



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Cost Summary John Day Point Thinning Sale 341-04-03

District: Astoria

Date: 1/9/04

	Conifer	Hardwood	Total
<b>Gross Timber Sale Value</b>	\$430,931.27	\$93,092.32	\$524,023.59
		<b>Project Work</b>	(\$88,141.00)
		<b>Advertised Value</b>	\$435,882.59



# Timber Sale Appraisal Timber Description John Day Point Thinning Sale 341-04-03

"STEWARDSHIP IN FORESTRY"

**District:** Astoria

**Location:** Portions of Sections 13 and 24 of T8N, R9W, WM., Clatsop County, Oregon

**Date:** 1/9/04

**Stand Stocking:** 60%

Species	Avg. DBH	Amortized%	Recovery%
Douglas - Fir	11	0	100
Western Hemlock / Fir	16	0	100
Sitka Spruce	54	0	100
Alder (Red)	12	0	90

Volume by Grade	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Alder (Red)	Total
2S	54	1,310	5	0	1,369
3S	167	567	0	165	899
4S	59	100	0	67	226
<b>Total</b>	280	1,977	5	232	2,494

**Comments:** Pond Values Used: 4th Quarter 2003

**Additional Logging Cost:**

Hand Line Pulling - Area 1: Approximately 4 acres along the sides  
of three draws.

3 man days @ \$150.00/day = \$450.00

Directional Felling to protect buffers, RMA's and sale boundaries:

\$3.00/MBF x 1,000 MBF = \$3,000.00

Skid Trail and Corridor Layout - Pre-flag locations:

\$2.00/ MBF x 2,492 MBF = \$4,984

TOTAL OTHER COSTS PLUS P&R \$ 8,434.00

**Other Costs - No P & R:**

Slash Piling:

20 Hours @ \$95/hr. = \$1,900.00

Move In: = \$ 500.00

TOTAL OTHER COSTS - NO P & R = \$2,400.00

**LOG MARKETS:**

Tillamook = 2 trips per day

Mist = 3 trips per day

Clatskanie= 3 trips per day

Kalama = 3 trips per day

Willamina = 2 trips per day

Garibaldi = 2 trips per day

Chehalis = 2 trips per day

St Helens = 2 trips per day



# Timber Sale Appraisal

## Logging Conditions

### John Day Point Thinning

### Sale 341-04-03

"STEWARDSHIP IN FORESTRY"

<b>Combination#: 1</b>	Douglas - Fir	20.11%	
	Western Hemlock / Fir	76.60%	
	Alder (Red)	67.14%	
<b>Yarding Distance:</b>	Medium (800 ft)		<b>Downhill Yarding:</b> Yes
<b>Logging System:</b>	Shovel		<b>Process:</b> Manual Delimiting
<b>Tree Size:</b>	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
<b>Loads/Day:</b>	12		<b>Bd. Ft./Load:</b> 3,800
<b>Cost/MBF:</b>	\$50.91		
<b>Machines:</b>	Shovel Logger		
<b>Combination#: 2</b>	Douglas - Fir	66.81%	
	Western Hemlock / Fir	6.51%	
	Alder (Red)	17.83%	
<b>Yarding Distance:</b>	Medium (800 ft)		<b>Downhill Yarding:</b> No
<b>Logging System:</b>	Cable: Small Tower <=40		<b>Process:</b> Stroke Delimber
<b>Tree Size:</b>	Small / Thinning 9in (70 Bft/tree), 20+ logs/MBF		
<b>Loads/Day:</b>	4		<b>Bd. Ft./Load:</b> 3,200
<b>Cost/MBF:</b>	\$216.62		
<b>Machines:</b>	Log Loader (A)		
	Stroke Delimber (A)		
	Tower Yarder (Small)		
<b>Combination#: 3</b>	Douglas - Fir	10.34%	
	Western Hemlock / Fir	6.44%	
	Sitka Spruce	100.00%	
	Alder (Red)	5.88%	
<b>Yarding Distance:</b>	Short (400 ft)		<b>Downhill Yarding:</b> Yes
<b>Logging System:</b>	Shovel		<b>Process:</b> Manual Delimiting
<b>Tree Size:</b>	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
<b>Loads/Day:</b>	7		<b>Bd. Ft./Load:</b> 3,500
<b>Cost/MBF:</b>	\$94.76		
<b>Machines:</b>	Shovel Logger		
<b>Combination#: 4</b>	Douglas - Fir	2.74%	
	Western Hemlock / Fir	10.45%	
	Alder (Red)	9.16%	





**Timber Sale Appraisal  
Logging Costs  
John Day Point Thinning  
Sale 341-04-03**

"STEWARDSHIP IN FORESTRY"

Date: 1/9/04

Operating Seasons: 1.5

Profit & Risk: 15%

Project Costs: \$88,141

Other Costs (P/R): \$8,434

Slash Disposal: \$0

Other Costs: \$2,400

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

Road Maintenance: \$3.40

**Hauling Costs**

Species	\$/MBF	Trips/Day	MBF/Load
Douglas - Fir	\$0.00	3.0	3.2
Western Hemlock / Fir	\$0.00	2.0	3.8
Sitka Spruce	\$0.00	2.0	4.0
Alder (Red)	\$0.00	2.0	3.2



# Timber Sale Appraisal Logging Costs Breakdown John Day Point Thinning Sale 341-04-03

"STEWARDSHIP IN FORESTRY"

Costs	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Alder (Red)
<b>Logging</b>	168.70	74.25	94.76	91.55
<b>Road Maintenance</b>	3.40	3.40	3.40	3.78
<b>Fire Protection</b>	1.63	1.63	1.63	1.63
<b>Hauling</b>	43.80	57.50	57.50	73.00
<b>Other (P/R appl.)</b>	3.38	3.38	3.38	3.38
<b>Profit &amp; Risk</b>	33.14	21.02	24.10	26.00
<b>Slash Disposal</b>	0.00	0.00	0.00	0.00
<b>Scaling</b>	2.00	2.00	2.00	2.00
<b>Other</b>	0.96	0.96	0.96	0.96
<b>Total</b>	257.01	164.14	187.73	202.30

<b>Amortization</b>	0.00	0.00	0.00	0.00
<b>Pond Value</b>	513.23	345.30	395.00	603.56
<b>Stumpage</b>	256.22	181.16	207.27	401.26
<b>Amortized</b>	0.00	0.00	0.00	0.00



"STEWARDSHIP IN FORESTRY"

# Timber Sale Appraisal Summary

## John Day Point Thinning Sale 341-04-03

**Amortized**

	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Alder (Red)
<b>MBF</b>	0.00	0.00	0.00	0.00
<b>Value</b>	0.00	0.00	0.00	0.00
<b>Total</b>	0.00	0.00	0.00	0.00

**Unamortized**

	Douglas - Fir	Western Hemlock / Fir	Sitka Spruce	Alder (Red)
<b>MBF</b>	280.00	1,977.00	5.00	232.00
<b>Value</b>	256.22	181.16	207.27	401.26
<b>Total</b>	71,741.60	358,153.32	1,036.35	93,092.32

### Gross Timber Sale Value

**Recovery \$524,023.59**

Prepared by: Ed Holloran

Date: 1/9/04

District: Astoria

Phone: (503) 325-5451



**Road Maintenance Cost Summary (Following Harvest)**

**Sale:** John Day Point Thinning  
**Date:** October 31,2003  
**By:** Ed Holloran

**MBF:** 2,494  
**\$/MBF:** \$3.40

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost
Progressive Operations	Grader 14G	\$540	1	10	\$80	\$1,340
Entries (1)	Dump Truck 12CY	\$114	1	6	\$57	\$456
	FE Loader C966	\$540	1	6	\$75	\$990
Final Haul	Grader 14G	\$540	1	16	\$80	\$1,820
Road	Dump Truck 12CY	\$114	1	8	\$57	\$570
Maintenance	FE Loader C966	\$540	1	8	\$75	\$1,140
Haul Route	Vibratory Roller	\$540	1	10	\$75	\$1,290
	Water Truck 2,500 gallon	\$132	1	8	\$67	\$668
	Labor			8	\$25	\$200
<b>Total</b>						<b>\$8,474</b>

Production Rates  
Grader

Miles/day	Distance(miles)	Days
1.5	1.8	1.2

**SUMMARY OF ALL PROJECT COSTS**

SALE NAME: John Day Point Thinning

**NEW CONSTRUCTION:**

Project No. 1	Road segment	Length/Sta	Cost
	1A to 1B, 1C to 1D, 1E to 1F, 2A to 2B, 2C to 2D, and 3A to 3B	63.3	\$53,612
<b>TOTALS</b>	1.20 miles	63.30 Stations	\$53,612

**ROAD IMPROVEMENT:**

Project No. 1	Road segment	Length/Sta	Cost
	11-12, 13-14, 15-16	31.85	\$17,813
<b>TOTALS</b>	0.60 miles	31.85 Stations	\$17,813

**SPECIAL PROJECTS:**

	Description	Cost
Project No. 3	Gate Installation	\$3,000
Project No. 4	Road Vacating (V1-V2, V3, & V4)	\$1,645
	Project Road Maintenance	\$6,550
<b>TOTALS</b>		\$11,195

**MOVE IN:**

Equipment	Cost
Brush Cutter - Medium	\$225
D-7 Dozer	\$560
10cy Dump Trucks (6 @ \$114)	\$684
20cy Dump Trucks (7 @ \$134)	\$402
Front End Loader - Medium (966)	\$938
Grader (14G)	\$540
Vibratory Roller	\$540
Water Truck (2,500 gal.)	\$132
Excavator (large C330)	\$980
518 Rubber Tired Skidder	\$520
<b>TOTAL</b>	\$5,521

**GRAND TOTAL** **\$88,141**

Compiled By: Ed Holloran TS

Date: 10/31/2003



SURFACING		Stations/ amount	x	Rate/ sta/amt	Cost
Subgrade prep:	Description				
	Grade, Shape and Ditch 16'	59.05	x	\$15.20	\$897.56
	Subgrade Compaction	63.30	x	\$12.50	\$791.25
	Grade and Shape (3A to 3B - 14' outside)	4.25	x	\$11.20	\$64.60
			x		

ROAD SEGMENT	1A to 1B			POINT TO POINT	Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	1A to 1B Volume (CY) per	0+00 to 42+90 Number of				
Base Rock	4"-0" Crushed		8	station	50	stations	42.90	\$6.52	\$13,985
Traction Rock	1 1/2"-0" Crushed	20+45 to 42+90	3	station	19	stations	22.45	\$6.20	\$2,645
Turnouts	4"-0" Crushed		8	turnout	22	turnouts	4	\$6.52	\$574
Turnouts	1 1/2"-0" Crushed		3	turnout	8	turnouts	3	\$6.20	\$149
Junctions	4"-0" Crushed	1C,2A,1E,2C	8	junction	25	junctions	4	\$6.52	\$652
Turnarounds	4"-0" Crushed		8	TA	24	TAs	1	\$6.52	\$156
Curve widening	4"-0" Crushed		8		50		2	\$6.52	\$652
Curve widening	1 1/2"-0" Crushed		3		19		1	\$6.20	\$118
Landings	6"-0" Pit-run	15+20, 1B	N/A	landing	50	landings	2	\$11.52	\$1,152
Total Rock for Road Segment:				1A to 1B			3,027		

\$20,083

ROAD SEGMENT	1C to 1D			POINT TO POINT	Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	1C to 1D Volume (CY) per	0+00 to 1+40 Number of				
Base Rock	4"-0" Crushed		8	station	50	stations	1.40	\$6.52	\$456
Landings	6"-0" Pit-run	1D	N/A	landing	50	landings	1	\$11.52	\$576
Total Rock for Road Segment:				1C to 1D			120		

\$1,032

ROAD SEGMENT	1E to 1F			POINT TO POINT	Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	1E to 1F Volume (CY) per	0+00 to 3+90 Number of				
Base Rock	4"-0" Crushed		8	station	50	stations	3.90	\$6.52	\$1,271
Landings	6"-0" Pit-run	1F	N/A	landing	50	landings	1	\$11.52	\$576
Total Rock for Road Segment:				1E to 1F			245		

\$1,847

ROAD SEGMENT	2A to 2B			POINT TO POINT	Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	2A to 2B Volume (CY) per	0+00 to 1+85 Number of				
Base Rock	4"-0" Crushed		8	station	50	stations	1.85	\$6.52	\$603
Landings	6"-0" Pit-run	2B	N/A	landing	50	landings	1	\$11.52	\$576
Total Rock for Road Segment:				2A to 2B			143		

\$1,179

ROAD SEGMENT	2C to 2D			POINT TO POINT	Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	2C to 2D Volume (CY) per	9+00 Number of				
Base Rock	4"-0" Crushed		8	station	50	stations	9.00	\$6.52	\$2,934
Turnouts	4"-0" Crushed	1+60	8	turnout	22	turnouts	1	\$6.52	\$143
Curve widening	4"-0" Crushed		8		50		1	\$6.52	\$326
Landings	6"-0" Pit-run	6+10, & 2D	N/A	landing	50	landings	2	\$11.52	\$1,152
Total Rock for Road Segment:				2C to 2D			622		

\$4,555

Processing:		Description	No. sta	Rate/sta	Cost				
		Water, Process & Compact Crushed Rock:	81.50	\$37.00	\$3,016				
		(8" roads in 1 lift, more than 8" = 2lifts (59.05 + 22.45 = 81.50)							
		Develop Pit- Run (pr) rock (350 cyds @ \$1.85/cyd = \$647.50)			\$648				
		24"-6" r	6"-0" pr	4"-0"	1 1/2"-0"	3/4"-0"	Total		

<b>SUB TOTAL FOR SURFACING</b>							350	3,337	470	4,157	\$34,114
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<b>GRAND TOTAL</b>	Cost per Mile	\$44,677	\$53,612
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Compiled By: Ed Holloran Date: 10/31/2003  
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SURFACING		Stations/amount	x	Rate/sta/amt	Cost
Subgrade prep:	Description				
	Grade, Shape and Ditch 16'	31.85	x	\$15.20	\$484.12
	Subgrade Compaction	31.85	x	\$12.50	\$398.13
			x		
			x		

ROAD SEGMENT	11 to 12			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	11 to 12 Volume (CY) per		0+00 to 18+75 Number of				
Traction Rock	3/4"-0" Crushed		4	station	25	stations	18.75	469	\$6.50	\$3,047
Culvert Bedding	3/4"-0" Crushed	5+50	N/A	culvert	20	culvert	1	20	\$6.50	\$130
Turn Outs	3/4"-0" Crushed	4+90	4	turnout	22	turnouts	1	22	\$6.50	\$143
Junctions	3/4"-0" Crushed	1+64, 15+15	4	junction	25	junctions	2	50	\$6.50	\$325
Turn-Arounds	3/4"-0" Crushed	10+20, 15+60	N/A	TA	24	TAs	2	48	\$6.50	\$312
Curve widening	3/4"-0" Crushed		4		25		1	25	\$6.50	\$163
Leveling Rock	3/4"-0" Crushed		N/A	per road	60	per road	1	60	\$6.50	\$390
Landings	6"-0" Pit-run	4+90	N/A	landing	80	landings	1	80	\$10.76	\$861
Total Rock for Road Segment:				11 to 12				774		

\$5,370

ROAD SEGMENT	13 to 14			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	13 to 14 Volume (CY) per		0+00 to 8+85 Number of				
Base Rock	4"-0" Crushed		6	station	36	stations	8.85	336	\$6.52	\$2,193
Culvert Bedding	3/4"-0" Crushed	8+00	N/A	culvert	60	culvert	1	60	\$6.52	\$391
Fill Armor	24-6" Riprap	8+00		fill	50	fill	1	50	\$12.55	\$628
Enerergy Dissapator	24-6" Riprap	8+00		culvert	24	culvert	1	24	\$12.55	\$301
Curve widening	4"-0" Crushed		6		38		1	38	\$6.52	\$248
Landings	6"-0" Pit-run	14	N/A	landing	50	landings	1	50	\$11.52	\$576
Total Rock for Road Segment:				13 to 14				558		

\$4,336

ROAD SEGMENT	15 to 16			POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	15 to 16 Volume (CY) per		0+00 to 4+25 Number of				
Base Rock	4"-0" Crushed		6	station	38	stations	4.25	162	\$6.52	\$1,053
Junctions	4"-0" Crushed		6	junction	24	junctions	1	24	\$6.52	\$156
Total Rock for Road Segment:				15 to 16				186		

\$1,209

Processing:		Description	1,518	No. sta	Rate/sta	Cost		
		Water, Process & Compact Crushed Rock:		31.85	\$37.00	\$1,178		
		(roads with less than 8" 1lift)						
		Develop Rit-Run (pr) and Riprap (rr) rock 130 cyds @ \$1.85/cyd=\$240.50 & 74cyds @ \$2.60/cyd=\$192.40)				\$433		
SUB TOTAL FOR SURFACING			74	130	560	754	1,518	\$13,410

SPECIAL PROJECTS						Cost
Energy Dissipator Placement	24 cy	X	\$1.00	per cy		\$24.00
SUB TOTAL FOR SPECIAL PROJECTS						\$24

GRAND TOTAL

Cost per Mile \$30,712

\$17,813

Compiled By: Ed Holloran

Date: 6/9/2003

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**JOHN DAY POINT THINNING  
PROJECT NO. 1 ROADSIDE BRUSHING**

**MEDIUM BRUSHING**

Point to Point	Station to Station	No. Sta.	Mileage
I1 To I2	0+00 to 18+75	18.75	0.36
I5 To I6	0+00 to 4+25	4.25	0.08
<b>TOTALS</b>		<b>23.00</b>	<b>0.44</b>

Rate per mile = \$1,100.00 at 0.44 miles = \$479.17

**HEAVY BRUSHING**

Point to Point	Station to Station	No. Sta.	Mileage
I3 To I4	0+00 to 8+85	8.85	0.17
<b>TOTALS</b>		<b>8.85</b>	<b>0.17</b>

Rate per mile = \$1,300.00 at 0.17 miles = \$217.90

**TOTAL BRUSHING COST = 0.60 Miles \$697.06**

### Cost Calculations for Culvert and Fill Replacement I3 -I4

<u>Equipment</u>	<u>Time/Hrs</u>		<u>Rate w/Op.</u>	<u>Cost</u>	<u>Total Cost</u>
C330 Excavator	8		\$130.00	\$1,040.00	
12yd Dump Tr. (2)	8	2	\$57.00	\$912.00	
518 Skidder	4		\$60.00	\$240.00	
D-7 Dozer	3		\$90.00	\$270.00	
					<u>\$2,462.00</u>

Estimated 285 yards of material to move in and move out.



John Day Point Thinning

Project No. 4 Road Vacating

V1 to V2 and V3

Location/Description	C325 #1 Excavator	C330 #2 Excavator	D-7 CAT Dozer	Truck	Labor	Pump	Straw Mulch	Total
V1 to V2 Vacate road and Pull old culverts	hr hr	3.5 hr 0.5 hr	1 hr hr	0 hr 0 hr	1 hr 0.5 hr	0 hr 0 hr	2 bales 1 bales	
V1 to V2 Remove old gate	hr	0.5 hr	0 hr	0 hr	0.5 hr	0 hr	0 bales	
V3 Remove old Culvert	hr	0.5 hr	0 hr	0 hr	0.5 hr hr	0 hr hr	2 bales	
V4 Remove old Punchon Dewatering	hr	2.5 hr	0 hr	0 hr	1 hr 4 hr	0 hr 4 hr	4 bales	
	hr	hr	hr	hr	hr	hr	bales	
	hr	hr	hr	hr	hr	hr	bales	
Haul away culverts & Gate to anapproved refuse site off State land.	hr	hr	hr	4 hr	4 hr	hr	bales	
<b>Total</b>	0 hr	7.5 hr	1 hr	4 hr	11.5 hr	4 hr	9 Bales	
<b>Rate</b>	\$115 /hr	\$130 /hr	\$90 /hr	\$57 /hr	\$25 /hr	\$6 /hr	\$4.50 /Bale	
<b>Cost</b>	\$0	\$975	\$90	\$228	\$288	\$24	\$40.50	<b>\$1,645</b>

Prepared by: Ed Holloran Date: 4/9/2003

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## Project Work Road Maintenance Cost Summary

**Sale:** John Day Point Thinning  
**Date:** April 3, 2003  
**By:** Ed Holloran

Type	Equipment/Rationale	Hours	Rate	Cost
Post-Projects Road	Grader 14G	33	\$80	\$2,640
	Dump Truck 12CY (2 trucks)	20	\$57	\$1,140
	FE Loader C966	10	\$60	\$600
	Vibratory Roller	20	\$75	\$1,500
	Water Truck 2500 gallon	10	\$67	\$670
<b>Total</b>				<b>\$6,550</b>

Production Rates  
Grader

Miles/day	Distance(miles)	Days	Hours
1.50	6.2	4.1	33

Big Noise Quarry to Hwy 30 = 4.2 miles    Hunt Creek to Hwy 30 = 2.0 miles

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**CRUSHED ROCK COST**

SALE NAME: John Day Point Thinning  
 PROJECT: 1. John Day Point  
 QUARRY: Hunt Creek Stockpiles

ROCK TYPE: 1 1/2"-0 "Crushed

DATE: 10/31/2003  
 BY: E. Holloran

Segment	Stations	Cubic Yards						Misc	Total
		Base	Running	Turnout	Turnaround	Junction			
1A to 1B	22+45		470						470
Grand Total			470						470

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			250 MPH	50 MPH	30 MPH	25 MPH	15 MPH	10 MPH	5 MPH	
1A to 1B	22+45	470		12.50	2.50	1.51	0.43	0.43	0.38	17.75
TOTAL		470								
	STA./NO.	CU. YD.								
CUBIC YARD WEIGHTED HAUL				12.50	2.50	1.51	0.43	0.43	0.38	AVERAGE HAUL 17.75
Average Round Trip Distance (miles)										35.50

ROCK HAUL:

Truck type: D20 No. trucks: 7  
 Delay min.: 8 Efficiency: 85%

Ave haul: \$5.10 /cy  
 Load: \$0.40 /cy  
 Spread: \$0.70 /cy

Truck type: D12 No. trucks:    
 Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks: 2  
 Delay min.: 5 Efficiency: 85%

Production: cy/day = 913

CRUSHED ROCK HAUL COSTS      470 cy @      **\$6.20 /cy**

# TIMBER CRUISE REPORT

## JOHN DAY POINT THINNING

### FY 2003

**1. Sale Area Location:**

Areas 1 & 2 are located in the SE ¼ of NW ¼, SW ¼ of NE ¼, SW ¼, NW ¼ of SE ¼, and the S ½ of SE ¼ of Sections 13, and the N ½ of NE ¼ of Section 24, and Area 3 is located in NE ¼ of NW ¼ of Section 24, all in Township 8 N., Range 9 W., Willamette Meridian, and all are located in Clatsop County, Oregon.

**2. Fund Distribution:**

BOF = 100%  
 BOF Lands: Tax Code = 1-04 100%

LCR obligation Deed #588 (Lot 19-22, Block 6, Kenney's Addn.) of \$101.48 as of 3/5/03.

**3. Sale Acreage and Treatments by Area:**

Area	Treatments	Gross Acres	New R/W	Existing R/W	Stream Buffers	Un-Thin.	Net Acres	Survey Method
1	Partial Cut	87.8	2.2	2.1	6.8	2.2	74.5	GIS
2	Partial Cut	51.2	1.2	0.7	0	14.1	35.2	GIS
3	Partial Cut	3.2	0.4	0	0	0	2.8	GIS
4	Right-of-Way	0.0	0.0	0	0	0	3.8	L x W & GIS
<b>TOTAL</b>		<b>142.2</b>	<b>3.8</b>	<b>2.8</b>	<b>6.8</b>	<b>16.3</b>	<b>116.3</b>	

The Right-of-Way acreages and volumes were broken out between Area 1 and Areas 2 & 3. The total cruise volume per acre was then applied to the corresponding area.

**4. Cruisers and Cruise Dates:**

Area 1 was cruised by Tom Scoggins and Ed Holloran. Areas 2 and 3 were cruised by Kevin Berry. The sale areas were cruised in March, 2003.

**5. Cruise Method and Computations:**

All Areas are partial cut areas and will be auto-mark thinned. The cruise was designed to separate all Areas from each other, and to be able to treat Areas 2 and 3 similarly.

The cruise for Area 1 used a 40 BAF on 18 variable plots, which were 310 feet apart with the lines 600 feet apart. The 18 plots were all variable plots and all were measure plots. The target SE for Area 1 was 13% with at least 100 conifer and 3 hardwood trees to be measured. Actual measurements on 18 plots were 123 conifer trees, 10 hardwood trees, and 5 snags.

The cruise for Area 2 utilized 1/25 acre plots, which were 300 feet apart and the lines were 400 feet apart. On Area 3, the plots were 150 feet by 200 feet. The 20 plots were all 1/25 acre plots and every plot was a measure plot. The target SE for Areas 2 and 3 was 15% with at least 120 conifer trees to be measured. The actual measurements on 20 plots were 147 conifer trees, 50 hardwood trees, and 1 snag.

Tom and Ed used Corvallis Micro Technology (CMT) data collectors. Kevin used the Juniper Systems Allegro field PC. The data was downloaded to the Atterbury SUPER A.C.E. program in the Astoria District office where it was consolidated and computed. The cruise calculations were processed in the Astoria District office. See the attached Cruise Designs for more details on the cruise methods.

6. **Timber Description:**

Area 1: This area is mixed conifer, 65 to 69 years old, with some hardwood present and a hemlock understory. The proposed Stand Density Index (SDI) is 25% for the residual stand with an average DBH of 25". The harvest will remove approximately 104 trees per acre with an average DBH of 21" on the Douglas-fir, and 17" on the Western Hemlock, and 12" on the Red Alder. The average height on the take trees is 68 feet, with a net volume of 26.3 MBF per acre. Alder (9" and above) will be harvested, except in the stream buffers.

Area 2: This area is mixed conifer, 38 to 48 years old, with hardwoods present, and dominant in the draws. The proposed SDI is 30% for the residual stand with an average DBH of 16". The harvest will remove approximately 167 trees per acre with an average DBH of 10" on the Douglas-fir, 12.5" on the Western Hemlock and 11.5" on the Red Alder. The average height on the take trees is 38 feet, with a net volume of 10.3 MBF per acre. Alder (9" and above) will be thinned in the mixed conifer stands and will be reserved timber in the pure hardwood stands and along the draws.

Area 3: This area is a mixed conifer stand 38 to 44 years old, with hardwoods along the old skid trails. The proposed SDI is 30% for the residual stand with an average DBH of 12". The harvest will remove approximately 175 trees per acre with an average DBH of 9" on the Douglas-fir, 9.5" on the Western Hemlock, and 10.5" on the Red Alder, with an average height of 27 feet and a net volume of 5.3 MBF per acre. Alder (9" and above) will be thinned in the mixed conifer stands.

7. **Statistical Analysis and Stand Summary:** (See also "Statistical Summary-Type Reports", attached.)

Area	Target CV	Target SE %	Actual CV	Actual SE %
1	60	13	42.6	9.5
2 & 3 (comb.)	60	15	58.4	13.1

The statistics for Areas 1, and 2 & 3 are on Net BF/Acre for "Take" and "Leave" stands combined.

8. **Volumes by Species and Sale Areas:** (See Species, Sort, Grade, Length %Type Reports", attached.)

Volumes do not include "in-growth". The majority of defect and breakage was culled during the cruise. The total net MBF volumes by species and grade are as follows:

Species	DBH	Net. Vol.	#2 Saw	#3 Saw	#4 Saw	D & B	%/Sp.
Douglas-fir	10.7	280	54	167	59	10.7	11.4
W. Hemlock	16.5	1,977	1,310	567	100	60.6	79.0
S. Spruce	54.2	5	5	0	0	0.7	0.2
Red Alder	11.8	232	0	165	67	25.9	9.4
<b>Totals</b>		<b>2,494</b>	<b>1,369</b>	<b>899</b>	<b>226</b>		<b>100</b>

9. **Approvals:**

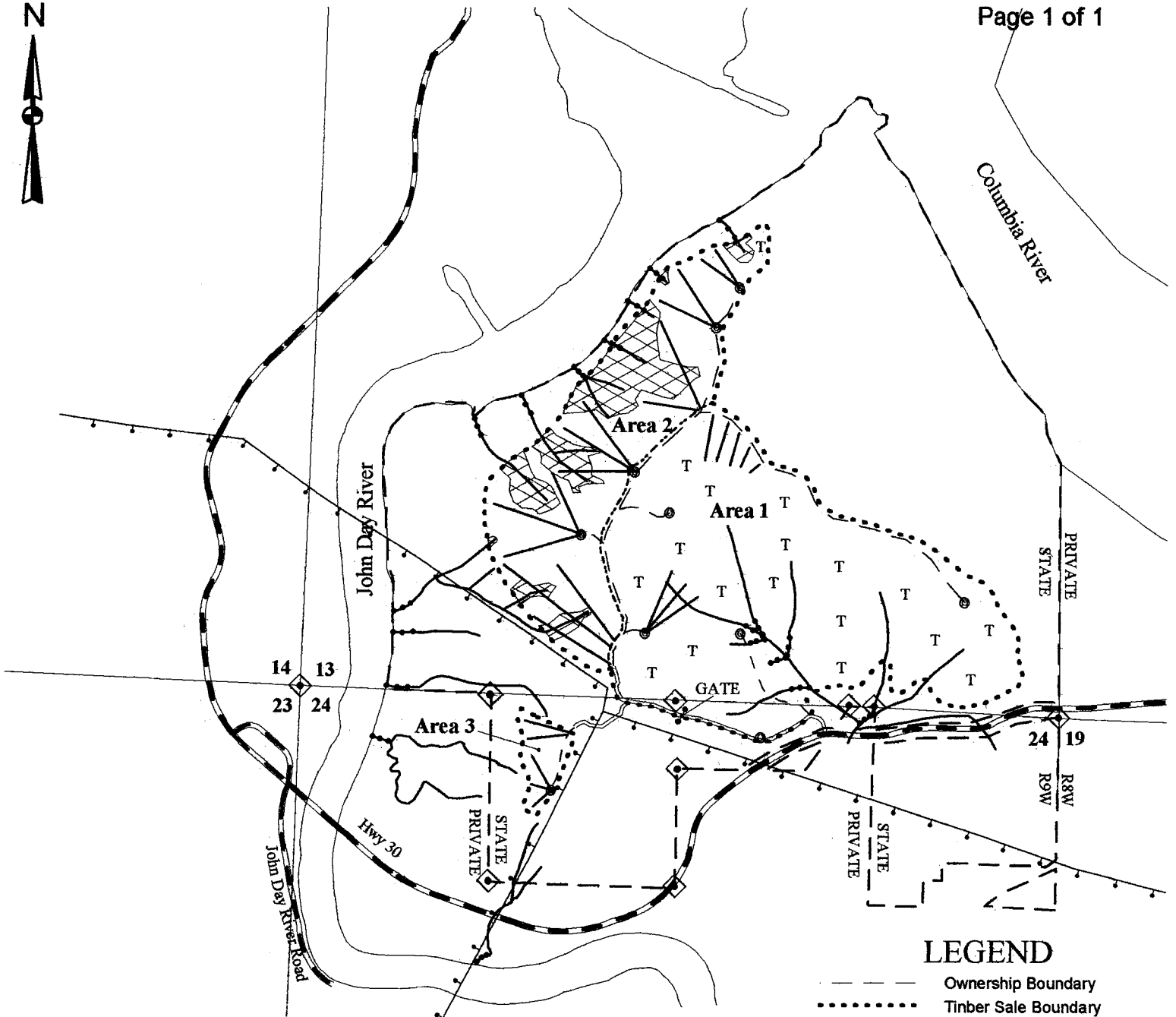
Prepared by : Ed Holloran Date: November 3, 2003

Approved by: Tom Scoppin Date: 11/06/03

10. **Attachments:**

- a) Cruise Designs: Areas 1, and 2 & 3 – 2 pages.
- b) Cruise Maps – 2 pages.
- c) Species, Sort & Grade (Volume) Reports. - 7 pages.
- d) Statistical Reports. - 12 pages.
- e) Stand Tables. - 3 pages.





**LEGEND**

- Ownership Boundary
- Timber Sale Boundary
- Right of Way Boundary
- Area Boundary
- Type N Stream
- Type F Stream
- Known Survey Corner
- Existing Surface Road
- Paved Road
- New Construction
- Landing to be Constructed
- Overhead Utilities
- Ground Based Logging
- Cable Logging

**LOGGING PLAN**

OF TIMBER SALE CONTRACT NO. 341-04-03  
 JOHN DAY POINT THINNING  
 PORTIONS OF SECTIONS 13 AND 24  
 T8N, R9W, W.M.  
 CLATSOP COUNTY, OREGON

APPROX. SCALE 1"=1,000'

0' 500' 1000' 1500' 2000'



**APPROXIMATE NET ACREAGE**

Area 1	74 Acres (PC)
Area 2	35 Acres (PC)
Area 3	3 Acres (PC)
Area 4	4 Acres (In Sale R/W)

Approximate Total Net Acres = 116 Acres

**HARVEST METHOD**

Area	Tractor	Cable
1	88%	12%
2	6%	94%
3	0%	100%

**CRUISE DESIGN  
ASTORIA DISTRICT**

Sale Name: John Day Point Thinning Area(s) 1

Harvest Type: CC PC CT Automark Thinning (circle one)  
Net BF or

Approx. Cruise Acres: 8.5 Estimated CV% 60 BA/Acre SE% Objective 13% BA/Acre  
Net BF or

Planned Sale Volume: 2.1 MMBF Estimated Sale Area Value/Acre: \$3,000

- A. Cruise Goals:** (a) Grade minimum 100 conifer and 3 hardwood trees:  
 (b) Sample 20 cruise plots; (c) Other goals (  Determine "automark" thinning standards;  Determine log grades for sale value;  Determine snag and leave tree species and sizes;  Determine LWD (down wood) cubic feet and decay classes;  Determine "diameter limit" harvest parameters;  
Leave trees > 160 ft<sup>2</sup>/acre & All trees ≥ 30" dbh

**B. Cruise Design:**

- 1. Plot Cruises:** BAF 40 Full point Half point) (circle one)  
 Fixed Plot Size \_\_\_\_\_ Plot Radius \_\_\_\_\_ feet  
 Cruise Line Direction(s) E-W  
 Cruise Line Spacing 600 (chains) (feet)  
 Cruise Plot Spacing 310 (chains) (feet)  
 Grade/Count Ratio 100%
- 2. ITS (Sample Tree) Cruises:** Measure-grade ratios: D-fir \_\_\_\_\_ Hemlock \_\_\_\_\_  
 Spruce \_\_\_\_\_ True Fir \_\_\_\_\_ Cedar \_\_\_\_\_ Hardwood \_\_\_\_\_

**C. Tree Measurements:**

- 1. Diameter:** Minimum DBH to cruise is 8" for conifers and 8" for hardwoods. Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
- 2. Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
- 3. Top Cruise Diameter (TCD):** Minimum top outside bark is 7" or 40% of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.
- 4. Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.

5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. segment. Do not use "double dash" (--) feature on the data recorder except for the top segment of the tree.

6. **Species, Sort, and Grade Codes:** A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)

B. Sort: Use code "1" (Domestic).

C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camp Run; 0 = Cull

7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.

8. **Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at intervisible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.

ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.

9. **Cruising Equipment:** Relaskop Rangefinder Logger's Tape (with dbh on back)  
Biltmore Stick      Compass      Cruise Cards in Tatum OR Data Recorder  
Cruise Design      Cruise Map      Yellow Flagging      Blue Flagging

10. **Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale.

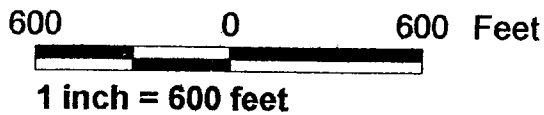
B. Data Recorder Instructions

C. Other

Cruise Design by: Tom Scoggins

Approved by: \_\_\_\_\_

Date: \_\_\_\_\_



**SLI Stand Map**  
**Stand #: 23129, 93 acres**  
 S13 T8N R9W, W.M.  
 CLATSOP County, OR



**CRUISE INFO**  
 Plot Spacing: 310  
 See Attached For  
 Line and Plot Info

**CRUISER**      **PLOTS**

- Type and Owner Boundary
- Stand Boundary
- Section Lines
- Roads
- Streams
- Ownership Bdry
- Line Start Point



created: 02/20/2003

CRUISE DESIGN  
ASTORIA DISTRICT

Sale Name: John Day Point Area(s) 2 and 3

Harvest Type: CC PC CT "Automark Thinning" (circle one)

Approx. Cruise Acres: 61 Estimated CV% 60% Net BF or BAF/Acre SE% Objective 15 Net BF or BAF/Acre

Planned Sale Volume: 2.0 MMBF Estimated Sale Area Value/Acre: \$ 4,500

- A. **Cruise Goals:** (a) Grade minimum 120 conifer and 0 hardwood trees:  
 (b) Sample 23 cruise plots; (c) Other goals ( Determine "automark" thinning standards;  Determine log grades for sale value;  Determine snag and leave tree species and sizes;  Determine LWD (down wood) cubic feet and decay classes;  Determine "diameter limit" harvest parameters;  
use table for SDI 35  
140 sqft leave)

B. **Cruise Design:**

1. **Plot Cruises:** BAF  (Full point; Half point) (circle one)  
 Fixed Plot Size 1/25 Plot Radius 23.6 feet  
 Cruise Line Direction(s) Area 2 25° Az Area 3 35° Az  
 Cruise Line Spacing 400 / 200 (chains) (feet)  
 Cruise Plot Spacing 300 / 150 (chains) (feet)  
 Grade/Count Ratio 100%

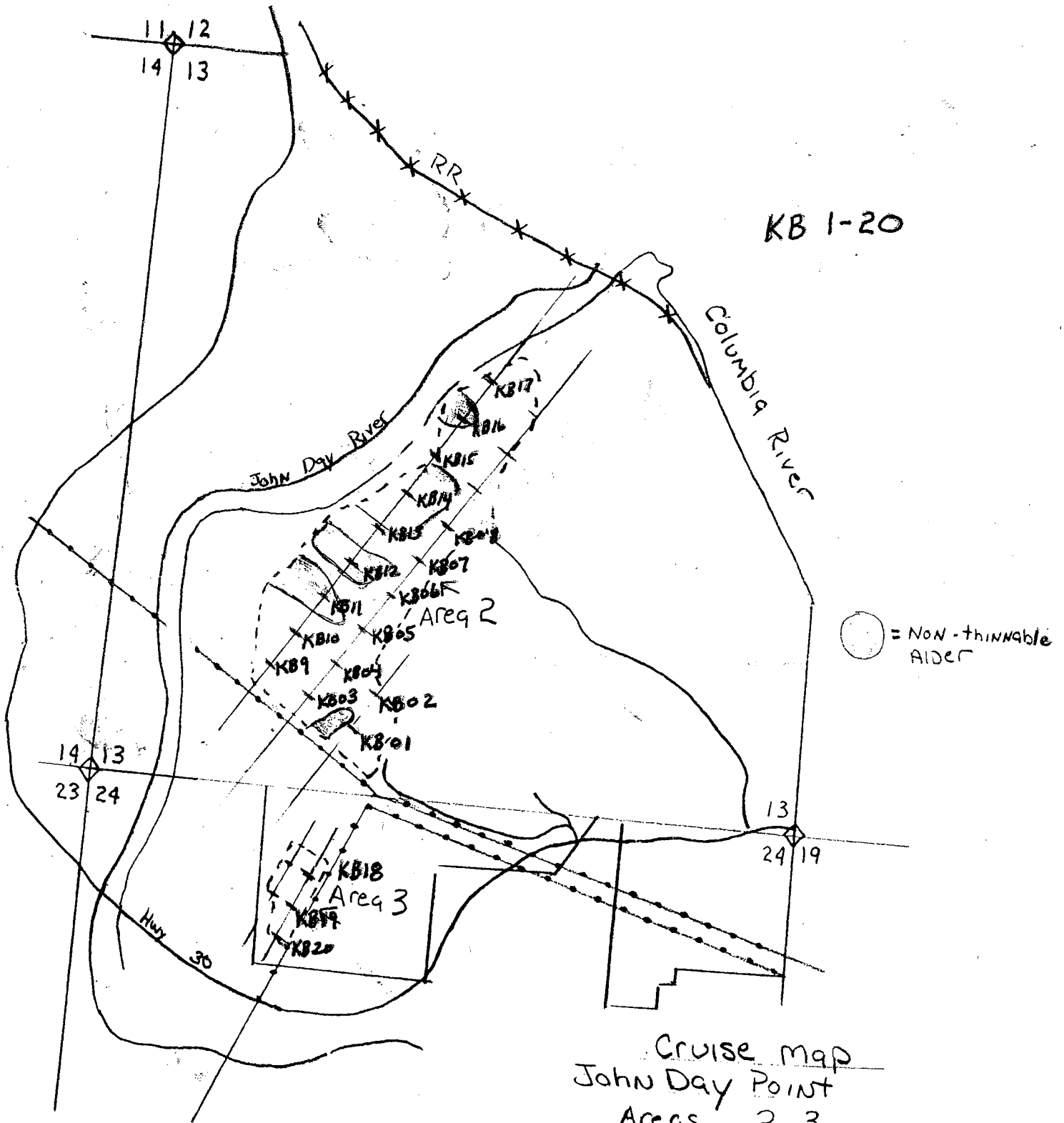
2. **ITS (Sample Tree) Cruises:** Measure-grade ratios: D-fir  Hemlock   
 Spruce  True Fir  Cedar  Hardwood

C. **Tree Measurements:**

1. **Diameter:** Minimum DBH to cruise is 8" for conifers and 8" for hardwoods. Record dbh to nearest 1/2" for trees < 16", to nearest 1" for trees 16-24", and to nearest 2" for trees > 24". If tree diameters are estimated (only estimate on variable plot cruises), then record to closest estimate.
2. **Bole Length:** Record bole length to nearest foot at TCD. For trees greater than 100 feet in merchantable height, estimating to the nearest 5 feet is acceptable.
3. **Top Cruise Diameter (TCD):** Minimum top outside bark is 7" or 40% of dob at 16' form point. Generally, use 7" outside bark for trees < 18" dbh and 40% of dob @ FP for trees > 18" dbh.
4. **Form Factors:** (1) Measure or estimate a 16' form factor for every conifer tree measured/graded; OR (2) Measure a minimum of 20 form factors for each major conifer species on the cruise area, and use these to calculate average FF for the species on the cruise. Hardwood form factors are a Standard 87.

5. **Tree Segments:** Record log segments in "standard" log lengths in general use, such as 32' and 40' lengths, whenever possible. Do not record odd segments just to maximize grade. Cull segments can be any length. For conifers, minimum merchantable segment length is 12'; for hardwoods, it's 8'. Maximum segment length is 40'. One foot of trim is assumed for each merch. segment. Do not use "double dash" (-) feature on the data recorder except for the top segment of the tree.
6. **Species, Sort, and Grade Codes:** A. Species: Record as D (Douglas-fir); H (Western hemlock); S (Sitka Spruce); C (Western red cedar); NF (Noble fir); SF (Silver fir); A (Red alder); M (Bigleaf maple). For "leave trees" in partial cuts, or for marked "wildlife trees," add an "L" to the species code (such as DL, HL, CL, etc.)  
 B. Sort: Use code "1" (Domestic).  
 C. Grade: A = 1 Peeler; B = 2 Peeler; C = 3 Peeler; D = Special Mill; 2 = 2 Sawmill; 3 = 3 Sawmill; 4 = 4 Sawmill; R = Camp Run; 0 = Cull
7. **Deductions:** Estimate visible defect or damage as a "length deduction" (most often), or as a "diameter deduction," as applicable. Estimate hidden defect and breakage (usually some breakage is encountered in trees > 100 feet in height) on a "per tree" basis. Steep and broken topography generally results in higher breakage percentages than gentler topography, and hemlock generally breaks more than D-fir and spruce.
8. **Standard Field Procedures:** Plot Type Cruises: Mark cruise line beginning and end points with blue/yellow flagging. Write plot identification numbers and line direction on the ribbon. At each plot, tie yellow flagging above eye level near plot center and another yellow flagging around a sturdy wooden stake marking plot center. On each yellow flagging, write the plot identification number. Between plots, along the cruise line, tie blue flagging at intervisible points, not to exceed 100' apart. On "measure/grade" plots write the tree number and/or tree diameter on at least the first measured tree (clockwise from the line direction) in yellow paint. All trees on the plot may be marked this way, if the cruiser chooses.  
ITS and 100% Cruises: Mark cruise "strips" with various colored flagging (not pink). Mark trees measured and graded with yellow paint.
9. **Cruising Equipment:** Relaskop Rangefinder Logger's Tape (with dbh on back)  
 Biltmore Stick      Compass      Cruise Cards in Tatum OR Data Recorder  
 Cruise Design      Cruise Map      Yellow Flagging      Blue Flagging
10. **Attachments:** A. Cruise Map (showing cruise unit boundaries, roads, streams, approx. acres/unit, cruise lines and plot locations, legal description and section lines, BAF or plot size, measure/count plot ratio, north arrow, and scale).  
 B. Data Recorder Instructions  
 C. Other

Cruise Design by: Kevin Berry  
 Approved by: Tom Scoggins  
 Date: 2/28/03



Cruise map  
 John Day Point  
 Areas 2, 3  
 Approx 61 Acres  
 1/25<sup>th</sup> Acre Fixed Radius plot 23.6'  
 140 sqft BA Target stand

Area 2	Area 3
SPACING 300'x400'	SPACING 125'x200'
35° AZ	25° AZ

**Species, Sort Grade - Board Foot Volumes (Project)**

T08N R09W S13 TyTK01  
 THRU  
 T08N R09W S24 TyTK03

**Project: JOHNDAY**

**Acres 116.30**

**Page 1**  
**Date 11/3/2003**  
**Time 11:39:50AM**

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre Def% Gross Net		Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre	
								Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf		
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
H	DOCU				100.0	135	1310									5		0.00	7.6	
H	DO2S	52			1.8	11,453	11,242	1,307	0	72	28	0	2	57	41	35	261	1.70	43.1	
H	DO3S	23			1.1	4,927	4,874	567		100	0	0	7	51	42	35	85	0.68	57.5	
H	DO4S	4			11.5	975	863	100	0	100		42	55	2	1	21	26	0.46	33.0	
H	DOSM	0			1.0	21	21	2			100			100		34	619	2.93	.0	
<b>H Totals</b>		79			2.9	17,510	16,999	1,977	0	34	47	19	2	6	52	39	30	120	0.99	141.2
A	DOCU				100.0	218										11		0.00	6.5	
A	DO3S	7			.2	1,417	1,415	165	0	89	0	10	25	10	50	16	29	73	0.73	19.3
A	DO4S	3				578	578	67	0	100			18	46	36	26	33	0.38	17.5	
<b>A Totals</b>		9			10.0	2,214	1,993	232	0	92	0	7	23	20	35	22	25	46	0.54	43.3
D	DOCU				100.0	72										10		0.00	4.4	
D	DO2S	2				468	468	54		0	50	50	26	1	1	71	30	258	1.94	1.8
D	DO3S	7			1.2	1,445	1,427	166		100			2	0	51	47	35	62	0.49	22.9
D	DO4S	2				512	512	60	26	74			43	56	0	21	26	0.34	19.9	
<b>D Totals</b>		11			3.6	2,497	2,408	280	6	75	10	10	16	12	30	41	27	49	0.49	49.0
S	DOCU				100.0	4										6		0.00	.0	
S	DO2S	0			3.7	44	43	5		0	100		0	13	23	64	34	1520	8.86	.0
S	DO3S	0			8.0	2	2	0		100			15	44	42		25	206	3.00	.0
<b>S Totals</b>		0			11.4	50	44	5		4	96		1	14	24	61	28	1045	7.63	.0
<b>Totals</b>					3.7	22,271	21,444	2,494	1	44	39	17	6	8	48	38	28	92	0.82	233.5



TC TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)								Page 1										
		Project: JOHNDAY								Date	5/8/2003									
										Time	7:56:17AM									
T08N R09W S13 TTK01										T08N R09W S13 TTK01										
Twp	Rge	Sec	Tract	Type	Acre	Plots	Sample Trees	CuFt	BdFt											
08N	09W	13	AREA 1TAKE	TK01	74.50	17	62	1	W											
S Spp	So T	Gr rt	ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
H	DO	CU			00.0	92											1		0.00	9.6
H	DO	2S	68		1.9	16,037	15,740	1,173			72	28		1	57	42	35	260	1.68	60.5
H	DO	3S	28		.7	6,484	6,440	480	100				0	8	49	43	35	87	0.69	73.9
H	DO	4S	4		5.1	968	918	68	100				49	51			20	26	0.46	35.5
<b>H</b>	<b>Totals</b>		<b>88</b>		<b>2.0</b>	<b>23,581</b>	<b>23,099</b>	<b>1,721</b>		<b>32</b>	<b>49</b>	<b>19</b>	<b>2</b>	<b>5</b>	<b>53</b>	<b>40</b>	<b>30</b>	<b>129</b>	<b>1.04</b>	<b>179.5</b>
A	DO	CU			00.0	317											11		0.00	9.4
A	DO	3S	63			1,505	1,505	112	85	15			34		59	7	29	92	0.87	16.4
A	DO	4S	37			878	878	65	100				18	46		36	26	33	0.38	26.6
<b>A</b>	<b>Totals</b>		<b>9</b>		<b>11.7</b>	<b>2,699</b>	<b>2,382</b>	<b>177</b>	<b>91</b>	<b>9</b>			<b>28</b>	<b>17</b>	<b>37</b>	<b>18</b>	<b>24</b>	<b>46</b>	<b>0.53</b>	<b>52.4</b>
D	DO	CU			00.0	27											4		0.00	1.3
D	DO	2S	79			678	678	50		50	50		28			72	30	260	1.95	2.6
D	DO	3S	18		3.9	165	158	12	100						100		32	80	0.76	2.0
D	DO	4S	3			27	27	2	100				100				13	20	0.38	1.3
<b>D</b>	<b>Totals</b>		<b>3</b>		<b>3.7</b>	<b>896</b>	<b>863</b>	<b>64</b>	<b>21</b>	<b>39</b>	<b>39</b>		<b>25</b>		<b>18</b>	<b>57</b>	<b>23</b>	<b>119</b>	<b>1.26</b>	<b>7.2</b>
<b>Type Totals</b>						<b>3.1</b>	<b>27,176</b>	<b>26,344</b>	<b>1,963</b>	<b>37</b>	<b>44</b>	<b>19</b>	<b>5</b>	<b>6</b>	<b>50</b>	<b>39</b>	<b>29</b>	<b>110</b>	<b>0.95</b>	<b>239.1</b>

**Species, Sort Grade - Board Foot Volumes (Project)**

T08N R09W S13 TyTK02 35.20  
T08N R09W S24 TyTK03 2.80

**Project: JOHNDAY**  
**Acres 38.00**

**Page 1**  
**Date 5/8/2003**  
**Time 7:43:12AM**

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre		Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre	
					Def%	Gross		Net	Log Scale Dia.				Log Length				Ln Ft	Bd Ft		CF/ Lf
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
H		DOCU			100.0	115											26		0.00	3.2
H		DO2S		12		1,177	1,177	45			100			21	46	33	33	203	1.60	5.8
H		DO3S		17	3.3	1,735	1,677	64		100					62	38	35	71	0.59	23.8
H		DO4S		7	24.4	974	736	28		100			23	66	8	3	24	27	0.44	27.5
<b>H Totals</b>				<b>36</b>	<b>10.3</b>	<b>4,001</b>	<b>3,590</b>	<b>136</b>	<b>67</b>	<b>33</b>			<b>5</b>	<b>21</b>	<b>46</b>	<b>29</b>	<b>29</b>	<b>60</b>	<b>0.62</b>	<b>60.3</b>
D		DOCU			100.0	152											11		0.00	10.2
D		DO3S		38	1.0	3,819	3,781	144		100			3		46	51	36	61	0.47	62.4
D		DO4S		15		1,452	1,452	55	27	73			42	58			21	26	0.33	55.9
<b>D Totals</b>				<b>52</b>	<b>3.5</b>	<b>5,423</b>	<b>5,232</b>	<b>199</b>	<b>8</b>	<b>92</b>			<b>13</b>	<b>16</b>	<b>34</b>	<b>37</b>	<b>27</b>	<b>41</b>	<b>0.41</b>	<b>128.4</b>
A		DOCU			100.0	18											12		0.00	.6
A		DO3S		12	.5	1,168	1,161	44		100			3	34	29	34	30	49	0.55	23.6
<b>A Totals</b>				<b>12</b>	<b>2.1</b>	<b>1,186</b>	<b>1,161</b>	<b>44</b>	<b>100</b>				<b>3</b>	<b>34</b>	<b>29</b>	<b>34</b>	<b>30</b>	<b>48</b>	<b>0.54</b>	<b>24.2</b>
<b>Totals</b>					<b>5.9</b>	<b>10,610</b>	<b>9,984</b>	<b>379</b>	<b>4</b>	<b>84</b>	<b>12</b>		<b>9</b>	<b>20</b>	<b>37</b>	<b>34</b>	<b>28</b>	<b>47</b>	<b>0.49</b>	<b>212.9</b>

Species, Sort Grade - Board Foot Volumes (Type)

Project: JOHNDAY

T08N R09W S13 TTK02

T08N R09W S13 TTK02

Twp Rge Sec Tract Type Acre Plots Sample Trees CuFt BdFt  
08N 09W 13 AREA 2 TAKE TK02 35.20 12 80 1 W

S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
D	DO	CU		00.0	104											10		0.00	8.3
D	DO	3S	73	1.0	4,083	4,042	142		100			3		47	51	36	61	0.47	66.7
D	DO	4S	27		1,521	1,521	54	26	74			41	59			21	26	0.34	58.3
<b>D</b>	<b>Totals</b>		54	2.6	5,708	5,563	196	7	93			13	16	34	37	28	42	0.41	133.3
H	DO	CU		00.0	104											34		0.00	2.1
H	DO	2S	34		1,271	1,271	45		100				21	46	33	33	203	1.60	6.3
H	DO	3S	47	3.4	1,833	1,771	62		100					64	36	35	71	0.59	25.0
H	DO	4S	19	26.1	958	708	25		100			24	65	9	3	24	26	0.44	27.1
<b>H</b>	<b>Totals</b>		36	10.0	4,167	3,750	132	66	34			4	19	47	29	29	62	0.63	60.4
A	DO	3S	100		1,042	1,042	37		100			4	34	32	30	30	50	0.57	20.8
<b>A</b>	<b>Totals</b>		10		1,042	1,042	37		100			4	34	32	30	30	50	0.57	20.8
<b>Type</b>	<b>Totals</b>			5.2	10,917	10,354	364	4	84	12		9	19	39	33	28	48	0.49	214.6

**Species, Sort Grade - Board Foot Volumes (Type)**

Project: JOHNDAY

T08N R09W S24 TTK03

T08N R09W S24 TTK03

Twp Rge Sec Tract Type Acre Plots Sample Trees CuFt BdFt  
08N 09W 24 AREA 3 TAKE TK03 2.80 3 21 1 W

Spp	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
A	DO	CU		00.0	250											12		0.00	8.3
A	DO	3S	100	3.0	2,750	2,667	7		100			31	16	53		30	46	0.44	58.3
<b>A Totals</b>			50	11.1	3,000	2,667	7		100			31	16	53		28	40	0.42	66.7
D	DO	CU		00.0	750											18		0.00	33.3
D	DO	3S	46		500	500	1		100					100		40	60	0.42	8.3
D	DO	4S	54		583	583	2	71	29			57	43			19	23	0.31	25.0
<b>D Totals</b>			20	40.9	1,833	1,083	3	38	62			31	23	46		21	16	0.21	66.7
H	DO	CU		00.0	250											14		0.00	16.7
H	DO	3S	32		500	500	1		100					100		38	60	0.42	8.3
H	DO	4S	68	7.1	1,167	1,083	3		100			23	77			25	32	0.43	33.3
<b>H Totals</b>			30	17.4	1,917	1,583	4		100			16	53	32		24	27	0.36	58.3
<b>Type Totals</b>				21.0	6,750	5,333	15	8	92			11	36	8 45		24	28	0.34	191.7

T08N R09W S13 T0004 T08N R09W S13 T0004  
 Twp Rge Sec Tract Type Acre Plots Sample Trees CuFt BdFt  
 08N 09W 13 R/W-A1 0004 2.20 20 133 I W

S Spp	So T	Gr rt	ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
H	DO	CU			00.0	1,496											7	0.00	15.1	
H	DO	2S	80	2.4	38,788	37,867	83		0	48	52		2	59	39	34	335	2.11	112.9	
H	DO	3S	15	1.7	7,344	7,222	16		100				1	13	50	36	34	83	0.74	86.8
H	DO	4S	2	4.0	1,062	1,020	2	2	98				50	50			20	27	0.49	37.3
H	DO	SM	2	1.0	1,096	1,085	2				100				100		34	619	2.93	1.8
<b>H</b>	<b>Totals</b>		89	5.2	49,787	47,194	104	0	17	39	44	1	5	57	37	30	186	1.41	253.8	
A	DO	CU		00.0	269												11	0.00	8.0	
A	DO	3S	63		1,279	1,279	3		85	15		34		59	7	29	92	0.87	13.9	
A	DO	4S	37		746	746	2		100			18	46		36	26	33	0.38	22.6	
<b>A</b>	<b>Totals</b>		4	11.7	2,295	2,025	4		91	9		28	17	37	18	24	46	0.53	44.5	
S	DO	CU		00.0	208												6	0.00	4	
S	DO	2S	97	3.7	2,343	2,256	5			0	100		0	13	23	64	34	1520	8.86	1.5
S	DO	3S	3	8.0	88	81	0			100			15	44	42		25	206	3.00	4
<b>S</b>	<b>Totals</b>		4	11.4	2,639	2,337	5			4	96	1	14	24	61	28	1045	7.63	2.2	
D	DO	CU		00.0	23												4	0.00	1.1	
D	DO	2S	85		1,394	1,394	3			42	58		11		21	67	32	343	2.31	4.1
D	DO	3S	13	2.4	226	220	0		100						100		33	85	0.82	2.6
D	DO	4S	1		23	23	0		100						100		13	20	0.38	1.1
<b>D</b>	<b>Totals</b>		3	1.7	1,665	1,637	4		15	36	49	11		32	57	26	183	1.61	8.9	
<b>Type Totals</b>				5.7	56,385	53,192	117	0	19	36	45	3	5	54	38	29	172	1.36	309.4	

T08N R09W S13 T0004 T08N R09W S13 T0004  
 Twp Rge Sec Tract Type Acre Plots Sample Trees CuFt BdFt  
 08N 09W 13 R/W-A 2 & 3 0004 1.60 20 197 1 W

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
					Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
H		DO	CU		00.0	725										16		0.00	8.8	
H		DO	2S	43	4.5	4,450	4,250	7		87	13	5	11	33	51	34	213	1.65	20.0	
H		DO	3S	47	5.6	4,913	4,638	7		90	10	2	6	59	34	34	84	0.75	55.0	
H		DO	4S	11	13.4	1,213	1,050	2	4	96		33	57	8	1	23	27	0.45	38.8	
<b>H</b>	<b>Totals</b>			46	12.1	11,300	9,938	16	0	52	42	6	7	14	42	38	29	81	0.82	122.5
D		DO	CU		00.0	338										15		0.00	15.0	
D		DO	2S	7		575	575	1		28	72		22	78		24	115	1.18	5.0	
D		DO	3S	75	.8	6,325	6,275	10		100		1	3	54	42	35	72	0.57	87.5	
D		DO	4S	18		1,463	1,463	2	22	78		39	57	3		21	26	0.35	56.3	
<b>D</b>	<b>Totals</b>			38	4.5	8,700	8,313	13	4	91	5		9	17	41	32	28	51	0.50	163.8
A		DO	CU		00.0	300										11		0.00	7.5	
A		DO	3S	96	.4	3,450	3,438	6	2	93	4		18	17	18	47	29	57	0.65	60.0
A		DO	4S	4		150	150	0	17	83				50	50	31	40	0.40	3.8	
<b>A</b>	<b>Totals</b>			16	8.0	3,900	3,588	6	3	93	4		17	19	17	47	27	50	0.61	71.3
<b>Type Totals</b>					8.6	23,900	21,838	35	2	74	22	3	9	16	38	37	28	61	0.63	357.5

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT JOHNDAY				DATE 5/8/2003		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
08N	09W	13	AREA 1	0001	74.50	20	138	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		20	138	6.9						
CRUISE		20	138	6.9	9,837	1.4				
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
HEMLEAV	64	32.8	26.7	98		128.0	29,743	27,560	6,427	6,125
WHEMLOCK	50	61.2	17.3	78		100.0	20,044	19,634	4,822	4,806
R ALDER	10	25.4	12.0	44		20.0	2,295	2,025	631	568
SPRUCELV	5	.6	54.2	103		10.0	2,639	2,337	507	477
SNAG	5	9.4	14.0	43		10.0	1,476		344	
DOUG FIR	2	1.7	20.9	86		4.0	761	733	182	176
DOUGLEAV	2	.9	28.2	106		4.0	903	903	201	201
<b>TOTAL</b>	<i>138</i>	<i>132.0</i>	<i>19.6</i>	<i>74</i>		<i>276.0</i>	<i>57,860</i>	<i>53,192</i>	<i>13,114</i>	<i>12,353</i>
SD: 1		COEFF VAR.%	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.	
				LOW	AVG	HIGH	5	10	15	
HEMLEAV		51.3	11.5	29	33	37				
WHEMLOCK		96.9	21.7	48	61	74				
R ALDER		300.5	67.2	8	25	42				
SPRUCELV		280.8	62.8	0	1	1				
SNAG		192.1	43.0	5	9	13				
DOUG FIR		328.3	73.4	0	2	3				
DOUGLEAV		447.2	100.0		1	2				
<b>TOTAL</b>		<i>63.5</i>	<i>14.2</i>	<i>113</i>	<i>132</i>	<i>151</i>	<i>161</i>	<i>40</i>	<i>18</i>	
SD: 1		COEFF VAR.%	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.	
				LOW	AVG	HIGH	5	10	15	
HEMLEAV		49.3	11.0	114	128	142				
WHEMLOCK		77.3	17.3	83	100	117				
R ALDER		279.1	62.4	8	20	32				
SPRUCELV		286.5	64.1	4	10	16				
SNAG		177.7	39.7	6	10	14				
DOUG FIR		307.8	68.8	1	4	7				
DOUGLEAV		447.2	100.0		4	8				
<b>TOTAL</b>		<i>35.5</i>	<i>7.9</i>	<i>254</i>	<i>276</i>	<i>298</i>	<i>50</i>	<i>13</i>	<i>6</i>	
SD: 1		COEFF VAR.%	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
				LOW	AVG	HIGH	5	10	15	
HEMLEAV		53.2	11.9	24,281	27,560	30,839				
WHEMLOCK		80.7	18.0	16,093	19,634	23,175				
R ALDER		282.7	63.2	745	2,025	3,305				
SPRUCELV		298.4	66.7	778	2,337	3,896				
SNAG										
DOUG FIR		316.6	70.8	214	733	1,252				
DOUGLEAV		447.2	100.0	0	903	1,807				
<b>TOTAL</b>		<i>42.6</i>	<i>9.5</i>	<i>48,128</i>	<i>53,192</i>	<i>58,257</i>	<i>73</i>	<i>18</i>	<i>8</i>	

TC TSTATS		STATISTICS					PAGE 1			
		PROJECT JOHNDAY					DATE 5/8/2003			
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
08N	09W	13	AREA 1TAKE	TK01	74.50	17	62	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		17	62	3.6						
CRUISE		17	62	3.6	7,738	8				
DBH COUNT										
REFOREST COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
WHEMLOCK	50	72.0	17.3	78		117.6	23,581	23,099	5,673	5,654
R ALDER	10	29.9	12.0	44		23.5	2,699	2,382	743	668
DOUG FIR	2	2.0	20.9	86		4.7	896	863	214	207
<b>TOTAL</b>	<b>62</b>	<b>103.9</b>	<b>16.0</b>	<b>68</b>		<b>145.9</b>	<b>27,176</b>	<b>26,344</b>	<b>6,629</b>	<b>6,530</b>
	COEFF VAR.%	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	10	15		
WHEMLOCK	80.3	19.5	58	72	86					
R ALDER	275.5	66.8	10	30	50					
DOUG FIR	301.5	73.1	1	2	3					
<b>TOTAL</b>	<b>72.9</b>	<b>17.7</b>	<b>86</b>	<b>104</b>	<b>122</b>	<b>212</b>	<b>53</b>	<b>24</b>		
	COEFF VAR.%	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	10	15		
WHEMLOCK	59.5	14.4	101	118	135					
R ALDER	255.4	61.9	9	24	38					
DOUG FIR	282.3	68.5	1	5	8					
<b>TOTAL</b>	<b>42.2</b>	<b>10.2</b>	<b>131</b>	<b>146</b>	<b>161</b>	<b>71</b>	<b>18</b>	<b>8</b>		
	COEFF VAR.%	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	10	15		
WHEMLOCK	63.2	15.3	19,561	23,099	26,637					
R ALDER	258.7	62.8	887	2,382	3,878					
DOUG FIR	290.5	70.5	255	863	1,470					
<b>TOTAL</b>	<b>49.8</b>	<b>12.1</b>	<b>23,162</b>	<b>26,344</b>	<b>29,526</b>	<b>99</b>	<b>25</b>	<b>11</b>		



**STATISTICS**  
**PROJECT JOHNDAY**

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
08N	09W	13	AREA 1LEAVE	LV01	74.50	18	76	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	18	76	4.2		
CRUISE	18	76	4.2	3,622	2.1
DBH COUNT					
REFOREST COUNT					
BLANKS					
100 %					

**STAND SUMMARY**

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
HEMLEAV	64	36.5	26.7	98		142.2	33,048	30,622	7,141	6,806
SPRUCELV	5	.7	54.2	103		11.1	2,932	2,596	563	529
SNAG	5	10.4	14.0	43		11.1	1,640		382	
DOUGLEAV	2	1.0	28.2	106		4.4	1,004	1,004	223	223
<b>TOTAL</b>	<b>76</b>	<b>48.6</b>	<b>25.2</b>	<b>87</b>		<b>168.9</b>	<b>38,623</b>	<b>34,222</b>	<b>8,310</b>	<b>7,558</b>

SD:	1	COEFF		TREES/ACRE			# OF PLOTS REQ.		INF. POP.
		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
HEMLEAV		36.4	8.6	33	36	40			
SPRUCELV		265.2	62.5	0	1	1			
SNAG		179.9	42.4	6	10	15			
DOUGLEAV		424.3	100.0		1	2			
<b>TOTAL</b>		<b>51.0</b>	<b>12.0</b>	<b>43</b>	<b>49</b>	<b>54</b>	<b>104</b>	<b>26</b>	<b>12</b>

SD:	1	COEFF		BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
HEMLEAV		33.7	7.9	131	142	154			
SPRUCELV		270.7	63.8	4	11	18			
SNAG		165.9	39.1	7	11	15			
DOUGLEAV		424.3	100.0		4	9			
<b>TOTAL</b>		<b>17.3</b>	<b>4.1</b>	<b>162</b>	<b>169</b>	<b>176</b>	<b>12</b>	<b>3</b>	<b>1</b>

SD:	1	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
HEMLEAV		38.8	9.1	27,823	30,622	33,421			
SPRUCELV		282.0	66.5	871	2,596	4,322			
SNAG									
DOUGLEAV		424.3	100.0	0	1,004	2,008			
<b>TOTAL</b>		<b>19.8</b>	<b>4.7</b>	<b>32,623</b>	<b>34,222</b>	<b>35,822</b>	<b>16</b>	<b>4</b>	<b>2</b>

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
08N	09W	13	AREA 2	0203	38.00	20	198	1	W
08N	09W	24	AREA 3	0003					

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	20	198	9.9		
CRUISE	20	198	9.9	9,084	2.2
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
100 %					

## STAND SUMMARY

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
HEMLEAV	31	36.2	17.3	64		59.1	8,596	7,438	2,294	2,152
DOUGLEAV	32	38.4	14.4	59		43.1	5,067	4,938	1,422	1,390
DOUG FIR	60	75.7	10.0	35		41.6	3,868	3,717	1,048	1,019
ALDRLEAV	33	42.0	12.9	33		38.3	3,019	2,733	951	881
WHEMLOCK	24	28.2	12.2	47		23.0	2,866	2,569	796	770
R ALDER	17	17.9	11.2	32		12.3	902	878	300	295
SNAG	1	.6	12.0	25		.5	25		8	
<b>TOTAL</b>	<b>198</b>	<b>239.0</b>	<b>12.9</b>	<b>44</b>		<b>218.0</b>	<b>24,342</b>	<b>22,272</b>	<b>6,818</b>	<b>6,507</b>

SD:	1	COEFF VAR. %	S.E. %	TREES/ACRE			# OF PLOTS REQ.		INF. POP.
				LOW	AVG	HIGH	5	10	15
HEMLEAV		97.1	21.7	28	36	44			
DOUGLEAV		111.1	24.8	29	38	48			
DOUG FIR		105.1	23.5	58	76	94			
ALDRLEAV		161.0	36.0	27	42	57			
WHEMLOCK		172.0	38.5	17	28	39			
R ALDER		136.0	30.4	12	18	23			
SNAG		447.2	100.0	0	1	1			
<b>TOTAL</b>		<b>38.2</b>	<b>8.5</b>	<b>219</b>	<b>239</b>	<b>259</b>	<b>58</b>	<b>15</b>	<b>6</b>

SD:	1	COEFF VAR. %	S.E. %	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
				LOW	AVG	HIGH	5	10	15
HEMLEAV		104.2	23.3	45	59	73			
DOUGLEAV		119.0	26.6	32	43	55			
DOUG FIR		110.1	24.6	31	42	52			
ALDRLEAV		180.9	40.5	23	38	54			
WHEMLOCK		205.6	46.0	12	23	34			
R ALDER		159.3	35.6	8	12	17			
SNAG		447.2	100.0		0	1			
<b>TOTAL</b>		<b>39.5</b>	<b>8.8</b>	<b>199</b>	<b>218</b>	<b>237</b>	<b>62</b>	<b>16</b>	<b>7</b>

SD:	1	COEFF VAR. %	S.E. %	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
				LOW	AVG	HIGH	5	10	15
HEMLEAV		118.6	26.5	5,466	7,438	9,410			
DOUGLEAV		123.2	27.6	3,577	4,938	6,299			
DOUG FIR		115.8	25.9	2,755	3,717	4,679			
ALDRLEAV		180.0	40.3	1,633	2,733	3,833			
WHEMLOCK		222.9	49.8	1,289	2,569	3,849			
R ALDER		141.7	31.7	600	878	1,156			
SNAG									
<b>TOTAL</b>		<b>58.4</b>	<b>13.1</b>	<b>19,362</b>	<b>22,272</b>	<b>25,181</b>	<b>137</b>	<b>34</b>	<b>15</b>

TC PSTATS		PROJECT STATISTICS						PAGE 1			
		PROJECT JOHNDAY						DATE 5/8/2003			
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
08N	09W	13	AREA 2 TAKE	TK02	38.00	15	101	1	W		
08N	09W	24	AREA 3 TAKE	TK03							
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL			15	101	6.7						
CRUISE			15	101	6.7	6.357	1.6				
DBH COUNT											
REFOREST											
COUNT											
BLANKS											
100 %											
STAND SUMMARY											
		SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR		60	105.3	10.1	35		58.0	5,423	5,232	1,471	1,434
WHEMLOCK		24	38.4	12.3	48		31.9	4,001	3,590	1,110	1,076
R ALDER		17	23.6	11.3	32		16.4	1,186	1,161	398	394
<b>TOTAL</b>		<i>101</i>	<i>167.3</i>	<i>10.8</i>	<i>38</i>		<i>106.3</i>	<i>10,610</i>	<i>9,984</i>	<i>2,979</i>	<i>2,904</i>
		COEFF VAR.%	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1				LOW	AVG	HIGH	5	10	15		
DOUG FIR		79.2	20.4	84	105	127					
WHEMLOCK		147.1	38.0	24	38	53					
R ALDER		113.4	29.3	17	24	31					
<b>TOTAL</b>		<i>47.7</i>	<i>12.3</i>	<i>147</i>	<i>167</i>	<i>188</i>		<i>91</i>	<i>23</i>	<i>10</i>	
		COEFF VAR.%	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1				LOW	AVG	HIGH	5	10	15		
DOUG FIR		83.9	21.7	45	58	71					
WHEMLOCK		176.8	45.7	17	32	46					
R ALDER		137.3	35.4	11	16	22					
<b>TOTAL</b>		<i>55.9</i>	<i>14.4</i>	<i>91</i>	<i>106</i>	<i>122</i>		<i>125</i>	<i>31</i>	<i>14</i>	
		COEFF VAR.%	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1				LOW	AVG	HIGH	5	10	15		
DOUG FIR		88.1	22.7	4,042	5,232	6,422					
WHEMLOCK		190.8	49.3	1,822	3,590	5,359					
R ALDER		118.8	30.7	805	1,161	1,518					
<b>TOTAL</b>		<i>71.2</i>	<i>18.4</i>	<i>8,148</i>	<i>9,984</i>	<i>11,821</i>		<i>203</i>	<i>51</i>	<i>23</i>	

**PROJECT STATISTICS**  
PROJECT JOHNDAY

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
08N	09W	13	AREA 2 LEAVE	LV02	38.00	15	68	1	W
08N	09W	24	AREA 3 LEAVE	LV03					

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	15	68	4.5		
CRUISE	15	68	4.5	3.987	1.7
DBH COUNT					
REFOREST COUNT					
BLANKS					
100 %					

**STAND SUMMARY**

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
HEMLEAV	29	45.4	17.6	66		77.2	11.385	9.880	3.034	2.860
DOUGLEAV	32	52.5	14.4	59		59.8	7.048	6.890	1.975	1.938
ALDRLEAV	6	6.3	8.0	22		2.2	126	126	37	35
SNAG	1	.6	12.0	25		.5	25		8	
<b>TOTAL</b>	<b>68</b>	<b>104.9</b>	<b>15.6</b>	<b>60</b>		<b>139.6</b>	<b>18,584</b>	<b>16,896</b>	<b>5,054</b>	<b>4,833</b>

SD:	1	COEFF		TREES/ACRE			# OF PLOTS REQ.		INF. POP.
		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	
HEMLEAV		80.0	20.7	36	45	55			15
DOUGLEAV		86.0	22.2	41	53	64			
ALDRLEAV		208.8	53.9	3	6	10			
SNAG		387.3	100.0	0	1	1			
<b>TOTAL</b>		<b>33.6</b>	<b>8.7</b>	<b>96</b>	<b>105</b>	<b>114</b>	<b>45</b>	<b>11</b>	<b>5</b>

SD:	1	COEFF		BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	
HEMLEAV		86.7	22.4	60	77	94			15
DOUGLEAV		93.4	24.1	45	60	74			
ALDRLEAV		208.8	53.9	1	2	3			
SNAG		387.3	100.0	0	0	1			
<b>TOTAL</b>		<b>36.9</b>	<b>9.5</b>	<b>126</b>	<b>140</b>	<b>153</b>	<b>54</b>	<b>14</b>	<b>6</b>

SD:	1	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
		VAR.%	S.E.%	LOW	AVG	HIGH	5	10	
HEMLEAV		100.0	25.8	7,328	9,880	12,432			15
DOUGLEAV		97.0	25.0	5,165	6,890	8,615			
ALDRLEAV		208.8	53.9	58	126	194			
SNAG									
<b>TOTAL</b>		<b>50.8</b>	<b>13.1</b>	<b>14,680</b>	<b>16,896</b>	<b>19,113</b>	<b>103</b>	<b>26</b>	<b>11</b>

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT JOHNDAY				DATE 5/8/2003		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
08N	09W	13	AREA 2 TAKE	TK02	35.20	12	80	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		12	80	6.7						
CRUISE		12	80	6.7	5.867	1.4				
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR	52	108.3	10.1	36		60.4	5,708	5,563	1,550	1,525
WHEMLOCK	18	37.5	12.6	50		32.4	4,167	3,750	1,154	1,123
R ALDER	10	20.8	11.5	31		15.0	1,042	1,042	363	363
<b>TOTAL</b>	<b>80</b>	<b>166.7</b>	<b>10.9</b>	<b>38</b>		<b>107.8</b>	<b>10,917</b>	<b>10,354</b>	<b>3,067</b>	<b>3,010</b>
	COEFF VAR.%	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	10	15		
DOUG FIR	64.8	18.7	88	108	129					
WHEMLOCK	143.5	41.4	22	38	53					
R ALDER	123.6	35.7	13	21	28					
<b>TOTAL</b>	<b>34.6</b>	<b>10.0</b>	<b>150</b>	<b>167</b>	<b>183</b>	<b>48</b>	<b>12</b>	<b>5</b>		
	COEFF VAR.%	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	10	15		
DOUG FIR	67.8	19.6	49	60	72					
WHEMLOCK	165.3	47.7	17	32	48					
R ALDER	144.9	41.8	9	15	21					
<b>TOTAL</b>	<b>40.9</b>	<b>11.8</b>	<b>95</b>	<b>108</b>	<b>121</b>	<b>67</b>	<b>17</b>	<b>7</b>		
	COEFF VAR.%	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	10	15		
DOUG FIR	67.7	19.6	4,475	5,563	6,650					
WHEMLOCK	173.3	50.0	1,874	3,750	5,626					
R ALDER	126.9	36.6	660	1,042	1,423					
<b>TOTAL</b>	<b>54.3</b>	<b>15.7</b>	<b>8,731</b>	<b>10,354</b>	<b>11,977</b>	<b>118</b>	<b>29</b>	<b>13</b>		

**STATISTICS**  
**PROJECT JOHNDAY**

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
08N	09W	13	AREA 2 LEAVE	LV02	35.20	12	48	1	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	12	48	4.0		
CRUISE	12	48	4.0	3,520	1.4
DBH COUNT					
REFOREST COUNT					
BLANKS					
100 %					

**STAND SUMMARY**

	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
HEMLEAV	21	43.8	18.0	68		77.2	11,688	10,063	3,092	2,904
DOUGLEAV	25	52.1	14.7	61		61.2	7,271	7,167	2,031	2,013
ALDRLEAV	2	4.2	8.0	24		1.5	83	83	25	23
<b>TOTAL</b>	<b>48</b>	<b>100.0</b>	<b>16.0</b>	<b>62</b>		<b>139.8</b>	<b>19,042</b>	<b>17,313</b>	<b>5,148</b>	<b>4,940</b>

SD:	COEFF VAR.%	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	10	15
HEMLEAV	73.6	21.2	34	44	53			
DOUGLEAV	77.8	22.5	40	52	64			
ALDRLEAV	233.5	67.4	1	4	7			
<b>TOTAL</b>	<b>26.1</b>	<b>7.5</b>	<b>92</b>	<b>100</b>	<b>108</b>	<b>27</b>	<b>7</b>	<b>3</b>

SD:	COEFF VAR.%	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	10	15
HEMLEAV	76.8	22.2	60	77	94			
DOUGLEAV	80.6	23.3	47	61	75			
ALDRLEAV	233.5	67.4	0	1	2			
<b>TOTAL</b>	<b>15.4</b>	<b>4.4</b>	<b>134</b>	<b>140</b>	<b>146</b>	<b>9</b>	<b>2</b>	<b>1</b>

SD:	COEFF VAR.%	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
1			LOW	AVG	HIGH	5	10	15
HEMLEAV	88.1	25.4	7,504	10,063	12,621			
DOUGLEAV	81.5	23.5	5,481	7,167	8,852			
ALDRLEAV	233.5	67.4	27	83	140			
<b>TOTAL</b>	<b>31.1</b>	<b>9.0</b>	<b>15,759</b>	<b>17,313</b>	<b>18,866</b>	<b>39</b>	<b>10</b>	<b>4</b>

TC TSTATS			STATISTICS				PAGE 1			
			PROJECT JOHNDAY				DATE 5/8/2003			
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
08N	09W	24	AREA 3 TAKE	TK03	2.80	3	21	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		3	21	7.0						
CRUISE		3	21	7.0	490	4.3				
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
R ALDER	7	58.3	10.3	34		33.9	3,000	2,667	850	783
DOUG FIR	8	66.7	8.9	22		28.9	1,833	1,083	475	292
WHEMLOCK	6	50.0	9.5	28		24.8	1,917	1,583	558	492
<b>TOTAL</b>	<b>21</b>	<b>175.0</b>	<b>9.6</b>	<b>27</b>		<b>87.5</b>	<b>6,750</b>	<b>5,333</b>	<b>1,883</b>	<b>1,567</b>
	COEFF VAR. %	S.E. %	TREES/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	10	15		
R ALDER	49.5	28.6	42	58	75					
DOUG FIR	43.3	25.0	50	67	83					
WHEMLOCK	86.6	50.0	25	50	75					
<b>TOTAL</b>	<b>24.7</b>	<b>14.3</b>	<b>150</b>	<b>175</b>	<b>200</b>	<b>24</b>	<b>6</b>	<b>3</b>		
	COEFF VAR. %	S.E. %	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	10	15		
R ALDER	46.2	26.7	25	34	43					
DOUG FIR	40.7	23.5	22	29	36					
WHEMLOCK	86.7	50.1	12	25	37					
<b>TOTAL</b>	<b>25.0</b>	<b>14.4</b>	<b>75</b>	<b>88</b>	<b>100</b>	<b>25</b>	<b>6</b>	<b>3</b>		
	COEFF VAR. %	S.E. %	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD: 1			LOW	AVG	HIGH	5	10	15		
R ALDER	62.4	36.0	1,706	2,667	3,628					
DOUG FIR	118.4	68.4	343	1,083	1,824					
WHEMLOCK	87.0	50.2	788	1,583	2,378					
<b>TOTAL</b>	<b>32.9</b>	<b>19.0</b>	<b>4,320</b>	<b>5,333</b>	<b>6,347</b>	<b>43</b>	<b>11</b>	<b>5</b>		

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT JOHNDAY				DATE 5/8/2003		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
08N	09W	24	AREA 3 LEAVE	LV03	2.80	3	20	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL		3	20	6.7						
CRUISE		3	20	6.7	467		4.3			
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
HEMLEAV	8	66.7	14.5	48		76.9	7,583	7,583	2,308	2,308
DOUGLEAV	7	58.3	11.4	43		41.7	4,250	3,417	1,267	1,000
ALDRLEAV	4	33.3	8.0	19		11.6	667	667	183	183
SNAG	1	8.3	12.0	25		6.5	333		108	
<b>TOTAL</b>	<b>20</b>	<b>166.7</b>	<b>12.3</b>	<b>39</b>		<b>136.7</b>	<b>12,833</b>	<b>11,667</b>	<b>3,867</b>	<b>3,492</b>
	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
HEMLEAV	114.6	66.1	23	67	111					
DOUGLEAV	89.2	51.5	28	58	88					
ALDRLEAV	173.2	100.0		33	67					
SNAG	173.2	100.0		8	17					
<b>TOTAL</b>	<b>17.3</b>	<b>10.0</b>	<b>150</b>	<b>167</b>	<b>183</b>	<b>12</b>	<b>3</b>	<b>1</b>		
	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
HEMLEAV	110.6	63.8	28	77	126					
DOUGLEAV	87.0	50.2	21	42	63					
ALDRLEAV	173.2	100.0		12	23					
SNAG	173.2	100.0		7	13					
<b>TOTAL</b>	<b>28.1</b>	<b>16.2</b>	<b>115</b>	<b>137</b>	<b>159</b>	<b>32</b>	<b>8</b>	<b>4</b>		
	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
HEMLEAV	116.2	67.1	2,496	7,583	12,671					
DOUGLEAV	98.8	57.0	1,468	3,417	5,366					
ALDRLEAV	173.2	100.0		667	1,333					
SNAG										
<b>TOTAL</b>	<b>50.5</b>	<b>29.2</b>	<b>8,262</b>	<b>11,667</b>	<b>15,071</b>	<b>102</b>	<b>26</b>	<b>11</b>		



TC TSTATS				STATISTICS				PAGE 1		
				PROJECT JOHNDAY				DATE 5/8/2003		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
08N	09W	13	R/W-A1	0004	2.20	20	133	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		20	133	6.7						
CRUISE		20	133	6.7	270	49.3				
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
WHEMLOCK	114	94.0	21.1	85		228.0	49,787	47,194	11,249	10,931
R ALDER	10	25.4	12.0	44		20.0	2,295	2,025	631	568
S SPRUCE	5	.6	54.2	103		10.0	2,639	2,337	507	477
DOUG FIR	4	2.6	23.8	93		8.0	1,665	1,637	382	377
<b>TOTAL</b>	<b>133</b>	<b>122.6</b>	<b>19.9</b>	<b>77</b>		<b>266.0</b>	<b>56,385</b>	<b>53,192</b>	<b>12,770</b>	<b>12,353</b>
SD:	1	COEFF VAR.%	S.E.%	TREES/ACRE			# OF PLOTS REQ.		INF. POP.	
				LOW	AVG	HIGH	5	10	15	
WHEMLOCK		73.2	16.4	79	94	109				
R ALDER		300.5	67.2	8	25	42				
S SPRUCE		280.8	62.8	0	1	1				
DOUG FIR		310.6	69.5	1	3	4				
<b>TOTAL</b>		<b>62.9</b>	<b>14.1</b>	<b>105</b>	<b>123</b>	<b>140</b>	<b>158</b>	<b>40</b>	<b>18</b>	
SD:	1	COEFF VAR.%	S.E.%	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.	
				LOW	AVG	HIGH	5	10	15	
WHEMLOCK		53.4	11.9	201	228	255				
R ALDER		279.1	62.4	8	20	32				
S SPRUCE		286.5	64.1	4	10	16				
DOUG FIR		347.9	77.8	2	8	14				
<b>TOTAL</b>		<b>33.5</b>	<b>7.5</b>	<b>246</b>	<b>266</b>	<b>286</b>	<b>45</b>	<b>11</b>	<b>5</b>	
SD:	1	COEFF VAR.%	S.E.%	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.	
				LOW	AVG	HIGH	5	10	15	
WHEMLOCK		57.5	12.9	41,129	47,194	53,259				
R ALDER		282.7	63.2	745	2,025	3,305				
S SPRUCE		298.4	66.7	778	2,337	3,896				
DOUG FIR		373.9	83.6	268	1,637	3,005				
<b>TOTAL</b>		<b>42.6</b>	<b>9.5</b>	<b>48,128</b>	<b>53,192</b>	<b>58,257</b>	<b>73</b>	<b>18</b>	<b>8</b>	

TC TSTATS				STATISTICS				PAGE 1		
				PROJECT JOHNDAY				DATE 10/31/2003		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
08N	09W	13	R/W-A 2 & 3	0004	1.60	20	197	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
		PLOTS	TREES		TREES	TREES				
TOTAL		20	197	9.9						
CRUISE		20	197	9.9	394	50.0				
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
WHEMLOCK	55	68.8	14.9	54		83.8	11,300	9,938	3,071	2,913
DOUG FIR	92	115.0	11.5	42		83.5	8,700	8,313	2,410	2,316
R ALDER	50	62.5	12.1	32		50.2	3,900	3,588	1,233	1,159
<b>TOTAL</b>	<b>197</b>	<b>246.3</b>	<b>12.7</b>	<b>43</b>		<b>217.5</b>	<b>23,900</b>	<b>21,838</b>	<b>6,714</b>	<b>6,388</b>
	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15	
WHEMLOCK	112.5	25.1	51	69	86					
DOUG FIR	87.1	19.5	93	115	137					
R ALDER	100.9	22.6	48	63	77					
<b>TOTAL</b>	<b>35.5</b>	<b>7.9</b>	<b>227</b>	<b>246</b>	<b>266</b>		<b>50</b>	<b>13</b>	<b>6</b>	
	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15	
WHEMLOCK	117.1	26.2	62	84	106					
DOUG FIR	95.7	21.4	66	84	101					
R ALDER	118.5	26.5	37	50	63					
<b>TOTAL</b>	<b>31.5</b>	<b>7.1</b>	<b>202</b>	<b>217</b>	<b>233</b>		<b>40</b>	<b>10</b>	<b>4</b>	
	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15	
WHEMLOCK	130.2	29.1	7,044	9,938	12,831					
DOUG FIR	101.8	22.8	6,421	8,313	10,204					
R ALDER	117.0	26.2	2,649	3,588	4,526					
<b>TOTAL</b>	<b>50.5</b>	<b>11.3</b>	<b>19,373</b>	<b>21,838</b>	<b>24,302</b>		<b>102</b>	<b>25</b>	<b>11</b>	

### Stand Table Summary

Project **JOHNDAY**

**T08N R09W S13 TLV01**

**T08N R09W S13 TLV01**

Twp Rge Sec Tract  
**08N 09W 13 AREA 1LEAVE**

Type  
**LV01**

Acres  
 74.50

Plots  
 18

Sample Trees  
 76

Page: 1  
 Date: 5/8/2003  
 Time: 7:45:24AM

S Spc	T	Sample			Av	Trees/ BA/ Logs			Average Log		Net	Net	Totals			
		DBH	Trees	FF	Ht	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.	Tons	Cunits	MBF
				16'	Tot	Acres	Acres	Acres	Cu.Ft.	Bd.Ft.	Acres	Acres	Acres			
HL		21	3	84	111	2.772	6.67	8.32	35.6	150.0		296	1,247	220	93	
HL		22	3	86	126	2.525	6.67	7.58	46.6	202.2		353	1,532	263	114	
HL		23	4	89	121	3.081	8.89	9.24	50.8	219.2		470	2,026	350	151	
HL		24	9	88	117	6.366	20.00	19.10	52.9	235.6		1,011	4,499	753	335	
HL		25	5	85	126	3.259	11.11	9.78	59.3	257.3		580	2,516	432	187	
HL		26	8	87	120	4.822	17.78	13.26	60.5	270.0		803	3,580	598	267	
HL		27	2	87	137	1.118	4.44	3.35	75.3	345.0		253	1,157	188	86	
HL		28	9	85	124	4.677	20.00	14.03	73.1	329.3		1,026	4,620	764	344	
HL		30	5	86	122	2.264	11.11	6.34	78.6	369.3		498	2,340	371	174	
HL		32	6	84	112	2.387	13.33	5.57	96.6	442.9		538	2,467	401	184	
HL		34	4	87	121	1.410	8.89	4.23	109.1	523.3		461	2,213	344	165	
HL		35	2	91	125	.665	4.44	2.00	124.3	666.7		248	1,330	185	99	
HL		36	1	80	84	.314	2.22	.31	61.0	150.0		19	47	14	4	
HL		38	1	80	110	.282	2.22	.85	112.7	493.3		95	418	71	31	
HL		40	2	81	103	.509	4.44	.76	203.0	823.3		155	629	116	47	
HL		Totals	64	86	120	36.452	142.22	104.71	65.0	292.4		6,806	30,622	5,070	2,281	
SL		50	1	66	122	.163	2.22	.49	205.0	653.3		100	319	75	24	
SL		52	1	82	145	.151	2.22	.45	238.3	1313.3		108	594	80	44	
SL		56	2	87	117	.260	4.44	.78	283.7	1440.0		221	1,123	165	84	
SL		58	1	92	107	.121	2.22	.36	276.3	1543.3		100	561	75	42	
SL		Totals	5	82	123	.695	11.11	2.08	254.1	1246.0		529	2,596	394	193	
DL		25	1	80	126	.652	2.22	1.96	50.0	190.0		98	372	73	28	
DL		33	1	88	148	.374	2.22	1.12	111.7	563.3		125	632	93	47	
DL		Totals	2	83	134	1.026	4.44	3.08	72.5	326.1		223	1,004	166	75	
SN		11	1	80	17	3.367	2.22									
SN		13	1	85	100	2.411	2.22									
SN		15	1	90	96	1.811	2.22									
SN		16	1	80	150	1.592	2.22									
SN		18	1	84	126	1.258	2.22									
SN		Totals	5	83	83	10.438	11.11									
Totals			76	85	113	48.611	168.89	109.88	68.8	311.5		7558	34,222	5,631	2,550	

**Stand Table Summary**

Project **JOHNDAY**

**T08N R09W S13 TLV02**

**T08N R09W S13 TLV02**

Twp Rge Sec Tract Type Acres Plots Sample Trees  
**08N 09W 13 AREA 2 LEAVE LV02 35.20 12 48**

Page: 1  
 Date: 5/8/2003  
 Time: 7:44:42AM

S Spc	T	Sample			Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Cu.Ft.	Net Bd.Ft.	Totals		
		DBH	Trees	16'					Net	Net			Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre
HL		9	1	81	48	2.083	.92	2.08	9.0	30.0	19	63		7	2
HL		12	1	87	79	2.083	1.64	4.17	13.5	45.0	56	188		20	7
HL		14	3	83	73	6.250	6.68	8.33	22.8	75.0	190	625		67	22
HL		15	4	85	94	8.333	10.23	16.67	24.6	90.0	410	1,500		144	53
HL		16	2	84	86	4.167	5.82	8.33	26.2	92.5	219	771		77	27
HL		17	1	81	80	2.083	3.28	4.17	26.5	90.0	110	375		39	13
HL		18	2	88	102	4.167	7.36	10.42	32.4	116.0	338	1,208		119	43
HL		20	3	84	81	6.250	13.64	14.58	32.3	110.0	471	1,604		166	56
HL		21	1	87	85	2.083	5.01	4.17	46.0	175.0	192	729		67	26
HL		23	1	84	136	2.083	6.01	6.25	54.3	180.0	340	1,125		120	40
HL		26	1	81	120	2.083	7.68	6.25	58.0	206.7	363	1,292		128	45
HL		28	1	84	99	2.083	8.91	4.17	47.5	140.0	198	583		70	21
HL		Totals	21	84	89	43.750	77.18	89.58	32.4	112.3	2,904	10,063		1,022	354
DL		10	1	87	82	2.083	1.14	2.08	15.0	60.0	31	125		11	4
DL		11	1	86	136	2.083	1.37	4.17	15.0	60.0	63	250		22	9
DL		12	2	84	90	4.167	3.27	6.25	16.3	53.3	102	333		36	12
DL		13	1	87	76	2.083	1.92	4.17	13.0	45.0	54	188		19	7
DL		14	6	85	91	12.500	13.36	25.00	17.8	61.7	446	1,542		157	54
DL		15	6	86	91	12.500	15.34	20.83	24.4	88.0	508	1,833		179	65
DL		16	5	85	95	10.417	14.54	22.92	22.0	80.9	504	1,854		177	65
DL		17	2	85	79	4.167	6.57	8.33	24.0	82.5	200	688		70	24
DL		18	1	84	72	2.083	3.68	4.17	25.0	85.0	104	354		37	12
DL		Totals	25	85	91	52.083	61.20	97.92	20.6	73.2	2,013	7,167		708	252
AL		8	2	81	47	4.167	1.45	4.17	5.5	20.0	23	83		8	3
AL		Totals	2	81	47	4.167	1.45	4.17	5.5	20.0	23	83		8	3
Totals			48	85	88	100.000	139.83	191.67	25.8	90.3	4940	17,313		1,739	609



**FOREST PRACTICES ACT "WITTEN PLAN"**  
**For Harvesting on John Day Point Thinning**

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

Portions of Sections 13 and 24, T8N, R9W, W.M., Clatsop County, Oregon.

**Protected Resources:** The John Day River, a large Type F stream, is located outside of the Timber Sale Boundary to the west. There is an un-named small Type F stream located in Area 1 (in the NW ¼ of the NE ¼, of Section 24 and in the SW ¼ of the SE ¼, of Section 13, T8N, R9W, W.M., Clatsop County, Oregon), and several un-named perennial Type N streams within the timber sale area.

**Specific Site Characteristics:** Area 1: This area is a stand of approximately 65 year old timber that has been thinned before. The Type F stream is a meandering stream about 2 1/2 feet in width located in a broad plain behind a dike and a tidal gate. There is a posted buffer approximately 50 feet wide, and more in places, along both sides of this stream. The vegetation along this stream consists of mixed conifer, Red Alder and a variety of shrubs.

Area 2: This area, located to the east of the John Day River, is a young stand of timber approximately 35 to 40 years old that will be thinned for the first time. The Timber Sale Boundary is posted approximately 100 feet, and more in places, from the John Day River along the west boundary of this area for approximately 4,300 feet. There are several perennial Type N streams with "pure" stands of alder along these draws.

**Tree and Vegetation Retention:** Area 1: All trees and shrubs within the posted buffer along this un-named Type F stream will be retained. Areas outside of these buffers will be thinned again to a basal area of approximately 160 ft<sup>2</sup>/acre while retaining approximately 38 trees per acre.

Area 2: The pure stands of Red Alder, located in the draws, will be retained. The conifer stands will be thinned to a basal area of approximately 140 ft<sup>2</sup>/acre, retaining approximately 100 trees per acre.

Area 3: This small area of 35 to 40 year old mixed conifer will be thinned to a basal area of approximately 135 ft<sup>2</sup>/acre, retaining approximately 166 trees per acre.

There will be no harvesting within 25 feet on either side of any perennial Type N streams located within the timber sale area, to retain the trees and shrubs in these un-posted buffers.

**Practices:** Along all of the above mentioned streams, as well as any live streams, the following practices are required, under the timber sale contract, to protect the streams and streamside areas:

- No trees will be felled within posted or un-posted stream buffers (RMA's).
- Trees adjacent to the posted and un-posted stream buffers (RMA's), will be felled away from or parallel to the streams to prevent trees from entering the aquatic areas.
- No ground based logging equipment will be permitted within the posted RMA's nor within 50 feet of any live stream.
- When cable logging is conducted nearby the RMA's, logging lines may cross, but will not be lowered into the RMA's during yarding, except during rigging. During rigging the lines must be pulled out of the RMA's when changing corridors.
- Cable corridors must be at least 100 feet apart where they cross the RMA's.
- Trees that fall or slide into Type F RMA's shall not be removed without prior approval from STATE.

Submitted by: \_\_\_\_\_  
Operator/ Purchaser

Date: \_\_\_\_\_

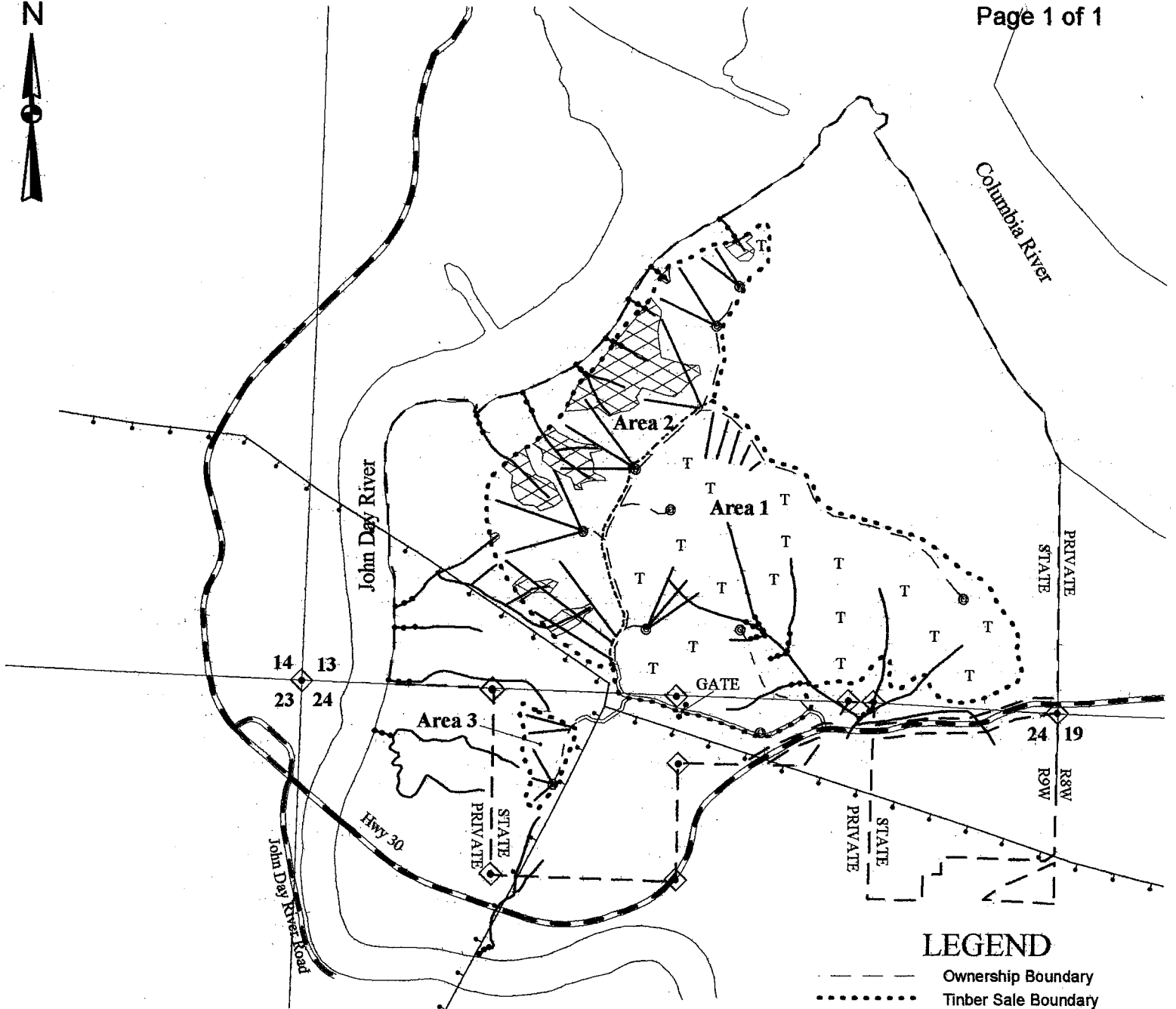
Approved by: Thomas Scoggins  
Reviewed \_\_\_\_\_  
State Lands Forester

Date: 5/6/03

Approved by: Chloe  
Forest Practices Forester

Date: 5/6/03

**Attachments:** Logging Plan Map



**LEGEND**

- Ownership Boundary
- ..... Timber Sale Boundary
- - - - - Right of Way Boundary
- Area Boundary
- ~ Type N Stream
- ~ Type F Stream
- ◇ Known Survey Corner
- == Existing Surface Road
- - - - - Paved Road
- - - - - New Construction
- Landing to be Constructed
- Overhead Utilities
- T T T Ground Based Logging
- Cable Logging

**LOGGING PLAN**

OF TIMBER SALE CONTRACT NO. 341-04-03  
 JOHN DAY POINT THINNING  
 PORTIONS OF SECTIONS 13 AND 24  
 T8N, R9W, W.M.  
 CLATSOP COUNTY, OREGON

APPROX. SCALE 1"=1,000'

0' 500' 1000' 1500' 2000'



**APPROXIMATE NET ACREAGE**

Area 1	74 Acres (PC)
Area 2	35 Acres (PC)
Area 3	3 Acres (PC)
Area 4	4 Acres ( In Sale R/W)

Approximate Total Net Acres = 116 Acres

**HARVEST METHOD**

Area	Tractor	Cable
1	88%	12%
2	6%	94%
3	0%	100%

**FOREST PRACTICES ACT "WRITTEN PLAN"**  
**For Road Culvert Replacement**  
**John Day Point Thinning**

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

**Protected Resources:** A small un-named Type N tributary of an un-named Type F stream, located in SW ¼ of the SE ¼ of Section 13, T8N, R9 W, W. M., Clatsop County, Oregon. A "written plan" is required for construction of any fill over 15 feet high.

**Situation:** An existing culvert for a stream crossing, located on an old existing road, has separated and in need of repair. This culvert is located at 8+00 on road I3 to I4.

**Drainage Area and Stream Crossing Design:** The 50 year peak flow for this drainage is estimated to be about 200 cfs per square mile. The drainage area is less than 10 acres, which calculates out to less than 5 cfs (maximum for 18" culvert). The existing 15 inch aluminum culvert shows no evidence of being undersized. This culvert will be replaced by an 18 inch by 70 foot culvert with a rock dissipater installed at the outlet. The lower side of the fill will be armored with rip-rap.

**Resource Protection Measures:** The culvert at 8+00 on road I3 to I4.

- 1) In stream work shall be conducted during periods of dry weather, low stream flows, and between July 1 and September 15, annually.
- 2) Machine activity in stream channels will be minimized. A minimum 1½ cubic yard track mounted excavator type equipment shall be used for embankment excavation, stream channel development and rip-rap placement.
- 3) All unsuitable excavated embankment materials will be hauled to approved waste areas, sloped for drainage and left in a stable condition.
- 4) All bare soils and waste areas shall be mulched and/or seeded to prevent erosion.
- 5) Rip-rap rock will be used to armor the lower road embankment.
- 6) The de-watering of the installation area during development of the culvert bed and stream channel will be accomplished by use of cofferdams and /or a pump, temporary diversion ditches, and/or drainage structures.

I, the undersigned, submit this written plan in compliance with the requirements in the Forest Practices Act regarding the operations conducted when constructing a fill over 15 feet high. I agree to the protection measures listed on this plan:

Submitted by: \_\_\_\_\_ Date: \_\_\_\_\_  
Operator/PURCHASER

Approved by: Thomas Scoggins Date: 5/6/03  
Reviewed State Lands Forester

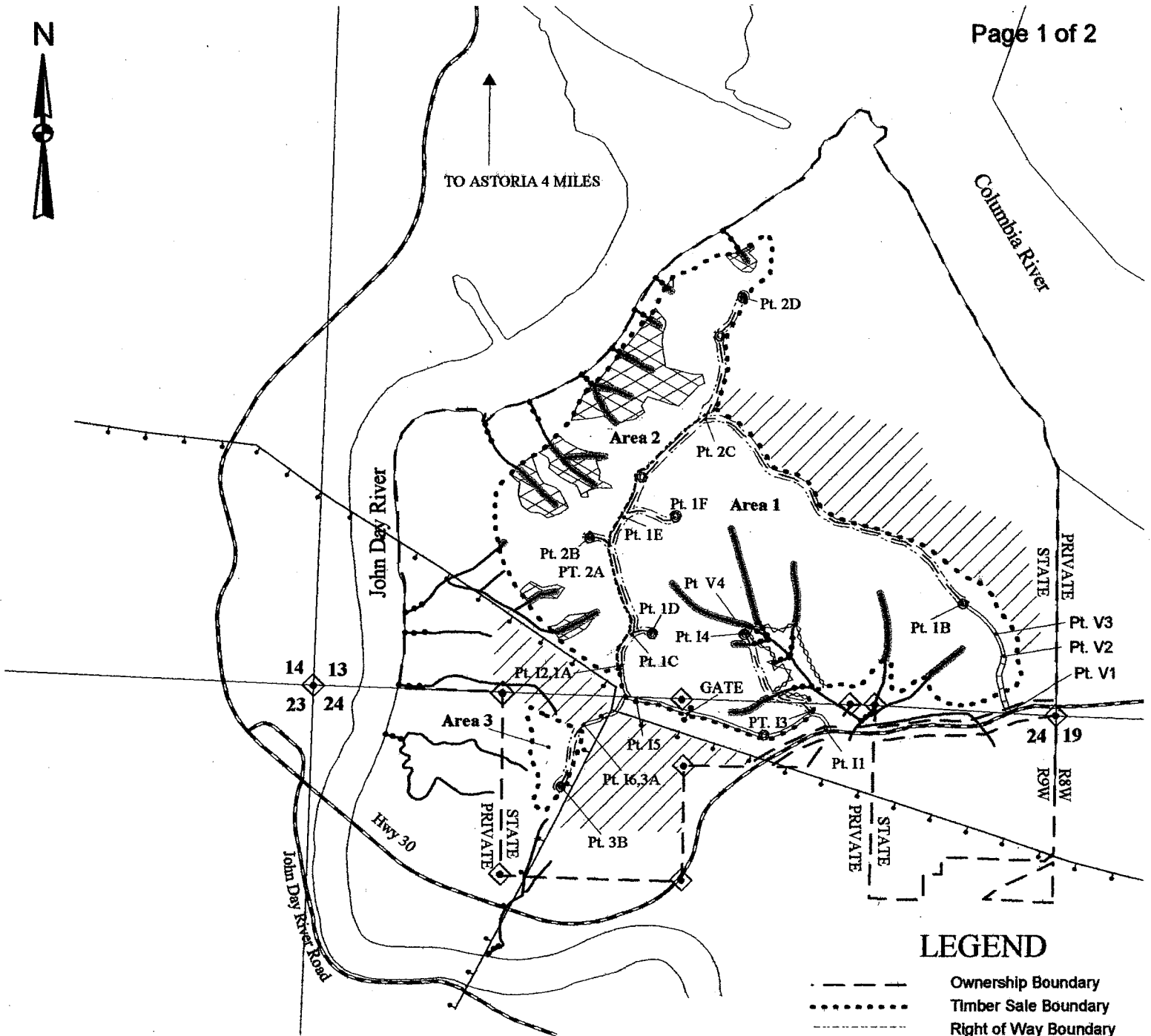
\_\_\_\_\_ Date: 5/6/03  
~~Forest Practice Forester~~

Attachments: Exhibit A





↑  
TO ASTORIA 4 MILES



**LEGEND**

- Ownership Boundary
- Timber Sale Boundary
- Right of Way Boundary
- Area Boundary
- Posted Stream Buffer
- Unposted Stream Buffer
- Type N Stream
- Type F Stream
- Unthinnable Area
- Known Survey Corner
- Existing Surface Road
- Paved Road
- New Road Construction
- Road to be Vacated
- Landing to be Constructed
- Overhead Utilities
- Gate to be Installed
- Reforestation

**APPROXIMATE NET ACREAGE**

Area 1	74 Acres (PC)
Area 2	35 Acres (PC)
Area 3	3 Acres (PC)
Area 4	4 Acres ( In Sale R/W)

Approximate Total Net Acres = 116 Acres

**Exhibit "A"**

OF TIMBER SALE CONTRACT NO. 341-04-03  
 JOHN DAY POINT THINNING  
 PORTIONS OF SECTIONS 13 AND 24  
 T8N, R9W, W.M.  
 CLATSOP COUNTY, OREGON

APPROX. SCALE 1"=1,000'

0' 500' 1000' 1500' 2000'

