



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Hann Solo
Sale 341-11-72

District: Tillamook

Date: January 11, 2011

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$642,706.20	\$22,001.91	\$664,708.11
		Project Work:	\$(104,490.00)
		Advertised Value:	\$560,218.11



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timber description

Location: Portions of Sections 21, 22, 23, 26, and 27, T1N, R7W, W.M., Tillamook County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	18	0	95
Alder (Red)	15	0	90

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	1,209	1,660	326	3,195
Alder (Red)	8	41	70	119
Total	1,217	1,701	396	3,314



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comments: Pond Values Used: 4th Quarter Calendar Year 2010.

Western Hemlock and Other Conifers Stumpage Price = Pond Value
minus Logging Cost
\$165/MBF = \$410/MBF - \$245/MBF

Western redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Cost
\$715/MBF = \$960/MBF - \$245/MBF

Pulp (Conifer and Hardwood) Price = \$43/MBF
(See attached Pulp Appraisal sheet)

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE
Hauling costs equivalent to \$700 daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: \$2/MBF x 3,314 MBF = \$6,628
Snag Creation: \$10 each x 442 snags = \$4,420
TOTAL Other Costs (with Profit & Risk to be added) = \$11,048

Other Costs (No Profit & Risk added):
Slash Piling and sorting: \$2.50/acre x 196 (cable) acres = \$490
Cover Material for piles: \$5/pile x 15 piles = \$75
Rolling dips: \$150 each x 20 dips = \$3,000
OHV ATV filter: \$75 each x 3 filters = \$225
Tank Traps to close dirt spurs: \$75 each x 4 traps = \$300
TOTAL Other Costs (No Profit & Risk added) = \$4,090

ROAD MAINTENANCE

Anticipated Haul Routes:

Area 1: .5 MMBF down Portland Mills to Jordan Creek (7.3 miles).
Area 1 and Area 2: 2.814 MMBF Archers Road & Jordan Creek (6.8 miles).

Spot rocking (all routes): (50cy/miles x 14 miles x
\$9.5/cy)/3,314MBF = \$2.0/MBF
Interim Grading (Archers and Jordan Creek Roads only): \$250/mile x
6.8 miles x 2 Gradings/2800MBF = \$1.21/MBF.
Final Grading: \$500/mile x 14 miles/3,314 MBF = \$2.11/MBF
Compaction (361 stations x \$18/station) + 111 move-in)/3,314MBF =
\$1.99/MBF.
Final grading includes all roads on haul route.
Compaction includes Archers Road and Jordan Creek from Archers to
Highway 6

TOTAL ROAD MAINTENANCE COSTS: \$7.31/MBF



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logging conditions

combination#: 1 Douglas - Fir 6.33%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber
tree size: Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF
loads / day: 12.0 **bd. ft / load:** 3,500
cost / mbf: \$34.24

machines: Stroke Delimber (B)

combination#: 2 Douglas - Fir 21.32%
Alder (Red) 20.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process:** Stroke Delimber
tree size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 7.0 **bd. ft / load:** 4,800
cost / mbf: \$84.35

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

combination#: 3 Douglas - Fir 10.82%

yarding distance: Long (1,500 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:** 3,700
cost / mbf: \$191.50

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

combination#: 4 Douglas - Fir 61.53%
Alder (Red) 80.00%

yarding distance: Long (1,500 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:** 4,000
cost / mbf: \$141.71

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



"STEWARDSHIP IN FORESTRY"

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logging costs

Operating Seasons:	2.00	Profit Risk:	10.00%
Project Costs:	\$104,490.00	Other Costs (P/R):	\$11,048.00
Slash Disposal:	\$0.00	Other Costs:	\$4,090.00

Miles of Road

Road Maintenance: \$7.31

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	3.8
Alder (Red)	\$0.00	2.0	2.0



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District: Tillamook

Date: January 11, 2011

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$128.06	\$7.68	\$2.65	\$87.92	\$3.33	\$22.96	\$0.00	\$5.00	\$1.23	\$258.83
Alder (Red)									
\$130.24	\$8.04	\$2.65	\$175.00	\$3.33	\$31.93	\$0.00	\$5.00	\$1.23	\$357.42

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$459.99	\$201.16	\$0.00
Alder (Red)	\$0.00	\$542.31	\$184.89	\$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	3,195	\$201.16	\$642,706.20
Alder (Red)	119	\$184.89	\$22,001.91

Gross Timber Sale Value

Recovery: \$664,708.11

Prepared by: Nick Stumpf

Phone: 503-842-2545

Pulp Appraisal

Sale Name	Hann Solo
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Species	Douglas-fir	Alder
Stems Per/ac.	64	12
Acres	221	221
Total Stems	14144	2652
BF/Stem, Conversion	10	10
Total MBF Per/Species	141	27
Pond Value Per/MBF	\$270	\$340
* Logging + Hauling Costs	\$215.98	\$305.24
Stumpage	\$54.02	\$34.76
Tons Per/MBF, Conversion	10	10
Price Per/Ton	\$5.40	\$3.48
Total Tons Per/Species	1414	265
Total Value	\$7,640.59	\$921.84

	Total Price	Price/Ton	Price/MBF
	\$8,562.42	\$5.10	\$50.98
Total Less P/R15%	\$7,278.06	\$4.33	\$43.33

** Contract Price	\$43
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* Used Douglas-fir logging and hauling price for conifer.

** Pulp price rounded down to nearest whole dollar



STEWARDSHIP IN FORESTRY

Hann Solo

Volume Summary

Areal Modified Clear-cut				
116 acres				
SPECIES	Gross MBF/ Acre	Gross MBF	Hidden D&B	Net Vol* MBF
Douglas-fir	21.4	2478	5.1%	2352
Alder	1.1	132	10.0%	119
TOTAL	22.5	2610		2471

Area 2-Partial Cut				
105 acres				
SPECIES	Gross MBF/ Acre	Gross MBF	Hidden D&B	Net Vol* MBF
Douglas-fir	8.5	889	5.2%	843
TOTAL	8.5	889		843

TOTAL SALE VOLUME			221	acres
SPECIES	Gross Vol. (MBF)		Net Vol. (MBF)	
Douglas-fir	3367		3195	
Red Alder	132		119	
TOTAL	3499		3314	



PROJECT SUMMARY SHEET

Sale: Hann Solo

CONSTRUCTION

Point	C to D	12+20	stations =	\$25,204.89
Point	G to H	14+30	stations =	\$23,434.47
Point	I to J	2+90	stations =	\$1,431.63
Point	M to N	2+90	stations =	\$956.53
Point	S to T	2+40	stations =	\$1,063.42
SUBTOTAL CONSTRUCTION				\$52,090.94

IMPROVEMENT

Point	A to B	464+40	stations =	\$7,653.40
Point	E to F	28+75	stations =	\$25,960.13
Point	K to L	5+55	stations =	\$1,744.53
Point	O to P	51+05	stations =	\$9,924.48
Point	Q to R	3+00	stations =	\$810.50
Point	U to V	3+85	stations =	\$820.48
SUBTOTAL IMPROVEMENT				\$46,913.52

RECONSTRUCTION

Point	K to L	4+10	stations =	\$1,399.73
Point	S to T	3+85	stations =	\$1,844.86
SUBTOTAL RECONSTRUCTION				\$3,244.59

MOVE IN

\$2,240.95

GRAND TOTAL

\$104,490.00

SUMMARY OF CONSTRUCTION COST

Sale:		Hann Solo			Road:		A to B		
Construction	0+00 0.00	stations miles	Improvement -	464+40 8.80	stations miles	Reconstruction -	0+00 0.00	stations miles	
Landing Rock #1	26+05	140	cy. of Pit Run	@		\$8.23 per c.y. =		\$1,152.20	
Landing Rock #2	192+50	140	cy. of Pit Run	@		\$10.83 per c.y. =		\$1,516.20	
Road Rock	0+00-464+40	500	cy. of Crushed	@		\$7.27 per c.y. =		\$3,635.00	
								TOTAL ROCK	\$6,303.40
SPECIAL PROJECTS									
Construct waste areas -				6.00	hours @	\$130.00	per hour	\$780.00	
Landing Construction				2.00	@	\$285.00	each	\$570.00	
								TOTAL SPECIAL PROJECTS	\$1,350.00
								GRAND TOTAL	\$7,653.40

SUMMARY OF CONSTRUCTION COST

Sale: **Hann Solo**

Road: **C to D**

<u>Construction</u> -	12+20 0.23	stations miles	<u>Improvement</u> -	0+00 0.00	stations miles	<u>Reconstruction</u> -	0+00 0.00	stations miles
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CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=	
0+00		1+62	5%			\$74	=	\$119.88
1+62		2+97	80%	0.7		\$4,069	=	\$5,493.15
2+97		5+77	70%	0		\$2,193	=	\$6,140.40
5+77		6+80	50%			\$459	=	\$472.77
6+80		8+86	70%	0.8		\$2,909	=	\$5,992.54
8+86		9+83	40%			\$243	=	\$235.71
9+83		12+21	10%			\$90	=	\$214.20
TOTAL								\$18,668.65

ROCK	to	Station	Qty	Unit	Material	@	Rate	=	
0+00		2+85	300	cy. of	Pit Run	@	\$8.75 per c.y.=	=	\$2,625.00
Landing		0+50	140	cy. of	Pit-Run	@	\$8.73 per c.y.=	=	\$1,222.20
TOTAL ROCK									\$3,847.20

SPECIAL PROJECTS	Qty	Unit	Rate	=	
Construct Landing	2.00	@	\$250.00 each	=	\$500.00
Drift from 2+50 to 5+50	3.00	stations @	\$140.00 per station	=	\$420.00
Roll entire subgrade w/ vibratory roller & prior to rocking	12.20	stations @	\$13.20 per station	=	\$161.04
Remove large stumps -	1.00	lump sum @	\$1,300.00	=	\$1,300.00
Grass seed and fertilize -	1.40	acres @	\$220.00 per acre	=	\$308.00
TOTAL SPECIAL PROJECTS					\$2,689.04

GRAND TOTAL **\$25,204.89**

SUMMARY OF CONSTRUCTION COST

Sale: **Hann Solo**

Road: **E to F**

<u>Construction -</u>	0+00	stations	<u>Improvement -</u>	28+75	stations	<u>Reconstruction -</u>	0+00	stations
	0.00	miles		0.54	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	2.640	acres @	\$980.00	per acre =	\$2,587.20	
TOTAL CLEARING AND GRUBBING					\$2,587.20	

IMPROVEMENT: EXCAVATION -

Road Earthwork	28.75	sta. @	\$70.00	per sta. =	\$2,012.50	
TOTAL EXCAVATION					\$2,012.50	

ROCK

0+00 to	28+75	1,520	cy. of	Pit Run	@	\$10.91	per c.y. =	\$16,583.20
Landing Rock	28+50	160	cy. of	Pit-Run	@	\$11.12	per c.y. =	\$1,779.20
TOTAL ROCK								\$18,362.40

SPECIAL PROJECTS

Landing Construction	1.00	@	\$250.00	each	\$250.00	
Construct waste areas -	6.00	hours @	\$130.00	per hour	\$780.00	
Cleanout ditchline & place outside road prism: 2+00 to 6+05	4.05	stations @	\$50.00	per station	\$202.50	
Grade and shape road -	28.75	stations @	\$15.50	per station	\$445.63	
Roll subgrade w/ vibratory roller prior to rocking -	28.75	stations @	\$13.20	per station	\$379.50	
Remove large stumps -	1.00	lump sum @	\$650.00		\$650.00	
Grass seed and fertilize -	1.32	acres @	\$220.00	per acre	\$290.40	
TOTAL SPECIAL PROJECTS					\$2,998.03	

GRAND TOTAL **\$25,960.13**

SUMMARY OF CONSTRUCTION COST

Sale:

Hann Solo

Road:

G to H

<u>Construction -</u>	14+30	stations	<u>Improvement -</u>	0+00	stations	<u>Reconstruction -</u>	0+00	stations
	0.27	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		2+46	30%			\$191	=	\$469.86
2+46		3+49	60%	0.03		\$1,493	=	\$1,537.79
3+49		4+60	45%			\$269	=	\$298.59
4+60		6+60	10%			\$90	=	\$180.00
6+60		9+40	60%	0.3		\$1,632	=	\$4,569.60
9+40		13+16	40%			\$243	=	\$913.68
13+16		14+30	30%			\$191	=	\$217.74
TOTAL								\$8,187.26

ROCK								
0+00	to	14+30	760	cy. of	Pit run	@	\$11.17 per c.y.=	\$8,489.20
Landing Rock		5+50	140	cy. of	Pit-Run	@	\$11.29 per c.y.=	\$1,580.60
Landing Rock		11+70	140	cy. of	Pit-Run	@	\$8.78 per c.y.=	\$1,229.20
Landing Rock		14+00	140	cy. of	Pit-Run	@	\$5.74 per c.y.=	\$803.60
TOTAL ROCK								\$12,102.60

SPECIAL PROJECTS								
Drift material from 4+60 to 6+50		1.90	stations @	\$140.00	per station			\$266.00
Construct waste areas -		6.00	hours @	\$130.00	per hour			\$780.00
Landing Construction		3.00	@	\$250.00	each			\$750.00
Grade and shape road -		14.30	stations @	\$15.50	per station			\$221.65
Roll subgrade w/ vibratory roller prior to rocking -		14.30	stations @	\$13.20	per station			\$188.76
Remove large stumps -		1.00	lump sum @	\$650.00				\$650.00
Grass seed and fertilize -		1.31	acres @	\$220.00	per acre			\$288.20
TOTAL SPECIAL PROJECTS								\$3,144.61

GRAND TOTAL **\$23,434.47**

SUMMARY OF CONSTRUCTION COST

Sale: **Hann Solo**

Road: **I to J**

Construction -	2+90	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	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=		
0+00		2+90	10%			\$90		\$261.00	
								TOTAL	\$261.00

ROCK									
0+00	to	1+00	100	cy. of	Pit Run	@	\$10.28 per c.y.=	\$1,028.00	
								TOTAL ROCK	\$1,028.00

SPECIAL PROJECTS									
Grade and shape road -									
								\$44.95	
Roll entire subgrade w/ vibratory roller & prior to rocking -								\$38.28	
Grass seed and fertilize -								\$59.40	
								TOTAL SPECIAL PROJECTS	\$142.63

GRAND TOTAL **\$1,431.63**

SUMMARY OF CONSTRUCTION COST

Sale: **Hann Solo**

Road: **K to L**

<u>Construction -</u>	0+00 stations 0.00 miles	<u>Improvement -</u>	5+55 stations 0.11 miles	<u>Reconstruction -</u>	4+10 stations 0.08 miles
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IMPROVEMENT: CLEARING AND GRUBBING - Scattering	0.510	acres @	\$980.00	per acre =	\$499.80	
					TOTAL CLEARING AND GRUBBING	\$499.80
IMPROVEMENT: EXCAVATION - Road Earthwork	5.55	sta. @	\$50.00	per sta. =	\$277.50	
					TOTAL EXCAVATION	\$277.50
RECONSTRUCTION: CLEARING AND GRUBBING - Scattering	0.490	acres @	\$980.00	per acre =	\$480.20	
					TOTAL CLEARING AND GRUBBING	\$480.20
RECONSTRUCTION: EXCAVATION - Road Earthwork	4.10	sta. @	\$50.00	per sta. =	\$205.00	
					TOTAL EXCAVATION	\$205.00
ROCK 0+00 to 1+00		100 cy. of	Pit Run	@	\$10.48 per c.y. =	\$1,048.00
						TOTAL ROCK
						\$1,048.00
SPECIAL PROJECTS						
Grade and shape road -	9.65	stations @	\$15.50	per station	\$149.58	
Roll subgrade w/ vibratory roller and prior to rocking -	9.65	stations @	\$13.20	per station	\$127.38	
Remove large stumps -	1.00	lump sum @	\$260.00		\$260.00	
Grass seed and fertilize -	0.44	acres @	\$220.00	per acre	\$96.80	
					TOTAL SPECIAL PROJECTS	\$633.76
GRAND TOTAL						\$3,144.26

SUMMARY OF CONSTRUCTION COST

Sale:

Hann Solo

Road:

M to N

<u>Construction -</u>	2+90	stations	<u>Improvement -</u>	0+00	stations	<u>Reconstruction -</u>	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 -

<u>Station</u>	<u>to</u>	<u>Station</u>	<u>Avg. Sideslope</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>	=	\$553.90	
0+00		2+90	30%			\$191			
								TOTAL	\$553.90

SPECIAL PROJECTS

Grade and shape road -	2.90	stations @	\$15.50	per station	\$44.95
Roll subgrade w/ vibratory roller -	2.90	stations @	\$13.20	per station	\$38.28
Remove large stumps -	1.00	lump sum @	\$260.00		\$260.00
Grass seed and fertilize -	0.27	acres @	\$220.00	per acre	\$59.40
					TOTAL SPECIAL PROJECTS
					\$402.63

GRAND TOTAL **\$956.53**

SUMMARY OF CONSTRUCTION COST

Sale:	Hann Solo			Road:	O to P		
Construction -	0+00	stations	Improvement -	51+05	stations	Reconstruction -	stations
	0.00	miles		0.97	miles	0.00	miles

IMPROVEMENT: EXCAVATION -

Road Earthwork	21.70	sta. @	\$20.00	per sta. =	\$434.00
					TOTAL EXCAVATION
					\$434.00

ROCK

23+90 to 53+25	660	cy. of	Crushed	@	\$7.87 per c.y. =
					\$5,194.20
					TOTAL ROCK
					\$5,194.20

SPECIAL PROJECTS

Pull Ditch	36.60	stations @	\$60.00	per station	\$2,196.00
Grade and shape road -	51.05	stations @	\$15.50	per station	\$791.28
Roll subgrade (23+90 to 74+95) and prior to rocking (23+90 to 53+25)	40.50	stations @	\$13.20	per station	\$534.60
Grass seed and fertilize -	3.52	acres @	\$220.00	per acre	\$774.40
					TOTAL SPECIAL PROJECTS
					\$4,296.28

GRAND TOTAL	\$9,924.48
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SUMMARY OF CONSTRUCTION COST

Sale:

Hann Solo

Road:

Q to R

<u>Construction</u> -	<u>0+00</u>	stations	<u>Improvement</u> -	<u>3+00</u>	stations	<u>Reconstruction</u> -	<u>0+00</u>	stations
	0.00	miles		0.06	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -
Scattering

0.280	acres @	\$980.00	per acre =	\$274.40	
				TOTAL CLEARING AND GRUBBING	\$274.40

IMPROVEMENT: EXCAVATION -
Road Earthwork

3.00	sta. @	\$20.00	per sta. =	\$60.00	
				TOTAL EXCAVATION	\$60.00

SPECIAL PROJECTS

Grade and shape road -
Roll subgrade w/ vibratory roller -
Remove large stumps -

3.00	stations @	\$15.50	per station	\$46.50	
3.00	stations @	\$13.20	per station	\$39.60	
1.00	lump sum @	\$390.00		\$390.00	
				TOTAL SPECIAL PROJECTS	\$476.10

GRAND TOTAL	\$810.50
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SUMMARY OF CONSTRUCTION COST

Sale: **Hann Solo**

Road: **S to T**

Construction -	2+40	stations	Improvement -	0+00	stations	Reconstruction -	3+85	stations
	0.05	miles		0.00	miles		0.07	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+75	30%			\$191	=	\$143.25	
4+60		6+25	30%			\$191	=	\$315.15	
								TOTAL	\$458.40

RECONSTRUCTION: CLEARING AND GRUBBING -
Scattering

	0.460	acres @	\$980.00 per acre =	\$450.80
				TOTAL CLEARING AND GRUBBING
				\$450.80

RECONSTRUCTION: EXCAVATION -
Road Earthwork

	3.85	sta. @	\$110.00 per sta. =	\$423.50
				TOTAL EXCAVATION
				\$423.50

ROCK

0+00	to		1+00	cy. of	Pit Run	@	\$10.56 per c.y.=	\$1,056.00
								TOTAL ROCK
								\$1,056.00

SPECIAL PROJECTS

Junction Construction: 0+00 to 0+75	166.00	c. y. @	\$1.40 per C. Y.	\$232.40
Grade and shape road -	6.25	stations @	\$15.50 per station	\$96.88
Roll subgrade w/ vibratory roller and prior to rocking -	6.25	stations @	\$13.20 per station	\$82.50
Grass seed and fertilize -	0.49	acres @	\$220.00 per acre	\$107.80
				TOTAL SPECIAL PROJECTS
				\$519.58

GRAND TOTAL **\$2,908.28**

SUMMARY OF CONSTRUCTION COST

Sale:

Hann Solo

Road:

U to V

<u>Construction -</u>	0+00	stations	<u>Improvement -</u>	3+85	stations	<u>Reconstruction -</u>	0+00	stations
	0.00	miles		0.07	miles		0.00	miles

SPECIAL PROJECTS

Install Culvert	2.00	hours @	\$125.00	per hour	\$250.00
Pull Ditch	3.85	Sta @	\$60.00	per station	\$231.00
Grade and shape road -	3.85	stations @	\$15.50	per station	\$59.68
Remove large stumps -	1.00	lump sum @	\$260.00		\$260.00
Grass seed and fertilize -	0.09	acres @	\$220.00	per acre	\$19.80
				TOTAL SPECIAL PROJECTS	\$820.48
GRAND TOTAL					\$820.48

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Pit_run	Location:	Sec. 29 , T1N, R7W, W.M.
Sale:	Hann Solo	Road:	S. Fork Jordan
Swell:	1.30	Stockpile:	3880 c.y.
Shrinkage	1.16	Total Truck Loads:	3880 c.y.
Drill Pct.:	0%	In Place Total:	2985 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.	\$1,800.00
Rip Rock:	\$1.90 /cu.yd. x 2985 cu.yds. = \$5,671.50
Load Dump Truck:	\$0.70 /cu.yd. x 3880 cu.yds. = \$2,716.00

Subtotal \$10,187.50

Move in Roller and Compactor	1	@	\$429.72	=	\$429.72
Move in Grader	1	@	\$190.00	=	\$190.00
Move in Loader	1	@	\$492.17	=	\$492.17
Move in Excavator	1	@	\$672.26	=	\$672.26
Move in Trucks	4	@	\$240.00	=	\$960.00
				Subtotal	\$2,744.15

Base Cost= \$3.33 Per Cu.Yd.

TOTAL PRODUCTION COSTS \$12,931.65

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 Landing Rock #1 (Pit Run)	3.80	1.10	3.33	8.23	140	\$1,152.20
A to B Landing Rock #2 (Pit Run)	6.40	1.10	3.33	10.83	140	\$1,516.20
C to D 0 285 (Pit Run)	4.32	1.10	3.33	8.75	300	\$2,625.00
C to D Landing Rock (Pit-Run)	4.30	1.10	3.33	8.73	140	\$1,222.20
E to F 0 2875 (Pit Run)	6.48	1.10	3.33	10.91	1520	\$16,583.20
E to F Landing Rock (Pit-Run)	6.69	1.10	3.33	11.12	160	\$1,779.20
G to H 0 1430 (Pit run)	6.74	1.10	3.33	11.17	760	\$8,489.20
G to H Landing Rock (Pit-Run)	6.86	1.10	3.33	11.29	140	\$1,580.60
G to H Landing Rock (Pit-Run)	6.78	1.40	0.60	8.78	140	\$1,229.20
G to H Landing Rock (Pit-Run)	1.51	0.90	3.33	5.74	140	\$803.60
I to J 0 100 (Pit Run)	5.85	1.10	3.33	10.28	100	\$1,028.00
K to L 0 100 (Pit Run)	6.05	1.10	3.33	10.48	100	\$1,048.00
S to T 0 100 (Pit Run)	6.13	1.10	3.33	10.56	100	\$1,056.00
				Total C.Y.	3880	Sub Total
						\$40,112.60

TOTAL ROCKING COSTS \$40,112.60

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed	Location:	Sec. 30 , T1N, R7W, W.M.
Sale:	Hann Solo	Stockpile:	1660 c.y.
Swell:	1.30		c.y.
Shrinkage	1.16	Total Truck Loads:	1660 c.y.
Drill Pct.:	100%	In Place Total:	1277 c.y.

Loading Trucks from Stockpile.
 Load Dump Truck: \$0.70 /cu.yd. x 1660 cu.yds. = \$1,162.00

Subtotal \$1,162.00

Base Cost= \$0.70 Per Cu.Yd. TOTAL PRODUCTION COSTS \$1,162.00

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+00 464+40 (Crushed)	5.47	1.10	0.70	7.27	500	\$3,635.00
O to P 2390 5325 (Crushed)	6.07	1.10	0.70	7.87	660	\$5,194.20
				Total C.Y.	1660	Sub Total \$10,094.20

TOTAL ROCKING COSTS \$10,094.20

TC TLOGSTVB

Log Stock Table - MBF

Project: HANNSOLO

T01N R07W S22 TMC

T01N R07W S22 TMC

Twp Rge Sec Tract
01N 07W 22 AREA 1

Type Acres Plots Sample Trees
MC 116.00 40 110

Page 1
Date 12/13/2010
Time 9:48:49AM

SPP	S T	So Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF	CO	2M	40	916	5.0	870	37.0					255	370	244					
DF	CO	3M	16	14	5.0	13	.6							13					
DF	CO	3M	20	12	5.0	11	.5		2			10							
DF	CO	3M	22	8	5.0	7	.3					7							
DF	CO	3M	23	2	5.0	2	.1		2										
DF	CO	3M	28	6	5.0	5	.2				5								
DF	CO	3M	33	4	5.0	4	.2			4									
DF	CO	3M	40	1,283	5.2	1,217	51.7			128	234	641	61	68	85				
DF	CO	4M	12	3	5.0	2	.1		2	1									
DF	CO	4M	13	4	5.0	4	.2		1	1	2								
DF	CO	4M	14	3	5.0	3	.1		2	1									
DF	CO	4M	15	8	5.0	8	.3		7	1									
DF	CO	4M	16	3	5.0	3	.1				3								
DF	CO	4M	17	15	5.0	14	.6		9	5									
DF	CO	4M	18	4	5.0	4	.2		4										
DF	CO	4M	19	7	5.0	6	.3			6									
DF	CO	4M	21	2	5.0	2	.1			2									
DF	CO	4M	22	2	5.0	2	.1		2										
DF	CO	4M	24	3	5.0	3	.1		3										
DF	CO	4M	25	13	5.0	13	.5		13										
DF	CO	4M	26	28	5.0	27	1.1		27										
DF	CO	4M	27	12	5.0	12	.5		10	2									
DF	CO	4M	28	13	5.0	12	.5		12										
DF	CO	4M	29	24	5.0	23	1.0		12			11							
DF	CO	4M	30	12	5.0	12	.5		12										
DF	CO	4M	31	6	5.0	6	.3		6										
DF	CO	4M	32	6	5.0	6	.2		6										
DF	CO	4M	33	11	5.0	10	.4		10										
DF	CO	4M	36	21	5.0	20	.9		20										
DF	CO	4M	38	23	5.0	21	.9		21										
DF	CO	4M	40	10	5.0	10	.4		10										
DF	Totals			2,478	5.1	2,352	88.6		191	150	244	658	328	439	342				
RA	H	2M	16	9	10.0	8	7.0					8							
RA	H	3M	22	12	10.0	11	8.9					11							
RA	H	3M	24	12	10.0	11	8.9					11							
RA	H	3M	26	22	10.0	20	16.6					20							
RA	H	4M	14	6	10.0	6	4.7				6								
RA	H	4M	24	16	10.0	14	12.0				14								
RA	H	4M	25	13	10.0	12	9.9				12								
RA	H	4M	27	11	10.0	10	8.4				10								
RA	H	4M	30	10	10.0	9	7.6				9								
RA	H	4M	36	21	10.0	19	15.9				19								
RA	Totals			132	10.0	119	4.5			70	41	8							
DL	CO	2M	40	114		114	67.8					6		90		19			
DL	CO	3M	40	52		52	30.6			5	4	12	8	23					
DL	CO	4M	13	0		0	.3				0								
DL	CO	4M	15	1		1	.3				1								
DL	CO	4M	19	1		1	.6				1								

TC ILOGSTVB

Log Stock Table - MBF

Project: **HANNSOLO**

T01N R07W S22 TMC

T01N R07W S22 TMC

Twp Rge Sec Tract
01N 07W 22 AREA 1

Type Acres Plots Sample Trees
MC 116.00 40 110

Page 2
Date 12/13/2010
Time 9:48:49AM

Spp	T	S rt	So de	Gr 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
DL		CO	4M	36	1		1	.4		1									
DL		Totals			169		169	6.4		1	5	6	12	15		113			19
BL		H	3M	16	14		14	100.0				14							
BL		Totals			14		14	.5				14							
Total All Species					2,793	5.0	2,654	100.0		192	155	320	725	351	439	454			19

TC		TSTNDSUM		Stand Table Summary															
Project										HANNISOLO									
T01N R07W S22 TMC										T01N R07W S22 TMC									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1										
01N	07W	22	AREA 1	MC	116.00	40	110	Date:	12/13/2011										
								Time:	9:48:48AM										
Spc	S T	Sample			Av			Average Log		Net			Totals						
		DBH	Trees	16'	FF	Ht	Tot	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Net	Bd.Ft.	Tons	Cunits	MBF
DF		10	3	90	36	10.802	5.89	10.80	7.7	28.5	2.37	83	308	275	97	36			
DF		11	1	89	36	2.976	1.96	2.98	9.2	28.5	.78	27	85	91	32	10			
DF		13	2	88	60	4.261	3.93	6.39	12.5	44.3	2.28	80	283	265	93	33			
DF		14	4	85	86	7.348	7.86	14.70	16.2	54.6	6.80	239	803	789	277	93			
DF		15	4	88	104	6.401	7.86	12.80	21.7	86.7	7.91	278	1,110	918	322	129			
DF		16	6	85	100	8.439	11.78	15.47	25.1	91.5	11.08	388	1,416	1,285	450	164			
DF		17	7	85	107	8.721	13.75	17.44	27.9	101.8	13.85	486	1,775	1,606	564	206			
DF		18	7	83	100	7.779	13.75	15.56	29.2	103.1	12.93	454	1,605	1,500	526	186			
DF		19	5	83	111	4.987	9.82	9.97	36.8	122.6	10.46	367	1,222	1,213	426	142			
DF		20	5	80	121	4.501	9.82	11.70	33.9	120.6	11.32	397	1,411	1,313	461	164			
DF		21	4	82	114	3.266	7.86	6.53	36.8	133.0	6.85	240	869	795	279	101			
DF		22	7	84	114	5.208	13.75	13.39	39.2	145.1	14.97	525	1,944	1,737	609	225			
DF		23	5	82	120	3.403	9.82	8.85	45.0	166.6	11.36	399	1,474	1,318	462	171			
DF		24	5	80	116	3.126	9.82	8.75	44.5	161.5	11.11	390	1,413	1,288	452	164			
DF		25	7	79	111	4.033	13.75	9.79	52.7	183.9	14.70	516	1,801	1,705	598	209			
DF		26	4	77	130	2.131	7.86	4.79	52.1	196.3	7.12	250	941	826	290	109			
DF		27	1	83	119	.494	1.96	1.48	56.8	231.2	2.40	84	343	278	98	40			
DF		28	4	75	121	1.837	7.86	5.05	60.3	192.6	8.68	305	973	1,007	353	113			
DF		32	1	71	125	.352	1.96	1.05	76.0	240.7	2.28	80	254	265	93	29			
DF		34	1	71	122	.311	1.96	.93	83.9	262.8	2.24	78	246	259	91	28			
DF		Totals	83	84	94	90.376	163.00	178.45	31.7	113.6	161.48	5,665	20,275	18,732	6,572	2,352			
DL		26	2	80	131	.542	2.00	1.36	61.8	236.0	2.31	84	320	267	97	37			
DL		29	1	78	84	.218	1.00	.22	126.1	400.0	.76	27	87	88	32	10			
DL		30	5	76	102	1.019	5.00	2.24	80.2	254.5	4.94	180	570	573	208	66			
DL		34	2	79	128	.317	2.00	.95	92.2	380.0	2.41	88	362	280	102	42			
DL		35	1	72	111	.150	1.00	.30	124.7	390.0	1.03	37	117	119	43	14			
DL		Totals	11	77	112	2.246	11.00	5.07	82.1	287.4	11.44	416	1,456	1,327	483	169			
RA		11	1	76	41	2.681	1.77	2.68	7.1	18.0	.52	19	48	60	22	6			
RA		12	1	81	53	2.253	1.77	2.25	14.2	45.0	.88	32	101	102	37	12			
RA		13	1	78	55	1.919	1.77	1.92	17.2	45.0	.91	33	86	105	38	10			
RA		15	2	78	48	2.883	3.54	2.88	22.9	54.0	1.81	66	156	210	76	18			
RA		16	3	77	45	3.801	5.31	3.80	25.7	60.0	2.68	98	228	311	113	26			
RA		17	1	76	48	1.122	1.77	1.12	27.8	81.0	.86	31	91	99	36	11			
RA		18	3	74	43	3.004	5.31	3.00	33.8	75.0	2.79	102	225	324	118	26			
RA		19	1	72	52	.899	1.77	.90	39.8	99.0	.98	36	89	114	42	10			
RA		Totals	13	77	47	18.562	23.00	18.56	22.4	55.2	11.43	416	1,025	1,326	482	119			
BL		14	1	92	21	.935	1.00	.94	12.7	70.0	.31	12	65	36	14	8			
BL		15	1	91	19	.815	1.00	.81	13.8	70.0	.30	11	57	35	13	7			
BL		Totals	2	92	20	1.750	2.00	1.75	13.2	70.0	0.61	23	123	71	27	14			
OC		18	1	86	95	.566	1.00												
OC		Totals	1	86	95	.566	1.00												
Totals			110	83	86	113.500	200.00	203.83	32.0	112.2	184.97	6520	22,879	21,456	7,564	2,654			

TC TLOGSTVB

Log Stock Table - MBF

Project: HANNSOLO

T01N R07W S21 TPC

T01N R07W S21 TPC

Twp

Rge

Sec

Tract

Type

Acres

Plots

Sample Trees

Page

1

01N

07W

21

AREA2 FINAL

PC

105.00

14

59

Date

12/6/2010

Time

3:46:40PM

Spp	T	So	Gr	Log	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches												
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
DL		CO	2M	32	26		26	2.0									26				
DL		CO	2M	40	750	.2	748	57.6					234		357		158				
DL		CO	3M	40	434	1.0	430	33.1			23	144		124	74	33	33				
DL		CO	4M	15	4		4	.3		2		2									
DL		CO	4M	17	5		5	.4		2		3									
DL		CO	4M	18	2		2	.2		2											
DL		CO	4M	20	4		4	.3		2		3									
DL		CO	4M	22	8		8	.6		8											
DL		CO	4M	23	3		3	.2		3											
DL		CO	4M	27	7		7	.6		7											
DL		CO	4M	33	3		3	.3		3											
DL		CO	4M	35	5		5	.3		5											
DL		CO	4M	36	7		7	.6			7										
DL		CO	4M	38	8		8	.6		8											
DL		CO	4M	39	5		5	.4		5											
DL		CO	4M	40	33		33	2.6		25		9									
DL		Totals			1,305		1,299	60.7		72	46	144		124	308		390	216			
DF		CO	2M	40	357	5.0	339	40.2						242		66	31				
DF		CO	3M	40	424	5.4	401	47.6			44	145		151	61						
DF		CO	4M	15	10	5.0	9	1.1		9											
DF		CO	4M	16	4	5.0	4	.4		4											
DF		CO	4M	17	4	5.0	3	.4		3											
DF		CO	4M	21	5	5.0	5	.6				2									
DF		CO	4M	22	1	5.0	1	.1		1											
DF		CO	4M	23	4	5.0	4	.4		4											
DF		CO	4M	24	3	5.0	3	.4		3											
DF		CO	4M	26	4	5.0	4	.5		4											
DF		CO	4M	28	14	5.0	14	1.6		14											
DF		CO	4M	34	9	5.0	8	1.0		8											
DF		CO	4M	35	5	5.0	5	.6		5											
DF		CO	4M	36	16	5.0	15	1.8		6		10									
DF		CO	4M	38	3	5.0	3	.4		3											
DF		CO	4M	40	26	5.0	25	3.0		11		14									
DF		Totals			889	5.2	843	39.3		78	67	147		151	303		66	31			
Total All Species					2,194	2.4	2,142	100.0		149	113	291		274	611		455	247			

TC		TSTNDSUM		Stand Table Summary												
Project														HANNISOLO		
T01N R07W S21 TPC												T01N R07W S21 TPC				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1							
01N	07W	21	AREA2 FINAL	PC	105.00	14	59	Date:	12/06/2010							
								Time:	3:46:01PM							
Spc	S T	Sample			Av			Average Log		Net			Totals			
		DBH	Trees	16'	FF	Ht	Tot	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Cu.Ft.	Net Bd.Ft.	Tons	Cunits	MBF
DL		16	1	83	108	2.046	2.86	4.09	26.2	95.0	2.95	107	389	310	113	41
DL		17	1	83	102	1.813	2.86	3.63	27.7	95.0	2.76	100	344	290	105	36
DL		18	1	86	132	1.617	2.86	4.85	26.4	103.3	3.52	128	501	369	134	53
DL		20	4	79	119	4.119	8.93	10.86	31.7	100.6	9.46	344	1,092	993	362	115
DL		21	6	83	113	7.061	17.14	14.12	45.6	160.1	17.67	644	2,261	1,856	676	237
DL		22	6	83	109	6.494	17.14	16.23	41.1	148.7	18.33	667	2,414	1,925	700	253
DL		23	4	81	124	3.996	11.43	8.98	46.8	170.0	11.56	420	1,527	1,214	441	160
DL		24	1	77	121	.909	2.86	2.73	41.5	143.3	3.12	113	391	327	119	41
DL		25	2	79	129	1.676	5.71	5.03	47.3	186.7	6.54	238	939	687	250	99
DL		26	4	78	96	3.130	11.43	6.26	59.8	187.6	10.30	374	1,175	1,081	393	123
DL		27	1	82	93	.713	2.86	1.43	69.0	220.0	2.71	99	314	284	103	33
DL		28	3	80	100	2.005	8.57	4.01	77.9	256.7	8.59	312	1,029	902	328	108
DL		Totals	34	81	113	35.580	94.64	82.22	43.1	150.5	97.50	3,547	12,376	10,238	3,724	1,299
DF		12	1	84	65	.455	.36	.91	8.0	28.5	.21	7	26	22	8	3
DF		14	1	84	97	2.673	2.86	5.35	17.6	57.0	2.68	94	305	281	99	32
DF		16	2	82	79	4.042	5.71	6.09	27.9	82.5	4.83	170	502	508	178	53
DF		17	4	85	103	7.450	11.43	16.71	24.2	88.4	11.52	404	1,477	1,210	425	155
DF		18	4	85	107	6.561	11.43	16.36	25.9	93.7	12.11	424	1,532	1,271	445	161
DF		19	4	83	112	5.804	11.43	14.51	31.0	106.4	12.83	450	1,544	1,347	473	162
DF		20	2	84	116	2.619	5.71	6.55	34.9	119.7	6.52	229	784	684	240	82
DF		21	3	85	111	3.552	8.57	7.10	44.6	152.1	9.02	317	1,080	947	332	113
DF		22	1	80	131	1.082	2.86	3.25	38.7	139.3	3.59	126	452	376	132	48
DF		26	1	83	91	.775	2.86	1.55	65.4	209.0	2.89	101	324	303	106	34
DF		Totals	23	84	104	35.014	63.21	78.37	29.6	102.4	66.19	2,322	8,027	6,950	2,438	843
Totals			57	83	108	70.594	157.86	160.59	36.5	127.0	163.70	5869	20,402	17,188	6,162	2,142



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

Hann Solo

1. Type of Sale

Regeneration harvest & Partial Cut, Recovery

2. Legal Description

Portions of Sections 21, 22, 23, 26 and 27, T1N, R7W, W.M. Tillamook County, Oregon

3. Sale Acreage

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

ACRES

	<u>Gross</u>	<u>Net</u>
Area 1 (Modified clearcut)	122	116
Area 2 (Partial Cut)	112	105

Gross Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.

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

4. Cruising Procedures

A. Cruise Method

A total of 54 variable radius plots were taken. All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 10 inches DBH and greater containing 30 net board feet were recorded on all plots. Species were recorded on all trees, and they were measured for merchantable height, diameter, and form factor.

Cruise Statistics (Board Foot Volumes)			
Area	Number of Plots	SE (%)	CV (%)
1	40	7.5	47
2	14	11.2	40

B. Plot size

A basal area factor of 40 was used, and the point of tree observation was 4.5

C. Grading System

All trees were graded according to Columbia River Log Scaling and Grading Rules. Tree heights were recorded to a 6 inch top outside bark for all conifers

and 7 inches outside bark for hardwoods; or three tenths (0.3) of DBH for all species, whichever was greater. Log lengths all favored 40 feet for all species. Heights and diameter measurement standards were to the nearest foot or inch respectively.

5. **Computation Procedure**

Plot data was entered into SuperAce for computation of basal area, stand tables, and volume for each species and type. Take and leave trees were determined from the plot data to meet prescription targets.

6. **Hidden and Visual Defect and Breakage**

The following percent for hidden and visual defect and breakage was applied:

Area 1 – 5.1% conifer and 10% hardwood

Area 2 – 5.2% conifer

7. **Timber Description**

Area 1 (Modified Clearcut) - This stand is approximately 50 years old, consisting of Douglas-fir with scattered red alder. The Douglas-fir averages 18 inches in DBH, with an average merchantable height of 80 feet to a merchantable top (5" d.i.b.). The red alder averages 15 inches in DBH, with an average merchantable height of 32 feet to a merchantable top (6" d.i.b.). This area burned in the 1933 Tillamook fire and again in the 1939 Saddle Mountain Fire and again in the 1945 Wilson River fire and then planted / seeded in 1950-51 and again in 1964-65. Live crown ratios range from 50 to 80 percent. Understory consists of huckleberry and sword fern. Portions were thinned in 2001 with the "Past the Buck" Timber Sale.

Area 2 (Partial Cut) – This stand is approximately 60 years old, consisting of primarily Douglas fir, with a few hemlock, cedar and alder in the creek bottoms. The Douglas-fir averages 18.2 inches in DBH, with an average merchantable height of 78 feet to a merchantable top (5" d.i.b.). This area burned in the 1933 Tillamook fire and again in the 1939 Saddle Mountain Fire, and again in the 1945 Wilson River fire and then planted / seeded in 1950. Live crown ratios range from 50 to 80 percent. Understory consists of huckleberry and sword fern. Portions were thinned in 1992-93 with the "Portland Thinning" Timber Sale. Thinning should remove half of the volume. Within Area 2 there are 4 posted patch cuts ranging from 4 to 8 acres. All merchantable timber shall be removed from the patch cuts.

8. **Cruiser Names/Dates**

Planning unit, December 2009

9. **Revenue Distribution**

FDF 100%

Tax Code: 9-2

Deed Numbers: 142, 157, 159, and 186

10. **Attachments**

Stand Table Summaries

Volume Summaries

Log Stock Tables

Logging Plan Map

11. **Stand and Log Stock Tables Species Key**

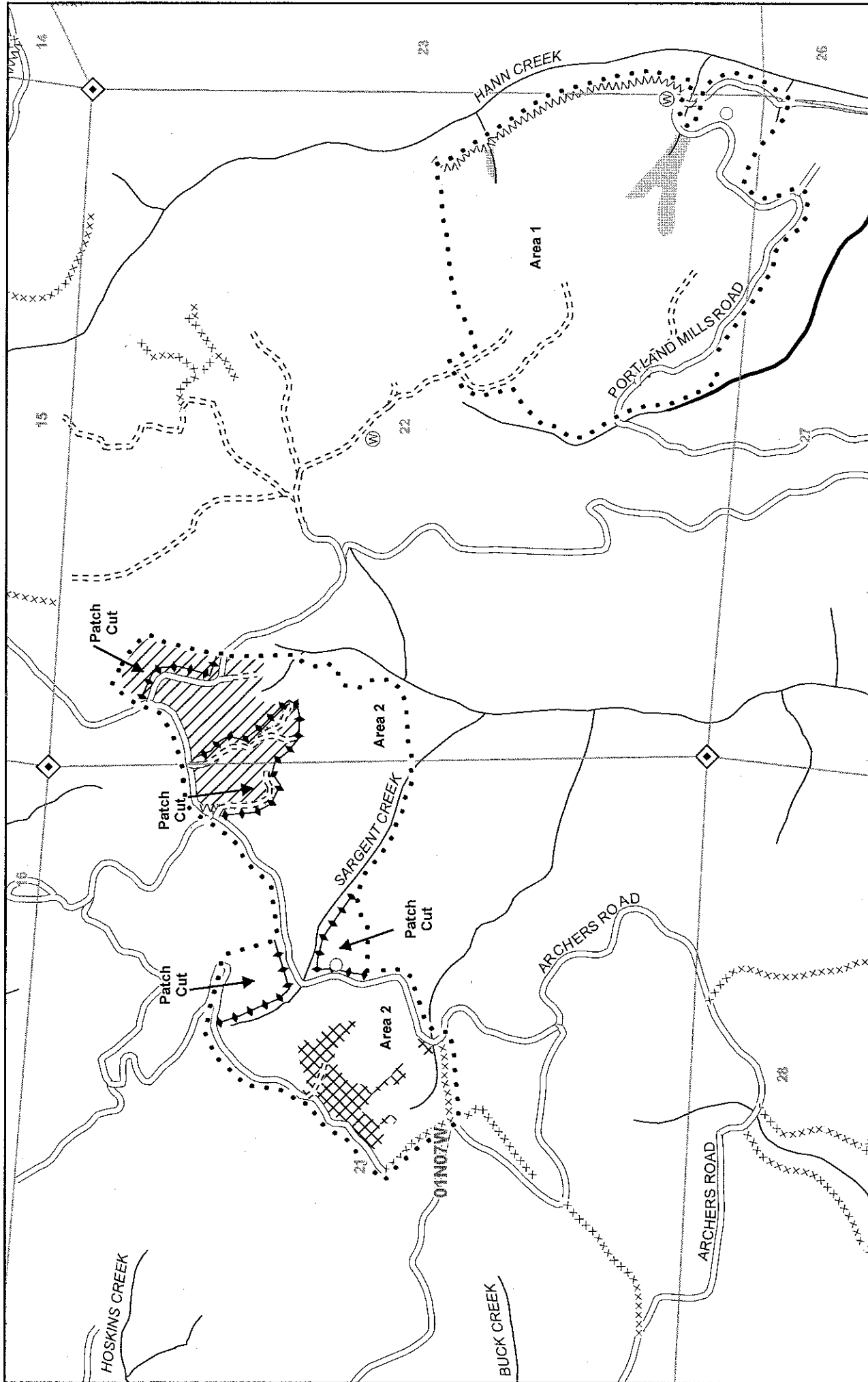
DL – Douglas-fir leave

DF – Douglas-fir take

RA – Red alder take

BL—Big leaf Maple Leave

OC—Snag



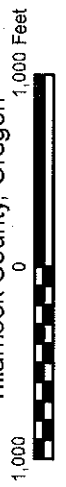
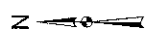
LOGGING PLAN

Timber Sale Contract No. 341-11-72
HANN SOLO
 Portions of Sections 21, 22, 23, 26 and 27
 T1N, R7W, W.M.,
 Tillamook County, Oregon

Area	Type of Operation	Gross	Net
1	Modified clearcut	122	116
2	Partial cut	112	105
Total		234	221

Tillamook District GIS
 12-02-2010

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



- 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
- 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