"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Rippleberry
Sale 341-14-65

District: **Tillamook**   **Date:** **October 23, 2013**

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$935,943.35	$0.00	$935,943.35
		Project Work:	$(352,790.00)
		Advertised Value:	$583,153.35

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District: **Tillamook** **Date:** **October 23, 2013**

timber description

Location: Portions of Sections 5, 6, 7, and 8, T2N, R7W, and Section 32, T3N, R7W, W.M., Tillamook County, Oregon.

Stand Stocking: 40%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	95
Western Hemlock / Fir	12	0	95

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	454	2,439	680	3,573
Western Hemlock / Fir	198	1,590	518	2,306
Total	652	4,029	1,198	5,879

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comments:

Pond Values Used: 3rd Quarter Calendar Year 2013.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
$650/MBF = $1,000/MBF - $350/MBF

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost:
$275/ MBF = $625/MBF - $350/MBF

Pulp (Conifer and Hardwood) Price = $25/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):
Brand and Paint: $2/MBF x 5,879 MBF = $11,758
Tree Topping or Girdling Lift and Tail Trees: $10/tree x 250 trees = $2,500
TOTAL Other Costs (with Profit & Risk to be added) = $14,258

Other Costs (No Profit & Risk added):
Non-project roads:
Road 1 = 550′ x $200/100′ = $1,100
Non-project and un-surfaced road blocking: $50/block x 3 roads = $150
Equipment move-in/move-out = 3 machines x $500/ machine x 2 seasons = $3,000
Equipment Cleaning: 2 machines x $1,000 per machine x 1 season = $2,000
Removal of 5 culverts from un-surfaced roads C to D, E to F and G to H = $3,200
Re-install 4 rubber water diverters on road segment A to B = $1,440
TOTAL Other Costs (No Profit & Risk added) = $10,890

ROAD MAINTENANCE
Road Maintenance: In unit roads and Gilmore Road haul route: 12.2 miles
Interim Grading: $250/mile x 12.2 miles x 4 times / 5,879 MBF = $2.08/MBF
Final Maintenance Grading: $500/mile x 12.2 miles / 5,879 MBF = $1.04/MBF
Spot Rocking: 20cy/mile x $20.00/cy x 5.879 MMBF x 12.2miles/ 5,879 MBF = $4.88/MBF
Vibratory Roller: North Fork Wilson Road (bridge to Jones Creek Campground): 0.3 miles x 52.8 stations/mile x $35.50/station = 562.32/ 5,879 MBF = $0.10/MBF

Vibratory Roller: 2.0 miles x 52.8 stations/mile x $17.75/station
= 1,874.40/ 5,879 MBF = $0.32/MBF
Total Road Maintenance: $8.42/MBF

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"STEWARDSHIP IN FORESTRY"

District: Tillamook **Date:** October 23, 2013

logging conditions

combination#: 1 Douglas - Fir 95.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber
tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
loads / day: 4.5 **bd. ft / load:** 3,700
cost / mbf: $200.85

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

combination#: 2 Douglas - Fir 5.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber
tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
loads / day: 8.5 **bd. ft / load:** 3,700
cost / mbf: $45.73

machines: Stroke Delimber (B)

combination#: 3 Western Hemlock / Fir 95.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber
tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF
loads / day: 4.5 **bd. ft / load:** 3,500
cost / mbf: $212.32

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

combination#: 4 Western Hemlock / Fir 5.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber
tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF
loads / day: 8.0 **bd. ft / load:** 3,500
cost / mbf: $51.37

machines: Stroke Delimber (B)

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
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Sale 341-14-65

District: **Tillamook** **Date:** **October 23, 2013**

logging costs

Operating Seasons:	2.00	**Profit Risk:**	20.00%
Project Costs:	$352,790.00	**Other Costs (P/R):**	$14,258.00
Slash Disposal:	$0.00	**Other Costs:**	$10,890.00

Miles of Road

Road Maintenance: $8.42

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	2.0	4.2
Western Hemlock / Fir	$0.00	2.0	4.0

"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
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Sale 341-14-65

District: Tillamook **Date:** October 23, 2013

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$193.09	$8.84	$1.49	$81.25	$2.43	$57.42	$0.00	$5.00	$1.85	$351.37
Western Hemlock / Fir									
$204.27	$8.84	$1.49	$85.31	$2.43	$60.47	$0.00	$5.00	$1.85	$369.66

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$557.86	$206.49	$0.00
Western Hemlock / Fir	$0.00	$455.59	$85.93	$0.00

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District: **Tillamook**

Date: **October 23, 2013**

summary

Amortized

Specie	**MBF**	**Value**	Total
Douglas - Fir	0	$0.00	$0.00
Western Hemlock / Fir	0	$0.00	$0.00

Unamortized

Specie	**MBF**	**Value**	Total
Douglas - Fir	3,573	$206.49	$737,788.77
Western Hemlock / Fir	2,306	$85.93	$198,154.58

Gross Timber Sale Value

Recovery: $935,943.35

Prepared by: David Wells

Phone: 503-842-2545

PROJECT SUMMARY SHEET

Sale: Rippleberry

CONSTRUCTION

Point	A to B	12+70	stations =	$36,544.00
Point	C to D	32+50	stations =	$87,828.48
			SUBTOTAL CONSTRUCTION	**$124,372.48**

IMPROVEMENT

Point	O to P	53+00	stations =	$22,878.30
Point	Q to R	127+00	stations =	$12,924.72
			SUBTOTAL IMPROVEMENT	**$35,803.02**

RECONSTRUCTION

Point	A to B	63+80	stations =	$66,066.52
Point	C to D	57+00	stations =	$22,779.90
Point	E to F	42+00	stations =	$44,245.41
Point	G to H	21+20	stations =	$17,812.00
Point	I to J	9+00	stations =	$9,639.30
Point	S to T	2+60	stations =	$6,824.82
			SUBTOTAL RECONSTRUCTION	**$167,367.95**

SPECIAL PROJECTS

Vacating	K to L	22+50			$3,763.36
	M to N	53+30			$9,471.28
Brushing	7.4	Miles @	700.00	Per Mile =	$5,180.00
				SUBTOTAL SPECIAL PROJECTS	**$18,414.64**

MOVE IN **$6,831.91**

GRAND TOTAL **$352,790.00**

SUMMARY OF CONSTRUCTION COST

Sale: **Rippleberry** Road: **A to B**

Construction -	12+70	stations	Improvement -	0+00	stations	Reconstruction -	63+80	stations
	0.24	miles		0.00	miles		1.21	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		1+00	50%		Outslope	$459	=	$459.00	
1+00		1+70	65%	1.39	Outslope	$2,541	=	$1,778.70	
1+70		3+00	50%		Outslope	$459	=	$596.70	
3+00		4+00	70%	1.43	Outslope	$3,065	=	$3,065.00	
4+00		4+80	50%		Outslope	$459	=	$367.20	
4+80		5+60	45%		Outslope	$269	=	$215.20	
5+60		6+40	70%	1.48	Outslope	$3,065	=	$2,452.00	
6+40		7+20	75%	1.51	Outslope	$4,048	=	$3,238.40	
7+20		12+70	65%	1.55	Outslope	$2,884	=	$15,862.00	
								TOTAL	**$28,034.20**

RECONSTRUCTION: CLEARING AND GRUBBING (Endhaul Stumps) -

Pullback	0.225	acres @	$1,500.00	per acre =	$337.50	
Widening	0.347	acres @	$1,500.00	per acre =	$520.50	
Shoulders	2.340	acres @	$1,500.00	per acre =	$3,510.00	
					TOTAL CLEARING AND GRUBBING	**$4,368.00**

RECONSTRUCTION: EXCAVATION -

Pullback	1392	cy. @	$1.40	per c.y.=	$1,948.80	
Widening	1999	cy. @	$1.40	per c.y.=	$2,798.60	
Remove outside berm	43	cy. @	$1.40	per c.y.=	$60.20	
Debris Flow Removal	309	cy. @	$1.40	per c.y.=	$432.60	
					TOTAL EXCAVATION	**$5,240.20**

RECONSTRUCTION: ENDHAUL -

Pullback	31+25	to	31+75	85	cy. @	$3.18	per c.y.=	$270.30
Pullback	33+90	to	35+70	304	cy. @	$3.24	per c.y.=	$984.96
Pullback	35+70	to	36+90	371	cy. @	$3.28	per c.y.=	$1,216.88
Pullback	38+10	to	39+10	309	cy. @	$3.33	per c.y.=	$1,028.97
Pullback	44+20	to	45+00	94	cy. @	$3.47	per c.y.=	$326.18
Pullback	47+60	to	48+40	94	cy. @	$3.54	per c.y.=	$332.76
Pullback	55+20	to	56+00	135	cy. @	$3.71	per c.y.=	$500.85
Widening	18+50	to	19+20	118	cy. @	$2.90	per c.y.=	$342.20
Widening	20+10	to	20+70	59	cy. @	$2.93	per c.y.=	$172.87
Widening	29+00	to	30+00	98	cy. @	$3.13	per c.y.=	$306.74
Widening	33+90	to	35+70	325	cy. @	$3.25	per c.y.=	$1,056.25
Widening	35+70	to	36+90	347	cy. @	$3.28	per c.y.=	$1,138.16
Widening	36+90	to	38+10	116	cy. @	$3.31	per c.y.=	$383.96
Widening	38+10	to	39+10	347	cy. @	$3.33	per c.y.=	$1,155.51
Widening	39+10	to	39+70	59	cy. @	$3.35	per c.y.=	$197.65
Widening	43+30	to	45+00	99	cy. @	$3.45	per c.y.=	$341.55
Widening	47+60	to	48+40	62	cy. @	$3.54	per c.y.=	$219.48
Widening	57+80	to	59+50	369	cy. @	$3.77	per c.y.=	$1,391.13
Remove outside berm	53+00	to	55+20	43	cy. @	$3.67	per c.y.=	$157.81
Debris Flow Removal	70+00	to	71+00	309	cy. @	$4.04	per c.y.=	$1,248.36
Spread & compact				3743	cy. @	$0.25	per c.y.=	$935.75
							TOTAL ENDHAUL	**$13,708.32**

CULVERTS - MATERIALS & INSTALLATION

Culverts

30	LF of 18"	$525.00	110	LF of 24"	$2,970.00	
40	LF of 30"	$1,440.00	0	LF of 36"	$0.00	
		$1,965.00			$2,970.00	

Culvert Stakes & Markers

0	stakes	$0.00		
5	markers	$40.00		
		$40.00	**TOTAL CULVERTS**	**$4,975.00**

ROCK

0+00 to	76+50	3,630	cy. of	Crushed	@	$10.47 per c.y.=	$38,006.10	
Landing Rock	22+60, 74+00	200	cy. of	Crushed	@	$10.76 per c.y.=	$2,152.00	
Junction Rock	0+00	20	cy. of	Crushed	@	$10.85 per c.y.=	$217.00	
Energy Dissipator	5 Locations	30	cy. of	Riprap	@	$6.63 per c.y.=	$198.90	
							TOTAL ROCK	**$40,574.00**

SPECIAL PROJECTS

Construct waste areas -	6.00	hours @	$130.00	per hour	$780.00	
Construct landings at 22+60 and 74+00 -	2.00	@	$250.00	each	$500.00	
Remove log cribbing @ 20+40 -	2.00	hours @	$130.00	per hour	$260.00	
Grade and shape road -	76.50	stations @	$14.00	per station	$1,071.00	
Construct turnarounds near landings -	2.00	@	$75.00	each	$150.00	
Construct/Install rubber water diverter -	4.00	@	$360.00	each	$1,440.00	
Roll subgrade w/ vibratory roller prior to rocking -	76.50	stations @	$13.20	per station	$1,009.80	
Grass seed and fertilize -	2.00	acres @	$220.00	per acre	$440.00	
Mulching -	0.100	acres @	$600.00	per acre	$60.00	
					TOTAL SPECIAL PROJECTS	**$5,710.80**

GRAND TOTAL **$102,610.52**

SUMMARY OF CONSTRUCTION COST

Sale: **Rippleberry** Road: **C to D**

Construction -	32+50	stations	Improvement -	0+00	stations	Reconstruction -	57+00	stations
	0.62	miles		0.00	miles		1.08	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		3+10	10%		Outslope	$90	=	$279.00	
3+10		7+60	50%		Outslope	$459	=	$2,065.50	
7+60		8+20	45%		Outslope	$269	=	$161.40	
8+20		9+90	75%	1.1	Outslope	$3,589	=	$6,101.30	
9+90		12+25	65%	1.2	Outslope	$2,541	=	$5,971.35	
12+25		15+60	85%	1.3	Outslope	$5,219	=	$17,483.65	
15+60		20+20	70%	1.3	Outslope	$3,065	=	$14,099.00	
20+20		21+45	60%	1.4	Outslope	$2,006	=	$2,507.50	
21+45		22+20	45%		Outslope	$269	=	$201.75	
22+20		24+20	50%		Outslope	$459	=	$918.00	
24+20		25+80	75%	1.5	Outslope	$4,048	=	$6,476.80	
25+80		30+35	70%	1.5	Outslope	$3,466	=	$15,770.30	
30+35		32+50	60%	1.6	Outslope	$2,278	=	$4,897.70	
								TOTAL	**$76,933.25**

RECONSTRUCTION: CLEARING AND GRUBBING (Endhaul Stumps) -

Widening	0.080	acres @	$1,500.00	per acre =	$120.00	
Shoulders	0.790	acres @	$1,500.00	per acre =	$1,185.00	
					TOTAL CLEARING AND GRUBBING	**$1,305.00**

RECONSTRUCTION: EXCAVATION -

Widening	516	cy. @	$1.40	per c.y.=	$722.40	
					TOTAL EXCAVATION	**$722.40**

RECONSTRUCTION: ENDHAUL -

Widening	37+40	to	38+00	87	cy. @	$3.03	per c.y.=	$263.61	
Widening	40+70	to	41+20	73	cy. @	$3.11	per c.y.=	$227.03	
Widening	44+60	to	44+90	26	cy. @	$3.21	per c.y.=	$83.46	
Widening	61+20	to	62+10	174	cy. @	$2.72	per c.y.=	$473.28	
Widening	74+55	to	75+05	87	cy. @	$2.96	per c.y.=	$257.52	
Widening	75+25	to	75+75	30	cy. @	$3.01	per c.y.=	$90.30	
Widening	82+55	to	83+05	39	cy. @	$3.07	per c.y.=	$119.73	
Spread & compact				516	cy. @	$0.25	per c.y.=	$129.00	
								TOTAL ENDHAUL	**$1,643.93**

CULVERTS - MATERIALS & INSTALLATION

Culverts						
0	LF of 18"	$0.00	40	LF of 24"	$1,025.00	
		$0.00			$1,025.00	
Culvert Stakes & Markers						
0	stakes	$0.00				
1	markers	$8.00				
		$8.00			**TOTAL CULVERTS**	**$1,033.00**

ROCK

0+00	to	47+00	2,200	cy. of	Crushed	@	$10.73 per c.y.=	$23,606.00	
78+00	to	79+00	60	cy. of	Crushed	@	$11.59 per c.y.=	$695.40	
Junction Rock		0+00	20	cy. of	Crushed	@	$10.38 per c.y.=	$207.60	
Energy Dissipator		78+50	5	cy. of	Riprap	@	$7.64 per c.y.=	$38.20	
								TOTAL ROCK	**$24,547.20**

SPECIAL PROJECTS

Cut/Drift/Haul to reduce grade from 35+00 to 38+80 -	4.00	hours @	$130.00	per hour	$520.00	
Construct waste areas -	4.00	hours @	$130.00	per hour	$520.00	
Construct landing at point D -	1.00	@	$200.00	each	$200.00	
Grade and shape road -	89.50	stations @	$14.00	per station	$1,253.00	
Construct turnaround near landing -	1.00	@	$75.00	each	$75.00	
Roll subgrade w/ vibratory roller prior to rocking -	89.50	stations @	$13.20	per station	$1,181.40	
Grass seed and fertilize -	2.11	acres @	$220.00	per acre	$464.20	
Mulching -	0.350	acres @	$600.00	per acre	$210.00	
					TOTAL SPECIAL PROJECTS	**$4,423.60**

GRAND TOTAL **$110,608.38**

SUMMARY OF CONSTRUCTION COST

Sale: **Rippleberry** Road: **E to F**

Construction -	0+00	stations	Improvement -	0+00	stations	Reconstruction -	42+00	stations
	0.00	miles		0.00	miles		0.80	miles

RECONSTRUCTION: CLEARING AND GRUBBING (Endhaul Stumps) -

Pullback	0.428	acres @	$1,500.00	per acre =	$642.00	
Widening	0.580	acres @	$1,500.00	per acre =	$870.00	
Shoulders	1.540	acres @	$1,500.00	per acre =	$2,310.00	
				TOTAL CLEARING AND GRUBBING		**$3,822.00**

RECONSTRUCTION: EXCAVATION -

Pullback	1956	cy. @	$1.40	per c.y.=	$2,738.40	
Widening	3843	cy. @	$1.40	per c.y.=	$5,380.20	
				TOTAL EXCAVATION		**$8,118.60**

RECONSTRUCTION: ENDHAUL -

Pullback	3+60	to	4+50	139	cy. @	$2.74	per c.y.=	$380.86	
Pullback	13+20	to	13+80	78	cy. @	$2.99	per c.y.=	$233.22	
Pullback	13+80	to	16+30	423	cy. @	$3.03	per c.y.=	$1,281.69	
Pullback	20+00	to	21+40	182	cy. @	$3.18	per c.y.=	$578.76	
Pullback	22+80	to	24+00	186	cy. @	$3.26	per c.y.=	$606.36	
Pullback	25+70	to	28+40	455	cy. @	$3.35	per c.y.=	$1,524.25	
Pullback	29+40	to	30+80	237	cy. @	$3.43	per c.y.=	$812.91	
Pullback	32+40	to	33+40	155	cy. @	$3.51	per c.y.=	$544.05	
Pullback	34+70	to	35+30	101	cy. @	$3.56	per c.y.=	$359.56	
Widening	3+00	to	10+60	276	cy. @	$2.82	per c.y.=	$778.32	
Widening	11+80	to	12+80	116	cy. @	$2.96	per c.y.=	$343.36	
Widening	13+20	to	13+80	70	cy. @	$2.99	per c.y.=	$209.30	
Widening	13+80	to	16+30	675	cy. @	$3.03	per c.y.=	$2,045.25	
Widening	16+60	to	18+80	255	cy. @	$3.11	per c.y.=	$793.05	
Widening	20+00	to	20+70	118	cy. @	$3.17	per c.y.=	$374.06	
Widening	22+80	to	24+00	278	cy. @	$3.26	per c.y.=	$906.28	
Widening	25+70	to	28+70	1040	cy. @	$3.35	per c.y.=	$3,484.00	
Widening	29+40	to	30+80	324	cy. @	$3.43	per c.y.=	$1,111.32	
Widening	30+80	to	31+20	108	cy. @	$3.46	per c.y.=	$373.68	
Widening	32+40	to	32+80	108	cy. @	$3.50	per c.y.=	$378.00	
Widening	32+80	to	33+40	116	cy. @	$3.51	per c.y.=	$407.16	
Widening	33+70	to	37+00	160	cy. @	$3.58	per c.y.=	$572.80	
Widening	37+00	to	37+50	155	cy. @	$3.62	per c.y.=	$561.10	
Widening	37+50	to	38+00	44	cy. @	$3.63	per c.y.=	$159.72	
Spread & compact				5799	cy. @	$0.25	per c.y.=	$1,449.75	
							TOTAL ENDHAUL		**$20,268.81**

CULVERTS - MATERIALS & INSTALLATION

Culverts

120	LF of 30"	$3,720.00	0	LF of 36"	$0.00	
		$3,720.00			$0.00	

Culvert Stakes & Markers

0	stakes	$0.00	
3	markers	$24.00	
		$24.00	
		TOTAL CULVERTS	**$3,744.00**

ROCK

13+00 to	14+00	60	cy. of	Crushed	@	$11.29	per c.y.=	$677.40	
30+90 to	31+90	60	cy. of	Crushed	@	$11.57	per c.y.=	$694.20	
34+50 to	35+50	60	cy. of	Crushed	@	$11.63	per c.y.=	$697.80	
Transition Rock	0+00 - 1+00	60	cy. of	Crushed	@	$11.09	per c.y.=	$665.40	
Junction Rock	0+00	40	cy. of	Crushed	@	$11.08	per c.y.=	$443.20	
Energy Dissipator	3 Locations	30	cy. of	Riprap	@	$7.40	per c.y.=	$222.00	
							TOTAL ROCK		**$3,400.00**

SPECIAL PROJECTS

Construct waste areas -	2.00	hours @	$130.00	per hour	$260.00	
Construct landings at 21+60 and 38+80 -	2.00	@	$200.00	each	$400.00	
Grade and shape road -	42.00	stations @	$14.00	per station	$588.00	
Construct turnarounds near landings and at point F -	3.00	@	$75.00	each	$225.00	
Reconstruct fills at each of 3 stream crossings -	15.00	hours @	$145.00	per hour	$2,175.00	
Roll subgrade w/ vibratory roller prior to rocking -	42.00	stations @	$13.20	per station	$554.40	
Grass seed and fertilize -	1.82	acres @	$220.00	per acre	$400.40	
Mulching -	0.482	acres @	$600.00	per acre	$289.20	
				TOTAL SPECIAL PROJECTS		**$4,892.00**

GRAND TOTAL **$44,245.41**

SUMMARY OF CONSTRUCTION COST

Sale: **Rippleberry** Road: **G to H**

Construction -	0+00	stations	Improvement -	0+00	stations	Reconstruction -	21+20	stations
	0.00	miles		0.00	miles		0.40	miles

RECONSTRUCTION: CLEARING AND GRUBBING (Endhaul Stumps) -

Pullback	0.087	acres @	$1,500.00	per acre =	$130.50	
Widening	0.314	acres @	$1,500.00	per acre =	$471.00	
Shoulders	1.070	acres @	$1,500.00	per acre =	$1,605.00	
				TOTAL CLEARING AND GRUBBING		**$2,206.50**

RECONSTRUCTION: EXCAVATION -

Pullback	546	cy. @	$1.40	per c.y.=	$764.40	
Widening	1868	cy. @	$1.40	per c.y.=	$2,615.20	
				TOTAL EXCAVATION		**$3,379.60**

RECONSTRUCTION: ENDHAUL -

Pullback	5+00	to	6+00	260	cy. @	$2.90	per c.y.=	$754.00	
Pullback	8+80	to	9+20	104	cy. @	$3.09	per c.y.=	$321.36	
Pullback	9+70	to	10+40	182	cy. @	$3.14	per c.y.=	$571.48	
Widening	0+00	to	4+00	386	cy. @	$2.91	per c.y.=	$1,123.26	
Widening	4+00	to	6+40	647	cy. @	$2.98	per c.y.=	$1,928.06	
Widening	6+40	to	7+80	135	cy. @	$3.02	per c.y.=	$407.70	
Widening	7+80	to	9+70	439	cy. @	$3.06	per c.y.=	$1,343.34	
Widening	9+70	to	10+20	73	cy. @	$3.14	per c.y.=	$229.22	
Widening	10+20	to	10+40	87	cy. @	$3.17	per c.y.=	$275.79	
Widening	14+30	to	15+60	101	cy. @	$3.40	per c.y.=	$343.40	
Spread & compact				2414	cy. @	$0.25	per c.y.=	$603.50	
							TOTAL ENDHAUL		**$7,901.11**

CULVERTS - MATERIALS & INSTALLATION

Culverts						
0	LF of 18"	$0.00	40	LF of 24"	$1,025.00	
		$0.00			$1,025.00	
Culvert Stakes & Markers						
0	stakes	$0.00				
1	markers	$8.00				
		$8.00		**TOTAL CULVERTS**		**$1,033.00**

ROCK

0+00 to	1+00	60	cy. of	Crushed	@	$10.88 per c.y.=	$652.80	
15+50 to	16+50	60	cy. of	Crushed	@	$11.12 per c.y.=	$667.20	
Blocking	0+00	10	cy. of	Riprap	@	$6.92 per c.y.=	$69.20	
Junction Rock	0+00	20	cy. of	Crushed	@	$10.87 per c.y.=	$217.40	
Energy Dissipator	16+00	5	cy. of	Riprap	@	$7.17 per c.y.=	$35.85	
							TOTAL ROCK	**$1,642.45**

SPECIAL PROJECTS

Construct waste areas -	2.00	hours @	$130.00	per hour	$260.00	
Construct landing at point H -	1.00	@	$200.00	each	$200.00	
Remove log cribbing from 9+70 to 10+40 -	1.50	hours @	$145.00	per hour	$217.50	
Grade and shape road -	21.20	stations @	$14.00	per station	$296.80	
Construct turnaround near landing -	1.00	@	$75.00	each	$75.00	
Roll subgrade w/ vibratory roller prior to rocking -	21.20	stations @	$13.20	per station	$279.84	
Grass seed and fertilize -	0.91	acres @	$220.00	per acre	$200.20	
Mulching -	0.200	acres @	$600.00	per acre	$120.00	
				TOTAL SPECIAL PROJECTS		**$1,649.34**

GRAND TOTAL **$17,812.00**

SUMMARY OF CONSTRUCTION COST

Sale: **Rippleberry** Road: **I to J**

Construction -	0+00	stations	Improvement -	0+00	stations	Reconstruction -	9+00	stations
	0.00	miles		0.00	miles		0.17	miles

RECONSTRUCTION: CLEARING AND GRUBBING (Endhaul Stumps) -

Widening	0.084	acres @	$1,500.00	per acre =	$126.00
Shoulders	0.410	acres @	$1,500.00	per acre =	$615.00
				TOTAL CLEARING AND GRUBBING	**$741.00**

RECONSTRUCTION: EXCAVATION -

Widening	638	cy. @	$1.40	per c.y.=	$893.20
				TOTAL EXCAVATION	**$893.20**

RECONSTRUCTION: ENDHAUL -

Widening	2+00	to	2+75	116	cy. @	$2.95	per c.y.=	$342.20
Widening	4+00	to	5+00	174	cy. @	$3.02	per c.y.=	$525.48
Widening	5+00	to	5+75	174	cy. @	$3.05	per c.y.=	$530.70
Widening	6+00	to	6+75	174	cy. @	$3.08	per c.y.=	$535.92
Spread & compact				638	cy. @	$0.25	per c.y.=	$159.50
							TOTAL ENDHAUL	**$2,093.80**

ROCK

0+00 to	9+00	470	cy. of	Crushed	@	$10.29	per c.y.=	$4,836.30
Junction Rock	0+00	40	cy. of	Crushed	@	$10.36	per c.y.=	$414.40
							TOTAL ROCK	**$5,250.70**

SPECIAL PROJECTS

Construct waste areas -	1.00	hours @	$130.00	per hour	$130.00
Construct landing at point J -	1.00	@	$200.00	each	$200.00
Grade and shape road -	9.00	stations @	$14.00	per station	$126.00
Roll subgrade w/ vibratory roller prior to rocking -	9.00	stations @	$13.20	per station	$118.80
Grass seed and fertilize -	0.39	acres @	$220.00	per acre	$85.80
				TOTAL SPECIAL PROJECTS	**$660.60**

GRAND TOTAL **$9,639.30**

SUMMARY OF VACATE COST

Sale: **Rippleberry** Vacate: **K to L**

Construction -	0+00	stations	Vacate -	22+50	stations	Reconstruction -	0+00	stations
	0.00	miles		0.43	miles		0.00	miles

VACATE: CLEARING AND GRUBBING -									
Pullback				0.316	acres @	$660.00	per acre =	$208.56	
								TOTAL CLEARING AND GRUBBING	**$208.56**
VACATE: EXCAVATION -									
Pullback				1576	cy. @	$1.40	per c.y.=	$2,206.40	
								TOTAL EXCAVATION	**$2,206.40**
VACATE:									
Spread & compact				1576	cy. @	$0.25	per c.y.=	$394.00	
								TOTAL ENDHAUL	**$394.00**
ROCK									
Blocking	0+00, 22+50	20	cy. of	Riprap	@	$6.60	per c.y.=	$132.00	
								TOTAL ROCK	**$132.00**
SPECIAL PROJECTS									
Construct waterbars -				12.00	@	$25.00	each	$300.00	
Construct tank traps near points K and L -				2.00	@	$100.00	each	$200.00	
Grass seed and fertilize -				0.62	acres @	$220.00	per acre	$136.40	
Mulching -				0.310	acres @	$600.00	per acre	$186.00	
								TOTAL SPECIAL PROJECTS	**$822.40**
							GRAND TOTAL		**$3,763.36**

SUMMARY OF VACATE COST

Sale: **Rippleberry** Vacate: **M to N**

Construction -			Vacate -			Reconstruction -		
	0+00	stations		53+30	stations		0+00	stations
	0.00	miles		1.01	miles		0.00	miles

VACATE: CLEARING AND GRUBBING -							
Pullback	0.513	acres @	$660.00	per acre =	$338.58		
						TOTAL CLEARING AND GRUBBING	**$338.58**
VACATE: EXCAVATION -							
Pullback	2552	cy. @	$1.40	per c.y.=	$3,572.80		
						TOTAL EXCAVATION	**$3,572.80**
VACATE:							
Spread & compact	2552	cy. @	$0.25	per c.y.=	$638.00		
						TOTAL ENDHAUL	**$638.00**
ROCK							
Blocking 0+00, 53+30 20 cy. of Riprap		@	$8.20	per c.y.=	$164.00		
						TOTAL ROCK	**$164.00**
SPECIAL PROJECTS							
Remove log fills, restore stream channel widths and gradients -	20.00	hours @	$145.00	per hour	$2,900.00		
Construct waterbars -	22.00	@	$25.00	each	$550.00		
Construct tank traps at points M and N -	2.00	@	$100.00	each	$200.00		
Remove culverts from state lands	5.00	@	$587.90	total	$587.90		
Grass seed and fertilize -	1.00	acres @	$220.00	per acre	$220.00		
Mulching -	0.500	acres @	$600.00	per acre	$300.00		
						TOTAL SPECIAL PROJECTS	**$4,757.90**
						GRAND TOTAL	**$9,471.28**

SUMMARY OF CONSTRUCTION COST

Sale: **Rippleberry** Road: **O to P**

Construction -	0+00	stations	Improvement -	53+00	stations	Reconstruction -	0+00	stations
	0.00	miles		1.00	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.490	acres	@	$980.00	per acre =	$480.20	
					TOTAL CLEARING AND GRUBBING		$480.20

ROCK

0+00	to	1+00	30	cy. of	Crushed	@	$10.81	per c.y.=	$324.30	
52+00	to	53+00	30	cy. of	Crushed	@	$11.62	per c.y.=	$348.60	
Spot Rock		As Marked	120	cy. of	Crushed	@	$11.22	per c.y.=	$1,346.40	
Junction Rock		0+00, 53+00	20	cy. of	Crushed	@	$11.22	per c.y.=	$224.40	
Stockpile		Near Quarry	2,000	cy. of	Crushed	@	$9.20	per c.y.=	$18,400.00	
									TOTAL ROCK	$20,643.70

SPECIAL PROJECTS

Improve loaded turnaround at Point P -	2.00	hours @	$130.00	per hour	$260.00	
Grade and shape road -	53.00	stations @	$14.00	per station	$742.00	
Roll subgrade w/ vibratory roller prior to rocking -	53.00	stations @	$13.20	per station	$699.60	
Grass seed and fertilize -	0.24	acres @	$220.00	per acre	$52.80	
					TOTAL SPECIAL PROJECTS	$1,754.40

GRAND TOTAL **$22,878.30**

SUMMARY OF CONSTRUCTION COST

Sale: **Rippleberry** Road: **Q to R**

Construction -	0+00	stations	Improvement -	127+00	stations	Reconstruction -	0+00	stations
	0.00	miles		2.41	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Endhaul				0.243	acres @	$1,500.00	per acre =	$364.50	
							TOTAL CLEARING AND GRUBBING		**$364.50**

IMPROVEMENT: EXCAVATION -

Widening				963	cy. @	$1.90	per c.y.=	$1,829.70	
Remove Ditch Material -				40	cy. @	$1.40	per c.y.=	$56.00	
							TOTAL EXCAVATION		**$1,885.70**

IMPROVEMENT: ENDHAUL -

Widening	At	Blasting	Sites	174	cy. @	$3.09	per c.y.=	$537.66	
Widening	0+00	to	1+00	174	cy. @	$2.86	per c.y.=	$497.64	
Widening	7+00	to	8+50	260	cy. @	$2.91	per c.y.=	$756.60	
Widening	23+50	to	23+85	51	cy. @	$3.10	per c.y.=	$158.10	
Widening	24+15	to	24+75	87	cy. @	$3.10	per c.y.=	$269.70	
Widening	70+00	to	71+25	217	cy. @	$2.91	per c.y.=	$631.47	
Ditch Material	At	Blasting	Sites	40	cy. @	$3.09	per c.y.=	$123.60	
Spread & compact				1003	cy. @	$0.25	per c.y.=	$250.75	
							TOTAL ENDHAUL		**$3,225.52**

ROCK

Curve Widening	As Marked	100	cy. of	Crushed	@	$15.56	per c.y.=	$1,556.00	
							TOTAL ROCK		**$1,556.00**

SPECIAL PROJECTS

Drill Ditches	8.00	hours @	$185.00	per hour	$1,480.00	
Grade and shape road -	54.00	stations @	$15.50	per station	$837.00	
Blast Ditches	3.00	hours @	$60.00	per hour	$180.00	
Load Charges	12.00	hours @	$50.00	per hour	$600.00	
Material and Fees	1.00	@	$2,600.00	each	$2,600.00	
Cut/Drift to remove grade irregularity -	1.00	hours @	$130.00	per hour	$130.00	
Grass seed and fertilize -	0.30	acres @	$220.00	per acre	$66.00	
				TOTAL SPECIAL PROJECTS		**$5,893.00**

GRAND TOTAL **$12,924.72**

SUMMARY OF CONSTRUCTION COST

Sale: **Rippleberry** Road: **S to T**

Construction -	0+00	stations	Improvement -	0+00	stations	Reconstruction -	2+60	stations
	0.00	miles		0.00	miles		0.05	miles

RECONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		0+85		0.04	Outslope	$1,750	=	$1,487.50	
0+85		1+30		0.04	Outslope	$1,295	=	$582.75	
1+30		1+50		0.04	Outslope	$2,262	=	$452.40	
1+50		1+95		0.04	Outslope	$2,978	=	$1,340.10	
1+95		2+20		0.04	Outslope	$3,671	=	$917.75	
								TOTAL	**$4,780.50**

RECONSTRUCTION: CLEARING AND GRUBBING -

Scattering	0.080	acres @	$980.00	per acre =	$78.40	
				TOTAL CLEARING AND GRUBBING		**$78.40**

ROCK

0+00	to	2+60	120	cy. of	Crushed	@	$11.64	per c.y.=	$1,396.80	
Junction Rock		0+00	20	cy. of	Crushed	@	$11.66	per c.y.=	$233.20	
								TOTAL ROCK		**$1,630.00**

SPECIAL PROJECTS

Construct waste areas -	1.00	hours @	$130.00	per hour	$130.00	
Grade and shape road -	2.60	stations @	$14.00	per station	$36.40	
Roll subgrade w/ vibratory roller prior to rocking -	2.60	stations @	$13.20	per station	$34.32	
Grass seed and fertilize -	0.26	acres @	$220.00	per acre	$57.20	
Mulching -	0.130	acres @	$600.00	per acre	$78.00	
				TOTAL SPECIAL PROJECTS		**$335.92**

GRAND TOTAL **$6,824.82**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed_2.5	Location:	NE 1/4, SE 1/4, Sec 12, T2N, R8W, W.M.
Sale:	**Rippleberry**	Road:	2300 c.y.
Swell:	1.40	Stockpile:	c.y.
Shirinkage	1.16	Total Truck Loads:	2300 c.y.
Drill Pct.:	50%	In Place Total:	1643 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.							$1,221.98
Drill & Shoot:	$2.50	/cu.yd.	x	822	cu.yds.	=	$2,055.00
Rip Rock:	$1.90	/cu.yd.	x	821	cu.yds.	=	$1,559.90
Load Crusher:	$0.60	/cu.yd.	x	2300	cu.yds.	=	$1,380.00
Crush Rock:	$2.70	/cu.yd.	x	2300	cu.yds.	=	$6,210.00
Load Dump Truck:	$0.70	/cu.yd.	x	2300	cu.yds.	=	$1,610.00
						Subtotal	$14,036.88

Move In/Set-up Crusher	1	@	$2,286.00	=	$2,286.00
Within Area Move In Drill and Compressor	1	@	$92.00	=	$92.00
Within Area Move in Loader	1	@	$18.00	=	$18.00
Within Area Move in Excavator	1	@	$90.00	=	$90.00
Within Area Move in Water Truck	1	@	$6.00	=	$6.00
				Subtotal	$2,492.00

TOTAL PRODUCTION COSTS $16,528.88

Base Cost= $7.19 Per Cu.Yd.

Road Segment	Haul Cost $/cu.yd.	Proc Cost $/cu.yd.	Base Cost. $/cu.yd.	Cost $/cu.yd.	Number Cu. Yds		ROCK COST
O to P 0 100 (Crushed)	1.17	2.45	7.19	10.81	30		$324.30
O to P 5200 5300 (Crushed)	1.98	2.45	7.19	11.62	30		$348.60
O to P Spot Rock (Crushed)	1.58	2.45	7.19	11.22	120		$1,346.40
O to P Junction Rock (Crushed)	1.58	2.45	7.19	11.22	20		$224.40
O to P Stockpile (Crushed)	1.01	1.00	7.19	9.20	2000		$18,400.00
Q to R Curve Widening (Crushed)	5.92	2.45	7.19	15.56	100		$1,556.00
				Total C.Y.	2300	Sub Total	$22,199.70

TOTAL ROCKING COSTS $22,199.70

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed_4	Location:	NW 1/4, SW 1/4, Sec 5, T2N, R7W, W.M.
Sale:	**Rippleberry**	Road:	7320 c.y.
Swell:	1.40	Stockpile:	c.y.
Shirinkage	1.16	Total Truck Loads:	7320 c.y.
Drill Pct.:	50%	In Place Total:	5229 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.							$4,128.79
Drill & Shoot:	$2.50	/cu.yd.	x	2615	cu.yds.	=	$6,537.50
Rip Rock:	$1.90	/cu.yd.	x	2614	cu.yds.	=	$4,966.60
Load Crusher:	$0.60	/cu.yd.	x	7320	cu.yds.	=	$4,392.00
Crush Rock:	$2.35	/cu.yd.	x	7320	cu.yds.	=	$17,202.00
Load Dump Truck:	$0.70	/cu.yd.	x	7320	cu.yds.	=	$5,124.00
					Subtotal		$42,350.89

Move In/Set-up Jaw	1	@	$2,160.00	=	$2,160.00
Move In and set up Drill and Compressor	1	@	$810.75	=	$810.75
Move in Roller and Compactor	1	@	$810.75	=	$810.75
Move in Grader	1	@	$281.05	=	$281.05
Move in Loader	1	@	$1,108.19	=	$1,108.19
Move in Excavator	1	@	$1,428.30	=	$1,428.30
Move in Trucks	3	@	$272.79	=	$818.37
Move in Water Truck	1	@	$320.64	=	$320.64
				Subtotal	$7,738.05

TOTAL PRODUCTION COSTS $50,088.94

Base Cost= $6.84 Per Cu.Yd.

Road Segment	Haul Cost $/cu.yd.	Proc Cost $/cu.yd.	Base Cost. $/cu.yd.	Cost $/cu.yd.	Number Cu. Yds		ROCK COST
A to B 0 7650 (Crushed)	1.18	2.45	6.84	10.47	3630		$38,006.10
A to B Landing Rock (Crushed)	1.47	2.45	6.84	10.76	200		$2,152.00
A to B Junction Rock (Crushed)	1.56	2.45	6.84	10.85	20		$217.00
A to B Energy Dissipator (Riprap)	1.29	1.45	3.89	6.63	30		$198.90
C to D 0 4700 (Crushed)	1.44	2.45	6.84	10.73	2200		$23,606.00
C to D 7800 7900 (Crushed)	2.30	2.45	6.84	11.59	60		$695.40
C to D Junction Rock (Crushed)	1.09	2.45	6.84	10.38	20		$207.60
C to D Energy Dissipator (Riprap)	2.30	1.45	3.89	7.64	5		$38.20
E to F 1300 1400 (Crushed)	2.00	2.45	6.84	11.29	60		$677.40
E to F 3090 3190 (Crushed)	2.28	2.45	6.84	11.57	60		$694.20
E to F 3450 3550 (Crushed)	2.34	2.45	6.84	11.63	60		$697.80
E to F Transition Rock (Crushed)	1.80	2.45	6.84	11.09	60		$665.40
E to F Junction Rock (Crushed)	1.79	2.45	6.84	11.08	40		$443.20
E to F Energy Dissipator (Riprap)	2.06	1.45	3.89	7.40	30		$222.00
G to H 0 100 (Crushed)	1.59	2.45	6.84	10.88	60		$652.80
G to H 1550 1650 (Crushed)	1.83	2.45	6.84	11.12	60		$667.20
G to H Blocking (Riprap)	1.58	1.45	3.89	6.92	10		$69.20
G to H Junction Rock (Crushed)	1.58	2.45	6.84	10.87	20		$217.40
G to H Energy Dissipator (Riprap)	1.83	1.45	3.89	7.17	5		$35.85
I to J 0 900 (Crushed)	1.00	2.45	6.84	10.29	470		$4,836.30
I to J Junction Rock (Crushed)	1.07	2.45	6.84	10.36	40		$414.40
K to L Blocking (Riprap)	1.26	1.45	3.89	6.60	20		$132.00
M to N Blocking (Riprap)	2.86	1.45	3.89	8.20	20		$164.00
S to T 0 260 (Crushed)	2.35	2.45	6.84	11.64	120		$1,396.80
S to T Junction Rock (Crushed)	2.37	2.45	6.84	11.66	20		$233.20
				Total C.Y.	7320	Sub Total	$77,340.35

TOTAL ROCKING COSTS $77,340.35

Move-In Calculations for Project Work not Involving Rocking/Pit Work

Sale: **Rippleberry**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
45.0	Pavement	30
15.0	Main Lines	7
8.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move ($/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Drill & Compressor	$810.75		$46.00	0.00	0.00	0	$0.00	$810.75
1	Brush Cutter	$1,000.00		$4.00	0.00	0.00	0	$0.00	$1,000.00
1	Excavators (Large)	$1,462.80	1	$44.80	0.00	6.00	6	$268.80	$1,731.60
1	Tractor (D8)	$1,356.67	2	$15.10	0.00	6.00	6	$90.60	$1,447.27
2	Dump Truck (10 cy +)	$672.00		$2.85	0.00	0.00	0	$0.00	$672.00
1	Dump Truck (Off Hiway)	$1,170.29	1	$4.75	0.00	0.00	0	$0.00	$1,170.29
					TOTAL MOVE-IN COSTS:				$6,831.91

OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT
Rippleberry

1. Type of Sale

Partial cut harvest, Recovery

2. Legal Description

Sections 5, 6, 7, and 8, T2N, R7W, and Section 32, T3N, R7W, W.M., Tillamook County, Oregon.

3. Sale Acreage

Sale acreage was determined by GPS and ortho photographs along with GIS.

	ACRES	
	Gross	**Net**
Area 1 (Partial Cut)	**689**	**565**

Gross Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.

Gross acres, less green tree retention, roads, Non-required thinning areas, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. Cruising Procedures

A. Cruise Method

The timber sale area was variable plot cruised. Plot and line spacing was 350' and 700' respectively. All conifers 8" DBH and greater containing 20 board feet and all hardwoods 10" DBH and greater containing 30 board feet were recorded. Species, DBH (to the nearest inch), merchantable bole length (to the nearest foot), form factor, and defect were recorded for all trees. Merchantable heights were recorded to 6" and 7" outside bark for conifers and hardwoods respectively.

B. Plot size

All plots were measured using a 33.6 BAF and point of tree observation was 16 feet.

C. Grading System

All trees were graded according to Columbia River Log Scaling and Grading Rules. Log Lengths favored 40' lengths.

5. Computation Procedure

Plot data was entered into SuperAce for computation of basal area, advertised volume, volume summary, log stock table, and stand table for each species and type.

Douglas-fir and hemlock take and leave trees were determined on a plot by plot basis, leaving the largest trees. The harvest volume for Douglas-fir and hemlock is 6.7 MBF and 4.3 MBF per acre respectively.

Net sale acreage was used for volume calculation. Net acreage is the gross acreage (the area within posted and un-posted timber sale boundary) minus posted and un-posted buffer areas and roads. Upland posted buffers include forested wet areas, bush dominated sites, and historic blow down areas that would not support thinning.

Cruise Statistics (Board Foot Volumes)			
Area	Number of Plots	SE (%)	CV (%)
1	111	4.7	49.6

6. Hidden Defect and Breakage

A reduction for hidden defect and breakage of 5% was applied to conifers. This was in addition to the visual defect deducted during the cruise.

7. Timber Description

The 1945 Wilson River Fire burned a majority of the sale area except for 120 acres at the southern end. Most of the area naturally regenerated except for 110 acres that was planted in the 1960-61 season at the northeast end of the fire. There has been no additional forest management of the area.

Sale Area	Species	DBH	Merchantable Bole Height (feet)	Merchantable top (inches inside bark)
1	Douglas-fir	13.7	66	5
	Western hemlock	11.8	53	5

8. Cruiser Names/Dates

Cruised by Service Contract in 2012 and District personnel in 2013.

9. Revenue Distribution

- Deed Numbers: 35, 70, 146, and 591

- FDF 100%
- Tax Code: 81% 56-1, 19% 56
- Washington County Timber: 49%
- Tillamook County: 51%
  Tax Code 56-1 = 81%
  Tax Code 56 = 19%
- LCR Obligations:
  Sec. 5, T2N, R7W: Proj. #35591C29, $5,944.29
  Sec. 6, T2N, R7W: Proj. #35591E29, $2,972.13
  Sec. 7, T2N, R7W: Proj. #35591F29, $743.03

10. Attachments

Volume Summary

Stand Table

Log Stock Tables

Logging Plan

11. Stand and Log Stock Tables Species Key

DL – Douglas-fir leave
DF – Douglas-fir take
WL – Western hemlock leave
WH – Western hemlock take
NF – Noble fir leave
RA – Red alder leave

TC TLOGSTVB

Log Stock Table - MBF

Project: DEMO

T02N R07W S05 TSALE | **T02N R07W S05 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page 1
02N	07W	05	RIPPLE	SALE	565.00			Date 9/10/2013
								Time 8:10:26AM

Spp	S T	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	20-23	24-29	30-39	40+
DL		CO	S	40	97	5.0	92	1.0								61	32			
DL		CO	2	16	10	5.0	9	.1								9				
DL		CO	2	28	21	5.0	20	.2							20					
DL		CO	2	32	49	7.7	45	.5						20		25				
DL		CO	2	36	31	5.0	30	.3								30				
DL		CO	2	40	5,418	6.0	5,091	56.3						1158	1642	1998	261	32		
DL		CO	3	20	13	5.0	12	.1					12							
DL		CO	3	23	18	5.0	17	.2						17						
DL		CO	3	24	3	5.0	3	.0		3										
DL		CO	3	25	15	15.6	12	.1					12							
DL		CO	3	28	15	5.0	14	.2					5	9						
DL		CO	3	30	17	5.0	16	.2				3		14						
DL		CO	3	32	118	8.4	109	1.2			11	57	40							
DL		CO	3	33	8	5.0	8	.1			8									
DL		CO	3	35	36	9.2	33	.4			14		18							
DL		CO	3	36	46	7.2	42	.5			26			17						
DL		CO	3	37	4	5.0	4	.0			4									
DL		CO	3	38	41	5.0	39	.4			39									
DL		CO	3	39	5	5.0	5	.1			5									
DL		CO	3	40	3,122	6.1	2,930	32.4			414	681	1566	230	25	15				
DL		CO	4	12	5	5.0	5	.1			5									
DL		CO	4	13	2	5.0	2	.0		2										
DL		CO	4	14	6	5.0	6	.1		5	1									
DL		CO	4	15	12	5.0	12	.1		10	1									
DL		CO	4	16	21	5.0	20	.2		8	9	2								
DL		CO	4	17	14	5.0	13	.1		13										
DL		CO	4	18	15	5.0	14	.2		5	9									
DL		CO	4	19	20	5.0	19	.2		19										
DL		CO	4	20	28	7.3	26	.3		12	9	6								
DL		CO	4	21	11	5.0	11	.1		6	5									
DL		CO	4	22	9	5.0	9	.1		3	5									
DL		CO	4	23	4	5.0	4	.0		4										
DL		CO	4	24	49	8.0	45	.5		24	16			6						
DL		CO	4	26	16	5.0	16	.2		11	4									
DL		CO	4	27	4	5.0	4	.0		1	2									
DL		CO	4	28	33	5.0	32	.4		22	9									
DL		CO	4	29	7	5.0	7	.1		7										
DL		CO	4	30	10	5.0	10	.1		7	3									
DL		CO	4	31	8	5.0	8	.1		3	5									
DL		CO	4	32	37	7.3	34	.4		22	12									
DL		CO	4	33	11	5.0	11	.1		11										
DL		CO	4	34	14	5.0	13	.1		13										
DL		CO	4	35	13	5.0	12	.1		12										
DL		CO	4	36	17	5.0	16	.2		16										
DL		CO	4	37	4	5.0	4	.0		4										
DL		CO	4	38	19	5.0	18	.2		18										
DL		CO	4	39	27	5.0	26	.3		26										
DL		CO	4	40	130	9.7	118	1.3		78				17		23				
DL		CO	4	41	3	5.0	3	.0		3										
DL		Totals			9,637	6.1	9,045	48.8		367	617	750	1653	1486	1687	2161	292	32		
DF		CO	2	40	486	6.6	454	12.7						272	154	28				

TC TLOGSTVB

Log Stock Table - MBF

Project: DEMO

T02N R07W S05 TSALE **T02N R07W S05 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	2
02N	07W	05	RIPPLE	SALE	565.00			Date	9/10/2013
								Time	8:10:26AM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		CO	3	18	15	5.0	14	.4						14						
DF		CO	3	23	15	5.0	14	.4				14								
DF		CO	3	24	6	20.8	5	.1				5								
DF		CO	3	27	6	18.6	5	.1				5								
DF		CO	3	30	6	5.0	6	.2			6									
DF		CO	3	32	144	5.7	136	3.8			42	48	45							
DF		CO	3	34	7	5.0	7	.2			7									
DF		CO	3	36	59	5.0	56	1.6			45	10								
DF		CO	3	38	61	5.0	58	1.6			58									
DF		CO	3	40	2,264	5.6	2,138	59.8			374	712	1005	47						
DF		CO	4	15	9	5.0	8	.2		8										
DF		CO	4	16	23	5.0	22	.6		18	3									
DF		CO	4	17	4	5.0	4	.1		4										
DF		CO	4	19	20	5.0	19	.5		19										
DF		CO	4	20	45	5.0	43	1.2		12	18	13								
DF		CO	4	21	21	5.0	20	.6		20										
DF		CO	4	22	13	5.0	13	.4		13										
DF		CO	4	23	12	5.0	12	.3		2		10								
DF		CO	4	24	46	5.0	43	1.2		10	15			18						
DF		CO	4	25	26	5.0	24	.7		24										
DF		CO	4	26	8	5.0	8	.2		8										
DF		CO	4	27	23	5.0	22	.6		22										
DF		CO	4	28	25	5.0	24	.7		24										
DF		CO	4	29	21	5.0	20	.6		20										
DF		CO	4	30	42	5.0	40	1.1		31	10									
DF		CO	4	31	7	5.0	7	.2		7										
DF		CO	4	32	92	6.7	86	2.4		12	56	18								
DF		CO	4	34	19	5.0	18	.5		18										
DF		CO	4	35	30	5.0	29	.8		29										
DF		CO	4	36	51	14.0	44	1.2		44										
DF		CO	4	37	5	5.0	5	.1		5										
DF		CO	4	38	41	5.0	39	1.1		39										
DF		CO	4	39	10	5.0	9	.3		9										
DF		CO	4	40	121	5.0	115	3.2		106	9									
DF		CO	4	41	11	5.0	10	.3		10										
DF		Totals			3,792	5.8	3,573	19.3		512	643	836	1050	351	154	28				
WH		CO	2	40	212	6.4	198	8.6						145	26	27				
WH		CO	3	28	9	5.0	8	.4			8									
WH		CO	3	32	94	5.8	89	3.8			60	19	10							
WH		CO	3	33	11	5.0	10	.5				10								
WH		CO	3	38	35	5.0	33	1.4			33									
WH		CO	3	39	11	5.0	11	.5			11									
WH		CO	3	40	1,526	5.7	1,439	62.4			557	471	411							
WH		CO	4	14	13	5.0	12	.5		5	7									
WH		CO	4	16	11	5.0	11	.5		4	7									
WH		CO	4	17	4	5.0	4	.2		4										
WH		CO	4	18	30	5.0	28	1.2		24		4								
WH		CO	4	19	21	5.0	20	.9		20										
WH		CO	4	20	25	5.0	24	1.0		24										
WH		CO	4	22	19	5.0	18	.8		18										

TC TLOGSTVB

Log Stock Table - MBF

Project: DEMO

T02N R07W S05 TSALE — **T02N R07W S05 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page 3
02N	07W	05	RIPPLE	SALE	565.00			Date 9/10/2013
								Time 8:10:26AM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
WH		CO	4	23	22	5.0	21	.9		21										
WH		CO	4	24	67	5.0	64	2.8		13	46	4								
WH		CO	4	26	17	5.0	16	.7		16										
WH		CO	4	27	12	5.0	12	.5		12										
WH		CO	4	28	44	5.0	42	1.8		10	32									
WH		CO	4	29	18	5.0	17	.7		17										
WH		CO	4	30	28	5.0	27	1.2		27										
WH		CO	4	31	19	5.0	18	.8		18										
WH		CO	4	32	16	5.0	15	.7		15										
WH		CO	4	33	15	5.0	15	.6		15										
WH		CO	4	34	33	5.0	31	1.3		31										
WH		CO	4	35	37	5.0	35	1.5		35										
WH		CO	4	37	22	5.0	21	.9		6	15									
WH		CO	4	38	11	5.0	11	.5		11										
WH		CO	4	40	60	5.0	57	2.5		35	22									
WH		Totals			2,443	5.6	2,306	12.5		380	798	509	421	145	26	27				
RA		H	1	20	21	10.0	19	1.5								19				
RA		H	2	28	23	10.0	21	1.7							21					
RA		H	2	32	41	10.0	37	3.0						37						
RA		H	2	34	24	19.0	20	1.6							20					
RA		H	3	26	20	10.0	18	1.5						18						
RA		H	3	30	21	10.0	19	1.5					19							
RA		H	3	32	22	10.0	20	1.6							20					
RA		H	3	34	23	10.0	20	1.6					20							
RA		H	3	40	48	10.0	43	3.5					43							
RA		H	4	13	5	10.0	5	.4			5									
RA		H	4	14	4	10.0	4	.3			4									
RA		H	4	15	4	10.0	4	.3			4									
RA		H	4	16	12	10.0	11	.9			11									
RA		H	4	19	3	10.0	2	.2			2									
RA		H	4	20	27	16.5	22	1.8			5	17								
RA		H	4	21	26	10.0	24	1.9			24									
RA		H	4	22	21	10.0	19	1.5			19									
RA		H	4	23	8	10.0	7	.6			7									
RA		H	4	24	22	10.0	19	1.6			19									
RA		H	4	25	10	10.0	9	.8			9									
RA		H	4	27	13	10.0	11	.9				11								
RA		H	4	28	49	11.7	43	3.5			25	18								
RA		H	4	29	15	10.0	14	1.1				14								
RA		H	4	30	26	10.0	24	1.9			24									
RA		H	4	32	68	10.0	61	4.9			21	40								
RA		H	4	34	13	10.0	11	.9			11									
RA		H	4	35	45	10.0	40	3.3			40									
RA		H	4	36	84	10.0	75	6.1			54	21								
RA		H	4	38	64	10.0	58	4.7			38	20								
RA		H	4	39	24	10.0	22	1.8			22									
RA		H	4	40	622	13.5	538	43.4			158	380								
RA		Totals			1,407	11.9	1,240	6.7			501	522	83	55	60	19				
WL		CO	2	28	19	14.5	16	.7							16					
WL		CO	2	32	24	5.0	23	1.1						23						

TC TLOGSTVB

Log Stock Table - MBF

Project: DEMO

T02N R07W S05 TSALE **T02N R07W S05 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page 4
02N	07W	05	RIPPLE	SALE	565.00			Date 9/10/2013
								Time 8:10:26AM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
WL		CO	2	40	904	5.5	855	40.0						173	416	203	63			
WL		CO	3	23	10	16.9	9	.4					9							
WL		CO	3	28	16	14.8	14	.7				6	8							
WL		CO	3	32	33	5.0	31	1.5			23	8								
WL		CO	3	36	30	5.0	29	1.3			10		19							
WL		CO	3	38	15	5.0	14	.7			14									
WL		CO	3	40	1,023	5.5	967	45.3			149	277	508	34						
WL		CO	4	12	1	5.0	1	.0			1									
WL		CO	4	13	4	5.0	3	.2		3										
WL		CO	4	14	1	5.0	1	.0		1										
WL		CO	4	16	12	5.0	11	.5		11										
WL		CO	4	20	3	5.0	3	.1		3										
WL		CO	4	21	4	5.0	4	.2		4										
WL		CO	4	22	12	5.0	11	.5			2	10								
WL		CO	4	23	3	5.0	3	.1			3									
WL		CO	4	24	6	5.0	5	.3		4	2									
WL		CO	4	26	6	5.0	6	.3			6									
WL		CO	4	27	8	5.0	8	.4		8										
WL		CO	4	28	4	5.0	4	.2		4										
WL		CO	4	29	4	5.0	4	.2		4										
WL		CO	4	31	7	5.0	6	.3		6										
WL		CO	4	32	18	5.0	17	.8					17							
WL		CO	4	33	3	5.0	3	.1		3										
WL		CO	4	34	6	5.0	5	.3		5										
WL		CO	4	36	28	10.0	25	1.2		25										
WL		CO	4	38	7	5.0	7	.3		7										
WL		CO	4	39	17	5.0	16	.8		16										
WL		CO	4	40	30	7.9	28	1.3		23	4									
WL		CO	4	41	7	5.0	7	.3		7										
WL		Totals			2,265	5.7	2,136	11.5		134	213	301	560	230	432	203	63			
NF		CO	2	40	168	6.5	157	72.6						48	29	57	23			
NF		CO	3	30	3	5.0	3	1.2				3								
NF		CO	3	40	50	5.0	48	22.1			13	9		25						
NF		CO	4	16	2	5.0	2	1.0			2									
NF		CO	4	20	2	5.0	2	.7			2									
NF		CO	4	24	3	5.0	2	1.2				2								
NF		CO	4	30	3	5.0	3	1.3		3										
NF		Totals			231	6.1	217	1.2		3	17	14		73	29	57	23			
Total All Species					19,774	6.4	18,516	100.0		1396	2788	2931	3767	2340	2387	2497	378	32		

TC TSTNDSUM

Stand Table Summary

Project **DEMO**

T02N R07W S05 TSALE | **T02N R07W S05 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	
02N	07W	05	RIPPLE	SALE	565.00			Page: 1 Date: 09/10/2013 Time: 8:12:25AM

Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DL		9	1	88	55	.885	.39	.89	9.5	40.0	.23	8	35	130	47	20
DL		10	1	88	51	.730	.38	.73	9.3	30.0	.19	7	22	105	38	12
DL		11	2	87	92	1.219	.78	1.85	11.6	49.8	.59	22	92	335	122	52
DL		12	1	88	72	.463	.38	.46	18.5	70.0	.24	9	32	133	49	18
DL		13	2	86	96	.862	.82	1.72	15.1	57.5	.72	26	99	404	147	56
DL		14	3	84	105	1.164	1.26	2.33	18.2	74.0	1.16	42	172	658	239	97
DL		15	8	86	107	2.613	3.21	5.58	20.9	86.6	3.21	117	483	1,812	659	273
DL		16	17	88	105	4.743	6.60	8.91	26.2	104.8	6.41	233	933	3,624	1,318	527
DL		17	21	86	106	5.396	8.44	11.91	25.3	101.5	8.29	302	1,209	4,685	1,704	683
DL		18	22	86	106	5.065	8.89	10.71	29.1	110.3	8.65	312	1,181	4,890	1,761	668
DL		19	17	87	113	3.475	6.76	8.17	31.7	120.6	7.12	259	986	4,023	1,463	557
DL		20	29	87	111	5.291	11.54	12.60	35.3	135.9	12.23	445	1,712	6,908	2,512	967
DL		21	15	88	112	2.395	5.76	5.88	37.3	152.3	6.03	219	896	3,407	1,239	506
DL		22	28	88	118	4.159	10.93	10.26	42.1	174.5	11.88	432	1,790	6,711	2,440	1,011
DL		23	21	87	119	2.874	8.23	6.99	47.6	202.1	9.16	333	1,413	5,173	1,881	798
DL		24	18	87	123	2.286	7.14	6.08	49.0	210.0	8.22	298	1,276	4,645	1,683	721
DL		25	19	87	125	2.224	7.58	6.08	54.4	236.1	9.10	331	1,435	5,141	1,868	811
DL		26	15	87	129	1.595	5.87	4.58	56.7	258.8	7.14	259	1,184	4,032	1,466	669
DL		27	8	85	132	.833	3.30	2.29	62.2	265.2	3.92	143	609	2,217	806	344
DL		28	8	88	131	.723	3.09	1.98	68.7	332.8	3.75	136	660	2,116	770	373
DL		29	1	90	114	.081	.37	.24	56.1	253.3	.38	14	62	213	77	35
DL		30	2	88	147	.155	.77	.47	80.3	396.7	1.03	37	185	582	212	105
DL		31	2	89	114	.143	.75	.36	77.8	346.0	.76	28	123	431	157	70
DL		32	1	86	124	.070	.40	.21	84.9	390.0	.49	18	82	278	101	46
DL		33	1	89	124	.063	.37	.19	89.4	450.0	.46	17	85	262	95	48
DL		36	1	85	137	.059	.42	.18	111.2	523.3	.54	20	93	307	112	53
DL		Totals	264	87	110	49.567	104.45	111.65	36.4	150.9	111.90	4,065	16,851	63,221	22,964	9,521
DF		8	2	86	54	2.238	.81	2.24	6.4	29.5	.41	14	66	231	81	37
DF		9	2	87	72	1.811	.80	1.81	8.5	45.0	.44	15	81	247	87	46
DF		10	9	87	73	6.664	3.55	8.80	9.0	39.8	2.26	79	350	1,274	447	198
DF		11	7	88	77	4.070	2.71	6.36	10.3	42.8	1.87	66	272	1,059	371	154
DF		12	10	87	93	5.036	3.95	8.48	14.4	57.5	3.49	123	488	1,970	693	276
DF		13	17	87	100	7.300	6.70	13.68	15.8	64.1	6.17	216	877	3,486	1,223	495
DF		14	10	87	104	3.758	3.93	8.17	17.2	70.8	4.00	140	578	2,259	793	326
DF		15	7	89	96	2.195	2.66	4.39	20.9	86.4	2.62	92	379	1,482	519	214
DF		16	22	87	109	6.367	8.79	13.60	23.5	97.0	9.11	320	1,320	5,149	1,806	746
DF		17	14	87	103	3.563	5.55	6.64	29.0	116.6	5.49	193	774	3,102	1,088	437
DF		18	11	87	114	2.463	4.30	5.39	30.5	122.0	4.68	164	657	2,646	928	371
DF		19	2	86	109	.412	.81	1.02	31.0	120.2	.90	32	122	508	178	69
DF		20	4	86	115	.752	1.62	1.88	34.0	133.8	1.82	64	252	1,031	362	142
DF		21	2	86	118	.344	.80	.69	43.2	170.6	.85	30	118	479	168	66
DF		23	4	86	113	.565	1.62	1.42	44.9	179.5	1.82	64	256	1,031	362	144
DF		24	1	84	110	.133	.42	.40	40.7	166.7	.46	16	67	263	92	38
DF		Totals	124	87	93	47.671	49.02	84.97	19.2	78.3	46.40	1,628	6,656	26,214	9,198	3,761
WH		8	3	86	49	3.305	1.20	3.30	5.3	23.1	.56	18	76	318	99	43
WH		9	7	85	60	6.615	2.89	6.61	8.2	32.7	1.73	54	216	979	306	122
WH		10	12	87	77	8.850	4.70	10.20	11.3	47.8	3.69	115	488	2,083	651	276
WH		11	13	87	80	7.852	5.10	11.44	11.9	49.3	4.34	136	564	2,452	767	318
WH		12	11	87	90	5.660	4.37	10.29	12.7	50.0	4.17	130	515	2,358	737	291
WH		13	10	89	106	4.126	3.80	7.80	17.5	78.1	4.35	136	609	2,461	769	344
WH		14	11	87	82	4.056	4.30	7.24	17.8	65.1	4.12	129	471	2,329	728	266

TC TSTNDSUM

Stand Table Summary

Project **DEMO**

T02N R07W S05 TSALE **T02N R07W S05 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
02N	07W	05	RIPPLE	SALE	565.00		

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Date: 09/10/2013
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Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
WH		15	7	88	99	2.247	2.72	4.11	24.1	98.7	3.17	99	406	1,791	560	229
WH		16	6	87	97	1.714	2.36	3.18	25.0	95.9	2.54	79	305	1,437	449	172
WH		17	3	86	113	.768	1.21	1.54	31.3	124.7	1.54	48	191	868	271	108
WH		18	5	91	99	1.032	1.81	2.06	32.7	131.7	2.16	67	272	1,219	381	154
WH		19	1	93	99	.178	.35	.36	37.5	140.0	.43	13	50	241	75	28
WH		20	1	90	120	.168	.37	.34	44.6	190.0	.48	15	64	270	84	36
WH		23	1	85	119	.142	.41	.28	59.3	245.0	.54	17	70	304	95	39
WH		Totals	91	87	81	46.711	35.59	68.75	15.4	62.5	33.82	1,057	4,296	19,109	5,973	2,427
WL		10	2	85	67	1.501	.82	1.50	14.1	50.0	.68	21	75	382	119	42
WL		13	5	89	104	2.101	1.91	4.20	17.2	76.7	2.31	72	322	1,307	408	182
WL		14	5	87	82	1.834	1.95	3.22	19.2	77.4	1.97	62	249	1,113	348	141
WL		15	6	89	113	1.831	2.28	3.95	23.8	101.4	3.01	94	401	1,701	532	226
WL		16	5	88	105	1.375	1.92	2.75	27.4	114.9	2.41	75	316	1,362	426	179
WL		17	7	87	90	1.742	2.77	3.28	26.2	99.1	2.75	86	325	1,552	485	183
WL		18	7	88	100	1.542	2.71	3.53	28.6	109.3	3.23	101	386	1,827	571	218
WL		19	3	89	103	.591	1.13	1.37	30.9	123.2	1.35	42	168	763	239	95
WL		20	11	88	100	1.958	4.25	3.72	39.6	152.2	4.72	148	567	2,668	834	320
WL		21	4	88	100	.643	1.54	1.29	42.7	163.1	1.76	55	210	992	310	118
WL		22	4	88	107	.593	1.56	1.34	46.2	196.6	1.98	62	263	1,118	349	149
WL		23	1	87	89	.139	.40	.28	52.5	205.0	.47	15	57	263	82	32
WL		24	3	88	107	.376	1.16	.89	51.3	212.8	1.46	46	189	824	257	107
WL		26	4	90	103	.401	1.48	.79	70.5	302.2	1.79	56	240	1,012	316	136
WL		27	1	86	125	.102	.41	.20	62.3	290.0	.41	13	59	230	72	33
WL		30	1	85	126	.083	.41	.25	77.3	363.3	.61	19	90	347	109	51
WL		31	1	89	99	.071	.37	.14	101.6	440.0	.46	14	63	262	82	35
WL		Totals	70	88	97	16.883	27.07	32.70	30.0	121.7	31.37	980	3,979	17,723	5,539	2,248
RA		9	1	81	44	1.019	.45	1.02	6.7	30.0	.19	7	31	106	39	17
RA		10	2	85	85	1.502	.82	1.50	9.4	44.9	.39	14	67	220	80	38
RA		11	8	83	73	5.281	3.48	5.28	15.8	57.5	2.29	83	304	1,294	471	172
RA		12	8	83	78	4.438	3.49	5.49	15.5	56.2	2.35	85	309	1,326	481	174
RA		13	9	83	75	4.332	3.91	4.78	19.6	60.8	2.58	94	291	1,459	531	164
RA		14	14	82	78	5.872	6.21	7.63	22.8	71.6	4.78	174	546	2,699	982	309
RA		15	6	85	79	2.040	2.47	3.10	22.7	80.3	1.93	70	249	1,092	397	140
RA		16	3	78	72	1.052	1.47	1.42	29.4	75.1	1.15	42	106	648	236	60
RA		17	7	85	75	1.845	2.88	2.63	29.6	99.0	2.14	78	260	1,207	440	147
RA		18	1	80	34	.268	.47	.27	27.5	30.0	.20	7	8	114	42	5
RA		19	1	86	69	.208	.41	.42	27.4	95.0	.31	11	40	177	64	22
RA		20	1	81	73	.206	.45	.41	33.6	110.0	.38	14	45	216	78	26
RA		22	2	86	79	.304	.80	.61	38.4	155.0	.64	23	94	363	132	53
RA		24	1	84	74	.142	.43	.28	47.1	150.0	.37	13	43	209	76	24
RA		25	1	80	86	.139	.47	.28	45.6	165.0	.35	13	46	197	71	26
RA		Totals	65	83	75	28.650	28.22	35.11	20.8	69.4	20.05	729	2,438	11,326	4,119	1,378
NF		17	1	92	103	.236	.35	.47	29.9	130.0	.34	14	61	191	80	35
NF		19	1	88	125	.192	.39	.58	29.2	116.7	.40	17	67	229	95	38
NF		20	1	88	92	.176	.39	.18	13.8	30.0	.06	2	5	33	14	3
NF		22	1	88	114	.148	.39	.30	51.3	215.0	.36	15	64	206	86	36
NF		24	1	90	141	.116	.37	.35	50.0	233.3	.42	17	81	237	99	46
NF		26	1	91	132	.101	.36	.30	53.3	253.3	.39	16	77	219	91	43
NF		32	1	90	87	.068	.37	.14	87.0	350.0	.30	12	48	168	67	27

TC TSTNDSUM

Stand Table Summary

Project DEMO

T02N R07W S05 TSALE

T02N R07W S05 TSALE

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
02N	07W	05	RIPPLE	SALE	565.00		

Page: 3
Date: 09/10/2013
Time: 8:12:25AM

Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
NF		Totals	7	90	113	1.038	2.62	2.31	40.7	174.7	2.27	94	403	1,282	531	228
Totals			621	86	92	190.518	246.96	335.48	25.5	103.2	245.80	8553	34,625	138,875	48,325	19,563

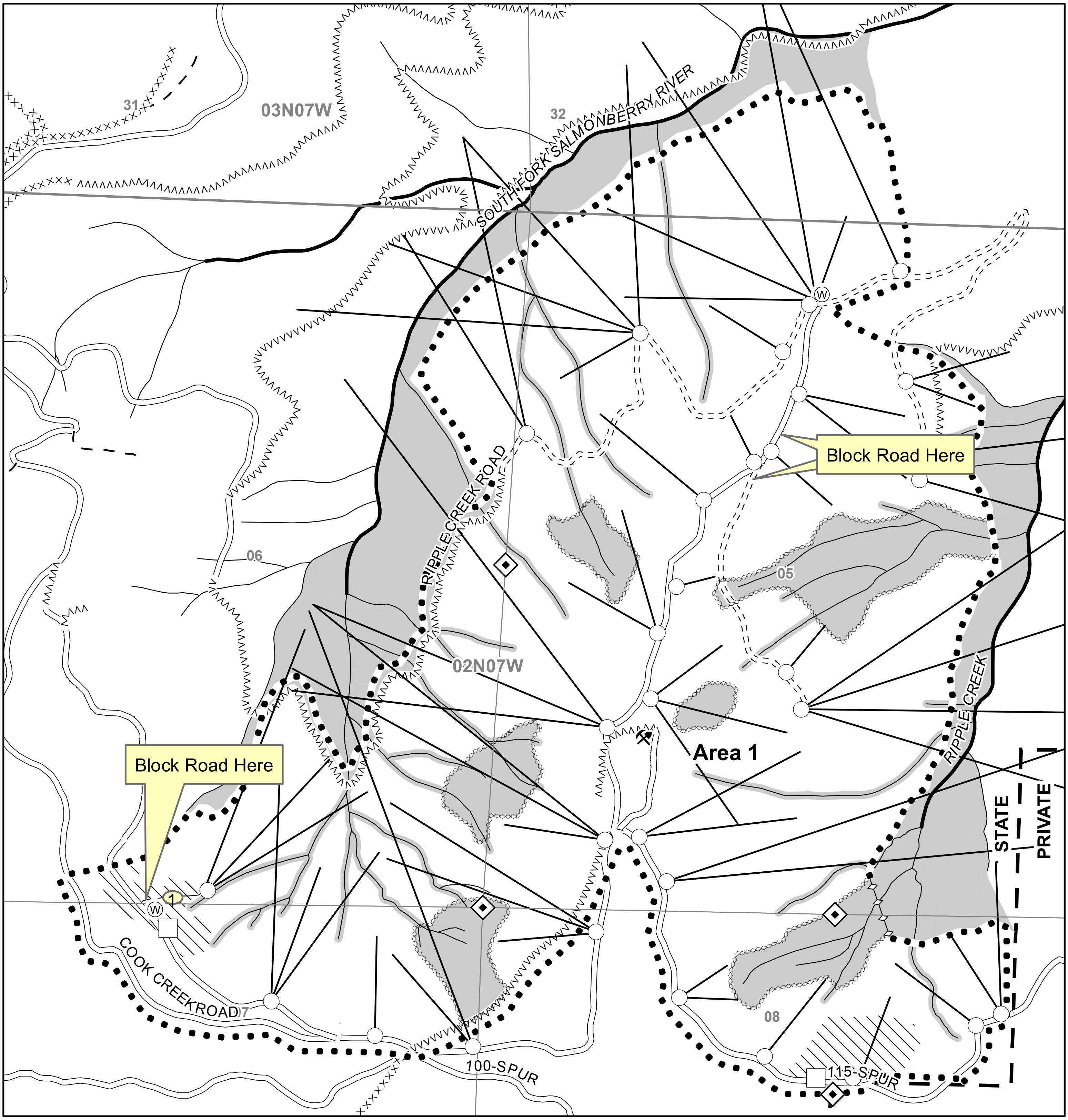
"STEWARDSHIP IN FORESTRY"

Ripppleberry

Volume Summary

Area 1-Partial Cut				
		565 acres		
	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	6.7	3761	5%	3573
Hemlock	4.3	2427	5%	2306
TOTAL	11.0	6188		5879

TOTAL SALE VOLUME	**565**	**acres**
SPECIES	Cruised Net (MBF)	Net Sale (MBF)
Douglas-fir	3761	3573
Hemlock	2427	2306
TOTAL	6188	5879



Rock source
Stock pile
Waste area
Bridge
Gate
Survey corner
Domestic water supply intake
Truck turn-around
Helicopter landing zone
Cultural site
Yarder Landing
Buffer
Non-required thinning

Cable yarding
Ground yarding
Helicopter yarding
Downhill yarding
Green tree retention area
Restricted area
Area boundary
Sale boundary
Ownership boundary
Tractor Landing
Posted Buffer

Perennial Type-F stream
Perennial Type-N stream
Unsurfaced road
Surfaced road
Paved road
VVVVVVV Abandoned road
--A-- Swing road
(2) Non-project road
XXXXX Blocked road
OHV trail
Non-motorized trail
T—T Transmission line
Railroad
Un-posted sale boundary

LOGGING PLAN
Timber Sale Contract No. 341-14-065
RIPPLEBERRY
Portions of Sections 32, T3N, R7W,
and sections 5, 6, 7, and 8, T2N, R7W, W.M.,
Tillamook County, Oregon

1,000 0 1,000 Feet

N

Tillamook District GIS
9/16/2013
This product is for informational use and may not have been prepared or suitable for legal, engineering, or surveying purposes.

Area	Type of Operation	Acres Gross	Acres Net
1	Partial Cut	689	565