



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Oleman Winter
Sale 341-14-73

District: West Oregon

Date: January 08, 2014

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$170,734.20	\$0.00	\$170,734.20
		Project Work:	\$(36,540.00)
		Advertised Value:	\$134,194.20



"STEWARDSHIP IN FORESTRY"

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Oleman Winter
Sale 341-14-73

District: West Oregon

Date: January 08, 2014

timber description

Location: Portions of Sections 9, 15, 16, 21, & 22, T10S, R7W, W.M., Benton County, Oregon.

Stand Stocking: 40%

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

Volume by Grade	3S	4S	Total
Douglas - Fir	578	248	826
Total	578	248	826



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comments: Pond Values Used: 4th Quarter Calendar Year 2013.

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 = \$4.00/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: \$500
TOTAL Other Costs (with Profit & Risk to be added) = \$500

Other Costs (No Profit & Risk added):
Invasive Species Equipment Cleaning: \$1,500
Firewood Sorting: 3 hours x \$100/hour = \$300
TOTAL Other Costs (No Profit & Risk added) = \$1,800

SLASH DISPOSAL
None.



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Oleman Winter Sale 341-14-73

District: West Oregon

Date: January 08, 2014

logging conditions

combination#: 1 Douglas - Fir 35.18%
yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process:** Stroke Delimber
tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF
loads / day: 3.0 **bd. ft / load:** 3,500
cost / mbf: \$269.93

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

combination#: 2 Douglas - Fir 55.62%
yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process:** Stroke Delimber
tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF
loads / day: 2.5 **bd. ft / load:** 3,500
cost / mbf: \$323.91

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

combination#: 4
yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Track Skidder **Process:** Stroke Delimber
tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF
loads / day: 5.0 **bd. ft / load:** 3,500
cost / mbf: \$82.18

machines: Stroke Delimber (B)



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Oleman Winter
Sale 341-14-73

District: West Oregon

Date: January 08, 2014

logging costs

Operating Seasons:	1.00	Profit Risk:	14.00%
Project Costs:	\$36,540.00	Other Costs (P/R):	\$500.00
Slash Disposal:	\$0.00	Other Costs:	\$1,800.00

Miles of Road

Road Maintenance: \$8.04

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



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Oleman Winter
Sale 341-14-73

District: West Oregon

Date: January 08, 2014

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$282.68	\$8.44	\$5.31	\$68.42	\$0.61	\$51.16	\$0.00	\$5.00	\$2.18	\$423.80

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$630.50	\$206.70	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Oleman Winter
Sale 341-14-73

District: West Oregon

Date: January 08, 2014

summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	826	\$206.70	\$170,734.20

Gross Timber Sale Value

Recovery: \$170,734.20

Prepared by: Joe Goldsby

Phone: 541-929-9168

SUMMARY OF ALL PROJECT COSTS

Sale Name: Oleman Winter

Date: October 25, 2013

Time: 11:17

Project #1 - New Construction

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A3 to A5	17.2 sta	\$2,480
A7 to A8	4.2 sta	\$715
B2 to B3	3.2 sta	\$657
B4 to B5	1.8 sta	\$472
B6 to B7	1.6 sta	\$447
C to C1	17.3 sta	\$1,800
D3 to D4	2.7 sta	\$3,212
D5 to D6	4.1 sta	\$6,085

TOTALS

52.1 sta

\$15,868

Project #2 - Improvements

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A to A1	109.9 sta	\$3,729
A1 to A6	17.2 sta	\$475
A2 to A3	17.1 sta	\$815
A6 to A7	3.7 sta	\$204
B to B1	17.9 sta	\$951
D to D1	98.0 sta	\$5,935
D2 to D3	8.1 sta	\$4,429

TOTALS

271.9 sta

\$16,538

Project #3 - Post Harvest Activities

Tank traps (3)
Stream crossing ditch
Landing patch rock
Turnaround rock

\$2,942

Move in

	<u>Cost</u>	<u>On-site move</u>
Crawler tractor, D-7 or equiv.	\$361	\$130
Grader, Cat 14-G or equiv.	\$225	\$50
Vibratory Roller	\$225	
Backhoe (x2)	\$201	

TOTAL

\$1,192

GRAND TOTAL

\$36,540

Compiled by J. Goldsby

Date 10/25/2013

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Oleman Winter A to A1	- Project #2 Surfaced, Ditch	LENGTH improve	109.9 sta
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IMPROVEMENT

Shape surface (with road grader)	109.9 sta.	@	\$13.75 /sta	=	\$1,511
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TOTAL IMPROVEMENT	\$1,511
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SURFACING

Spot Rock (50 cy/mi)	108 cy of	Size 1 1/2-0"	Cost/yd \$16.97	=	\$1,833
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TOTAL ROCK COST =	\$1,833
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SPECIAL PROJECTS

Clean out culverts (inlets and outlets)	15 culverts	@	\$25.67 ea.	=	\$385
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TOTAL SPECIAL PROJECTS COST =	\$385
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Compiled by:	J. Goldsby
Date:	Oct 25, 2013

GRAND TOTAL =====>	\$3,729
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SUMMARY OF CONSTRUCTION COST

SALE ROAD	Oleman Winter A1 to A6	- Project #2 Unsurfaced, Outsloped	LENGTH improve	17.2 sta
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IMPROVEMENT

Re-open road (with D7 dozer or equivalent)	3.5 hr.	@	\$135.80 /hr	=	\$475
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TOTAL IMPROVEMENT	\$475
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Compiled by:	J. Goldsby
Date:	Oct 25, 2013

GRAND TOTAL =====>	\$475
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SUMMARY OF CONSTRUCTION COST

SALE ROAD	Oleman Winter A2 to A3	- Project #2 Unsurfaced, Outsloped	LENGTH improve	17.1 sta
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IMPROVEMENT

Re-open road (with D7 dozer or equivalent)	6.0 hr.	@	\$135.80 /hr	=	\$815
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TOTAL IMPROVEMENT	\$815
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Compiled by:	J. Goldsby
Date:	Oct 25, 2013

GRAND TOTAL =====>	\$815
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SUMMARY OF CONSTRUCTION COST

SALE	Oleman Winter	- Project #1	LENGTH	const	17.2 sta
ROAD	A3 to A5	Unsurfaced, Outsloped			

CLEARING AND GRUBBING

0.95 acres	@	\$808.19 /acre	=	\$768 road
0.20 acres	@	\$808.19 /acre	=	\$162 landings

TOTAL CLEARING AND GRUBBING = \$930

EXCAVATION

With D7 dozer or equivalent

Construct road	17.2 sta.	@	\$74.28 /sta.	=	\$1,278
Construct landings (Pts. A4 & A5)	2 hr.	@	\$135.80 /hr.	=	\$272

TOTAL EXCAVATION = \$1,550

Compiled by
Date:

J. Goldsby
Oct 25, 2013

GRAND TOTAL =====>

\$2,480

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Oleman Winter A6 to A7	- Project #2 Unsurfaced, Outsloped	LENGTH improve	3.7 sta
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IMPROVEMENT

Re-open road (with D7 dozer or equivalent)	1.5 hr.	@	\$135.80 /hr	=	\$204
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TOTAL IMPROVEMENT	\$204
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Compiled by:	J. Goldsby
Date:	Oct 25, 2013

GRAND TOTAL =====>	\$204
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SUMMARY OF CONSTRUCTION COST

SALE	Oleman Winter	- Project #1	LENGTH	const	4.2 sta
ROAD	A7 to A8	Unsurfaced, Outsloped			

CLEARING AND GRUBBING

0.23 acres	@	\$808.19 /acre	=	\$186 road
0.10 acres	@	\$808.19 /acre	=	\$81 landing

TOTAL CLEARING AND GRUBBING = \$267

EXCAVATION

With D7 dozer or equivalent

Construct road	4.2 sta.	@	\$74.28 /sta.	=	\$312
Construct landing (Pt. A8)	1 hr.	@	\$135.80 /hr.	=	\$136

TOTAL EXCAVATION = \$448

Compiled by 90
Date:

J. Goldsby
Oct 25, 2013

GRAND TOTAL =====>

\$715

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Oleman Winter B to B1	- Project #2 Unsurfaced, Outsloped	LENGTH improve	17.9 sta
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IMPROVEMENT

Re-open road & landing (with D7 dozer or equivalent)	7.0 hr.	@	\$135.80 /hr.	=	\$951
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TOTAL IMPROVEMENT	\$951
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Compiled by:
Date:

J. Goldsby
Oct 25, 2013

GRAND TOTAL =====>	\$951
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SUMMARY OF CONSTRUCTION COST

SALE	Oleman Winter	- Project #1	LENGTH	const	3.2 sta
ROAD	B2 to B3	Unsurfaced, Outsloped			

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	1 hr.	@	\$135.80 /hr.	=	\$136

TOTAL EXCAVATION = \$374

Compiled by: J. Goldsby
Date: Oct 25, 2013

GRAND TOTAL =====> \$657

SUMMARY OF CONSTRUCTION COST

SALE	Oleman Winter	- Project #1	LENGTH	const	1.8 sta
ROAD	B4 to B5	Unsurfaced, Outsloped			

CLEARING AND GRUBBING

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

TOTAL CLEARING AND GRUBBING = \$202

EXCAVATION

With D7 dozer or equivalent

Construct road	1.8 sta.	@	\$74.28 /sta.	=	\$134
Construct landing	1 hr.	@	\$135.80 /hr.	=	\$136

TOTAL EXCAVATION = \$270

Compiled by: J. Goldsby
Date: Oct 25, 2013

GRAND TOTAL =====> \$472

SUMMARY OF CONSTRUCTION COST

SALE	Oleman Winter	- Project #1	LENGTH	const	1.6 sta
ROAD	B6 to B7	Unsurfaced, Outsloped			

CLEARING AND GRUBBING

0.09 acres	@	\$1,010.24 /acre	=	\$91 road
0.10 acres	@	\$1,010.24 /acre	=	\$101 landing

TOTAL CLEARING AND GRUBBING = \$192

EXCAVATION

With D7 dozer or equivalent

Construct road	1.6 sta.	@	\$74.28 /sta.	=	\$119
Construct landing	1 hr.	@	\$135.80 /hr.	=	\$136

TOTAL EXCAVATION = \$255

Compiled by: J. Goldsby
Date: Oct 25, 2013

GRAND TOTAL =====> \$447

SUMMARY OF CONSTRUCTION COST

SALE	Oleman Winter	- Project #1	LENGTH	const	17.3 sta
ROAD	C to C1	Unsurfaced, Outsloped			

CLEARING AND GRUBBING

0.95 acres	@	\$808.19 /acre	=	\$768 road
0.10 acres	@	\$808.19 /acre	=	\$81 landing

TOTAL CLEARING AND GRUBBING = \$849

EXCAVATION

With D7 dozer or equivalent

Construct road	6 hr.	@	\$135.80 /hr.	=	\$815
Construct landing	1 hr.	@	\$135.80 /hr.	=	\$136

TOTAL EXCAVATION = \$951

Compiled by: J. Goldsby
Date: Oct 25, 2013

GRAND TOTAL =====> \$1,800

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Oleman Winter D to D1	- Project #2 Surfaced, Ditch (0+00 to 50+20), Outsloped (50+20 to 98+00)	LENGTH improve 98.0 sta
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IMPROVEMENT

Hand brush road (sta. 0+00 to 13+10)	16 hr.	@	\$48.53 /hr	=	\$776
Slough removal (with backhoe, sta.25+20 to 27+20)	80 cy.	@	\$1.27 /cy.	=	\$102
Haul bank slough to waste area (with dump truck)	4 hr.	@	\$68.88 /hr.	=	\$276
Shape surface (with road grader, sta. 0+00 to 50+20)	50.2 sta.	@	\$13.75 /sta.	=	\$690
Shape surface (with road grader, sta. 50+20 to 98+00)	47.8 sta.	@	\$9.90 /sta.	=	\$473

TOTAL IMPROVEMENT \$2,317

SURFACING

Spot Rock (100 cy/mi, 18YD sta. 0+00 to 50+20)	95 cy of	Size 1 1/2-0"	Cost/yd \$16.97	=	\$1,612
Spot Rock (100 cy/mi, 9YD sta. 50+20 to 98+00)	94 cy of	1 1/2-0"	\$19.98	=	\$1,878

TOTAL ROCK COST = \$3,490

SPECIAL PROJECTS

Clean out culverts (inlets and outlets)	5 culverts	@	\$25.67 ea.	=	\$128
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TOTAL SPECIAL PROJECTS COST = \$128

Compiled by: J. Goldsby
Date: Oct 25, 2013

GRAND TOTAL =====> \$5,935

SUMMARY OF CONSTRUCTION COST

SALE ROAD	Oleman Winter D2 to D3	- Project #2 Surfaced, Outsloped	LENGTH improve	8.1 sta
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IMPROVEMENT

Shape surface (with road grader)	8.1 sta.	@	\$9.90 /sta	=	\$80
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TOTAL IMPROVEMENT	\$80
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SURFACING

		Size	Cost/yd		
4" lift (0+00 to 7+60)	171 cy of	1 1/2-0"	\$21.48	=	\$3,673
Landing (Pt. D3)	36 cy of	Jaw Run	\$18.78	=	\$676

TOTAL ROCK COST =	\$4,349
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Compiled by:	J. Goldsby
Date:	Oct 25, 2013

GRAND TOTAL =====>	\$4,429
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SUMMARY OF CONSTRUCTION COST

SALE	Oleman Winter	- Project #1	LENGTH	const	2.7 sta
ROAD	D3 to D4	Surfaced, Outsloped			

CLEARING AND GRUBBING

0.15 acres	@	\$808.19 /acre	=	\$121 road
0.10 acres	@	\$808.19 /acre	=	\$81 landing

TOTAL CLEARING AND GRUBBING = \$202

EXCAVATION

With D7 dozer or equivalent

Construct road	2.7 sta.	@	\$74.28 /sta.	=	\$201
Construct landing	1 hr.	@	\$121.25 /hr.	=	\$121
Shape subgrade (with road grader)	2.7 sta.	@	\$11.55 /sta.	=	\$31
Compact subgrade (with vibratory roller)	2.7 sta.	@	\$8.31 /sta.	=	\$22

TOTAL EXCAVATION = \$375

SURFACING

		Size	Cost/yd		
8" lift (0+00 to 2+20)	99 cy of	3-0"	\$19.79	=	\$1,959
Landing (Pt. D4)	36 cy of	Jaw Run	\$18.78	=	\$676

TOTAL ROCK COST = \$2,635

Compiled by:

J. Goldsby

Date:

Oct 25, 2013

GRAND TOTAL =====>

\$3,212

SUMMARY OF CONSTRUCTION COST

SALE	Oleman Winter	- Project #1	LENGTH	const	4.1 sta
ROAD	D5 to D6	Surfaced, Outsloped			

CLEARING AND GRUBBING

0.23 acres	@	\$808.19 /acre	=	\$186 road
0.10 acres	@	\$808.19 /acre	=	\$81 landing

TOTAL CLEARING AND GRUBBING = \$267

EXCAVATION

With D7 dozer or equivalent

Construct road	4.1 sta.	@	\$74.28 /sta.	=	\$305
Construct landing	1 hr.	@	\$135.80 /hr.	=	\$136
Fill approach (0+00 to 1+00)	8 hr.	@	\$135.80 /hr.	=	\$1,086
Compact fill (with vibratory roller)	4 hr.	@	\$81.92 /hr.	=	\$328
Shape subgrade (with road grader)	4.1 sta.	@	\$11.55 /sta	=	\$47
Compact subgrade (with vibratory roller)	4.1 sta.	@	\$8.31 /sta.	=	\$34

TOTAL EXCAVATION = \$1,936

SURFACING

		Size	Cost/yd		
8" lift (0+00 to 3+60)	162 cy of	3-0"	\$19.79	=	\$3,206
Landing (Pt. D6)	36 cy of	Jaw Run	\$18.78	=	\$676

TOTAL ROCK COST = \$3,882

Compiled by: J. Goldsby
Date: Oct 25, 2013

GRAND TOTAL =====> \$6,085

SUMMARY OF CONSTRUCTION COST

SALE Oleman Winter - Project #3 Post Harvest
ROAD

SURFACING

		Size	Cost/CY		
Landing patch rock (10) (D to D1, sta. 74+80 to 92+50)	90 cy of	1 1/2-0"	\$19.98	=	\$1,798
Turnaround rock (Pt. D4)	27 cy of	3-0"	\$18.29	=	\$494
Turnaround rock (Pt. D6)	27 cy of	3-0"	\$18.29	=	\$494

TOTAL SURFACING COST = \$2,786

MISCELLANEOUS PROJECTS

Tank trap at Pt. A1	0.5 hr.	@	\$77.00 /hr. =	\$39
Tank trap at Pt. B	0.5 hr.	@	\$77.00 /hr. =	\$39
Tank trap at Pt. C	0.5 hr.	@	\$77.00 /hr. =	\$39
Stream crossing ditch (A1 to A6 Sta. 13+50)	0.5 hr.	@	\$77.00 /hr. =	\$39

TOTAL MISCELLANEOUS PROJECTS = \$156

Compiled by: J. Goldsby
Date: Oct 25, 2013

GRAND TOTAL =====> \$2,942

ROAD SEGMENT		POINT TO POINT			Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	TOTAL COST	
Application	Rock Size and Type	Location	Depth of Rock (inches)	A to A1		0+00 to 109+90				
				Volume (CY) per						
Spot Rock	1 1/2-0"	A to A1	NA	50	mile	2.1	miles	108	146	\$1,833
ROAD SEGMENT		POINT TO POINT			Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	TOTAL COST	
Post Harvest Application	Rock Size and Type	Location	Depth of Rock (inches)	D to D1		0+00 to 98+00				
				Volume (CY) per						
Spot Rock	1 1/2-0"	D to D1	NA	100	mile	1.9	miles	189	255	\$3,490
Landing patch rock	1 1/2-0"	landings	NA	9	landing	10	landings	90	122	\$1,798
ROAD SEGMENT		POINT TO POINT			Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	TOTAL COST	
Post Harvest Application	Rock Size and Type	Location	Depth of Rock (inches)	D2 to D3		0+00 to 8+10				
				Volume (CY) per						
Base Rock	1 1/2-0"	D2 to D3	4"	22	station	7.6	stations	171	231	\$3,673
Landing	jaw run	D3	NA	36	landing	1	landing	36	49	\$676
ROAD SEGMENT		POINT TO POINT			Sta. to Sta.		TOTAL VOLUME (CY)	TOTAL VOLUME (TONS)	TOTAL COST	
Application	Rock Size and Type	Location	Depth of Rock (inches)	D3 to D4		0+00 to 2+70				
				Volume (CY) per						
Base Rock	3-0"	D3 to D4	8"	44	station	2.2	stations	99	134	\$1,959
Landing	jaw run	D4	NA	36	landing	1	landing	36	49	\$676
Turnaround	3-0"	D4	NA	27	landing	1	landing	27	36	\$247

[illegible]

SUMMARY OF MAINTENANCE COST

SALE
ROAD

Oleman Winter

- Final Maintenance Cost Estimate
(Costed in appraisal, not in project costs)

Grading Move-in \$ 304.00

Road Segment	Length	Cost/Sta	Cost	Mileage
A to A1	109.9	\$13.75	\$1,511.13	2.08
D to D1 (0+00 to 50+20)	50.2	\$13.75	\$690.25	0.95
D to D1 (50+20 to 98+00)	47.8	\$9.90	\$473.22	0.91
D2 to D3	8.1	\$9.90	\$80.19	0.15
D3 to D4	2.7	\$9.90	\$26.73	0.05
D5 to D6	4.1	\$9.90	\$40.59	0.08
Shingle Ck. Rd.	87.7	\$13.75	\$1,205.88	1.66
Totals	310.5		\$4,027.99	5.88

Maintenance Rock:

	Volume	Cost/CY	Cost
1½-0"	99	\$19.98	\$1,978.02
3-0"	18	\$18.29	\$329.22

Grand Total \$ 6,639.23

TS Volume 826 MBF

Cost / MBF = \$8.04

NOTES:

Rock Haul Cost Computation

SALE NAME: Oleman Winter DATE: Oct 25, 2013
ROAD NAME: Filched Gate CLASS: Medium
ROCK SOURCE: Rickard₁ 9 CY truck
Route: Garrett Ln, Hwy 20, Hwy 223, Hoskins Rd, Shingle Creek

Time Computation:

Road speed time factors:

1.	55 MPH	18.4	MRT	20.1	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	6.2	MRT	12.4	minutes
7.	25 MPH	8.4	MRT	20.2	minutes
8.	20 MPH		MRT	0.0	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) 53.20 minutes

Operator efficiency correction 0.85 62.59 minutes

Job efficiency correction 0.90 69.54 minutes

Truck capacity (CY) 9.00 7.73 min/CY

Loading time, delay time per CY 0.25 min/CY

TIME (minutes) per cubic yard 7.98 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 \$9.18 /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	\$19.98	\$21.48
3 - 0"	\$ 9.11	\$18.29	\$19.79
Jaw Run	\$ 8.10	\$17.28	\$18.78

Note: Pit costs November 2012

1) Rickard or any other ODF approved commercial source may be used

Rock Haul Cost Computation

SALE NAME: Oleman Winter DATE: Oct 25, 2013
ROAD NAME: Filched Gate CLASS: Medium
ROCK SOURCE: Rickard₁ 18 CY truck
Route: Garrett Ln, Hwy 20, Hwy 223, Hoskins Rd, Shingle Creek

Time Computation:

Road speed time factors:

1.	55 MPH	18.4	MRT	20.1	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	6.2	MRT	12.4	minutes
7.	25 MPH	8.4	MRT	20.2	minutes
8.	20 MPH		MRT	0.0	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)		53.20	minutes

Operator efficiency correction	0.85	62.59	minutes
Job efficiency correction	0.90	69.54	minutes

Truck capacity (CY)	18.00	3.86	min/CY
Loading time, delay time per CY		0.25	min/CY
TIME (minutes) per cubic yard		4.11	min/CY

COST per CY computation

Cost of truck and operator per hour	\$90.22	/hr.
Cost of truck and operator per minute	\$1.50	/min

Cost per CY	\$6.17	/CY
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Spread and compact	Water truck, Grader & Roller	\$1.50	/CY
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Size	Cost/Yd (Pit)	Cost Delivered w/o processing	Cost Delivered with processing
1½ - 0"	\$ 10.80	\$16.97	\$18.47
3 - 0"	\$ 9.11	\$15.28	\$16.78
Jaw Run	\$ 8.10	\$14.27	\$15.77

Note: Pit costs November 2012

1) Rickard or any other ODF approved commercial source may be used

Oleman Winter (341-14-73)
FY 2014

TIMBER CRUISE REPORT

1. **Sale Area Location:** Portions of Sections 9, 15, 16, 21, and 22, T10S, R7W, W.M., Benton County, Oregon.

2. **Fund Distribution:**

- a. **Fund** BOF 100%
- b. **Tax Code**

3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Acreage Adjustment	Net Sale Acres	Acreage Comp. Method	Closure
1	Partial Cut	90	Cruise	78	Ortho photo, GIS, GPS	n/a
2	Partial Cut	60	Cruise	55	Ortho photo, GIS, GPS	n/a

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

5. **Cruise Method and Computation:** The sale consists of two partial cut areas that were cruised using variable plot sampling. Both areas were cruised using a 20 BAF. Plots were approximately located on a 400 foot by 400 foot grid with 15 plots sampled in Area 1 and 14 plots sampled in Area 2. Trees contributing to excess basal area on each plot (above the residual basal area target of 140 ft²/acre) were measured for DBH and height. A total of 45 trees on Area 1 and 45 trees on Area 2 were measured. Data was entered into a variable plot density management worksheet to determine removal volumes. Standard grade, defect, and breakage percentages were applied to the resulting volumes.

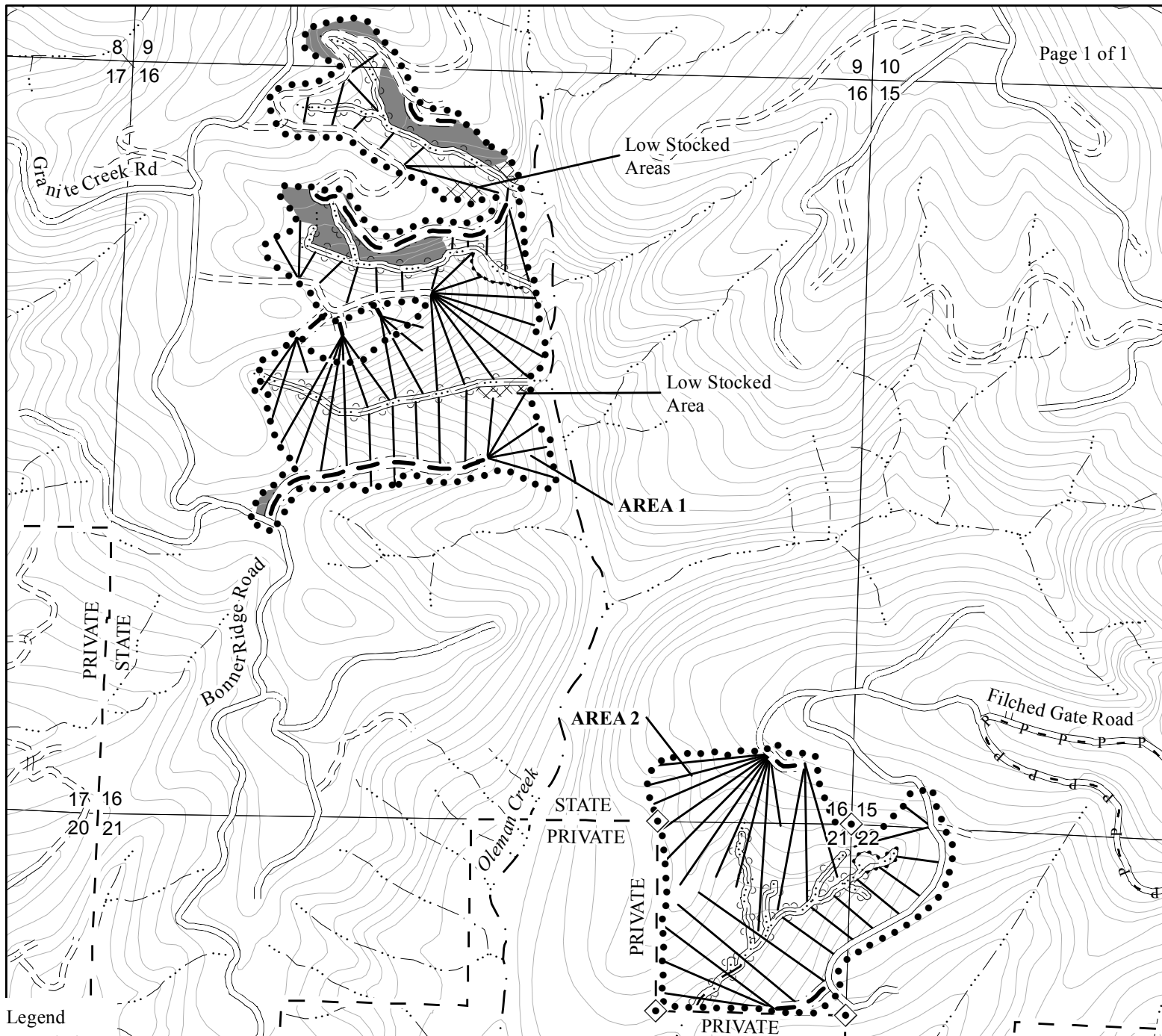
Stereo photos, digital ortho photos, LiDar data, and GPS data from a Garmin GPSmap 62s were used to map the boundaries for the sale, and ArcMap 10.1 was used to determine gross acreage.

6. **Timber Description:** Timber in Area 1 is 38 year-old planted Douglas-fir. Area 2 contains 32 year-old planted Douglas-fir. Reserved tree species detected in the unit include red alder and bigleaf maple. Reserved trees were found in small amounts throughout both areas.

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

Species	Gross Cruise Volume	Hidden D & B	Hidden D & B (MBF)	Net Sale Volume
Area 1				
Douglas-fir	471	5%	24	447
Area 2				
Douglas-fir	399	5%	20	379
Total				
Douglas-fir	870	5%	44	826

Species	DBH	Net Vol.	2-Saw	3-Saw	4-Saw	% D & B
Area 1	Grade Percentages		--	70%	30%	
Douglas-fir	10.4	447	--	313	134	5%
Area 2	Grade Percentages		--	70%	30%	
Douglas-fir	11.8	379	--	265	114	5%
Total	Grade Percentages		--	70%	30%	
Douglas-fir	11.0	826	--	578	248	5%



- 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
 - Posted Stream Buffer
 - ~~~~~ Unposted Stream Buffer
- Yarding Method**
- Tractor Yarding Area
 - Cable Corridors
 - XXXXX Low Stocked Area
 - P - P - Buried Fiber Optic Cabel
 - ◆ Land Survey Monument

LOGGING PLAN

OF TIMBER SALE CONTRACT NO. 341-14-73
OLEMAN WINTER
PORTIONS OF SECTIONS 9, 15, 16, 21 & 22,
T10S, R7W, W.M.,
BENTON 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.

AREA	NET ACRES	
	TRACTOR	CABLE
1 (PC)	13	65
2 (PC)	0	55
TOTAL	13	120

Scale

1:12,000

