Timber Sale Appraisal
Cline Miller Thin

Sale WO-341-2021-W00360-01

District: West Oregon

Date: May 29, 2020

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$205,435.41	$0.00	$205,435.41
		Project Work:	($23,873.00)
		Advertised Value:	$181,562.41

Timber Sale Appraisal
Cline Miller Thin
Sale WO-341-2021-W00360-01

District: West Oregon **Date: May 29, 2020**

Timber Description

Location: Portions of sections 17, 19 & 20, T11S, R08W, W.M., Lincoln County, Oregon.

Stand Stocking: 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	12	0	97

Volume by Grade	2S	3S & 4S 6"-11"	Total
Douglas - Fir	11	1,010	1,021
Total	11	1,010	1,021

Comments: Pond Values Used: Local Pond Values, April, 2020

Western Hemlock and Other Conifers: $19.29/MBF = $2.50/TON X (27 TONS/ 3.5 MBF)

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost:
$16.97/MBF = $530/MBF - $513.03/MBF

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
$226.97/MBF = $890/MBF - ($513.03/MBF + $150/MBF(Extra Haul Cost))

PULP (Conifer and Hardwood Price) = $2.50/TON

Other Costs (with Profit & Risk to be added):
Intermediate Support/Tail Trees: 25 supports @ $100/support = $2,500.
TOTAL Other Costs (with Profit & Risk to be added) = $2,500

Other Costs (No Profit & Risk added):
Equipment Cleaning (Invasive Species): $2,000
Water Bar and Block Dirt Roads: 8.5 stations @ $15.96/station = $136
Landing Slash Piling and sorting out firewood: 6 Landings @ $180/Landing = $1080
Landing Slash Piling: 2 Landing @ $100/Landing = $200
TOTAL Other Costs (No Profit & Risk added) = $3,416

ROAD MAINTENANCE
Move-in: (Grader) $875
Move-in: (Front-end Loader for Stockpile) $875
Final Road Maintenance: $10,401.80
TOTAL Road Maintenance: $12,151.80/1,021MBF = $11.90/MBF

Timber Sale Appraisal
Cline Miller Thin
Sale WO-341-2021-W00360-01

District: West Oregon **Date: May 29, 2020**

Logging Conditions

Combination#: 1 Douglas - Fir 47.00%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Manual Falling/Delimbing

yarding distance: Long (1,500 ft) **downhill yarding:** No

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 5 **bd. ft / load:** 3500

cost / mbf: $377.14

machines: Log Loader (A)
Tower Yarder (Medium)

Combination#: 2 Douglas - Fir 6.00%

Logging System: Shovel **Process:** Manual Falling/Delimbing

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

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 9 **bd. ft / load:** 3500

cost / mbf: $125.00

machines: Shovel Logger

Combination#: 3 Douglas - Fir 47.00%

Logging System: Cable: Medium Tower >40 - <70 **Process:** Manual Falling/Delimbing

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

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 6 **bd. ft / load:** 3500

cost / mbf: $314.29

machines: Log Loader (A)
Tower Yarder (Medium)

Timber Sale Appraisal
Cline Miller Thin
Sale WO-341-2021-W00360-01

District: West Oregon **Date: May 29, 2020**

Logging Costs

Operating Seasons:	3.00	**Profit Risk:**	12%
Project Costs:	$23,873.00	**Other Costs (P/R):**	$2,500.00
Slash Disposal:	$0.00	**Other Costs:**	$3,416.00

Miles of Road

Road Maintenance: $11.92

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	3.0	3.5

Timber Sale Appraisal
Cline Miller Thin

Sale WO-341-2021-W00360-01

District: West Oregon

Date: May 29, 2020

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
$332.47	$12.28	$12.90	$93.19	$2.45	$54.39	$0.00	$2.00	$3.35	$513.03

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$714.24	$201.21	$0.00

Timber Sale Appraisal
Cline Miller Thin
Sale WO-341-2021-W00360-01

District: West Oregon **Date: May 29, 2020**

Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,021	$201.21	$205,435.41

Gross Timber Sale Value

Recovery: $205,435.41

Prepared By: Zane Sandborg **Phone:** 541-929-9163

SUMMARY OF ALL PROJECT COSTS

Sale Name: Cline Miller Thin Date: June 2020
Time: 16:37

Project #1 - Road Construction

Road Segment	Length	Cost	
Pt. A to Pt. B	6.1 sta	$3,170	
Pt. C to Pt. D	2.4 sta	$1,198	
TOTALS	8.5 sta	$4,368	$4,368

Project #2 - Road Improvement

Road Segment	Length	Cost	
Pt. 1 to Pt. 2	239.7 sta	$1,901	
Pt. 2 to Pt. 3	18.5 sta	$2,430	
Pt. 4 to Pt. 5	4.7 sta	$2,442	
Pt. 6 to Pt. 7	41.4 sta	$649	
Pt. 7 to Pt. 8	14.4 sta	$3,045	
Pt. 9 to Pt. 10	114.7 sta	$1,217	
Pt. 10 to Pt. 11	13.3 sta	$1,716	
Pt. 12 to Pt. A	7.9 sta	$910	
TOTALS	454.6 sta	$14,310	$14,310

Project #3 - Move in	Cost	On-site move	
Dozer, D-7 or equiv.	$905	$73	
Grader, Cat 14-G or equiv.	$875	$0	
Vibratory roller	$875	$0	
Front-end loader	$875	$77	
Excavator, C325 or equiv.	$1,450	$65	
TOTAL	$4,980	$215	$5,195

GRAND TOTAL **$23,873**

Compiled by Zane Sandborg Date 06/03/2020

SUMMARY OF CONSTRUCTION COST

SALE Cline Miller Thin Project # 1 LENGTH const 6.1 sta
ROAD Pt. A to Pt. B (Unsurfaced)

CLEARING AND GRUBBING

New construction	0.53	acres	@	$1,337.00	/acre	=	$709

TOTAL CLEARING AND GRUBBING = $709

EXCAVATION (With D7 dozer or equivalent)

Construct road	6.1	sta	@	$138.00	/sta	=	$842
Construct Landing	1	ldg	@	$438.00	/ldg	=	$438
Remove large stumps	2	stmps	@	$82.50	/stmp	=	$165
Shape subgrade (with road grader)	6.1	sta	@	$20.63	/sta	=	$126
Compact subgrade (with vibratory roller)	6.1	sta	@	$16.00	/sta	=	$98
Construct Turnaround (Sta. 4+22)	1	TA	@	$ 50.00	/TA	=	$50

TOTAL EXCAVATION = $1,719

SURFACING

			Size		Cost/yd			
Landing rock (Pt. B)	30	CY	Jaw-Run	@	$22.74	/CY	=	$682
Junction rock	10	CY	3"-0"	@	$5.97	/CY	=	$60

TOTAL SURFACING COST = $742

Compiled by: Zane Sandborg
Date: Jun 3, 2020

GRAND TOTAL =====> $3,170

SUMMARY OF CONSTRUCTION COST

SALE	Cline Miller Thin	Project #	1	LENGTH	const		2.4	sta
ROAD	Pt. C to Pt. D	(Unsurfaced)						

CLEARING AND GRUBBING

New construction	0.21	acres	@	$1,337.00	/acre	=	$281

TOTAL CLEARING AND GRUBBING = $281

EXCAVATION (With D7 dozer or equivalent)

Construct road	2.4	sta	@	$138.00	/sta	=	$331
Construct Landing	1	ldg	@	$438.00	/ldg	=	$438
Shape subgrade (with road grader)	2.4	sta	@	$20.63	/sta	=	$50
Compact subgrade (with vibratory roller)	2.4	sta	@	$16.00	/sta	=	$38

TOTAL EXCAVATION = $857

SURFACING

			Size		Cost/yd			
Junction Rock	10	CY	3"-0"	@	$5.97	/CY	=	$60

TOTAL SURFACING COST = $60

Compiled by: Zane Sandborg
Date: Jun 3, 2020

GRAND TOTAL =====> $1,198

SUMMARY OF CONSTRUCTION COST

SALE Cline Miller Thin Project # 2 LENGTH improve 239.7 sta
ROAD Pt. 1 to Pt. 2 (Surfaced)

SURFACING			Size		Cost/yd			
Spot rock	200	CY	1½"-0"	@	$4.01	/CY	=	$802
Shape surface (with road grader)	30	sta		@	$20.63	/sta	=	$619
Compact surface (with vibratory roller)	30	sta		@	$16.00	/sta	=	$480

TOTAL SURFACING COST = $1,901

Compiled by: Zane Sandborg
Date: Jun 3, 2020

GRAND TOTAL =====> $1,901

SUMMARY OF CONSTRUCTION COST

SALE Cline Miller Thin Project # 2 LENGTH improve 18.5 sta
ROAD Pt. 2 to Pt. 3 (Surfaced)

IMPROVEMENT

Re-open Landing (With dozer)	0.5	hrs	@	$162.00	/hr	=	$81
Sod removal	9	sta	@	$15.40	/sta	=	$139

TOTAL IMPROVEMENT = $220

SURFACING

			Size		Cost/yd			
Landing rock (Pt. 3)	40	CY	Jaw-Run	@	$22.74	/CY	=	$910
Spot rock	100	CY	3"-0"	@	$5.97	/CY	=	$597
Shape surface (with road grader)	18.5	sta		@	$20.63	/sta	=	$382
Compact surface (with vibratory roller)	18.5	sta		@	$16.00	/sta	=	$296

TOTAL SURFACING COST = $2,185

SPECIAL PROJECTS

Clean out culverts (inlets and outlets)	1	culvert	@	$25.00	ea	=	$25

TOTAL SPECIAL PROJECTS = $25

Compiled by: Zane Sandborg
Date: Jun 3, 2020

GRAND TOTAL =====> $2,430

SUMMARY OF CONSTRUCTION COST

SALE Cline Miller Thin Project # 2 LENGTH improve 4.7 sta
ROAD Pt. 4 to Pt. 5 (Surfaced)

CLEARING AND GRUBBING								
Extend Landing	0.08	acres	@	$1,337.00	/acre	=	$107	
Shape subgrade (with road grader)	0.7	sta	@	$20.63	/sta	=	$14	
Compact subgrade (with vibratory roller)	0.7	sta	@	$16.00	/sta	=	$11	
					TOTAL CLEARING AND GRUBBING =			$132
IMPROVEMENT								
Re-open & extend Landing (With dozer)	2	hrs	@	$162.00	/hr	=	$324	
Re-open road (with road grader)	4	sta	@	$15.40	/sta	=	$62	
						TOTAL IMPROVEMENT =		$386

SURFACING			Size		Cost/yd			
Landing rock (Sta. 4+00 & Pt. 5)	40	CY	Jaw-Run	@	$22.74	/CY	=	$910
Surface rock (Sta 4+00 to Pt. 5)	30	CY	Jaw-Run	@	$22.74	/CY	=	$682
Spot rock	40	CY	1½"-0"	@	$4.01	/CY	=	$160
Shape surface (with road grader)	4.7	sta		@	$20.63	/sta	=	$97
Compact surface (with vibratory roller)	4.7	sta		@	$16.00	/sta	=	$75
						TOTAL SURFACING COST =		$1,924

Compiled by: Zane Sandborg
Date: Jun 3, 2020

GRAND TOTAL =====> $2,442

SUMMARY OF CONSTRUCTION COST

SALE Cline Miller Thin Project # 2 LENGTH improve 41.4 sta
ROAD Pt. 6 to Pt. 7 (Surfaced)

SURFACING			Size		Cost/yd			
Spot rock	70	CY	1½"-0"	@	$4.01	/CY	=	$281
Shape surface (with road grader)	8	sta		@	$20.63	/sta	=	$165
Compact surface (with vibratory roller)	8	sta		@	$16.00	/sta	=	$128

TOTAL SURFACING COST= $574

SPECIAL PROJECTS								
Clean out culverts (inlets and outlets)	3	culverts		@	$25.00	ea	=	$75

TOTAL SPECIAL PROJECTS = $75

Compiled by: Zane Sandborg
Date: Jun 3, 2020

GRAND TOTAL =====> $649

SUMMARY OF CONSTRUCTION COST

SALE Cline Miller Thin Project # 2 LENGTH improve 14.4 sta
ROAD Pt. 7 to Pt. 8 (Surfaced)

CLEARING AND GRUBBING

Road widening	0.07	acres	@	$1,337.00	/acre	=	$94

TOTAL CLEARING AND GRUBBING = $94

EXCAVATION (With D7 dozer or equivalent)

Re-open Landing (Pt. 8) (With dozer)	1	hrs	@	$162.00	/hr	=	$162
End Haul Excavation (expand 20%) (Sta 8+31 to sta 9+85)	170	CY	@	$2.50	/CY	=	$425
Shape subgrade (with road grader)	1.5	sta	@	$20.63	/sta		$31
Compact subgrade (with vibratory roller)	1.5	sta	@	$16.00	/sta		$24

TOTAL EXCAVATION = $642

SURFACING

			Size		Cost/yd			
Landing rock	30	CY	Jaw-Run	@	$22.74	/CY	=	$682
Spot rock	50	CY	3"-0"	@	$5.97	/CY	=	$299
Curve widening rock (Sta 8+31 to sta 9+85)	30	CY	Jaw-Run	@	$22.74	/CY	=	$682
Curve widening rock (Sta 8+31 to sta 9+85)	20	CY	3"-0"	@	$5.97	/CY	=	$119
Shape surface (with road grader)	14.4	sta		@	$20.63	/sta	=	$297
Compact surface (with vibratory roller)	14.4	sta		@	$16.00	/sta	=	$230

TOTAL SURFACING COST = $2,309

Compiled by: Zane Sandborg
Date: Jun 3, 2020

GRAND TOTAL =====> $3,045

SUMMARY OF CONSTRUCTION COST

SALE Cline Miller Thin Project # 2 LENGTH improve 114.7 sta
ROAD Pt. 9 to Pt. 10 (Surfaced)

SURFACING			Size		Cost/yd			
Spot rock	90	CY	1½"-0"	@	$4.01	/CY	=	$361
Shape surface (with road grader)	20	sta		@	$20.63	/sta	=	$413
Compact surface (with vibratory roller)	20	sta		@	$16.00	/sta	=	$320

TOTAL SURFACING COST= $1,094

SPECIAL PROJECTS								
Clean out culverts (inlets and outlets)	4	culverts		@	$25.00	ea	=	$100
Repair culvert inlets	1	culvert		@	$23.00	ea	=	$23

TOTAL SPECIAL PROJECTS = $123

Compiled by: Zane Sandborg
Date: Jun 3, 2020

GRAND TOTAL =====> $1,217

SUMMARY OF CONSTRUCTION COST

SALE	Cline Miller Thin	Project #	2	LENGTH	improve		13.3	sta
ROAD	Pt. 10 to Pt. 11	(Surfaced)						

GRUBBING AND CLEARING

New construction	0.03	acres	@	$1,337.00	/acre	=	$40

TOTAL GRUBBING AND CLEARING = $40

EXCAVATION (With D7 dozer or equivalent)

Construct Landing (Pt. 11)	1	ldg	@	$438.00	/ldg	=	$438
Shape subgrade (with road grader)	0.5	sta	@	$20.63	/sta	=	$10
Compact subgrade (with vibratory roller)	0.5	sta	@	$16.00	/sta	=	$8

TOTAL EXCAVATION = $456

IMPROVEMENT

Sod removal	7	sta	@	$15.40	/sta	=	$108

TOTAL IMPROVEMENT = $108

SURFACING

			Size		Cost/yd			
Spot rock	30	CY	1½"-0"	@	$4.01	/CY	=	$120
Landing Rock	20	CY	Jaw-run	@	$22.74	/CY	=	$455
Shape surface (with road grader)	13.3	sta		@	$20.63	/sta	=	$274
Compact surface (with vibratory roller)	13.3	sta		@	$16.00	/sta	=	$213

TOTAL SURFACING COST = $1,062

SPECIAL PROJECTS

Clean out culverts (inlets and outlets)	2	culverts	@	$25.00	ea	=	$50

TOTAL SPECIAL PROJECTS = $50

Compiled by: Zane Sandborg

Date: Jun 3, 2020

GRAND TOTAL =====> $1,716

SUMMARY OF CONSTRUCTION COST

SALE Cline Miller Thin Project # 2 LENGTH improve 7.9 sta
ROAD Pt. 12 to Pt. A (Surfaced)

IMPROVEMENT

Re-open Landing (With dozer)	0.5 hrs		@	$162.00	/hr	=	$81
Sod removal	7.9 sta		@	$15.40	/sta	=	$122

TOTAL IMPROVEMENT = $203

SURFACING

		Size		Cost/yd			
Spot rock	70 CY	3"-0"	@	$5.97	/CY	=	$418
Shape surface (with road grader)	7.9 sta		@	$20.63	/sta	=	$163
Compact surface (with vibratory roller)	7.9 sta		@	$16.00	/sta	=	$126

TOTAL SURFACING COST = $707

Compiled by: Zane Sandborg
Date: Jun 3, 2020

GRAND TOTAL =====> $910

SUMMARY OF MAINTENANCE COST

SALE Cline Miller Thin Final Maintenance Cost Estimate

(Costed in appraisal, not in project costs)

Grading	Move-in	Grader	$	875
		Front-end loader	$	875

Road Segment	Length	Cost/Sta	Cost	Mileage
Pt. 1 to Pt. 2	239.7 sta	$20.63	$4,945.01	4.54
Pt. 2 to Pt. 3	18.5 sta	$20.63	$381.66	0.35
Pt. 4 to Pt. 5	4.7 sta	$20.63	$96.96	0.09
Pt. 6 to Pt. 7	41.4 sta	$20.63	$854.08	0.78
Pt. 7 to Pt. 8	14.4 sta	$20.63	$297.07	0.27
Pt. 9 to Pt. 10	114.7 sta	$20.63	$2,366.26	2.17
Pt. 10 to Pt. 11	13.3 sta	$20.63	$274.38	0.25
Pt. 12 to Pt. A	7.9 sta	$20.63	$162.98	0.15
Total	454.6		$9,378.40	8.61

Maintenance Rock:

	Volume	Cost/CY	Cost
1½"-0"	170	$4.01	$681.70
3"-0"	60	$5.97	$358.20

Grand Total $ 12,168.30

TS Volume 1,021 MBF

Cost / MBF = $11.92

NOTES:

Rock Haul Cost Computation

SALE NAME: Cline Miller Thin DATE: Jun 3, 2020
ROAD NAME: Cline Creek Road CLASS: Medium
ROCK SOURCE: Hardrock 10 CY truck
Route: Hwy 20, Cline Creek Road
(32 miles RT)

TIME Computation:
Road speed time factors:

1.	55 MPH		MRT	0.0	minutes
2.	50 MPH	23.00	MRT	27.6	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	6.0	MRT	18.0	minutes
9.	15 MPH		MRT	0.0	minutes
10.	10 MPH	3.0	MRT	18.0	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)		64.10	minutes
Operator efficiency correction	0.85	75.41	minutes
Job efficiency correction	0.90	83.79	minutes
Truck capacity (CY)	10.00	8.38	min/CY
Loading time, delay time per CY		0.25	min/CY
TIME (minutes) per cubic yard		8.63	min/CY

COST per CY computation

Cost of truck and operator per hour	$90.00	/hr.
Cost of truck and operator per minute	$1.50	/min
	$12.95	/CY
Water truck, Grader & Roller	$1.50	/CY

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½ - 0"	$ 11.48	$24.43	$25.93
3 - 0"	$ 11.14	$24.09	$25.59
Jaw Run	$ 9.79	$22.74	$24.24
Pit-Run	$ 8.87	$21.82	$23.32
Rip-rap	$ 24.98	$37.93	

Note: Pit costs June 1, 2019 Hardrock Rock Quarry

Rock Haul Cost Computation

SALE NAME:	Cline Miller Thin	DATE:	Jun 3, 2020
ROAD NAME:	Cline Creek Road	CLASS:	Medium
ROCK SOURCE:	WOWFCAB00 2+80 Stockpile		10 CY truck
Route:	Burnt Woods Ridge Road, Cline Creek Road (6 miles RT)		

TIME Computation:

Road speed time factors:

1.	55 MPH		MRT	0.0 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	6.0	MRT	18.0 minutes
9.	15 MPH		MRT	0.0 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)		18.50 minutes
Operator efficiency correction	0.85	21.76 minutes
Job efficiency correction	0.90	24.18 minutes
Truck capacity (CY)	10.00	2.42 min/CY
Loading time, delay time per CY		0.25 min/CY
TIME (minutes) per cubic yard		2.67 min/CY

COST per CY computation

Cost of truck and operator per hour		$90.00 /hr.
Cost of truck and operator per minute		$1.50 /min
		$4.01 /CY
Water truck, Grader & Roller		$1.50 /CY

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½ - 0"	$ -	$4.01	$5.51

Rock Haul Cost Computation

SALE NAME: Cline Miller Thin DATE: Jun 3, 2020
ROAD NAME: Cline Creek Road CLASS: Medium
ROCK SOURCE: WOSALM210 4+60 Stockpile 10 CY truck
Route: Burnt Woods Ridge Road, Cline Creek Road
(9 miles RT)

TIME Computation:
Road speed time factors:

1.	55 MPH		MRT	0.0	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	8.0	MRT	24.0	minutes
9.	15 MPH	1.0	MRT	4.0	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)		28.50	minutes
Operator efficiency correction	0.85	33.53	minutes
Job efficiency correction	0.90	37.26	minutes
Truck capacity (CY)	10.00	3.73	min/CY
Loading time, delay time per CY		0.25	min/CY
TIME (minutes) per cubic yard		3.98	min/CY

COST per CY computation

Cost of truck and operator per hour	$90.00	/hr.
Cost of truck and operator per minute	$1.50	/min
	$5.97	/CY
Water truck, Grader & Roller	$1.50	/CY

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
3"-0"	$ -	$5.97	$7.47

Rock Haul Cost Computation

SALE NAME:	Cline Miller Thin	DATE:	Jun 3, 2020
ROAD NAME:	Cline Creek Road	CLASS:	Medium
ROCK SOURCE:	Hardrock	18 CY truck	
Route:	Hwy 20, Cline Creek Road (32 miles RT)		

TIME Computation:

Road speed time factors:

1.	55 MPH		MRT	0.0	minutes
2.	50 MPH	23.0	MRT	27.6	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	6.0	MRT	18.0	minutes
9.	15 MPH		MRT	0.0	minutes
10.	10 MPH	3.0	MRT	18.0	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)		64.10	minutes
Operator efficiency correction	0.85	75.41	minutes
Job efficiency correction	0.90	83.79	minutes
Truck capacity (CY)	18.00	4.66	min/CY
Loading time, delay time per CY		0.25	min/CY
TIME (minutes) per cubic yard		4.91	min/CY

COST per CY computation

Cost of truck and operator per hour	$114.00	/hr.
Cost of truck and operator per minute	$1.90	/min
Cost per CY	$9.33	/CY
Spread and compact — Water truck, Grader & Roller	$1.50	/CY

Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½ - 0"	$ 11.48	$20.81	$22.31
3 - 0"	$ 11.14	$20.47	$21.97
Jaw Run	$ 9.79	$19.12	$20.62
Pit-Run	$ 8.87	$18.20	$19.70

Note: Pit costs June 1, 2019 Hardrock rock Quarry

TIMBER CRUISE REPORT

Cline Miller Thin
(WO-341-2021-W00360-01)
FY 2020

1. **Sale Area Location**: Portions of Sections 17, 19 & 20, T11S, R8W, W.M., Lincoln County, Oregon.

2. **Fund Distribution:**
   a. **Fund** BOF 96%
   CSL 4%

3. **Sale Acreage by Area:**

Unit	Treatment	Gross Acres	Stream Buffers	Existing Roads	New Construction	Slope Buffer (No Harvest)	PC Not Required	Net Sale Acres	Acreage Comp. Method
1	Thinning	36	2	<1	<1	-	2	32	GIS
2	Thinning	44	6	<1	<1	2	-	35	GIS
3	Thinning	103	7	2	<1	-	-	94	GIS
Total		183	15	2	1	2	2	161	

4. **Cruisers and Cruise Dates:** This sale was cruised by Zane Sandborg, David Bailey and Aaron McEwen in March, 2020.

5. **Cruise Method and Computation:** The sale consists of three thinning units that were cruised using variable radius plot sampling and a Basal Area Factor of 20. Sale Units 1 & 2 were cruised on a 5 x 5 chain grid and Unit 3 was cruised on a 6 x 6 chain grid.

6. Measure plots were measured for DBH, height, form factor, grade, and defect. Data was entered into the Atterbury Super ACE 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 ArcMap GIS was used to determine gross and net acreage.

7. **Measurement Standards:** Tree heights were measured to the nearest foot, to a top diameter of 6 inches inside bark or to 40% of form factor. 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.

8. **Timber Description:** Timber in the sale units is primarily 35 year old Douglas-fir with a moderate red alder component in Unit 1. The average Douglas-fir to be removed in all units is approximately 12.0 inches DBH. The average volume per acre to be harvested (net) in Units 1, 2 and 3 is approximately 6.0 MBF, 7.5 MBF and 6.0 MBF, respectively. Volume for Rights-of-Way was added. Conifer trees other than Douglas-fir and all hardwoods are reserved from cutting, unless present in yarding corridors, Landings or between R/W tags.

9. **Statistical Analysis and Stand Summary:** (See attached "Statistics").

Unit	Target CV	Target SE	Actual CV	Actual SE
1	40%	13%	27.8%	7.7%
2	40%	13%	28.8%	8.3%
3	40%	13%	32.5%	6.9%

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

10. **Total Volume (MBF) by Species and Grade:** (See attached volume report "Species, Sort Grade – Board Foot Volumes - Project").

Unit	Gross Cruise Volume	R/W Removal (MBF)	Cruised D & B	Cruised D & B (MBF)	Hidden D & B	Hidden D & B (MBF)	Net Sale Volume
1	189	2	2%	(2)	1%	(2)	187
2	266	5	1%	(4)	1%	(3)	264
3	582	1	1%	(7)	1%	(6)	570
Total	**1037**	**8**	**1%**	**(13)**	**1%**	**(11)**	**1021**

Unit	Species	Ave. DBH	Tot. Net Vol.	2-Saw	3-Saw	4-Saw
1	Douglas-fir	11	Grade %	0%	74%	26%
			187	-	139	48
2	Douglas-fir	13	Grade %	4%	77%	19%
			264	11	203	50
3	Douglas-fir	12	Grade %	0%	77%	23%
			570	-	439	131
	Total All Areas		Grade %	1%	76%	23%
			1021	11	781	229

Attachments: (All Units)
-Cruise Design
-Cruise Maps
-Statistics
-Stand Table Summary
-Species, Sort Grade – Board Foot Volume
-Log Stock Table – MBF

Prepared by: Zane Sandborg Date: 05/11/2020

Unit Forester: Evelyn Hukari Date: 05/13/20

Revised August, 2002

CRUISE DESIGN
WEST OREGON DISTRICT

Sale Name: Cline Miller Thin **Unit** 1

Harvest Type: MC Net BF Net BF
Approx. Cruise Acres: 32 **Estimated CV%** 40 /Acre **SE% Objective** 13 /Acre

Planned Sale Volume: .315 MMBF **Estimated Sale Unit Value/Acre:** $ 2025

A. Cruise Goals: (a) Grade minimum 60 conifer and 0 hardwood trees: (b) Sample 14 cruise plots (8 grade: 6 count); (c) Other goals X Determine log grades for sale value; X 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. Select take and leave trees. Mark leave trees on grade plots with an L (yellow paint). All cedar and Western hemlock are reserve species. Basal area target is 130 sq. ft. (6 to 7 trees). Hardwood are also reserve species and do not count for basal area leave target.

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

DO NOT RECORD 22' LENGTHS.

B. Cruise Design:

1. Plot Cruises: BAF 20 Full point
Cruise Line Direction(s) 90°/180°
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 7", 7" for hardwoods or 40% of dob at 16' form point. Generally, use 7" 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"

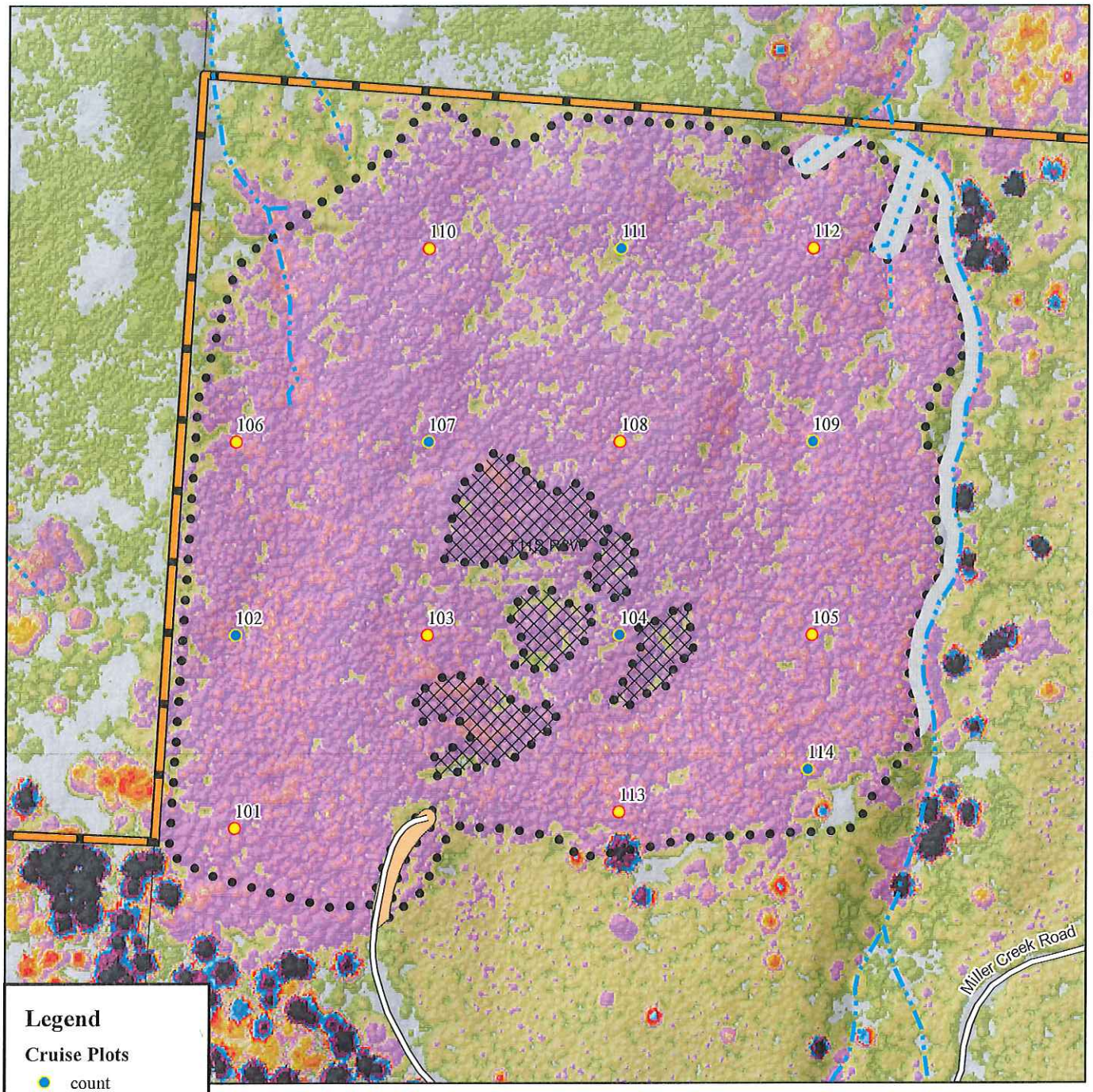
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally 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 or Lazer, Logger's Tape (with dbh on back), Biltmore Stick, Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue 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: Zane Sandborg
Approved by: [signature]
Date: 4/17/2020



Legend

Cruise Plots
- count
- measure
- Fish
- Nonfish
- Unknown;
- NHR
- NHRD
- PCM
- PCNR

Roads
- Surfaced Road
- Dirt road
- Other Road
- Sections_WO
- Townships_WO

Cline Miller Thin Unit 1
Timber Cruise
FY 2020

Portions of Section 17 of T11S, R8W, W.W.M.
Lincoln County, Oregon

BAF: 20
Spacing: 5 X 5 Chains

N

1:3,000

0 250 500 1,000 Feet

Date: 04/17/2020

Revised August, 2002

CRUISE DESIGN
WEST OREGON DISTRICT

Sale Name: Cline Miller Thin **Unit** 2

Harvest Type: MC
Approx. Cruise Acres: 37 **Estimated CV%** 40 Net BF /Acre **SE% Objective** 13 Net BF /Acre

Planned Sale Volume: .296 MMBF **Estimated Sale Unit Value/Acre:** $ 1800

A. Cruise Goals: (a) Grade minimum 60 conifer and 0 hardwood trees:
(b) Sample 13 cruise plots (7 grade: 6 count); (c) Other goals X Determine log grades for sale value; X 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. Select take and leave trees. Mark leave trees on grade plots with an L (yellow paint). All cedar and Western hemlock are reserve species. Basal area target is 140 sq. ft. (7 trees). Hardwood are also reserve species and do not count for basal area leave target.

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

DO NOT RECORD 22' LENGTHS.

B. Cruise Design:

1. Plot Cruises: BAF 20 Full point
Cruise Line Direction(s) 90°/180°
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 7", 7" for hardwoods or 40% of dob at 16' form point. Generally, use 7" 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"

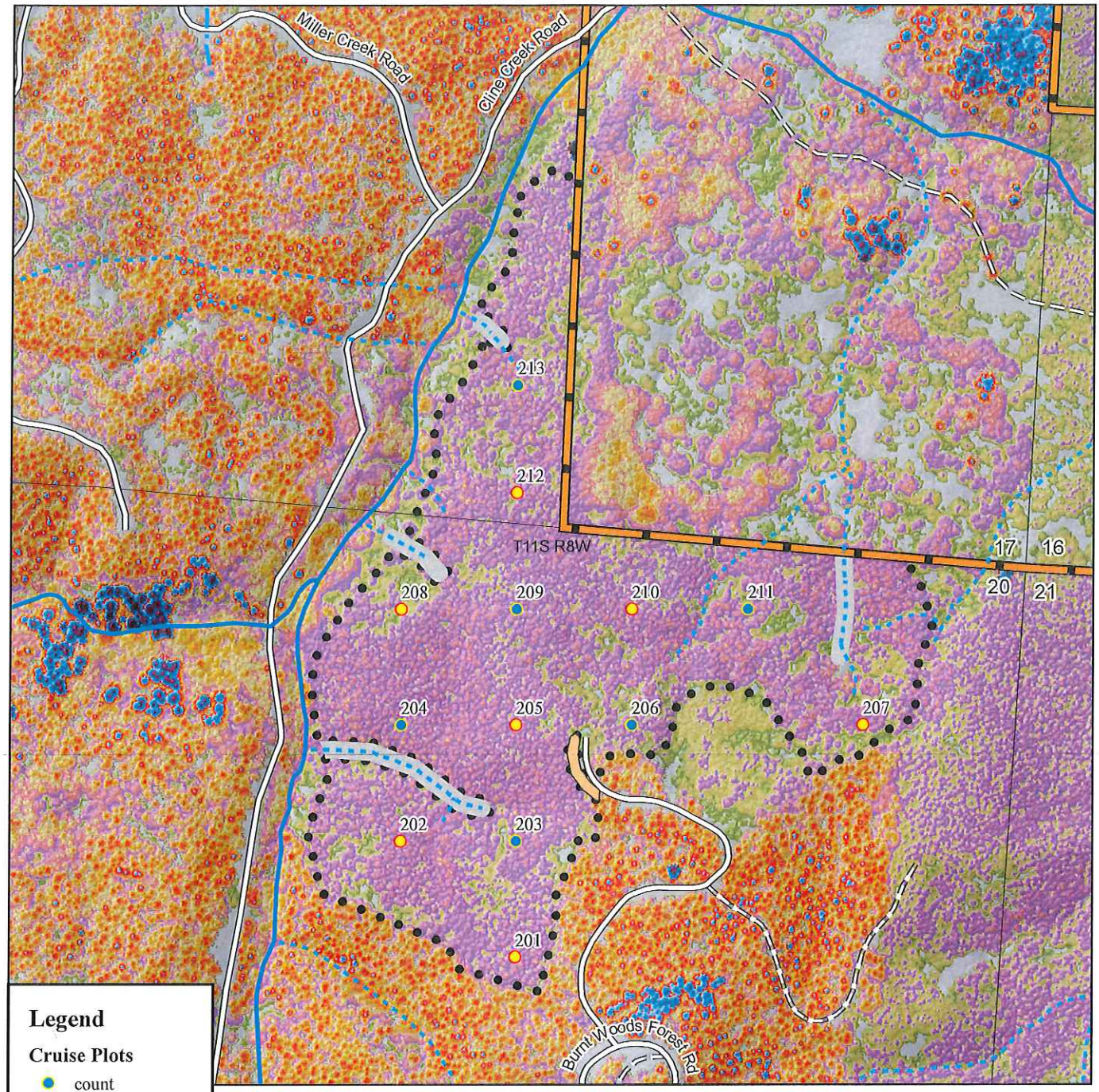
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally 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 or Lazer, Logger's Tape (with dbh on back), Biltmore Stick, Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue 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: Zane Sandborg
Approved by: [signature]
Date: 4/17/2020



Cline Miller Thin Unit 2
Timber Cruise
FY 2020

Portions of Sections 17 & 20 of T11S, R8W, W.M.
Lincoln County, Oregon

BAF: 20
Spacing: 5 X 5 Chains

N

1:5,000

0 375 750 1,500 Feet

Date: 04/17/2020

Revised August, 2002

CRUISE DESIGN
WEST OREGON DISTRICT

Sale Name: Cline Miller Thin **Unit** 3

Harvest Type: MC Net BF Net BF
Approx. Cruise Acres: 97 **Estimated CV%** 40 /Acre **SE% Objective** 13 /Acre

Planned Sale Volume: .679 MMBF **Estimated Sale Unit Value/Acre:** $ 1575

A. Cruise Goals: (a) Grade minimum 60 conifer and 0 hardwood trees:
(b) Sample 23 cruise plots (12 grade: 11 count); (c) Other goals X Determine log grades for sale value; X 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. Select take and leave trees. Mark leave trees on grade plots with an L (yellow paint). All cedar and Western hemlock are reserve species. Basal area target is 130 sq. ft. (6 to 7 trees). Hardwood are also reserve species and do not count for basal area leave target.

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

DO NOT RECORD 22' LENGTHS.

B. Cruise Design:

1. Plot Cruises: BAF 20 Full point
Cruise Line Direction(s) 90°/180°
Cruise Line Spacing 6/396 (chains) (feet)
Cruise Plot Spacing 6/396 (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 7", 7" for hardwoods or 40% of dob at 16' form point. Generally, use 7" 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"

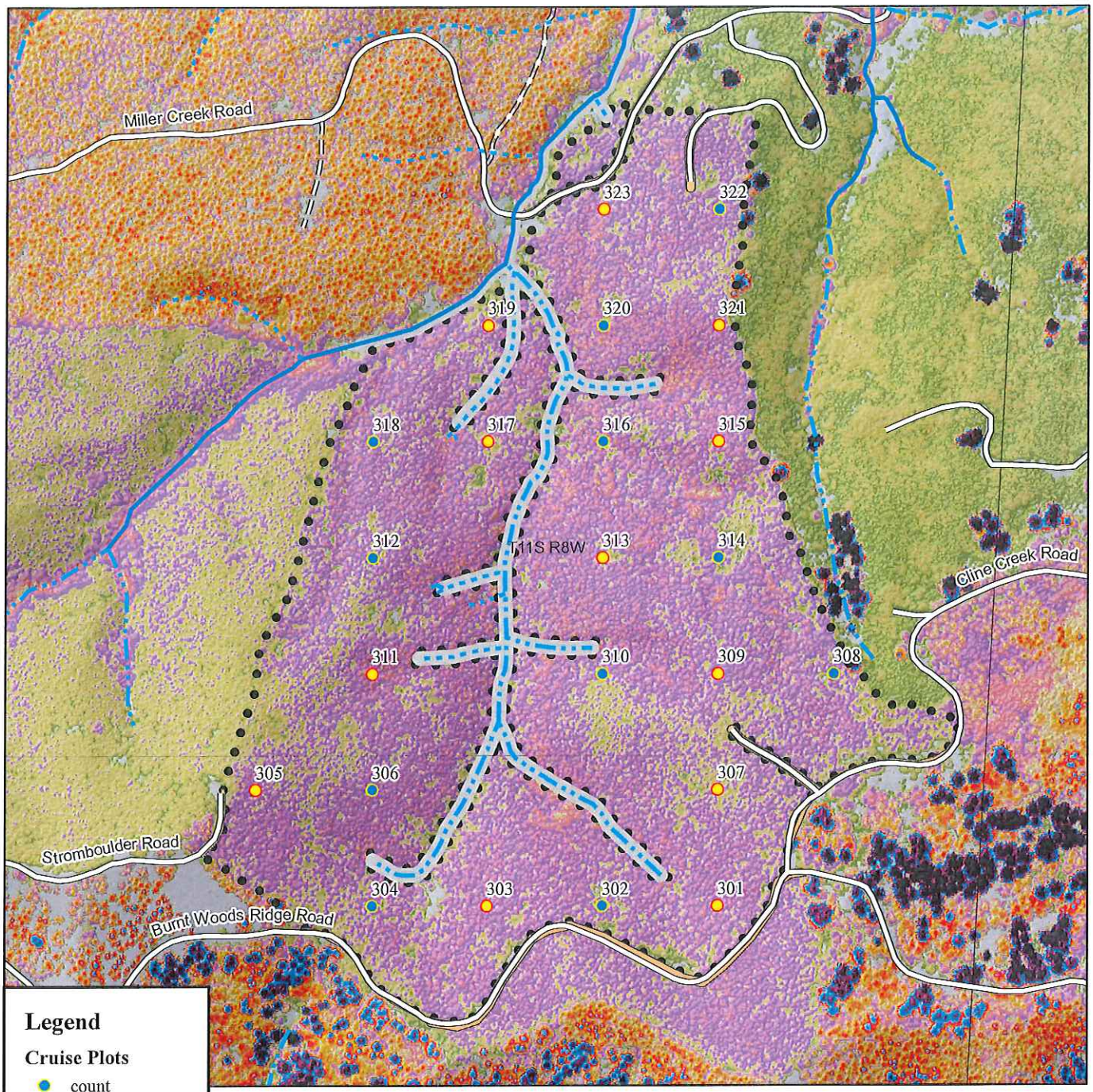
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally 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 or Lazer, Logger's Tape (with dbh on back), Biltmore Stick, Compass, Cruise Cards or Data Recorder, Cruise Design, Cruise Map, Yellow Flagging, Blue 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: Zane Sandborg
Approved by: [signature]
Date: 4/17/2020



Legend

Cruise Plots
- count
- measure
- Fish
- Nonfish
- Unknown;
- NHR
- NHRD
- PCM
- PCNR

Roads
- Surfaced Road
- Dirt road
- Other Road
- Sections_WO
- Townships_WO

Cline Miller Thin Unit 3
Timber Cruise
FY 2020

Portions of Section 19 of T11S, R8W, W.W.M.
Lincoln County, Oregon

BAF: 20
Spacing: 6 X 6 Chains

N

1:6,000

0 500 1,000 2,000 Feet

Date: 04/17/2020

TC PSTATS

PROJECT STATISTICS

PROJECT CLINEMIL

DATE 5/11/2020

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11S	08	20	A1	00PC	32.00	14	134	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	14	134	9.6		
CRUISE	8	80	10.0	6,752	1.2
DBH COUNT					
REFOREST					
COUNT	6	54	9.0		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DF-L	46	112.5	14.0	59	32.1	120.0	15,354	15,269	4,284	4,284
DF-T	26	83.8	11.2	42	17.1	57.1	5,908	5,856	1,638	1,638
R ALDER	8	14.7	13.3	42	3.9	14.3	1,329	1,297	415	415
TOTAL	*80*	*211.0*	*12.9*	*51*	*53.3*	*191.4*	*22,590*	*22,423*	*6,337*	*6,337*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0

SAMPLE TREES - BF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DF-L	40.2	5.9	147	157	166			
DF-T	55.1	11.0	74	83	93			
R ALDER	42.4	16.0	78	93	107			
TOTAL	*52.0*	*5.8*	*119*	*126*	*134*	*108*	*27*	*12*

CL 68.1 SD: 1.0

SAMPLE TREES - CF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DF-L	38.0	5.6	41	44	46			
DF-T	54.7	10.9	21	24	26			
R ALDER	31.0	11.7	26	30	33			
TOTAL	*48.9*	*5.5*	*34*	*36*	*38*	*95*	*24*	*11*

CL 68.1 SD: 1.0

TREES/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DF-L	26.1	7.2	104	113	121			
DF-T	81.0	22.4	65	84	103			
R ALDER	137.1	38.0	9	15	20			
TOTAL	*34.0*	*9.4*	*191*	*211*	*231*	*50*	*12*	*6*

CL 68.1 SD: 1.0

BASAL AREA/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DF-L	18.5	5.1	114	120	126			
DF-T	81.1	22.5	44	57	70			
R ALDER	139.2	38.6	9	14	20			
TOTAL	*26.5*	*7.3*	*177*	*191*	*205*	*30*	*8*	*3*

CL 68.1 SD: 1.0

NET BF/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DF-L	20.4	5.6	14,407	15,269	16,132			
DF-T	83.7	23.2	4,498	5,856	7,214			
R ALDER	131.1	36.3	826	1,297	1,768			
TOTAL	*27.8*	*7.7*	*20,697*	*22,423*	*24,149*	*33*	*8*	*4*

CL 68.1 SD: 1.0

NET CUFT FT/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DF-L	20.1	5.6	4,046	4,284	4,523			
DF-T	82.7	22.9	1,263	1,638	2,013			

TC PSTATS

PROJECT STATISTICS

PROJECT CLINEMIL

DATE 5/11/2020

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11S	08	20	A1	00PC	32.00	14	134	1	W

CL 68.1
SD: 1.00

	COEFF VAR.	S.E.%	NET CUFT FT/ACRE LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
R ALDER	132.2	36.6	263	415	566			
TOTAL	*26.3*	*7.3*	*5,875*	*6,337*	*6,798*	*30*	*7*	*3*

TC PSTNDSUM

Stand Table Summary

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Date: 5/11/2020

T11S R08W S20 Ty00PC 32.00

Project CLINEMIL

Acres 32.00

Time: 11:32:07AM

Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF	L	9	1	90	47	5.905	2.61	5.90	8.0	30.0		47	177		15	6
DF	L	10	2	88	63	9.566	5.22	9.57	13.0	45.0		124	430		40	14
DF	L	11	2	85	74	7.906	5.22	7.91	16.0	55.0		126	435		40	14
DF	L	12	3	89	88	9.964	7.83	16.61	15.4	56.0		256	930		82	30
DF	L	13	5	87	92	14.151	13.04	28.30	16.0	56.0		453	1,585		145	51
DF	L	14	6	87	98	14.642	15.65	29.28	20.1	70.0		588	2,050		188	66
DF	L	15	10	87	94	21.258	26.09	42.52	22.5	80.5		957	3,422		306	110
DF	L	16	8	88	97	14.947	20.87	31.76	25.1	90.0		796	2,859		255	91
DF	L	17	5	89	100	8.275	13.04	16.55	31.9	116.0		528	1,920		169	61
DF	L	18	4	88	99	5.905	10.43	11.81	34.6	123.8		409	1,461		131	47
DF	L	Totals	46	88	88	112.518	120.00	200.21	21.4	76.3		4,284	15,269		1,371	489
DF	T	8	2	84	42	12.592	4.40	12.59	5.5	20.0		69	252		22	8
DF	T	9	2	87	62	9.950	4.40	9.95	11.0	50.0		109	497		35	16
DF	T	10	3	86	86	12.089	6.59	16.12	12.5	47.5		201	766		64	24
DF	T	11	6	86	72	19.981	13.19	23.31	14.0	47.1		326	1,099		104	35
DF	T	12	4	88	88	11.193	8.79	19.59	14.7	54.3		288	1,063		92	34
DF	T	13	2	90	80	4.769	4.40	9.54	14.8	50.0		141	477		45	15
DF	T	14	4	89	83	8.224	8.79	14.39	19.1	64.3		275	925		88	30
DF	T	15	2	87	85	3.582	4.40	7.16	20.0	67.5		143	484		46	15
DF	T	17	1	88	91	1.394	2.20	2.79	30.0	105.0		84	293		27	9
DF	T	Totals	26	87	73	83.774	57.14	115.44	14.2	50.7		1,638	5,856		524	187
RA		11	1	86	49	2.706	1.79	2.71	12.0	40.0		32	108		10	3
RA		12	1	87	106	2.274	1.79	4.55	16.0	60.0		73	273		23	9
RA		13	2	86	66	3.875	3.57	3.87	25.5	70.0		99	271		32	9
RA		14	1	87	77	1.670	1.79	1.67	31.0	80.0		52	134		17	4
RA		15	2	86	84	2.910	3.57	4.37	27.0	96.7		118	422		38	14
RA		16	1	87	56	1.279	1.79	1.28	32.0	70.0		41	90		13	3
RA		Totals	8	86	73	14.714	14.29	18.44	22.5	70.4		415	1,297		133	42
Totals			80	87	81	211.006	191.43	334.09	19.0	67.1		6,337	22,423		2,028	718

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T11S R08W S20 Ty00PC 32.00

Project: **CLINEMIL**

Acres **32.00**

Page **1**

Date **5/11/2020**

Time **11:32:07AM**

Spp	S T	So Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
RA		DO 3M	26	8.5	369	337	11		100						100	40	9	108	0.87	3.1
RA		DO CR	74		960	960	31		100			12	11	18	59	31	7	63	0.65	15.3
RA	**Totals**		6	2.4	1,329	1,297	42		100			9	8	13	70	32	8	70	0.70	18.4
DF	L	DO 2M	8	1.2	1,366	1,350	43			100		11			89	34	12	170	1.27	8.0
DF	L	DO 3M	78	.6	11,994	11,926	382		100					7	93	39	8	101	0.72	117.7
DF	L	DO 4M	14		1,994	1,994	64		100			33	67			23	6	27	0.39	74.6
DF	**Totals**		68	.6	15,354	15,269	489		91	9		5	9	5	81	32	8	76	0.66	200.2
DF	T	DO 3M	74	.5	4,366	4,342	139		100					10	90	39	7	77	0.54	56.7
DF	T	DO 4M	26	1.8	1,542	1,514	48	8	92			41	42	16		21	6	26	0.36	58.7
DF	**Totals**		26	.9	5,908	5,856	187	2	98			11	11	12	66	30	7	51	0.48	115.4
Totals				0.7	22,590	22,423	718	1	93	6		7	9	7	76	31	7	67	0.60	334.1

TC PLOGSTVB

Log Stock Table - MBF

T11S R08W S20 Ty00PC 32.00

Project: CLINEMIL
Acres 32.00

Page 1
Date 5/11/2020
Time 11:32:06AM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
RA		DO	3M	40	12	8.5	11	26.0				4	7							
RA		DO	CR	16	2		2	5.3			2									
RA		DO	CR	20	1		1	3.4			1									
RA		DO	CR	24	3		3	8.3			3									
RA		DO	CR	32	6		6	13.5					6							
RA		DO	CR	38	4		4	10.5			4									
RA		DO	CR	40	14		14	33.1			7	7								
RA		Totals			43	2.4	42	5.8			19	11	12							
DF	L	DO	2M	14	5		5	1.0						5						
DF	L	DO	2M	40	39	1.4	38	7.9						38						
DF	L	DO	3M	32	14	6.6	13	2.6			7	5								
DF	L	DO	3M	34	13		13	2.6			13									
DF	L	DO	3M	36	39		39	8.0			10	29								
DF	L	DO	3M	38	6		6	1.2			6									
DF	L	DO	3M	40	313		311	63.7			34	126	151							
DF	L	DO	4M	12	1		1	.3				1								
DF	L	DO	4M	14	1		1	.2			1									
DF	L	DO	4M	16	7		7	1.5			7									
DF	L	DO	4M	18	3		3	.6			3									
DF	L	DO	4M	20	8		8	1.6			8									
DF	L	DO	4M	24	10		10	2.1			10									
DF	L	DO	4M	26	11		11	2.2			11									
DF	L	DO	4M	28	11		11	2.3			11									
DF	L	DO	4M	30	11		11	2.2			11									
DF		Totals			491		489	68.1			132	162	151	43						
DF	T	DO	3M	34	8		8	4.2			8									
DF	T	DO	3M	35	7		7	3.5				7								
DF	T	DO	3M	36	19		19	10.1				19								
DF	T	DO	3M	40	106		105	56.3			54	43	8							
DF	T	DO	4M	12	1		1	.7			1									
DF	T	DO	4M	14	6		6	3.3			6									
DF	T	DO	4M	16	7		7	3.9		4	3									
DF	T	DO	4M	20	5		5	2.9			5									
DF	T	DO	4M	24	7		7	3.9			7									
DF	T	DO	4M	28	14	6.4	13	7.0			13									

TC PLOGSTVB

Log Stock Table - MBF

T11S R08W S20 Ty00PC 32.00

Project: CLINEMIL
Acres 32.00

Date 5/11/2020
Time 11:32:06AM

Spp	ST	So	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	T	DO	4M	32	8		8	4.2			8									
DF		Totals			189		187	26.1		4	107	68	8							
Total		All Species			723		718	100.0		4	258	241	172	43						

TC PSTATS

PROJECT STATISTICS

PROJECT CLINEMIL

DATE 5/11/2020

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11S	08	20	A2	00PC	35.00	13	132	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	13	132	10.2		
CRUISE	8	67	8.4	5,687	1.2
DBH COUNT					
REFOREST					
COUNT	5	59	11.8		
BLANKS					
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DF-L	45	89.0	16.5	69	32.6	132.3	17,041	16,892	4,806	4,806
DF-T	19	69.6	13.2	54	18.2	66.2	7,590	7,481	2,199	2,199
R ALDER	2	2.5	15.0	40	0.8	3.1	176	176	80	80
SNAG	1	1.4	14.0	62	0.4	1.5				
TOTAL	*67*	*162.5*	*15.1*	*62*	*52.2*	*203.1*	*24,806*	*24,549*	*7,085*	*7,085*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0 — **SAMPLE TREES - BF**

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DF-L	26.7	4.0	192	200	208			
DF-T	45.1	10.6	110	123	136			
R ALDER			70	70	70			
SNAG								
TOTAL	*40.2*	*4.9*	*163*	*171*	*180*	*64*	*16*	*7*

CL 68.1 SD: 1.0 — **SAMPLE TREES - CF**

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DF-L	26.7	4.0	55	57	60			
DF-T	44.3	10.4	32	36	40			
R ALDER			32	32	32			
SNAG								
TOTAL	*38.4*	*4.7*	*47*	*50*	*52*	*59*	*15*	*7*

CL 68.1 SD: 1.0 — **TREES/ACRE**

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DF-L	18.4	5.3	84	89	94			
DF-T	73.8	21.3	55	70	84			
R ALDER	360.6	103.9		3	5			
SNAG	360.6	103.9		1	3			
TOTAL	*34.7*	*10.0*	*146*	*162*	*179*	*52*	*13*	*6*

CL 68.1 SD: 1.0 — **BASAL AREA/ACRE**

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DF-L	9.8	2.8	129	132	136			
DF-T	72.4	20.9	52	66	80			
R ALDER	360.6	103.9		3	6			
SNAG	360.6	103.9		2	3			
TOTAL	*22.7*	*6.5*	*190*	*203*	*216*	*22*	*6*	*2*

CL 68.1 SD: 1.0 — **NET BF/ACRE**

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DF-L	14.8	4.3	16,171	16,892	17,613			
DF-T	73.6	21.2	5,893	7,481	9,069			
R ALDER	360.6	103.9		176	358			
SNAG								

TC PSTATS

PROJECT STATISTICS

PROJECT CLINEMIL

DATE 5/11/2020

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11S	08	20	A2	00PC	35.00	13	132	1	W

CL 68.1	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL	*28.8*	*8.3*	*22,514*	*24,549*	*26,583*	*36*	*9*	*4*

CL 68.1	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DF-L	12.6	3.6	4,632	4,806	4,980			
DF-T	72.8	21.0	1,738	2,199	2,660			
R ALDER	360.6	103.9		80	164			
SNAG								
TOTAL	*26.2*	*7.6*	*6,550*	*7,085*	*7,621*	*30*	*7*	*3*

TC PSTNDSUM

Stand Table Summary

Page 1
Date: 5/11/2020

T11S R08W S20 Ty00PC 35.00

Project CLINEMIL
Acres 35.00

Time: 11:35:59AM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF	L	13	3	88	101	9.569	8.82	19.14	17.2	58.3		329	1,116		115	39
DF	L	14	3	87	100	8.251	8.82	16.50	20.2	75.0		333	1,238		116	43
DF	L	15	5	87	94	11.979	14.70	21.56	24.3	87.8		525	1,893		184	66
DF	L	16	8	87	93	16.846	23.52	33.69	25.9	92.5		872	3,117		305	109
DF	L	17	9	88	97	16.788	26.46	33.58	30.8	112.2		1,033	3,768		362	132
DF	L	18	9	88	89	14.974	26.46	28.28	31.8	109.4		900	3,095		315	108
DF	L	19	4	87	89	5.973	11.76	13.44	31.1	105.6		418	1,419		146	50
DF	L	20	1	86	86	1.348	2.94	2.70	37.5	115.0		101	310		35	11
DF	L	22	2	86	81	2.228	5.88	4.46	43.2	135.0		193	601		67	21
DF	L	23	1	85	89	1.019	2.94	2.04	50.5	165.0		103	336		36	12
DF	L	Totals	45	87	94	88.975	132.31	175.38	27.4	96.3		4,806	16,892		1,682	591
DF	T	10	2	86	68	12.767	6.96	12.77	13.0	45.0		166	575		58	20
DF	T	12	3	87	97	13.299	10.45	22.17	16.2	58.0		359	1,286		126	45
DF	T	13	6	87	83	22.664	20.89	41.55	16.1	53.6		669	2,229		234	78
DF	T	14	1	87	91	3.257	3.48	6.51	18.0	55.0		117	358		41	13
DF	T	15	4	87	88	11.349	13.93	22.70	21.6	75.0		491	1,702		172	60
DF	T	16	1	85	102	2.494	3.48	4.99	28.5	95.0		142	474		50	17
DF	T	18	1	85	94	1.970	3.48	3.94	32.0	110.0		126	433		44	15
DF	T	19	1	89	92	1.768	3.48	3.54	36.5	120.0		129	424		45	15
DF	T	Totals	19	87	85	69.569	66.15	118.16	18.6	63.3		2,199	7,481		770	262
RA		15	2	86	57	2.507	3.08	2.51	32.0	70.0		80	176		28	6
RA		Totals	2	86	57	2.507	3.08	2.51	32.0	70.0		80	176		28	6
SN		14	1	98	62	1.439	1.54									
SN		Totals	1	98	62	1.439	1.54									
Totals			67	87	90	162.490	203.08	296.05	23.9	82.9		7,085	24,549		2,480	859

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T11S R08W S20 Ty00PC 35.00

Project: **CLINEMIL**

Acres **35.00**

Page **1**

Date **5/11/2020**

Time **11:35:58AM**

Spp	S T	So Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	L	DO 2M	16	1.4	2,899	2,859	100			100			18		82	37	13	203	1.51	14.1
DF	L	DO 3M	72	.9	12,163	12,054	422		100				1	10	88	38	9	111	0.81	108.8
DF	L	DO 4M	12		1,979	1,979	69	3	97			17	50	3	30	25	6	38	0.52	52.6
DF	**Totals**		69	.9	17,041	16,892	591	0	83	17		2	10	8	80	34	8	96	0.81	175.4
DF	T	DO 2M	4	5.0	354	336	12			100					100	40	12	190	1.40	1.8
DF	T	DO 3M	77	1.1	5,855	5,789	203		100					2	98	39	8	92	0.67	63.2
DF	T	DO 4M	19	1.8	1,381	1,356	47	6	94			39	53	7		22	6	25	0.37	53.2
DF	**Totals**		30	1.4	7,590	7,481	262	1	94	4		7	10	3	81	32	7	63	0.59	118.2
RA		DO CR	100		176	176	6		100						100	40	7	70	0.80	2.5
RA	**Totals**		1		176	176	6		100						100	40	7	70	0.80	2.5
Totals				1.0	24,806	24,549	859	1	86	13		4	10	6	81	33	8	83	0.72	296.1

TC PLOGSTVB

Log Stock Table - MBF

T11S R08W S20 Ty00PC 35.00

Project: CLINEMIL
Acres 35.00

Date 5/11/2020
Time 11:35:58AM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3 4-5	6-7 8-9	10-11 12-13	14-15 16-19	20-23 24-29	30-39 40+
DF	L	DO	2M	24	9	5.9	8	1.4				8		
DF	L	DO	2M	28	10		10	1.7			10			
DF	L	DO	2M	40	83	1.1	82	13.8			72	10		
DF	L	DO	3M	28	5		5	.9			5			
DF	L	DO	3M	32	35	4.7	34	5.7		28 6				
DF	L	DO	3M	34	10		10	1.7		10				
DF	L	DO	3M	36	13	5.1	12	2.1		12				
DF	L	DO	3M	38	13		13	2.3		13				
DF	L	DO	3M	40	349		348	58.8		3 95	249			
DF	L	DO	4M	16	3		3	.4		3				
DF	L	DO	4M	18	2		2	.3		2				
DF	L	DO	4M	20	7		7	1.2		7				
DF	L	DO	4M	24	6		6	.9		6				
DF	L	DO	4M	26	13		13	2.2		13				
DF	L	DO	4M	28	6		6	1.1		6				
DF	L	DO	4M	30	10		10	1.7		10				
DF	L	DO	4M	32	2		2	.3	2					
DF	L	DO	4M	40	21		21	3.5			21			
DF		Totals			596		591	68.8	2	113 101	275 82	18		
DF	T	DO	2M	40	12	5.0	12	4.5			12			
DF	T	DO	3M	32	3		3	1.2		3				
DF	T	DO	3M	36	11	12.5	9	3.5		9				
DF	T	DO	3M	38	11		11	4.0		11				
DF	T	DO	3M	40	181		180	68.6		31 109	40			
DF	T	DO	4M	12	1		1	.5		1				
DF	T	DO	4M	14	5		5	2.0		5				
DF	T	DO	4M	16	2		2	.8		2				
DF	T	DO	4M	18	5		5	1.8	3	2				
DF	T	DO	4M	20	5		5	2.1		5				
DF	T	DO	4M	26	3		3	1.1		3				
DF	T	DO	4M	28	14		14	5.5		14				
DF	T	DO	4M	30	8		8	3.1		8				
DF	T	DO	4M	32	4	20.0	3	1.3		3				
DF		Totals			266	1.4	262	30.5	3	79 128	40 12			
RA		DO	CR	40	6		6	100.0		6				

TC PLOGSTVB

Log Stock Table - MBF

T11S R08W S20 Ty00PC 35.00

Project: CLINEMIL
Acres 35.00

Date 5/11/2020
Time 11:35:58AM

Spp	ST	So Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
RA		Totals		6		6	.7			6									
Total		All Species		868	1.0	859	100.0		4	198	230	315	93	18					

TC PSTATS

PROJECT STATISTICS

PROJECT CLINEMIL

DATE 5/11/2020

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11S	08	20	A3	00PC	94.00	23	230	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	23	230	10.0		
CRUISE	12	134	11.2	18,828	.7
DBH COUNT					
REFOREST					
COUNT	10	96	9.6		
BLANKS	1				
100 %					

STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DF-L	75	102.9	14.8	61	31.9	122.6	14,896	14,618	4,308	4,308
DF-T	40	74.2	12.2	45	17.2	60.0	6,187	6,116	1,791	1,791
R ALDER	13	14.2	12.5	35	3.4	12.2	916	890	302	302
SNAG	6	9.0	10.3	56	1.6	5.2				
TOTAL	*134*	*200.3*	*13.5*	*53*	*54.4*	*200.0*	*22,000*	*21,624*	*6,400*	*6,400*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0

SAMPLE TREES - BF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DF-L	30.6	3.5	149	154	159			
DF-T	51.7	8.2	90	98	106			
R ALDER	50.2	14.5	59	69	79			
SNAG								
TOTAL	*50.3*	*4.3*	*117*	*122*	*128*	*101*	*25*	*11*

CL 68.1 SD: 1.0

SAMPLE TREES - CF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DF-L	28.9	3.3	44	45	47			
DF-T	49.1	7.8	27	29	31			
R ALDER	48.4	13.9	20	24	27			
SNAG								
TOTAL	*48.0*	*4.1*	*35*	*36*	*38*	*92*	*23*	*10*

CL 68.1 SD: 1.0

TREES/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DF-L	34.8	7.4	95	103	111			
DF-T	76.2	16.2	62	74	86			
R ALDER	325.8	69.4	4	14	24			
SNAG	231.8	49.4	5	9	13			
TOTAL	*36.1*	*7.7*	*185*	*200*	*216*	*54*	*14*	*6*

CL 68.1 SD: 1.0

BASAL AREA/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DF-L	32.7	7.0	114	123	131			
DF-T	76.5	16.3	50	60	70			
R ALDER	312.3	66.5	4	12	20			
SNAG	237.4	50.6	3	5	8			
TOTAL	*31.6*	*6.7*	*187*	*200*	*213*	*42*	*10*	*5*

CL 68.1 SD: 1.0

NET BF/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DF-L	32.8	7.0	13,596	14,618	15,641			
DF-T	75.1	16.0	5,138	6,116	7,094			
R ALDER	332.2	70.8	260	890	1,519			
SNAG								

TC PSTATS

PROJECT STATISTICS

PROJECT CLINEMIL

DATE 5/11/2020

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11S	08	20	A3	00PC	94.00	23	230	1	W

CL 68.1	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
TOTAL	*32.5*	*6.9*	*20,126*	*21,624*	*23,122*	*44*	*11*	*5*

CL 68.1	COEFF		NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DF-L	32.9	7.0	4,006	4,308	4,610			
DF-T	75.3	16.0	1,504	1,791	2,078			
R ALDER	326.8	69.6	92	302	512			
SNAG								
TOTAL	*31.7*	*6.8*	*5,968*	*6,400*	*6,833*	*42*	*10*	*5*

TC PSTNDSUM

Stand Table Summary

Page 1

Date: 5/11/2020

T11S R08W S20 Ty00PC 94.00

Project CLINEMIL

Acres 94.00

Time: 11:38:44AM

Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF	L	10	2	85	70	5.995	3.27	5.99	15.0	55.0		90	330		85	31
DF	L	11	1	87	65	2.477	1.63	2.48	16.0	60.0		40	149		37	14
DF	L	12	3	86	93	6.244	4.90	10.41	15.8	54.0		164	562		155	53
DF	L	13	3	86	85	5.321	4.90	8.87	17.4	58.0		154	514		145	48
DF	L	14	21	86	92	32.114	34.33	64.23	19.0	63.1		1,220	4,052		1,147	381
DF	L	15	14	87	93	18.650	22.89	37.30	22.4	76.8		835	2,864		785	269
DF	L	16	13	87	92	15.221	21.25	30.44	25.3	88.1		769	2,681		723	252
DF	L	17	8	87	88	8.297	13.08	16.59	27.8	93.1		462	1,545		434	145
DF	L	18	6	88	92	5.551	9.81	11.10	32.4	111.7		360	1,240		338	117
DF	L	19	2	89	89	1.661	3.27	3.32	35.7	115.0		119	382		112	36
DF	L	21	2	84	75	1.359	3.27	2.72	34.7	110.0		94	299		89	28
DF	L	Totals	75	87	89	102.889	122.61	193.45	22.3	75.6		4,308	14,618		4,049	1,374
DF	T	8	1	88	17	4.297	1.50	4.30	4.0	20.0		17	86		16	8
DF	T	9	3	87	53	10.186	4.50	10.19	9.0	36.7		92	373		86	35
DF	T	10	3	87	60	8.251	4.50	8.25	12.0	46.7		99	385		93	36
DF	T	11	4	86	74	9.092	6.00	11.36	13.8	46.0		157	523		147	49
DF	T	12	4	87	78	7.639	6.00	11.46	14.7	48.3		168	554		158	52
DF	T	13	10	86	86	16.273	15.00	32.55	15.3	50.5		496	1,644		467	154
DF	T	14	6	86	85	8.419	9.00	16.84	17.8	56.7		299	954		281	90
DF	T	15	4	88	87	4.889	6.00	8.56	24.1	85.7		207	733		194	69
DF	T	16	4	87	84	4.297	6.00	8.59	23.5	78.7		202	677		190	64
DF	T	18	1	86	93	.849	1.50	1.70	32.0	110.0		54	187		51	18
DF	T	Totals	40	87	72	74.192	60.00	113.79	15.7	53.7		1,791	6,116		1,683	575
RA		10	1	87	17	1.717	.94	1.72	6.0	20.0		10	34		10	3
RA		11	1	86	22	1.419	.94	1.42	8.0	20.0		11	28		11	3
RA		12	5	87	64	5.962	4.68	5.96	20.2	62.0		120	370		113	35
RA		13	2	86	78	2.032	1.87	2.03	27.5	80.0		56	163		53	15
RA		14	2	86	60	1.752	1.87	1.75	26.0	70.0		46	123		43	12
RA		15	1	87	83	.763	.94	1.53	21.5	70.0		33	107		31	10
RA		17	1	86	62	.594	.94	.59	43.0	110.0		26	65		24	6
RA		Totals	13	87	57	14.239	12.17	15.00	20.1	59.3		302	890		284	84
SN		8	1	99	48	2.491	.87									
SN		10	1	99	70	1.594	.87									
SN		11	3	99	62	3.953	2.61									
SN		13	1	98	64	.943	.87									
SN		Totals	6	99	60	8.982	5.22									
Totals			134	87	79	200.302	200.00	322.24	19.9	67.1		6,400	21,624		6,016	2,033

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T11S R08W S20 Ty00PC 94.00

Project: **CLINEMIL**

Acres **94.00**

Page **1**

Date **5/11/2020**

Time **11:38:43AM**

Spp	ST	So Grt ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	L	DO 2M	4	1.0	660	653	61			100			21		79	37	13	200	1.43	3.3
DF	L	DO 3M	77	1.9	11,532	11,315	1,064		100					2	98	39	9	112	0.81	101.4
DF	L	DO 4M	19	2.0	2,704	2,650	249	8	92			27	49	18	6	24	6	30	0.41	88.8
DF	**Totals**		68	1.9	14,896	14,618	1,374	2	94	4		5	10	5	80	32	8	76	0.69	193.5
DF	T	DO 3M	77	1.2	4,774	4,715	443		100				2	2	96	39	8	83	0.63	56.6
DF	T	DO 4M	23	.9	1,413	1,401	132	6	94			50	46	3		20	6	24	0.35	57.2
DF	**Totals**		28	1.1	6,187	6,116	575	1	99			12	12	3	74	29	7	54	0.54	113.8
RA		DO CR	100	2.9	916	890	84		100			14		20	66	30	7	59	0.67	15.0
RA	**Totals**		4	2.9	916	890	84		100			14		20	66	30	7	59	0.67	15.0
Totals				1.7	22,000	21,624	2,033	1	96	3		7	10	5	78	31	7	67	0.64	322.2

TC PLOGSTVB

Log Stock Table - MBF

T11S R08W S20 Ty00PC 94.00

Project: CLINEMIL
Acres 94.00

Page 1
Date 5/11/2020
Time 11:38:43AM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	L	DO	2M	24	13	4.8	13	.9							13					
DF	L	DO	2M	40	49		49	3.5						49						
DF	L	DO	3M	32	13		13	.9			13									
DF	L	DO	3M	34	10		10	.7			10									
DF	L	DO	3M	36	22		22	1.6			22									
DF	L	DO	3M	38	14		14	1.0			14									
DF	L	DO	3M	40	1,026	2.0	1,005	73.1			37	534	434							
DF	L	DO	4M	12	1		1	.1			1									
DF	L	DO	4M	14	15	9.3	14	1.0			14									
DF	L	DO	4M	16	9		9	.7			9									
DF	L	DO	4M	18	22		22	1.6		5	17									
DF	L	DO	4M	20	21		21	1.5		2	19									
DF	L	DO	4M	24	20		20	1.5		3	17									
DF	L	DO	4M	26	29		29	2.1			29									
DF	L	DO	4M	28	34		34	2.5		4	30									
DF	L	DO	4M	30	38		38	2.7		4	34									
DF	L	DO	4M	32	28	13.1	24	1.8		2	22									
DF	L	DO	4M	34	21		21	1.5			21									
DF	L	DO	4M	40	16		16	1.1					16							
DF		Totals			1,400	1.9	1,374	67.6		21	308	534	449	49	13					
DF	T	DO	3M	24	9		9	1.6				9								
DF	T	DO	3M	32	11		11	1.9			11									
DF	T	DO	3M	36	35		35	6.1			25	11								
DF	T	DO	3M	38	24		24	4.1			16	8								
DF	T	DO	3M	40	370	1.5	365	63.4			102	168	94							
DF	T	DO	4M	12	1		1	.2		1										
DF	T	DO	4M	14	27		27	4.7		2	26									
DF	T	DO	4M	16	16		16	2.7		3	13									
DF	T	DO	4M	18	12		12	2.1			12									
DF	T	DO	4M	20	10		10	1.7		3	7									
DF	T	DO	4M	24	21		21	3.6			21									
DF	T	DO	4M	26	4		4	.7			4									
DF	T	DO	4M	28	13		13	2.2			13									
DF	T	DO	4M	30	24		24	4.2			24									
DF	T	DO	4M	32	6	20.0	5	.8			5									
DF		Totals			582	1.1	575	28.3		8	277	196	94							

TC PLOGSTVB

Log Stock Table - MBF

T11S R08W S20 Ty00PC 94.00

Project: CLINEMIL
Acres 94.00

Date 5/11/2020
Time 11:38:43AM

Spp	ST	Sort	Grade	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches 2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
RA		DO	CR	12	3		3	3.9				3								
RA		DO	CR	14	1		1	1.7			1									
RA		DO	CR	18	3		3	3.2			3									
RA		DO	CR	20	4		4	5.4				4								
RA		DO	CR	32	12	16.7	10	11.6			10									
RA		DO	CR	34	7		7	8.0			7									
RA		DO	CR	40	56		55	66.2			15	41								
RA		Totals			86	2.9	84	4.1			35	49								
Total		All Species			2,068	1.7	2,033	100.0		29	620	779	544	49	13					

Oregon Department of Forestry

OPERATIONAL PERIODS and SEASONAL RESTRICTIONS

West Oregon, NWOA
24533 ALSEA HWY, PHILOMATH, OR 97370
(541) 929-3266

Sale Number	Sale Name	Expiration Date
WO-341-2021-W00360-01	Cline Miller Thin	March 31, 2023

Harvesting	Comments	Units	Project	Jan 1	Jan 15	Feb 1	Feb 15	Mar 1	Mar 15	Apr 1	Apr 15	May 1	May 15	Jun 1	Jun 15	Jul 1	Jul 15	Aug 1	Aug 15	Sep 1	Sep 15	Oct 1	Oct 15	Nov 1	Nov 15	Dec 1	Dec 15	Date
Felling in seasonal restricted area	Within MMMA									R	R	R	R	R	R	R	R	R	L	L								
Cable yarding in seasonally restricted area	Within MMMA									R	R	R	R	R	R	R	R	R	L	L								
Chainsaw use in seasonally restricted area	Within MMMA									R	R	R	R	R	R	R	R	R	L	L								
Loading in seasonally restricted area	Within MMMA									R	R	R	R	R	R	R	R	R	L	L								
Ground yarding	Outside MMMA.			R	R	R	R	R	R	R	R	R	R									R	R	R	R	R	R	
Ground yarding in seasonally restricted area	Within MMMA.			R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	L	L		R	R	R	R	R	R	

Hauling	Comments	Units	Project	Jan 1	Jan 15	Feb 1	Feb 15	Mar 1	Mar 15	Apr 1	Apr 15	May 1	May 15	Jun 1	Jun 15	Jul 1	Jul 15	Aug 1	Aug 15	Sep 1	Sep 15	Oct 1	Oct 15	Nov 1	Nov 15	Dec 1	Dec 15	Date
Log Hauling on Unsurfaced Roads				R	R	R	R	R	R	R	R	R	R									R	R	R	R	R	R	

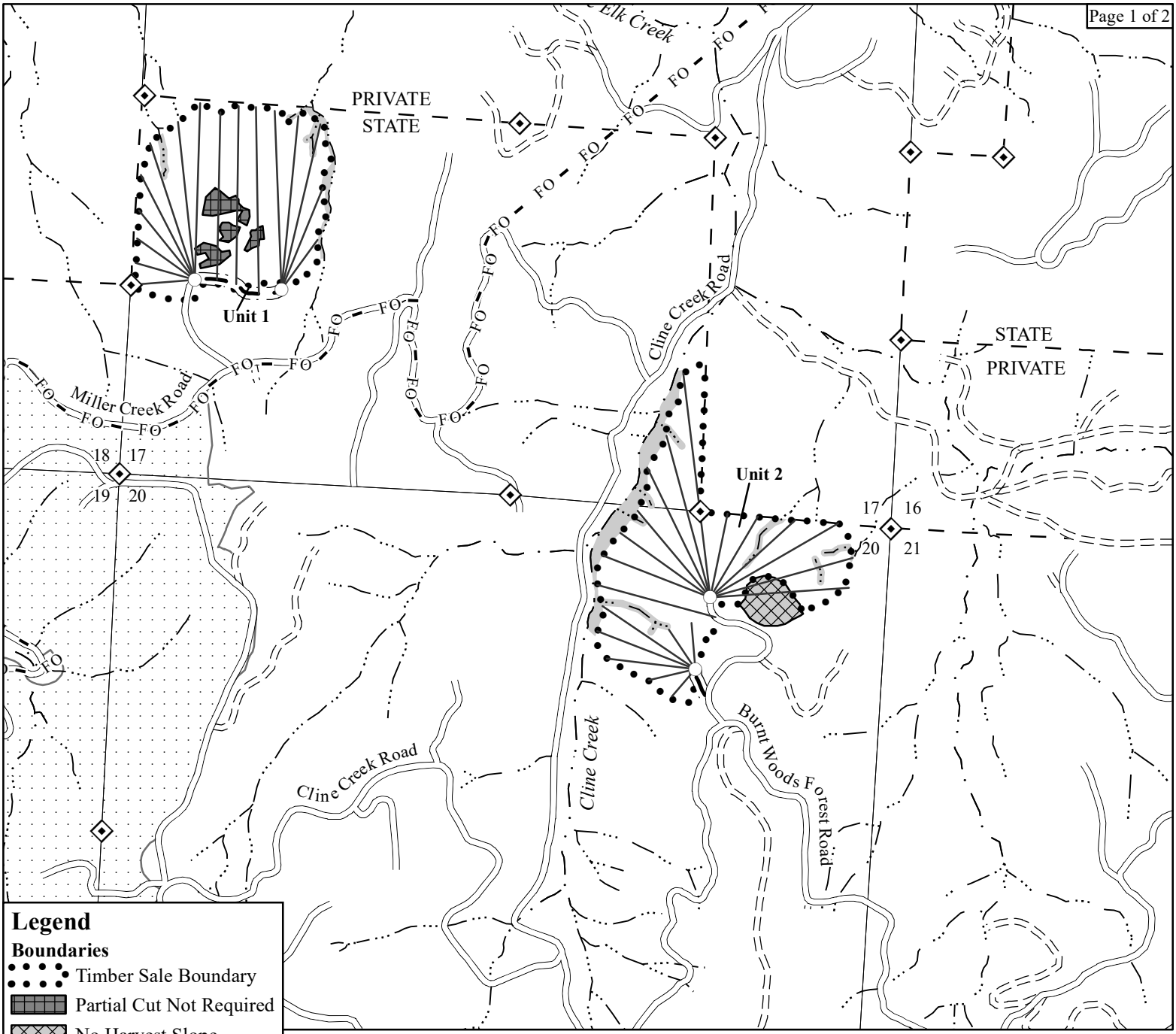
Project Work	Comments	Units	Project	Jan 1	Jan 15	Feb 1	Feb 15	Mar 1	Mar 15	Apr 1	Apr 15	May 1	May 15	Jun 1	Jun 15	Jul 1	Jul 15	Aug 1	Aug 15	Sep 1	Sep 15	Oct 1	Oct 15	Nov 1	Nov 15	Dec 1	Dec 15	Date
Non-project roads and landings				R	R	R	R	R	R	R	R	R	R									R	R	R	R	R	R	
Project inside seasonally restricted area	For Daylighting road segment Point 1 to Point 2 and reopening road from Point 4 to Point 5.									R	R	R	R	R	R	R	R	R	L	L								
Road improvement and construction	Outside MMMA.			R	R	R	R	R	R	R	R													R	R	R	R	

Operation Allowed

Operation Restricted

Activity Restricted 2 hours before sunset and 2 hours after sunrise

This report is for information purposes only. Refer to Section 2455 Seasonal Restrictions of the contract.



Legend

Boundaries
- Timber Sale Boundary
- Partial Cut Not Required
- No Harvest Slope
- Unposted Stream Buffer
- Reforestation Area
- Ownership

Roads
- Surfaced Road
- Unsurfaced Road
- New Construction
- Right of Way (Posted)

Streams
- Type F Stream
- Type N Stream
- Cable Corridors
- FO — Buried Fiber Optic Line
- Landing
- Land Survey Monument

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. WO-341-2021-W00360-01
CLINE MILLER THIN
PORTIONS OF SECTIONS 17, 19 & 20, T11S, R08W, W.M.,
LINCOLN COUNTY, OREGON.

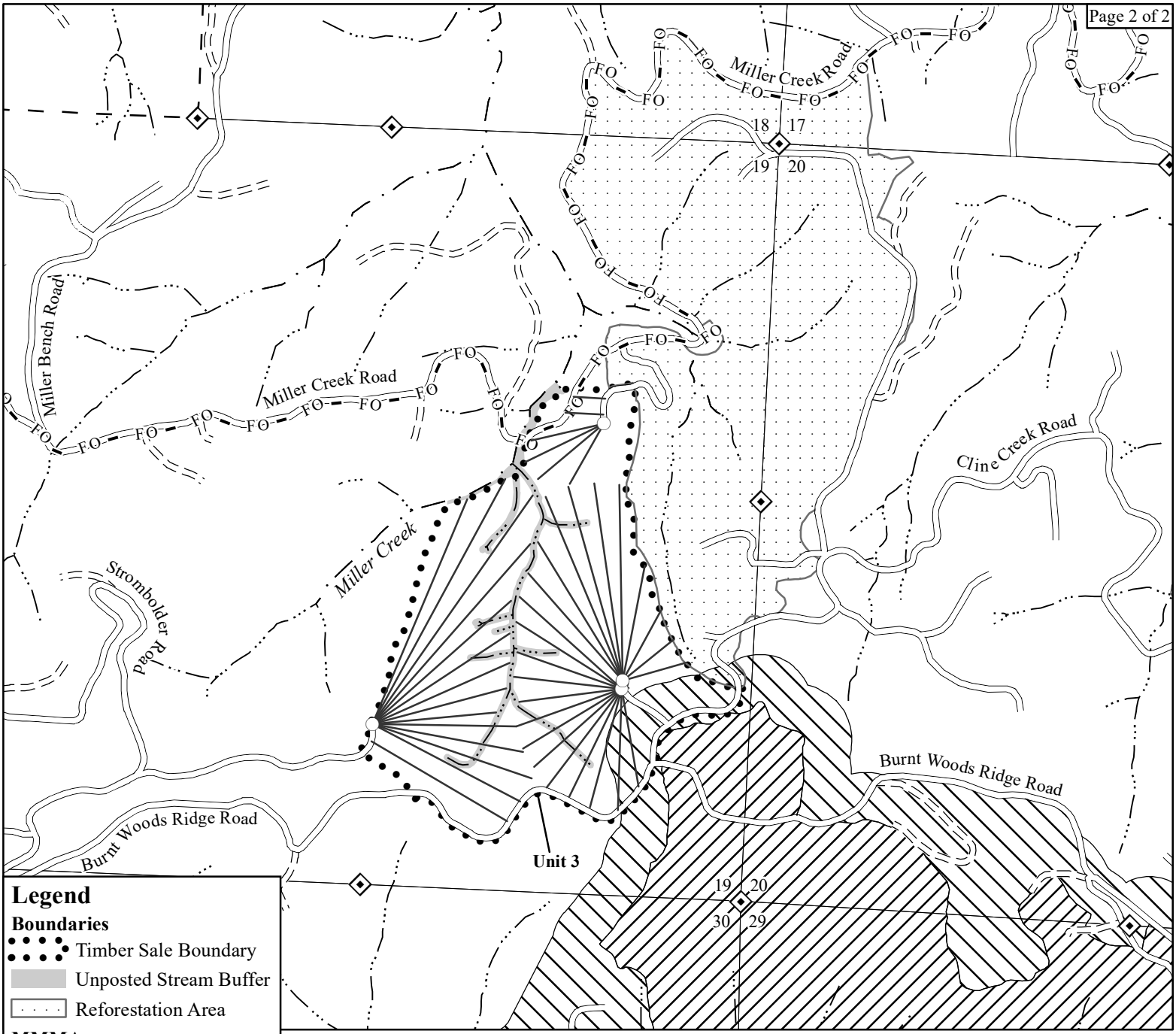
This product is for informational use and may not have been prepared for or be suitable for legal, engineering or survey purposes. Users of this information should review or consult the primary data and information sources to ascertain the usability of this information.

Scale
1:12,000
500 0 500 1,000
Feet

UNIT	NET ACRES TRACTOR	NET ACRES CABLE
1 (PC)	1	31
2 (PC)	0	35
3 (PC)	8	86
TOTAL	9	152

N

Date: 05/29/2020



Legend

Boundaries
- Timber Sale Boundary
- Unposted Stream Buffer
- Reforestation Area

MMMA
- Occupied Habitat
- Non-Habitat Buffer
- Ownership

Roads
- Surfaced Road
- Unsurfaced Road
- New Construction
- Right of Way (Posted)

Streams
- Type F Stream
- Type N Stream
- Cable Corridors
- FO Buried Fiber Optic Line
- Landing
- Land Survey Monument

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. WO-341-2021-W00360-01
CLINE MILLER THIN
PORTIONS OF SECTIONS 17, 19 & 20, T11S, R08W, W.M.,
LINCOLN COUNTY, OREGON.

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Scale
1:12,000
500 0 500 1,000
Feet

UNIT	NET ACRES TRACTOR	NET ACRES CABLE
1 (PC)	1	31
2 (PC)	0	35
3 (PC)	8	86
TOTAL	9	152

N

Date: 05/29/2020