



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Gilmore Ridge
Sale 341-14-39

District: Astoria

Date: July 10, 2013

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$497,569.92	\$1,185,382.60	\$1,682,952.52
		Project Work:	\$(412,205.00)
		Advertised Value:	\$1,270,747.52



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timber description

Location: Portions of Sections 26, 27, 33, 34, and 35, T6N, R7W, W.M., Clatsop County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	25	0	97
Western Hemlock / Fir	18	0	97
Sitka Spruce	14	0	95
Alder (Red)	16	0	95
Maple	17	0	95

Volume by Grade	10" - 11"	12"+	2S	3S	4S	6" - 7"	8" - 9"	Camprur	Total
Douglas - Fir	0	0	397	39	8	0	0	0	444
Western Hemlock / Fir	0	0	726	261	73	0	0	0	1,060
Sitka Spruce	0	0	3	12	9	0	0	0	24
Alder (Red)	939	1,556	0	0	0	796	393	0	3,684
Maple	0	0	0	0	0	0	0	106	106
Total	939	1,556	1,126	312	90	796	393	106	5,318



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comments: Pond Values Used: 2nd Quarter Calander Year 2013.

Expected Log Markets: Warrenton, Garabaldi, Tillamook, Mist,
Clatskanie, OR; Longview, Centralia, WA.

Western redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Cost:
 $\$654.56/\text{MBF} = \$950/\text{MBF} - \$295.44/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF.

FUEL COST ALLOWANCE = \$4.00/Gallon.

HAULING COST ALLOWANCE

Hauling costs equivalent to \$780 daily truck cost.

Other Costs (with Profit & Risk to be added):

Branding and Painting: $\$1/\text{MBF} = 5,318 \text{ MBF} \times \$1 = \$5,318$

Slash Piling (see attached appraisal) = \$11,156

TOTAL Other Costs (with Profit & Risk to be added) = \$16,474

Other Costs (No Profit & Risk added):

Open Legacy Spur for Loggers Choice and Close It When Done in Area
2: 4 hrs with D8 @ \$158/hr = \$632

Close Legacy Spur: 4 hours with C315 @ \$101/hr = \$404

Construct Loggers Choice Spurs in Area 3: 14.5 Stations x
\$122/Station = \$1,769

Construct 4 landings: 4 landings x \$369/Landing = \$1,476

Waterbar & Block Loggers Choice Spurs in Area 3: 4 hours with C315
at \$101 per hour = \$404

Slash Piling (Landings and in Unit) = \$11,156

Machine Wash Equipment for Invasive Species = \$3,000

TOTAL Other Costs (No Profit & Risk added) = \$18,841



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logging conditions

combination#: 1 Douglas - Fir 38.00%
 Western Hemlock / Fir 38.00%
 Sitka Spruce 38.00%
 Alder (Red) 38.00%
 Maple 38.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Shovel **Process:** Manual Delimbing

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 10.0 **bd. ft / load:** 3,200
cost / mbf: \$78.27

machines: Shovel Logger

combination#: 2 Douglas - Fir 62.00%
 Western Hemlock / Fir 62.00%
 Sitka Spruce 62.00%
 Alder (Red) 62.00%
 Maple 62.00%

yarding distance: Long (1,500 ft) **downhill yarding:** No
logging system: Cable: Medium Tower >40 - <70 **Process:** Manual Delimbing

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 9.0 **bd. ft / load:** 3,200
cost / mbf: \$120.14

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



"STEWARDSHIP IN FORESTRY"

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logging costs

Operating Seasons:	2.00	Profit Risk:	10.00%
Project Costs:	\$412,205.00	Other Costs (P/R):	\$16,474.00
Slash Disposal:	\$0.00	Other Costs:	\$11,841.00

Miles of Road

Road Maintenance: \$3.92

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	4.0
Western Hemlock / Fir	\$0.00	3.0	3.6
Sitka Spruce	\$0.00	2.0	4.5
Alder (Red)	\$0.00	1.0	5.0
Maple	\$0.00	2.0	3.5



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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$104.23	\$4.04	\$1.65	\$60.86	\$3.10	\$17.39	\$0.00	\$5.00	\$2.23	\$198.50
Western Hemlock / Fir									
\$104.23	\$4.04	\$1.65	\$67.63	\$3.10	\$18.06	\$0.00	\$5.00	\$2.23	\$205.94
Sitka Spruce									
\$104.23	\$4.12	\$1.65	\$82.73	\$3.10	\$19.58	\$0.00	\$5.00	\$2.23	\$222.64
Alder (Red)									
\$104.23	\$4.12	\$1.65	\$148.91	\$3.10	\$26.20	\$0.00	\$5.00	\$2.23	\$295.44
Maple									
\$104.23	\$4.12	\$1.65	\$106.36	\$3.10	\$21.95	\$0.00	\$5.00	\$2.23	\$248.64

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$595.32	\$396.82	\$0.00
Western Hemlock / Fir	\$0.00	\$504.86	\$298.92	\$0.00
Sitka Spruce	\$0.00	\$411.25	\$188.61	\$0.00
Alder (Red)	\$0.00	\$612.85	\$317.41	\$0.00
Maple	\$0.00	\$400.00	\$151.36	\$0.00



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Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00
Sitka Spruce	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00
Maple	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	444	\$396.82	\$176,188.08
Western Hemlock / Fir	1,060	\$298.92	\$316,855.20
Sitka Spruce	24	\$188.61	\$4,526.64
Alder (Red)	3,684	\$317.41	\$1,169,338.44
Maple	106	\$151.36	\$16,044.16

Gross Timber Sale Value

Recovery: \$1,682,952.52

Prepared by: Holloran Ed

Phone: 503-325-5451

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Gilmore Ridge **Sale No.** 341-14-39

NEW CONSTRUCTION:

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Project No. 1			
	Rocked (1A -1B, 2A-2B, 2C-2D, 3A-3B, & 3C to 3D)	74.85	\$116,085
	TOTALS	1.4 miles 74.9 Stations	\$116,085

ROAD IMPROVEMENT

	<u>Road segment</u>	<u>Length/Sta</u>	<u>Cost</u>
Project No. 2	I1 to I2, I3 to I4 I5 to I6, and I7 to I8	223.00	\$121,667
	TOTALS	4.2 miles 223.0 Stations	\$121,667

SPECIAL PROJECTS

	<u>Description</u>	<u>Quantity/Length/Sta</u>	<u>Cost</u>
Project No. 3	Swede Road Quarry Development, Rock Crushing and Stockpiling	17,800 cy	\$151,119
Project No. 4	Road Vacating - V1 to V2	23.2	\$2,311
Project No. 5	Gate construction & Installation - G1 and G2		\$8,255
	Project Road Maintenance	2.0 miles	\$3,959
	TOTALS		\$165,644

MOVE IN:

	<u>Equipment</u>	<u>Cost</u>
	Excavator (C330 @ \$1,406)	\$1,406
	Excavator (C315 @ \$805)	\$805
	Dozer (D8 1 @ \$1,406)	\$1,406
	Rubber Tired Skidder (C518 @\$717)	\$717
	Vibratory Roller (@\$778)	\$778
	Front End Loader (C966 @ \$778)	\$778
	10-12 yd dump truck (X 10 @ \$163 each)	\$1,630
	Backhoe (C580 @ \$321)	\$321
	Large Grader (14G @ \$778)	\$778
	Water Truck (2,500 gal @ \$190)	\$190
	TOTAL	\$8,809

GRAND TOTAL **\$412,205**

Compiled By: Ed Holloran & Cullen Bangs FL

Date: 05/15/2013

SALE NAME: Gilmore Ridge
ROAD: 1A-1B, 2A-2B, 2C-2D, 3A-3B, 3C to 3D
POINTS: _____

NEW CONSTRUCTION: 75.35 STATIONS
Dirt Spur STATIONS

1.43 MILES
MILES

Method	Acres/amount	x	Rate	=	Cost
Unsurfaced		x		=	
Surfaced	Scatter outside of R/W new Roads	x	\$1,337.00	=	\$9,225.30
		x		=	
		x		=	

\$9,225

EXCAVATION			Sta. / Hr.				
	Material		Cyl/amount	x	Rate	=	Cost
				x		=	
1A - 1B	Balanced Construction	\$/Sta.	5.00	x	\$190.00	=	\$950.00
1A - 1B	Drift dirt up to 200'	\$/Sta.	2.00	x	\$389.00	=	\$778.00
2A-2B	Balanced Construction	\$/Sta.	6.00	x	\$190.00	=	\$1,140.00
2A-2B	Drift dirt up to 200'	\$/Sta.	2.00	x	\$389.00	=	\$778.00
2C-2D	Balanced Construction	\$/Sta.	0.90	x	\$190.00	=	\$171.00
				x		=	
3A-3B	Balanced Construction	\$/Sta.	35.70	x	\$190.00	=	\$6,783.00
3A-3B	Drift dirt up to 200'	\$/Sta.	20.50	x	\$389.00	=	\$7,974.50
3A-3B	Full Bench/containment	\$/Sta.	2.75	x	\$389.00	=	\$1,069.75
3A-3B	End Haul*	\$/Cy	1,000.00	x	\$4.00	=	\$4,000.00
3A-3B	End Haul	\$/Sta.	500.00	x	\$4.00	=	\$2,000.00
3A-3B	End Haul	\$/Cy	1,000.00	x	\$4.00	=	\$4,000.00
3A-3B	Cut Slope Rounding	\$/Sta.	2.75	x	\$43.00	=	\$118.25
				x		=	
Surfaced	Landing Construction	# of Land.	5	x	\$389.00	=	\$1,945.00
				x		=	

\$31,708

[illegible]

3A-3B

Description	Quantity	Rate	Cost
Fiberglass Culvert Markers - New Roads	2	\$20.00	\$40.00

Subtotal of Clearing, Exc., Culv.

\$1,212
\$42,145

SALE NAME:

Gilmore Ridge

NEW CONSTRUCTION:

75.35 STATIONS

1.43 MILES

SURFACING										
Subgrade prep:		Description				Stations/ amount	x	Rate/ sta/amt	Cost	
		Grade, Shape and Ditch 16'				1A-1B; 2A-2B; 2C-2D; 3A-3B; 3C to 3D	75.35	x	\$24.83	\$1,870.94
		Subgrade								
		Compaction				1A-1B; 2A-2B; 2C-2D; 3A-3B; 3C to 3D	75.35	x	\$20.19	\$1,521.32
ROAD SEGMENT 1A - 1B										
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				1A - 1B		0+00 to 7+00				
				Volume (CY) per		Number of				
Base Rock	4"-0" crushed	0+00 to 7+00	10	station	63	stations	7.00	441	\$8.19	\$3,612
Turnouts	4"-0" crushed	3+20 to 4+25	10	TO	33	TO's	1	33	\$8.19	\$270
Turnarounds	4"-0" crushed	5+25	10	TA	22	TA's	1	22	\$8.19	\$180
Landings	6"-0" pit run	7+00	N/A	landing	80	landings	1	80	\$10.56	\$845
Total Rock for Road Segment:				1A - 1B				576		\$4,907
ROAD SEGMENT 2A to 2B										
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				2A to 2B		0+00 to 8+00				
				Volume (CY) per		Number of				
Base Rock	4"-0" crushed	0+00 to 8+00	10	station	63	stations	8.00	504	\$8.19	\$4,128
Turnouts	4"-0" crushed	4+00 to 5+00	10	TO	33	TO's	1	33	\$8.19	\$270
Junctions	4"-0" crushed	5+50	N/A	junction	33	junctions	1	33	\$8.19	\$270
Landings	6"-0" pit run	8+00	N/A	landing	80	landings	1	80	\$10.56	\$845
Total Rock for Road Segment:				2A to 2B				650		\$4,668
ROAD SEGMENT 2C to 2D										
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				2C to 2D		0+00 to 0+90				
				Volume (CY) per		Number of				
Base Rock	4"-0" crushed	0+00 to 0+90	10	station	63	stations	0.90	57	\$8.19	\$464
Landings	6"-0" pit run	0+90	N/A	landing	80	landings	1	80	\$10.56	\$845
Total Rock for Road Segment:				2C to 2D				137		\$1,309
ROAD SEGMENT 3A to 3B										
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				3A to 3B		0+00 to 58+95				
				Volume (CY) per		Number of				
Base Rock	4"-0" crushed	0+00 to 58+95	10	station	63	stations	58.95	3,714	\$8.19	\$30,416
Surface Rock	1 1/2"-0 " crushed	0+00 to 58+95	3	station	19	stations	58.95	1,120	\$8.19	\$9,173
Turnouts	4"-0" crushed	3+25-4+25; 6+60-7+60; 11+60-12+75; 14+90-16+00; 47+30-48+30	10	TO	33	TO's	5	165	\$8.19	\$1,351
Turnouts/Surface Rock	1 1/2"-0 " crushed	3+25-4+25; 6+60-7+60; 11+60-12+75; 14+90-16+00; 47+30-48+30	3	TO	11	TO's	5	55	\$8.19	\$450
Turnouts	4"-0" crushed	23+40-24+90; 38+90-40+25; 56+10-57+40	10	TO	44	TO's	3	132	\$8.19	\$1,081
Turnouts/Surface Rock	1 1/2"-0 " crushed	23+40-24+90; 38+90-40+25; 56+10-57+40	3	TO	17	TO's	3	51	\$8.19	\$418
Junctions	4"-0" crushed	3C (33+90)	10	junction	33	junctions	1	33	\$8.19	\$270
Junction/Surface Rock	1 1/2"-0 " crushed	3C (33+90)	3	junction	11	junctions	1	11	\$8.19	\$90
Turnarounds/Junctions	4"-0" crushed	12+00; 54+00; 55+70	10	TA	33	TA's	3	99	\$8.19	\$811
Turnaround/Surface Rock	1 1/2"-0 " crushed	12+00; 54+00; 55+70	3	TA	22	TA's	3	66	\$8.19	\$541
Curve Widening	4"-0" crushed	3+45 -4+40	10	curve	22	curves	1	22	\$8.19	\$180
CW/Surface Rock	1 1/2"-0 " crushed	3+45 -4+40	3	curve	6	curves	1.00	6	\$8.19	\$49
Fill Widening	4"-0" crushed	4+60-6+20; 9+50; 11+30; 21+20- 22+20; 43+20- 44+60	10	station	16	stations	5.80	93	\$8.19	\$760
FW/ Surface Rock	1 1/2"-0 " crushed	4+60-6+20; 9+50; 11+30; 21+20- 22+20; 43+20- 44+60	3	station	4	stations	5.80	23	\$8.19	\$190
Dissipator Rock	24"-6" riprap	2+80	N/A	culvert	11	culverts	1	11	\$7.43	\$82
Landings	6"-0" pit run	37+00; 58+95	N/A	landing	80	landings	2	160	\$10.56	\$1,690
Total Rock for Road Segment:				3A to 3B				5,761		\$47,553
ROAD SEGMENT 3C to 3D										
Application	Rock Size and Type	Location	Depth of Rock (inches)	POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
				3C to 3D		0+00 to 0+50				
				Volume (CY) per		Number of				
Base Rock	4"-0" crushed	0+00 to 0+50	10	station	63	stations	0.50	33	\$8.19	\$270
Total Rock for Road Segment:				3C to 3D				33		\$270
Processing:										
				Description			No.sta	Rate/sta	Cost	
				Water, Process & Compact (2 lifts):			4"-0"	75.35	\$112.96	\$8,512
				Water, Process & Compact:			1 1/2" - 0"	58.95	\$56.48	\$3,329
SUB TOTAL FOR SURFACING				24"-6"	6"-0"pr	4"-0"	1 1/2"-0"	Total		
				11	400	5,413	1,332	7,157	7,157	\$73,941
SPECIAL PROJECTS										
				Description			Cost			
SUB TOTAL FOR SPECIAL PROJECTS										

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Gilmore Ridge
ROAD: I1 to I2 (104+50), I2 to I3 (27+50), I3 to I4 (52+50)
 I5 to I6 (26+00), I7 to I8 (12+50)

NEW CONSTRUCTION: _____ **STATIONS** _____ **MILES** _____
IMPROVEMENT: 223.00 **STATIONS** _____ **MILES** 4.22

CLEARING & GRUBBING

Method	Acres/amount	x	Rate	=	Cost
I2 to I3					
8+30 to 10+00 Tree removal, cutslope clearing (C330 hrs.)	2.00	x	\$155.00	=	\$310.00
I3 to I4					
18+75 to 21+50 Cutslope clearing and debris haul (C330 hrs.)	2.00	x	\$155.00	=	\$310.00
(Dump Truck hrs.)	2.00	x	\$79.00	=	\$158.00

SUB TOTAL FOR CLEARING & GRUBBING

\$778

EXCAVATION

Material	Cy/amount	x	Rate	=	Cost
I1 to I2					
0+00 to 104+50 Ditchouts and daylighting. (C315 hrs.)	4.00	x	\$100.00	=	\$400.00
9+60 Fill Excavation/reconstruction/end haul.					
Puncheon removal/disposal. Armor Fill.					
(C330 Hrs.)	16.0	x	\$155.00	=	\$2,480.00
(Dump Truck Hrs.)	16.0	x	\$79.00	=	\$1,264.00
9+90 Construct/armor settling pond and ditchline.					
(C315 hrs.)	1.00	x	\$100.00	=	\$100.00
36+00 to 37+70 Ditchline improvement. Stump removal.					
(C315 hrs.)	3.00	x	\$100.00	=	\$300.00
(Dump Truck hrs.)	3.00	x	\$79.00	=	\$237.00
47+50 Armor fill slopes. (C315 hrs.)	1.00	x	\$100.00	=	\$100.00
50+00 Stump removal. (C315 hrs.)	1.00	x	\$100.00	=	\$100.00
66+50 to 69+00 Ditchline reconstruction (C315 hrs.)	2.00	x	\$100.00	=	\$200.00
75+50 Improve junction drainage (C315 hrs.)	0.50	x	\$100.00	=	\$50.00
98+00 to 101+00 Ditchline construction (C315 hrs.)	3.00	x	\$100.00	=	\$300.00
& 102+70					
I2 to I3					
0+00 to 27+50 Ditchouts and ditch reconstruction (C315 hrs.)	4.00	x	\$100.00	=	\$400.00
7+00 to 8+30 Fill slope armoring (C330 hrs.)	2.00	x	\$155.00	=	\$310.00
8+30 to 10+00 Road widening, cutslope improvement, end haul					
(C330 hrs.)	4.00	x	\$155.00	=	\$620.00
(Dump Truck hrs.)	4.00	x	\$79.00	=	\$316.00
I3 to I4					
18+75 to 21+50 Road widening, cutslope improvement, end haul					
(C330 hrs.)	5.00	x	\$155.00	=	\$775.00
(Dump Truck hrs.)	5.00	x	\$79.00	=	\$395.00
I5 to I6					
0+00 to 26+40 Ditchouts, scatter debris (C315 hrs.)	4.00	x	\$100.00	=	\$400.00
I6 to I7					
0+00 to 12+85 Ditchouts, scatter debris (C315 hrs.)	2.00	x	\$100.00	=	\$200.00
6+20 Bank slough removal (C315 hrs.)	2.00	x	\$100.00	=	\$200.00

SUB TOTAL FOR EXCAVATION

\$9,147

CULVERT MATERIALS AND INSTALLATION

Location	Dia/type	Lineal ft.	Rate	Cost	Location	Dia/type	Lineal ft.	Rate	Cost
I1 to I2					I5 to I6				
9+60 30/ACSP 70			\$35.30	\$2,471.00	18+95 18/CPP 30			\$19.53	\$585.90
10+40 18/CPP 30			\$19.53	\$585.90					
31+70 18/CPP 40			\$19.53	\$781.20	I7 to I8				
99+80 18/CPP 40			\$19.53	\$781.20	0+30 18/CPP 30			\$19.53	\$585.90
102+70 18/CPP 30			\$19.53	\$585.90	8+00 18/CPP 30			\$19.53	\$585.90
I2 to I3									
23+30 18/CPP 40			\$19.53	\$781.20					
26+55 18/CPP 40			\$19.53	\$781.20					
I3 to I4									
4+70 18/CPP 40			\$19.53	\$781.20					
8+15 18/CPP 40			\$19.53	\$781.20					
14+40 18/CPP 30			\$19.53	\$585.90					
21+50 18/CPP 30			\$19.53	\$585.90					
25+10 18/CPP 30			\$19.53	\$585.90					
30+00 18/CPP 40			\$19.53	\$781.20					

	Description	Quantity	Rate	Cost
Other/miscellaneous:	Dissipator Construction (C315 hrs.)	5.00	\$101.00	\$505.00
	Culvert repair/cleaning (Labor hrs.)	8.00	\$40.00	\$320.00
	Bevel inlet I1-I2 Sta. 9+60			\$100.00
Culvert stakes & markers:	Install 6" Fiberglass Markers	27	\$20.00	\$540.00

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION

\$14,092

Subtotal of Clearing, Exc., Culv.

\$24,017

SURFACING		Stations/amount		Rate/sta/amt	Cost
Subgrade prep:	Description		x		
	Grade, Shape and Ditch 16' - Includes sod removal	223.00	x	\$24.83	\$5,537.09
	Extra grader hrs. for sod removal/surface prep I5-I6 & I7-I8	8.00	x	\$100.00	\$800.00
	Scatter sod and ditch material (backhoe hrs.)	36.00	x	\$77.00	\$2,772.00
	Subgrade Compaction	223.00	x	\$20.19	\$4,502.37

ROAD SEGMENT I1 to I2				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	I1 to I2 Volume (CY) per		0+00 to 104+50 Number of				
Base Rock	4"-0" Crushed	9+60	10	Station	63	Stations	1	63	\$8.19	\$516
Subgrade Reinforcement	4"-0" Crushed	98+00 to 101+00	N/A	Load	11	Loads	6	66	\$8.19	\$541
Leveling/Curve Widening	4"-0" Crushed	58+00 to 104+50	N/A	Load	11	Loads	11	121	\$8.19	\$991
Turnouts	4"-0" Crushed	46+40	N/A	Turnout	11	Turnouts	1	11	\$8.19	\$90
Leveling/Curve Widening	¾"-0" Crushed	0+00 to 58+00	N/A	Load	11	Loads	6	66	\$8.19	\$541
Surface Rock	¾"-0" Crushed	0+00 to 58+00	4	Station	25	Stations	58	1,450	\$8.19	\$11,876
		2+25, 3+00, 7+00, 9+25, 18+90, 39+25, 46+40, 52+75, 54+50	4	Turnout	11	Turnouts	9	99	\$8.19	\$811
Turnouts	¾"-0" Crushed	24+25, 33+50	4	Turnout	22	Turnouts	2	44	\$8.19	\$360
		24+80, 37+70, 56+80	4	Junction	11	Junctions	3	33	\$8.19	\$270
Junctions	¾"-0" Crushed	40+50	4	Junction	22	Junctions	1	22	\$8.19	\$180
Bedding/Backfill	1 ½"-0" Stockpile	9+60	N/A	Culvert	88	Culverts	1	88	\$5.53	\$487
Bedding/Backfill	1 ½"-0" Stockpile	10+40, 31+70, 99+80, 102+70	N/A	Culvert	33	Culverts	4	132	\$5.53	\$730
Curve Widening	1 ½"-0" Crushed	58+00 to 104+50	4	Load	11	Loads	5	55	\$8.19	\$450
Surface Rock	1 ½"-0" Crushed	58+00 to 104+50	4	Station	25	Stations	46.5	1,163	\$8.19	\$9,521
		60+00, 63+00, 69+00, 71+40, 77+60, 94+20, 101+90	4	Turnout	11	Turnouts	7	77	\$8.19	\$631
Turnouts	1 ½"-0" Crushed	87+15, 99+00	4	Turnout	22	Turnouts	2	44	\$8.19	\$360
Junctions	1 ½"-0" Crushed	75+00	4	Junction	11	Junctions	1	11	\$8.19	\$90
Settling Pond/Ditch Armor	6"-0" Pit-run	9+90	N/A	N/A	N/A	N/A	N/A	11	\$10.56	\$116
Fill Armor	24"-6" Riprap	9+60	N/A	N/A	N/A	N/A	N/A	66	\$7.43	\$490
Fill Armor	24"-6" Riprap	47+50	N/A	N/A	N/A	N/A	N/A	22	\$7.43	\$163
Dissipators	24"-6" Riprap	9+60, 102+70	N/A	Dissipator	11	Dissipators	2	22	\$7.43	\$163
Total Rock for Road Segment: I1 to I2								3,666		

\$29,378

ROAD SEGMENT I2 to I3				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	I2 to I3 Volume (CY) per		0+00 to 27+50 Number of				
Base Rock	4"-0" Crushed	8+30 to 10+00	10	Load	11	Loads	6	66	\$8.19	\$541
Base Rock	4"-0" Crushed	23+30	10	Load	11	Loads	2	22	\$8.19	\$180
Subgrade Reinforcement	4"-0" Crushed	7+00 to 8+30	N/A	Load	11	Loads	2	22	\$8.19	\$180
Subgrade Reinforcement	4"-0" Crushed	12+50	N/A	Load	11	Loads	2	22	\$8.19	\$180
Turnouts	4"-0" Crushed	2+50	N/A	Turnout	11	Turnouts	1	11	\$8.19	\$90
Leveling/Curve Widening	4"-0" Crushed	9+00, 10+00	N/A	Load	11	Loads	2	22	\$8.19	\$180
Leveling/Curve Widening	1 ½"-0" Crushed	0+00 to 27+50	N/A	Load	11	Loads	4	44	\$8.19	\$360
Surface Rock	1 ½"-0" Crushed	0+00 to 27+50	3	Station	19	Stations	27.5	523	\$8.19	\$4,279
		2+50, 5+00, 12+30, 17+70, 22+70	3	Turnout	11	Turnouts	5	55	\$8.19	\$450
Junctions	1 ½"-0" Crushed	27+50	3	Junction	11	Junctions	1	11	\$8.19	\$90
Bedding/Backfill	1 ½"-0" Stockpile	23+30, 28+55	N/A	Culvert	55	Culverts	2	110	\$5.53	\$608
Fill Armor	24"-6" Riprap	7+00 to 8+30	N/A	N/A	N/A	N/A	N/A	66	\$7.43	\$490
Total Rock for Road Segment: I2 to I3								974		

\$7,630

ROAD SEGMENT I3 to I4				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	I3 to I4 Volume (CY) per		0+00 to 52+50 Number of				
Base Rock	4"-0" Crushed	18+75 to 21+50	8	Station	50	Stations	2.75	138	\$8.19	\$1,126
Subgrade Reinforcement	4"-0" Crushed	33+50	N/A	Load	11	Loads	2	22	\$8.19	\$180
		23+30, 39+20, 40+00	N/A	Turnout	22	Turnouts	3	66	\$8.19	\$541
Turnarounds	4"-0" Crushed	39+20, 52+50	8	Turnaround	22	Turnarounds	2	44	\$8.19	\$360
Surface Rock	4"-0" Crushed	39+20 to 52+50	N/A	Station	38	Stations	13.3	505	\$8.19	\$4,139
Leveling/Curve Widening	1 ½"-0" Crushed	0+00 to 39+20	N/A	Load	11	Loads	10	110	\$8.19	\$901
Surface Rock	1 ½"-0" Crushed	0+00 to 39+20	3	Station	19	Stations	39.2	745	\$8.19	\$6,100
		4+20, 12+00, 15+75, 20+40, 23+30, 26+30, 28+00, 31+30, 35+00	3	Turnout	11	Turnouts	9	99	\$8.19	\$811
		4+70, 8+15, 14+40, 21+50, 25+10, 29+90, 30+00	N/A	Culvert	33	Culverts	7	231	\$5.53	\$1,277
Dissipators	24"-6" Riprap	4+70, 21+50, 33+50	N/A	Dissipator	11	Dissipators	3	33	\$7.43	\$245
Total Rock for Road Segment: I3 to I4								1,993		

\$15,681

ROAD SEGMENT I5 to I6				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	I5 to I6 Volume (CY) per		0+00 to 26+00 Number of				
Base Rock	4"-0" Crushed	0+00 to 26+00	6	Station	38	Stations	26.0	988	\$8.19	\$8,092
		3+20, 6+00, 10+00, 15+60, 19+60, 24+45	6	Turnout	22	Turnouts	6	132	\$8.19	\$1,081
Surface Rock	1 1/2"-0" Crushed	0+00 to 12+00	3	Station	19	Stations	12	228	\$8.19	\$1,867
Turnouts	1 1/2"-0" Crushed	3+20, 6+00, 10+00	3	Turnout	11	Turnouts	3	33	\$8.19	\$270
Bedding/Backfill	1 1/2"-0" Stockpile	18+95	N/A	Culvert	33	Culverts	1	33	\$5.53	\$182
Landings	6"-0" Pit-run	26+00	N/A	Landing	30	Landings	1	30	\$10.56	\$317
Dissipators	24"-6" Riprap	7+40	N/A	Dissipator	11	Dissipators	1	11	\$7.43	\$82
Total Rock for Road Segment: I5 to I6								1,455		

\$11,891

ROAD SEGMENT I7 to I8				POINT TO POINT		Sta. to Sta.		TOTAL VOLUME (CY)	Rate/ Sta./ amt.	Cost
Application	Rock Size and Type	Location	Depth of Rock (inches)	I7 to I8 Volume (CY) per		0+00 to 12+50 Number of				
Base Rock	4"-0" Crushed	0+00 to 12+50	6	Station	38	Stations	12.5	475	\$8.19	\$3,890
Turnouts	4"-0" Crushed	1+00, 4+70	6	Turnout	22	Turnouts	2	44	\$8.19	\$360
Bedding/Backfill	1 1/2"-0" Stockpile	0+30, 8+00	N/A	Culvert	33	Culverts	2	66	\$5.53	\$365

Landings	6"-0" Pit-run	9+15	N/A	Landing	50	Landings	1	50	\$10.56	\$528	
Landings	6"-0" Pit-run	12+50	N/A	Landing	30	Landings	1	30	\$10.56	\$317	
Total Rock for Road Segment:				I7 to I8				665			\$5,460
Processing:				Description				No.sta	Rate/sta	Cost	
				Water, Process & Compact:				223.00	\$56.48	\$12,595	
				Water, Process & Compact (Traction rock on I5 to I6, Base Replacements)				16.00	\$56.48	\$904	
				24"-6"rr	6"-0"pr	4"-0"	1 1/2"-0" Stkpl	1 1/2"-0"	3/4"-0"	Total	
SUB TOTAL FOR SURFACING				220	121	2,840	660	3,197	1,714	8,752	8,752 \$97,151
SPECIAL PROJECTS											
				Description				Cost			
				Seeding and mulching (waste areas)				\$500			
SUB TOTAL FOR SPECIAL PROJECTS										\$500	
										Subtotal of Surfacing & Spec. Proj.	\$97,651
										Subtotal of Clearing, Exc., Culv.	\$24,017
GRAND TOTAL										\$121,667	

SUMMARY OF ROCK DEVELOPMENT AND CRUSHING COSTS

PROJECT NO. <u>3</u>	Timber Sale Name: <u>Gilmore Ridge</u>
Quarry: <u>Swede Road Quarry</u>	Swell: _____
Location: <u>NW 1/4, SW 1/4, Section 29, T6N, R7W, W.M.</u>	Shrink: <u>16%</u>
County: <u>Clatsop</u>	
By: <u>C.Bangs</u>	Loading Hopper: <u>No</u>
Date: <u>04/24/2013</u>	

ROCK SIZE	REJECT	GRADATION	STOCKPILE CU. YDS.	TRUCK MEAS CU. YDS.	TOTAL CU. YDS.
3/4"-0"	3%	CR		1,714	1,714
1-1/2"-0"	3%	CR	1,200	4,529	5,921
4"-0"	3%	CR	1,000	8,253	9,413
6"-0"		PR		521	521
24"-6"		RR		231	231
36"		RR			
TOTAL CUBIC YARDS OF ROCK:			2,200	15,248	17,800

1) MOBILIZATION & SET UP:

EQUIPMENT	QUANTITY	RATE	COST	EQUIPMENT	QUANTITY	RATE	COST
Screening Plants	2	\$553	\$1,106				
3 Stage Crusher	1	\$2,891	\$2,891				
Excavator	1	\$1,406	\$1,406				
Loader	1	\$805	\$805				
D6 Cat	1	\$778	\$778				
Fire Truck	1	\$141	\$141				

SUB TOTAL FOR MOBILIZATION

\$7,127

EQUIPMENT SET UP	TIMES	RATE	COST
3 Stage Crusher	1	\$3,439	\$3,439
Screening Plants	2	\$293	\$586
Original Calibration	1	\$544	\$544

SUB TOTAL FOR SET UP COSTS

\$4,569

TOTAL MOBILIZATION & SET UP COSTS

\$11,695

2) CLEARING & GRUBBING

DESCRIPTION	QUANTITY	UNIT	RATE	COST
Clear and grub rock source area	10.0	hr	\$155	\$1,550
Slash and Stumps (1 exc.)				
Pile & Burn Slash and Stumps(1 exc)	10.0	hr	\$155	\$1,550

TOTAL CLEARING & GRUBBING COSTS

\$3,100

3) EXCAVATION

MATERIAL DESCRIPTION	QUANTITY	UNIT	RATE	COST

TOTAL EXCAVATION COSTS

4) DEVELOP ROCK

ROCK SUMMARY			METHOD	%	QUANTITY	RATE	COST
Type	Cu. yd. Vol.	Weight	Ripping	100%	17,800	\$2.60	\$46,280
crushed	17,048	96%	Drill & shoot			\$2.70	
pit run	521	3%	Oversize red	10%	1,757	\$5.80	\$10,190
rip rap	231	1%	Other				
Total	17,800						
reject	511	2.9%					

TOTAL ROCK DEVELOPMENT COSTS \$56,470

5) CALIBRATION & TESTING

DESCRIPTION	NO.	\$/TEST	COST
Calibrate	2	\$507.00	\$1,014
Calibrate			
Test	10	\$57.30	\$573
Test			

TOTAL CALIBRATION & TESTING COSTS \$1,587

6) FEEDING & LOADING

DESCRIPTION	CU. YD. QUANTITY	COST CU. YD.	TOTAL COST
Dig & Feed Rock	17,559	\$0.84	\$14,719

TOTAL FEEDING & LOADING COSTS \$14,719

7) ROCK CRUSHING

ROCK SIZE	ROCK TYPE	CU. YD. QUANTITY	CRUSHER TYPE	HOURLY PRODUCTION	RATE CU. YD.	TOTAL COST
3/4"-0"	crushed	1,714	3 stage w/s	110	\$3.54	\$6,061
1-1/2"-0"	crushed	5,921	3 stage w/s	120	\$3.24	\$19,194
4"-0"	crushed	9,413	2 stage w/s	140	\$2.48	\$23,331

TOTAL ROCK CRUSHING COSTS \$48,586

8) STOCKPILING

STOCKPILE SITE PREPARATION

Equipment	Hours	Rate	Total
Dozer	1	\$113.00	\$113.00
Compactor		\$72.00	
Grader		\$90.00	
Excavator		\$138.00	

Rock for Floor (CY)	\$/CY Haul	Total

\$113.00

SUB TOTAL

\$113

HAUL & STOCKPILE

STOCKPILE LOCATION

	SIZE	# of TRUCKS	CU. YDS.	RATE	COST
1. Swede Road	1 1/2"-0"	5	1,392	\$4.19	\$5,838
2. Swede Road	4"-0"	5	1,160	\$4.19	\$5,838
3.					
4.					
5.					
6.					

SUB TOTAL

\$11,676

TOTAL STOCKPILING COSTS

\$11,789

9) MISCELLANEOUS COSTS

DESCRIPTION	COST
Load, Haul, and Spread the reject material at the waste area.	\$1,933
\$3.78 /CY 511 CY	
Final Quarry Dev., Access Road Const., Waterbarring, Drainage, Block Quarry Access	\$1,240

TOTAL MISCELLANEOUS COSTS

\$3,173

10) GRAND TOTAL:

\$151,119

\$/Cubic Yard

\$8.86

Footnotes:

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Gilmore Ridge
Date: May 1, 2013
By: Ed Holloran

MBF: 5,319
\$/MBF: \$3.92

Type	Equipment/Rationale	Move-in Rate	Times	Hours	Rate	Cost	
Interim Operations Entries - 2	Grader 14G	\$778	1	20	\$100	\$2,778	
	Dump Truck 12CY	\$163	1	8	\$79	\$795	
	FE Loader C966	\$778	1	8	\$83	\$1,442	
Final Road Maintenance	Grader 14G	\$778	1	40	\$100	\$4,778	
	Dump Truck 12CY	\$163	2	10	\$79	\$1,116	
	FE Loader C966	\$778	1	10	\$83	\$1,608	
	Vibratory Roller	\$778	1	40	\$108	\$5,098	
	Water Truck 2,500 gallon	\$190	1	20	\$89	\$1,970	
	Backhoe-small	\$321	1	8	\$77	\$937	
	Labor			8	\$40	\$320	
Total							\$20,842

Interim Operations Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Grader	3.1	6.2	2.0	20

Final Road Maintenance

Production Rates	Miles/day	Distance (miles)	Days	Hours
Process - Grader	1.5	6.2	4.1	41
Vibratory Roller	1.5	6.2	4.1	41

Process and Compact: Ebsen Road (2.0 mi.); Sarajarvie Ridge Road (1.0 mi.); Gilmore Ridge Road (0.5 mi.) to
Spurs within sale areas: Area 1 (0.9 miles); Gilmore Ridge Road + new spurs (0.7miles); and
the 3A to 3B (1.1 miles)
6.2

CRUSHED ROCK COST

SALE NAME: Gilmore Ridge
 PROJECT: Project No. 1 and 2
 QUARRY: Swede Road Quarry

MATERIAL: Crushed

DATE: 04/29/2013
 BY: C.Bangs/ E. Holloran

		Cubic Yards							
Segment	Stations	Base	Running	Turnout	Turnaround	Junction	cw + fw	Misc	Total
1A to 1B	7.00	441		33	22				496
2A to 2B	8.00	504		33		33			570
2C to 2D	0.90	57							57
3A to 3B	58.95	3,714	1,332	297	99	33	115		5,590
3C	0.50	33							33
I1 to I2	104.50	261	2,613	264		66		121	3,325
I2 to I3	27.50	165	523	55		11		44	798
I3 to I4	52.50	775	745	99				110	1,729
I5 to I6	26.00	1,120	228	33					1,381
I7 to I8	12.50	519							519
Grand Total	298.35	7,589	5,441	814	121	143	115	275	14,498

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES								Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH		
1A to 1B	7.00	496		2	1	1.00	0.50	0.90	0.18	5.58	
2A to 2B	8.00	570		2	1	2.40	1.40	1.10	0.19	8.09	
2C to 2D	0.90	57		2	1	2.40	1.40	1.20	0.16	8.16	
3A to 3B	58.95	5,590		2	1	2.40	1.40	1.30	0.11	8.21	
3C	0.50	33		2	1	2.40	1.40	1.40	0.09	8.29	
I1 to I2	104.50	3,325		2	1	1.00	0.50	0.97	0.09	5.56	
I2 to I3	27.50	798		2	1	2.20	0.56	0.97	0.09	6.82	
I3 to I4	52.50	1,729		2	1	2.40	0.90	1.19	0.09	7.58	
I5 to I6	26.00	1,381		2	1	1.00	0.50	1.24	0.16	5.90	
I7 to I8	12.50	519		2	1	1.00	0.50	1.34	0.18	6.02	
TOTAL	298.35	14,498								AVERAGE HAUL 7.06	
	STA./NO.	CY. YD.									
CUBIC YARD WEIGHTED HAUL				2.00	1.00	1.84	0.94	1.17	0.11		
Average Round Trip Distance (miles)										14.11	

ROCK HAUL:

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

Ave haul: \$6.87 /cy
 Load: \$0.48 /cy
 Spread: \$0.84 /cy

Truck type: D12 No. trucks: 10
 Delay min.: 6 Efficiency: 85%

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

Production: cy/day = 920

CRUSHED ROCK HAUL COSTS 14,498 cy @ \$8.19 /cy

PIT RUN ROCK COST

SALE NAME: Gilmore Ridge
 PROJECT: Project No. 1 and 2
 QUARRY: Swede Road Quarry

MATERIAL: 6"-0" Pit Run

DATE: 04/29/2013
 BY: C.Bangs/E. Holloran

Segment	Stations	Cubic Yards						Misc	Total
		Base	Landing	Turnout	Turnaround	Junction			
1A to 1B			80						80
2A to 2B			80						80
2C to 2D			80						80
3A to 3B			160						160
I1 to I2	104.50							11	11
I5 to I6	26.00		30						30
I7 to I8	12.50		80						80
Grand Total	143.00		510					11	521

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30.0 MPH	25.0 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
1A to 1B		80		2.0	1.0	1.00	0.50	0.90	0.25	5.65
2A to 2B		80		2.0	1.0	2.40	1.40	1.20	0.18	8.18
2C to 2D		80		2.0	1.0	2.40	1.40	1.20	0.17	8.17
3A to 3B		160		2.0	1.0	2.40	1.70	1.70	0.17	8.97
I1 to I2	104.50	11		2.0	1.0	1.00	0.50	0.97	0.09	5.56
I5 to I6	26.00	30		2.0	1.0	1.00	0.50	1.24	0.16	5.90
I7 to I8	12.50	80		2.0	1.0	1.00	0.50	1.34	0.18	6.02
TOTAL	143.00	521								
STA./NO.		CU. YD.								
CUBIC YARD WEIGHTED HAUL				2.0	1.0	1.86	1.14	1.33	0.18	AVERAGE HAUL 7.51
Average Round Trip Distance (miles)										15.03

ROCK HAUL:

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

Ave haul: \$7.56 /cy
 Load: \$1.08 /cy
 Spread: \$1.92 /cy
 Develop: /cy

Truck type: D12 No. trucks: 5
 Delay min.: 6 Efficiency: 85%

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

Production: cy/day = 418

PIT RUN ROCK HAUL COSTS

521 cy @ **\$10.56 /cy**

*Development included in crushing costs.

RIP RAP ROCK COST

SALE NAME: Gilmore Ridge
 PROJECT: Project No. 1 and 2
 QUARRY: Swede Road Quarry

MATERIAL: Rip Rap

DATE: 04/27/2013
 BY: C.Bangs/ E. Holloran

		Cubic Yards								Misc	Total
Segment	Stations	Dissapator	Armor								
3A to 3B	58.95	11								11	
I1 to I2	104.50								110	110	
I2 to I3	27.50								66	66	
I3 to I4	52.50								33	33	
I5 to I6	26.00								11	11	
I7 to I8	12.50										
Grand Total	281.95	11							220	231	

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES								Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH		
3A to 3B	58.95	11		2	1	2.40	1.40	0.70	0.20	7.70	
I1 to I2	104.50	110		2	1	1.00	0.50	0.97	0.09	5.56	
I2 to I3	27.50	66		2	1	2.20	0.56	0.97	0.09	6.82	
I3 to I4	52.50	33		2	1	2.40	0.90	1.19	0.09	7.58	
I5 to I6	26.00	11		2	1	1.00	0.50	1.24	0.16	5.90	
I7 to I8	12.50										
TOTAL 281.95		231									
STA./NO.		CU. YD.									
CUBIC YARD WEIGHTED HAUL				2.00	1.00	1.61	0.62	1.00	0.10	AVERAGE HAUL 6.33	

Average Round Trip Distance (miles) 12.65

ROCK HAUL:

Truck type: D12 No. trucks: 4
 Delay min.: 6 Efficiency: 85%

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

Ave haul: \$6.05 /cy
 Load: \$1.38 /cy
 Develop: * /cy

Production: cy/day = 417

RIP RAP ROCK HAUL COSTS

231 cy @ **\$7.43 /cy**

*Development included in crushing costs.

PIT RUN ROCK COST

SALE NAME: Gilmore Ridge
 PROJECT: Project No. 1 and 2
 QUARRY: Tidewater Loop Stockpile

MATERIAL: 1 1/2"-0"

DATE: 04/19/13
 BY: C.Bangs

Segment	Stations	Cubic Yards							Total
		Base	Landing	Turnout	Turnaround	Junction	Waste	Misc	
I1 to I2	104.50							222	222
I2 to I3	27.50							110	110
I3 to I4	52.50							231	231
I5 to I6	26.00							33	33
I7 to I8	12.50							66	66
Grand Total	223.00							662	662

Road Segment	Stations	Cubic Yards	ONE WAY HAUL IN MILES							Total Haul
			50 MPH	30 MPH	25 MPH	20 MPH	15 MPH	10 MPH	5 MPH	
I1 to I2	104.50	222			1	1.40	1.00	0.41	0.04	3.85
I2 to I3	27.50	110			1	1.00	0.60	0.50	0.02	3.12
I3 to I4	52.50	231			1	1.50	0.80	0.56	0.02	3.88
I5 to I6	26.00	33			1	1.40	1.00	0.58	0.04	4.02
I7 to I8	12.50	66			1	1.40	1.00	0.66	0.05	4.11
TOTAL	223.00	662								
STA./NO.		CY. YD.								
CUBIC YARD WEIGHTED HAUL					1.00	1.37	0.86	0.51	0.03	AVERAGE HAUL 3.77
Average Round Trip Distance (miles)										7.55

ROCK HAUL:

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

Truck type: D12 No. trucks: 4
 Delay min.: 6 Efficiency: 85%

Ave haul: \$ 4.12 /cy
 Load: \$1.41 /cy
 Compaction /cy

Production: cy/day = 614

ROCK HAUL COSTS

662 cy @ **\$5.53 /cy**

GILMORE RIDGE

Gate Cost Appraisal

Hinge Gate w/Pin	\$3,800	x 2	=	<u>TOTAL</u> \$7,600
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Install gate & Blocking Post

Post	\$150	x 2	=	\$ 300
Labor	8 hrs. @	\$40	=	\$ 120
Material	Cement @ 3.50/bag	=		\$ 70

Delivery of gates		=		\$ 165
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TOTAL COST				\$8,255
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Gilmore Ridge Timber Sale
Vacating Costs (Segment V1 to V2)

Work Description	Station	C.Y.s	C330	D24 trk	D10/12 trk	D-8	Labor	Straw	Seed-lbs
Walk to far end			0.50						
Begin vacating / block road	0+00								
Waterbar construction	1+60		0.25						
Waterbar construction	4+40		0.25						
Waterbar construction	6+25		0.25						
Open old fill for drainage	7+00		0.50						
Open old fill for drainage	10+10		1.00						
Open old fill for drainage	11+55		0.50						
Begin fill / culvert removal	15+40								
End fill / culvert removal	17+10	500	3.50				2	15	40.00
Culvert removal	16+75		0.25						
Begin Side Cast Pull back	17+10								
End Side Cast Pull back	18+80	300	2.00				1.75	5	10.00
Waterbar construction	21+00		0.25						
Waterbar construction	22+45		0.25						
Block old road, end vacate	23+20		0.25						
Haul off old culverts			0.25		4				
Total Quantity (Hours)			10	0	4	0	3.75	20	50
Total Cubic yards		800							
Rates			\$155.00	\$127.00	\$79.00	\$158.00	\$40.00	\$10.73	\$1.60
Total Dollars			\$1,550	\$0	\$316	\$0	\$150	\$215	\$80

Total Segment Cost

\$2,311

Projects Road Maintenance Cost Summary

Sale: Gilmore Ridge
Date: 29-Apr-13
By: Cullen Bangs

Type	Equipment/Rationale		Hours	Rate	Cost
Final Haul Road Maintenance Haul Route	Grader 14G		16	\$100	\$1,600
	Dump Truck 12CY		6	\$79	\$474
	FE Loader C966		3	\$83	\$249
	Vibratory Roller		12	\$77	\$924
	Water Truck 2,500 gallon		8	\$89	\$712
Total					\$3,959

Production Rates			
Grader	Miles/day	Distance(miles)	Days
	1.5	2.0	1.3
Vibratory Roller	Miles/day	Distance(miles)	Days
	1.5	2.0	1.3

Swede Road and spot grading of Tidewater Loop Road. All other roads are being improved.

**GILMORE RIDGE
FY 2013
TIMBER CRUISE REPORT**

1. **Sale Area Location:** Areas 1, 2, 3, and 4 are located in portions of Sections 26, 27, 33, 34, and 35 T6N, R7W, W.M., Clatsop County, Oregon.
2. **Fund Distribution:** Fund: BOF 100% CSL 0%
Tax Code: 8-01 100%
3. **Sale Acreage by Area:**

Area	Harvest Type	Gross Acres	Stream Buffer Acres	New R/W Acres	Existing R/W Acres	Net Acreage
1	MC	56	5	1	2	48
2	MC	103	4	1	2	96
3	MC	69	5	3	0	61
4	RW	8				8
TOTALS		236	14	5	4	213

4. **Cruisers and Cruise Dates:** Area 1 was cruised by Nick Haile, Kevin Berry with Will Lawrence, David Rygell with Jon Long, and Ed Holloran. Area 2 was cruised by Bryce Rodgers, David Rygell, Will Lawrence, and Ed Holloran. Area 3 was cruised by Jon Long, Bryce Rodgers and Ed Holloran. The cruise was performed in late March, and early April, 2013.
5. **Cruise Method and Computation:** Areas 1, 2, and 3 are modified clearcut units and were variable plot cruised. In Area 1 a 54.4 BAF was used for hardwoods and for conifers. These plots were located on a 4 chain by 4 chain grid, with a count/cruise plot ratio of 1 count to 1 grade. A total of 33 plots were sampled, with 18 measured and grade plots and 15 count plots. In Areas 2 and 3 a 33.6 BAF was used for hardwoods and for conifers. These plots were located on a 8 chain by 4 chain grid, with a count/cruise plot ratio of 1 count to 1 grade. A total of 49 plots were sampled, with 28 measured and grade plots and 21 count plots. Cedar was a reserved species in Areas 1, 2, and 3.

Area 4 R/W, was calculated applying road R/W acreage using cruise per acre volumes from Areas 2, and 3 cruise plots and expanding them as clearcuts for the R/W. There are approximately 8 acres of R/W.

Cruisers used Corvallis Micro Technology (CMT) data collectors, and were downloaded to the Atterbury Super A.C.E. program at the Astoria District for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Astoria District office.

<u>AREAS</u>	<u>PROJECT</u>	<u>TRACT</u>	<u>CRUISE TYPE</u>
1	GILRIDGE	A1	0001, TAKE
2, & 3	GILRIDGE	A23	0001, TAKE
4 R/W	GILRIDGE	A23	R/W

6. **Timber Description:** Areas 1, 2, and 3 are modified clearcut units.

Area 1 is approximately 73 to 80 years old that consists of mixed conifer maple, and alder. The average Douglas-fir tree size to be harvested is approximately 20 inches DBH, with an average height of 90 feet to a merchantable top (6 inch d.i.b./40% fp.). The average hemlock tree size is approximately 19 inches DBH and 52 feet to a merchantable top (6 inch d.i.b./40%fp). The average alder tree size is approximately 15 inches DBH and 49 feet to a merchantable top (6 inch d.i.b.). The average volume per acre to be harvested (net) is approximately 28 MBF.

Areas 2 and 3 are approximately 60 to 65 year-old timber, consisting of a alder dominant stand, with some Douglas-fir, western hemlock, maple, and cedar. The average Douglas-fir tree size to be harvested is approximately 28 inches DBH, with an average height of 95 feet to a merchantable top (6 inch

d.i.b./40% fp.). The average hemlock tree size is approximately 18 inches DBH and 44 feet to a merchantable top (6 inch d.i.b./40%fp). The average alder tree size is approximately 16 inches DBH and 61 feet to a merchantable top (6 inch d.i.b.). The average volume per acre to be harvested (net) is approximately 25 MBF.

Area 4 R/W – The R/W is the same type timber as Areas 2, and 3. The volume to remove from Area 4 R/W is approximately 24 MBF per acre.

7. Statistical Analysis: (See also “Statistics Reports,” attached.)

Area	Target CV	Target SE%	Actual CV	Actual SE%
1	55	11	62.8	10.9
2 & 3	55	9	46.9	6.7

The statistics are for all areas and Take and Leave trees combined based on Net BF/Acre.

8. Take Volumes by Species and Log Grades for All Sale Areas by MBF: (See “Species, Sort Grade-Board Feet Volumes (Project)”, “Statistics (Project)”, and the “Stand Table Summary” attached). Volumes do not include “in-growth.” The majority of defect and breakage was taken out during the cruise.

Species	DBH	Net Vol.	2 Saw	3Saw	4 Saw	Camp Run	% D & B	% Sale
Douglas-fir	25"	444	397	39	8		5	8
Western Hemlock	18"	1,060	726	261	73		8	20
Sitka Spruce	14"	24	3	12	9		6	1
Maple	17"	106				106	8	2

Species	DBH	Net Vol.	12"+	10"-11"	8"-9"	6"-7"	% D & B	% Sale
Red Alder	16"	3,684	1,556	939	393	796	4	69

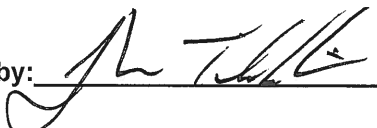
TOTAL NET VOLUME	5,318
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Alder grades based on small end diameter. Diameter break downs used were: 12"+ = 1 Saw; 10" – 11" = 2 Saw; 8" – 19" = 3 Saw; 6" – 7" = 4 Saw. These volumes were converted and reported as shown above and in the contract.

9. Quarry Timber Volume: There will be some miscellaneous volume generated during Project No. 3: Swede Road Quarry Development. This volume is to be removed as designated timber.

10. Prepared by: Edward M. Holloran

Date: May 8, 2013

10. Approved by: 

Date: 5/21/13

11. Attachments: Cruise Plans & Maps (5 pages)
Species, Sort, Grade Reports (4 pages)
Statistics Reports (6 pages)
Log Stock Table Report (4 page)

X:\Sunset Unit\2013 FY Sales\Gilmore Ridge\Sale Prep\Cruise\Cruise Report Gilmore Ridge.docx

**CRUISE DESIGN
ASTORIA DISTRICT**

Sale Name: Gilmore Ridge **Area(s)** 2 & 3

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

Approx. Cruise Acres: 164 **Estimated CV%** 55 Net BF or BAF/Acre **SE% Objective** 9 Net BF or BAF/Acre

Planned (Unit) Sale Volume: 2,265 MMBF **Estimated Sale Area Value/Acre:** \$4,489

- A. Cruise Goals:** (a) Grade minimum 20 conifer and 100 hardwood trees:
(b) Sample 46 (24 grade) 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; **X Determine Approximate Total Number of Conifers.**)

B. Cruise Design:

- 1. Plot Cruises:** BAF 33.6 (Full point; Half point) (circle one)
Fixed Plot Size ____ Plot Radius ____ feet
Cruise Line Direction(s) 90° / 270°
Cruise Line Spacing 8 (chains) (feet)
Cruise Plot Spacing 4 (chains) (feet)
Grade/Count Ratio 1 grade to 1 count
- 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
- D. Alder Grades: 12" + = 1 Sawmill; 10"-12" = 2 Sawmill; 10"-8" = 3 Sawmill; and 8"-6" 4 Sawmill.
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: Ed Holloran

Approved by: [Signature]

Date: 3/11/13

CRUISE DESIGN ASTORIA DISTRICT

Sale Name: Gilmore Ridge Area(s) 1

Harvest Type: CC PC CT "Automark Thinning" (circle one)
 Net BF or Net BF or
 Approx. Cruise Acres: 52 Estimated CV% 55 BA/Acre SE% Objective 11 BA/Acre

Planned (Unit) Sale Volume: 1,664 MMBF Estimated Sale Area Value/Acre: \$4,150
 (5 MMBF for sale)

- A. **Cruise Goals:** (a) Grade minimum 60 conifer and 20 hardwood trees:
 (b) Sample 32 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;

B. **Cruise Design:**

1. **Plot Cruises:** BAF 54.44 for both (Full point: Half point) (circle one)
 Fixed Plot Size ____ Plot Radius ____ feet
 Cruise Line Direction(s) 90° / 270° or 0° / 180°
 Cruise Line Spacing 4 (chains) (feet)
 Cruise Plot Spacing 4 (chains) (feet)
 Grade/Count Ratio 1 grade to 1 count
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
- D. Alder Grades: 12" + = 1 Sawmill; 10"-12" = 2 Sawmill; 10"-8" = 3 Sawmill; and 8"-6" 4 Sawmill.
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: Ed Holloran

Approved by: [Signature]

Date: 3/11/13

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GILMORE RIDGE

PORTIONS OF SECTIONS 26, 27, 33, 34, AND 35,
T6N, R7W, W.M., CLATSOP COUNTY, OREGON

Total Sale Acreage = 213



 Timber Sale Boundary
 Ownership Boundary
 Right of Way Boundary
 Wildlife Refuge Boundary
 Paved Road
 Surfaced Road
 New Road Construction
 Logger's Choice Spur
 Road Vacating
 Landing to Construct
 Existing Landing
 Waste Area
 Known Survey Corner
 Fish Stream
 Nonfish Stream
 Posted Stream Buffer
 Nonposted Stream Buffer
 Pt. "A" Point for Project Work

Approximate Scale 1" = 1,000'

TC		PSPCSTGR		Species, Sort Grade - Board Foot Volumes (Project)																
T06N R07W S33 TyTAKE 48.00 T06N R07W S34 TyRW 8.00 T06N R07W S34 TyTAKE 157.00				Project: GILRIDGE Acres 213.00												Page 1 Date 5/8/2013 Time 9:10:28AM				
Spp	S T	So Gr rt 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	828											8		0.00	3.5	
H		DO2S	68	.7	3,432	3,408	726			21	79			12	88	38	584	3.11	5.8	
H		DO3S	25	.3	1,231	1,227	261		64	26	10	4	5	25	66	36	117	1.05	10.5	
H		DO4S	7	2.1	348	341	73		100			50	10	40		22	29	0.47	11.8	
H Totals			20	14.8	5,839	4,976	1,060		23	21	57	4	2	18	76	28	157	1.36	31.6	
A		DOCU		100.0	706											7		0.00	24.8	
A		DO1S	42	1.6	7,422	7,303	1,556		3	84	13	7	30	26	37	32	196	1.58	37.3	
A		DO2S	25	1.1	4,458	4,408	939		96	4		2	29	31	38	33	134	1.07	33.0	
A		DO3S	11	1.1	1,862	1,843	393		100			7	35	35	23	30	72	0.74	25.4	
A		DO4S	22	1.4	3,797	3,744	797		100			14	34	24	29	29	42	0.51	88.7	
A Totals			69	5.2	18,245	17,298	3,684		58	37	6	7	31	28	34	28	83	0.85	209.3	
M		DOCU		100.0	294											16		0.00	4.0	
M		DO4S	7		37	37	8		100			100				16	30	0.62	1.2	
M		DOCR	93	2.0	469	459	98		20	19	60	58		42		21	132	1.64	3.5	
M Totals			2	37.9	799	496	106		26	18	56	61		39		18	57	0.84	8.7	
D		DOCU		100.0	77											3		0.00	2.1	
D		DO2S	89	3.2	1,925	1,863	397		2	39	59			14	86	38	368	2.27	5.1	
D		DO3S	9	17.9	221	181	39		100			10	18	40	33	33	71	0.86	2.5	
D		DO4S	2		42	42	8		100			100				15	24	0.53	1.7	
D Totals			8	7.9	2,264	2,085	444		12	35	53	3	2	16	80	27	182	1.69	11.5	
S		DOCU		100.0	17											7		0.00	.2	
S		DO2S	13	70.8	53	15	3		100					100		40	70	1.78	.2	
S		DO3S	49	1.7	57	56	12		96		4		16	33	51	33	62	0.91	.9	
S		DO4S	38		42	42	9		100			74	26			18	23	0.59	1.8	
S Totals			0	32.7	169	114	24		84	14	2	27	17	16	39	23	36	0.85	3.2	
Totals				8.6	27,316	24,969	5,318		47	33	21	8	22	25	45	27	94	0.95	264.3	

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)												Page 1							
		Project: GILRIDGE												Date 5/8/2013							
														Time 9:05:18AM							
T06N R07W S33 TTAKE										T06N R07W S33 TTAKE											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
06N	07W	33	A1	TAKE	48.00	31	55	1	W												
S So Gr Spp T rt ad			% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre		
								Log Scale Dia.				Log Length				Ln	Bd	CF/ Lf			
										4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	Ft		
H	DO	CU		00.0	1,736													7		0.00	9.2
H	DO	2S	71	.6	11,107	11,041	530					21	79			17	83	38	580	3.10	19.0
H	DO	3S	22	.4	3,352	3,337	160				69	15	17	7	5	19	69	35	132	1.14	25.2
H	DO	4S	7		1,029	1,029	49				100			48	6	46		22	30	0.43	33.8
H	Totals		55	10.5	17,225	15,408	740				22	19	60	5	1	19	75	27	177	1.48	87.3
A	DO	CU		00.0	295													8		0.00	21.7
A	DO	1S	44	4.0	4,002	3,842	184					100			53		47	34	177	1.44	21.7
A	DO	2S	24	2.2	2,187	2,138	103				82	18			18	21	61	35	145	1.15	14.8
A	DO	3S	7		563	563	27				100				57		43	33	70	0.80	8.0
A	DO	4S	25	4.0	2,217	2,129	102				100			26	12	12	49	28	40	0.53	52.9
A	Totals		31	6.4	9,263	8,671	416				51	49		6	34	8	51	26	73	0.84	119.1
D	DO	CU		00.0	341													3		0.00	9.4
D	DO	2S	72	17.2	1,525	1,262	61					100				54	46	36	195	1.54	6.5
D	DO	3S	23	30.0	584	409	20				100					79	21	36	63	0.78	6.5
D	DO	4S	5		71	71	3				100			100				16	20	0.38	3.6
D	Totals		6	30.9	2,521	1,742	84				28	72		4		57	39	21	67	1.02	26.0
M	DO	CU		00.0	212													8		0.00	4.2
M	DO	CR	100	2.5	1,665	1,624	78					24	76	47		53		24	260	2.55	6.3
M	Totals		6	13.5	1,877	1,624	78					24	76	47		53		18	155	2.09	10.4
S	DO	2S	20	70.8	234	68	3					100					100	40	70	1.78	1.0
S	DO	3S	47		156	156	8				100				25		75	34	59	0.82	2.7
S	DO	4S	33		106	106	5				100			100				16	20	0.38	5.3
S	Totals		1	33.4	496	330	16				79	21		32	12		56	24	37	0.82	8.9
Type Totals				11.5	31,382	27,776	1,333				31	32	38	8	12	20	60	26	110	1.13	251.7

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)												Page 1						
Project: GILRIDGE														Date 5/8/2013	Time 9:09:02AM					
T06N R07W S34 TTAKE										T06N R07W S34 TTAKE										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt											
06N	07W	34	A23	TAKE	157.00	49	160	1	W											
S So Gr T rt ad Spp			% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
								Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf		
A	DO	CU		100.0	825										7		0.00	25.8		
A	DO	1S	41	1.3	8,417	8,310	1,305		3	82	15		8	27	30	35	31	199	1.60	41.8
A	DO	2S	26	1.0	5,119	5,069	796		97	3			3	30	32	35	33	132	1.06	38.3
A	DO	3S	11	1.1	2,241	2,215	348		100				7	33	38	22	30	73	0.73	30.5
A	DO	4S	22	1.0	4,257	4,214	662		100				12	37	25	25	29	42	0.51	99.2
A Totals			82	5.0	20,858	19,807	3,110		59	35	6		8	30	30	32	28	84	0.85	235.5
H	DO	CU		100.0	560												10		0.00	1.8
H	DO	2S	61	1.0	1,193	1,182	186			20	80					100	40	593	3.12	2.0
H	DO	3S	31		610	610	96		56	44				5	36	60	38	99	0.95	6.2
H	DO	4S	8	6.3	149	139	22		100				54	19	27		23	26	0.53	5.4
H Totals			8	23.1	2,513	1,931	303		25	26	49		4	3	13	80	29	126	1.18	15.4
D	DO	2S	93	.2	2,029	2,025	318		2	28	69				7	93	38	438	2.54	4.6
D	DO	3S	5		114	114	18		100				20	36		44	30	83	1.00	1.4
D	DO	4S	2		33	33	5		100				100				15	28	0.67	1.2
D Totals			9	.2	2,176	2,172	341		9	27	65		3	2	6	89	33	302	2.13	7.2
M	DO	CU		100.0	317												18		0.00	4.0
M	DO	4S	28		47	47	7		100				100				16	30	0.62	1.6
M	DO	CR	72		121	121	19		100				100				18	45	0.81	2.7
M Totals			1	65.4	485	168	26		100				100				18	20	0.37	8.2
S	DO	CU		100.0	22												7		0.00	.3
S	DO	3S	50		23	23	4		100						100		32	60	1.03	.4
S	DO	4S	50		22	22	4		100				42	58			22	30	0.91	.7
S Totals			0	32.5	68	46	7		100				21	29	51		22	32	0.89	1.5
Type Totals				7.6	26,100	24,124	3,787		52	33	15		8	25	27	40	28	90	0.90	267.7

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page		1					
				Project: GILRIDGE										Date		5/8/2013					
														Time		1:33:36PM					
T06N R07W S34 TRW										T06N R07W S34 TRW											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
06N	07W	34	A23	RW	8.00	49	162	1	W												
S So Gr T rt ad			% Net BdFt	Bd. Ft. per Acre Def% Gross Net			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre		
								Log Scale Dia.				Log Length				Ln	Bd	CF/ Lf			
										4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	Ft		
A	DO	CU		100.0	825													7		0.00	25.8
A	DO	1S	41	1.3	8,417	8,310	66			3	82	15		8	27	30	35	31	199	1.60	41.8
A	DO	2S	26	1.0	5,119	5,069	41			97	3			3	30	32	35	33	132	1.06	38.3
A	DO	3S	11	1.1	2,241	2,215	18			100				7	33	38	22	30	73	0.73	30.5
A	DO	4S	22	1.0	4,257	4,214	34			100				12	37	25	25	29	42	0.51	99.2
A	Totals		80	5.0	20,858	19,807	158			59	35	6		8	30	30	32	28	84	0.85	235.5
H	DO	CU		100.0	622													10		0.00	2.0
H	DO	2S	61	1.0	1,326	1,313	11				20	80					100	40	593	3.12	2.2
H	DO	3S	31		678	678	5			56	44				5	36	60	38	99	0.95	6.9
H	DO	4S	8	6.3	165	155	1			100				54	19	27		23	26	0.53	6.0
H	Totals		9	23.1	2,792	2,146	17			25	26	49		4	3	13	80	29	126	1.18	17.1
D	DO	2S	93	.2	2,282	2,278	18			2	28	69				7	93	38	438	2.54	5.2
D	DO	3S	5		128	128	1			100				20	36		44	30	83	1.00	1.6
D	DO	4S	2		37	37	0			100				100				15	28	0.67	1.3
D	Totals		10	.2	2,448	2,444	20			9	27	65		3	2	6	89	33	302	2.13	8.1
M	DO	CU		100.0	317													18		0.00	4.0
M	DO	4S	28		47	47	0			100				100				16	30	0.62	1.6
M	DO	CR	72		121	121	1			100				100				18	45	0.81	2.7
M	Totals		1	65.4	485	168	1			100				100				18	20	0.37	8.2
S	DO	CU		100.0	22													7		0.00	.3
S	DO	3S	67	20.3	124	99	1			36		64				36	64	34	148	1.81	.7
S	DO	4S	33		48	48	0			100				20	80			23	35	0.83	1.4
S	Totals		1	24.3	194	147	1			57		43		6	26	24	43	24	62	1.19	2.4
Type Totals				7.7	26,777	24,711	198			51	33	16		7	25	26	41	28	91	0.91	271.3

TC PSTATS					PROJECT STATISTICS				PAGE 1		
					PROJECT GILRIDGE				DATE 5/8/2013		
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt		
06N	07	33	A1	0001	213.00	131	733	1	W		
06N	07W	34	A23	0002							
06N	07W	34	A23	RW							
					TREES	ESTIMATED	PERCENT				
					PER PLOT	TOTAL	SAMPLE				
					TREES	TREES	TREES				
TOTAL			131	733	5.6						
CRUISE			73	398	5.5	28,958	1.4				
DBH COUNT											
REFOREST											
COUNT			58	309	5.3						
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
R ALDER			288	103.5	15.8	59	140.5	18,322	17,309	5,083	4,903
WHEMLOCK			45	18.4	18.5	49	34.5	5,672	4,827	1,316	1,176
DOUG FIR			22	3.4	25.0	93	11.5	2,229	2,062	523	511
BL MAPLE			13	4.8	16.7	33	7.4	773	474	192	124
S SPRUCE			11	3.0	14.6	29	3.5	188	127	73	70
SNAG			8	1.5	24.4	50	4.8	228		78	
HEMLEAV			4	.5	32.8	96	3.0	748	660	148	136
SPRUCELV			5	.7	27.8	44	2.9	586	456	122	109
DOUGLEAV			2	.1	33.0	101	.7	176	145	36	35
TOTAL			398	136.0	16.8	57	208.8	28,923	26,059	7,572	7,064
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
R ALDER			122.9	10.7	92	104	115				
WHEMLOCK			255.7	22.3	14	18	23				
DOUG FIR			296.9	25.9	3	3	4				
BL MAPLE			361.6	31.6	3	5	6				
S SPRUCE			507.8	44.4	2	3	4				
SNAG			459.1	40.1	1	1	2				
HEMLEAV			518.7	45.3	0	1	1				
SPRUCELV			816.6	71.3	0	1	1				
DOUGLEAV			807.7	70.6	0	0	0				
TOTAL			103.0	9.0	124	136	148	424	106	47	
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
R ALDER			120.6	10.5	126	141	155				
WHEMLOCK			221.0	19.3	28	34	41				
DOUG FIR			304.9	26.6	8	12	15				
BL MAPLE			329.2	28.8	5	7	10				
S SPRUCE			420.4	36.7	2	4	5				
SNAG			398.4	34.8	3	5	6				
HEMLEAV			527.9	46.1	2	3	4				
SPRUCELV			520.8	45.5	2	3	4				
DOUGLEAV			806.2	70.4	0	1	1				
TOTAL			91.9	8.0	192	209	226	338	84	38	
CL	68.1	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
R ALDER			126.6	11.1	15,395	17,309	19,223				
WHEMLOCK			239.3	20.9	3,818	4,827	5,837				
DOUG FIR			319.4	27.9	1,486	2,062	2,637				

TC TSTATS				STATISTICS				PAGE	1
				PROJECT GILRIDGE				DATE	5/8/2013
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
06N	07W	33	A1	0001	48.00	33	150	1	W
				TREES	ESTIMATED	PERCENT			
				PER PLOT	TOTAL	SAMPLE			
					TREES	TREES			
TOTAL		33	150	4.5					
CRUISE		18	70	3.9	7,037		1.0		
DBH COUNT									
REFOREST									
COUNT		15	69	4.6					
BLANKS									
100 %									
STAND SUMMARY									
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC
R ALDER	22	74.7	14.9	49		90.7	9,602	8,721	2,866
WHEMLOCK	27	45.1	19.0	52		89.1	16,487	14,747	3,655
DOUG FIR	2	6.1	19.9	90		13.2	2,368	1,636	578
HEMLEAV	4	2.3	32.8	96		13.2	3,317	2,927	659
BL MAPLE	3	2.9	26.9	63		11.5	1,763	1,525	409
SNAG	4	5.2	18.8	53		9.9	565		178
SPRUCELV	3	.5	56.8	102		8.2	2,190	1,693	413
S SPRUCE	3	9.3	12.7	29		8.2	582	388	206
DOUGLEAV	2	.6	33.0	101		3.3	781	646	161
TOTAL	70	146.6	17.6	52		247.5	37,656	32,283	9,123
CONFIDENCE LIMITS OF THE SAMPLE									
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR									
CL: 68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
R ALDER	107.5	18.7	61	75	89				
WHEMLOCK	155.5	27.1	33	45	57				
DOUG FIR	231.5	40.3	4	6	9				
HEMLEAV	248.3	43.2	1	2	3				
BL MAPLE	306.6	53.4	1	3	5				
SNAG	270.3	47.1	3	5	8				
SPRUCELV	332.5	57.9	0	0	1				
S SPRUCE	336.3	58.5	4	9	15				
DOUGLEAV	400.6	69.7	0	1	1				
TOTAL	59.9	10.4	131	147	162	144	36	16	
CL: 68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
R ALDER	104.6	18.2	74	91	107				
WHEMLOCK	130.4	22.7	69	89	109				
DOUG FIR	231.3	40.3	8	13	19				
HEMLEAV	253.2	44.1	7	13	19				
BL MAPLE	306.4	53.3	5	12	18				
SNAG	255.6	44.5	5	10	14				
SPRUCELV	335.0	58.3	3	8	13				
S SPRUCE	291.5	50.7	4	8	12				
DOUGLEAV	399.8	69.6	1	3	6				
TOTAL	41.6	7.2	230	247	265	69	17	8	
CL: 68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.	
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
R ALDER	110.8	19.3	7,038	8,721	10,403				
WHEMLOCK	139.4	24.3	11,168	14,747	18,326				
DOUG FIR	232.5	40.5	974	1,636	2,299				
HEMLEAV	254.9	44.4	1,628	2,927	4,226				
BL MAPLE	308.0	53.6	708	1,525	2,343				

TC TSTATS				STATISTICS				PAGE	2
				PROJECT GILRIDGE				DATE	5/8/2013
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
06N	07W	33	A1	0001	48.00	33	150	1	W
CL:	68.1 %	COEFF		NET BF/ACRE			# OF PLOTS REQ.		INF. POP.
SD:	1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
SNAG									
SPRUCELV		330.4	57.5	719	1,693	2,667			
S SPRUCE		292.8	51.0	190	388	586			
DOUGLEAV		401.7	69.9	194	646	1,097			
TOTAL		62.8	10.9	28,752	32,283	35,815	158	39	18

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT GILRIDGE				DATE	5/8/2013	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	34	A23	0002	157.00	49	294	1	W	
		PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL		49	294	6.0						
CRUISE		28	166	5.9	20,850	.8				
DBH COUNT										
REFOREST										
COUNT		21	119	5.7						
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	133	111.9	15.9	61		155.0	20,858	19,807	5,729	5,547
WHEMLOCK	9	10.6	17.9	44		18.5	2,513	1,931	631	533
DOUG FIR	10	2.6	28.0	95		11.0	2,176	2,172	504	504
BL MAPLE	5	5.4	14.5	28		6.2	485	168	129	55
SNAG	4	.4	39.1	36		3.4	136		51	
S SPRUCE	3	1.1	18.2	29		2.1	68	46	33	28
SPRUCELV	2	.8	17.9	34		1.4	126	101	39	39
TOTAL	166	132.8	16.5	58		197.5	26,362	24,225	7,117	6,707
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL: 68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
R ALDER	58.7	8.4	102	112	121					
WHEMLOCK	250.4	35.8	7	11	14					
DOUG FIR	241.7	34.5	2	3	3					
BL MAPLE	253.8	36.3	3	5	7					
SNAG	378.6	54.1	0	0	1					
S SPRUCE	399.2	57.0	0	1	2					
SPRUCELV	585.7	83.7	0	1	1					
TOTAL	50.5	7.2	123	133	142	102	25	11		
CL: 68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
R ALDER	53.6	7.7	143	155	167					
WHEMLOCK	213.0	30.4	13	19	24					
DOUG FIR	237.1	33.9	7	11	15					
BL MAPLE	240.3	34.3	4	6	8					
SNAG	360.3	51.5	2	3	5					
S SPRUCE	395.6	56.5	1	2	3					
SPRUCELV	489.8	70.0	0	1	2					
TOTAL	40.0	5.7	186	198	209	64	16	7		
CL: 68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
R ALDER	55.3	7.9	18,244	19,807	21,371					
WHEMLOCK	211.7	30.2	1,347	1,931	2,515					
DOUG FIR	234.5	33.5	1,444	2,172	2,900					
BL MAPLE	281.8	40.3	100	168	235					
SNAG										
S SPRUCE	425.7	60.8	18	46	74					
SPRUCELV	548.2	78.3	22	101	180					
TOTAL	46.9	6.7	22,601	24,225	25,850	88	22	10		

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT GILRIDGE				DATE	5/8/2013	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
06N	07W	34	A23	RW	8.00	49	289	1	W	
				TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
PLOTS		TREES								
TOTAL		49	289	5.9						
CRUISE		27	162	6.0	1,071	15.1				
DBH COUNT										
REFOREST										
COUNT		22	121	5.5						
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
R ALDER		133	111.9	15.9	61	155.0	20,858	19,807	5,729	5,547
WHEMLOCK		9	11.8	17.9	44	20.6	2,792	2,146	702	593
DOUG FIR		10	2.9	28.0	95	12.3	2,448	2,444	567	567
BL MAPLE		5	5.4	14.5	28	6.2	485	168	129	55
S SPRUCE		5	1.9	18.1	31	3.4	194	147	73	68
TOTAL		162	133.9	16.4	58	197.5	26,777	24,711	7,199	6,829
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL:	68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
R ALDER		58.7	8.4	102	112	121				
WHEMLOCK		232.0	33.1	8	12	16				
DOUG FIR		224.1	32.0	2	3	4				
BL MAPLE		253.8	36.3	3	5	7				
S SPRUCE		328.6	46.9	1	2	3				
TOTAL		51.1	7.3	124	134	144	104	26	12	
CL:	68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
R ALDER		53.6	7.7	143	155	167				
WHEMLOCK		199.5	28.5	15	21	26				
DOUG FIR		220.1	31.4	8	12	16				
BL MAPLE		240.3	34.3	4	6	8				
S SPRUCE		299.7	42.8	2	3	5				
TOTAL		41.5	5.9	186	198	209	69	17	8	
CL:	68.1 %	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
R ALDER		55.3	7.9	18,244	19,807	21,371				
WHEMLOCK		198.4	28.3	1,538	2,146	2,754				
DOUG FIR		217.9	31.1	1,683	2,444	3,204				
BL MAPLE		281.8	40.3	100	168	235				
S SPRUCE		394.5	56.4	64	147	230				
TOTAL		46.1	6.6	23,084	24,711	26,339	85	21	9	

[illegible]

Log Stock Table - MBF

T06N R07W S33 TyTAKE	48.00
T06N R07W S34 TyRW	8.00
T06N R07W S34 TyTAKE	157.00

Project: GILRIDGE
Acres 213.00

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Date 5/8/2013
Time 9:10:27AM

[illegible]

Log Stock Table - MBF

T06N R07W S33 TyTAKE	48.00
T06N R07W S34 TyRW	8.00
T06N R07W S34 TyTAKE	157.00

Project: GILRIDGE
Acres 213.00

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S T Spp	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-21	22-29	30-39	40+
M	DO	CU	6	5	100.0														
M	DO	CU	9	2	100.0														
M	DO	CU	16	4	100.0														
M	DO	CU	17	3	100.0														
M	DO	CU	18	4	100.0														
M	DO	CU	19	7	100.0														
M	DO	CU	26	25	100.0														
M	DO	CU	27	12	100.0														
M	DO	4S	16	8		8	7.4		8										
M	DO	CR	16	9		9	8.4		9										
M	DO	CR	20	48	1.0	48	45.3		11		10		9		18				
M	DO	CR	32	43	3.5	41	38.9						41						
M	Totals			170	37.9	106	2.0		8	20	10		50		18				
D	DO	CU	2	5	100.0														
D	DO	CU	6	11	100.0														
D	DO	2S	32	56		56	12.6				7	49							
D	DO	2S	40	354	3.7	341	76.7					9	77	145	52	57			
D	DO	3S	16	4		4	.8				4								
D	DO	3S	28	2		2	.6			2									
D	DO	3S	30	4		4	1.0				4								
D	DO	3S	32	15		15	3.5			15									
D	DO	3S	40	21	40.0	13	2.8		4	4	4								
D	DO	4S	12	1		1	.2			1									
D	DO	4S	16	8		8	1.8		3	4									
D	Totals			482	7.9	444	8.4		7	28	19	58	77	145	52	57			
S	DO	CU	7	4	100.0														
S	DO	2S	40	11	70.8	3	13.5				3								
S	DO	3S	24	2		2	7.7		2										
S	DO	3S	32	4		4	16.3		4		0								
S	DO	3S	40	6	2.7	6	25.3		6				1						
S	DO	4S	16	5		5	21.0		5										
S	DO	4S	20	2		2	6.4		2										
S	DO	4S	24	2		2	9.7		2										

TC PLOGSTVB				Log Stock Table - MBF															
T06N R07W S33 TyTAKE 48.00 T06N R07W S34 TyRW 8.00 T06N R07W S34 TyTAKE 157.00				Project: GILRIDGE Acres 213.00										Page 4 Date 5/8/2013 Time 9:10:27AM					
S Spp	T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-21	22-29	30-39	40+
S		Totals		36	32.7	24	.5			20		0	3		1				
Total		All Species		5,818	8.6	5,318	100.0			945	458	1072	1072	483	665	186	438		

LOGGING PLAN MAP

OF TIMBER SALE CONTRACT NO. 341-14-39

GILMORE RIDGE

PORTIONS OF SECTIONS 26, 27, 33, 34, AND 35,
T6N, R7W, W.M., CLATSOP COUNTY, OREGON

Approximate Net Acreage MC Acres

Area 1 (MC) -	48
Area 2 (MC) -	96
Area 3 (MC) -	61
Area 4 R/W	8

Total Sale Acreage = 213

LOGGING BREAKDOWN		
	Tractor	Cable
Area 1 (MC) -	35%	65%
Area 2 (MC) -	34%	66%
Area 3 (MC) -	34%	66%
Area 3 R/W	100%	0%
Total =	36%	64%



LEGEND

- Timber Sale Boundary
- Ownership Boundary
- Wildlife Refuge Boundary
- Paved Road
- Surfaced Road
- New Road Construction
- Logger's Choice Spur
- Road Vacating
- Landing to Construct
- Existing Landing
- Known Survey Corner
- Fish Stream
- Nonfish Stream
- Posted Stream Buffer
- Nonposted Stream Buffer
- Tractor Logging
- Cable Logging

Approximate Scale 1" = 1,000'



Feet

T6N, R7W 33 34

T5N, R7W 4 3

STATE

PRIVATE

