



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Cost Summary Selders Creek Sale 341-03-52

District: Astoria

Date: 10/29/02

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$3,815,189.36	\$67,316.52	\$3,882,505.88
		Project Work	(\$259,419.00)
		Advertised Value	\$3,623,086.88



Timber Sale Appraisal Timber Description Selders Creek Sale 341-03-52

"STEWARDSHIP IN FORESTRY"

District: Astoria

Location: T5N, R6W, Section 36

Date: 10/29/02

Stand Stocking: 80%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	17	0	97
Western Hemlock / Fir	13	0	97
Red Cedar	14	0	97
Alder (Red)	13	0	95

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)	Total
SM	1,509	0	0	0	1,509
2S	3,187	356	0	0	3,543
3S	3,054	416	48	78	3,596
4S	712	171	32	135	1,050
Utility	186	49	0	0	235
Total	8,648	992	80	213	9,933

Comments: Pond Values Used: 3rd Quarter 2002

Expected Log Markets: Mist, Banks, Clatskanie, Tillamook, Longview

Costs with P&R:

100% Branding and Painting Logs--\$1/MBF X 9,933 = \$9,933

Total Costs with P&R = \$9,933

Costs without P&R:

Shovel Piling of 8 Cable Landings @ \$130/Ldg. = \$1,040

Total Costs without P&R = \$1,040



Timber Sale Appraisal

Logging Conditions

Selders Creek

Sale 341-03-52

"STEWARDSHIP IN FORESTRY"

Combination#: 1 Douglas - Fir 58.00%
 Western Hemlock / Fir 58.00%
 Red Cedar 58.00%
 Alder (Red) 58.00%

Yarding Distance: Medium (800 ft) **Downhill Yarding:** No
Logging System: Cable: Medium Tower >40 - <70 **Process:** Manual Delimiting
Tree Size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
Loads/Day: 10 **Bd. Ft./Load:** 4,000
Cost/MBF: \$82.92

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

Combination#: 2 Douglas - Fir 42.00%
 Western Hemlock / Fir 42.00%
 Red Cedar 42.00%
 Alder (Red) 42.00%

Yarding Distance: Medium (800 ft) **Downhill Yarding:** Yes
Logging System: Shovel **Process:** Manual Delimiting
Tree Size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
Loads/Day: 10 **Bd. Ft./Load:** 4,000
Cost/MBF: \$58.04

Machines:
 Shovel Logger



Timber Sale Appraisal

Logging Costs

Selders Creek

Sale 341-03-52

"STEWARDSHIP IN FORESTRY"

Date: 10/29/02

Operating Seasons: 3.0

Profit & Risk: 15%

Project Costs: \$259,419

Other Costs (P/R): \$9,933

Slash Disposal: \$0

Other Costs: \$1,040

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

Road Maintenance: \$2.86

Hauling Costs

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	5.0	4.5
Western Hemlock / Fir	\$0.00	2.0	4.0
Red Cedar	\$0.00	2.0	3.5
Alder (Red)	\$0.00	2.0	2.0



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal

Logging Costs Breakdown

Selders Creek

Sale 341-03-52

Costs	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)
Logging	72.47	72.47	72.47	72.47
Road Maintenance	2.95	2.95	2.95	3.01
Fire Protection	0.82	0.82	0.82	0.82
Hauling	21.08	59.28	67.73	80.84
Other (P/R appl.)	1.00	1.00	1.00	1.00
Profit & Risk	14.75	20.48	21.75	23.72
Slash Disposal	0.00	0.00	0.00	0.00
Scaling	2.00	2.00	2.00	2.00
Other	0.10	0.10	0.10	0.10
Total	115.17	159.10	168.82	183.96

Amortization	0.00	0.00	0.00	0.00
Pond Value	527.80	332.76	1,100.00	500.00
Stumpage	412.63	173.66	931.18	316.04
Amortized	0.00	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Summary Selders Creek Sale 341-03-52

Amortized

	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)
MBF	0.00	0.00	0.00	0.00
Value	0.00	0.00	0.00	0.00
Total	0.00	0.00	0.00	0.00

Unamortized

	Douglas - Fir	Western Hemlock / Fir	Red Cedar	Alder (Red)
MBF	8,648.00	992.00	80.00	213.00
Value	412.63	173.66	931.18	316.04
Total	3,568,424.24	172,270.72	74,494.40	67,316.52

Gross Timber Sale Value

Recovery \$3,882,505.88

Prepared by: Diana Ison

Date: 10/29/02

District: Astoria

Phone: (503) 325-5451

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Selders Creek

NEW CONSTRUCTION: PROJECT NO. 1

<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
1A-1B, 1C-1D, 1E-1F	96.4	\$23,998
2A-2B, 2C-2D, 2E-2F,		
2G-2H, 2I-2J, 2K-2L,		
3A-3B		
TOTALS	96.4	\$23,998

SPECIAL PROJECTS:

	<u>Description</u>	<u>Cost</u>
	Road Maintenance (project work)	\$1,428
PROJECT NO. 2	Trailover Pit Rock Crushing	\$231,245
TOTALS		\$232,673

MOVE IN:

<u>Equipment</u>	<u>Cost</u>
D-7 Dozer	\$560
Dump Trucks (2)	\$228
F E Loader	\$540
Grader	\$520
Excavator	\$900
TOTAL	\$2,748

GRAND TOTAL \$259,419

Compiled By: D. Ison *RI*

Date: 10/24/01

SUMMARY OF CONSTRUCTION COSTS

SALE NAME Selders Creek NEW CONSTRUCTION: 96.40 STATIONS 1.83 MILES
 ROAD: 1A-1B(4.6),1C-1D(26.0),1E-1F(5.0), IMPROVEMENT: STATIONS MILES
2A-2B(1.1),2C-2D(18.4),2E-2F(21.6),2G-2H(5.3), 2I-2J(4.4), 2K-2L(5.9), 3A-3B (4.1)

CLEARING & GRUBBING						
Area	Method	Acres/amount	x	Rate	=	Cost
Area 1	Scatter Debris Outside of R/W	6.64	x	\$840.00	=	\$5,577.60
SUB TOTAL FOR CLEARING & GRUBBING						\$5,578

EXCAVATION						
Material	Cy/amount	x	Rate	=	Cost	
COMMON (REG STD) (\$/STA)	96.40	x	\$117.00	=	\$11,278.80	
LANDINGS (REG STD) (\$/EA)	12.00	x	\$270.00	=	\$3,240.00	
CUT SLOPE ROUNDING (\$/STA)	4.00	x	\$27.00	=	\$108.00	
SUB TOTAL FOR EXCAVATION						\$14,627

CULVERT MATERIALS AND INSTALLATION							
Location	Dia/type	Lineal ft.	Rate	Cost	No. bands	Rate	Cost
2A-2B 0+24	18" CPP	32	\$11.00	\$352.00			
2E-2F 4+90	18" CPP	34	\$11.00	\$374.00			
Culvert stakes & markers:							
Description					Quantity	Rate	Cost
6 foot long carsonite marker (includes installation cost)					1	\$14.10	\$14.10
SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION							\$740

SURFACING						
Subgrade prep:						
Description	Stations/amount	x	Rate/sta/amt	Cost		
GRADING \$/sta (outsloped roads)	96.40	x	\$11.20	\$1,079.68		
Other/misc:						
Description	Size/type	Cy	Rate/cy	Cost		
1G, 2B Landing Rock 80cy/landing X 2	6"-0"	160	\$6.55	\$1,048.00		
2A-2B Surfacing Rock 75cy/sta. X 1 (12" depth)	6"-0"	75	\$6.55	\$491.25		
				Total		
				235	\$2,619	
SUB TOTAL FOR SURFACING						\$2,619

SPECIAL PROJECTS		
Description	Cost	
Develop/Rip/Push Pit Run Rock (\$1.85/cy)	\$434.75	
SUB TOTAL FOR SPECIAL PROJECTS		\$435

GRAND TOTAL IMPROVEMENT CONSTRUCTION \$23,998 **\$23,998**

Compiled By: Diana Ison Date: 8/2/01

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Project Work Road Maintenance Cost Summary

Sale: Selders Creek
Date: 5-Oct-01
By: Diana Ison

Type	Equipment/Rationale	Hours	Rate	Cost	
Post-Projects Road	Grader 14G	12	\$80	\$960	
	Dump Truck 12CY	4	\$57	\$228	
	FE Loader C966	4	\$60	\$240	
				Total	\$1,428

Green Mountain Road/Selders Creek Road

Production Rates

Grader

Miles/day	Distance(miles)	Days	Hours
1.50	2.2	1.5	12

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SUMMARY OF ROCK DEVELOPMENT AND CRUSHING COSTS

PROJECT NO. 2

Timber Sale Name: **Selders Creek**

Quarry: Trailover Quarry
 Location: NE 1/4 S1/4 T6N R7W
 County: Clatsop
 By: C. Bangs
 Date: 10/12/01

Swell: _____
 Shrink: 16%

ROCK SIZE	REJECT	GRADATION	STOCKPILE CU. YDS.	TRUCK MEAS CU. YDS.	TOTAL CU. YDS.
3/4"-0"	5%	CR	8,000		9,280
1-1/2"-0"	5%	CR	3,000		3,480
4"-0"		CR	15,000		17,400
6"-0"		PR			
24"-6"		RR			
36"		RR			
TOTAL CUBIC YARDS OF ROCK:			26,000		30,160

1) MOBILIZATION & SET UP:

EQUIPMENT MOBILIZATION	DISTANCE IN MILES	DIST. FACTOR	BASE RATE	COST
3 Stage Crusher	75	1.40	\$2,220	\$3,108
Screening Plants (2)	75	1.40	\$900	\$1,260
D8 Cat & D6 Cat	75	1.40	\$1,540	\$2,156
Loader	75	1.40	\$560	\$784
Drill & Compressor	75	1.40	\$1,080	\$1,512
Powder	75	1.40	\$270	\$378
1 Dump Truck	75	1.40	\$134	\$188
Excavator	75	1.40	\$500	\$700
SUB TOTAL FOR MOBILIZATION				\$10,086

EQUIPMENT SET UP	TIMES	RATE	COST
3 Stage Crusher	1	\$2,530	\$2,530
Screening Plants (2)	1	\$425	\$425
Change Gradation	2	\$400	\$800
SUB TOTAL FOR SET UP COSTS			\$3,755

TOTAL MOBILIZATION & SET UP COSTS **\$13,841**

2) CLEARING & GRUBBING

DESCRIPTION	QUANTITY	UNIT	RATE	COST
Clear, Load, Haul to Quarry Floor	2.0	hr	\$187	\$374
Slash and Stumps (1 truck, 1 exc.)				

TOTAL CLEARING & GRUBBING COSTS **\$374**

3) EXCAVATION

MATERIAL DESCRIPTION	QUANTITY	UNIT	RATE	COST
Quarry Rehabilitation	9,600	bcy	\$2.75	\$26,400
Fill 12' Excavation				

TOTAL EXCAVATION COSTS **\$26,400**

4) DEVELOP ROCK

ROCK SUMMARY			METHOD	%	QUANTITY	RATE	COST
Type	Cu. yd.	Vol. Weight	Ripping			\$1.85	
crushed	30,160	100%	Drill & shoot	100%	30,798	\$1.90	\$58,516
pit run	0	0	Oversize red	3%	905	\$5.04	\$4,560
rip rap	0	0	Other				
Total	30,160						
reject	638	2.1%					

TOTAL ROCK DEVELOPMENT COSTS **\$63,076**

5) CALIBRATION & TESTING

DESCRIPTION	NO.	\$/TEST	COST
Calibrate	3	\$400	\$1,200
Calibrate			
Test	13	\$50	\$650
Test			

TOTAL CALIBRATION & TESTING COSTS **\$1,850**

6) FEEDING & LOADING

DESCRIPTION	CU. YD. QUANTITY	COST CU. YD.	TOTAL COST
Dig & Feed Rock	30,798	\$0.65	\$20,019

TOTAL FEEDING & LOADING COSTS **\$20,019**

7) ROCK CRUSHING

ROCK SIZE	ROCK TYPE	CU. YD. QUANTITY	CRUSHER TYPE	HOURLY PRODUCTIO	RATE CU. YD.	TOTAL COST
3/4"-0"	crushed	9,280	3 stage w/s	100	\$3.25	\$30,160
1-1/2"-0"	crushed	3,480	3 stage w/s	115	\$2.83	\$9,835
4"-0"	crushed	17,400	2 stage	140	\$1.71	\$29,829

TOTAL ROCK CRUSHING COSTS **\$69,823**

8) STOCKPILING

STOCKPILE PREPARATION OR CONST	COST
Clear, Level, Grade Stockpile Floors	\$750
SUB TOTAL	750

HAUL & STOCKPILE					
STOCKPILE LOCATION	SIZE	# of TRUCKS	CU. YDS.	RATE	COST
1. Trailover Quarry	3/4"-0"	1	9,280	\$1.17	\$10,817
2. Trailover Quarry	1-1/2"-0"	1	3,480	\$1.14	\$3,952
3. Trailover Quarry	4"-0"	1	17,400	\$1.07	\$18,543
4. _____					
5. _____					
6. _____					
SUB TOTAL					\$33,312

TOTAL STOCKPILING COSTS **\$34,062**

9) MISCELLANEOUS COSTS

DESCRIPTION	COST
Load, Haul, and Spread the reject material at the waste area.	\$1,595
\$2.50/CY 638 CY	
Block Quarry Access, Waterbarring, Drainage	\$205

TOTAL MISCELLANEOUS COSTS **\$1,800**

TOTAL FIXED COSTS (mobilization, clearing and grubbing, stockpiling prep, drainage) **\$15,170**

TOTAL VARIABLE COSTS (excavation, rock development, calibration/testing, feeding/loading, crushing cost, haul/stockpile, Load/Haul/Spread reject material) **\$216,076**

10) GRAND TOTAL: **\$231,245**

Total \$/Cubic Yard	\$7.67
Fixed \$/Cubic Yard	\$0.50
Ave. Variable \$/Cubic Yard	\$7.16
4"-0" Ave. Variable \$/Cubic Yard	\$ 6.40
1-1/2"-0" Ave. Variable \$/Cubic Yard	\$ 7.93
3/4"-0" Ave. Variable \$/Cubic Yard	\$ 8.32

HAUL and STOCKPILE COST

SALE NAME: Selders Creek
 QUARRY: Trailover Quarry ROCK TYPE: Crushed

Location 1. Trailover Quarry 3/4"-0"	ONE WAY HAUL IN MILES							
	50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
							0.07	
Truck type: <u>D20</u>	No. trucks: _____							
Delay min.: <u>2</u>	Efficiency: <u>75%</u>							
							Ave haul: \$0.34 /cy	
							Load: \$0.18 /cy	
Truck type: <u>D12</u>	No. trucks: <u>1</u>						Stockpile: \$0.65 /cy	
Delay min.: <u>2</u>	Efficiency: <u>75%</u>							
Truck type: _____	No. trucks: _____						Production: cy/day = 1,358	
Delay min.: <u>2</u>	Efficiency: <u>75%</u>							
Location 1. Trailover Quarry		Haul and Stockpile Cost					\$1.17 /cy	

Location 2. Trailover Quarry 1-1/2"-0"	ONE WAY HAUL IN MILES							
	50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
							0.07	
Truck type: <u>D20</u>	No. trucks: _____							
Delay min.: <u>2</u>	Efficiency: <u>75%</u>							
							Ave haul: \$0.34 /cy	
							Load: \$0.15 /cy	
Truck type: <u>D12</u>	No. trucks: <u>1</u>						Stockpile: \$0.65 /cy	
Delay min.: <u>2</u>	Efficiency: <u>75%</u>							
Truck type: <u>D10</u>	No. trucks: _____						Production: cy/day = 1,358	
Delay min.: <u>2</u>	Efficiency: <u>75%</u>							
Location 2. Trailover Quarry		Haul and Stockpile Cost					\$1.14 /cy	

Location 3. Trailover Quarry 4"-0"	ONE WAY HAUL IN MILES							
	50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
							0.07	
Truck type: <u>D20</u>	No. trucks: _____							
Delay min.: <u>2</u>	Efficiency: <u>75%</u>							
							Ave haul: \$0.34 /cy	
							Load: \$0.08 /cy	
Truck type: <u>D12</u>	No. trucks: <u>1</u>						Stockpile: \$0.65 /cy	
Delay min.: <u>2</u>	Efficiency: <u>75%</u>							
Truck type: <u>D10</u>	No. trucks: _____						Production: cy/day = 1,358	
Delay min.: <u>2</u>	Efficiency: <u>75%</u>							
Location 3. Trailover Quarry		Haul and Stockpile Cost					\$1.07 /cy	

Road Maintenance Cost Summary

Sale: Selders Creek
Date: 5-Oct-01
By: Diana Ison

MBF: 9,933
\$\$/MBF: \$2.86

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Progressive Operations Entries (1)	Grader 14G	\$540	1	63	\$80	\$5,580
	Dump Truck 12CY	\$114	1	12	\$57	\$798
	FE Loader C966	\$540	1	12	\$75	\$1,440
Final Haul Road Maintenance Haul Route	Grader 14G	\$540	1	63	\$80	\$5,575
	Dump Truck 12CY	\$114	1	24	\$57	\$1,482
	FE Loader C966	\$540	1	24	\$75	\$2,340
	Labor			10	\$25	\$250
	*Vibratory Roller	\$540	1	46	\$75	\$4,020
	*Water Truck (2,500 Gallon)	\$132	1	46.4	\$67	\$3,241
	*Grader 14G			46.4	\$80	\$3,712
Total						\$28,437

* Final Road Maintenance Requirements if Stanley Creek/Green Mountain Road is used as a haul route.

Production Rates
 Grader
 Vibratory Roller

Miles/day	Distance(miles)	Days
1.5	11.8	7.9
1.5	8.7	5.8

TIMBER CRUISE REPORT

Selders Creek FY 2002

1. **Sale Area Location:** Areas 1, 2, and 3 - Portions of Section 36, T5N,R6W, W.M., Clatsop County, Oregon.

2. **Fund Distribution:**

Fund: BOF – 100%

Tax Code: 100% 8-01.

3. **Sale Acreage by Area:**

Area	Treatment	Gross Acres	Existing R/W	Stream Buffer	Net Acres	Acreage Comp. Method
1	Regeneration Harvest	101	0	0	101	GIS
2	Regeneration Harvest	111	0	0	111	GIS
3	Regeneration Harvest	4	0	0	4	GIS
Total		216			216	

4. **Cruisers and Cruise Dates:** Cruised by private contractor / Northwest Forestry Service cruisers. Cruised in February 2001.

5. **Cruise Method and Computation:**

Areas 1, 2, and 3 were cruised using a 40 B.A.F. The sale areas were cruised in five separate types, as a part of a larger land exchange. Area 1 was cruised as part of three types; using a grid spacing of 300' x 300', and 200' x 200'. 56 plots were cruised, and 56 of those were graded and measured. Area 2 was cruised as part of three types; using a grid spacing of 200' x 200', and 400' x 400'. 42 plots were cruised, and 42 of those were graded and measured. Area 3 was cruised at a grid spacing of 250' x 250'. 4 plots were cruised, and 4 of those were graded and measured. All cruisers used data collectors, which were downloaded to the Atterbury Super A.C.E. program in the Northwest Forestry Service office for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Northwest Forestry Service office as follows:

AREA	CRUISE	CRUISE TYPE
1 and 3	LVF/ODF Land Exchange	5N6WSEC36 TYPES: 001A, 001B, 001C
2	LVF/ODF Land Exchange	5N6WSEC36 TYPES: 006A, 006B, 006C

6. Timber Description: Areas 1, 2, and 3 are clearcut units of approximately 68 year old Douglas-fir, of good quality, with a small component of 68 year old Hemlock, Red Cedar, and hardwoods. **Areas 1 and 3:** the average DBH is 16", height 88 feet, trees per acre 209, and harvesting approximately 47.9 MBF/acre, **Area 2:** the average DBH is 16", height 86 feet, trees per acre 167, harvesting approximately 37.8 MBF/acre.

7. Statistical Analysis and Stand Summary:

Area	Target CV%	Target SE%	Actual CV%	Actual SE%
1, 2, and 3	50	5	42	4.1

8. Cruised Timber Volumes and Grades (Total MBF of all sale areas)

Species	Avg. DBH	Net MBF	Smil	2 Saw	3 Saw	4 Saw	Util.	D&B MBF	Species %
Douglas-fir	17	8,648	1,509	3,187	3,054	712	186	237	87
Hemlock	13	992		356	416	171	49	19	10
Red Cedar	14	80			48	32		6	1
Hardwood	13	213			78	135		31	2
Totals	16	9,933						293	100

9. Approvals:

Prepared by: David M. Jack Date: 9-26-01
 Approved by: Dave Coody Date: 9/26/01
 Unit Forester
















Attachments: A) Cruise Design and Map
 B) Volume Reports (3 pages)
 C) Stand Summary and Statistics Reports (3 pages)

LOGGING PLAN MAP
 OF TIMBER SALE CONTRACT NO. 341-03-52
 SELDERS CREEK
 PORTIONS OF SECTION 36, T5N, R6W, W.M.,
 CLATSOP COUNTY, OREGON

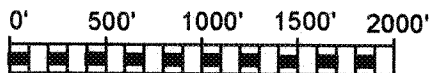
APPROXIMATE ACREAGE:

AREA 1	- 101 ACRES
AREA 2	- 111 ACRES
AREA 3	- 4 ACRES
TOTAL	- 216 ACRES

LEGEND

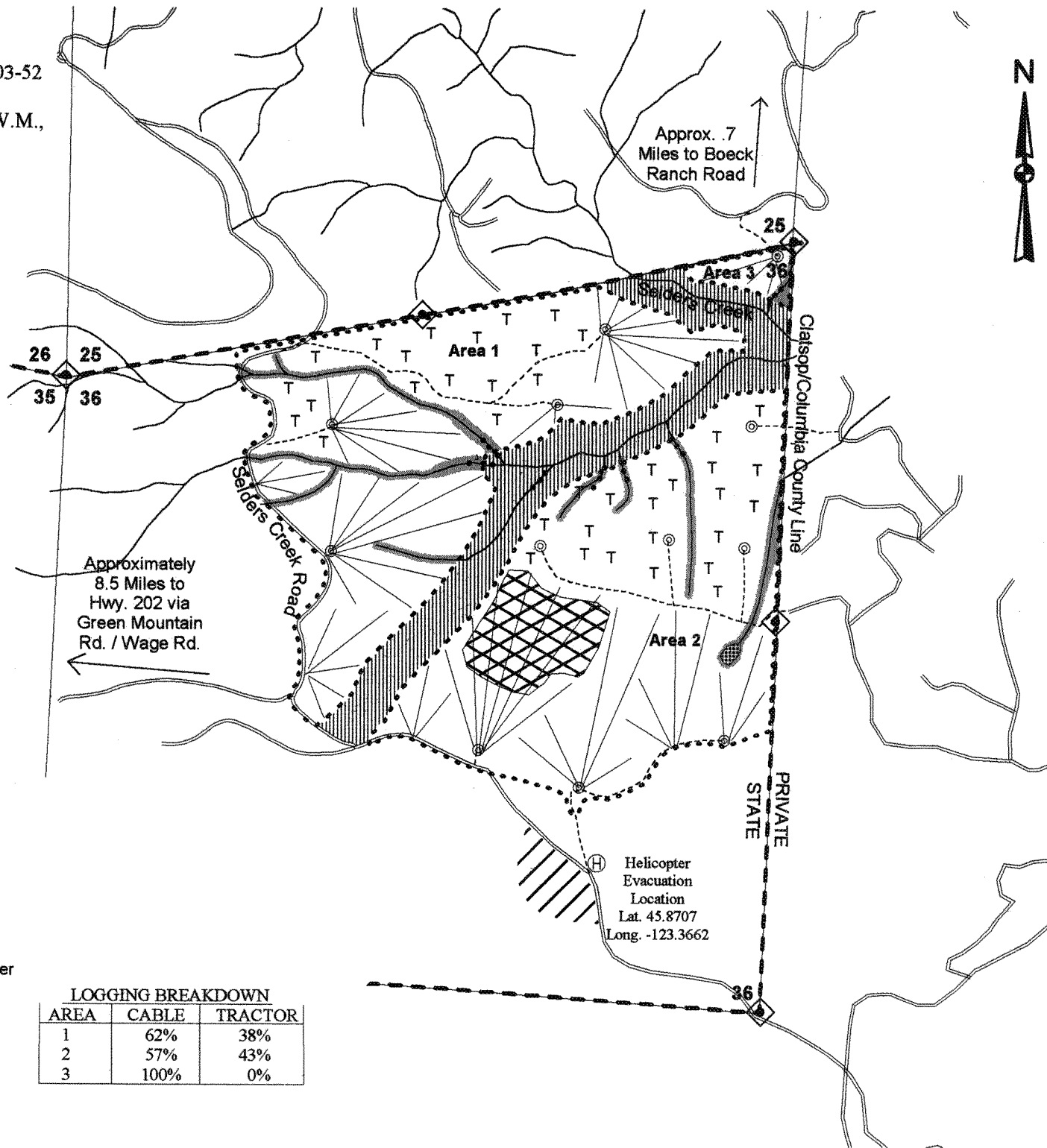
-  Timber Sale Boundary
-  GTRA and Stream Buffer Area
-  POINT "A"
-  Property Line
-  New Construction
-  Existing Surfaced Road
-  Known Land Survey Corner
-  Type F Stream
-  Type N Stream
-  Tractor Logging
-  Cable Logging
-  Helicopter Evacuation Point
-  Intermediate Supports Required
-  Swamp
-  Posted Interior Type N Stream Buffer

APPROX. SCALE 1"=1,000'



LOGGING BREAKDOWN

AREA	CABLE	TRACTOR
1	62%	38%
2	57%	43%
3	100%	0%



CRUISE METHODS

The 13 parcels was cruised between August 16 and December 22, 1999. Cruisers were Douglas Campbell, William Heaton, Kevin McCarthy, George Nuesse, Arnold Suhrbier, and Kevin Young. LVF and ODF provided aerial photographs and digitized type maps. Acreages by type were provided with the maps. In a few cases, cruisers made minor adjustments to type lines in the field, and acreages were adjusted accordingly.

In most types, timber was sampled with enough plots to obtain a standard error of net board foot volume of 10 percent or less. Estimated number of plots was based on examination of aerial photographs and on knowledge of the area. In some types, cruisers added plots after initial sampling in order to achieve the 10 percent standard error target.

The only exceptions were small types. Maximum plot intensity was two plots per acre in types between 12 and 20 acres, three plots per acre in types between 8 and 11 acres, and four plots per acre in types 7 acres or smaller.

All sample plots initially were located on square grids. In some of the types in which plots had to be added to achieve the standard error target, they were located on rectangular grids. One side of the rectangle was twice the length of the other. Plot location maps were sent to LVF and ODF during the course of the project and are not included in this report.

All plots were variable radius and were measured and graded. A basal area factor was chosen for each type that was expected to give between five and seven trees per plot. Sighting point for determining whether trees were in a sample plot was four feet above stump level.

Pink and white flagging was hung above the plot centers. Plot number was written on one of the flags. A stake was placed in the ground at center, and a pink flag was tied to it. Pink flagging also was hung along the cruise line and at road crossings so that check cruisers could follow. In addition, pink and white flagging was hung at the beginning and end of cruise lines, with distance and direction to the nearest plot written on one of the flags.

Species, diameter at four feet above stump level (D4H), form factor, merchantable height, and estimated defect were recorded for each sample tree. Merchantable height is height to an inside bark diameter of four inches or to an outside bark diameter of 30 percent of outside bark diameter at 16 feet above stump level,

whichever is shorter. If a tree is broken below this point, merchantable height is to the break.

Minimum scaling diameter was four inches. Preferred log length for Douglas-fir, western hemlock, and true fir export quality logs was 40 feet. For domestic sawlogs of these species, preferred length was 36 to 40 feet. For Sitka spruce logs 8 inches and larger in scaling diameter, peeler lengths were preferred: 17, 26, and 34 feet. For smaller spruce logs, preferred length was 36 to 40 feet. For western redcedar and hardwoods, it was 32 feet. Logs were cruised in other lengths due to defect or at the top of the tree. In some cases, logs were bucked shorter in order to improve grade recovery.

Maximum log length for all species was 40 feet, and the minimum was 8. All logs contained one foot of trim.

All trees 6.6 inches in diameter and greater were cruised. However, the minimum merchantable tree contained at least one 16 foot log with scaling diameter of 4 inches and had a net board foot scale of not less than one third of gross scale and not less than 10 board feet. Only live standing trees were cruised.

Each log was assigned a grade. Grades were based on LVF specifications and are described below. The first eight are export grades.

Site index also was sampled in each type. Cruisers bored approximately one site tree per 10 acres, with a minimum of 6 and a maximum of 10 per type. Site trees were either Douglas-fir, western hemlock, or red alder, in order of preference. Only one species was selected for site measurements in almost all types. In a few mixed-species types, however, more than one species was sampled.

For each site tree in stands with the potential for high quality export sort logs, number of rings in the outer third of the scaling cylinder was counted. If a stand contained more than one age class, trees in each class were sampled in order to estimate age distribution.

All data were analyzed using the Super A.C.E. cruise program.

Log Grade Definitions
(page 1 of 3)

I Sort (Douglas-fir) - Knots to 1 1/2 inches allowed, but log must be at least 50 percent free of knots. No lumps at knot whorls. Sweep must be such that a line from center of butt to center of top is offset no more than 1/3 of midpoint diameter at center. Minimum of 5 rings per inch in outer 1/3 of scaling cylinder. Minimum scaling diameter 13 inches, minimum length 26 feet.

Triangle Sort (Douglas-fir) - Knots to 1 1/2 inches allowed if well spaced over entire log. However, knots to 2 1/2 inches are allowed if well spaced. No lumps at knot whorls. Minimum of 2 to 3 feet between knot whorls. Sweep must be such that a line from center of butt to center of top is offset no more than 3/4 of midpoint diameter at center. Minimum scaling diameter 13 inches, minimum length 26 feet.

SX Sort (Douglas-fir) - Knots to 1 1/2 inches allowed, but log must be at least 50 percent free of knots. No lumps at knot whorls. Sweep must be such that a line from center of butt to center of top is offset no more than 1/3 of midpoint diameter at center. Minimum of 5 rings per inch in outer 1/3 of scaling cylinder. Scaling diameter between 8 and 12 inches, minimum length 26 feet.

FL Sort (Douglas-fir) - Knots to 2 1/2 inches allowed if well spaced over entire log. No lumps at knot whorls. Minimum of 2 to 3 feet between knot whorls. Sweep must be such that a line from center of butt to center of top stays within the body of the log at the midpoint. Scaling diameter between 8 and 12 inches, minimum length 26 feet.

PW Sort (Douglas-fir) - Knots to 1 1/2 inches allowed if widely spaced. Sweep must be such that a line from center of butt to center of top is offset no more than 3/4 of midpoint diameter at center. Scaling diameter between 6 and 7 inches, minimum length 36 feet.

HS Sort (hemlock, true firs) - Knots to 1 1/2 inches allowed if well spaced over entire log. Sweep must be such that a line from center of butt to center of top is offset no more than 3/4 of midpoint diameter at center. Minimum of 5 rings per inch in outer third of scaling cylinder. Minimum scaling diameter 12 inches, minimum length 26 feet.

(continued on next page)

Log Grade Definitions (page 2 of 3)

- HX Sort (hemlock, true firs) - Knots to 1 1/2 inches allowed if well spaced over entire log. Sweep must be such that a line from center of butt to center of top is offset no more than 3/4 of midpoint diameter at center. Minimum of 5 rings per inch in outer 1/3 of scaling cylinder. Scaling diameter between 8 and 11 inches, minimum length 26 feet.
- HK Sort (hemlock, true firs) - Knots to 2 1/2 inches allowed if well spaced over entire log. Sweep must be such that a line from center of butt to center of top stays within body of log at midpoint. Minimum scaling diameter 8 inches, minimum length 26 feet.
- DF 8"+ (Douglas-fir) - Domestic quality sawlog. Minimum scaling diameter 8 inches, minimum length 16 feet. Maximum butt diameter 30 inches.
- DF 5-7" (Douglas-fir) - Domestic quality sawlog. Scaling diameter between 5 and 7 inches, minimum length 16 feet.
- HEM 12"+ (hemlock, true firs) - Domestic quality sawlog. Minimum scaling diameter 12 inches, minimum length 16 feet. Maximum butt diameter 48 inches.
- HEM 5-11" (hemlock, true firs) - Domestic quality sawlog. Scaling diameter between 5 and 11 inches, minimum length 16 feet.
- SS 8"+ (Sitka spruce) - Domestic quality sawlog. Minimum scaling diameter 8 inches, minimum length 16 feet. Maximum butt diameter 40 inches.
- SS 5-7" (Sitka spruce) - Domestic quality sawlog. Scaling diameter between 5 and 7 inches, minimum length 16 feet.
- OVERSIZE (Douglas-fir, hemlock, true firs, Sitka spruce) - Domestic quality sawlog. Butt diameter larger than specified for other sawlog sorts. Minimum length 16 feet.
- RC 5"+ (western redcedar) - Domestic quality sawlog. Minimum scaling diameter 5 inches, minimum length 16 feet.
- HWD SAW8 (hardwoods) - Sawlog quality. Minimum scaling diameter 8 inches, minimum length 16 feet.

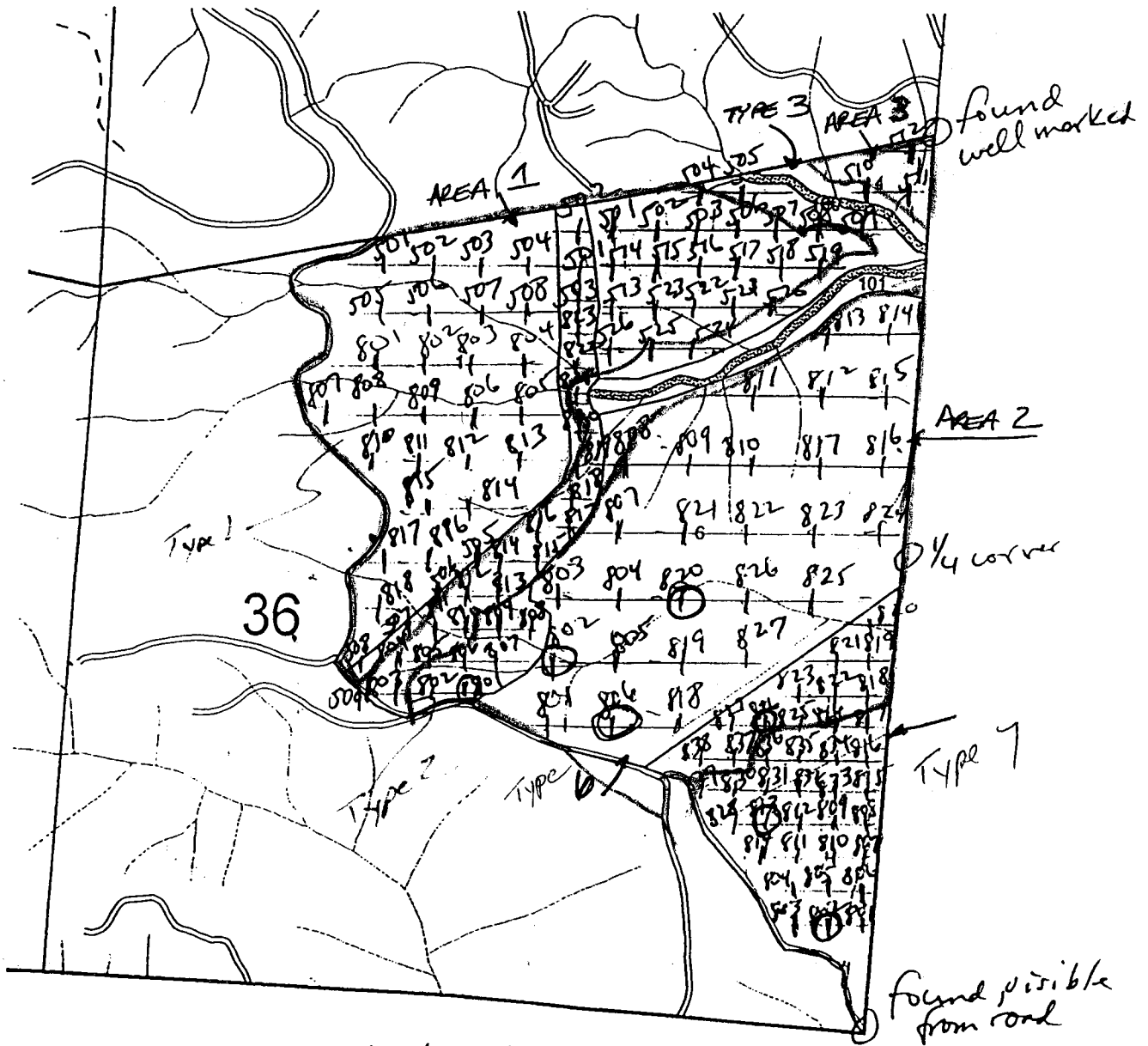
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Log Grade Definitions (page 3 of 3)

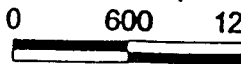
HWD SAW5 (hardwoods) - Sawlog quality. Minimum scaling diameter 5 inches, minimum length 16 feet.

UTILITY - Too small for other sorts or cannot be classified as a sawlog due to sweep, roughness, or other defects. Minimum scaling diameter 4 inches, minimum length 8 feet.

PARCEL B
Selders Creek
T5N, R6W, section 36



Type 1 67.8 Acres 26 plots 300 x 300 feet
 Type 2 29.0 Acres 32 plots 200 x 200 feet
 Type 3 (3+4) 45.4 Acres 26 plots 250 x 250 feet
 Type 6 101.1 Acres 27 plots 400 x 400 feet
 Type 7 43.7 Acres 38 plots 200 x 200 feet



- Section
- Typeline
- Small 50' Buffer
- Road
- DIRT
- GRAVEL
- PAVED
- Stream
- ODF Ownership
- Fund 51
- Fund 52
- Fund 54
- Fund 411
- Non-wooded

FOREST PRACTICES ACT "WRITTEN PLAN"
For Harvest of Selders Creek 341-03-52

Landowner: Oregon Department of Forestry
92219 Hwy 202
Astoria, OR 97103
(503) 325-5451

Protected Resources:

Selders Creek, which is designated as a medium Type F stream, and is located between Areas 1 and 3. Length of the affected stream requiring protection is approximately 1,200 feet. Another small Type F tributary to Selders Creek is located between Areas 1 and 2 for the eastern most 2,300 feet. These streams are located in Section 36 of T5N, R6W, W.M., Clatsop County, Oregon.

Specific Site Characteristics:

Selders Creek and Tributary to Selders Creek: The streambed is approximately 6 feet wide, with moderate to steep streambank slopes. Streamside vegetation is dominated by mature alder and brush, with a significant component of conifer trees, which are located above the flood plain.

Tree and Vegetation Retention:

Selders Creek and Tributary to Selders Creek: The FPA defines the RMA width of a medium, Type F stream at 70 feet. The timber sale boundary for Areas 1 and 3 around Selders Creek is posted at a minimum of 100 feet from the stream, with 300 feet separating the two Areas.

The FPA defines the RMA width of a small Type F stream at 50 feet. The boundary between Areas 1 and 2 average 150 feet on both sides of the Tributary to Selders Creek, continuing with that 300 foot Green Tree Retention Area between the two Areas.

Practices:

Directional felling will be required parallel to the stream to prevent trees from entering the aquatic area. No ground based logging equipment will be permitted inside the posted RMA (stream buffer area). Cable corridors may be strung through the RMA and will be located no closer than 100 feet apart. Cable lines will not be lowered into the RMA during yarding. Full suspension of all logs will be required when yarding through the RMA.

Attachments: Logging Plan Map

Submitted: _____
Purchaser/Operator Contract Representative

Date: _____

Approved: Dan Green
State Lands Forester

Date: 2/8/02

Approved: AMU
Forest Practices Forester
















Date: _____

LOGGING PLAN MAP
 OF TIMBER SALE CONTRACT NO. 341-03-52
 SELDERS CREEK
 PORTIONS OF SECTION 36, T5N, R6W, W.M.,
 CLATSOP COUNTY, OREGON

APPROXIMATE ACREAGE:

AREA 1	- 101 ACRES
AREA 2	- 111 ACRES
AREA 3	- 4 ACRES
TOTAL	- 216 ACRES

LEGEND

-  Timber Sale Boundary
-  GTRA and Stream Buffer Area
-  POINT "A"
-  Property Line
-  New Construction
-  Existing Surfaced Road
-  Known Land Survey Corner
-  Type F Stream
-  Type N Stream
-  Tractor Logging
-  Cable Logging
-  Helicopter Evacuation Point
-  Intermediate Supports Required
-  Swamp
-  Posted Interior Type N Stream Buffer

APPROX. SCALE 1"=1,000'



LOGGING BREAKDOWN

AREA	CABLE	TRACTOR
1	62%	38%
2	57%	43%
3	100%	0%

