Timber Sale Appraisal
Bale Out Thin

Sale WO-341-2016-23-

District: West Oregon **Date: May 27, 2015**

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$183,481.74	$0.00	$183,481.74
		Project Work:	($48,287.00)
		Advertised Value:	$135,194.74

Timber Sale Appraisal
Bale Out Thin

Sale WO-341-2016-23-

District: West Oregon **Date: May 27, 2015**

Timber Description

Location: Portions of Section 19, T10S, R8W, and portions of Sections 11, 14, and 24, T10S, R9W, W.M., Lincoln County, Oregon.

Stand Stocking: 40%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	11	0	95

Volume by Grade	3S	4S	Total
Douglas - Fir	1,074	460	1,534
Total	1,074	460	1,534

Comments: Pond Values Used: 1st Quarter Calendar Year 2015.

Western Hemlock and Other Conifers Stumpage Price = Douglas-fir bid price.

Western redcedar and Other Cedars Stumpage Price = Douglas-fir bid price.

Red Alder and Other Hardwoods Stumpage Price = Douglas-fir bid price.

SCALING COST ALLOWANCE = $5.00/MBF

FUEL COST ALLOWANCE = $3.00/Gallon

LOG HAUL:
Costed to Philomath.

HAULING COST ALLOWANCE:
Hauling costs equivalent to $780 daily truck cost.

Other Costs (with Profit & Risk to be added):
Intermediate Supports/Tail Trees: 20 trees @ $100/tree = $2,000
Branding & Painting: 1,534 MBF @ $1.00/MBF = $1,534
TOTAL Other Costs (with Profit & Risk to be added) = $3,534

Other Costs (No Profit & Risk added):
Invasive Species Equipment Cleaning: $2,500
Additional swing yarding cost: 9.25 hours @ $100/hr = $925
Firewood Sorting: 5 landings @ $100/landing = $500
TOTAL Other Costs (No Profit & Risk added) = $3,925

SLASH DISPOSAL
None.

Timber Sale Appraisal
Bale Out Thin

Sale WO-341-2016-23-

District: West Oregon **Date: May 27, 2015**

Logging Conditions

Combination#: 1 Douglas - Fir 24.38%

Logging System: Track Skidder **Process:** Stroke Delimber

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

tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF

loads / day: 7.5 **bd. ft / load:** 3500

cost / mbf: $120.84

machines: Stroke Delimber (B)

Combination#: 2 Douglas - Fir 20.73%

Logging System: Cable: Small Tower <=40 **Process:** Stroke Delimber

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

tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF

loads / day: 6.5 **bd. ft / load:** 3500

cost / mbf: $246.15

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Small)

Combination#: 3 Douglas - Fir 35.63%

Logging System: Cable: Small Tower <=40 **Process:** Stroke Delimber

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

tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF

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

cost / mbf: $266.67

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Small)

Combination#: 4 Douglas - Fir 19.26%

Logging System: Cable: Small Tower <=40 **Process:** Stroke Delimber

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

tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF

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

cost / mbf: $320.00

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Small)

Timber Sale Appraisal
Bale Out Thin

Sale WO-341-2016-23-

District: West Oregon **Date: May 27, 2015**

Logging Costs

Operating Seasons:	2.00	**Profit Risk:**	12%
Project Costs:	$48,287.00	**Other Costs (P/R):**	$3,534.00
Slash Disposal:	$0.00	**Other Costs:**	$3,925.00

Miles of Road **Road Maintenance:** $8.27

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	3.5

Timber Sale Appraisal
Bale Out Thin

Sale WO-341-2016-23-

District: West Oregon

Date: May 27, 2015

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$237.13	$8.68	$5.72	$117.00	$2.30	$44.50	$0.00	$5.00	$2.56	$422.89

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$542.50	$119.61	$0.00

Timber Sale Appraisal
Bale Out Thin

Sale WO-341-2016-23-

District: West Oregon **Date: May 27, 2015**

Summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,534	$119.61	$183,481.74

Gross Timber Sale Value

Recovery: $183,481.74

Prepared By: Joe Goldsby **Phone:** 541-929-9168

SUMMARY OF ALL PROJECT COSTS

Sale Name: Bale Out Thin Date: April 2015
Time: 15:44

Project #1 - New Construction

Road Segment	Length	Cost	
B3 to B4	8.3 sta	$1,551	
B5 to B6	6.3 sta	$1,755	
C2 to C3	2.0 sta	$633	
E2 to E3	1.9 sta	$1,052	
E5 to E6	3.2 sta	$830	
L1	NA	$373	
TOTALS	8.3 sta		$6,194

Project #2 - Improvements

Road Segment	Length	Cost	
A to A1	318.7 sta	$13,481	
B to B1	3.6 sta	$409	
B2 to B3	8.7 sta	$973	
C to C1	78.0 sta	$2,500	
D to D1	22.6 sta	$1,284	
D1 to D2	7.4 sta	$556	
D1 to D3	14.8 sta	$2,199	
D4 to D5	7.4 sta	$1,709	
E to E1	2.1 sta	$501	
E4 to E5	6.7 sta	$1,071	
E4 to E7	41.0 sta	$5,064	
E8 to E9	12.4 sta	$1,284	
E10 to E11	11.2 sta	$1,186	
TOTALS	534.6 sta		$32,217

Project #3 - Brushing $2,325

Project #4 - Post Harvest Activities

Landing patch rock and turnaround rock $4,083

Move in	Cost	On-site move	
Excavator	$753	$121	
Dump Truck	$170		
Crawler tractor, D-7 or equiv.	$547	$93	
Grader, Cat 14-G or equiv.	$340		
Backhoe	$681	$10	
Brusher	$753		
TOTAL			$3,468

GRAND TOTAL **$48,287**

Compiled by J. Goldsby Date 04/16/2015

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 2 LENGTH improve 318.7 sta
ROAD A to A1

CLEARING AND GRUBBING

0.33 acres	@	$1,010.24	/acre	=	$333	road	
(Sta. 306+80 to Pt. A1)							
0.20 acres	@	$1,010.24	/acre	=	$202	landings	
(Sta. 140+00 & 314+20)							
			TOTAL CLEARING AND GRUBBING =				$535

IMPROVEMENT

Slide removal							
(with excavator)							
Sta. 264+30	1 hr	@	$127.68	/hr	=	$128	
End-haul 40 CY	1 hr	@	$68.88	/hr	=	$69	
Process Waste Area	40 cy	@	$0.38	/cy	=	$15	
Slough removal and							
sidecast pullback							
Sta. 289+60 to 290+10	3 hrs	@	$127.68	/hr	=	$383	
End-haul 120 CY	3 hrs	@	$68.88	/hr	=	$207	
Process Waste Area	120 cy	@	$0.38	/cy	=	$46	
Re-open road							
(with dozer)							
229+40 to 291+40	3 hrs	@	$135.80	/hr	=	$407	
306+80 to 318+70 (A1)	11.9 sta.	@	$45.27	/sta	=	$539	
Shape surface							
(with road grader)							
0+00 to 111+60	111.6 sta	@	$17.16	/sta	=	$1,915	
111+60 to 229+40	117.8 sta	@	$13.75	/sta	=	$1,620	
229+40 to 291+40	62.0 sta	@	$11.55	/sta	=	$716	
291+40 to 306+80	15.4 sta	@	$9.90	/sta	=	$152	
306+80 to 318+70 (A1)	11.9 sta	@	$11.55	/sta	=	$137	
Re-open landing/	1 hr	@	$135.80	/hr	=	$136	
turnaround @ Pt. A1							
(with dozer)							
				TOTAL IMPROVEMENT =			$6,470

EXCAVATION With D7 dozer or equivalent

Construct landings	3 hr	@	$135.80	/hr	=	$407	
(140+00 & 314+20)							
				TOTAL EXCAVATION =			$407

SURFACING

		Size	Cost/yd			
Spot rock						
0+00 to 20+00	18 cy of	1 1/2-0"	$24.00	=	$432	
(50 CY/mi)						
20+00 to 37+20	18 cy of	3-0"	$22.31	=	$402	
(50 CY/mi)						
37+20 to 229+40	180 cy of	1 1/2-0"	$24.00	=	$4,320	
(50 CY/mi)						
291+40 to 306+80	18 cy of	3-0"	$22.31	=	$402	
(50 CY/mi)						
			TOTAL SURFACING COST =			$5,556

SPECIAL PROJECTS

Clean out culverts	20 culverts	@	$25.67 ea	=	$513	
(0+00 to 229+40)						
(inlets and outlets)						
			TOTAL SPECIAL PROJECTS =			$513

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $13,481

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 2 LENGTH improve 3.6 sta
ROAD B to B1

CLEARING AND GRUBBING

0.10	acres	@	$1,010.24	/acre	=	$101	landing	

TOTAL CLEARING AND GRUBBING = $101

IMPROVEMENT

Re-open road (with dozer)	1.0 hr	@	$135.80	/hr	=	$136	
Re-open landing (with dozer)	1.0 hr	@	$135.80	/hr	=	$136	
Shape surface (with road grader)	3.6 sta	@	$9.90	/sta	=	$36	

TOTAL IMPROVEMENT = $308

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $409

SUMMARY OF CONSTRUCTION COST

SALE	Bale Out Thin	Project #	2	LENGTH	improve	8.7 sta
ROAD	B2 to B3					

CLEARING AND GRUBBING

0.24	acres	@	$1,010.24	/acre	=	$242	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $343

IMPROVEMENT

Re-open road (with dozer)	8.7 sta	@	$45.27	/sta	=	$394
Shape surface (with road grader)	8.7 sta	@	$11.55	/sta	=	$100

TOTAL IMPROVEMENT = $494

EXCAVATION With D7 dozer or equivalent

Construct landing (Sta. 5+30)	1 hr	@	$135.80	/hr	=	$136

TOTAL EXCAVATION = $136

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $973

SUMMARY OF CONSTRUCTION COST

SALE	Bale Out Thin	Project # 1	LENGTH const		8.3 sta
ROAD	B3 to B4				

CLEARING AND GRUBBING

0.46	acres	@	$1,010.24	/acre	=	$465	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $566

EXCAVATION With D7 dozer or equivalent

Construct road	8.3 sta	@	$74.28	/sta	=	$617
Construct landing	2 hr	@	$135.80	/hr	=	$272
Shape subgrade (with road grader)	8.3 sta	@	$11.55	/sta	=	$96

TOTAL EXCAVATION = $985

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $1,551

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 1 LENGTH const 6.3 sta
ROAD B5 to B6

CLEARING AND GRUBBING

0.43	acres	@	$1,010.24	/acre	=	$434	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $535

EXCAVATION With D7 dozer or equivalent

Construct road	6.3 sta	@	$74.28	/sta	=	$468
Construct landing	2 hr	@	$135.80	/hr	=	$272
Extra drift (with dozer)	3 hr	@	$135.80	/hr	=	$407
Shape surface (with road grader)	6.3 sta	@	$11.55	/sta	=	$73

TOTAL EXCAVATION = $1,220

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $1,755

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Bale Out Thin C to C1		Project #	2	LENGTH	improve		78.0 sta

IMPROVEMENT

Shape surface (with road grader)	78.0 sta	@	$9.90	/sta	=	$772	

TOTAL IMPROVEMENT = $772

SURFACING

			Size	Cost/yd			
Spot rock (50 CY/mi)	72	cy of	1 1/2-0"	$24.00	=	$1,728	

TOTAL SURFACING COST = $1,728

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $2,500

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 1 LENGTH const 2.0 sta
ROAD C2 to C3

CLEARING AND GRUBBING

0.11	acres	@	$1,010.24	/acre	=	$111	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $212

EXCAVATION With D7 dozer or equivalent

Construct road	2.0 sta	@	$74.28	/sta	=	$149
Construct landing	2 hr	@	$135.80	/hr	=	$272

TOTAL EXCAVATION = $421

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $633

SUMMARY OF CONSTRUCTION COST

SALE	Bale Out Thin	Project #	2	LENGTH	improve		22.6 sta
ROAD	D to D1						

IMPROVEMENT

Re-open road (with dozer)	22.6 sta	@	$45.27	/sta	=	$1,023	
Shape surface (with road grader)	22.6 sta	@	$11.55	/sta	=	$261	
				TOTAL IMPROVEMENT =			$1,284

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $1,284

SUMMARY OF CONSTRUCTION COST

SALE	Bale Out Thin		Project #	2	LENGTH	improve	7.4 sta
ROAD	D1 to D2						

IMPROVEMENT

Re-open road (with dozer)	7.4	sta	@	$45.27	/sta	=	$335
Re-open landing (with dozer)	1	hrs	@	$ 135.80	/hr	=	$136
Shape surface (with road grader)	7.4	sta	@	$11.55	/sta	=	$85

TOTAL IMPROVEMENT = $556

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $556

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 2 LENGTH improve 14.8 sta
ROAD D1 to D3

CLEARING AND GRUBBING

0.41	acres	@	$1,010.24	/acre	=	$414	road
0.20	acres	@	$1,010.24	/acre	=	$202	landings

TOTAL CLEARING AND GRUBBING = $616

IMPROVEMENT

Re-open road (with dozer)	14.8 sta	@	$67.90	/sta	=	$1,005
Re-open landings (Sta. 6+70 and Pt. D3)	3 hrs	@	$ 135.80	/hr	=	$407
Shape surface (with road grader)	14.8 sta	@	$11.55	/sta	=	$171

TOTAL IMPROVEMENT = $1,583

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $2,199

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 2 LENGTH improve 7.4 sta
ROAD D4 to D5

CLEARING AND GRUBBING

0.18	acres	@	$1,010.24	/acre	=	$182	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $283

IMPROVEMENT

Re-open road (with dozer)	7.4 sta	@	$74.28	/sta	=	$550
Re-open road (with excavator)	3 hrs	@	$127.68	/hr	=	$383
Extra drift	2 hrs	@	$135.80	/hr	=	$272
Re-open loading area at Point D5 (with dozer)	1 hrs	@	$ 135.80	/hr	=	$136
Shape surface (with road grader)	7.4 sta	@	$11.55	/sta	=	$85

TOTAL IMPROVEMENT = $1,426

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $1,709

SUMMARY OF CONSTRUCTION COST

SALE	Bale Out Thin	Project #	2	LENGTH	improve	2.1 sta
ROAD	E to E1					

CLEARING AND GRUBBING

0.12	acres	@	$1,010.24	/acre	=	$121	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $222

IMPROVEMENT

Re-open road (with dozer)	2.1 sta	@	$67.90	/sta	=	$143
Re-open landing (with dozer)	1 hrs	@	$ 135.80	/hr	=	$136

TOTAL IMPROVEMENT = $279

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $501

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 1 LENGTH const 1.9 sta
ROAD E2 to E3

CLEARING AND GRUBBING

0.13	acres	@	$1,010.24	/acres	=	$131	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $232

EXCAVATION With D7 dozer or equivalent

Construct road	1.9 sta	@	$74.28	/sta	=	$141
Construct landing	2 hr	@	$135.80	/hr	=	$272
Extra drift/ clear & grub	3 hr	@	$135.80	/hr	=	$407

TOTAL EXCAVATION = $820

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $1,052

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 2 LENGTH improve 6.7 sta
ROAD E4 to E5

CLEARING AND GRUBBING

0.18	acres	@	$1,010.24	/acre	=	$182	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $283

IMPROVEMENT

Re-open road (with dozer)	6.7	sta	@	$45.27	/sta	=	$303
Re-open landing (with dozer)	1	hrs	@	$ 135.80	/hr	=	$136
Shape surface (with road grader)	6.7	sta	@	$11.55	/sta	=	$77

TOTAL IMPROVEMENT = $516

EXCAVATION With D7 dozer or equivalent

Construct landing (Sta. 4+90)	2	hr.	@	$135.80	/hr.	=	$272

TOTAL EXCAVATION = $272

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $1,071

SUMMARY OF CONSTRUCTION COST

SALE	Bale Out Thin	Project #	1	LENGTH const	3.2 sta
ROAD	E5 to E6				

CLEARING AND GRUBBING

0.18	acres	@	$1,010.24	/acre	=	$182	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $283

EXCAVATION With D7 dozer or equivalent

Construct road	3.2 sta	@	$74.28	/sta	=	$238
Construct landing	2 hr	@	$135.80	/hr	=	$272

TOTAL EXCAVATION = $510

IMPROVEMENT

Shape surface (with road grader)	3.2 sta	@	$11.55	/sta	=	$37

TOTAL IMPROVEMENT = $37

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $830

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 2 LENGTH improve 41.0 sta
ROAD E4 to E7

CLEARING AND GRUBBING

0.21	acres	@	$1,010.24	/acre	=	$212	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $313

IMPROVEMENT

Excavate 250 CY	4 hrs	@	$127.68	/hr	=	$511
(Sta. 20+60 to 21+90)						
(with excavator)						
End-haul 50 CY	2 hrs	@	$68.88	/hr	=	$138
Drift 200 CY	4 hrs	@	$135.80	/hr	=	$543
(with dozer)						
Re-open road						
(with dozer)						
(Pt. E4 to 33+30)	33.3 sta	@	$45.27	/sta	=	$1,507
(Sta. 33+30 to Pt. E7)	7.7 sta	@	$67.90	/sta	=	$523
Re-open landing	2 hrs	@	$135.80	/hr	=	$272
(with dozer)						
Shape surface						
(with road grader)						
(Pt. E4 to 33+30)	33.3 sta	@	$18.17	/sta	=	$605
(Sta. 33+30 to Pt. E7)	7.7 sta	@	$11.55	/sta	=	$89

TOTAL IMPROVEMENT = $4,188

SURFACING

			Size	Cost/yd		
Patch rock	18	cy of	jaw run	$21.30	=	$383

TOTAL SURFACING COST = $383

SPECIAL PROJECTS

Clean out culverts	7	culverts	@	$25.67	ea =	$180
(inlets and outlets)						

TOTAL SPECIAL PROJECTS = $180

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $5,064

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 2 LENGTH improve 12.4 sta
ROAD E8 to E9

CLEARING AND GRUBBING

0.34	acres	@	$1,010.24	/acre	=	$343	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $444

IMPROVEMENT

Re-open road (with dozer)	12.4 sta	@	$45.27	/sta	=	$561
Re-open landing	1 hrs	@	$135.80	/hr	=	$136
Shape surface (with road grader)	12.4 sta	@	$11.55	/sta	=	$143

TOTAL IMPROVEMENT = $840

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $1,284

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 2 LENGTH improve 11.2 sta
ROAD E10 to E11

CLEARING AND GRUBBING

0.31	acres	@	$1,010.24	/acre	=	$313	road
0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $414

IMPROVEMENT

Re-open road (with dozer)	11.2	sta	@	$45.27	/sta	=	$507
Re-open landing	1	hrs	@	$ 135.80	/hr	=	$136
Shape surface (with road grader)	11.2	sta	@	$11.55	/sta	=	$129

TOTAL IMPROVEMENT = $772

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $1,186

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 1 LENGTH const
ROAD L1

MAY BE CONSTRUCTED BY LOGGER

CLEARING AND GRUBBING

0.10	acres	@	$1,010.24	/acre	=	$101	landing

TOTAL CLEARING AND GRUBBING = $101

IMPROVEMENT

Construct swing landing (with dozer)	2 hrs	@	$ 135.80	/hr	=	$272

TOTAL IMPROVEMENT = $272

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $373

SUMMARY OF CONSTRUCTION COST

SALE Bale Out Thin Project # 3 Roadside Brushing
ROAD

Road Segment	Stations	Cost/sta.	Total	
A to A1 (Sta. 37+20 to 111+60)	74.4	$11.36	$845	Light
A to A1 (Point C to 197+50)	40.2	$15.15	$609	Moderate
C to C2	57.5	$15.15	$871	Moderate
TOTAL	97.7 sta		$2,325	

GRAND TOTAL =====> $2,325

Compiled by: J. Goldsby
Date: Apr 16, 2015

SUMMARY OF CONSTRUCTION COST

SALE ROAD Bale Out Thin - Project #4 Post Harvest

SURFACING			Size	Cost/CY		
Landing Patch Rock						
A to A1 (Sta. 140+00)	18	cy of	1½-0"	$24.00	=	$ 432
C to C1 (15 landings)	135	cy of	1½-0"	$24.00	=	$ 3,240
Junction Patch Rock						
Point B	9	cy of	1½-0"	$24.00	=	$ 216

TOTAL SURFACING COST = $3,888

MISCELLANEOUS PROJECTS

Tank Traps						
A to A1 (Sta. 229+40)	0.5	hr	@	$77.00	/hr =	$39
Point B2	0.5	hr	@	$77.00	/hr =	$39
Point B5	0.5	hr	@	$77.00	/hr =	$39
Point C2	0.5	hr	@	$77.00	/hr =	$39
Point D	0.5	hr	@	$77.00	/hr =	$39

TOTAL MISCELLANEOUS PROJECTS = $195

Compiled by: J. Goldsby
Date: Apr 16, 2015

GRAND TOTAL =====> $4,083

SUMMARY OF MAINTENANCE COST

SALE Bale Out Thin - Final Maintenance Cost Estimate
ROAD *(Costed in appraisal, not in project costs)*

Grading Move-in $ 681

Road Segment	Length	Cost/Sta	Cost	Mileage
A to A1 (interim grading)				
Sta. 0+00 to 111+60	111.6	$17.16	$1,915	2.11
A to A1				
Sta. 0+00 to 111+60	111.6	$17.16	$1,915	2.11
Sta. 111+60 to 229+40	117.8	$13.75	$1,620	2.23
Sta.229+40 to 291+40	62.00	$11.55	$716	1.17
Sta. 291+40 to 306+80	15.4	$9.90	$152	0.29
C to C1	78.0	$9.90	$772	1.48
Totals	496.4		$7,090	9.40

Maintenance Rock:

	Volume	Cost/CY	Cost
1½-0"	180	$24.00	$4,320
3-0"	27	$22.31	$602
Grand Total			$12,693
TS Volume	1,534	MBF	
Cost / MBF =			$8.27

NOTES:

Rock Haul Cost Computation

SALE NAME: Bale Out Thin DATE: Apr 16, 2015
ROAD NAME: Norton Hill Rd CLASS: Medium
ROCK SOURCE: Rickard Rock Quarry 9 CY truck
Route: Garrett Ln, Hwy 20, Hwy 180, Norton Rd

TIME Computation:
Road speed time factors:

1.	55 MPH	12.6	MRT	13.7	minutes
2.	50 MPH		MRT	0.0	minutes
3.	45 MPH		MRT	0.0	minutes
4.	40 MPH	26.2	MRT	39.3	minutes
5.	35 MPH		MRT	0.0	minutes
6.	30 MPH		MRT	0.0	minutes
7.	25 MPH	2.4	MRT	5.8	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)		77.30	minutes
Operator efficiency correction	0.85	90.94	minutes
Job efficiency correction	0.90	101.04	minutes
Truck capacity (CY)	9.00	11.23	min/CY
Loading time, delay time per CY		0.25	min/CY
TIME (minutes) per cubic yard		11.48	min/CY

COST per CY computation

Cost of truck and operator per hour	$68.88	/hr.
Cost of truck and operator per minute	$1.15	/min
Cost per CY	$13.20	/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"	$ 10.80	$24.00	$25.50
3 - 0"	$ 9.11	$22.31	$23.81
Jaw Run	$ 8.10	$21.30	$22.80
Pit-Run	7.43	$20.63	$22.13

Note: Pit costs November 28, 2012 Rickard Rock Quarry

TIMBER CRUISE REPORT

1. **Sale Area Location**: Portions of Section 19, T10S, R8W, and Sections 11, 14, & 24, T10S, R9W, W.M., Lincoln County, Oregon.

2. **Fund Distribution:**
   a. **Fund** BOF 43%; CSL 57%
   b. **Tax Code**

3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Acreage Adjustment	Net Sale Acres	Acreage Comp. Method	Closure
1	Partial Cut	52	Cruise	48	Ortho photo, GIS, GPS	n/a
2	Partial Cut	66	Cruise	52	Ortho photo, GIS, GPS	n/a
3	Partial Cut	29	Cruise	24	Ortho photo, GIS, GPS	n/a
4	Partial Cut	127	Cruise	109	Ortho photo, GIS, GPS	n/a

4. **Cruisers and Cruise Dates:** The sale area was cruised by Joe Goldsby in August and October of 2013.

5. **Cruise Method and Computation:** The sale consists of four partial cut areas that were cruised using variable plot sampling. All areas were cruised using a 20 BAF. Plots were located randomly throughout the sale areas with 12 plots sampled in Area 1, 11 plots sampled in Area 2, 8 plots sampled in Area 3, and 12 plots sampled in Area 4. Trees contributing to excess basal area on each plot (above the residual basal area target of 120 ft^2/acre) were measured for DBH, height, and defect. A total of 32 trees on Area 1, 38 trees on Area 2. 37 trees on Area 3, and 45 trees on Area 4 were measured. Data was entered into a variable plot density management worksheet to determine removal volumes. A standard log grade percentage was applied to the net volumes.

   The pulp volumes provided in the following table represents logs over 5 inches inside bark diameter that did not meet saw log grade due to sinuosity. Pulp volumes have been provided for informational purposes and were not included in the timber sale appraisal.

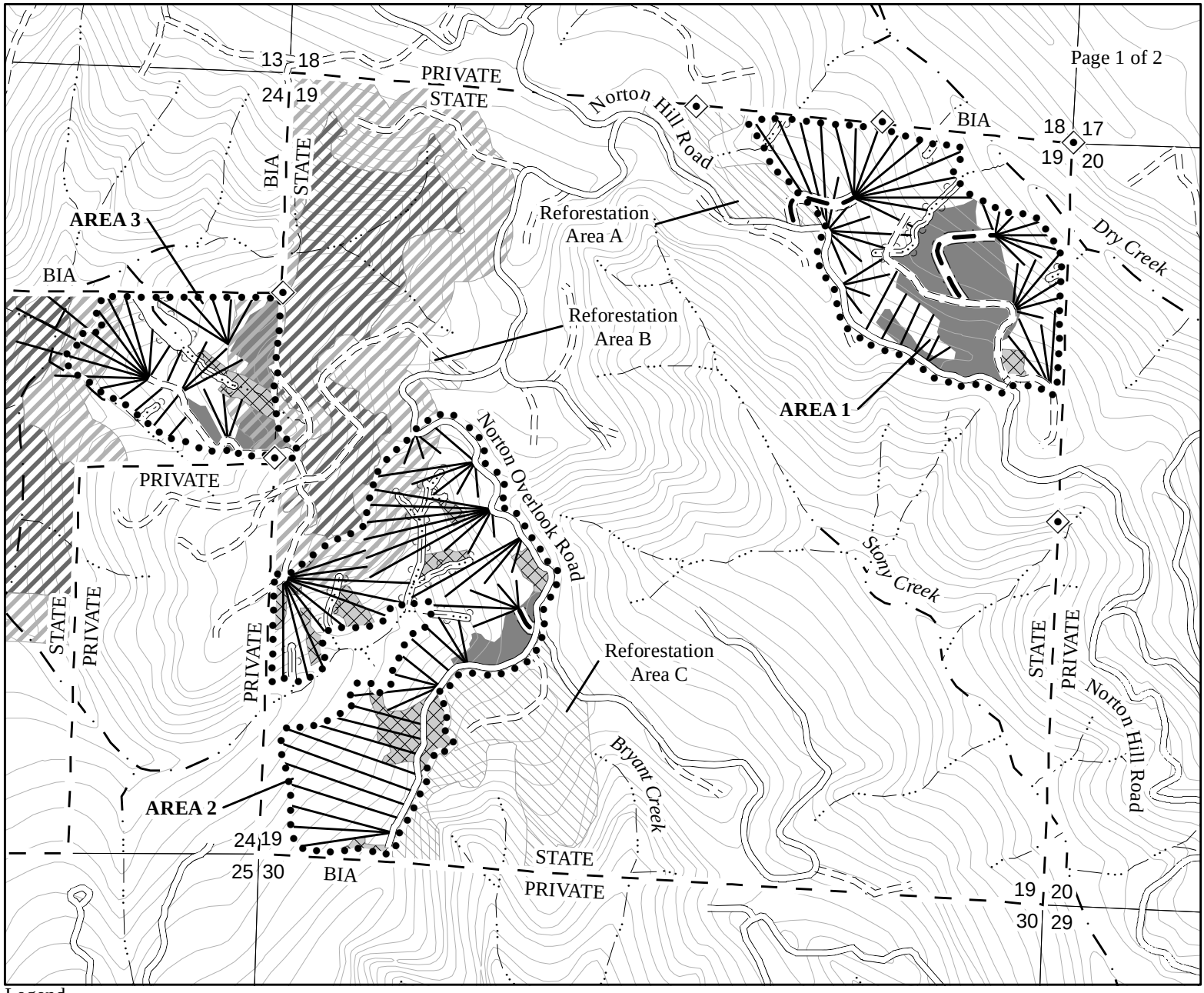
   Stereo photos, digital ortho photos, LiDar data, and GPS data from a Garmin GPSmap 62s were used to map the boundaries for the sale, and ArcMap 10.1 was used to determine gross acreage.

6. **Timber Description:** Timber in Areas 1 and 4 is 35 year-old planted Douglas-fir. Areas 2 and 3 contain 34 year-old planted Douglas-fir. Reserved tree species detected in the unit include red alder, bigleaf maple, and western hemlock. Reserved trees were found in small amounts throughout all sale areas.

7. Total Volume (MBF) by Species and Grade:

Species	Gross Cruise Volume	D & B (Including Pulp)	D & B (MBF)	Pulp (MBF)	Net Sale Volume
Area 1					
Douglas-fir	299	9%	9	18	272
Area 2					
Douglas-fir	319	5%	3	13	303
Area 3					
Douglas-fir	152	3%	2	2	148
Area 4					
Douglas-fir	854	5%	34	9	811
Total					
Douglas-fir	1624	6%	48	42	1534

Species	DBH	Net Vol.	2-Saw	3-Saw	4-Saw	% D & B
Area 1	Grade Percentages		--	70%	30%	
Douglas-fir	11.8	272	--	190	82	9%
Area 2	Grade Percentages		--	70%	30%	
Douglas-fir	11.9	303	--	212	91	5%
Area 3	Grade Percentages		--	70%	30%	
Douglas-fir	12.7	148	--	104	44	3%
Area 4	Grade Percentages		--	70%	30%	
Douglas-fir	10.5	811	--	568	243	5%
Total	Grade Percentages		--	70%	30%	
Douglas-fir	11.2	1534	--	1074	460	6%



Legend

Boundaries
- Timber Sale Boundary
- State Forest Property Boundary
- Right of Way (Posted)

Roads
- Surfaced Road
- Unsurfaced Road
- New Construction

Streams
- Type F Stream
- Type N Stream
- Unposted Stream Buffer

Yarding Method
- Tractor Yarding Area
- Cable Corridors

Marbled Murrelet Management Area
- Occupied Habitat
- Seasonally Restricted Buffer
- Low Stocked Area
- Reforestation Area
- Land Survey Monument

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-16-23
BALE OUT THIN
PORTIONS OF SECTION 19, T10S, R8W,
& SECTIONS 11, 14 & 24, T10S, R9W, W.M.,
LINCOLN COUNTY, OREGON

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Scale

1:12,000

1,000 0 1,000 2,000 Feet

AREA	NET ACRES TRACTOR	NET ACRES CABLE
1 (PC)	14	34
2 (PC)	3	49
3 (PC)	6	18
4 (PC)	35	74
TOTAL	58	175

N

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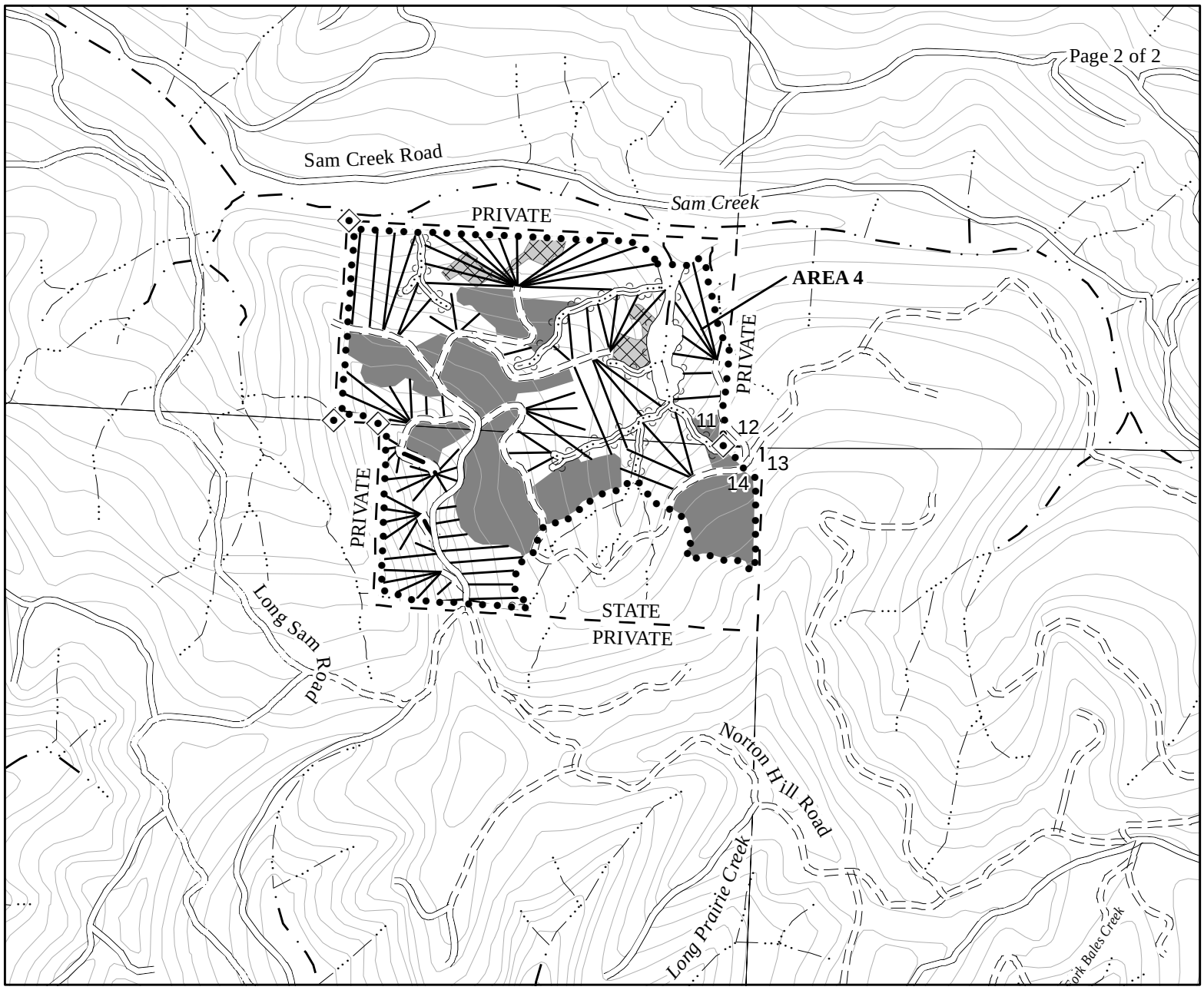
Date: 04/16/2015



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