



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Two's Company
Sale 341-13-74

District: Tillamook

Date: April 09, 2013

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$535,869.71	\$93,145.95	\$629,015.66
		Project Work:	\$(176,720.00)
		Advertised Value:	\$452,295.66



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timber description

Location: Portions of Sections 35 and 36, T2N, R9W, and portions of Sections 1 and 2, T1N, R9W, W.M., Tillamook County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	95
Western Hemlock / Fir	14	0	95
Sitka Spruce	14	0	95
Alder (Red)	14	0	90

Volume by Grade	2S	2S 12"+	3S	3S 10" - '	4S	4S 8" - 9'	Total
Douglas - Fir	353	0	1,376	0	670	0	2,399
Western Hemlock / Fir	0	0	18	0	6	0	24
Sitka Spruce	0	0	17	0	0	0	17
Alder (Red)	0	20	0	67	0	458	545
Total	353	20	1,411	67	676	458	2,985



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comments: Pond Values Used: 1st Quarter Calendar Year 2013.

Western redcedar & Other Cedars Stumpage Price = Pond Value minus
Logging Cost
\$780/MBF = \$1,000/MBF - \$220/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 2,985 MBF = \$5,970

Fall Non-Merchantable Trees on Area 2: 8 acres x \$50/acre = \$400

Fall Non-Merchantable Trees on Area 3: 3 acres x \$50/acre = \$150

TOTAL Other Costs (with Profit & Risk to be added) = \$6,520

Other Costs (No Profit & Risk added):

YUM Yarding Area 2: 8 acres x \$110/acre = \$880

YUM Yarding Area 3: 3 acres x \$110/acre = \$330

Equipment Cleaning: 2 Machines x \$1,000 per machine = \$2,000

Non Project Roads:

Road 1: \$650/sta. x 27 stations = \$17,550

Road 2: \$120/sta. x 5 stations = \$600

Road 3: \$150/sta. x 10.2 stations = \$1,530

Road 4: \$110/sta. x 4.2 stations = \$462

Road 5: \$110/sta. x 8.9 stations = \$979

Total Non Project Roads: \$21,121

Slash Piling and Sorting: \$5/acre x 198(cable) acres = \$990

Cover Material for Piles: 11 piles x \$5/pile = \$55

TOTAL Other Costs (No Profit & Risk added) = \$25,376

ROAD MAINTENANCE

Maintenance Rock: (\$22.00/cy x 6 miles x 20cy/mile x 2.985 MMBF) /
2985MBF = \$ 2.64/MBF

Interim Maintenance (1 time): Grading \$250/Mile x 10 miles x 1
grading/2985 MBF = \$.84/MBF

Final Maintenance:

Grading - \$500/Mile x 12 miles /2985 MBF = \$2.0/MBF

TOTAL Maintenance Cost = \$5.48/MBF



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logging conditions

combination#: 1	Douglas - Fir	9.13%	
	Alder (Red)	7.16%	
yarding distance:	Long (1,500 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:	4.0	bd. ft / load:	2,800
cost / mbf:	\$298.58		
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Medium)		
combination#: 2	Douglas - Fir	18.52%	
	Western Hemlock / Fir	22.00%	
	Sitka Spruce	22.00%	
	Alder (Red)	18.69%	
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:	7.0	bd. ft / load:	2,800
cost / mbf:	\$73.38		
machines:	Stroke Delimber (B)		
combination#: 3	Douglas - Fir	69.13%	
	Western Hemlock / Fir	78.00%	
	Sitka Spruce	78.00%	
	Alder (Red)	69.31%	
yarding distance:	Medium (800 ft)	downhill yarding:	No
logging system:	Cable: Small Tower <=40	Process:	Stroke Delimber
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF		
loads / day:	5.0	bd. ft / load:	2,800
cost / mbf:	\$202.45		
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Small)		
combination#: 4	Douglas - Fir	3.22%	
	Alder (Red)	4.84%	



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yarding distance:	Medium (800 ft)	downhill yarding:	No
logging system:	Cable: Small Tower <=40	Process:	Stroke Delimber
tree size:	Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF		
loads / day:	4.0	bd. ft / load:	2,800
cost / mbf:	\$253.06		
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Small)		



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logging costs

Operating Seasons:	2.00	Profit Risk:	10.00%
Project Costs:	\$176,720.00	Other Costs (P/R):	\$6,520.00
Slash Disposal:	\$0.00	Other Costs:	\$25,376.00

Miles of Road

Road Maintenance: \$5.48

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	3.0
Western Hemlock / Fir	\$0.00	2.0	3.0
Sitka Spruce	\$0.00	2.0	3.0
Alder (Red)	\$0.00	2.0	2.6

Local Pond Values

Date	Specie	Grade	Value
4/9/13	Sitka Spruce	3S	\$478.75



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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$188.96	\$5.75	\$2.94	\$124.09	\$2.18	\$32.39	\$0.00	\$5.00	\$8.50	\$369.81
Western Hemlock / Fir									
\$174.05	\$5.75	\$2.94	\$124.09	\$2.18	\$30.90	\$0.00	\$5.00	\$8.50	\$353.41
Sitka Spruce									
\$174.05	\$5.75	\$2.94	\$124.09	\$2.18	\$30.90	\$0.00	\$5.00	\$8.50	\$353.41
Alder (Red)									
\$187.66	\$6.03	\$2.94	\$150.00	\$2.18	\$34.88	\$0.00	\$5.00	\$8.50	\$397.19

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$591.04	\$221.23	\$0.00
Western Hemlock / Fir	\$0.00	\$478.75	\$125.34	\$0.00
Sitka Spruce	\$0.00	\$478.75	\$125.34	\$0.00
Alder (Red)	\$0.00	\$568.10	\$170.91	\$0.00



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summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	2,399	\$221.23	\$530,730.77
Western Hemlock / Fir	24	\$125.34	\$3,008.16
Sitka Spruce	17	\$125.34	\$2,130.78
Alder (Red)	545	\$170.91	\$93,145.95

Gross Timber Sale Value

Recovery: \$629,015.66

Prepared by: Nick Stumpf

Phone: 503-842-2545



PROJECT SUMMARY SHEET

Sale: Two's Company

CONSTRUCTION

Point	E to F	12+85	stations =	\$15,810.85
SUBTOTAL CONSTRUCTION				\$15,810.85

IMPROVEMENT

Point	A to B	95+50	stations =	\$58,508.50
Point	C to D	7+50	stations =	\$5,681.25
Point	G to H	8+00	stations =	\$7,583.40
Point	I to J	27+00	stations =	\$24,521.55
Point	M to N	7+40	stations =	\$3,447.78
Point	O to P	111+00	stations =	\$22,256.70
Point	Q to R	0+00	stations =	\$0.00
Point	S to T	0+00	stations =	\$0.00
Point	U to V	0+00	stations =	\$0.00
Point	W to X	0+00	stations =	\$0.00
Point	Y to Z	0+00	stations =	\$0.00
Point	AA to BB	0+00	stations =	\$0.00
SUBTOTAL IMPROVEMENT				\$121,999.18

RECONSTRUCTION

Point	K to L	32+00	stations =	\$34,249.96
SUBTOTAL RECONSTRUCTION				\$34,249.96

MOVE IN

\$4,660.01

GRAND TOTAL **\$176,720.00**

SUMMARY OF CONSTRUCTION COST

Sale:	Two's Company				Road:	A to B			
Construction -	0+00 0.00	stations miles	Improvement -	95+50 1.81	stations miles	Reconstruction -	0+00 0.00	stations miles	
IMPROVEMENT: CLEARING AND GRUBBING -									
Widening				0.307	acres @	\$660.00	per acre =	\$202.62	
Scattering				1.750	acres @	\$980.00	per acre =	\$1,715.00	
TOTAL CLEARING AND GRUBBING									\$1,917.62
IMPROVEMENT: EXCAVATION -									
Road Earthwork				95.50	sta. @	\$20.00	per sta. =	\$1,910.00	
Remove Debris Waste & Daylight @ Sation 64+00				150	cy. @	\$1.40	per c.y.=	\$210.00	
Widening				1173	cy. @	\$1.40	per c.y.=	\$1,642.20	
Ditching & Culvert Cleanout	11+00	to	12+50	1.50	sta. @	\$100.00	per sta. =	\$150.00	
Ditching & Culvert Cleanout	37+70	to	38+70	1.00	sta. @	\$80.00	per sta. =	\$80.00	
Ditching & Culvert Cleanout	46+25	to	47+25	1.00	sta. @	\$80.00	per sta. =	\$80.00	
Ditching & Culvert Cleanout	48+60	to	53+80	5.20	sta. @	\$80.00	per sta. =	\$416.00	
TOTAL EXCAVATION									\$4,488.20
IMPROVEMENT: ENDHAUL -									
Widening	8+40	to	10+00	70	cy. @	\$1.20	per c.y.=	\$84.00	
Widening	24+30	to	25+60	151	cy. @	\$1.12	per c.y.=	\$169.12	
Widening	25+60	to	27+00	31	cy. @	\$1.16	per c.y.=	\$35.96	
Widening	60+40	to	62+70	56	cy. @	\$2.09	per c.y.=	\$117.04	
Widening	72+15	to	78+25	529	cy. @	\$2.46	per c.y.=	\$1,301.34	
Widening	78+25	to	91+00	124	cy. @	\$2.71	per c.y.=	\$336.04	
Widening	92+30	to	94+50	212	cy. @	\$2.94	per c.y.=	\$623.28	
Remove Debris Waste & Daylight @ Sation 64+00				150	cy. @	\$2.16	per c.y.=	\$324.00	
Spread & compact				1323	cy. @	\$0.25	per c.y.=	\$330.75	
TOTAL ENDHAUL									\$3,321.53
CULVERTS - MATERIALS & INSTALLATION									
<u>Culverts</u>									
			25	LF of 18"		\$437.50			
						\$437.50			
							60	LF of 36"	\$2,466.00
									\$2,466.00
<u>Culvert Stakes & Markers</u>									
			3	markers		\$24.00			
						\$24.00			
TOTAL CULVERTS									\$2,927.50
ROCK									
0+00 to	95+50		3,580	cy. of	Crushed	@	\$11.01	per c.y.=	\$39,415.80
Culvert Backfill	62+70, 66+15		30	cy. of	Crushed	@	\$9.42	per c.y.=	\$282.60
Energy Dissipator	62+70		10	cy. of	Riprap	@	\$6.08	per c.y.=	\$60.80
Outlet & Inlet Armor	66+15		20	cy. of	Riprap	@	\$6.13	per c.y.=	\$122.60
Outlet & Inlet Armor	78+25		20	cy. of	Riprap	@	\$6.32	per c.y.=	\$126.40
Landing Rock	64+00		70	cy. of	Crushed	@	\$11.27	per c.y.=	\$788.90
Landing Rock	95+15		80	cy. of	Crushed	@	\$11.75	per c.y.=	\$940.00
TOTAL ROCK									\$41,737.10
SPECIAL PROJECTS									
Construct ditchouts -			9.00	@		\$60.00	each	\$540.00	
Grade and shape road -			95.50	stations @		\$15.50	per station	\$1,480.25	
Roll subgrade w/ vibratory roller prior to rocking -			95.50	stations @		\$13.20	per station	\$1,260.60	
Remove culverts from state lands @ 62+70 & 66+15			2.00	@		\$382.50	total	\$382.50	
Grass seed and fertilize -			2.06	acres @		\$220.00	per acre	\$453.20	
TOTAL SPECIAL PROJECTS									\$4,116.55
GRAND TOTAL									\$58,508.50

SUMMARY OF CONSTRUCTION COST

Sale: **Two's Company**

Road: **C to D**

<u>Construction -</u>	<u>0+00</u>	stations	<u>Improvement -</u>	<u>7+50</u>	stations	<u>Reconstruction -</u>	<u>0+00</u>	stations
	0.00	miles		0.14	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.340	acres @	\$980.00 per acre =	\$333.20	
TOTAL CLEARING AND GRUBBING				\$333.20	

IMPROVEMENT: EXCAVATION -

Road Earthwork	7.50	sta. @	\$150.00 per sta. =	\$1,125.00	
TOTAL EXCAVATION				\$1,125.00	

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	20	LF of 18"	\$350.00	
			\$350.00	
<u>Culvert Stakes & Markers</u>				
	1	markers	\$8.00	
			\$8.00	

TOTAL CULVERTS \$358.00

ROCK

0+00 to	7+50	240	cy. of	Crushed	@	\$11.08 per c.y. =	\$2,659.20
Landing Rock	7+20	70	cy. of	Crushed	@	\$11.14 per c.y. =	\$779.80
TOTAL ROCK							\$3,439.00

SPECIAL PROJECTS

Construct ditchouts -	3.00	@	\$60.00 each	\$180.00	
Grade and shape road -	7.50	stations @	\$15.50 per station	\$116.25	
Roll subgrade w/ vibratory roller prior to rocking -	7.50	stations @	\$13.20 per station	\$99.00	
Grass seed and fertilize -	0.14	acres @	\$220.00 per acre	\$30.80	
TOTAL SPECIAL PROJECTS				\$426.05	

GRAND TOTAL \$5,681.25

SUMMARY OF CONSTRUCTION COST

Sale:

Two's Company

Road:

E to F

Construction -	12+85	stations	Improvement -	0+00	stations
	0.24	miles		0.00	miles
				0+00	stations
				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		2+00	80%		Outslope	\$3,072	=	\$6,144.00	
2+00		2+50	60%		Outslope	\$1,493	=	\$746.50	
2+50		3+50	40%		Outslope	\$243	=	\$243.00	
3+50		6+50	10%		Outslope	\$90	=	\$270.00	
6+50		9+85	45%		Outslope	\$269	=	\$901.15	
9+85		12+25	10%		Outslope	\$90	=	\$216.00	
12+25		12+85	Land. Const.		Crown	\$600	=	\$360.00	
								TOTAL	\$8,880.65

ROCK

0+00 to	12+85	460	cy. of	Crushed	@	\$11.49 per c.y.=	\$5,285.40	
Landing Rock	12+55	80	cy. of	Crushed	@	\$10.53 per c.y.=	\$842.40	
							TOTAL ROCK	\$6,127.80

SPECIAL PROJECTS

Construct ditchouts -	4.00	@	\$60.00	each	\$240.00	
Grade and shape road -	12.85	stations @	\$15.50	per station	\$199.18	
Roll subgrade w/ vibratory roller prior to rocking -	12.85	stations @	\$13.20	per station	\$169.62	
Grass seed and fertilize -	0.88	acres @	\$220.00	per acre	\$193.60	
					TOTAL SPECIAL PROJECTS	\$802.40

GRAND TOTAL

\$15,810.85

SUMMARY OF CONSTRUCTION COST

Sale: **Two's Company**

Road: **G to H**

<u>Construction</u> -	0+00	stations	<u>Improvement</u> -	8+00	stations	<u>Reconstruction</u> -	0+00	stations
	0.00	miles		0.15	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.180	acres @	\$980.00	per acre =	\$176.40	
TOTAL CLEARING AND GRUBBING						\$176.40

IMPROVEMENT: EXCAVATION -

Road Earthwork	8.00	sta. @	\$150.00	per sta. =	\$1,200.00	
TOTAL EXCAVATION						\$1,200.00

CULVERTS - MATERIALS & INSTALLATION

Culverts

	40	LF of 36"	\$1,644.00		\$1,644.00
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Culvert Stakes & Markers

1 markers	\$8.00		\$8.00		
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TOTAL CULVERTS \$1,652.00

ROCK

0+00 to 8+00	310	cy. of	Crushed	@	\$11.46	per c.y. =	\$3,552.60
Culvert Backfill	5+00	15	Crushed	@	\$9.62	per c.y. =	\$144.30
Outlet & Inlet Armor	5+00	20	Riprap	@	\$6.30	per c.y. =	\$126.00
TOTAL ROCK							\$3,822.90

SPECIAL PROJECTS

Construct ditchouts -	2.00	@	\$60.00	each	\$120.00	
Grade and shape road -	8.00	stations @	\$15.50	per station	\$124.00	
Roll subgrade w/ vibratory roller prior to rocking -	8.00	stations @	\$13.20	per station	\$105.60	
Remove culverts from state lands	1.00	@	\$342.90	total	\$342.90	
Grass seed and fertilize -	0.18	acres @	\$220.00	per acre	\$39.60	
TOTAL SPECIAL PROJECTS						\$732.10

GRAND TOTAL \$7,583.40

SUMMARY OF CONSTRUCTION COST

Sale: **Two's Company**

Road: **I to J**

Construction -	0+00	stations	Improvement -	27+00	stations	Reconstruction -	0+00	stations
	0.00	miles		0.51	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.500	acres	@	\$980.00	per acre =	\$490.00	
TOTAL CLEARING AND GRUBBING							\$490.00

IMPROVEMENT: EXCAVATION -

Road Earthwork/Fill Ditch	0+00	to	5+55	5.55	sta. @	\$175.00	per sta. =	\$971.25
Widening	5+55	to	7+35	590	cy. @	\$1.40	per c.y. =	\$826.00
Subdrain Ditch Excavation	5+70	to	7+05	30	cy. @	\$1.40	per c.y. =	\$42.00
Road Earthwork	7+35		27+00	19.65	sta. @	\$50.00	per c.y. =	\$982.50
TOTAL EXCAVATION							\$2,821.75	

IMPROVEMENT: ENDHAUL -

Widening	5+55	to	7+35	590	cy. @	\$1.60	per c.y. =	\$944.00
Subdrain Ditch Excavation	5+70	to	7+05	30	cy. @	\$1.60	per c.y. =	\$48.00
Spread & compact				620	cy. @	\$0.25	per c.y. =	\$155.00
TOTAL ENDHAUL							\$1,147.00	

CULVERTS - MATERIALS & INSTALLATION

Culverts

55	LF of 18"	\$962.50
140	LF of 6"	\$980.00
		\$1,942.50

Culvert Stakes & Markers

2	markers	\$16.00
		\$16.00

TOTAL CULVERTS \$1,958.50

ROCK

0+00 to	27+00	950	cy. of	Crushed	@	\$11.45	per c.y. =	\$10,877.50
Subdrain Rock	5+70 to 7+05	40	cy. of	Drain *	@	\$21.40	per c.y. =	\$856.00
Riprap Buttress	5+70 to 7+05	310	cy. of	Riprap	@	\$6.17	per c.y. =	\$1,912.70
Culvert Backfill	6+50	10	cy. of	Drain *	@	\$20.60	per c.y. =	\$206.00
Energy Dissipator	6+50	10	cy. of	Riprap	@	\$6.17	per c.y. =	\$61.70
Culvert Backfill	14+20	10	cy. of	Crushed	@	\$9.61	per c.y. =	\$96.10
Landing Rock	26+60	90	cy. of	Crushed	@	\$11.66	per c.y. =	\$1,049.40
TOTAL ROCK							\$15,059.40	

SPECIAL PROJECTS

Construct 40' ditchout & catch basin @ 0+50	1.50	hours	@	\$145.00	per hour	\$217.50	
Construct ditchout @ 25+15 -	1.00	hours	@	\$60.00	each	\$60.00	
Construct waste area & 220 ft. spur rd. @ 21+00 -	4.00	hours	@	\$130.00	per hour	\$520.00	
3.5 OZ. Nonwoven Geotextile 12.' x 360' Roll -	1.00		@	\$360.00	each	\$360.00	
Install Nonwoven Geotext. For Subdrain & Cutbank -	8.00	hours	@	\$40.00	per hour	\$320.00	
Grade and shape road -	27.00	stations	@	\$15.50	per station	\$418.50	
Roll subgrade w/ vibratory roller prior to rocking -	27.00	stations	@	\$13.20	per station	\$356.40	
Remove culverts from state lands	2.00		@	\$382.50	total	\$382.50	
Grass seed and fertilize -	0.50	acres	@	\$220.00	per acre	\$110.00	
Mulching -	0.500	acres	@	\$600.00	per acre	\$300.00	
TOTAL SPECIAL PROJECTS							\$3,044.90

GRAND TOTAL \$24,521.55

SUMMARY OF CONSTRUCTION COST

Sale: **Two's Company**

Road: **K to L**

Construction -	0+00	stations	Improvement -	0+00	stations	Reconstruction -	32+00	stations
	0.00	miles		0.00	miles		0.61	miles

RECONSTRUCTION: CLEARING AND GRUBBING -

Scattering	0.147	acres @	\$980.00	per acre =	\$144.06
Endhaul	1.323	acres @	\$1,500.00	per acre =	\$1,984.50
TOTAL CLEARING AND GRUBBING					\$2,128.56

RECONSTRUCTION: EXCAVATION -

Road Earthwork	32.00	sta. @	\$150.00	per sta. =	\$4,800.00
Widening/Full Bench	3000	cy. @	\$1.40	per c.y.=	\$4,200.00
TOTAL EXCAVATION					\$9,000.00

RECONSTRUCTION: ENDHAUL -

Widening/Full Bench	3000	cy. @	\$1.82	per c.y.=	\$5,460.00
Spread & compact	3000	cy. @	\$0.25	per c.y.=	\$750.00
TOTAL ENDHAUL					\$6,210.00

CULVERTS - MATERIALS & INSTALLATION

Culverts

40	LF of 30"	\$1,440.00	55	LF of 24"	\$1,485.00
50	LF of 6"	\$350.00	115	LF of 36"	\$4,726.50
		<u>\$1,790.00</u>			\$6,211.50

Culvert Stakes & Markers

6	markers	<u>\$48.00</u>
		\$48.00

TOTAL CULVERTS \$8,049.50

ROCK

0+00 to 4+00	160	cy. of	Crushed	@	\$11.53	per c.y.=	\$1,844.80
22+00 to 27+50	200	cy. of	Crushed	@	\$11.89	per c.y.=	\$2,378.00
26+40 to 27+00	50	cy. of	Drain *	@	\$21.40	per c.y.=	\$1,070.00
Culvert Backfill	60	cy. of	Crushed	@	\$10.02	per c.y.=	\$601.20
Energy Dissipator	60	cy. of	Riprap	@	\$6.70	per c.y.=	\$402.00
Spot Rock	100	cy. of	Crushed	@	\$5.85	per c.y.=	\$585.00
TOTAL ROCK							\$6,881.00

SPECIAL PROJECTS

Woven Geotextile -	1.00	@	\$200.00	each	\$200.00
Install Woven Geotext. For Sub-surface drain -	2.00	hours @	\$40.00	per hour	\$80.00
Construct ditchouts -	3.00	@	\$60.00	each	\$180.00
Grade and shape road -	32.00	stations @	\$15.50	per station	\$496.00
Roll subgrade w/ vibratory roller prior to rocking -	32.00	stations @	\$13.20	per station	\$422.40
Remove culverts from state lands	1.00	@	\$342.90	total	\$342.90
Grass seed and fertilize -	1.18	acres @	\$220.00	per acre	\$259.60
TOTAL SPECIAL PROJECTS					\$1,980.90

GRAND TOTAL \$34,249.96

SUMMARY OF CONSTRUCTION COST

Sale: **Two's Company**

Road: **M to N**

Construction -	0+00	stations	Improvement -	7+40	stations	Reconstruction -	0+00	stations
	0.00	miles		0.14	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

TOTAL CLEARING AND GRUBBING \$0.00

IMPROVEMENT: EXCAVATION -

TOTAL EXCAVATION \$0.00

CULVERTS - MATERIALS & INSTALLATION

Culverts

65 LF of 36" \$2,671.50
\$2,671.50

Culvert Stakes & Markers
2 markers \$16.00
\$16.00

TOTAL CULVERTS \$2,687.50

ROCK

Culvert Backfill	0+20, 7+30	40	cy. of	Crushed	@	\$9.25 per c.y.=	\$370.00
Energy Dissipator/Armor	0+20, 7+30	30	cy. of	Riprap	@	\$5.93 per c.y.=	<u>\$177.90</u>

TOTAL ROCK \$547.90

SPECIAL PROJECTS

Grade and shape road -	7.40	stations @	\$15.50	per station	\$114.70
Roll subgrade w/ vibratory roller prior to rocking -	7.40	stations @	\$13.20	per station	<u>\$97.68</u>

TOTAL SPECIAL PROJECTS \$212.38

GRAND TOTAL \$3,447.78

SUMMARY OF CONSTRUCTION COST

Sale: **Two's Company** Road: **O to P**

<u>Construction -</u>	0+00	stations	<u>Improvement -</u>	111+00	stations	<u>Reconstruction -</u>	0+00	stations
	0.00	miles		2.10	miles		0.00	miles

ROCK									
60+40	to	77+60	350	cy. of	Crushed	@	\$24.45	per c.y.=	\$8,557.50
93+60	to	106+70	270	cy. of	Crushed	@	\$24.45	per c.y.=	\$6,601.50
Spot Rock		Directed by Sta	160	cy. of	Crushed	@	\$24.45	per c.y.=	\$3,912.00
									TOTAL ROCK
									\$19,071.00

SPECIAL PROJECTS									
Grade and shape road -				111.00	stations @		\$15.50	per station	\$1,720.50
Roll subgrade w/ vibratory roller prior to rocking -				111.00	stations @		\$13.20	per station	\$1,465.20
									TOTAL SPECIAL PROJECTS
									\$3,185.70

GRAND TOTAL **\$22,256.70**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit: Purch_Crushed Location: Purchaser Option
 Sale: **Two's Company** Road: 780 c.y.

Road Segment	Purchased Price \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
O to P 6040 7760 (Crushed)	22.00	2.45	0.00	24.45	350	\$8,557.50
O to P 9360 10670 (Crushed)	22.00	2.45	0.00	24.45	270	\$6,601.50
O to P Spot Rock (Crushed)	22.00	2.45	0.00	24.45	160	\$3,912.00
				Total C.Y.	780	Sub Total \$19,071.00

TOTAL ROCKING COSTS	\$19,071.00
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ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed	Location:	SE 1/4 Sec. 26, T2N, R9W, W.M.
Sale:	Two's Company	Road:	7125 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	7125 c.y.
Drill Pct.:	65%	In Place Total:	5089 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$3,500.00

Drill & Shoot:	\$2.50	/cu.yd.	x	3308	cu.yds.	=	\$8,270.00
Rip Rock:	\$1.90	/cu.yd.	x	1781	cu.yds.	=	\$3,383.90
Load Crusher:	\$0.60	/cu.yd.	x	7125	cu.yds.	=	\$4,275.00
Crush Rock:	\$2.50	/cu.yd.	x	7125	cu.yds.	=	\$17,812.50
Load Dump Truck:	\$0.70	/cu.yd.	x	7125	cu.yds.	=	\$4,987.50

Subtotal \$42,228.90

Move In/Set-up Crusher							\$800.00
Move In and set up Drill and Compressor	1	@	\$668.92	=			\$668.92
Move in Roller and Compactor	1	@	\$668.92	=			\$668.92
Move in Grader	1	@	\$181.28	=			\$181.28
Move in D-8	1	@	\$1,045.95	=			\$1,045.95
Move in Excavator	1	@	\$1,157.23	=			\$1,157.23
Move in Trucks	2	@	\$222.57	=			\$445.14
							Subtotal \$4,967.44

TOTAL PRODUCTION COSTS \$47,196.34

Base Cost= \$6.62 Per Cu.Yd.
 * Drain Rock Appraised to be Purchased = \$20.00 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 9550 (Crushed)	1.94	2.45	6.62	11.01	3580	\$39,415.80
A to B Culvert Backfill (Crushed)	2.20	0.60	6.62	9.42	30	\$282.60
A to B Energy Dissipator (Riprap)	2.18	1.40	2.50	6.08	10	\$60.80
A to B Outlet & Inlet Armor (Riprap)	2.23	1.40	2.50	6.13	20	\$122.60
A to B Outlet & Inlet Armor (Riprap)	2.42	1.40	2.50	6.32	20	\$126.40
A to B Landing Rock (Crushed)	2.20	2.45	6.62	11.27	70	\$788.90
A to B Landing Rock (Crushed)	2.68	2.45	6.62	11.75	80	\$940.00
C to D 0 750 (Crushed)	2.01	2.45	6.62	11.08	240	\$2,659.20
C to D Landing Rock (Crushed)	2.07	2.45	6.62	11.14	70	\$779.80
E to F 0 1285 (Crushed)	2.42	2.45	6.62	11.49	460	\$5,285.40
E to F Landing Rock (Crushed)	2.51	1.40	6.62	10.53	80	\$842.40
G to H 0 800 (Crushed)	2.39	2.45	6.62	11.46	310	\$3,552.60
G to H Culvert Backfill (Crushed)	2.40	0.60	6.62	9.62	15	\$144.30
G to H Outlet & Inlet Armor (Riprap)	2.40	1.40	2.50	6.30	20	\$126.00
I to J 0 2700 (Crushed)	2.38	2.45	6.62	11.45	950	\$10,877.50
I to J Subdrain Rock (Drain *)	0.00	1.40	20.00	21.40	40	\$856.00
I to J Riprap Buttress (Riprap)	2.27	1.40	2.50	6.17	310	\$1,912.70
I to J Culvert Backfill (Drain *)	0.00	0.60	20.00	20.60	10	\$206.00
I to J Energy Dissipator (Riprap)	2.27	1.40	2.50	6.17	10	\$61.70
I to J Culvert Backfill (Crushed)	2.39	0.60	6.62	9.61	10	\$96.10
I to J Landing Rock (Crushed)	2.59	2.45	6.62	11.66	90	\$1,049.40
K to L 0 400 (Crushed)	2.46	2.45	6.62	11.53	160	\$1,844.80
K to L 2200 2750 (Crushed)	2.82	2.45	6.62	11.89	200	\$2,378.00
K to L 2640 2700 (Drain *)	0.00	1.40	20.00	21.40	50	\$1,070.00
K to L Culvert Backfill (Crushed)	2.80	0.60	6.62	10.02	60	\$601.20
K to L Energy Dissipator (Riprap)	2.80	1.40	2.50	6.70	60	\$402.00
K to L Spot Rock (Crushed)	2.80	2.45	0.60	5.85	100	\$585.00
M to N Culvert Backfill (Crushed)	2.03	0.60	6.62	9.25	40	\$370.00
M to N Energy Dissipator/Armor (Riprap)	2.03	1.40	2.50	5.93	30	\$177.90
Total C.Y.					7125	Sub Total \$77,615.10

TOTAL ROCKING COSTS \$77,615.10

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

Sale: **Two's Company**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
10.0	Pavement	30
19.0	Main Lines	7
6.0	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	Excavators (Small)	\$668.92		\$22.00	0.00	3.50	3.5	\$77.00	\$745.92
1	Excavators (Large)	\$1,164.90	1	\$44.80	0.00	3.50	3.5	\$156.80	\$1,321.70
1	Tractor (D8)	\$1,061.29	2	\$15.10	0.00	3.50	3.5	\$52.85	\$1,114.14
1	Dump Truck (10 cy +)	\$280.32		\$2.85	0.00	0.00	0	\$0.00	\$280.32
1	Dump Truck (Off Hiway)	\$948.75	1	\$4.75	0.00	3.50	3.5	\$16.63	\$965.38
1	Water Truck (1500 Gal)	\$222.57		\$2.85	0.00	3.50	3.5	\$9.98	\$232.55

	TOTAL MOVE-IN COSTS:	\$4,660.01
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OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *Twos Company*

1. Type of Sale

- Area 1 Partial Cut
- Area 2 Modified Clearcut
- Area 3 Modified Clearcut
- All areas sold on Recovery

2. Legal Description

Portions of Sections 35 & 36, T2N, R9W, and Portions of Sections 1 & 2, T1N, R9W, W.M. Tillamook County, Oregon.

3. Sale Acreage

Sale acreage was determined by GPS, orthophotographs and GIS.

ACRES		
	<u>Gross</u>	<u>Net</u>
Area 1 (Partial Cut)	45	40
Area 2 (Modified Clearcut)	133	108
Area 3 (Modified Clearcut)	120	101
Total	298	249

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

A total of 65 variable radius plots were used on the sale area, spaced on a rectangular grid of 350' x 700'. All plots were full cruise plots. 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 measured for merchantable bole height, diameter, and form factor.

B. Plot size

A basal area factor of 33.61 was used for the sale area. The point of observation is 4.5 feet.

C. Grading System

All trees were graded according to Columbia River Log Scaling and Grading Rules.

5. Computation Procedure

Tree heights were recorded to a 6 inch top outside bark for all conifers; or three tenths (0.3) of DBH, whichever was greater. Hardwoods were measured to 7" top outside bark. All diameters were measured outside bark to the nearest inch. 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 sampled for tree species, DBH, form factor, merchantable height, visible defect and grade.

Log lengths all favored 40 feet. Height and diameter measurement standards were to the nearest foot or inch respectively. The volumes and statistics for the timber cruised were computed using Super ACE 2004, developed by Atterbury Consultants, Inc. The standard error and the coefficient of variation for the cruise as based on net board feet per acre shown in the table below.

Cruise Statistics (Net/BF Volume Per Acre)			
Area	Number of Plots	SE (%)	CV (%)
1	4	30.5	53.3
2	20	19.6	85.4
3	18	19.2	79.4
Total	42	13.5	87.8

6. Hidden Defect and Breakage

A 5% and 10 % hidden defect and breakage was applied to conifers and hardwoods respectively. This was in addition to visual defect deducted during the cruise.

7. Timber Description

Area 1: The entire area burned in the 1933 Tillamook fire. The area was seeded during the 1965-66 season and then portions reseeded 1968-69. 25% of the area was sprayed for alder in 1977. Area 1 is predominantly Douglas-fir with an alder and Hemlock component.

Area 2: The area is a mix of Douglas-fir and alder stands that have a minor component of hemlock. This area has a component of pulp alder (DBH less than 9 inches). Competition has suppressed the alder in portions of the area.

Area 3: The entire area burned in both the 1933 Tillamook fire and the 1945 Wilson River/Salmonberry fires. This area was seeded in 1960-61. The area is primarily Douglas-fir with a component of scattered alder, spruce and hemlock throughout.

Sale Area – Species	DBH	Merchantable Bole Height	Merchantable Top
Area 1 - Douglas-fir	12.4	58	5"
Area 1 - Alder	16.2	46	6"
Area 2 – Douglas-fir	14.8	56	5"
Area 2 - Alder	13.6	40	6"
Area 3 - Douglas-fir	13.9	57	5"
Area 3 - Alder	13.9	41	6"
Area 3 – Hemlock	13.0	53	5"
Area 3 – Spruce	21.5	26	5"

8. **Cruiser Names/Dates**
Contract Cruise/Spring 2012

9. **Revenue Distribution**
FDF 100%
Tax Code: 56
Deed Numbers: 15, 161

10. **Attachments**
Volume Summaries
Stand Table Summary
Log Stock Tables
Species, Sort, Grade Tables
Logging Plan Map

11. **Stand and Log Stock Tables Species Key**
DL – Douglas-fir leave
DF – Douglas-fir take
RL – Red alder leave
RA – Red alder take
SL – Sitka spruce leave
SS – Sitka spruce take
WL – Western hemlock leave
WH – Western hemlock take



"STEWARDSHIP IN FORESTRY"

Twos Company

Volume Summary

Area 1-Harvest Type PC				
40 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	7.7	307	5%	292
Hemlock		0	5%	0
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder	1.4	57	10%	52
TOTAL	9.1	365		344

Areas 2-Harvest Type MC				
108 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	9.4	1017	5%	966
Hemlock		0	5%	0
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder	3.4	367	10%	330
TOTAL	12.8	1383		1296

Areas 3-Harvest Type MC				
101 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	11.9	1201	5%	1141
Hemlock	0.2	25	5%	23
Spruce	0.2	18	5%	17
Noble Fir		0	5%	0
Alder	1.8	182	10%	163
TOTAL	14.1	1426		1346



STEWARDSHIP IN FORESTRY

Twos Company

Volume Summary

TOTAL SALE VOLUME		249	acres
SPECIES	Cruised Net (MBF)	Net Sale (MBF)	
Douglas-fir	2526	2399	
Hemlock	25	23	
Spruce	18	17	
Noble Fir	0	0	
Red Alder	606	545	
TOTAL	3174	2985	

TC		TSTNDSUM											Stand Table Summary			
Project														2SCOMPNY		
T02N R09W S36 T100											T02N R09W S36 T100					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1							
02N	09W	36	AREA 1	100	40.00	4	31	Date:	10/03/2011							
								Time:	10:43:54AM							
S Spc	T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
		DBH	Trees	FF	Ht 16'				Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits
DL		14	2	82	84	15.720	16.81	31.44	15.0	52.5	12.97	471	1,651	519	189	66
DL		16	2	83	75	12.036	16.81	18.05	23.3	83.3	12.19	420	1,504	487	168	60
DL		17	1	83	100	5.331	8.40	10.66	27.4	95.0	8.02	292	1,013	321	117	41
DL		18	1	84	103	4.755	8.40	9.51	32.2	110.0	8.43	307	1,046	337	123	42
DL		19	3	83	92	12.803	25.21	25.61	31.7	105.0	23.28	812	2,689	931	325	108
DL		20	2	82	96	7.703	16.81	15.41	37.9	117.5	16.04	583	1,810	641	233	72
DL		21	1	80	91	3.493	8.40	6.99	39.5	120.0	7.59	276	838	304	110	34
DL		Totals	12	83	89	61.840	100.83	117.66	26.9	89.7	88.50	3,161	10,551	3,540	1,264	422
DF		10	1	80	95	15.406	8.40	15.41	13.6	40.0	5.99	210	616	239	84	25
DF		11	1	79	81	12.732	8.40	12.73	17.1	60.0	6.21	218	764	249	87	31
DF		12	2	76	82	21.397	16.81	21.40	17.2	60.0	10.51	369	1,284	420	148	51
DF		13	2	82	91	18.232	16.81	36.46	14.0	52.5	14.51	509	1,914	580	204	77
DF		14	2	81	105	15.720	16.81	31.44	18.1	62.5	16.19	568	1,965	647	227	79
DF		16	1	83	104	6.018	8.40	12.04	25.7	95.0	8.82	310	1,143	353	124	46
DF		Totals	9	80	91	89.504	75.62	129.47	16.9	59.4	62.23	2,184	7,687	2,489	873	307
RA		14	1	78	65	7.860	8.40	7.86	29.9	70.0	6.46	235	550	258	94	22
RA		16	1	66	76	6.018	8.40	6.02	22.4	60.0	3.70	135	361	148	54	14
RA		18	2	74	57	9.510	16.81	9.51	26.1	55.0	6.83	248	523	273	99	21
RA		Totals	4	73	64	23.388	33.61	23.39	26.4	61.3	16.99	618	1,434	680	247	57
RL		16	1	80	75	6.018	8.40	12.04	22.3	70.0	7.37	268	842	295	107	34
RL		18	1	70	59	4.755	8.40	4.75	22.1	50.0	2.90	105	238	116	42	10
RL		20	1	60	52	3.851	8.40	3.85	23.9	40.0	2.53	92	154	101	37	6
RL		Totals	3	71	64	14.624	25.21	20.64	22.5	59.8	12.79	465	1,234	512	186	49
BM		15	1	60	54	6.847	8.40				5.34			214		
BM		Totals	1	60	54	6.847	8.40				5.34			214		
OC	2	10	1	85	53	15.406	8.40				3.90			156		
OC		Totals	1	85	53	15.406	8.40				3.90			156		
OC	5	80	1	60	25	.241	8.40				2.84			114		
OC		Totals	1	60	25	.241	8.40				2.84			114		
Totals			31	79	82	211.849	260.48	291.17	22.1	71.8	192.60	6427	20,906	7,704	2,571	836

TC		TLOGSTVB		Log Stock Table - MBF																	
Project:										2SCOMPNY											
T02N R09W S36 T100										T02N R09W S36 T100											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1												
02N	09W	36	AREA 1	100	40.00	4	31	Date	10/3/2012												
									Time	11:49:26AM											
Spp	T	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches											
										MBF	MBF	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29
DL		D	D		2																
DL		CO	3		24	19		19	4.5				19								
DL		CO	3		27	17		17	4.0				17								
DL		CO	3		40	311	1.9	305	72.2				28	153	124						
DL		CO	4		20	3		3	.8			3									
DL		CO	4		24	9		9	2.2			9									
DL		CO	4		27	9		9	2.2			9									
DL		CO	4		31	5		5	1.1			5									
DL		CO	4		33	6		6	1.3			6									
DL		CO	4		35	7		7	1.6			7									
DL		CO	4		36	18		18	4.3			18									
DL		CO	4		40	24		24	5.7			14	10								
DL		Totals				428	1.4	422	50.5			71	10	64	153	124					
DF		D	D		6																
DF		CO	3		40	151		151	49.2			26	89	36							
DF		CO	4		22	18		18	5.9			18									
DF		CO	4		24	11		11	3.6			11									
DF		CO	4		29	9		9	3.1			9									
DF		CO	4		35	27		27	8.8			27									
DF		CO	4		37	10		10	3.1			10									
DF		CO	4		40	81		81	26.3			25	56								
DF		Totals				307		307	36.8			82	82	108	36						
RA		D	D		6																
RA		D	D		7																
RA		H	4		30	8		8	13.3			8									
RA		H	4		40	50		50	86.7			50									
RA		Totals				57		57	6.9			57									
RL		D	D		7																
RL		D	D		8																
RL		H	4		13	5		5	9.8			5									
RL		H	4		30	6		6	12.5			6									
RL		H	4		35	10		10	19.3			10									
RL		H	4		40	29		29	58.5				29								
RL		Totals				49		49	5.9			20	29								
OC	2	D	D		35	25	100.0														
OC	5	D	D		21	8	100.0														
OC	Totals				32	100.0															
BM	D	D			30	11	100.0														
BM	Totals				11	100.0															
Total All Species						885	5.5	836	100.0			153	170	201	189	124					

T02N R09W S36 T100										T02N R09W S36 T100				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt					
02N	09W	36	AREA 1	100	40.00	4	30	S	W					

S Sp	So T	Gr rt	%	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log				Logs Per /Acre		
				Def%	Gross	Net		Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf			
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99							
DL	D	D																				
DL	CO	3	80	1.7	8,659	8,514	341		64	36			10		90			37	10	138	1.10	61.8
DL	CO	4	20		2,037	2,037	81	87	13				4	23	21	52		32	5	36	0.37	55.8
DL	Totals		50	1.4	10,697	10,551	422	17	54	29			1	13	4	82		32	8	84	0.77	125.5
DF	D	D																6	10		0.00	10.7
DF	CO	3	49		3,780	3,780	151		100						100			40	8	91	0.64	41.6
DF	CO	4	51		3,907	3,907	156	52	48				25	17	58			34	6	44	0.37	87.9
DF	Totals		37		7,687	7,687	307	27	73				13	9	79			34	7	55	0.46	140.2
RA	D	D																6	14		0.00	15.5
RA	H	4	100		1,434	1,434	57		100					13		87		38	7	61	0.70	23.4
RA	Totals		7		1,434	1,434	57		100					13		87		25	10	37	0.63	38.9
RL	D	D																8	14		0.00	8.6
RL	H	4	100		1,234	1,234	49		100				10	12	19	59		29	7	60	0.72	20.6
RL	Totals		6		1,234	1,234	49		100				10	12	19	59		23	9	42	0.65	29.2
OC	2	D	D		100.0	616												35	5		0.00	15.4
OC 2	Totals				100.0	616												35	5		0.00	15.4
BM	D	D			100.0	274												30	6		0.00	6.8
BM	Totals				100.0	274												30	6		0.00	6.8
Type Totals					4.7	21,942	20,906	836	18	67	15		1	13	6	80		32	7	59	0.57	356.1

TC		TSTNDSUM											Stand Table Summary			
Project														2SCOMPNY		
T02N R09W S36 T100											T02N R09W S36 T100					
Twp	Rge	Sec	Tract		Type	Acres	Plots	Sample Trees			Page:	1				
02N	09W	36	AREA 2		100	108.00	20	102			Date:	10/03/2011				
											Time:	10:46:41AM				
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF
DF		9	1	72	46	3.804	1.68	3.80	6.4	20.0	.69	24	76	74	26	8
DF		10	6	79	66	18.487	10.08	18.49	11.4	40.0	6.03	212	739	651	229	80
DF		11	5	81	88	12.732	8.40	20.37	11.4	40.0	6.64	233	815	717	252	88
DF		12	4	82	111	8.559	6.72	19.26	11.2	44.4	6.33	216	856	684	234	92
DF		13	1	81	68	1.823	1.68	1.82	22.4	60.0	1.16	41	109	125	44	12
DF		14	3	80	81	4.716	5.04	9.43	14.4	45.0	4.17	136	424	451	147	46
DF		15	3	84	62	4.108	5.04	5.48	18.1	55.0	3.37	99	301	364	107	33
DF		16	3	81	114	3.611	5.04	9.63	19.1	75.0	5.49	184	722	593	199	78
DF		17	8	82	82	8.529	13.44	14.93	24.1	80.0	11.20	359	1,194	1,209	388	129
DF		18	3	83	99	2.853	5.04	5.71	30.8	106.7	5.02	176	609	542	190	66
DF		19	2	85	88	1.707	3.36	1.71	37.4	130.0	3.13	64	222	338	69	24
DF		20	1	82	89	.770	1.68	1.54	36.8	115.0	1.62	57	177	175	61	19
DF		21	2	80	95	1.397	3.36	2.79	38.9	122.5	3.10	109	342	334	117	37
DF		22	2	71	104	1.273	3.36	1.27	49.2	215.0	2.82	63	274	305	68	30
DF		23	1	78	94	.582	1.68	1.16	50.4	140.0	1.67	59	163	181	63	18
DF		26	1	76	107	.456	1.68	.91	27.3	105.0	1.54	25	96	166	27	10
DF		27	2	86	64	.845	3.36	.85	74.0	265.0	2.39	63	224	258	68	24
DF		28	3	81	117	1.179	5.04	3.54	58.9	235.6	5.94	209	833	642	225	90
DF		29	1	85	111	.366	1.68	1.10	62.1	256.7	1.94	68	282	210	74	30
DF		31	1	80	106	.321	1.68	.64	50.1	205.0	1.59	32	131	172	35	14
DF		32	1	79	103	.301	1.68	.60	97.9	380.0	1.75	59	229	190	64	25
DF		34	1	82	153	.267	1.68	.80	103.0	503.3	2.38	82	402	257	89	43
DF		38	1	71	123	.213	1.68	.64	71.6	300.0	1.31	46	192	141	49	21
DF		Totals	56	80	83	78.900	94.11	126.47	20.7	74.4	81.28	2,615	9,414	8,779	2,824	1,017
RA		10	2	72	55	6.162	3.36	6.16	9.0	30.0	1.61	56	185	174	60	20
RA		11	4	77	80	10.186	6.72	10.19	17.5	52.5	5.00	178	535	540	192	58
RA		12	5	77	70	10.698	8.40	10.70	19.8	56.0	5.91	212	599	638	228	65
RA		13	3	78	77	5.469	5.04	5.47	19.8	63.3	2.97	108	346	321	117	37
RA		14	6	74	65	9.432	10.08	12.58	17.7	46.2	6.22	222	582	672	240	63
RA		15	1	80	58	1.369	1.68	2.74	12.1	35.0	.91	33	96	98	36	10
RA		16	4	63	62	4.814	6.72	6.02	16.5	48.0	3.39	99	289	366	107	31
RA		17	2	75	57	2.132	3.36	4.26	15.7	52.5	1.84	67	224	199	72	24
RA		19	1	80	84	.854	1.68	1.71	33.6	105.0	1.58	57	179	170	62	19
RA		21	1	80	71	.699	1.68	.70	59.0	160.0	1.27	41	112	137	45	12
RA		22	1	80	80	.637	1.68	1.27	33.7	105.0	1.30	43	134	140	46	14
RA		25	1	40	61	.493	1.68	.49	23.1	40.0	.31	11	20	34	12	2
RA		29	1	78	65	.366	1.68	.37	114.0	260.0	1.27	42	95	137	45	10
RA		Totals	32	75	69	53.312	53.78	62.65	18.7	54.2	33.58	1,169	3,395	3,627	1,262	367
OC	2	20	1	67	28	.770	1.68				.60			65		
OC		Totals	1	67	28	.770	1.68				0.60			65		
OC	3	18	1	86	63	.951	1.68				1.10			119		
OC		Totals	1	86	63	.951	1.68				1.10			119		
OC	5	22	1	99	17	.637	1.68				.52			56		
OC	5	25	1	67	27	.493	1.68				.58			63		
OC	5	30	3	68	20	1.027	5.04				1.59			172		
OC	5	32	2	77	20	.602	3.36				1.05			114		
OC	5	35	1	74	54	.252	1.68				.86			93		
OC	5	36	1	83	46	.238	1.68				.87			94		
OC	5	40	1	67	26	.193	1.68				.56			60		

TC TSTNDSUM														Stand Table Summary		
Project 2SCOMPNY																
T02N R09W S36 T100										T02N R09W S36 T100						
Twp	Rge	Sec	Tract		Type	Acres	Plots	Sample Trees			Page:	2				
02N	09W	36	AREA 2		100	108.00	20	102			Date:	10/03/2011				
											Time:	10:46:41AM				
Spc	S T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.		Net Bd.Ft.	Tons	Cunits	MBF		
OC	5	45	1	74	31	.152	1.68			.66			71			
OC	5	55	1	84	53	.102	1.68			.98			106			
OC		Totals		12	77	26	3.694	20.17		7.67			829			
Totals			102	78	76	137.627	171.41	189.12	20.0	67.7	124.24	3783	12,809	13,418	4,086	1,383

TC		TLOGSTVB		Log Stock Table - MBF																
Project:										2SCOMPNY										
T02N R09W S36 T100										T02N R09W S36 T100										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1											
02N	09W	36	AREA 2	100	108.00	20	102	Date	10/3/2012											
									Time	11:50:48AM										
Spp	T	So	Gr	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
DF	D	D		4																
DF	D	D		6																
DF	D	D		8																
DF	D	D		11																
DF	D	D		13		1	100.0													
DF	D	D		14		1	100.0													
DF	D	D		15		10	100.0													
DF	D	D		18		27	100.0													
DF	D	D		21		13	100.0													
DF	D	D		23		13	100.0													
DF	D	D		28		16	100.0													
DF	D	D		29		4	100.0													
DF	CO	2		40		213		213	20.9					25	145	43				
DF	CO	3		8																
DF	CO	3		26		5		5	.5				5							
DF	CO	3		32		2			.2		2									
DF	CO	3		36		17		17	1.6				17							
DF	CO	3		40		574	1.9	563	55.4		158	140	174	78	12					
DF	CO	4		9																
DF	CO	4		10																
DF	CO	4		11																
DF	CO	4		12		0		0	.0		0									
DF	CO	4		13		4		4	.3		3	1								
DF	CO	4		14		4		4	.4		3	1								
DF	CO	4		15		10		10	.9		7		2							
DF	CO	4		16		2		2	.2		2									
DF	CO	4		20		14		14	1.3		14									
DF	CO	4		22		14		14	1.4		13	1								
DF	CO	4		23		4		4	.4		2	1								
DF	CO	4		25		8		8	.8		8									
DF	CO	4		27		14		14	1.4		14									
DF	CO	4		28		10		10	1.0		10									
DF	CO	4		29		3		3	.3		3									
DF	CO	4		31		2		2	.2		2									
DF	CO	4		32		7		7	.7		7									
DF	CO	4		34		13		13	1.3		13									
DF	CO	4		35		13		13	1.3		13									
DF	CO	4		37		10		10	.9		10									
DF	CO	4		39		11		11	1.1		11									
DF	CO	4		40		75		75	7.3		24	50								
DF	Totals					1,113	8.6	1,017	73.5		160	215	142	174	100	37	145	43		
RA	D	D		2																
RA	D	D		3																
RA	D	D		6																
RA	D	D		8																
RA	D	D		9																
RA	D	D		15		3	100.0													
RA	H	2		40		11	10.3	10	2.8					10						
RA	H	3		14		6		6	1.6			6								
RA	H	3		32		16		16	4.4			16								

TC		TLOGSTVB		Log Stock Table - MBF																
Project:										2SCOMPNY										
T02N R09W S36 T100												T02N R09W S36 T100								
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	2											
02N	09W	36	AREA 2	100	108.00	20	102	Date	10/3/2012											
								Time	11:50:48AM											
Spp	T	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches										
										MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15
RA		H	3		40	44	6.6	41	11.2					29	12					
RA		H	4		10															
RA		H	4		11															
RA		H	4		13	3		3	.9			3								
RA		H	4		17	3		3	.7			3								
RA		H	4		20	6		6	1.6			6								
RA		H	4		21	17		17	4.7			12	5							
RA		H	4		22	4		4	1.1			4								
RA		H	4		24	3		3	.8			3								
RA		H	4		27	10		10	2.7			10								
RA		H	4		29	12		12	3.4			2	10							
RA		H	4		32	20		20	5.5			20								
RA		H	4		35	66		66	17.9			66								
RA		H	4		37	12		12	3.2			12								
RA		H	4		40	145	4.9	138	37.6			96	42							
RA		Totals				380	3.6	367	26.5			236	57	51	12	10				
OC	2	D	D		24	2	100.0													
OC	3	D	D		24	15	100.0													
OC	3	D	D		25	3	100.0													
OC	5	D	D		15	57	100.0													
OC	5	D	D		16	3	100.0													
OC	5	D	D		20	18	100.0													
OC	5	D	D		21	1	100.0													
OC	5	D	D		24	23	100.0													
OC	5	D	D		29	13	100.0													
OC		Totals				135	100.0													
Total All Species						1,629	15.1	1,383	100.0		160	451	199	225	113	48	145	43		

T02N R09W S36 T100										T02N R09W S36 T100			
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt				
02N	09W	36	AREA 2	100	108.00	20	102	S	W				

Spp	S	So	Gr	%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log			Logs						
									Net	BdFt	Def%	Gross	Net	Net MBF	Log Scale Dia.				Log Length				Ln	Bd	CF/	
															4-5	6-11	12-16	17+	12-20		21-30	31-35				36-99
DF	D	D			100.0	788											15		0.00	12.1						
DF	CO	2		20	1,971	1,971	213			12	88				100		40	540	3.03	3.7						
DF	CO	3		58	1.8	5,531	5,430	586		81	19			1	0	99	40	105	0.77	51.5						
DF	CO	4		22		2,012	2,012	217	74	26				15	24	16	44	26	28	0.32	71.3					
DF	Totals			73	8.6	10,303	9,414	1,017	16	52	14	19		3	6	4	87	31	68	0.62	138.6					
RA	D	D			100.0	24											7		0.00	11.6						
RA	H	2		2	10.3	106	95	10			100					100	40	260	2.85	.4						
RA	H	3		17	4.4	609	583	63		80	20			9		26	65	32	135	1.35	4.3					
RA	H	4		81	2.3	2,782	2,717	293		100				4	16	29	51	31	47	0.53	58.0					
RA	Totals			27	3.6	3,522	3,395	367		94	6			5	13	28	55	27	46	0.58	74.3					
OC	2	D	D		100.0	23												24		0.00	.8					
OC 2	Totals				100.0	23												24		0.00	.8					
OC	3	D	D		100.0	171													25		0.00	1.9				
OC 3	Totals				100.0	171													25		0.00	1.9				
OC	5	D	D		100.0	1,060													20		0.00	4.0				
OC 5	Totals				100.0	1,060													20		0.00	4.0				
Type Totals					15.1	15,079	12,809	1,383	12	63	12	14		4	8	10	79	29	58	0.59	219.6					

TC		Stand Table Summary														
TSTNDSUM		Project 2SCOMPNY														
T02N R09W S36 T100											T02N R09W S36 T100					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1							
02N	09W	36	AREA 3	100	101.00	18	89	Date:	10/03/2011							
								Time:	10:48:21AM							
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF
DF		8	1	70	42	5.349	1.87	5.35	4.1	20.0	.63	22	107	64	22	11
DF		9	3	82	58	12.680	5.60	12.68	7.7	30.0	2.77	97	380	280	98	38
DF		10	2	79	70	6.847	3.73	6.85	11.9	35.0	2.33	82	240	235	83	24
DF		11	4	84	95	11.317	7.47	22.63	9.9	40.0	6.38	224	905	645	226	91
DF		12	5	82	92	11.887	9.34	19.02	14.4	52.5	7.82	274	999	790	277	101
DF		13	8	81	90	16.206	14.94	30.39	14.2	48.0	12.58	431	1,459	1,270	435	147
DF		14	6	82	95	10.480	11.20	20.96	17.6	62.5	10.54	370	1,310	1,065	374	132
DF		15	7	82	98	10.651	13.07	19.78	20.6	75.4	12.64	407	1,491	1,276	411	151
DF		16	3	85	92	4.012	5.60	8.02	22.6	85.0	5.18	182	682	523	183	69
DF		17	1	80	92	1.185	1.87	2.37	26.2	90.0	1.77	62	213	178	63	22
DF		18	4	82	75	4.821	8.52	6.47	36.2	180.9	8.02	234	1,171	810	237	118
DF		19	3	78	99	2.845	5.60	6.64	29.6	95.7	5.60	197	635	566	199	64
DF		20	1	79	97	.856	1.87	1.71	35.7	110.0	1.74	61	188	176	62	19
DF		21	1	78	96	.776	1.87	1.55	40.4	120.0	1.79	63	186	181	63	19
DF		23	2	81	113	1.294	3.73	3.24	41.5	152.0	3.82	134	492	386	135	50
DF		25	1	75	91	.548	1.87	.55	78.6	280.0	1.23	43	153	124	43	15
DF		26	2	81	68	1.013	3.73	1.01	52.5	195.0	2.89	53	198	292	54	20
DF		27	1	81	100	.470	1.87	.94	70.4	235.0	1.88	66	221	190	67	22
DF		28	1	78	97	.437	1.87	.87	63.8	210.0	1.90	56	183	192	56	19
DF		29	1	80	103	.407	1.87	.81	84.7	310.0	1.97	69	252	199	70	25
DF		30	2	82	100	.761	3.73	1.52	73.0	282.5	3.28	111	430	331	112	43
DF		Totals	59	81	84	104.841	111.22	173.37	18.7	68.6	96.75	3,238	11,896	9,772	3,271	1,201
RA		10	1	70	56	3.423	1.87	3.42	11.6	30.0	1.09	40	103	110	40	10
RA		11	3	76	79	8.488	5.60	8.49	12.6	46.7	2.95	107	396	298	108	40
RA		13	4	75	52	8.103	7.47	8.10	12.5	35.0	2.94	101	284	297	102	29
RA		14	3	74	90	5.240	5.60	6.99	15.6	55.0	3.68	109	384	371	110	39
RA		15	1	72	104	1.522	1.87	3.04	14.9	55.0	1.25	45	167	126	46	17
RA		16	1	76	46	1.337	1.87	1.34	6.9	20.0	.99	9	27	100	9	3
RA		19	1	90	44	.948	1.87	1.90	19.2	90.0	1.00	36	171	101	37	17
RA		20	2	61	82	1.712	3.73	2.57	20.8	76.7	1.47	53	197	148	54	20
RA		21	1	40	116	.776	1.87	1.55	11.2	30.0	.48	17	47	48	18	5
RA		32	1	39	76	.334	1.87	.33	49.0	70.0	.45	16	23	45	17	2
RA		Totals	18	73	71	31.884	33.61	37.73	14.2	47.7	16.29	535	1,798	1,646	541	182
WH		13	1	85	104	2.026	1.87	4.05	16.5	60.0	2.14	67	243	216	67	25
WH		Totals	1	85	104	2.026	1.87	4.05	16.5	60.0	2.14	67	243	216	67	25
SS		16	1	54	30	1.337	1.87				.78			79		
SS		20	2	71	37	1.712	3.73	1.71	31.5	60.0	1.58	54	103	160	54	10
SS		28	1	69	38	.437	1.87	.44	60.0	180.0	.86	26	79	87	26	8
SS		39	1	84	39	.225	1.87				.91			91		
SS		Totals	5	65	35	3.711	9.34	2.15	37.3	84.4	4.13	80	181	417	81	18
OC	3	11	1	71	33	2.829	1.87				.65			65		
OC	3	12	1	81	50	2.377	1.87				.99			100		
OC		Totals	2	76	41	5.207	3.73				1.63			165		
OC	5	21	1	87	17	.776	1.87				.55			55		
OC	5	26	1	88	40	.506	1.87				.81			82		
OC	5	28	1	87	17	.437	1.87				.56			57		
OC	5	35	1	89	20	.279	1.87				.51			52		
OC		Totals	4	88	23	1.999	7.47				2.43			246		

TC TSTNDSUM

Stand Table Summary

Project 2SCOMPNY

T02N R09W S36 T100

T02N R09W S36 T100

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	2
02N	09W	36	AREA 3	100	101.00	18	89	Date:	10/03/2011
								Time:	10:48:21AM

S Spc	T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
Totals			89	79	78	149.667	167.23	217.30	18.0	65.0	123.38	3920	14,118	12,461	3,959	1,426

Log Stock Table - MBF
Project: 2SCOMPNY

T02N R09W S36 T100

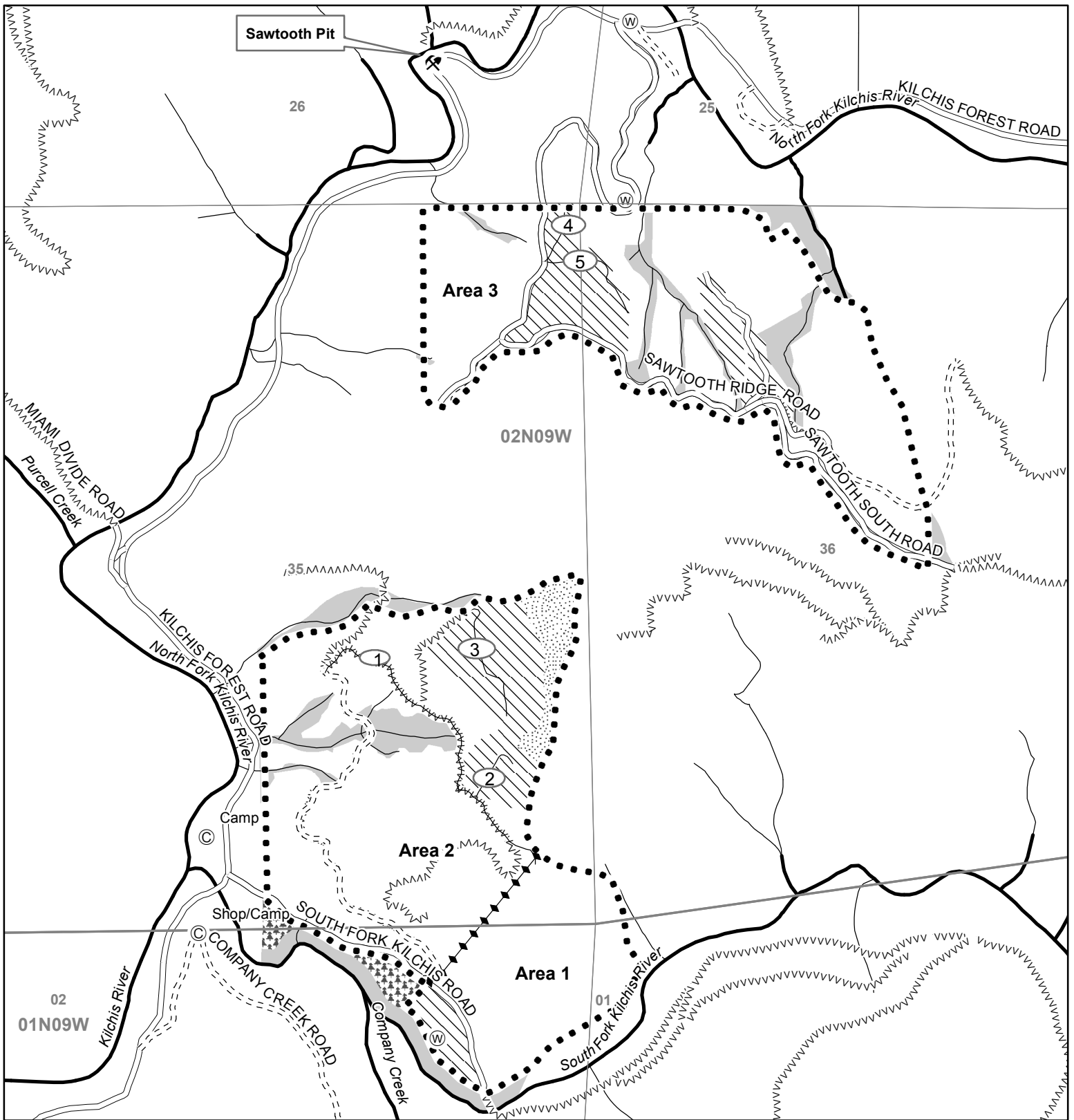
T02N R09W S36 T100

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
 02N 09W 36 AREA 3 100 101.00 18 89 Date 10/3/2012
 Time 11:51:19AM

Spp	T	S	So	Gr	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
RA		CO	3		18		15		15	8.4					15					
RA		H	3		40		13		13	7.1				13						
RA		H	4		9															
RA		H	4		16		9		9	5.2			9							
RA		H	4		17		4		4	2.3			4							
RA		H	4		20		6		6	3.4			6							
RA		H	4		21		5		5	2.9			5							
RA		H	4		25		9		9	4.7			9							
RA		H	4		27		17		17	9.1			17							
RA		H	4		28		5		5	2.9			5							
RA		H	4		35		14		14	7.9			14							
RA		H	4		36		5		5	2.9			5							
RA		H	4		40		81	2.5	79	43.2			49	30						
RA		Totals					205	11.4	182	12.7			124	30	13	15				
OC	3	D	D		23		6	100.0												
OC	3	D	D		36		10	100.0												
OC	5	D	D		15		29	100.0												
OC	5	D	D		19		5	100.0												
OC	5	D	D		35		3	100.0												
OC		Totals					53	100.0												
SS		D	D		12		0	100.0												
SS		D	D		20		4	100.0												
SS		D	D		35		3	100.0												
SS		CO	3		20		9	10.0	8	43.4					8					
SS		CO	3		22		7	12.5	6	33.0			6							
SS		CO	3		28		4		4	23.6			4							
SS		Totals					28	33.4	18	1.3			4	6		8				
WH		CO	3		40		18		18	75.0			18							
WH		CO	4		31		6		6	25.0		6								
WH		Totals					25		25	1.7		6	18							
Total All Species							1,558	8.5	1,426	100.0		219	389	295	171	113	117	99	23	

T02N R09W S36 T100										T02N R09W S36 T100			
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt				
02N	09W	36	AREA 3	100	101.00	18	89	S	W				

Spp	S T	So rt	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
									Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf		
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
DF		D	D		100.0	389											15		0.00	13.6	
DF		CO	2	14	2.0	1,815	1,780	180			75	25			22	78	38	329	2.24	5.4	
DF		CO	3	59	.6	6,978	6,938	701		84	16			2	2	97	39	101	0.72	68.6	
DF		CO	4	27		3,178	3,178	321	66	21	12			17	24	14	46	32	0.33	99.4	
DF	Totals			84	3.8	12,361	11,896	1,201	18	55	24	4		5	7	7	80	31	64	0.57	187.0
RA		D	D		100.0	212											9		0.00	17.8	
RA		CO	3	8		152	152	15			100			100			18	160	1.50	.9	
RA		H	3	7		128	128	13		100						100	40	150	0.97	.9	
RA		H	4	85	1.3	1,538	1,518	153		100				13	23	9	55	29	42	0.46	35.9
RA	Totals			13	11.4	2,030	1,798	182	92	8				19	20	8	53	22	32	0.43	55.5
OC		3	D	D		100.0	152										29		0.00	5.2	
OC	3	Totals			100.0	152											29		0.00	5.2	
OC		5	D	D		100.0	368										21		0.00	2.0	
OC	5	Totals			100.0	368											21		0.00	2.0	
SS		D	D		100.0	74											20		0.00	2.0	
SS		CO	3	100	8.7	199	181	18		57	43			43	57		24	84	1.55	2.1	
SS	Totals			1	33.4	272	181	18	57	43				43	57		22	44	0.88	4.1	
WH		CO	3	75		182	182	18		100						100	40	90	0.64	2.0	
WH		CO	4	25		61	61	6	100							100	31	30	0.24	2.0	
WH	Totals			2		243	243	25	25	75						25	75	36	60	0.46	4.1
Type	Totals				8.5	15,427	14,118	1,426	15	60	22	3		8	9	7	76	29	55	0.53	258.0



- 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

LOGGING PLAN

Timber Sale Contract No. 341-13-074
 TWOS COMPANY
 Portions of Sections 35 and 36, T2N, R9W,
 Sections 1 and 2, T1N, 9W, W.M.,
 Tillamook County, Oregon

1,000 0 1,000 Feet



Tillamook District GIS
 1/23/2013

This product is for informational use and may not have been prepared or suitable for legal, engineering, or surveying purposes.



Area	Type of Operation	Gross	Net	Acres
1	Partial cut	45	40	
2	Modified clearcut	133	108	
3	Modified clearcut	120	101	
Total		298	249	