"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Jolly Roger
Sale 341-12-59

District: **Tillamook** **Date:** **April 11, 2012**

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$526,874.53	$570,569.60	$1,097,444.13
		Project Work:	$(214,060.00)
		Advertised Value:	$883,384.13

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timber description

Location: Portions of Sections 30 and 31, T1N, R7W and portions of Sections 5, 6, 7, 8, 9, 17, 18, and 20, T1S, R7W, W.M., Tillamook County, Oregon.

Stand Stocking: 40%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	13	0	95
Alder (Red)	14	0	90

Volume by Grade	10" - 11"	12"+	2S	3S	4S	6" - 7"	8" - 9"	Total
Douglas - Fir	0	0	699	1,471	769	0	0	2,939
Alder (Red)	524	336	0	0	0	1,138	530	2,528
Total	524	336	699	1,471	769	1,138	530	5,467

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comments: Pond Values Used: 1st Quarter Calendar Year 2012.

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Costs
$150/MBF = $450/MBF - $300/MBF

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Costs
$645/MBF = $945/MBF - $300/MBF

Pulp (Conifer and Hardwood) Price = $25/MBF

SCALING COST ALLOWANCE = $5.00/MBF

FUEL COST ALLOWANCE = $4.00/Gallon

HAULING COST ALLOWANCE
Hauling cost equivalent to $780 daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: $2/MBF x 5,467 MBF = $10,934
Area 1 Snag creation by girdling at DBH: 176 snags x $5/snag = $880
TOTAL Other Costs (with Profit & Risk to be added) = $11,814

Other Costs (No Profit & Risk added):
Slash Piling and Sorting: $5/acre x 380 (cable) acres = $1,900
Cover material for piles: 25 piles x $5/pile = $125
Construct Motorcycle Filter in Areas 1 and 4: 5 x $ 75/each = $375
Construct Quad Filter in Area 1: 1 x $75 = $75
Construct 4WD Filter in Area 1: 1 x $75 = $75
Block spur roads in Areas 1 and 4 with Tank Traps: 4 x $75/each = $300
Equipment movement between Areas 1, 2, 3, and 4: 3 pieces x 11.1 miles x $45/mile = $1,498
Tailhold dozer for Area 2: 3 months x $ 1,500/ month + $300 move in = $4,800
TOTAL Other Costs (No Profit & Risk added) = $9,148

ROAD MAINTENANCE
Road Maintenance: Fox Creek Ridge Road, Roger's Road, and Hembre Ridge Road
Interim Grading: $250/mile x 13.5 miles x 4 times / 5,467 MBF = $ 2.47/ MBF
Spot rocking: 20 cy/mile x 15.00/cy x 5.6 MMBF x 13.5 miles / 5,467 MBF = $ 4.15/ MBF
Compaction of Fox Creek Ridge Road from its junction with Hwy 6 to its junction with Rogers Road: 3.0 miles ((158 stations x $18/ station) + $111 move-in) / 5,467 MBF = $0.54/ MBF
Compaction of Kansas Creek Road from its junction with the County Road to its junction with Trask Cut-off: 2.3 miles ((121 stations x $18/ station) + $111 move-in) / 5,467 MBF = $ 0.42

Final Maintenance Grading: $500 x 13.5 miles/ 5,467 MBF = $ 1.24/ MBF
Total Road Maintenance: $8.82/MBF

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District: Tillamook

Date: April 11, 2012

logging conditions

combination#: 1 Douglas - Fir 95.00%

yarding distance: Long (1,500 ft) **downhill yarding:** No
logging system: Cable: Large Tower >=70 **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 5.2 **bd. ft / load:** 3,500
cost / mbf: $210.26

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

combination#: 2 Alder (Red) 95.00%

yarding distance: Long (1,500 ft) **downhill yarding:** No
logging system: Cable: Large Tower >=70 **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 6.0 **bd. ft / load:** 3,000
cost / mbf: $212.56

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

combination#: 3 Douglas - Fir 5.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 6.1 **bd. ft / load:** 3,500
cost / mbf: $67.81

machines: Stroke Delimber (B)

combination#: 4 Alder (Red) 5.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 4.0 **bd. ft / load:** 3,300
cost / mbf: $108.96

machines: Stroke Delimber (B)

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Jolly Roger
Sale 341-12-59

District: Tillamook

Date: April 11, 2012

logging costs

Operating Seasons:	2.00	**Profit Risk:**	15.00%
Project Costs:	$214,060.00	**Other Costs (P/R):**	$11,814.00
Slash Disposal:	$0.00	**Other Costs:**	$9,148.00

Miles of Road

Road Maintenance: $8.82

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	3.5
Alder (Red)	$0.00	3.0	3.3

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Timber Sale Appraisal
Jolly Roger
Sale 341-12-59

District: Tillamook

Date: April 11, 2012

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
$203.14	$9.26	$1.60	$60.87	$2.16	$41.55	$0.00	$5.00	$1.67	$325.25
Alder (Red)									
$207.38	$9.70	$1.60	$67.63	$2.16	$43.27	$0.00	$5.00	$1.67	$338.41

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$504.52	$179.27	$0.00
Alder (Red)	$0.00	$564.11	$225.70	$0.00

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summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	$0.00	$0.00
Alder (Red)	0	$0.00	$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	2,939	$179.27	$526,874.53
Alder (Red)	2,528	$225.70	$570,569.60

Gross Timber Sale Value

Recovery: $1,097,444.13

Prepared by: David Wells

Phone: 503-842-2545

PROJECT SUMMARY SHEET

Sale: Jolly Roger

CONSTRUCTION

Point	A to B	10+35	stations =	$6,742.30
Point	C to D	3+60	stations =	$7,711.72
Point	E to F	2+40	stations =	$4,623.68
Point	G to H	33+60	stations =	$23,550.72
Point	I to J	35+95	stations =	$66,735.69
Point	K to L	10+65	stations =	$6,322.90
Point	M to N	5+60	stations =	$3,071.42
Point	O to P	2+20	stations =	$2,807.59
			SUBTOTAL CONSTRUCTION	**$121,566.02**

IMPROVEMENT

Point	A to B	82+30	stations =	$57,390.81
Point	G to H	57+00	stations =	$19,742.51
Point	Q to R	23+40	stations =	$2,373.88
			SUBTOTAL IMPROVEMENT	**$79,507.20**

RECONSTRUCTION

Point	K to L	17+35	stations =	$8,561.69
			SUBTOTAL RECONSTRUCTION	**$8,561.69**

MOVE IN **$4,425.09**

GRAND TOTAL **$214,060.00**

SUMMARY OF CONSTRUCTION COST

Sale: **Jolly Roger** Road: **A to B**

Construction -	10+35	stations	Improvement -	82+30	stations	Reconstruction -	0+00	stations
	0.20	miles		1.56	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
82+30		84+00	15%		Outslope	$107	=	$181.90	
84+00		87+20	35%		Outslope	$191	=	$611.20	
87+20		90+20	20%		Outslope	$139	=	$417.00	
90+20		90+95	Turnaround/Fill		Outslope	$507	=	$380.25	
90+95		92+05	Cut & Drift Back		Outslope	$200	=	$220.00	
92+05		92+65	Land. Const.		Outslope	$1,300	=	$780.00	
								TOTAL	**$2,590.35**

IMPROVEMENT: CLEARING AND GRUBBING -

Realignment/Full Bench	0.167	acres @	$1,500.00	per acre =	$250.50	
All Widening	0.882	acres @	$1,500.00	per acre =	$1,323.00	
					TOTAL CLEARING AND GRUBBING	**$1,573.50**

IMPROVEMENT: EXCAVATION -

Realignment/Full Bench	9+90	to	16+60	2200	cy. @	$1.40	per c.y.=	$3,080.00	
Road Earthwork	55+00	to	58+95	3.95	sta. @	$150.00	per sta. =	$592.50	
General Widening	58+95	to	76+60	2650	cy. @	$1.40	per c.y.=	$3,710.00	
Road Earthwork	76+60	to	77+30	0.70	sta. @	$150.00	per sta. =	$105.00	
Curve Widening	77+30	to	79+60	1210	cy. @	$1.40	per c.y.=	$1,694.00	
General Widening	79+60	to	82+30	370	cy. @	$1.40	per c.y.=	$518.00	
								TOTAL EXCAVATION	**$9,699.50**

IMPROVEMENT: ENDHAUL -

Realignment/Full Bench	9+90	to	16+60	2200	cy. @	$1.70	per c.y.=	$3,740.00	
General Widening	58+95	to	76+60	2650	cy. @	$1.61	per c.y.=	$4,266.50	
Curve Widening	77+30	to	79+60	1210	cy. @	$2.18	per c.y.=	$2,637.80	
General Widening	79+30	to	82+30	370	cy. @	$2.30	per c.y.=	$851.00	
Spread & compact				6430	cy. @	$0.25	per c.y.=	$1,607.50	
								TOTAL ENDHAUL	**$13,102.80**

ROCK

9+90 to	16+60	350	cy. of	Crushed	@	$14.26	per c.y.=	$4,991.00	
9+90 to	16+60	130	cy. of	Stockpile	@	$6.86	per c.y.=	$891.80	
55+00 to	92+05	1,730	cy. of	Crushed	@	$15.21	per c.y.=	$26,313.30	
Landing Rock	92+30	100	cy. of	Crushed	@	$15.50	per c.y.=	$1,550.00	
								TOTAL ROCK	**$33,746.10**

SPECIAL PROJECTS

Construct waste areas -	3.00	hours @	$130.00	per hour	$390.00	
Grade and shape road -	92.65	stations @	$15.50	per station	$1,436.08	
Roll subgrade w/ vibratory roller prior to rocking -	92.65	stations @	$13.20	per station	$1,222.98	
Grass seed and fertilize -	1.69	acres @	$220.00	per acre	$371.80	
					TOTAL SPECIAL PROJECTS	**$3,420.86**

GRAND TOTAL **$64,133.11**

SUMMARY OF CONSTRUCTION COST

Sale: **Jolly Roger** Road: **C to D**

Construction -	3+60	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.07	miles		0.00	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		3+00	60%	0.2	Outslope	$900	=	$2,700.00	
3+00		3+60	Land. Const.		Outslope	$1,300	=	$780.00	
								TOTAL	**$3,480.00**

ROCK

0+00	to	3+00	160	cy. of	Crushed	@	$15.24 per c.y.=	$2,438.40	
Landing Rock		3+30	100	cy. of	Crushed	@	$15.27 per c.y.=	$1,527.00	
								TOTAL ROCK	**$3,965.40**

SPECIAL PROJECTS

Construct waste areas -	1.00	hours @	$130.00	per hour	$130.00	
Grade and shape road -	3.60	stations @	$15.50	per station	$55.80	
Roll subgrade w/ vibratory roller prior to rocking -	3.60	stations @	$13.20	per station	$47.52	
Grass seed and fertilize -	0.15	acres @	$220.00	per acre	$33.00	
				TOTAL SPECIAL PROJECTS		**$266.32**

GRAND TOTAL **$7,711.72**

SUMMARY OF CONSTRUCTION COST

Sale: **Jolly Roger** Road: **E to F**

Construction -	2+40	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.05	miles		0.00	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		1+80	20%/Fill Const.		Outslope	$450	=	$810.00	
1+80		2+40	Land. Const.		Outslope	$335	=	$201.00	
								TOTAL	**$1,011.00**

ROCK

0+00	to	1+80	110	cy. of	Crushed	@	$15.36 per c.y.=	$1,689.60	
Landing Rock		2+10	100	cy. of	Crushed	@	$15.36 per c.y.=	$1,536.00	
Junction Rock		0+30	20	cy. of	Crushed	@	$15.36 per c.y.=	$307.20	
								TOTAL ROCK	**$3,532.80**

SPECIAL PROJECTS

Grade and shape road -	2.40	stations @	$15.50	per station	$37.20	
Roll subgrade w/ vibratory roller prior to rocking -	2.40	stations @	$13.20	per station	$31.68	
Grass seed and fertilize -	0.05	acres @	$220.00	per acre	$11.00	
				TOTAL SPECIAL PROJECTS		**$79.88**

GRAND TOTAL **$4,623.68**

SUMMARY OF CONSTRUCTION COST

Sale: **Jolly Roger** Road: **G to H**

Construction -	33+60	stations	Improvement -	57+00	stations	Reconstruction -	0+00	stations
	0.64	miles		1.08	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
57+00		61+50	30%		Outslope	$191	=	$859.50	
61+50		70+50	10%		Outslope	$90	=	$810.00	
70+50		72+00	Cut & Drift		Outslope	$140	=	$210.00	
72+00		73+50	Fill Const.		Crown	$500	=	$750.00	
73+50		83+50	15%		Outslope	$107	=	$1,070.00	
83+50		87+76	60%	0.1	Outslope	$1,521	=	$6,479.46	
87+76		88+54	Turnaround/Fill		Outslope	$500	=	$390.00	
88+54		90+24	Land. Const.		Outslope	$1,200	=	$2,040.00	
90+24		90+60	40%		Outslope	$243	=	$87.48	
								TOTAL	**$12,696.44**

IMPROVEMENT: CLEARING AND GRUBBING -

TOTAL CLEARING AND GRUBBING **$0.00**

IMPROVEMENT: EXCAVATION -

Remove & Replace Culvert @ 00+50	8.00	hours @	$150.00	per hour =	$1,200.00	
				TOTAL EXCAVATION		**$1,200.00**

IMPROVEMENT: ENDHAUL -

Remove Excavted Material @ 00+50	100	cy. @	$1.04	per c.y.=	$104.00	
Spread & compact	100	cy. @	$0.25	per c.y.=	$25.00	
				TOTAL ENDHAUL		**$129.00**

CULVERTS - MATERIALS & INSTALLATION

Culverts

50	LF of 36"	$2,055.00	
		$2,055.00	

Culvert Stakes & Markers

1	markers	$8.00	
		$8.00	
	TOTAL CULVERTS		**$2,063.00**

ROCK

0+00	to	1+00	70	cy. of	Crushed	@	$13.83	per c.y.=	$968.10	
57+00	to	90+60	1,590	cy. of	Crushed	@	$13.34	per c.y.=	$21,210.60	
0+00	to	1+00	40	cy. of	Stockpile	@	$6.11	per c.y.=	$244.40	
Culvert Backfill		0+50	20	cy. of	Stockpile	@	$3.66	per c.y.=	$73.20	
Landing Rock		89+90	100	cy. of	Crushed	@	$13.56	per c.y.=	$1,356.00	
Spot Rock		s Marked In Fie	200	cy. of	Stockpile	@	$6.26	per c.y.=	$1,252.00	
Energy Dissipator		0+50	30	cy. of	Riprap	@	$6.05	per c.y.=	$181.50	
									TOTAL ROCK	**$25,285.80**

SPECIAL PROJECTS

Grade and shape road only 57+00 to 90+55 -	33.55	stations @	$15.50	per station	$520.03	
Roll subgrade w/ vibratory roller prior to rocking only 57+00 to 90+55 -	33.55	stations @	$13.20	per station	$442.86	
Rental and labor to hand tamp culvert backfill @ 00+50	1.00	lump sum @	$255.00		$255.00	
Remove culvert @ 00+50 from state lands	1.00	@	$192.90	total	$192.90	
Grass seed and fertilize -	2.31	acres @	$220.00	per acre	$508.20	
				TOTAL SPECIAL PROJECTS		**$1,918.99**

GRAND TOTAL **$43,293.23**

SUMMARY OF CONSTRUCTION COST

Sale: **Jolly Roger** Road: **I to J**

Construction -	35+95	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.68	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING IN FILLS -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		35+95			Outslope	$1,195	=	$42,960.25	
								TOTAL	**$42,960.25**

ROCK

0+00	to	35+95	1,710	cy. of	Crushed	@	$11.74	per c.y.=	$20,075.40	
0+45	to	6+15	80	cy. of	Stockpile	@	$5.41	per c.y.=	$432.80	
Landing Rock		35+95	100	cy. of	Crushed	@	$12.02	per c.y.=	$1,202.00	
Junction Rock		0+00	20	cy. of	Crushed	@	$11.46	per c.y.=	$229.20	
									TOTAL ROCK	**$21,939.40**

SPECIAL PROJECTS

Construct landing at 35+95 -	1.00	@	$300.00	each	$300.00	
Construct turnaround -	1.00	@	$75.00	each	$75.00	
Grade and shape road -	35.95	stations @	$14.00	per station	$503.30	
Roll subgrade w/ vibratory roller prior to rocking -	35.95	stations @	$13.20	per station	$474.54	
Grass seed and fertilize -	1.07	acres @	$220.00	per acre	$235.40	
Mulching -	0.413	acres @	$600.00	per acre	$247.80	
					TOTAL SPECIAL PROJECTS	**$1,836.04**

GRAND TOTAL **$66,735.69**

SUMMARY OF CONSTRUCTION COST

Sale: **Jolly Roger** Road: **K to L**

Construction -	10+65	stations	Improvement -	0+00	stations	Reconstruction -	17+35	stations
	0.20	miles		0.00	miles		0.33	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			
17+35		18+00	15%		Outslope	$107	=	$69.55	
18+00		18+70	35%		Outslope	$191	=	$133.70	
18+70		21+00	60%	0.1	Outslope	$1,521	=	$3,498.30	
21+00		21+90	15%		Outslope	$107	=	$96.30	
21+90		22+35	25%		Outslope	$165	=	$74.25	
22+35		24+70	30%		Outslope	$191	=	$448.85	
24+70		28+00	15%		Outslope	$107	=	$353.10	
								TOTAL	**$4,674.05**

RECONSTRUCTION: CLEARING AND GRUBBING -

Side cast	0.058	acres @	$660.00	per acre =	$38.28	
Widening	0.060	acres @	$660.00	per acre =	$39.60	
Endhaul	0.880	acres @	$1,500.00	per acre =	$1,320.00	
					TOTAL CLEARING AND GRUBBING	**$1,397.88**

RECONSTRUCTION: EXCAVATION -

Road Earthwork	17.35	sta. @	$25.00	per sta. =	$433.75	
Pullback	243	cy. @	$1.40	per c.y.=	$340.20	
Widening	989	cy. @	$1.40	per c.y.=	$1,384.60	
					TOTAL EXCAVATION	**$2,158.55**

RECONSTRUCTION: ENDHAUL -

Pullback	12+40	to	13+80	243	cy. @	$1.64	per c.y.=	$398.52	
Widening	12+40	to	13+40	642	cy. @	$1.62	per c.y.=	$1,040.04	
Widening	13+40	to	13+80	347	cy. @	$1.65	per c.y.=	$572.55	
Spread & compact				1232	cy. @	$0.25	per c.y.=	$308.00	
								TOTAL ENDHAUL	**$2,319.11**

ROCK

0+00	to	1+00	60	cy. of	Crushed	@	$15.34	per c.y.=	$920.40	
Junction Rock		0+00	20	cy. of	Crushed	@	$15.33	per c.y.=	$306.60	
									TOTAL ROCK	**$1,227.00**

SPECIAL PROJECTS

Construct turnaround -	1.00	@	$75.00	each	$75.00	
Construct ditchouts -	1.00	@	$60.00	each	$60.00	
Construct waste area @ 17+35 -	1.50	hours @	$130.00	per hour	$195.00	
Construct ditch from 0+00 to 1+40 -	1.40	stations @	$80.00	per station	$112.00	
Grade and shape road -	28.00	stations @	$14.00	per station	$392.00	
Construct landing -	1.00	@	$450.00	each	$450.00	
Roll subgrade w/ vibratory roller prior to rocking -	28.00	stations @	$13.20	per station	$369.60	
Remove large stumps -	1.00	lump sum @	$1,200.00		$1,200.00	
Grass seed and fertilize -	1.02	acres @	$220.00	per acre	$224.40	
Mulching -	0.050	acres @	$600.00	per acre	$30.00	
					TOTAL SPECIAL PROJECTS	**$3,108.00**

GRAND TOTAL **$14,884.59**

SUMMARY OF CONSTRUCTION COST

Sale: **Jolly Roger** Road: **M to N**

Construction -	5+60	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.11	miles		0.00	miles		0.00	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		0+55	15%		Outslope	$107	=	$58.85	
0+55		1+80	25%		Outslope	$165	=	$206.25	
1+80		5+60	15%		Outslope	$107	=	$406.60	
								TOTAL	**$671.70**

CULVERTS - MATERIALS & INSTALLATION

Culverts				
34	LF of 18"	$595.00		
		$595.00		
Culvert Stakes & Markers				
1	markers	$8.00		
		$8.00	**TOTAL CULVERTS**	**$603.00**

ROCK

3+30	to	4+30	60	cy. of	Crushed	@	$15.45	per c.y.=	$927.00	
Energy Dissipator		3+80	10	cy. of	Riprap	@	$8.90	per c.y.=	$89.00	
									TOTAL ROCK	**$1,016.00**

SPECIAL PROJECTS

Construct turnaround -	1.00	@	$75.00	each	$75.00	
Grade and shape road -	5.60	stations @	$14.00	per station	$78.40	
Construct landing -	1.00	@	$200.00	each	$200.00	
Roll subgrade w/ vibratory roller prior to rocking -	5.60	stations @	$13.20	per station	$73.92	
Remove large stumps -	1.00	lump sum @	$250.00		$250.00	
Grass seed and fertilize -	0.26	acres @	$220.00	per acre	$57.20	
Mulching -	0.077	acres @	$600.00	per acre	$46.20	
					TOTAL SPECIAL PROJECTS	**$780.72**

GRAND TOTAL **$3,071.42**

SUMMARY OF CONSTRUCTION COST

Sale: **Jolly Roger** Road: **O to P**

Construction -	2+20	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.04	miles		0.00	miles		0.00	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		0+50	30%		Outslope	$191	=	$95.50	
0+50		1+60	10%		Outslope	$90	=	$99.00	
1+60		1+85	20%		Outslope	$139	=	$34.75	
1+85		2+20	10%		Outslope	$90	=	$31.50	
								TOTAL	**$260.75**

CULVERTS - MATERIALS & INSTALLATION

Culverts				
34	LF of 18"	$595.00		
		$595.00		
Culvert Stakes & Markers				
1	markers	$8.00		
		$8.00	**TOTAL CULVERTS**	**$603.00**

ROCK

0+00	to	1+00	60	cy. of	Crushed	@	$15.24	per c.y.=	$914.40	
Junction Rock		0+00	20	cy. of	Crushed	@	$15.23	per c.y.=	$304.60	
									TOTAL ROCK	**$1,219.00**

SPECIAL PROJECTS

Construct turnaround -	1.00	@	$75.00	each	$75.00	
Construct landing -	1.00	@	$250.00	each	$250.00	
Grade and shape road -	2.20	stations @	$14.00	per station	$30.80	
Roll subgrade w/ vibratory roller prior to rocking -	2.20	stations @	$13.20	per station	$29.04	
Remove large stumps -	1.00	lump sum @	$300.00		$300.00	
Grass seed and fertilize -	0.10	acres @	$220.00	per acre	$22.00	
Mulching -	0.030	acres @	$600.00	per acre	$18.00	
					TOTAL SPECIAL PROJECTS	**$724.84**

GRAND TOTAL **$2,807.59**

SUMMARY OF CONSTRUCTION COST

Sale: **Jolly Roger** Road: **Q to R**

Construction -	0+00	stations	Improvement -	23+40	stations	Reconstruction -	0+00	stations
	0.00	miles		0.44	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.210	acres @	$980.00	per acre =	$205.80	
				TOTAL CLEARING AND GRUBBING		**$205.80**

ROCK

Landing Rock	23+40	80	cy. of	Crushed	@	$15.14	per c.y.=	$1,211.20	
							TOTAL ROCK		**$1,211.20**

SPECIAL PROJECTS

Improve landing @ 23+40 -	1.00	hours @	$130.00	per hour	$130.00	
Construct ditchouts @ 8+75 -	2.00	@	$60.00	each	$120.00	
Grade and shape road -	23.40	stations @	$14.00	per station	$327.60	
Roll subgrade w/ vibratory roller prior to rocking -	23.40	stations @	$13.20	per station	$308.88	
Grass seed and fertilize -	0.32	acres @	$220.00	per acre	$70.40	
				TOTAL SPECIAL PROJECTS		**$956.88**

GRAND TOTAL **$2,373.88**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Stockpile	Location:	NW 1/4, SE 1/4, Sec. 4, T1S, R7W, W.M.
Sale:	**Jolly Roger**	Road:	470 c.y.
Swell:		Stockpile:	c.y.
Shirinkage		Total Truck Loads:	470 c.y.
Drill Pct.:	0%	In Place Total:	c.y.

	Load Dump Truck:	$0.70	/cu.yd.	x	470 cu.yds.	=	$329.00
						Subtotal	$329.00
Within Area	Move in Roller and Compactor	2	miles @	$5.00		=	$10.00
Within Area	Move in Grader	2	miles @	$4.00		=	$8.00
Within Area	Move in Loader	2	miles @	$9.00		=	$18.00
	Move in Trucks	2	@	$127.84		=	$255.68
						Subtotal	$291.68
						TOTAL PRODUCTION COSTS	$620.68
	Base Cost=	$1.32	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 990 1660 (Stockpile)	3.09	2.45	1.32	6.86	130		$891.80
G to H 0 100 (Stockpile)	2.34	2.45	1.32	6.11	40		$244.40
G to H Culvert Backfill (Stockpile)	2.34	0.00	1.32	3.66	20		$73.20
G to H Spot Rock (Stockpile)	2.49	2.45	1.32	6.26	200		$1,252.00
I to J 45 615 (Stockpile)	1.64	2.45	1.32	5.41	80		$432.80
				Total C.Y.	470	Sub Total	$2,894.20

TOTAL ROCKING COSTS	$2,894.20

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed	Location:	NW 1/4, NW 1/4, Sec 10, T1S, R7W, WM
Sale:	**Jolly Roger**	Road:	6600 c.y.
Swell:	1.40	Stockpile:	c.y.
Shirinkage	1.16	Total Truck Loads:	6600 c.y.
Drill Pct.:	100%	In Place Total:	4714 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.							$3,160.36
Drill & Shoot:	$2.50	/cu.yd.	x	4714	cu.yds.	=	$11,785.00
Push Rock:	$0.70	/cu.yd.	x	6600	cu.yds.	=	$4,620.00
Load Crusher:	$0.70	/cu.yd.	x	6600	cu.yds.	=	$4,620.00
Crush Rock:	$2.35	/cu.yd.	x	6600	cu.yds.	=	$15,510.00
Load Dump Truck:	$0.70	/cu.yd.	x	6600	cu.yds.	=	$4,620.00
Oversize Reduction:	$4.50	/cu.yd.	x	236	cu.yds.	=	$1,062.00
						Subtotal	$45,377.36

Move In/Set-up Crusher	1	@	$1,700.00		$1,700.00
Move In and set up Drill and Compressor	1	@	$401.35	=	$401.35
Move in Roller and Compactor	1	@	$401.35	=	$401.35
Move in Grader	1	@	$131.40	=	$131.40
Move in Loader	1	@	$461.17	=	$461.17
Move in Excavator	1	@	$635.79	=	$635.79
Move in Trucks	2	@	$127.84	=	$255.68
Move in Water Truck	1	@	$150.27	=	$150.27
				Subtotal	$4,137.01
				TOTAL PRODUCTION COSTS	$49,514.37

Base Cost= $7.50 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 990 1660 (Crushed)	4.31	2.45	7.50	14.26	350		$4,991.00
A to B 5500 9205 (Crushed)	5.26	2.45	7.50	15.21	1730		$26,313.30
A to B Landing Rock (Crushed)	5.55	2.45	7.50	15.50	100		$1,550.00
C to D 0 300 (Crushed)	5.29	2.45	7.50	15.24	160		$2,438.40
C to D Landing Rock (Crushed)	5.32	2.45	7.50	15.27	100		$1,527.00
E to F 0 180 (Crushed)	5.41	2.45	7.50	15.36	110		$1,689.60
E to F Landing Rock (Crushed)	5.41	2.45	7.50	15.36	100		$1,536.00
E to F Junction Rock (Crushed)	5.41	2.45	7.50	15.36	20		$307.20
G to H 0 100 (Crushed)	3.88	2.45	7.50	13.83	70		$968.10
G to H 5700 9060 (Crushed)	3.39	2.45	7.50	13.34	1590		$21,210.60
G to H Landing Rock (Crushed)	3.61	2.45	7.50	13.56	100		$1,356.00
G to H Energy Dissipator (Riprap)	2.65	1.40	2.00	6.05	30		$181.50
I to J 0 3595 (Crushed)	1.79	2.45	7.50	11.74	1710		$20,075.40
I to J Landing Rock (Crushed)	2.07	2.45	7.50	12.02	100		$1,202.00
I to J Junction Rock (Crushed)	1.51	2.45	7.50	11.46	20		$229.20
K to L 0 100 (Crushed)	5.39	2.45	7.50	15.34	60		$920.40
K to L Junction Rock (Crushed)	5.38	2.45	7.50	15.33	20		$306.60
M to N 330 430 (Crushed)	5.50	2.45	7.50	15.45	60		$927.00
M to N Energy Dissipator (Riprap)	5.50	1.40	2.00	8.90	10		$89.00
O to P 0 100 (Crushed)	5.29	2.45	7.50	15.24	60		$914.40
O to P Junction Rock (Crushed)	5.28	2.45	7.50	15.23	20		$304.60
Q to R Landing Rock (Crushed)	5.19	2.45	7.50	15.14	80		$1,211.20
				Total C.Y.	6600	Sub Total	$90,248.50

TOTAL ROCKING COSTS	$90,248.50

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

Sale: **Jolly Roger**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
33.0	Pavement	30
6.0	Main Lines	7
2.0	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	Roller/Compactor for fills	$401.35		$5.00	0.00	0.00	0	$0.00	$401.35
1	Excavators (Med.)	$523.27		$35.50	0.00	0.00	12	$426.00	$949.27
1	Excavators (Large)	$661.09	1	$44.80	0.00	0.00	12	$537.60	$1,198.69
1	Tractor (D8)	$631.97	2	$15.10	0.00	0.00	12	$181.20	$813.17
2	Dump Truck (10 cy +)	$320.30		$2.85	0.00	0.00	0	$0.00	$320.30
1	Dump Truck (Off Hiway)	$523.27	1	$4.75	0.00	0.00	12	$57.00	$580.27
1	Water Truck (1500 Gal)	$127.84		$2.85	0.00	0.00	12	$34.20	$162.04
					TOTAL MOVE-IN COSTS:				$4,425.09

Jolly Roger

Volume Summary

Area 1-Modified Clearcut				
	89 acres			
	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	9.6	854	5%	811
Hemlock	0.0	0	5%	0
Spruce		0	5%	0
Noble Fir			5%	0
Alder	6.3	563	10%	507
TOTAL	15.9	1417		1318

Area 2-Modified Clearcut				
	104 acres			
	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	4.2	441	5%	419
Hemlock		0	5%	0
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder	8.4	873	10%	786
TOTAL	12.6	1314		1204

Area 3-Modified Clearcut				
	106 acres			
	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	11.6	1235	5%	1173
Hemlock		0	5%	0
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder	5.6	592	10%	533
TOTAL	17.2	1827		1706

Jolly Roger

"STEWARDSHIP IN FORESTRY"

Volume Summary

Area 4-Retention Cut				
	106 acres			
	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	5.3	564	5%	536
Hemlock		0	5%	0
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder	7.4	780	10%	702
TOTAL	12.7	1344		1238

TOTAL SALE VOLUME	**405 acres**	
SPECIES	Cruised Net (MBF)	Net Sale (MBF)
Douglas-fir	3093	2939
Hemlock	0	0
Spruce	0	0
Noble Fir	0	0
Red Alder	2808	2528
TOTAL	5901	5467

TC TLOGSTVB

Log Stock Table - MBF

Project: JOLLYRG2

T01N R07W S31 TSALE **T01N R07W S31 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	
01N	07W	31	AREA_1	SALE	89.00	17	107	Page 1 Date 1/5/2012 Time 7:30:27AM

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+
RA		H	1	40	20	28.0	15	2.9								15				
RA		H	2	20	12	10.0	11	2.2						11						
RA		H	2	24	26	10.0	24	4.7						12	11					
RA		H	2	30	12	22.9	9	1.8							9					
RA		H	2	34	14	22.9	11	2.1						11						
RA		H	2	36	25	20.0	20	4.0						20						
RA		H	2	40	18	28.8	13	2.5						13						
RA		H	3	14	8	10.0	7	1.5						7						
RA		H	3	20	10	10.0	9	1.7					9							
RA		H	3	24	26	10.0	23	4.6					23							
RA		H	3	34	31	10.0	28	5.5					28							
RA		H	3	36	19	21.2	15	2.9					15							
RA		H	3	40	30	10.0	27	5.4					27							
RA		H	4	20	5	10.0	4	.8			4									
RA		H	4	21	15	10.0	13	2.6			13									
RA		H	4	22	3	10.0	2	.5			2									
RA		H	4	23	7	10.0	6	1.2			6									
RA		H	4	25	2	10.0	2	.4			2									
RA		H	4	30	12	10.0	11	2.1			11									
RA		H	4	36	9	10.0	9	1.7			9									
RA		H	4	38	51	10.0	46	9.0			34	12								
RA		H	4	39	4	25.0	3	.7			3									
RA		H	4	40	221	10.0	199	39.3			92	107								
RA		Totals			580	12.7	507	31.3			176	119	102	75	20	15				
DF		CO	2	34	5	16.2	4	.5						4						
DF		CO	2	36	19	5.0	18	2.2									18			
DF		CO	2	40	445	5.5	421	51.9						161	85	156	18			
DF		CO	3	36	2	5.0	2	.2			2									
DF		CO	3	40	303	5.0	288	35.4			62	69	143	14						
DF		CO	4	12	1	5.0	1	.1		1	0									
DF		CO	4	16	5	5.0	5	.6		5										
DF		CO	4	20	10	5.0	9	1.2		8	1									
DF		CO	4	21	1	5.0	1	.1			1									
DF		CO	4	22	6	5.0	5	.7		1	1	4								
DF		CO	4	23	1	5.0	1	.2		1										
DF		CO	4	27	3	5.0	3	.3		2	1									
DF		CO	4	28	7	5.0	6	.8		6										
DF		CO	4	30	4	5.0	3	.4		3										
DF		CO	4	33	4	5.0	4	.5		4										
DF		CO	4	34	6	5.0	6	.7		6										
DF		CO	4	36	2	5.0	1	.2		1										
DF		CO	4	38	12	5.0	11	1.4		11										
DF		CO	4	40	23	5.0	22	2.7		22										
DF		Totals			857	5.3	811	50.2		71	68	72	143	179	85	156	36			
DL		CO	2	22	15		15	5.9										15		
DL		CO	2	32	16		16	6.2										16		
DL		CO	2	35	5		5	1.8						5						
DL		CO	2	40	168		168	65.7						18	7	19	101	22		

TC TSTNDSUM

Stand Table Summary

Project JOLLYRG2

T01N R07W S31 TSALE — **T01N R07W S31 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01N	07W	31	AREA_1	SALE	89.00	17	107

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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
DF		8	1	83	44	4.681	1.63	4.68	4.0	20.0	.54	19	94	48	17	8
DF		11	1	91	108	2.476	1.63	4.95	11.0	50.0	1.55	54	248	138	48	22
DF		12	1	85	85	2.081	1.63	4.16	10.9	45.0	1.29	45	187	115	40	17
DF		13	1	84	90	1.773	1.63									
DF		14	2	86	108	3.173	3.27	6.35	19.5	80.0	3.53	124	508	314	110	45
DF		15	1	85	95	1.332	1.63	2.66	21.0	75.0	1.60	56	200	142	50	18
DF		16	4	84	100	4.681	6.54	7.02	25.3	95.0	5.06	177	667	450	158	59
DF		17	2	86	104	2.073	3.27	4.15	28.3	110.0	3.35	117	456	298	105	41
DF		18	3	85	109	2.774	4.90	5.55	31.0	120.0	4.91	172	666	437	153	59
DF		19	4	84	110	3.320	6.54	7.47	31.7	117.8	6.75	237	880	601	211	78
DF		20	6	83	102	4.494	9.80	8.99	39.8	131.7	10.20	358	1,183	907	318	105
DF		21	1	88	118	.679	1.63	2.04	33.3	143.3	1.93	68	292	172	60	26
DF		22	3	86	116	1.857	4.90	4.95	40.8	172.5	5.77	202	854	513	180	76
DF		24	1	84	102	.520	1.63	1.04	58.6	215.0	1.74	61	224	155	54	20
DF		25	1	86	123	.479	1.63	1.44	51.1	220.0	2.09	73	316	186	65	28
DF		26	4	83	114	1.773	6.54	4.43	53.3	216.0	6.73	236	957	599	210	85
DF		27	3	86	118	1.233	4.90	3.29	62.2	263.7	5.82	204	867	518	182	77
DF		30	2	83	109	.666	3.27	1.66	69.5	290.0	3.30	116	483	293	103	43
DF		31	3	84	94	.935	4.90	1.56	84.3	328.0	3.75	131	511	333	117	46
DF		Totals	44	85	98	41.001	71.90	76.39	32.1	125.6	69.89	2,452	9,593	6,220	2,182	854
RA		9	1	93	36	3.699	1.63									
RA		10	3	86	83	8.988	4.90	8.99	14.8	63.3	3.66	133	569	326	119	51
RA		11	2	85	90	4.952	3.27	4.95	12.4	50.0	1.69	61	248	150	55	22
RA		12	5	84	93	10.403	8.17	14.56	15.9	61.4	6.36	231	895	566	206	80
RA		13	5	83	77	8.864	8.17	10.64	18.3	65.0	5.36	195	691	477	173	62
RA		14	4	83	69	6.114	6.54	4.59	20.5	76.7	2.59	94	352	230	84	31
RA		15	10	82	81	13.316	16.34	13.32	25.6	103.0	9.38	341	1,372	835	303	122
RA		16	3	86	83	3.511	4.90	3.51	28.5	130.0	2.75	100	456	245	89	41
RA		17	4	78	82	4.147	6.54	5.18	27.8	114.0	3.96	144	591	353	128	53
RA		18	1	77	72	.925	1.63	.92	31.5	90.0	.80	29	83	71	26	7
RA		19	3	84	82	2.490	4.90	3.32	41.6	142.5	3.78	138	473	336	123	42
RA		20	3	68	76	2.247	4.90	2.25	39.9	123.3	2.47	90	277	220	80	25
RA		21	1	39	92	.679	1.63	.68	8.2	40.0	.15	6	27	14	5	2
RA		22	1	79	66	.619	1.63	.62	59.0	180.0	1.01	37	111	90	33	10
RA		23	1	86	84	.566	1.63	.57	86.0	320.0	1.33	49	181	119	43	16
RA		Totals	47	83	80	71.522	76.80	74.09	22.2	85.4	45.30	1,648	6,327	4,031	1,466	563
DL		15	2	86	109	2.663	3.27	6.66	18.5	76.0	3.38	123	506	301	110	45
DL		32	1	84	118	.293	1.63	.88	79.0	343.3	1.91	69	301	170	62	27
DL		33	2	83	118	.550	3.27	1.65	82.8	356.7	3.76	137	589	335	122	52
DL		34	1	86	129	.259	1.63	.78	97.7	463.3	2.09	76	360	186	68	32
DL		35	2	85	107	.489	3.27	1.22	96.6	468.0	3.25	118	572	289	105	51
DL		37	2	83	109	.438	3.27	1.09	112.5	494.0	3.38	123	541	301	110	48
DL		Totals	10	85	111	4.692	16.34	12.28	52.6	233.6	17.78	646	2,869	1,582	575	255
BM		15	2	66	64	2.663	3.27									
BM		19	2	84	87	1.660	3.27	2.49	36.6	140.0	2.41	91	349	215	81	31
BM		20	1	74	73	.749	1.63	1.50	26.8	95.0	1.06	40	142	95	36	13
BM		26	1	61	49	.443	1.63									
BM		Totals	6	72	71	5.515	9.80	3.99	32.9	123.1	3.48	131	491	309	117	44
Totals			107	83	86	122.730	174.85	166.75	29.2	115.6	136.44	4877	19,280	12,143	4,341	1,716

TC TLOGSTVB

Log Stock Table - MBF

Project: **JOLLYRG2**

T01N R07W S31 TSALE **T01N R07W S31 TSAL**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	2
01N	07W	31	AREA_1	SALE	89.00	17	107	Date	1/5/2012
								Time	7:30:27AM

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+
									Net Volume by Scaling Diameter in Inches											
DL		CO	3	27	1		1	.5				1								
DL		CO	3	40	43		43	16.7			8	17	18							
DL		CO	4	12	1		1	.5		1										
DL		CO	4	16	1		1	.3			1									
DL		CO	4	18	1		1	.5			1	1								
DL		CO	4	19	1		1	.3			1									
DL		CO	4	24	1		1	.3				1								
DL		CO	4	28	4		4	1.4		4										
DL		Totals			255		255	15.8		5	11	19	18	23	7	19	101	53		
BM		H	2	24	10		10	22.9						10						
BM		H	2	30	13		13	30.4						13						
BM		H	2	40	15		15	33.8						15						
BM		H	4	19	3		3	6.1				3								
BM		H	4	20	3		3	6.8				3								
BM		Totals			44		44	2.7				6		38						
Total All Species					1,736	6.9	1,617	100.0		76	255	215	263	315	113	190	137	53		

TC TSTNDSUM

Stand Table Summary

Project **JOLLYRG2**

T01S R07W S06 TSALE

T01S R07W S06 TSALE

Twp	**Rge**	**Sec**	**Tract**	**Type**	**Acres**	**Plots**	**Sample Trees**
01S	**07W**	**06**	**AREA_2**	**SALE**	104.00	16	68

Page: 1
Date: 11/14/2011
Time: 3:27:17PM

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
RA		8	1	82	17	6.018	2.10									
RA		10	2	82	49	7.703	4.20									
RA		11	8	80	71	25.464	16.81	15.91	13.6	50.0	5.94	216	796	618	225	83
RA		12	8	81	85	21.397	16.81	21.40	17.4	61.2	10.21	371	1,311	1,062	386	136
RA		13	5	82	87	11.395	10.50	11.39	21.2	72.0	6.66	242	820	692	252	85
RA		14	3	84	82	5.895	6.30	5.90	29.0	96.7	4.70	171	570	489	178	59
RA		15	2	84	93	3.423	4.20	5.14	25.7	96.7	3.63	132	496	378	137	52
RA		16	3	81	87	4.513	6.30	7.52	22.1	76.0	4.57	166	572	475	173	59
RA		17	7	83	86	9.329	14.70	15.99	27.9	100.8	12.27	446	1,613	1,276	464	168
RA		18	3	85	92	3.566	6.30	4.75	41.2	140.0	5.39	196	666	560	204	69
RA		19	4	84	75	4.268	8.40	5.33	42.7	144.0	6.26	228	768	652	237	80
RA		20	2	85	67	1.926	4.20	1.93	47.4	155.0	2.51	91	298	261	95	31
RA		21	2	84	65	1.747	4.20	1.75	47.3	170.0	2.27	83	297	236	86	31
RA		26	1	81	56	.570	2.10	1.14	46.9	165.0	1.47	53	188	153	56	20
RA		Totals	51	82	75	107.213	107.13	98.15	24.4	85.5	65.87	2,395	8,394	6,851	2,491	873
DF		12	2	86	91	5.349	4.20	10.70	10.7	42.5	3.27	115	455	340	119	47
DF		15	2	87	103	3.423	4.20	6.85	20.2	82.5	3.95	139	565	411	144	59
DF		16	2	84	90	3.009	4.20	4.51	22.1	86.7	2.84	100	391	296	104	41
DF		17	1	87	108	1.333	2.10	2.67	27.7	110.0	2.11	74	293	219	77	30
DF		19	2	84	104	2.134	4.20	4.27	29.5	105.0	3.58	126	448	373	131	47
DF		20	1	89	107	.963	2.10	1.93	40.1	150.0	2.20	77	289	229	80	30
DF		21	3	86	107	2.620	6.30	3.49	44.0	165.0	4.38	154	576	456	160	60
DF		24	1	84	136	.669	2.10	1.34	60.2	265.0	2.29	80	354	239	84	37
DF		25	2	84	112	1.232	4.20	3.08	50.4	196.0	4.43	155	604	461	162	63
DF		28	1	82	112	.491	2.10	.98	76.7	265.0	2.15	75	260	223	78	27
DF		Totals	17	86	101	21.223	35.71	39.81	27.5	106.4	31.21	1,095	4,236	3,246	1,139	441
Totals			68	82	79	128.436	142.84	137.96	25.3	91.5	97.08	3490	12,630	10,096	3,630	1,314

TC	TLOGSTVB	Log Stock Table - MBF
		Project: JOLLYRG2

T01S R07W S09 TSALE | **T01S R07W S09 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	
01S	07W	09	AREA_3	SALE	106.00	17	74	Page 1 Date 1/31/2012 Time 7:03:27AM

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+
									Net Volume by Scaling Diameter in Inches											
DF		CO	3	32	108	5.0	102	8.7			86	16								
DF		CO	3	40	632	5.0	601	51.2			218	332	51							
DF		CO	4	18	5	5.0	5	.4		5										
DF		CO	4	19	15	5.0	14	1.2		14										
DF		CO	4	20	21	5.0	20	1.7		20										
DF		CO	4	21	34	5.0	33	2.8		33										
DF		CO	4	22	32	5.0	31	2.6		31										
DF		CO	4	23	21	5.0	20	1.7		20										
DF		CO	4	24	53	5.0	50	4.3		50										
DF		CO	4	25	23	5.0	22	1.8		22										
DF		CO	4	26	25	5.0	23	2.0		23										
DF		CO	4	27	6	5.0	6	.5		6										
DF		CO	4	29	18	5.0	17	1.5			17									
DF		CO	4	30	6	5.0	6	.5		6										
DF		CO	4	31	10	5.0	9	.8		9										
DF		CO	4	32	79	5.0	75	6.4			57	18								
DF		CO	4	33	9	5.0	9	.8		9										
DF		CO	4	35	7	5.0	7	.6		7										
DF		CO	4	36	23	5.0	21	1.8		21										
DF		CO	4	40	107	5.0	102	8.7		80	22									
DF		Totals			1,235	5.0	1,173	68.8		356	400	366	51							
RA		H	3	32	18	15.6	15	2.9						15						
RA		H	3	40	25	16.7	21	4.0			5	16								
RA		H	4	19	2	10.0	2	.4			2									
RA		H	4	32	152	10.0	137	25.6			137									
RA		H	4	37	68	10.0	61	11.4			61									
RA		H	4	40	331	10.3	297	55.7			271	26								
RA		Totals			596	10.6	533	31.2			476	42		15						
Total All Species					1,831	6.8	1,706	100.0		356	876	408	51	15						

TC TSTNDSUM

Stand Table Summary

Project JOLLYRG2

T01S R07W S09 TSALE | **T01S R07W S09 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01S	07W	09	AREA_3	SALE	106.00	17	74

Page: 1
Date: 11/14/2011
Time: 3:28:18PM

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
DF		8	1	75	48	6.741	2.35	6.74	6.0	20.0	1.07	40	135	114	43	14
DF		9	4	83	94	21.949	9.41	33.25	7.8	36.6	7.42	260	1,217	786	276	129
DF		10	4	82	74	17.256	9.41	17.26	13.0	40.0	6.35	224	690	673	237	73
DF		11	7	82	98	24.957	16.47	46.35	10.9	46.2	14.45	507	2,139	1,532	537	227
DF		12	8	83	103	24.233	18.82	48.47	12.9	48.1	17.86	627	2,331	1,893	664	247
DF		13	6	82	91	15.316	14.12	30.63	14.7	52.5	12.80	449	1,608	1,357	476	170
DF		14	5	83	94	11.171	11.76	22.34	17.3	63.0	11.00	386	1,407	1,166	409	149
DF		15	5	82	90	9.587	11.76	19.17	19.7	67.0	10.75	377	1,285	1,140	400	136
DF		16	3	83	93	5.166	7.06	10.33	22.4	81.1	6.61	232	838	700	246	89
DF		Totals	43	82	91	136.376	101.18	234.54	13.2	49.7	88.32	3,103	11,649	9,362	3,289	1,235
RA		9	2	78	76	10.652	4.71	10.65	11.8	60.0	3.46	126	639	367	133	68
RA		10	7	78	78	30.198	16.47	30.20	14.3	55.7	11.92	433	1,682	1,263	459	178
RA		11	5	77	74	17.827	11.76	17.83	15.7	56.0	7.67	280	998	813	297	106
RA		12	1	77	77	2.996	2.35	3.00	22.4	60.0	1.84	67	180	195	71	19
RA		13	1	78	70	2.553	2.35	2.55	25.3	60.0	1.78	65	153	188	68	16
RA		14	5	78	68	11.005	11.76	11.01	29.9	70.0	9.05	329	770	959	349	82
RA		15	1	78	62	1.917	2.35	1.92	33.0	70.0	1.75	63	134	186	67	14
RA		16	4	78	63	6.741	9.41	6.74	37.3	75.0	6.91	252	506	733	267	54
RA		20	3	78	61	3.236	7.06	4.31	43.1	92.5	5.11	186	399	542	197	42
RA		22	2	79	52	1.783	4.71	1.78	64.0	70.0	3.13	114	125	332	121	13
RA		Totals	31	78	73	88.907	72.94	89.99	21.3	62.1	52.62	1,915	5,587	5,577	2,030	592
Totals			74	80	84	225.283	174.12	324.52	15.5	53.1	140.94	5018	17,236	14,939	5,319	1,827

TC TLOGSTVB

Log Stock Table - MBF

Project: JOLLYRG2

T01S R07W S18 TSALE | **T01S R07W S18 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1
01S	07W	18	AREA_4	SALE	106.00	21	113	Date	1/31/2012
								Time	7:08:03AM

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+
									Net Volume by Scaling Diameter in Inches											
RA		H	3	18	6	10.0	5	.7					5							
RA		H	2	15	10	10.0	9	1.3								9				
RA		H	2	32	17	10.0	15	2.2					15							
RA		H	2	40	14	10.0	13	1.8					13							
RA		H	3	12	8	10.0	7	1.0				2		5						
RA		H	3	16	14	10.0	13	1.8					5		8					
RA		H	3	18	8	10.0	7	1.1					7							
RA		H	3	20	7	10.0	7	.9				7								
RA		H	3	21	15	10.0	14	2.0				14								
RA		H	3	23	11	10.0	10	1.4					10							
RA		H	3	26	17	10.0	15	2.2				15								
RA		H	3	27	23	10.0	20	2.9						20						
RA		H	3	28	28	10.0	25	3.6					12	14						
RA		H	3	29	31	21.1	25	3.5				25								
RA		H	3	31	11	10.0	10	1.4				10								
RA		H	3	32	68	11.7	60	8.5			12	10	12		27					
RA		H	3	33	11	10.0	10	1.4				10								
RA		H	3	34	30	13.2	26	3.7					26							
RA		H	3	35	31	56.1	14	1.9				2		12						
RA		H	3	36	28	16.9	23	3.3			10		14							
RA		H	3	40	72	39.9	43	6.2			4	2	37							
RA		H	4																	
RA		H	4	10																
RA		H	4	11																
RA		H	4	13	4	10.0	3	.5				3								
RA		H	4	14	5	39.2	3	.4			3									
RA		H	4	16	6	10.0	6	.8				6								
RA		H	4	17	4	10.0	3	.5			3									
RA		H	4	19	10	10.0	9	1.2			9									
RA		H	4	20	15	10.0	14	2.0			7	7								
RA		H	4	21	6	10.0	6	.8			6									
RA		H	4	22	73	20.3	58	8.3			46	4	2	6						
RA		H	4	23	17	10.0	15	2.1			10	5								
RA		H	4	24	10	10.0	9	1.3			9									
RA		H	4	25	21	10.0	19	2.7			10	10								
RA		H	4	26	27	20.6	22	3.1			22									
RA		H	4	27	10	10.0	9	1.3			9									
RA		H	4	29	9	10.0	8	1.2			8									
RA		H	4	30	4	10.0	3	.5			3									
RA		H	4	31	20	10.0	18	2.6			18									
RA		H	4	32	44	29.9	31	4.4			10	10	11							
RA		H	4	33	7	10.0	6	.9			6									
RA		H	4	34	15	10.0	13	1.9			13									
RA		H	4	38	16	10.0	14	2.0			14									
RA		H	4	39	13	10.0	12	1.7			12									
RA		H	4	40	54	10.0	49	6.9			49									
RA			Totals		851	17.5	702	46.1			293	140	169	56	34	9				
DF		CO	2	32	19	5.0	18	3.3								18				
DF		CO	2	40	48	5.0	46	8.5						29	16					
DF		CO	3																	

TC TLOGSTVB

Log Stock Table - MBF

Project: **JOLLYRG2**

T01S R07W S18 TSALE **T01S R07W S18 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	
01S	07W	18	AREA_4	SALE	106.00	21	113	Page 2 Date 1/31/2012 Time 7:08:03AM

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+
									Net Volume by Scaling Diameter in Inches											
DF		CO	3	10																
DF		CO	3	26	6	5.0	6	1.1					6							
DF		CO	3	36	30	5.0	29	5.4			29									
DF		CO	3	40	262	5.4	248	46.2			87	100	60							
DF		CO	4	13	6	5.0	5	1.0		5										
DF		CO	4	16	6	5.0	6	1.1		6										
DF		CO	4	17	8	5.0	7	1.4		7										
DF		CO	4	18	1	5.0	1	.2			1									
DF		CO	4	19	6	5.0	6	1.1		6										
DF		CO	4	20	6	5.0	6	1.1		6										
DF		CO	4	21	3	5.0	3	.6		3										
DF		CO	4	23	10	5.0	9	1.7		9										
DF		CO	4	26	6	5.0	5	1.0		5										
DF		CO	4	32	36	5.0	34	6.3		31	3									
DF		CO	4	34	23	5.0	22	4.1		13	9									
DF		CO	4	35	15	5.0	15	2.7		15										
DF		CO	4	36	19	5.0	18	3.4		18										
DF		CO	4	40	54	5.0	52	9.6		28	24									
DF		Totals			565	5.2	536	35.2		153	152	100	67	29	16	18				
DL		CO	2	40	205	4.4	196	72.3						13	43	95	45			
DL		CO	3	18	2		2	.6					2							
DL		CO	3	23	2		2	.7				2								
DL		CO	3	30	2		2	.6			2									
DL		CO	3	32	24		24	8.9			3	15			7					
DL		CO	3	37	4		4	1.4				4								
DL		CO	3	40	32		32	11.8			3		21	8						
DL		CO	4	15	1		1	.3			1									
DL		CO	4	16	1		1	.5				1								
DL		CO	4	17	6		6	2.4				6								
DL		CO	4	21	1		1	.4			1									
DL		Totals			280	3.2	271	17.8			9	29	23	21	50	95	45			
RL		H	4	18	6		6	50.0			6									
RL		H	4	21	9	33.3	6	50.0			6									
RL		Totals			16	20.0	12	.8			12									
Total All Species					1,712	11.1	1,522	100.0		153	467	269	258	107	100	122	45			

TC TSTNDSUM

Stand Table Summary

Project JOLLYRG2

T01S R07W S18 TSALE | **T01S R07W S18 TSALE**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
01S	07W	18	AREA_4	SALE	106.00	21	113

Page: 1
Date: 11/14/2011
Time: 3:29:23PM

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
RA		11	6	73	69	14.551	9.60	14.55	12.2	31.7	4.92	178	461	522	188	49
RA		12	12	73	105	24.453	19.21	34.64	12.0	39.4	11.52	415	1,365	1,221	440	145
RA		13	10	72	83	17.363	16.00	20.84	13.0	42.5	7.48	271	886	792	287	94
RA		14	7	76	74	10.480	11.20	16.47	14.9	45.5	6.75	245	749	715	260	79
RA		15	3	77	91	3.913	4.80	6.52	16.5	50.0	3.00	108	326	318	114	35
RA		16	5	79	72	5.731	8.00	9.17	18.5	47.5	4.69	170	436	497	180	46
RA		17	13	73	80	13.200	20.81	19.29	21.1	68.9	11.26	407	1,330	1,193	431	141
RA		18	5	69	78	4.528	8.00	8.15	22.9	63.3	5.14	187	516	545	198	55
RA		19	3	72	71	2.439	4.80	4.06	25.0	66.0	2.80	101	268	297	108	28
RA		20	3	73	82	2.201	4.80	4.40	30.3	83.3	3.71	133	367	393	141	39
RA		21	1	83	100	.665	1.60	1.33	43.0	150.0	1.57	57	200	167	61	21
RA		22	2	78	84	1.213	3.20	2.43	39.2	117.5	2.61	95	285	277	101	30
RA		23	1	80	82	.555	1.60	1.66	23.4	103.3	1.07	39	172	113	41	18
RA		Totals	71	74	84	101.292	113.63	143.52	16.8	51.3	66.52	2,406	7,360	7,051	2,550	780
DF		8	2	82	94	9.170	3.20	13.76	6.5	30.0	2.57	90	413	272	95	44
DF		9	3	78	93	10.868	4.80	18.11	7.1	32.0	3.65	128	580	387	136	61
DF		10	6	79	100	17.607	9.60	23.48	10.2	42.5	6.87	240	998	728	254	106
DF		12	2	81	120	4.076	3.20	8.15	13.9	52.5	3.22	113	428	341	120	45
DF		13	2	81	117	3.473	3.20	6.95	16.6	65.0	3.29	115	451	348	122	48
DF		14	2	82	103	2.994	3.20	5.99	18.8	67.5	3.21	113	404	340	119	43
DF		15	2	81	108	2.608	3.20	5.22	22.0	80.0	3.28	115	417	347	122	44
DF		16	2	82	119	2.293	3.20	5.73	21.7	82.0	3.55	124	470	376	132	50
DF		17	1	84	111	1.015	1.60	2.03	30.9	115.0	1.79	63	234	190	67	25
DF		20	1	82	113	.734	1.60	2.20	26.8	90.0	1.68	59	198	178	63	21
DF		22	1	78	117	.606	1.60	1.82	34.9	113.3	1.81	63	206	192	67	22
DF		23	2	81	128	1.109	3.20	3.88	33.0	134.3	3.65	128	521	387	136	55
DF		Totals	26	80	102	56.553	41.61	97.31	13.9	54.7	38.55	1,352	5,320	4,087	1,433	564
DL		12	1	83	102	2.038	1.60	4.08	12.0	50.0	1.35	49	204	143	52	22
DL		25	1	80	99	.470	1.60	.94	60.6	210.0	1.56	57	197	166	60	21
DL		26	1	82	117	.434	1.60	1.30	51.1	210.0	1.83	67	273	194	71	29
DL		27	2	73	134	.805	3.20	2.01	64.9	188.0	3.63	131	378	384	138	40
DL		28	1	80	128	.374	1.60	1.12	63.1	253.3	1.95	71	284	206	75	30
DL		30	2	69	134	.652	3.20	1.63	61.3	250.0	2.75	100	408	291	106	43
DL		31	1	68	136	.305	1.60	.92	74.1	233.3	1.87	68	214	198	72	23
DL		32	1	81	133	.287	1.60	.86	84.6	370.0	2.00	73	318	212	77	34
DL		33	1	79	120	.269	1.60	.81	81.4	350.0	1.81	66	283	192	70	30
DL		Totals	11	78	117	5.634	17.61	13.67	49.8	187.3	18.74	680	2,560	1,987	721	271
RL		10	3	74	44	8.803	4.80	5.87	2.4	10.0	.38	14	59	41	15	6
RL		Totals	3	74	44	8.803	4.80	5.87	2.4	10.0	0.38	14	59	41	15	6
SS		13	1	64	58	1.736	1.60									
SS		18	1	62	37	.906	1.60									
SS		Totals	2	63	51	2.642	3.20									
Totals			113	76	89	174.924	180.85	260.36	17.1	58.8	124.20	4451	15,298	13,165	4,719	1,622

OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT
Jolly Roger

1. Type of Sale
Regeneration harvest, Recovery.

2. Legal Description
Portions of Sections 30,31, T1N, R7W, and Sections 5, 6, 7, 8, 9, 17, 18, and 20, T1S, R7W, W.M., Tillamook County, Oregon.

3. Sale Acreage
Sale acreage was determined by GPS and orthophotographs along with GIS.

ACRES		
	Gross	**Net**
Area 1 (Modified Clearcut)	107	89
Area 2 (Modified Clearcut)	112	104
Area 3 (Modified Clearcut)	111	106
Area 4 (Retention Cut)	129	106

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
Cruise lines and plots were placed on a grid of 350' between plots and 700' between lines in all of the areas. All trees were recorded by species, merchantable height, form, and diameter class. Diameters were measured to the nearest inch and heights to the nearest foot. Conifers less than 8" DBH and hardwoods less than 9" DBH were not sampled.

B. Plot size
All plots were variable radius plots. BAFs used to cruise the stands were 33.61 in Areas 2 and 4, 27.78 in Area 1 and 40 in Area 3. These BAFs were applied to all species. The point of tree observation was 4.5 feet.

C. Grading System
Tree heights were measured to a 6" merchantable top for conifers, and 7" for

hardwoods. All measurements were outside the bark. All species were graded using Columbia River Log Scaling and Grading Bureau rules, favoring a 40' log.

5. Computation Procedure

The volumes and statistics for the timber cruised were computed using SuperACE 2004, developed by Atterbury Consultants, Inc. All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 9 inches DBH and greater containing 30 net board feet were recorded on all plots. Species were recorded on all trees, and they were graded and measured for merchantable height, diameter, and form factor. The standard error and the coefficient of variation for the cruise as based on net board feet per acre shown in the table below.

Area	C.V. (%)	S.E. (%)	# of Plots
1	53.8	13.4	17
2	62.3	16.1	16
3	51.3	12.8	17
4	56.1	12.5	21
Total	56.2	6.7	71

6. Hidden Defect and Breakage

A 5% defect and breakage reduction was applied to conifers and a 10% reduction to hardwood volumes for hidden defect. This was in addition to visual defect deducted during the cruise.

7. Timber Description

The entire sale area was burned in the 1939 Saddle Mountain Fire. The sale area is predominantly composed of Douglas-fir and red alder with a few scattered Sitka spruce and big leaf maple. Although not picked up in the cruise, there is also scattered western red cedar and hemlock. Areas 1 and 4 were sprayed to control alder in the 1970's which resulted in short boles and multiple tops.

- Area 1 (Modified Clearcut) – Most of the area was seeded in 1958-59 and about 70 acres (80%) was aerially sprayed in the 70's to control alder.
- Area 2 (Modified Clearcut) - The area naturally regenerated following the fire and has received no further stand treatments.
- Area 3 (Modified Clearcut) – The area was seeded in 1961-62 and received no further forest management.
- Area 4 (Retention Clearcut) – Most of the area was seeded in 1961-62 and then 98 acres (90%) was sprayed in the 70's to control alder.

	Ave DBH	Bole Height	Merch Top (or 25% of DBH whichever was greater)
Area 1			
Douglas-fir (62%)	17.9	76	5”
Alder (38%)	14.0	48	6”
Area 2			
Douglas-fir (35%)	17.6	69	5”
Alder (65%)	13.5	47	6”
Area 3			
Douglas-fir (69%)	11.7	56	5”
Alder (31%)	12.3	41	6”
Area 4			
Douglas-fir (43%)	11.6	59	5”
Alder (57%)	14.3	49	6”

8. <u>Cruiser Names/Dates</u>

Areas 1 and 4 were contract cruised in 2011, Area 2 was contract cruised in 2007, and Area 3 was cruised by Tillamook District personnel in 2010.

9. <u>Revenue Distribution</u>

FDF 100%

Tax Code: 9-2 100%

Deed Numbers: 157, 159, 161, 162

10. <u>Attachments</u>

Stand Tables

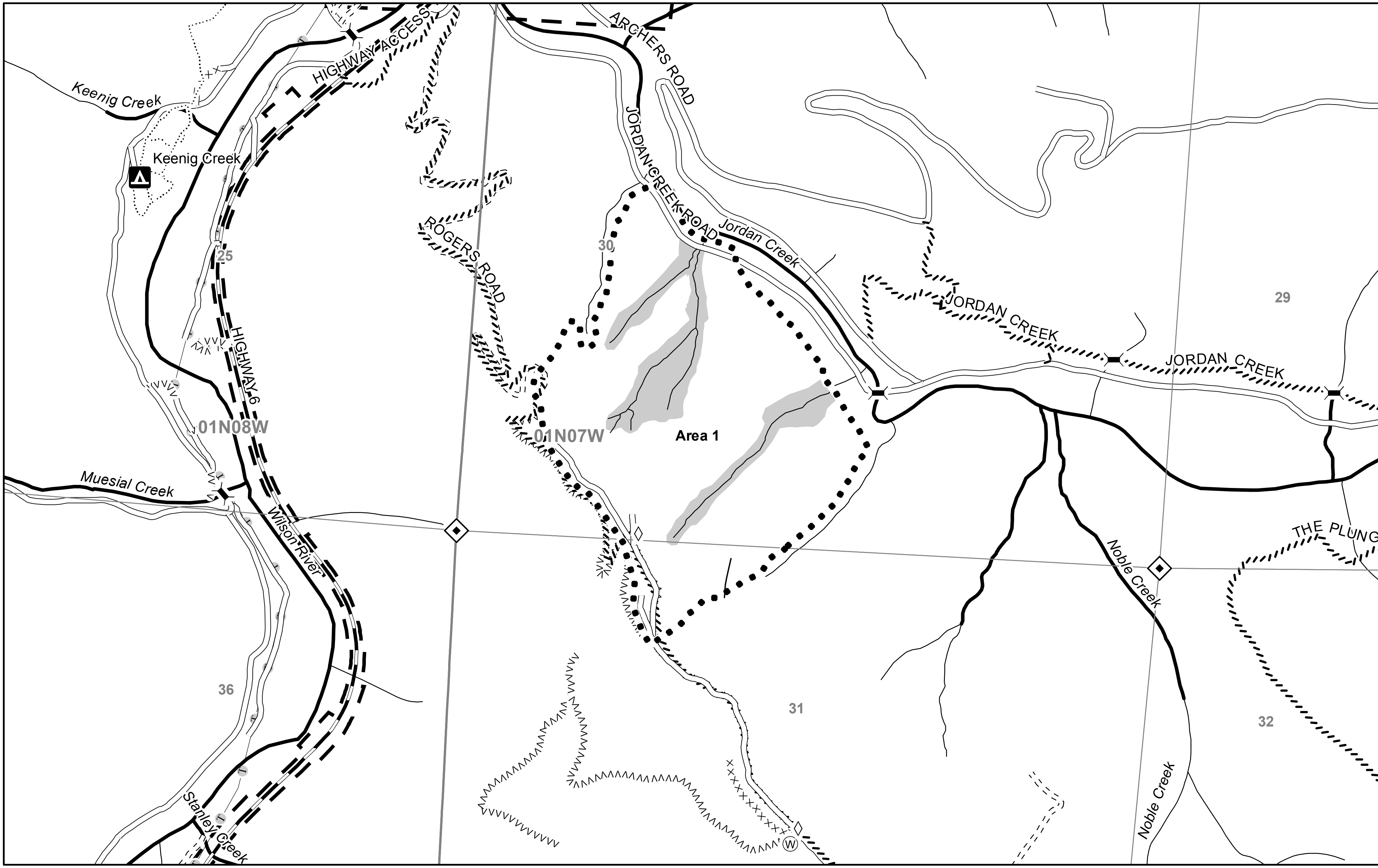
Volume Summary

Log Stock Tables

Logging Plan

11. <u>Stand and Log Stock Tables Species Key</u>

DF – Douglas-fir take
DL – Douglas-fir leave
RA – Red alder take
RL – Red alder leave
SS – Sitka spruce Reserved
BM – Big leaf maple Reserved



Rock source
Stock pile
Waste area
Bridge
Gate
Survey corner
Domestic water supply intake
Truck turn-around
Helicopter landing zone
Cultural site

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
Perennial Type-F stream
Perennial Type-N stream
Unsurfaced road
Surfaced road
Paved road
Abandoned road

Swing road
Non-project road
Blocked road
OHV trail
Non-motorized trail
Transmission line
Railroad
Trail filter

LOGGING PLAN

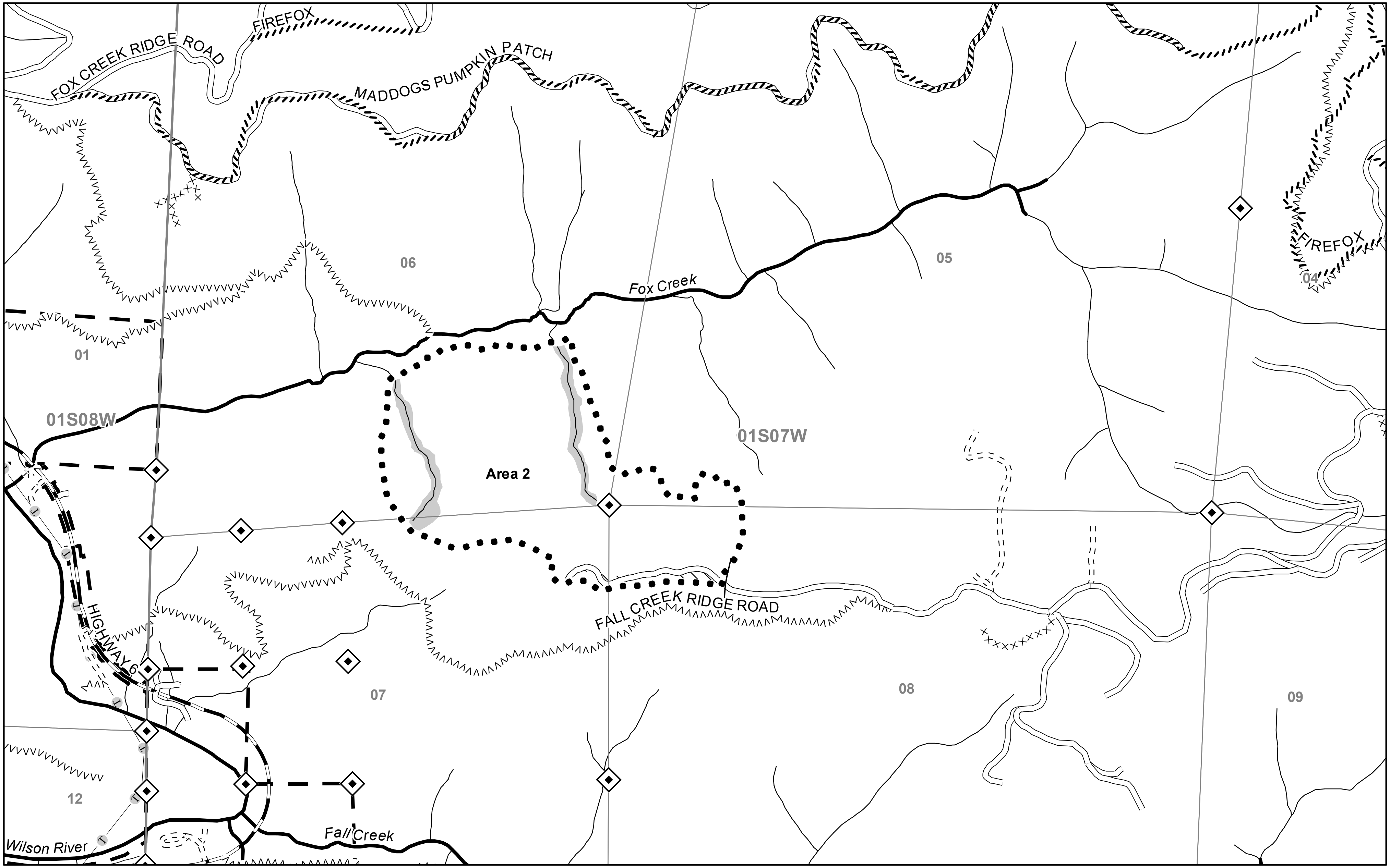
Timber Sale Contract No. 341-12-059
JOLLY ROGER
Portions of Sections 30 and 31, T1N, R7W,
and Sections 5, 6, 7, 8, 9, 17, 18 and 20,
T1S, R7W, W.M.,
Tillamook County, Oregon

1,000 0 1,000 Feet

N

Area	Type of Operation	Acres Gross	Acres Net
1	Modified clearcut	107	89
2	Modified clearcut	112	104
3	Modified clearcut	111	106
4	Retention cut	129	106
Total		459	405

Tillamook District GIS
10/26/2011
This product is for informational use and may not have been prepared or suitable for legal, engineering, or surveying purposes.



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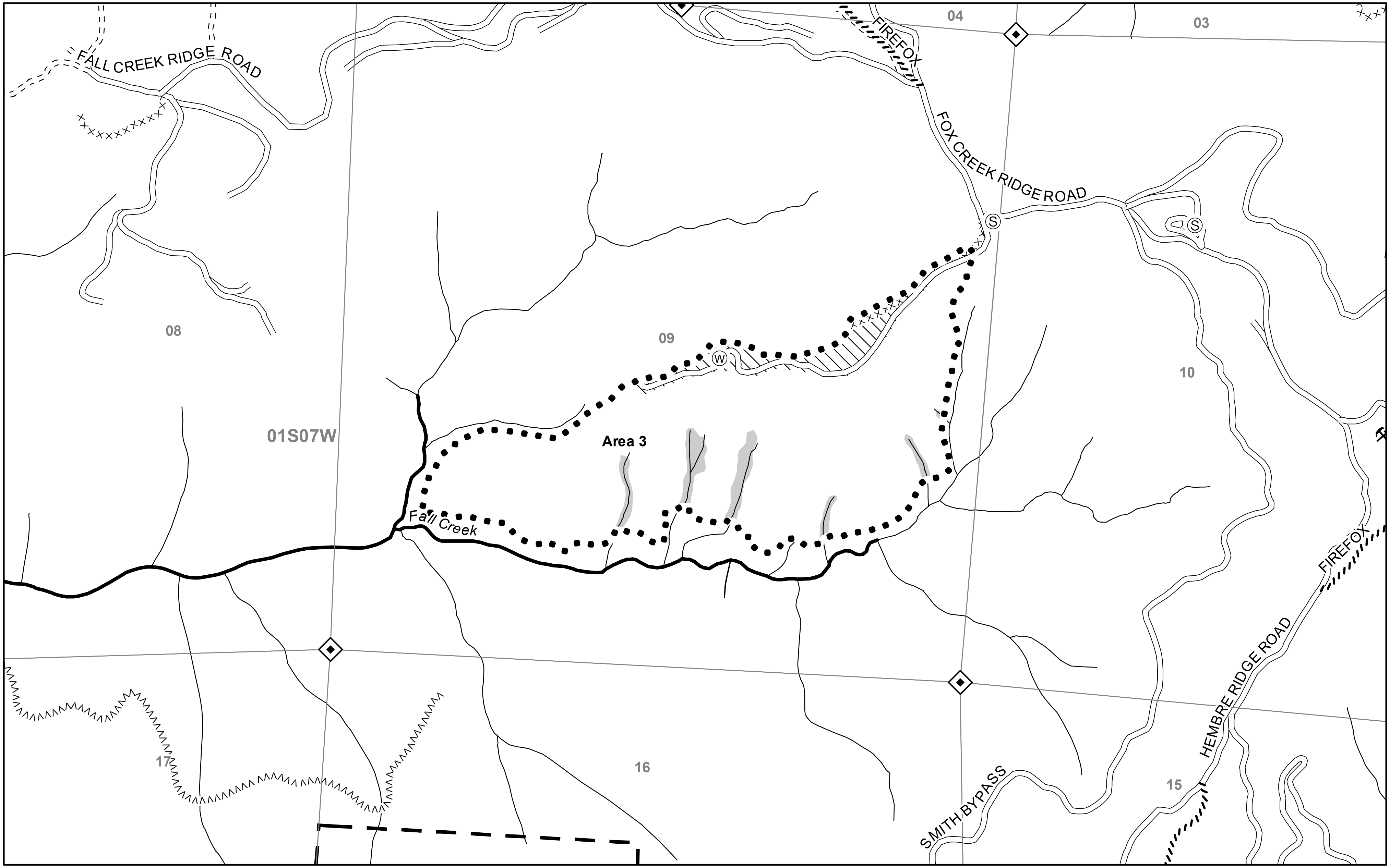

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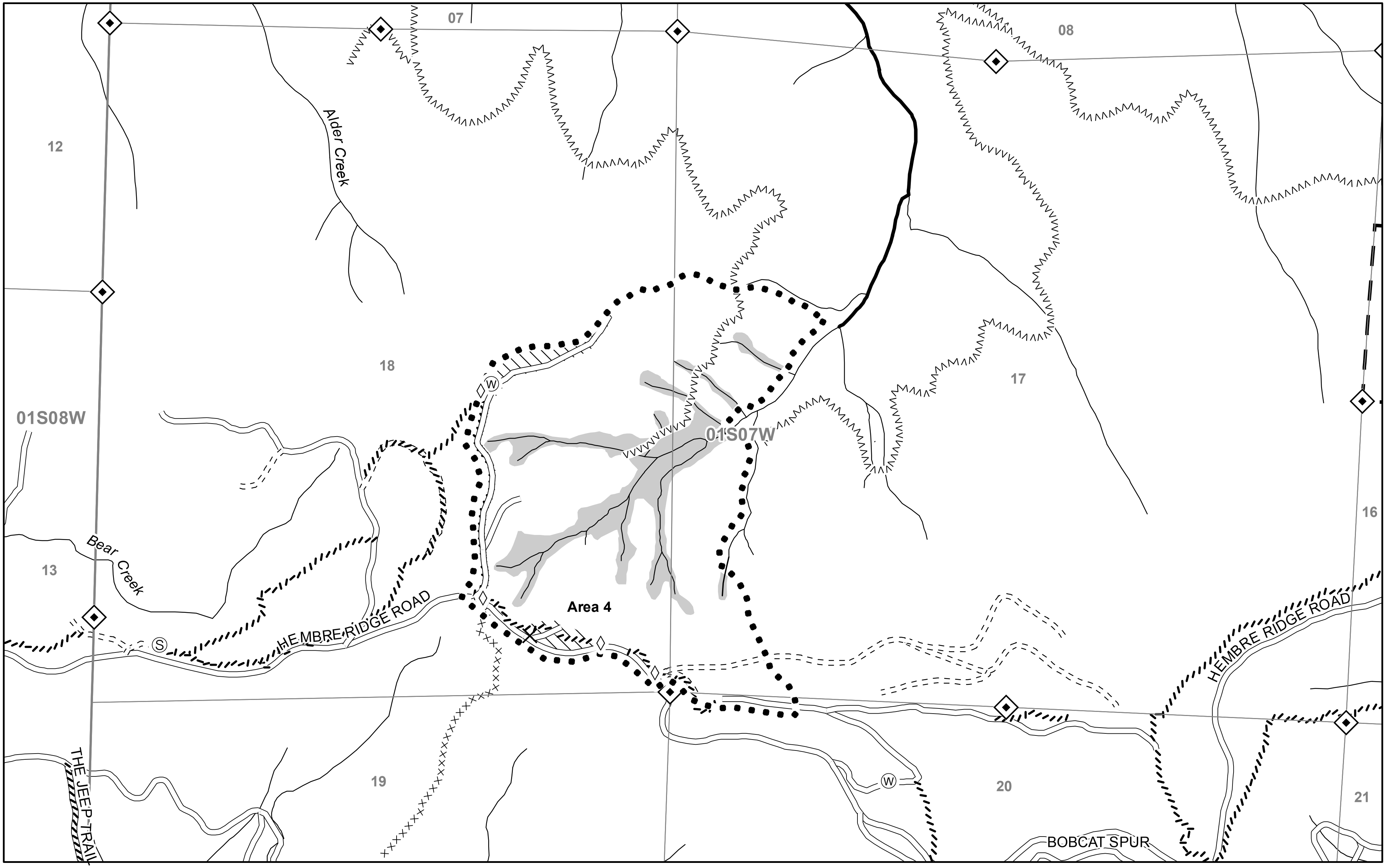

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