



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Milk Creek  
Sale WL-341-2020-W00577-01

District: Western Lane

Date: October 21, 2019

---

**Cost Summary**

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,678,432.36	\$31.92	\$1,678,464.28
		Project Work:	(\$102,501.02)
		Advertised Value:	\$1,575,963.26



# Timber Sale Appraisal Milk Creek Sale WL-341-2020-W00577-01

**District: Western Lane**

**Date: October 21, 2019**

## Timber Description

**Location:** Portions of Section 21, T19S, R1E, W.M., Lane County, OR

**Stand Stocking:** 60%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	12	0	97
Western Hemlock / Fir	13	0	97
Maple	14	0	95

Volume by Grade	2S	3S & 4S 6"-11"	SM & Better	Camprun	Total
Douglas - Fir	3,230	1,020	186	0	4,436
Western Hemlock / Fir	116	124	0	10	250
Maple	0	0	0	24	24
<b>Total</b>	3,346	1,144	186	34	4,710

**Comments:** Pond Values Used: Forest to Market Prices September 2019.

Western hemlock and Other Conifers Stumpage Price =  
\$183.76/MBF

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Costs:  
\$772.58/MBF = \$1060/MBF - \$287.42/MBF

Bigleaf maple and Other Hardwoods Stumpage Price =  
\$1.33/MBF

Pulp Price (Conifer and Hardwood) Price = \$2.50/Ton

Hauling Cost Allowance = equivalent to \$950 daily truck cost.

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

Other Costs (No Profit & Risk added):  
Equipment wash prior to move-out = \$500  
Final Road Maintenance = \$9,046

TOTAL Other Costs (No Profit and Risk added) = \$9,546



Timber Sale Appraisal  
Milk Creek  
Sale WL-341-2020-W00577-01

District: Western Lane

Date: October 21, 2019

---

**Logging Conditions**

**Combination#: 1**

Douglas - Fir	37.65%
Western Hemlock / Fir	23.64%
Maple	28.33%

**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:** 12 **bd. ft / load:** 4500  
**cost / mbf:** \$98.96  
**machines:** Forwarder  
Harvester

---

**Combination#: 2**

Douglas - Fir	62.35%
Western Hemlock / Fir	76.36%
Maple	71.67%

**Logging System:** Cable: Medium Tower >40 - <70 **Process:** Harvester Head Delimbing  
**yarding distance:** Long (1,500 ft) **downhill yarding:** No  
**tree size:** Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF  
**loads / day:** 8 **bd. ft / load:** 4500  
**cost / mbf:** \$216.12  
**machines:** Log Loader (A)  
Forwarder  
Harvester  
Tower Yarder (Medium)

---



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Milk Creek  
Sale WL-341-2020-W00577-01

District: Western Lane

Date: October 21, 2019

### Logging Costs

Operating Seasons: 1.00

Profit Risk: 10%

Project Costs: \$102,501.02

Other Costs (P/R): \$0.00

Slash Disposal: \$0.00

Other Costs: \$9,546.00

Miles of Road

Road Maintenance: \$0.00

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	3.0	0.0	0.0

### Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	4.0
Western Hemlock / Fir	\$0.00	3.0	3.5
Grand Fir	\$0.00	3.0	3.5
Maple	\$0.00	2.0	3.0



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Milk Creek  
Sale WL-341-2020-W00577-01

District: Western Lane

Date: October 21, 2019

**Logging Costs Breakdown**

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
<b>Douglas - Fir</b>									
\$172.00	\$3.15	\$0.93	\$81.55	\$0.00	\$25.76	\$0.00	\$2.00	\$2.03	\$287.42
<b>Western Hemlock / Fir</b>									
\$188.42	\$3.15	\$0.93	\$93.19	\$0.00	\$28.57	\$0.00	\$2.00	\$2.03	\$318.29
<b>Maple</b>									
\$182.92	\$3.21	\$0.93	\$166.25	\$0.00	\$35.33	\$0.00	\$2.00	\$2.03	\$392.67

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$655.43	\$368.01	\$0.00
Western Hemlock / Fir	\$0.00	\$502.05	\$183.76	\$0.00
Maple	\$0.00	\$394.00	\$1.33	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Milk Creek  
Sale WL-341-2020-W00577-01

District: Western Lane

Date: October 21, 2019

### Summary

#### Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00
Maple	0	\$0.00	\$0.00

#### Unamortized

Specie	MBF	Value	Total
Douglas - Fir	4,436	\$368.01	\$1,632,492.36
Western Hemlock / Fir	250	\$183.76	\$45,940.00
Maple	24	\$1.33	\$31.92

#### Gross Timber Sale Value

Recovery: \$1,678,464.28

Prepared By: Kevin Gehrig

Phone: 541-935-2283

**Milk Creek**  
**WL-341-2020-W00577-01**  
**Combined Project Costs**

Project 1	Road Brushing	\$2,576.00
Project 2	Construct and compact sub-grades, Road Improvements, Culverts.	\$25,843.02
Project 3	Spread and process rock.	\$69,582.00
Project 4	Move-In	\$4,500.00
TOTAL PROJECT COSTS		\$ 102,501.02

State Timber Sale Contract  
 WL-341-2020-W00577-01  
 Milk Creek

### Final Road Maintenance Cost Summary

Totals	Spur 1	Spur 1a	Spur 1b	Spur 2	Spur 2a	Spur 2b	Wimble Pass Road	TOTAL
Stations	51.75	12.34	20.51	33.84	3.1	1.2	50.94	
Cost/Sta	\$ 40.03	\$ 40.23	\$ 44.68	\$ 38.53	\$ 73.19	\$ 101.68	\$ 47.30	
<b>Total Cost</b>	<b>\$ 2,071.43</b>	<b>\$ 496.44</b>	<b>\$ 916.36</b>	<b>\$ 1,303.84</b>	<b>\$ 226.89</b>	<b>\$ 122.02</b>	<b>\$ 2,409.58</b>	<b>\$ 7,546</b>

Spot Rocking	Spur 1	Spur 1a	Spur 1b	Spur 2	Spur 2a	Spur 2b	Wimble Pass Road	TOTAL
Total Yds	30	0	0	20	0	0	70	
Rock Size	3"-0"	3"-0"	3"-0"	3"-0"	3"-0"	3"-0"	1 1/2"-0"	
\$/yd	\$20.39	\$20.39	\$20.39	\$20.39	\$20.39	\$20.39	\$ 21.07	
Subtotal	\$ 612	\$ -	\$ -	\$ 408	\$ -	\$ -	\$ 1,475	<b>\$ 2,495</b>

Grade, Shape & Pull Ditches	Spur 1	Spur 1a	Spur 1b	Spur 2	Spur 2a	Spur 2b	Wimble Pass Road	TOTAL
Stations	51.75	12.34	20.51	33.84	3.10	1.20	50.94	
\$/STA	\$ 18.35	\$ 18.35	\$ 18.35	\$ 18.35	\$ 18.35	\$ 18.35	\$ 18.35	
Subtotal	\$ 950	\$ 226	\$ 376	\$ 621	\$ 57	\$ 22	\$ 935	<b>\$ 3,187</b>

Install Waterbars	Spur 1	Spur 1a	Spur 1b	Spur 2	Spur 2a	Spur 2b	Wimble Pass Road	TOTAL
# of waterbars	6.00	2.00	4.00	5.00	2.00	0.00	0.00	
\$/waterbar	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	\$35.00	
Subtotal	\$ 210.00	\$ 70.00	\$ 140.00	\$ 175.00	\$ 70.00	\$ -	\$ -	<b>\$ 665.00</b>

Landing clean up	Spur 1	Spur 1a	Spur 1b	Spur 2	Spur 2a	Spur 2b	Wimble Pass Road	TOTAL
Stations	3.00	2.00	4.00	1.00	1.00	1.00	0.00	
\$/STA	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00	\$ 100.00		
Subtotal	\$ 300	\$ 200	\$ 400	\$ 100	\$ 100	\$ 100	\$ -	<b>\$ 1,200</b>

Move In	Initial	Between Proj.
Grader	\$ 500	
Vibratory Roller		
D * Cat		
Excavator	\$1,000	
Dump Truck		

Move in costs associated with one entry for the entire project

**Total Final Maintenance Costs** **\$ 9,046**



## Summary of "Other Costs" for Timber Sale Appraisals

Milk Creek      WL-341-2020-W00577-01

### "Other Costs" with Profit and Risk to be Added:

None

Total "Other Costs" with Profit and Risk to be Added:

\$0



### "Other Costs" With No Additional Profit and Risk

	<u>Units</u>	<u>Quantity</u>	<u>Cost/Unit</u>	<u>Total Cost</u>
Equipment wash prior to move-out	Operation			\$ 500
Final Road Maintenance	Operation			\$ 9,046
Total "Other Costs" With No Additional Profit and Risk:				<u>\$ 9,546</u>
Cost per MBF	4,710	MBF		\$ 2.03

State Timber Sale Contract  
Milk Creek  
WL-341-2020-W00577-01

## Road Brushing Costs

Location	Spur 1	Spur 1a	Spur 1b	Spur 2	
Point to Point/Satationing	0+00 to 51+75	0+00 to 12+34	0+00 to 20+51	0+00 to 33+84	
Miles	0.98	0.23	0.39	0.64	Total
Brushing Intensity	Light	Light	Light	Light	
Cost/mile	\$ 1,150	\$ 1,150	\$ 1,150	\$ 1,150	
<b>Total Cost</b>	<b>\$ 1,127</b>	<b>\$ 265</b>	<b>\$ 449</b>	<b>\$ 736</b>	<b>\$ 2,576</b>

## Rock and Processing Costing

Summary:

Total Rocking Cost  
Quantity of loose truck aggregate. Cu. Yds.

\$ 69,582.00  
3120.00

Road	Spur 1
------	--------

Segment 0+00 to 51+75

[illegible]

Road	Spur 1a
------	---------

Segment 0+00 to 12+34

[illegible]

Road	Spur 1b
------	---------

Segment 0+00 to 20+51

[illegible]

Road	Spur 2
------	--------

Segment 0+00 to 33+84

[illegible]

Road Spur 2a

Segment 0+00 to 3+10

Purpose	Location	Type	Loose Truck	Quantity per Station	Cost	Processing	Subtotal
Base	0+00 to 3+10	3"-0"	140 Cu. Yds.	@ 44 Cu. Yds. / s	20.39 +	\$ 2.00 per Cu. Yds	\$ 3,135.00
Landing	3+10	Jaw Run	40 Cu. Yds.		\$ 19.72 +	\$ 2.00 per Cu. Yds	\$ 869.00
					<b>Subtotal Rock Cost</b>		<b>\$ 4,004.00</b>

Road	Spur 2b
------	---------

Segment 0+00 to 1+20

Purpose	Location	Type	Loose Truck	Quantity per Station	Cost	Processing	Subtotal
Landing	1+20	Jaw Run	50 Cu. Yds.		\$ 19.72 +	\$ 2.00 per Cu. Yds	\$ 1,086.00
					<b>Subtotal Rock Cost</b>		<b>\$ 1,086.00</b>

Road Wimble Pass Road

Segment Gate to Intersection w/Spur 2

Purpose	Location	Type	Loose Truck	Quantity per Station	Cost	Processing	Subtotal
Lift	Gate to Spur 2	1 1/2"-0"	30 Cu. Yds.	@ 17 Cu. Yds. / s \$ 21.07 +	\$ 2.00 per Cu. Yds	\$ 693.00	
Subtotal Rock Cost						\$ 693.00	

State Timber Sale Contract  
Milk Creek  
WL-341-2020-W00577-01

### Subgrade Preparation & Construction Costing

		Summary:					
		Total construction Cost					\$ 21,913.02
		Average cost per station					\$ 178
Road	Spur 1 (Stationing 0+00 to 51+75)						
Segment	0+00 to 51+75						
		<u>Quantity</u>					<u>Sub total</u>
	<u>Balance/Standard Subgrade construction</u>						
	Landing Construction	\$ 481.17	per landing	@	3 landings	=	\$ 1,443.50
	Subgrade preparation (Grade/Ditches/Inlets/Outlets)	\$ 46.06	per station	@	51.75 stations	=	\$ 2,384.00
	Install Road Fabric	\$ 1.50	per linear foot	@	140 feet	=	\$ 210.00
		Subtotal Construction Cost					\$ 4,037.50
		<u>Construction Cost per Station</u>					<u>\$ 78</u>
Road	Spur 1a (Stationing 0+00 to 12+34)						
		<u>Quantity</u>					<u>Sub total</u>
	Clearing and Grubbing	\$67.02	per station	@	12.34 stations	=	\$ 827.00
	note: Clearing debris may be scattered on slopes less than 50 percent						
	<u>Balance/Standard Subgrade construction</u>						
	Drift/Balance Cut	\$ 1,306.00	per station	@	1 station	=	\$ 1,306.00
	Landing Construction	\$ 481.17	per landing	@	2 landings	=	\$ 962.33
	Subgrade preparation (Grade/Ditches/Inlets/Outlets)	\$ 67.03	per station	@	12.34 stations	=	\$ 828.00
		Subtotal Construction Cost					\$ 3,923.33
		<u>Construction Cost per Station</u>					<u>\$ 318</u>
Road	Spur 1b (Stationing 0+00 to 20+51)						
		<u>Quantity</u>					<u>Sub total</u>
	Clearing and Grubbing	\$60.46	per station	@	20.51 stations	=	\$ 1,240.00
	note: Clearing debris may be scattered on slopes less than 50 percent						
	<u>Balance/Standard Subgrade construction</u>						
	Drift/Balance Cut	\$ 806.34	per station	@	1 station	=	\$ 806.00
	Landing Construction	\$ 481.17	per landing	@	4 landings	=	\$ 1,924.68
	Subgrade preparation (Grade/Ditches/Inlets/Outlets)	\$ 67.03	per station	@	20.51 stations	=	\$ 1,375.00
		Subtotal Construction Cost					\$ 5,345.68
		<u>Construction Cost per Station</u>					<u>\$ 261</u>
Road	Spur 2 (Stationing 0+00 to 33+84)						
Segment	0+00 to 33+84						
		<u>Quantity</u>					<u>Sub total</u>
	<u>Balance/Standard Subgrade construction</u>						
	Landing Construction	\$ 481.17	per landing	@	1 landing	=	\$ 481.17
	Subgrade preparation (Grade/Ditches/Inlets/Outlets)	\$ 46.06	per station	@	33.84 stations	=	\$ 1,559.00
		Subtotal Construction Cost					\$ 2,040.17
		<u>Construction Cost per Station</u>					<u>\$ 60</u>
Road	Spur 2a (Stationing 0+00 to 3+10)						
		<u>Quantity</u>					<u>Sub total</u>
	Clearing and Grubbing	\$85.48	per station	@	3.1 stations	=	\$ 265.00
	note: Clearing debris may be scattered on slopes less than 50 percent						
	<u>Balance/Standard Subgrade construction</u>						
	Drift/Balance Cut	\$ 619.80	per station	@	3.1 stations	=	\$ 1,921.00
	Landing Construction	\$ 481.17	per landing	@	1 landing	=	\$ 481.17
	Subgrade preparation (Grade/Slope)	\$ 71.29	per station	@	3.10 stations	=	\$ 221.00
		Subtotal Construction Cost					\$ 2,888.17
		<u>Construction Cost per Station</u>					<u>\$ 932</u>
Road	Spur 2b (Stationing 0+00 to 1+20)						
		<u>Quantity</u>					<u>Sub total</u>
	Clearing and Grubbing	\$83.33	per station	@	1.2 stations	=	\$ 100.00
	note: Clearing debris may be scattered on slopes less than 50 percent						
	<u>Balance/Standard Subgrade construction</u>						
	Drift/Balance Cut	\$ 553.19	per station	@	1.2 station	=	\$ 664.00
	Landing Construction	\$ 481.17	per landing	@	1 landing	=	\$ 481.17
	Subgrade preparation (Grade/Slope)	\$ 71.66	per station	@	1.2 stations	=	\$ 86.00
		Subtotal Construction Cost					\$ 1,331.17
		<u>Construction Cost per Station</u>					<u>\$ 1,109</u>
Road	Wimble Pass Road (Stationing 0+00 to 50+94)						
Segment	0+00 to 51+94						
		<u>Quantity</u>					<u>Sub total</u>
	Subgrade preparation (Grade/Ditches/Inlets/Outlets)	\$ 46.07	per station	@	50.94 stations	=	\$ 2,347.00
		Subtotal Construction Cost					\$ 2,347.00
		<u>Construction Cost per Station</u>					<u>\$ 46</u>
Total Subgrade Construction Cost for Roads:							\$ 21,913.02

Culvert Installation Costing

Summary:	
Total pipe install cost	\$ 3,930.00

Culvert List Spur 1

Culvert No.	Purpose	Location	Diameter (x) Length (ft)		Material Ty Gauge		Material		Installation	Sub Total
							Culvert Cost	Couplers		
Spur 1										
1	Cross Drain	10+96	18	30	ACSP	16	\$ 420.00	\$ 30.00	\$ 600.00	\$ 1,050.00
2	Cross Drain	23+35	18	40	ACSP	16	\$ 560.00	\$ 30.00	\$ 700.00	\$ 1,290.00
3	Cross Drain	51+28	18	40	ACSP	16	\$ 560.00	\$ 30.00	\$ 700.00	\$ 1,290.00
Pipe transport and delivery										\$ 300.00
Total										\$ 3,930.00

Note: Culvert lengths are approxamite. The operator shall add or subtract length to ensure proper fit within the road prism or stream crossing.

# Cruise Report

Milk Creek

SALE # 341-2020-W00577

**Sale Area:** Portions of Section 21, T19S, R1E, W.M., Lane County, Oregon. The sale consists of 2 areas: Area 1's net harvestable acres are 105 and Area 2's net harvestable acres are 31. There are approximately 10 acres of stream buffers and roads. Acres were determined using a combination of aerial photos, GPS, GIS, and topographic maps.

**Stand Description:** Area 1 of Milk Creek is dominated by 91-year-old Douglas-fir. A small component of bigleaf maple, western hemlock, western red cedar and red alder are present. The majority of the hardwood component is concentrated near the draws. The understory consists of primarily sword fern, salal, dwarf Oregon grape, salmonberry, and vine maple. The slopes are 35%- 65% throughout the unit. There are three streams located in the timber sale area, one small type N in the Northern portion of the unit, one small type N in the South portion of the unit, and one small Type F that runs along the East side, outside of the timber sale boundary. Area 1 was appraised for both ground based and cable based operations.

Area 2 of Milk Creek was added to the sale due to some damage caused during the 2019 snow storm. The area is split into two different strata: Area 2A (14 acres) dominated by a mix of 65-year-old Douglas-fir and western hemlock and Area 2B (17 acres) dominated by 41-year-old Douglas-fir. A small component of bigleaf maple, western hemlock, western red cedar and red alder are present. The majority of the hardwood component is concentrated near the draws. The understory consists of primarily sword fern, salal, dwarf Oregon grape, salmonberry, and vine maple.

The slopes are 0%- 65% throughout the unit. There are no streams located in Area 2, however the East timber sale boundary line, as well as the Northeast timber sale boundary line are buffered off of a small Type F stream. Area 2 unit was appraised for both ground based and cable based operations.

**Cruise Method:** Areas 1 and 2b were not cruised. Instead, cut-out data from the Millicoma Lookout Timber Sale and Bierce Creek were used for grade volume percentage, total MBF, and MBF/acre volume. Area 2a was cruised using a 20 BAF and calculated with the SuperACE program.

**Volume Tables:** Volumes for Area 1 were computed using the cut-out data from the Millicoma Lookout Timber Sale and volumes for Area 2b were computed using the cut-out data from the Bierce Creek Sale. The volumes for Area 2a were cruised and computed using the SuperACE program.

**Area 1 Net Cruised Volume (MBF)**

Species	Avg. DBH	Special Mill	2 Saw	3 Saw	4 Saw	Camp Run	Sub-Total
Douglas-fir	13.8	186	3147	642	87		4062
Grand fir	10.3					8	8
Bigleaf maple	10					8	8
Western hemlock	10					2	2

**Total  
(MBF): 4080**

**Area 2A Net Cruised Volume (MBF)**

Species	Avg. DBH	Special Mill	2 Saw	3 Saw	4 Saw	Camp Run	Sub-Total
Douglas-fir	13.4		61	38	33		132
Grand fir	20.7		34	12	2		48
Bigleaf maple	18.6					16	16
Western hemlock	15.5		82	76	33		191

**Total  
(MBF): 387**

**Area 2B Net Cruised Volume (MBF)**

Species	Avg. DBH	Special Mill	2 Saw	3 Saw	4 Saw	Camp Run	Sub-Total
Douglas-fir	9.3		22	184	37		243
Grand fir							
Bigleaf maple							
Western hemlock							

**Total  
(MBF): 243**

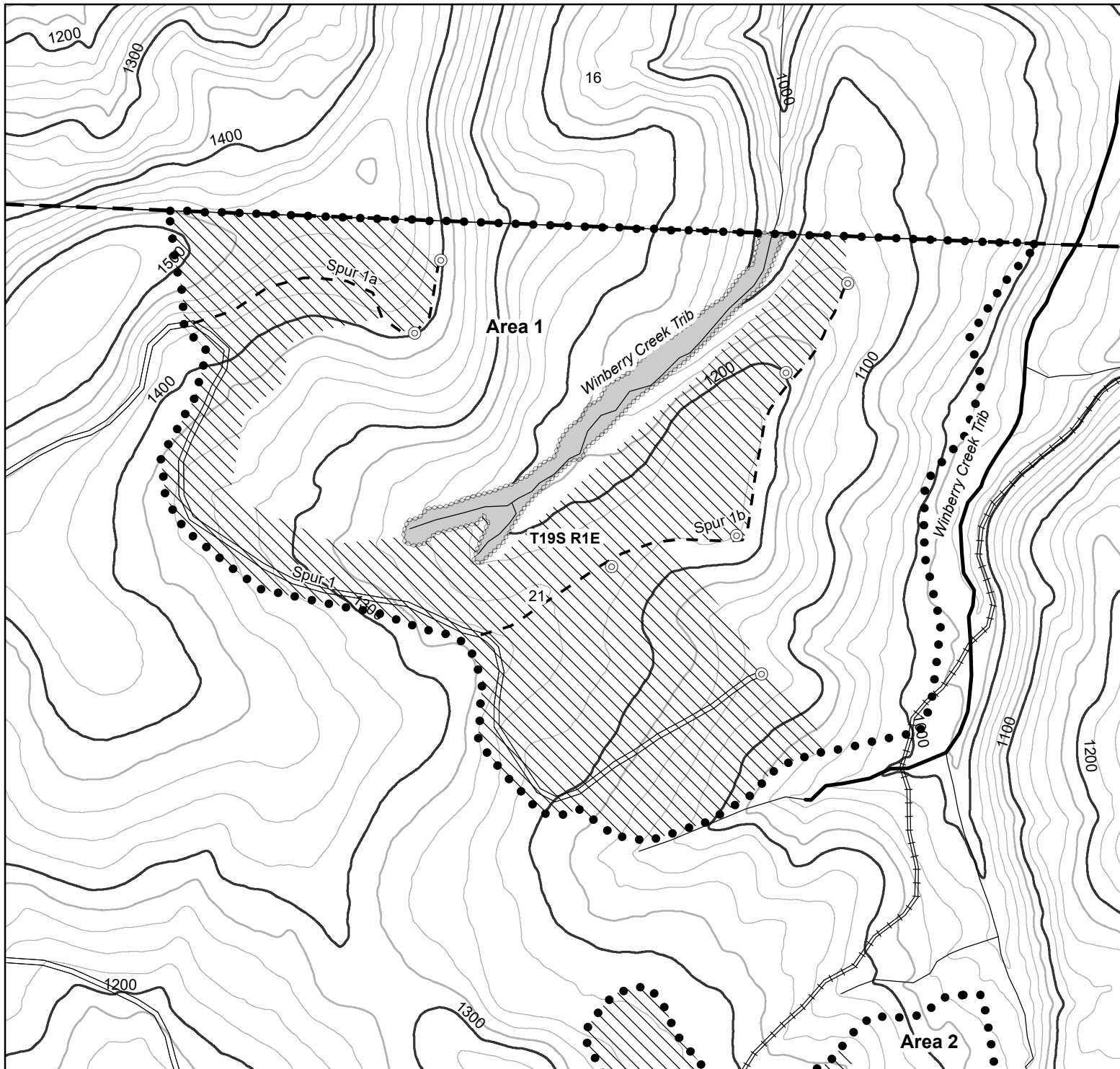
**TOTAL MBF: 4710**

Note: A breakage and defect was applied to the volume.

**Average MBF/Acre Area 1: 39**

**Average MBF/Acre Area 2A: 29**

**Average MBF/Acre Area 2B: 14**



## Logging Map Map 1 of 2

OF TIMBER SALE CONTRACT NO. 341-2020-W00577-01  
MILK CREEK  
PORTIONS OF SECTIONS 21, T19S, R1E, W.M.  
LANE COUNTY, OREGON

AREA 1 = 105  
AREA 2 = 31

TOTAL NET ACRES = 136  
Contours = 20ft

0 250 500 1,000 Feet  
1 inch = 500 feet

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

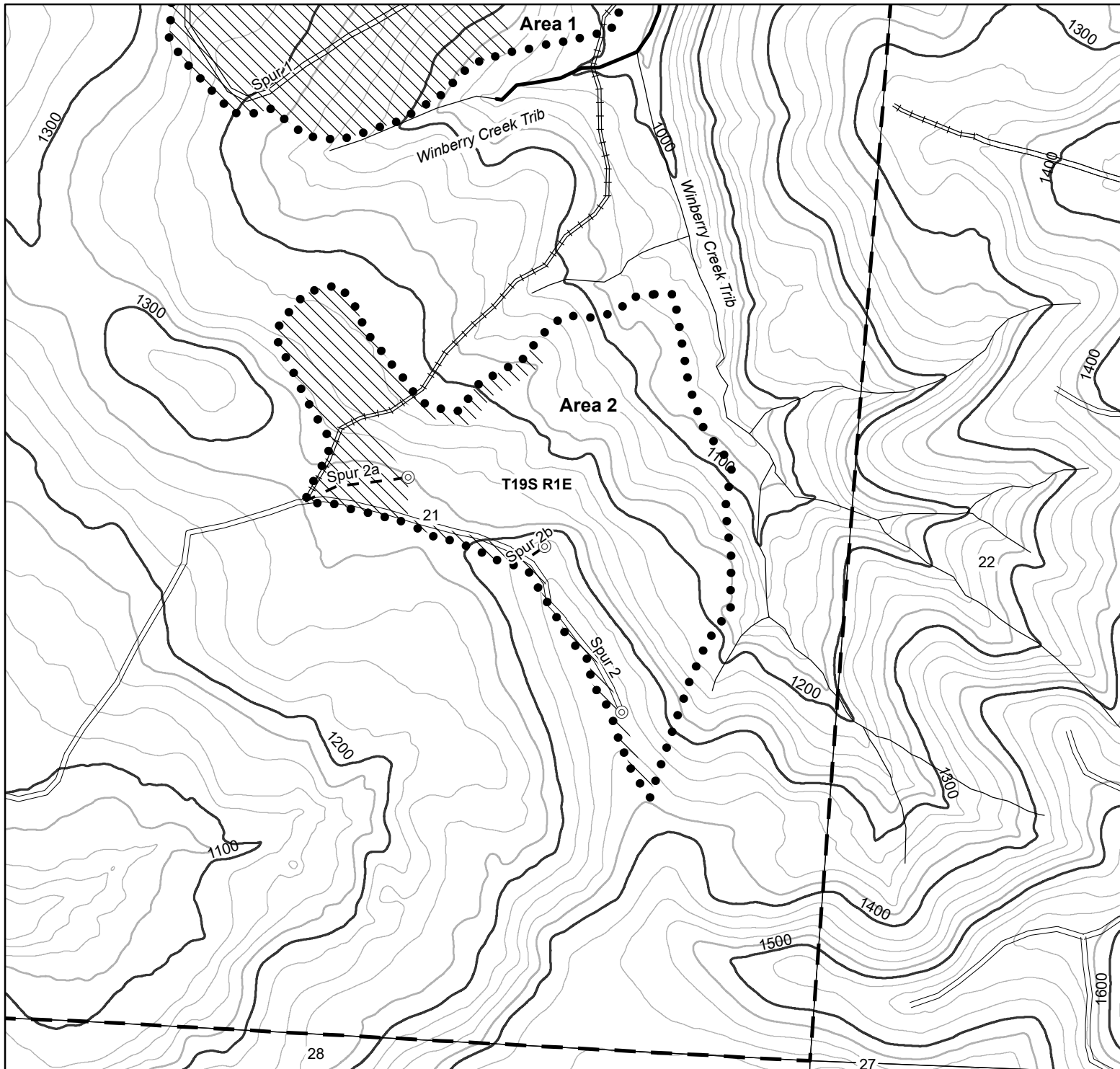


"STEWARDSHIP IN FORESTRY"

### Legend

- Timber Sale Boundary
- Ground Based
- == Surfaced road
- Old road bed - not driveable
- Road Reconstruct/New Construct
- == Surfaced road
- Fish
- Nonfish
- Stream Buffer
- ODF Ownership
- Landing to Construct





## Logging Map Map 2 of 2

OF TIMBER SALE CONTRACT NO. 341-2020-W00577-01  
MILK CREEK  
PORTIONS OF SECTIONS 21, T19S, R1E, W.M.  
LANE COUNTY, OREGON

AREA 1 = 105  
AREA 2 = 31

TOTAL NET ACRES = 136  
Contours = 20ft

### Legend

- Timber Sale Boundary
- Ground Based
- Surfaced road
- Old road bed - not driveable
- Road Reconstruct/New Construct
- Surfaced road
- Fish
- Nonfish
- ODF Ownership
- Landing to Construct

0 250 500 1,000  
Feet

1 inch = 500 feet

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



"STEWARDSHIP IN FORESTRY"