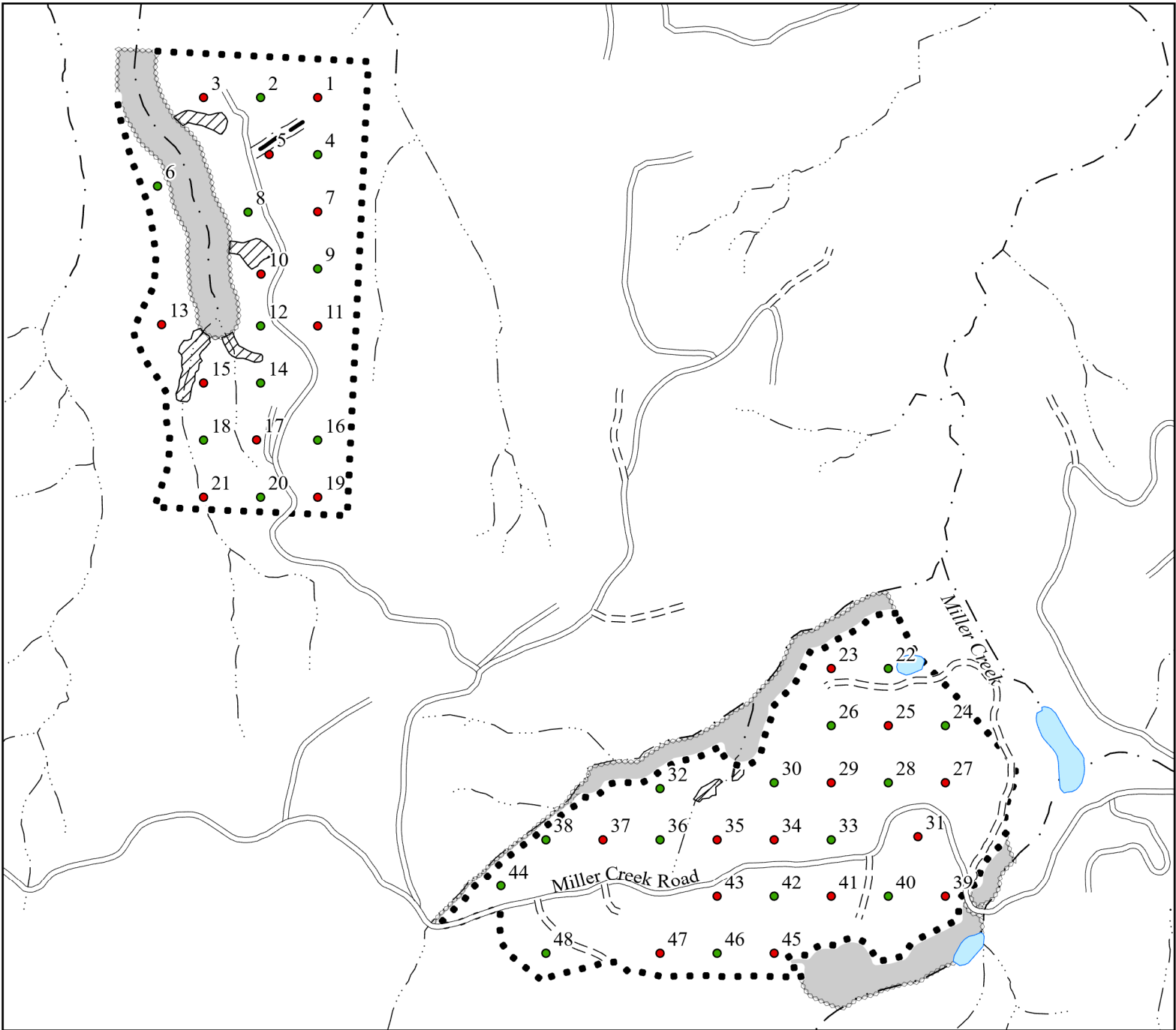
C. Tree Measurements:

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 10" for hardwoods.
 Record dbh to nearest ½" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD):** Minimum top outside bark for conifer is 5", 7" for hardwoods or 40 % of dob at 16' form point. Generally, use 6" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.
- 4. Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.
- 5. Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for

hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. log segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

- 6. Species, Sort, and Grade Codes:** A. Species: Record as DF (Douglas-fir); WH (Western hemlock); SS (Sitka Spruce); RC (Western red cedar); NF (Noble fir); SF (Silver fir); RA (Red alder); BM (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DFL, HL, CL, etc.)
B. Sort: Use code "1" (Domestic).
C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; K = Camp Run; 0 = Cull ;
Hardwoods: K = Camprun; #1 Sawmill = 12"+ scaling diameter; #2 Sawmill = 10" and 11"; #3 Sawmill = 8" and 9"; #4 Sawmill = 6" and 7"
- 7. Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
- 8. Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning points with red flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie red flagging above eye level near plot center and another red flagging around a sturdy wooden stake marking plot center. On red flagging, write the plot identification number. On "measure/grade" plots write the tree number and/or tree diameter on all measured trees (clockwise from the line direction) in yellow paint. Mark leave trees with an L for leave.
ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.
- 9. Cruising Equipment:** Relaskop, Rangefinder, Logger's Tape (with dbh on back), Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Red Flagging, Yellow Paint.
- 10. Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

Cruise Design by: Isabelle Doan
Approved by: _____
Date: 11/18/2025



Legend

Plot Type

Count

Measure

Timber Sale Boundary

Type F Stream

Type N Stream

Surfaced

Unsurfaced

New Construction

StreamBuffer

No Harvest - Inner Gorge

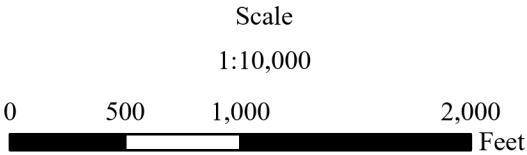
Waterbodies

CRUISE MAP

OF TIMBER SALE
MILLER MINUTE

PORTIONS OF SECTION 19, T11S R8W;
PORTIONS OF SECTION 13, T11S R9W,
W.M., LINCOLN COUNTY, OREGON

BAF: 40
Cruise Line Bearing: 90 and 270
Line Spacing: 5x5 Chains
Mark DBH with yellow paint
Mark plot center with red flagging



	GROSS AREA	NET ACRES	ACRES
1 (MC)	74	59	
2 (MC)	103	80	
TOTAL	177	139	



Statistics of Sampled Population

State, County: OR LINCOLN

Lths: ACI-2023

Species: WEST ORE

Page: 1/1

Project: MILLER MINUTE

#Plots 47

Sort: WEST ORE

Date: 02/04/2026

Tract: CC

Trees: 240

Grade: WEST ORE

Cruised: 01/20/2026

Stand: 1

Measured Trees: 107

Price: ACI-2018

Grown To:

Acres: 136.00

Count Trees: 133

Cost: ACI-2023

Edited: 02/04/2026

Sample data collection information

	Total Plots	Sample Trees	Trees /Plot	Trees /Acre	Est Total Trees	% Sample Trees
Basal Plots (B)	22	107	4.86	69.765	9,487	1.13
Basal DBH Count Plots (B)	25	129	5.16	84.109	11,438	1.13
Basal Count Plots (B)	2	4	2.00	.000		.00

Stand Summary - Averages

Species Group	St	Sample Tres	QM Dbh	Avg Total Ht	Trees /Acre	Basal Area /Acre	RD %	Mbf CV %	Mbf SE %	Tons /Acre	Net Ccf /Acre	Net Mbf /Acre	Total Net Ccf	Total Net Mbf
DOUG FIR		106	18.1	95	153.873	274.00	64.46	37.6	5.5	331	116.08	42.660	15,787	5,802
		106	18.1	95	153.873	274.00	64.46	37.6	5.5	331	116.08	42.660	15,787	5,802

Confidence Level (CL) 95.44 out of 100.

Standard Deviation (SD) 1.00

Coefficient of Variation % (CV) and Stand Error of Estimate % (SE) are both computed from plot data

Measured Unit	SD	CL	CV%	SE%	per-Acre Range			Plots Required for SE%			Total Volume Range		
					Low	Avg	High	5%	10%	15%	Low	Avg	High
Net Mbf (1000 BdFt)	1.00	95.44	37.62	5.49	40.32	42.66	45.00	56	14	6	5,483	5,802	6,120
Net Ccf (100 CuFt)	1.00	95.44	37.50	5.47	109.73	116.08	122.43	56	14	6	14,924	15,787	16,650
Net Tons	1.00	95.44	37.50	5.47	312.74	330.83	348.92	56	14	6	42,532	44,993	47,454
Basal Area	1.00	95.44	33.31	4.86	264.96	278.50	292.03	44	11	4			
Trees	1.00	95.44	50.23	7.33	142.60	153.87	165.15	100	25	11			

					per-Tree Range			Sample Trees Required		
					Low	Avg	High	5%	10%	15%
Sample Trees BF	1.00	95.44	54.55	4.71	354	372	389	119	29	13
Sample Trees CF	1.00	95.44	48.63	4.20	95	99	103	94	23	10

Trees per Plot		Number Required		
Required Measured Trees per Plot - BdFt per Acre		2	2	2
Required Measured Trees per Plot - CuFt per Acre		1	1	1

Species, Sort, Grade - Mbf by Species, Sort, Grade, Len, Dia Class

State, County: OR LINCOLN

Lths and Dias: ACI-2023

Species: WEST ORE

Page: 1/1

Project: MILLER MINUTE

Plots: 47

Sort: WEST ORE

Date: 02/04/2026

Tract: CC

Trees: 240

Grade: WEST ORE

Cruised: 01/20/2026

Stand: 1

Meas Trees: 107

Price: ACI-2018

Grown To:

Acres: 136.00

Count Trees: 133

Cost: ACI-2023

Edited: 02/04/2026

Log Len Class				Total Gross				Total		Net Mbf Percent (%) by Log Scaling Diameter Classes																
				Total Tons	Total Mbf	% Def	Net Mbf	% Tot Mbf	2-4	5-7	8-11	12-17	18-23	24-29	30-39	40-99										
DF	Stat	Srt	Grd	DO	2M	92	264	50	0.0	50	0.9								0.3	19	16.3	196	1.879	185	5.3	1.9
DF		DO	2M	DO	24-27	13	37	4	0.0	4	0.1	0.1							0.2	26	5.0	30	.944	333	9.5	0.4
DF		DO	2M	DO	32-35	66	188	14	0.0	14	0.2	0.2							0.9	34	5.1	38	2.778	464	13.2	0.5
DF		DO	2M	DO	36-39	57	164	12	0.0	12	0.2	0.2							0.7	37	5.2	40	2.107	498	14.2	0.5
DF		DO	2M	DO	40+	11,988	34,166	4,631	1.4	4,566	78.7	2.5	15.5	54.9	5.8				55.2	40	12.1	218	154.221	263	7.5	1.4
DF		DO	3M	DO	12-15	104	296	32	0.0	32	0.6	0.6							2.3	13	5.1	13	18.578	322	9.2	0.3
DF		DO	3M	DO	16-21	276	787	93	0.0	93	1.6	1.6							5.9	19	5.2	20	34.152	296	8.4	0.3
DF		DO	3M	DO	22-23	60	172	14	0.0	14	0.2	0.2							1.0	22	5.1	20	4.942	445	12.7	0.4
DF		DO	3M	DO	24-27	63	180	21	0.0	21	0.4	0.4							1.2	25	5.1	30	5.148	298	8.5	0.4
DF		DO	3M	DO	28-31	136	387	33	0.0	33	0.6	0.6							2.2	29	5.1	30	8.112	409	11.6	0.4
DF		DO	3M	DO	32-35	64	183	17	0.0	17	0.3	0.3							1.0	34	5.2	40	3.133	375	10.7	0.4
DF		DO	3M	DO	36-39	486	1,386	146	1.9	143	2.5	0.8	1.7						5.1	37	7.1	69	15.230	340	9.7	0.6
DF		DO	3M	DO	40+	2,063	5,880	693	0.7	688	11.9	3.5	7.7	0.6					17.5	40	8.4	103	48.993	300	8.5	0.8
DF		DO	4M	DO	16-21	130	372	60	0.0	60	1.0	1.0							3.3	16	5.7	20	21.985	217	6.2	0.3
DF		DO	4M	DO	24-27	52	148	20	0.0	20	0.3	0.3							1.0	24	5.5	30	4.763	267	7.6	0.3
DF		DO	4M	DO	28-31	65	186	18	0.0	18	0.3	0.3							1.1	28	5.8	30	4.335	367	10.5	0.4
DF		DO	4M	DO	32-35	69	198	17	0.0	17	0.3	0.3							1.2	32	5.3	30	4.230	400	11.4	0.4
DF	Totals					15,787	44,993	5,875	1.2	5,802	100.0	12.9	24.9	56.4	5.8				33	9.0	127	335.530	272	7.8	1.0	
DF						Percent Total Vol of Species:																				
Totals All Species						15,787	44,993	5,875	5,802			100.0	12.9	24.9	56.4	5.8			33	9.0	127	335.530	272	7.8	1.0	

Stand Summary Report

State, County: OR LINCOLN

Lths & Dias: ACI-2023

Species WEST ORE

Page: 1/1

Project: MILLER MINUTE

Plots: 47

Sort: WEST ORE

Date: 02/04/2026

Tract: CC

Trees: 240

Grade: WEST ORE

Cruised: 01/20/2026

Stand: 1

Measured Trees: 107

Price: ACI-2018

Grown To:

Acres: 136.00

Count Trees: 133

Cost: ACI-2023

Edited: 02/04/2026

Spp	St	Dbh	Smpl Trees	Avg Age	Avg FF	Avg Total Ht	Trees /Ac	BA /Ac	Logs /Ac	Ht/D Inches	Net Per Log		Net Per Acre			BdFt Def %	Total Net		
											CuFt	BdFt	Tons	CuFt	BdFt		Tons	Ccf	Mbf
DF		8	3	50	86	27	9.968	3.48	9.968	40.1	4	20	1	43	199	0.0	168	59	27
DF		10	2	50	85	70	4.270	2.33	6.379	83.7	9	37	2	59	234	0.0	231	81	32
DF		11	2	50	81	46	3.883	2.56	3.883	50.2	11	30	1	45	117	0.0	173	61	16
DF		13	2	50	85	71	2.560	2.36	3.780	65.6	17	50	2	64	190	0.0	247	87	26
DF		14	1	50	81	83	1.213	1.30	2.427	70.8	18	50	1	44	121	0.0	169	59	17
DF		15	3	50	83	118	3.028	3.72	7.063	94.1	23	77	5	160	546	1.7	620	218	74
DF		16	5	50	84	103	4.365	6.09	9.594	76.9	25	84	7	244	804	1.0	944	331	109
DF		17	2	50	85	104	1.481	2.33	2.962	73.2	31	99	3	93	294	2.7	361	127	40
DF		18	7	50	85	96	88.678	157.85	196.125	64.0	34	126	192	6,721	24,636	1.2	26,049	9,140	3,351
DF		19	7	50	87	113	3.954	7.78	10.086	71.4	34	121	10	343	1,216	0.0	1,329	466	165
DF		20	10	50	85	115	5.902	12.88	14.400	68.8	36	123	15	517	1,767	0.9	2,002	702	240
DF		21	16	50	86	119	7.597	18.27	21.761	68.3	38	136	24	829	2,960	2.2	3,212	1,127	403
DF		22	8	50	86	120	3.508	9.26	9.682	65.6	41	160	11	399	1,549	0.6	1,546	542	211
DF		23	11	50	86	123	4.422	12.76	12.409	64.0	45	173	16	558	2,152	1.0	2,162	759	293
DF		24	11	50	86	126	4.058	12.75	11.782	62.9	51	200	17	605	2,353	1.5	2,345	823	320
DF		25	6	50	87	128	1.957	6.67	5.870	61.4	55	216	9	320	1,266	2.1	1,242	436	172
DF		26	8	50	85	128	2.524	9.30	7.571	59.2	59	233	13	447	1,762	0.6	1,734	608	240
DF		27	1	50	88	133	0.276	1.10	0.829	59.1	68	293	2	56	243	0.0	219	77	33
DF		31	1	50	84	141	0.230	1.21	0.690	54.6	90	363	2	62	251	8.3	241	84	34
DF			106	50	85	95	153.873	274.00	337.260	64.3	34	126	331	11,608	42,660	1.2	44,993	15,787	5,802
RA			0	0		0	0.000	4.50	0.000							0.0			
RA			0	0	0	0	0.000	4.50	0.000		0	0				0.0			
Stands/Project:			106	50	85	95	153.873	278.50	337.260	64.3	34	126	331	11,608	42,660	1.2	44,993	15,787	5,802

Log Stock - Mbfb by Species, Sort, Grade, Len, Dia Class

State, County: OR LINCOLN

Lths And Dias ACI-2023

Species: WEST ORE

Page: 1/1

Project: MILLER MINUTE

Plots: 47

Sort: WEST ORE

Date: 02/04/2026

Tract: CC

Trees: 240

Grade: WEST ORE

Cruised: 01/20/2026

Stand: 1

Measured Trees: 107

Price: ACI-2018

Grown To:

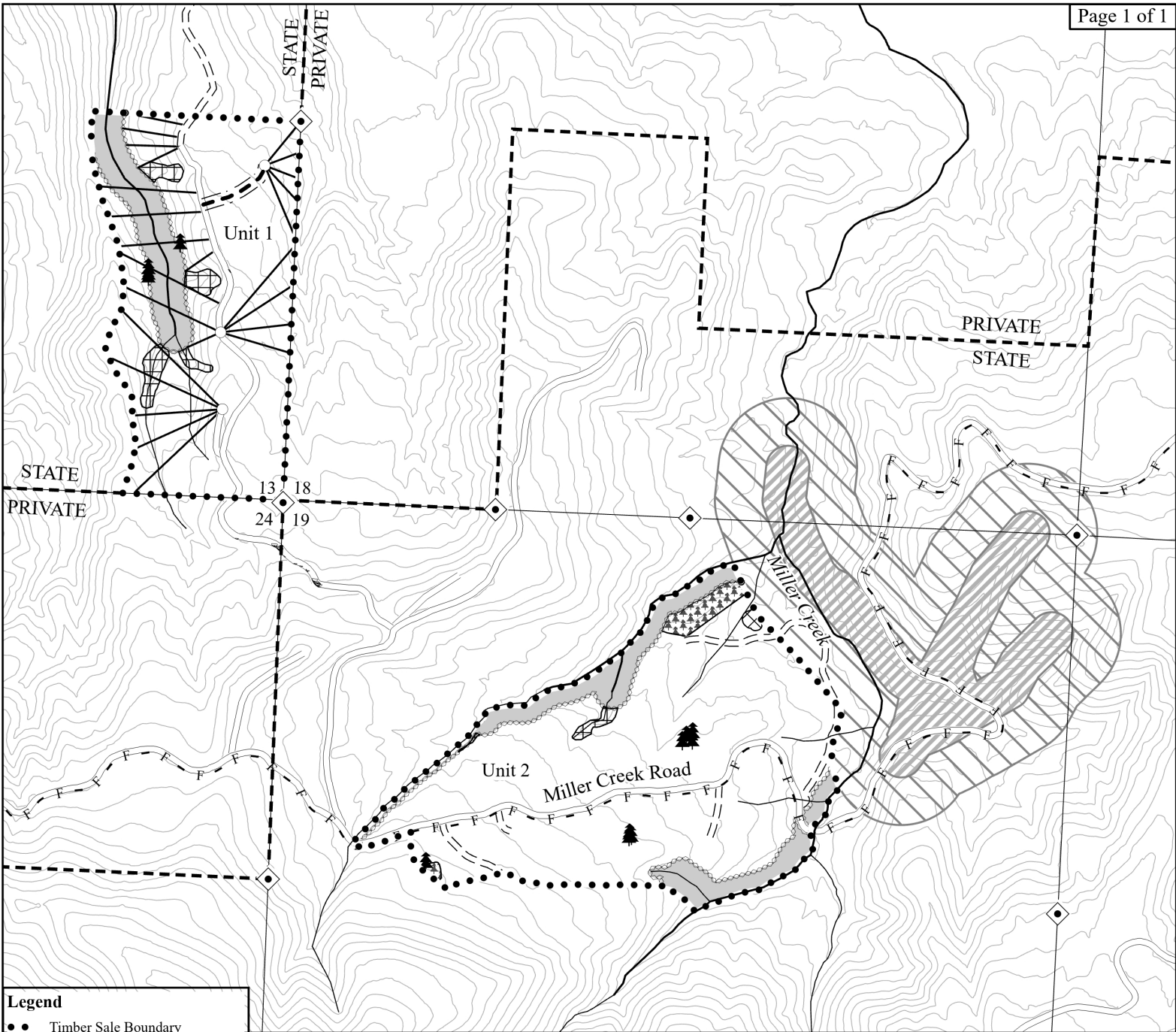
Acres: 136.00

Count Trees: 133

Cost: ACI-2023

Edited: 02/04/2026

Species	Stat us	Srt	Grd	Log Len Class	Gross Mbfb	% Def	Net Mbfb	% Spp	BdFt Per Acre	Net Mbfb by Scaling Diameter in Inches							
										2-4	5-7	8-11	12-17	18-23	24-29	30-39	40-99
DF		DO	2M	16-21	50	.0	50	0.9	368				50				
DF		DO	2M	24-27	4	.0	4	0.1	28		4						
DF		DO	2M	32-35	14	.0	14	0.2	105		14						
DF		DO	2M	36-39	12	.0	12	0.2	85		12						
DF		DO	2M	40+	4,631	1.4	4,566	78.7	33,574		147	901	3,184	335			
DF		DO	3M	12-15	32	.0	32	0.6	237		32						
DF		DO	3M	16-21	93	.0	93	1.6	687		93						
DF		DO	3M	22-23	14	.0	14	0.2	99		14						
DF		DO	3M	24-27	21	.0	21	0.4	155		21						
DF		DO	3M	28-31	33	.0	33	0.6	245		33						
DF		DO	3M	32-35	17	.0	17	0.3	126		17						
DF		DO	3M	36-39	146	1.9	143	2.5	1,051		46	97					
DF		DO	3M	40+	693	.7	688	11.9	5,057		203	449	36				
DF		DO	4M	16-21	60	.0	60	1.0	442		60						
DF		DO	4M	24-27	20	.0	20	0.3	144		20						
DF		DO	4M	28-31	18	.0	18	0.3	131		18						
DF		DO	4M	32-35	17	.0	17	0.3	128		17						
DF Total					5,875	1.2	5,802	100.0	42,660		751	1,446	3,270	335			
Stand(s)/Project Totals					5,875	1.2	5,802	100.0	42,660								
Percent Measured Tree Net Mbfb =									100.0		751	1,446	3,270	335			



- Legend**
- Timber Sale Boundary
 - - - Ownership
 - [Hatched Box] Slope Buffer
 - [Cross-hatched Box] Stream Buffer
 - [X Box] No Harvest - Other
 - [Star Box] Green Tree Retention Area
 - [Wavy Box] Marbled Murrelet Management Area
 - [Diagonal Box] Occupied Habitat
 - [Dashed Box] Non-Habitat Buffer
 - Surfaced Road
 - - - Unsurfaced Road
 - - - New Road Construction
 - - - Right-of-Way
 - Type F Stream
 - Type N Stream
 - F - Fiber Optic Line
 - Landing
 - Cable Corridor
 - 🌲 Upland Wildlife Tree
 - ◆ Land Survey Monument

LOGGING MAP

OF TIMBER SALE CONTRACT NO. WO-341-2026-W01271-01
 MILLER MINUTE
 PORTIONS OF SECTION 19, T11S R8W;
 PORTIONS OF SECTION 13, T11S R9W,
 W.M., LINCOLN COUNTY, OREGON

UNIT	CABLE TRACTOR	
	ACRES	ACRES
1	30	27
2	0	79
TOTAL	30	106

This product is for informational use and may not have been prepared for or be suitable for legal, engineering or survey purposes. Variations may exist between and among data sets in use by the Department of Forestry. Users of this information should review or consult the primary data and information sources to ascertain the usability of this information.

Scale

1:12,000

