



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Archer's Mark Sale 341-05-21

District: Tillamook

Date: 8/19/04

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$355,523.04	\$111,146.02	\$466,669.06
		Project Work	\$0.00
		Advertised Value	\$466,669.06



Timber Sale Appraisal

Timber Description

Archer's Mark

Sale 341-05-21

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Location: Portions of Section 30, T1N, R7W, W.M.,
Tillamook County, Oregon.

Date: 8/19/04

Stand Stocking: 20%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	15	0	100
Alder (Red)	14	0	100

Volume by Grade	Douglas - Fir	Alder (Red)	Total
2S	279	0	279
3S	714	0	714
4S	276	0	276
Camprun	0	439	439
Total	1,269	439	1,708

Comments: Pond Values Used: 2nd Quarter 2004.

Other Costs (with Profit and Risk to be added)

Brand and Paint: \$2/MBF x 1708 MBF = \$3,416

Total Other Costs (+ P&R) = \$3,416

Other Costs (No Profit and Risk added)

Non Project Roads: (Seeding included)

Road 1- 8 Stations x \$15 = \$120

Road 2- 3 Stations x \$65 = \$195

Approach Rock - (first station of Road 2 and 2 ground yarding roads, pit run, 12" minimum depth)

3 stations x 50 cubic yards x \$5.00/yd = \$750

OHV Trail Clearing -\$40/ Station x 50 Stations = \$2000

OHV Trail Blocking -\$75 each x 2 = \$150

Total Other Costs (No P&R) = \$3,215

Road Maintenance

Grading- once per MMBF

Final Maintenance \$500/Mile x 3.5 Miles x 1 grading /1708 MBF = \$1.02

Maintenance Rock- approximately 20 cubic yards/ MMBF/Mile

20 cubic yards x 3.5 miles x \$6.00/yard/ 1708 = \$0.25

Ditch pulling and end hauling (per station)

\$28.00/ cubic yards x 20 cubic yards/1708 MBF = \$0.33

Total Maintenance Cost = \$1.60

Cedar stumpage value:

\$1,100 - \$286.20 (Douglas-fir logging costs) = \$813.80



Timber Sale Appraisal

Logging Conditions

Archer's Mark

Sale 341-05-21

"STEWARDSHIP IN FORESTRY"

Combination#: 1 Douglas - Fir 80.08%
Alder (Red) 79.28%

Yarding Distance: Medium (800 ft) **Downhill Yarding:** No
Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads/Day: 5 **Bd. Ft./Load:** 3,500
Cost/MBF: \$187.58

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

Combination#: 2 Douglas - Fir 19.92%
Alder (Red) 20.72%

Yarding Distance: Short (400 ft) **Downhill Yarding:** Yes
Logging System: Wheel Skidder **Process:** Manual Falling/Delimiting
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads/Day: 7 **Bd. Ft./Load:** 3,500
Cost/MBF: \$122.48

Machines:
Log Loader (B)
Tire Skidder



Timber Sale Appraisal

Logging Costs

Archer's Mark

Sale 341-05-21

"STEWARDSHIP IN FORESTRY"

Date: 8/19/04

Operating Seasons: 1.0

Profit & Risk: 15%

Project Costs: \$0

Other Costs (P/R): \$3,416

Slash Disposal: \$0

Other Costs: \$3,215

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

Road Maintenance: \$1.60

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	2.0	3.5
Alder (Red)	\$0.00	3.0	3.0



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Logging Costs Breakdown Archer's Mark Sale 341-05-21

Costs	Douglas - Fir	Alder (Red)
Logging	174.61	174.09
Road Maintenance	1.60	1.60
Fire Protection	1.59	1.59
Hauling	65.70	51.10
Other (P/R appl.)	2.00	2.00
Profit & Risk	36.82	34.56
Slash Disposal	0.00	0.00
Scaling	2.00	0.00
Other	1.88	1.88
Total	286.20	266.82

Amortization	0.00	0.00
Pond Value	566.36	520.00
Stumpage	280.16	253.18
Amortized	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Archer's Mark Sale 341-05-21

Amortized

	Douglas - Fir	Alder (Red)
MBF	0.00	0.00
Value	0.00	0.00
Total	0.00	0.00

Unamortized

	Douglas - Fir	Alder (Red)
MBF	1,269.00	439.00
Value	280.16	253.18
Total	355,523.04	111,146.02

Gross Timber Sale Value

Recovery \$466,669.06

Prepared by: Dwayne Shotton

Date: 8/19/04

District: Tillamook

Phone: (503) 842-2545



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

Archer's Mark

1. **Type of Sale:** Regeneration Harvest (modified clearcut, Retention cut); recovery.
2. **Legal Description:** Section 30, T1N, R7W, W.M. Tillamook County, Oregon.
3. **Sale Acreage:** The sale boundaries were plotted on a digital ortho-photograph and the acreage was calculated with GIS.

ACRES			
Area	Sale	Total	Net
1 Modified Clearcut	165	179	145
2 Retention cut	23	20	20
Total	188	199	165

Sale Acres: *Area within the Timber Sale Boundary signs.*

Total Acres: *For accomplishment reporting : Sale acres; plus green tree retention acres outside the sale boundary; less roads and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.*

Net Acres: *Used for calculating the advertised volume: Sale acres; less green tree retention, and roads and riparian areas inside the sale boundary.*

4. **Cruise Procedures:**
 - A. **Cruise Method:** A total of 45 variable radius full point plots were established on the sale area at a ratio of two count plots per one measured plot. Conifers with less than 7" DBH and alders with less than 10" DBH were not recorded. The count plots recorded the number of trees by species. The measure plots recorded the species, diameter at breast height, height to a 6" merchantable top for conifer and 8" for alder, form factor at 16', grades, lengths and defect of each segment.
 - B. **Plot size:** A Basal Area Factor of 28 was used with a point of observation at 4.5'.
 - C. **Grading System:** Columbia River Official Log Scaling and Grading Bureau rules.

5. **Computation Procedure:** The volumes and statistics for the timber cruised were computed using Atterbury Consultants, Inc. SUPER A.C.E. 98 program. The coefficient of variation and standard error for the combined sale areas and Area 1 was 62.2% and 9.2% and 55.8 and 9.1% respectively. The standard error of Area 2 was too high (16.9%) for calculating board foot volumes. Board foot volume for Area 2 was calculated by subtracting the estimated Area 1 (145 acres) volume from the total sale area volume (165 acres).
6. **Hidden Defect and Breakage:** A 5% reduction for defect and breakage was applied to the volume.
7. **Timber Description:** The sale area is composed of 45 year old Douglas-fir with scattered alder. The sale area burned in the 1933 Tillamook Fire and the 1939 Saddle Mountain Fire. The sale area was aerial seeded in 1950 and replanted in 1958 and 1964. A few small portions were again replanted in the early 1970's. There are scattered hemlock, cedar, and alder throughout the sale as well as larger pockets of alder. The alder components of these stands were aerial sprayed to release planted conifer in the 1970's resulting in alder trees with short boles and many limbs. Approximately 15 acres of the sale was commercially thinned in 1998. The Douglas-fir has severe Swiss needle cast symptoms.
8. **Cruiser Names/Dates:** Dwayne Shotton, Nick Stumpf, Bob Thurman. March 2004.
9. **Revenue Distribution:**
100% FDF
Tax Code 9-2
Deed Numbers: 157 and 159
77% Rehabilitation Obligated
7. **Attachments:**
Volume Summary
Logging Plan



"STEWARDSHIP IN FORESTRY"

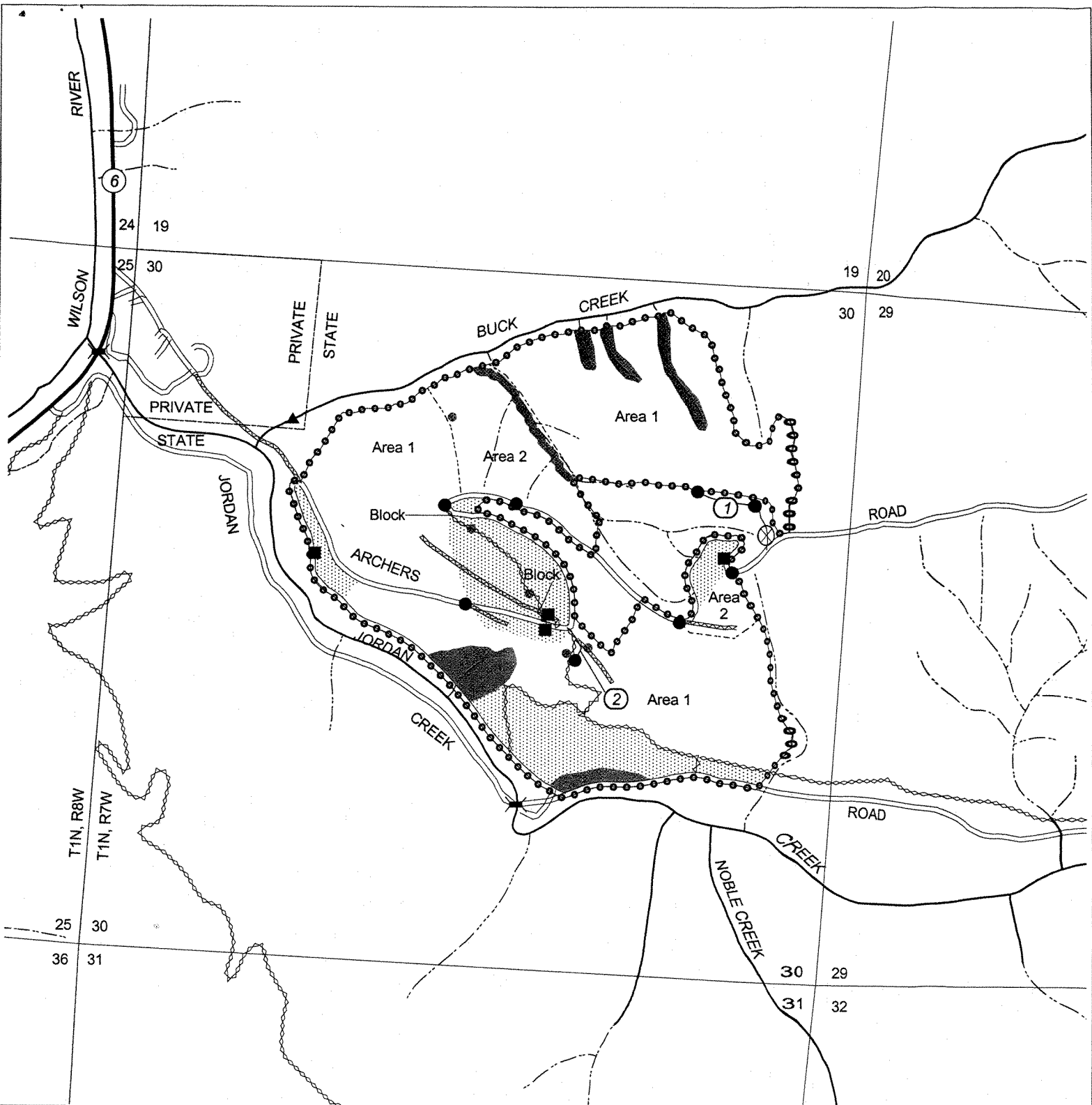
Archer's Mark

Volume Summary

Area 1					
145 acres					
SPECIES	Gross MBF/ Acre	Net MBF/ Acre	Net MBF	Hidden D&B	Adj Net Vol MBF
Douglas-fir	8.5	8.3	1204	5%	1144
Alder	3.4	3.1	450	5%	428
TOTAL	11.9	11.4	1654		1572

Area 2					
20 acres					
SPECIES	Gross MBF/ Acre	Net MBF/ Acre	Net MBF	Hidden D&B	Adj Net Vol MBF
Douglas-fir	6.8	6.6	132	5%	125
Alder	0.9	0.6	12	5%	11
TOTAL	7.7	7.2	144		136

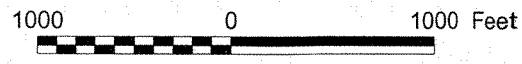
Total Sale Volume		
Species	NETMBF	Net Vol.(MBF)
Douglas-fir	1336.0	1269
Alder	462.0	439
Total	1798	1708



- Bridge
- Tractor landing
- Cable landing
- Domestic water supply
- Blocked
- Cable yarding
- Ground yarding
- Helicopter yarding
- Buffer
- Non-required thinning
- Setting boundary
- Area boundary
- Sale boundary
- Ownership boundary
- Type-F stream
- Type-N stream
- Surfaced road
- Unsurfaced road
- State highway
- County road
- Non-project road
- Swing road
- Abandoned road
- OHV trail
- Non-motorized trail

LOGGING PLAN
 Timber Sale Contract No. 341-05-021
 Archer's Mark
 Portions of section 30, T1N, R7W, W. M.
 Tillamook County, Oregon

Area	Type of Operation	Acres	
		Sale	Net
1	Modified clearcut	165	145
2	Retention cut	23	20
Total		188	165





OREGON DEPARTMENT OF FORESTRY WRITTEN PLAN

SALE NAME: Archer's Mark

LOCATION: Section 30, T1N, R7W, W.M. Tillamook County, Oregon.

ACTIVITIES: Felling and yarding adjacent to Type F/Type D stream. Cable yarding lines strung over riparian management area.

PROTECTED RESOURCES:

Streams: Buck Creek, medium Type F and Type D.

Riparian Management Area (RMA): The area within 100 feet slope distance from the high water mark.

PROTECTION MEASURES:

FELLING and YARDING :

- All trees, outside of cable corridors, in the RMA are reserved from cutting
- Trees felled for cable corridors within the RMA will be incidental and will not be removed.
- Trees will be felled away or parallel to streams
- Cable yarding lines will be pulled out of the RMA prior to rigging the next yarding road
- If trees or logs fall or slide into a stream channel they will not be limbed, bucked, or removed without approval from State.
- Cable yarding lines across RMA's will be an average of at least 150 feet apart.

PREPARED BY: Dwayne Shotton
Forester, Central Unit
May 7, 2004