"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Cost Summary
Boulder Falls
Sale 341-04-43

District: Forest Grove **Date:** 8/28/03

	Conifer	Hardwood	Total
Gross Timber Sale Value	$1,195,631.87	$0.00	$1,195,631.87
		Project Work	($19,540.00)
		Advertised Value	$1,176,091.87

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Timber Description
Boulder Falls
Sale 341-04-43

District: Forest Grove

Location: Portions of Section 22, T3N, R7W, W.M., Tillamook County, Oregon.

Date: 8/28/03 **Stand Stocking:** 80%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	18	0	98
Western Hemlock / Fir	15	0	98

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Total
2S	1,572	409	1,981
3S	1,522	629	2,151
4S	71	58	129
Total	3,165	1,096	4,261

Comments: Pond Value Used: 2nd Quarter 2003

Paint and brand 4,251MBF @ $1/MBF=$4,261
Top 160 trees @ $55/tree = $8,800
10 hours of shovel time to clear and reblock the skid road @ $110/hr = $1,100
Prebunch 10 acres (550 MBF) with a shovel (2 acres/day) @ $8/MBF=$4,400.

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Logging Conditions
Boulder Falls
Sale 341-04-43

Combination#: 1	Douglas - Fir	100.00%	
	Western Hemlock / Fir	100.00%	
Yarding Distance:	Medium (800 ft)	**Downhill Yarding:**	No
Logging System:	Cable: Medium Tower >40 - <70	**Process:**	Stroke Delimber
Tree Size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF		
Loads/Day:	9	**Bd. Ft./Load:**	4,000
Cost/MBF:	$91.18		

Machines:

Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Logging Costs
Boulder Falls
Sale 341-04-43

Date: 8/28/03

Operating Seasons: 1.0 **Profit & Risk:** 10%

Project Costs: $19,540 **Other Costs (P/R):** $13,061

Slash Disposal: $0 **Other Costs:** $5,500

Road Maintenance: $0.00

Miles of Road			
Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	11.0	0.0

Hauling Costs

Species	$/MBF	Trips/Day	MBF/Load
Douglas - Fir	$0.00	2.0	4.0
Western Hemlock / Fir	$0.00	2.0	4.0

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Logging Costs Breakdown
Boulder Falls
Sale 341-04-43

Costs	Douglas - Fir	Western Hemlock / Fir
Logging	91.18	91.18
Road Maintenance	4.71	4.71
Fire Protection	0.64	0.64
Hauling	58.67	58.67
Other (P/R appl.)	3.07	3.07
Profit & Risk	15.83	15.83
Slash Disposal	0.00	0.00
Scaling	2.00	2.00
Other	1.29	1.29
Total	177.39	177.39

Amortization	0.00	0.00
Pond Value	505.70	320.21
Stumpage	328.31	142.82
Amortized	0.00	0.00

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Boulder Falls Sale 341-04-43

Amortized

	Douglas - Fir	Western Hemlock / Fir
MBF	0.00	0.00
Value	0.00	0.00
Total	0.00	0.00

Unamortized

	Douglas - Fir	Western Hemlock / Fir
MBF	3,165.00	1,096.00
Value	328.31	142.82
Total	1,039,101.15	156,530.72

Gross Timber Sale Value

Recovery $1,195,631.87

Prepared by: Karen Tilley Date: 8/28/03

District: Forest Grove Phone: (503) 359-7434

PROJECT COST SUMMARY SHEET

Timber Sale: BOULDER FALLS

IMPROVEMENTS **PROJECT NO.1**

Road Segment	Length	Cost
A to B	19 + 00	10,800.99
	19 + 00 stations	
	0.36 miles	

SUBTOTAL IMPROVEMENTS **$10,800.99**

SURFACING **PROJECT NO.2**

Road Segment	Amount	Type	Cost
	1,558 cy	6"-0	6,508.32

SUBTOTAL SURFACING **$6,508.32**

SPECIAL PROJECTS **PROJECT NO.3**

Grass Seed and Fertilize 0.87 acres @ $180.00/acre

SUBTOTAL SPECIAL PROJECTS **$157.02**

MOVE IN **$2,073.00**

TOTAL ALL PROJECTS **$19,539.33**

John M. Henson - 6/6/2003

SUMMARY OF CONSTRUCTION COST

Timber Sale: **Boulder Falls** Road: **A to B**

Construction - 0+00 stations
0.00 miles

Improvement - 19+00 stations
0.36 miles

CLEARING AND GRUBBING

Scattering	0.23	acres @	$869.00	per acre =	$199.87	
				TOTAL CLEARING AND GRUBBING		**$199.87**

EXCAVATION

Road & Pullback	3344	cy@	$0.84	per cy =	$2,808.96	
Landing	200	cy@	$0.84	per cy =	$168.00	
Endhaul	3085	cy@	$1.34	per cy =	$4,133.90	
Endhaul compaction	3085	cy@	$0.50	per cy =	$1,542.50	
Subgrade compaction	0.36	mi @	$542.10	per mi =	$195.16	
Grade and ditch	0.36	mi @	$694.00	per mi =	$249.84	
				TOTAL EXCAVATION		**$9,098.36**

CULVERTS - MATERIALS & INSTALLATION

Culverts

92	LF of 18"	$1,240.16	0	LF of 24"	$0.00
0	LF of 30"	$0.00	0	LF of 36"	$0.00
0	LF of 42"	$0.00	0	LF of 48"	$0.00
0	LF of 54"	$0.00	0	LF of 60"	$0.00
		$1,240.16			$0.00

Half Rounds

20	LF of 21"	$206.60	0	LF of 30"	$0.00
0	LF of 36"	$0.00	0	LF of 42"	$0.00
0	LF of 48"	$0.00	0	LF of 54"	$0.00
0	LF of 60"	$0.00	0	LF of 66"	$0.00
		$206.60			$0.00

Culvert Stakes

7 stakes $56.00

TOTAL CULVERTS **$1,502.76**

SURFACING

10 " deep = 56 cy/sta

Subgrade	1,064	cy of	6"-0	@	$4.47	per cy =	$4,756.08
Curve Widening	60	cy of	6"-0	@	$4.47	per cy =	$268.20
Turnouts	132	cy of	6"-0	@	$4.47	per cy =	$590.04
Landing	200	cy of	6"-0	@	$4.47	per cy =	$894.00
Junction	72	cy of	6"-0	@	$4.47	per cy =	$321.84
Truck Turn	30	cy of	6"-0	@	$4.47	per cy =	$134.10
Total =	1558	cy of	6"-0			TOTAL SURFACING	**$6,508.32**

SPECIAL PROJECTS

Grass Seed and Fertilize 0.87 acres @ $180/acre=	$157.02	
	$0.00	
	$0.00	
	$0.00	
TOTAL SPECIAL PROJECTS		**$157.02**

TOTAL COST = $17,466.33

John M. Henson - 6/6/2003

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Timber Sale: Boulder Falls

Pit Name: Boulder Pit

Swell:	1.25	1-1/2"-0 (trk measure)	cy
Shrinkage:	1.16	4"-0 (trk measure)	cy
Drill Pct.:	100%	Pit Run (trk measure)	1,558 cy
		Total Truck Yardage:	1,558 cy
		Total In Place Yardage:	1,246 cy

Scalp & Clear Overburden:	4 Hrs W/D8@ $130.31/hr=				$521.24
Clear and Grub	$790.00 /Ac	x	0.23 Ac	=	$181.70
Drift Overburden	$0.50 /cy	x	400 cy	=	$200.00
Rip Rock:	$0.25 /cy	x	1,246 cy	=	$311.50
Push Rock:	$0.53 /cy	x	1,558 cy	=	$825.74
Load Dump Truck:	$0.32 /cy	x	1,558 cy	=	$498.56
				Subtotal	$2,538.74
Move in D-8					$309.00
Move in Loader					$387.00
				Subtotal	$696.00

BASE COST $2.08/cy

TOTAL PRODUCTION COST $3,234.74

John M. Henson - 6/6/2003

MOVE-IN COST SUMMARY

Timber Sale: Boulder Falls

MILEAGE FACTORS			
Distance	Factor	Distance	Factor
0-25	0.58	55	1.07
30	0.66	60	1.15
35	0.74	65	1.23
40	0.82	70	1.31
45	0.91	75	1.40
50	1.00	80	1.48

MILEAGE FACTOR = 1.00

No.	EQUIPMENT DESCRIPTION	Base Cost	Move in Cost	Within Area Move ($/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
0	Drill & Compressor	$241	$0.00				0	$0.00	$0.00
1	Graders	$241	$241.00	$7.05	0	0	0	$0.00	$241.00
0	Loader (1.5 - 2.5 cy)	$241	$0.00	$6.83	0	0	0	$0.00	$0.00
0	Loader (3 cy +)	$387	$0.00	$8.15	0	0	0	$0.00	$0.00
2	Rollers & Compactors	$241	$482.00	$13.73	0	0	0	$0.00	$482.00
1	Excavators	$533	$533.00	$36.60	0	0	0	$0.00	$533.00
0	Large Backhoes	$533	$0.00	$21.42	0	0	0	$0.00	$0.00
0	Small backhoes	$241	$0.00	$3.52	0	0	0	$0.00	$0.00
1	Tractors (D5 - D7)	$385	$385.00	$18.47	0	0	0	$0.00	$385.00
0	Tractors (D8)	$533	$0.00	$25.53	0	0	0	$0.00	$0.00
0	Dump Truck (< 10 cy)	$121	$0.00	$2.30	0	0	0	$0.00	$0.00
3	Dump Truck (10 cy +)	$144	$432.00	$2.76	0	0	0	$0.00	$432.00
0	Water Truck (3000 gal	$144	$0.00	$2.76	0	0	0	$0.00	$0.00

TOTAL MOVE-IN COSTS = $2,073.00

John M. Henson - 6/6/2003

CRUISE REPORT
Boulder Falls

1. **Acreage Calculation:** Area I is 80 acres determined by traverse using a GPS unit.

2. **Cruise Method:** Area I was variable plot cruised using a 40 BAF and full plots.

3. **Sampling Intensity:**

Area I	Estimated	Actual
CV	30.0%	23.7%
SE	7.0%	5.2%
No. of Plots	18	21

4. **Form Factors:** Each tree was measured for form factor using a relaskop with a form point of 16 feet.

5. **Height Standards:** Conifer and hardwood merchantable heights were estimated to the nearest foot.

6. **Diameter Standards:** Diameters were measured outside bark at breast height to the nearest inch.

7. **Grading System:** All trees were graded favoring 40 foot segments.

8. **Merchantable Top:** Conifer and hardwood merchantable tops were measured to 7 inches and 9 inches, respectively, or 25% of DBH outside bark.

9. **Computation Procedures:** Volumes were computed using the Super Ace 98 program.

10. **Deductions:** One percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.

11. **Cruisers:** The sale was cruised by Karen Tilley in May 2003.

12. **Signatures:**

Prepared by: Karen Tilley 5/16/03
Karen Tilley Date

Unit Forester: Erik Marcy 7/28/03
Erik Marcy Date

TIMBER SALE SUMMARY
Boulder Falls

1. **Type of Sale:** clearcut, recovery, sealed bid auction

2. **Revenue Distribution:** 100% BOF, Tillamook County, tax code 56-1

3. **Sale Acreage:** The area is 80 acres determined by traverse using a Garmin GPS unit.

4. **Volume:**

Species	2 Saw %	3 Saw %	4 Saw %	Volume
Douglas-fir	50	48	2	3,165 MBF
Hemlock	37	58	5	1,096 MBF

5. **Cruise Data**: The area was variable plot cruised using a 40 BAF and full plots. The sale was cruised in May 2003. A top cruise diameter of 7 inches or 25% of DBH outside bark was used. Cruise statistics: CV 23.7%, SE 5.2%.

6. **Timber Description:** 65 year old Douglas-fir and hemlock. The average Douglas-fir is 18 inches DBH and 39.6 MBF per acre. The average hemlock is 15 inches DBH and 13.7 MBF per acre.

7. **Topography and Logging Method:** The area is 100% cable. About ten acres near the cultural resource will need to be prebunched to protect both the site and the small trees on the southwest boundary. An old road (18-25% adverse grade) can be opened for shovel access and then blocked when the sale is done. The slopes range from 20% to 70%.

8. **Access:** Access is from the Sunset Hwy to the 101 Road to the 118 Road to the 118A Road. Stimson has a locked gate on the 101 Road.

9. **Projects:**

   Project No. 1 consists of improving 0.4 miles of road costing $10,800.99 for sale access.
   Project No. 2 consists of spreading 1,558 cubic yards of 6"-0" rock on Project No. 1 at a cost of $6,508.32.
   Project No. 3 consists of grass seeding and fertilizing at a cost of $157.02.

   Move in cost is $2,073.00.
   Total cost for all projects is $19,539.33.

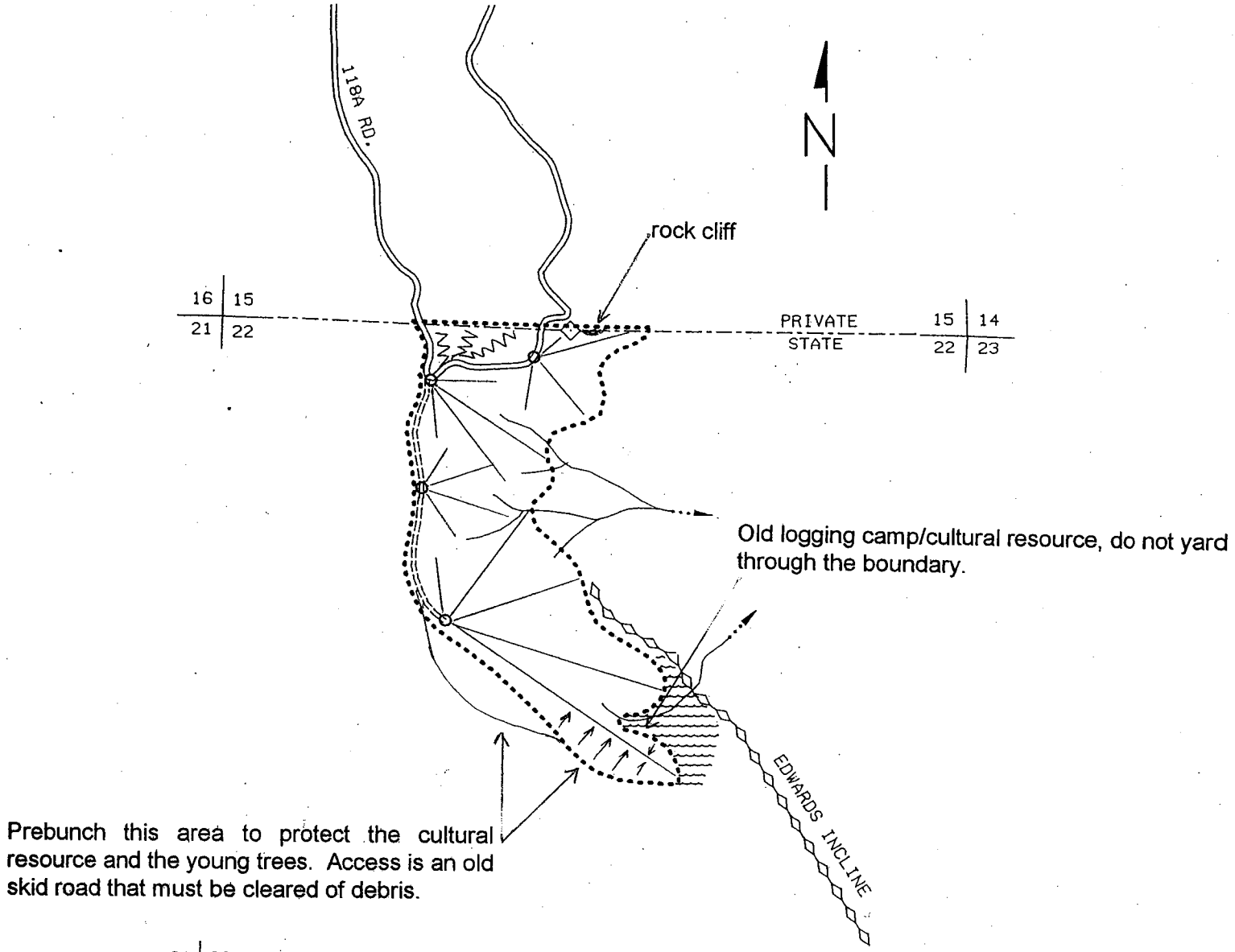

EXHIBIT "A"

APPROXIMATELY 80 ACRES

OF TIMBER SALE CONTRACT NO. 341-04-43
BOULDER FALLS
PORTIONS OF SECTION 22, T3N, R7W, W.M.
TILLAMOOK COUNTY, OREGON

Logging Plan