



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Beaver Power
Sale 341-12-01

District: Tillamook

Date: July 29, 2011

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$162,930.83	\$17,510.20	\$180,441.03
		Project Work:	\$(78,290.00)
		Advertised Value:	\$102,151.03



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timber description

Location: Portions of Sections 7 and 18, T1S, R9W, W.M., Tillamook County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	18	0	95
Western Hemlock / Fir	20	0	95
Sitka Spruce	16	0	95
Alder (Red)	18	0	90

Volume by Grade	10" - 11"	12"+	2S	3S	4S	6" - 7"	8" - 9"	Total
Douglas - Fir	0	0	10	22	12	0	0	44
Western Hemlock / Fir	0	0	421	339	79	0	0	839
Sitka Spruce	0	0	54	26	53	0	0	133
Alder (Red)	8	30	0	0	0	19	1	58
Total	8	30	485	387	144	19	1	1,074



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comments: Pond Values Used: 2nd Quarter Calendar Year 2011.

Western redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Costs
 $\$650/\text{MBF} = \$950/\text{MBF} - \$300/\text{MBF}$

Pulp (Conifer and Hardwood) Price = $\$34/\text{MBF}$
(See attached Pulp Appraisal sheet)

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$4.00/\text{Gallon}$

HAULING COST ALLOWANCE
Hauling cost equivalent to $\$740$ daily truck cost.

Other Costs (with Profit & Risk to be added):
Branding and Painting: $\$2/\text{MBF} \times 1,074 \text{ MBF} = \$2,148$
TOTAL Other Costs (with Profit & Risk to be added) = $\$2,148$

Other Costs (No Profit & Risk added):
Slash Piling and Sorting: $\$2.50/\text{acre cable harvest} \times 69 \text{ acres} =$
 $\$172.50$
TOTAL Other Costs (No Profit & Risk added) = $\$172.50$

ROAD MAINTENANCE
Maintenance Rock: $(\$21.50/\text{cu. yd.} \times 2.2 \text{ miles} \times 20 \text{ cu.}$
 $\text{yd./MMBF/mile} \times 1.074 \text{ MMBF})/1074 \text{ MBF} = \$.95/\text{MBF}$

Final Maintenance:
Grading - $\$500/\text{Mile} \times 2.2 \text{ miles} \times 1 \text{ grading}/1074 \text{ MBF} = \$1.02/\text{MBF}$

TOTAL Maintenance Cost = $\$1.97/\text{MBF}$



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logging conditions

combination#: 1

Douglas - Fir	10.00%
Western Hemlock / Fir	35.00%
Sitka Spruce	10.00%
Alder (Red)	20.00%

yarding distance: Short (400 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: 6.0 **bd. ft / load:** 4,000
cost / mbf: \$118.09

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

combination#: 2

Douglas - Fir	70.00%
Western Hemlock / Fir	50.00%
Sitka Spruce	60.00%
Alder (Red)	25.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Track Skidder **Process:** Manual Falling/Delimiting
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 12.0 **bd. ft / load:** 4,000
cost / mbf: \$71.68

machines: Log Loader (B)
Track Skidder

combination#: 3

Douglas - Fir	20.00%
Western Hemlock / Fir	15.00%
Sitka Spruce	30.00%
Alder (Red)	55.00%

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: 3.0 **bd. ft / load:** 4,000
cost / mbf: \$236.19

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:	\$78,290.00	Other Costs (P/R):	\$2,148.00
Slash Disposal:	\$0.00	Other Costs:	\$172.50

Miles of Road

Road Maintenance: \$1.97

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	3.4
Western Hemlock / Fir	\$0.00	2.0	3.3
Sitka Spruce	\$0.00	2.0	3.3
Alder (Red)	\$0.00	3.0	3.0



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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									
\$109.22	\$2.07	\$8.17	\$69.25	\$2.00	\$19.07	\$0.00	\$5.00	\$0.16	\$214.94
Western Hemlock / Fir									
\$112.60	\$2.07	\$8.17	\$107.03	\$2.00	\$23.19	\$0.00	\$5.00	\$0.16	\$260.22
Sitka Spruce									
\$125.67	\$2.07	\$8.17	\$107.03	\$2.00	\$24.49	\$0.00	\$5.00	\$0.16	\$274.59
Alder (Red)									
\$171.44	\$2.17	\$8.17	\$82.22	\$2.00	\$26.60	\$0.00	\$5.00	\$0.16	\$297.76

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$482.27	\$267.33	\$0.00
Western Hemlock / Fir	\$0.00	\$421.13	\$160.91	\$0.00
Sitka Spruce	\$0.00	\$396.13	\$121.54	\$0.00
Alder (Red)	\$0.00	\$599.66	\$301.90	\$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	44	\$267.33	\$11,762.52
Western Hemlock / Fir	839	\$160.91	\$135,003.49
Sitka Spruce	133	\$121.54	\$16,164.82
Alder (Red)	58	\$301.90	\$17,510.20

Gross Timber Sale Value

Recovery: \$180,441.03

Prepared by: Dave Luttrell

Phone: 541-815-7025

Pulp Appraisal

Sale Name	Beaver Power
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Species	Douglas-fir	Hemlock	Alder	Spruce
Stems Per/ac.	5	53	19	22
Acres	69	69	69	69
Total Stems	345	3657	1311	1518
BF/Stem, Conversion	10	10	10	10
Total MBF Per/Species	3	37	13	15
Pond Value Per/MBF	\$270	\$300	\$340	\$300
** Logging + Hauling Costs	\$249.22	\$249.22	\$249.22	\$249.22
Stumpage	\$20.78	\$50.78	\$90.78	\$50.78
Tons Per/MBF, Conversion	10	10	10	10
Price Per/Ton	\$2.08	\$5.08	\$9.08	\$5.08
Total Tons Per/Species	35	366	131	152
Total Value	\$71.69	\$1,857.02	\$1,190.13	\$770.84

	Total Price	Price/Ton	Price/MBF
	\$3,889.68	\$5.69	\$56.94
Total Less P/R40%	\$2,333.81	\$3.42	\$34.16

* Contract Price	\$34
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* Pulp price rounded down to nearest whole dollar

** Used Alder logging + hauling costs



PROJECT SUMMARY SHEET

Sale: Beaver Power

CONSTRUCTION

Point	C to D	6+00	stations =	\$5,295.28
Point	E to F	9+70	stations =	\$12,752.04
Point	G to H	18+00	stations =	\$12,639.70
SUBTOTAL CONSTRUCTION				\$30,687.02

IMPROVEMENT

Point	A to B	40+60	stations =	\$6,103.32
Point	G to H	5+60	stations =	\$3,361.87
Point	I to J	141+00	stations =	\$11,982.75
Point	K to L	141+60	stations =	\$15,632.72
SUBTOTAL IMPROVEMENT				\$37,080.66

RECONSTRUCTION

Point	C to D	10+30	stations =	\$9,649.91
SUBTOTAL RECONSTRUCTION				\$9,649.91

MOVE IN

\$872.41

GRAND TOTAL

\$78,290.00

SUMMARY OF CONSTRUCTION COST

Sale:	Beaver Power		Road: A to B
<u>Construction -</u>	0+00 stations 0.00 miles	<u>Improvement -</u>	40+60 stations 0.77 miles
		<u>Reconstruction -</u>	0+00 stations 0.00 miles

IMPROVEMENT: CLEARING AND GRUBBING - Scattering	0.560	acres @	\$980.00	per acre =	\$548.80	
					TOTAL CLEARING AND GRUBBING	\$548.80

CULVERTS - MATERIALS & INSTALLATION

Culvert Markers

	1	marker	\$8.00			
			\$8.00		TOTAL CULVERTS	\$8.00

ROCK

<u>Spot Rock</u>	Various	140	cy. of	Crushed	@	\$23.63 per c.y. =	\$3,308.20
Turn Around	40+60	10	cy. of	Pit-Run	@	\$10.17 per c.y. =	\$101.70
Junction Rock	0+00	20	cy. of	Crushed	@	\$23.58 per c.y. =	\$471.60
							TOTAL ROCK
							\$3,881.50

SPECIAL PROJECTS

Clean double ditch from 6+80 to 10+00 -	3.20	stations @	\$100.00	per station	\$320.00	
Construct turn around at 40+60 -	1.00	@	\$60.00	each	\$60.00	
Construct ditchout left @ 10+00 -	1.00	@	\$60.00	each	\$60.00	
Grade and shape road -	40.60	stations @	\$15.50	per station	\$629.30	
Roll w/ vibratory roller -	40.60	stations @	\$13.20	per station	\$535.92	
Grass seed and fertilize -	0.19	acres @	\$220.00	per acre	\$41.80	
Mulching -	0.030	acres @	\$600.00	per acre	\$18.00	
					TOTAL SPECIAL PROJECTS	\$1,665.02

GRAND TOTAL	\$6,103.32
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SUMMARY OF CONSTRUCTION COST

Sale:

Beaver Power

Road:

C to D

<u>Construction</u> -	6+00	stations	<u>Improvement</u> -	0+00	stations	<u>Reconstruction</u> -	10+30	stations
	0.11	miles		0.00	miles		0.20	miles

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

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	=		
10+30		10+95	25%		Outslope	\$165	=	\$107.25	
10+95		16+30	10%		Outslope	\$90	=	\$481.50	
								TOTAL	\$588.75

RECONSTRUCTION: CLEARING AND GRUBBING -
Scattering/Endhaul

0.760	acres @	\$1,200.00	per acre =	\$912.00			
						TOTAL CLEARING AND GRUBBING	\$912.00

RECONSTRUCTION: EXCAVATION -

Road Earthwork	10.30	sta. @	\$10.00	per sta. =	\$103.00		
Pullback	203	cy. @	\$1.40	per c.y. =	\$284.20		
Pull outside berm into roadway from 4+30 to 5+00	40	cy. @	\$1.40	per c.y. =	\$56.00		
						TOTAL EXCAVATION	\$443.20

RECONSTRUCTION: ENDHAUL -

Pullback	3+20	to	3+90	203	cy. @	\$1.06	per c.y. =	\$215.18	
								TOTAL ENDHAUL	\$215.18

ROCK

0+00 to	16+30	870	cy. of	Pit-run	@	\$9.95	per c.y. =	\$8,656.50	
Landing Rock	16+30	100	cy. of	Pit-Run	@	\$10.10	per c.y. =	\$1,010.00	
Base Rock	0+20-0+55	20	cy. of	Pit-Run	@	\$9.47	per c.y. =	\$189.40	
Fill Construction	3+20-3+90	150	cy. of	Pit-Run	@	\$9.52	per c.y. =	\$1,428.00	
								TOTAL ROCK	\$11,283.90

SPECIAL PROJECTS

Construct waste area at 1+90 -	1.50	hours @	\$130.00	per hour	\$195.00		
Construct landing at 16+30 -	1.00	@	\$250.00	each	\$250.00		
Construct turn around at 13+45 -	1.00	@	\$75.00	each	\$75.00		
Grade and shape road -	16.30	stations @	\$14.00	per station	\$228.20		
Roll subgrade w/ vibratory roller -	16.30	stations @	\$13.20	per station	\$215.16		
Remove large stumps -	1.00	lump sum @	\$300.00		\$300.00		
Grass seed and fertilize -	0.84	acres @	\$220.00	per acre	\$184.80		
Mulching -	0.090	acres @	\$600.00	per acre	\$54.00		
						TOTAL SPECIAL PROJECTS	\$1,502.16

GRAND TOTAL **\$14,945.19**

SUMMARY OF CONSTRUCTION COST

Sale:

Beaver Power

Road:

E to F

Construction -	9+70	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.18	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 Outslope	Cost per Station	=	\$5,218.60	
0+00		9+70				\$538		TOTAL	\$5,218.60

ROCK

0+00	to	9+70	530	cy. of	Pit-run	@	\$10.02	per c.y.=	\$5,310.60	
Landing		Rock	100	cy. of	Pit-Run	@	\$10.10	per c.y.=	\$1,010.00	
									TOTAL ROCK	\$6,320.60

SPECIAL PROJECTS

Construct landing at 9+70 -	1.00	@	\$250.00	each	\$250.00					
Construct turnaround -	1.00	@	\$75.00	each	\$75.00					
Grade and shape road -	9.70	stations @	\$14.00	per station	\$135.80					
Roll subgrade w/ vibratory roller -	9.70	stations @	\$13.20	per station	\$128.04					
Remove large stumps -	1.00	lump sum @	\$525.00		\$525.00					
Grass seed and fertilize -	0.45	acres @	\$220.00	per acre	\$99.00					
									TOTAL SPECIAL PROJECTS	\$1,212.84

GRAND TOTAL **\$12,752.04**

SUMMARY OF CONSTRUCTION COST

Sale:

Beaver Power

Road:

G to H

Construction -	18+00	stations	Improvement -	5+60	stations	Reconstruction -	0+00	stations
	0.34	miles		0.11	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	=	
5+60		7+40	10%		Outslope	\$90	=	\$162.00
7+40		7+60	60%	0.04	Outslope	\$1,493	=	\$298.60
7+60		8+00	55%		Outslope	\$689	=	\$275.60
8+00		8+30	45%		Outslope	\$269	=	\$80.70
8+30		20+50	5%		Outslope	\$74	=	\$902.80
20+50		21+50	30%		Outslope	\$191	=	\$191.00
21+50		22+50	20%		Outslope	\$139	=	\$139.00
22+50		23+60	10%		Outslope	\$90	=	\$99.00
TOTAL								\$2,148.70

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.100	acres @	\$980.00	per acre =	\$98.00	
TOTAL CLEARING AND GRUBBING						\$98.00

CULVERTS - MATERIALS & INSTALLATION

Culverts	30	LF of 18"	\$510.00			
Culvert Markers	2	markers	\$16.00			
TOTAL CULVERTS						\$526.00

ROCK

5+60 to	23+60	950	cy. of	Pit-run	@	\$10.48	per c.y. =	\$9,956.00
Energy Dissipator	6+40	5	cy. of	Riprap	@	\$9.83	per c.y. =	\$49.15
Junction Rock	0+00	20	cy. of	Crushed	@	\$23.71	per c.y. =	\$474.20
Landing Rock	23+60	100	cy. of	Pit-Run	@	\$10.64	per c.y. =	\$1,064.00
TOTAL ROCK								\$11,543.35

SPECIAL PROJECTS

Construct landing at 23+60 -	1.00	@	\$250.00	each	\$250.00	
Construct turn around at 20+50 -	1.00	@	\$75.00	each	\$75.00	
Grade and shape road -	23.60	stations @	\$14.00	per station	\$330.40	
Roll subgrade w/ vibratory roller prior to rocking -	23.60	stations @	\$13.20	per station	\$311.52	
Remove large stumps -	1.00	lump sum @	\$525.00		\$525.00	
Grass seed and fertilize -	0.88	acres @	\$220.00	per acre	\$193.60	
TOTAL SPECIAL PROJECTS						\$1,685.52

GRAND TOTAL **\$16,001.57**

SUMMARY OF CONSTRUCTION COST

Sale:

Beaver Power

Road:

I to J

Construction -	0+00	stations	Improvement -	141+00	stations	Reconstruction -	0+00	stations
	0.00	miles		2.67	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -
Scattering and some Endhaul -

1.290 acres @	\$1,100.00 per acre =	\$1,419.00	
TOTAL CLEARING AND GRUBBING			\$1,419.00

CULVERTS - MATERIALS & INSTALLATION

Culverts

36	LF of 24"	\$864.00	
			\$864.00

Culvert Markers

4 markers		\$32.00	
			\$32.00

TOTAL CULVERTS \$896.00

ROCK

Culvert Replace	57+00	10	cy. of	Crushed	@	\$21.43 per c.y.=	\$214.30
Energy Dissipator	57+00	5	cy. of	Riprap	@	\$8.77 per c.y.=	\$43.85
Spot Rock	Various	100	cy. of	Crushed	@	\$23.28 per c.y.=	\$2,328.00

TOTAL ROCK \$2,586.15

SPECIAL PROJECTS

Clean ditch and scatter/endhaul material -	54.00	stations @	\$70.00	per station	\$3,780.00
Grade and shape road from 42+00 to 141+00 -	99.00	stations @	\$15.50	per station	\$1,534.50
Roll w/ vibratory roller from 42+00 to 141+00 -	99.00	stations @	\$13.20	per station	\$1,306.80
Remove culverts from state lands -	1.00	@	\$122.90	total	\$122.90
Grass seed and fertilize -	0.65	acres @	\$220.00	per acre	\$143.00
Mulching -	0.324	acres @	\$600.00	per acre	\$194.40

TOTAL SPECIAL PROJECTS \$7,081.60

GRAND TOTAL \$11,982.75

SUMMARY OF CONSTRUCTION COST

Sale:

Beaver Power

Road:

K to L

<u>Construction -</u>	0+00	stations	<u>Improvement -</u>	141+60	stations	<u>Reconstruction -</u>	0+00	stations
	0.00	miles		2.68	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering and Endhaul -	0.980	acres @	\$1,250.00	per acre =	\$1,225.00	
			TOTAL CLEARING AND GRUBBING			\$1,225.00

ROCK

Spot Rock	Various	100	cy. of	Crushed	@	\$23.69	per c.y.=	\$2,369.00
								TOTAL ROCK
								\$2,369.00

SPECIAL PROJECTS

Clean ditch and scatter/endhaul material -	85.00	stations @	\$90.00	per station	\$7,650.00	
Grade and shape road -	141.60	stations @	\$15.50	per station	\$2,194.80	
Roll w/ vibratory roller -	141.60	stations @	\$13.20	per station	\$1,869.12	
Grass seed and fertilize -	0.65	acres @	\$220.00	per acre	\$143.00	
Mulching -	0.303	acres @	\$600.00	per acre	\$181.80	
			TOTAL SPECIAL PROJECTS			\$12,038.72

GRAND TOTAL	\$15,632.72
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ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Purchased_Crush	Location:	Tillamook
Sale:	Beaver Power	Road:	390 c.y.
		Total Truck Loads:	390 c.y.

Base Cost= \$15.00 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 Spot Rock	6.18	2.45	15.00	23.63	140	\$3,308.20
A to B Junction Rock	6.13	2.45	15.00	23.58	20	\$471.60
G to H Junction Rock	6.26	2.45	15.00	23.71	20	\$474.20
I to J Culvert Replace	5.83	0.60	15.00	21.43	10	\$214.30
I to J Spot Rock	5.83	2.45	15.00	23.28	100	\$2,328.00
K to L Spot Rock	6.24	2.45	15.00	23.69	100	\$2,369.00
				Total C.Y.	390	Sub Total
						\$9,165.30

TOTAL ROCKING COSTS	\$9,165.30
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ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Clear_Creek_Pit_Run	Location:	NE1/4 NW1/4 Sec.11, T1S, R9W, W.M.
Sale:	Beaver Power	Road:	2840 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage:	1.16	Total Truck Loads:	2840 c.y.
Drill Pct.:	0%	In Place Total:	2029 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area adjacent to pit, place overburden in Waste Area, spread and compact. \$1,085.21

Rip Rock:	\$1.90 /cu.yd.	x	2029 cu.yds.	=	\$3,855.10
Load Dump Truck:	\$0.70 /cu.yd.	x	2840 cu.yds.	=	\$1,988.00

Subtotal \$6,928.31

	No. of units				
Move in Roller and Compactor	1		\$182.08	=	\$182.08
Move in Grader	1		\$52.32	=	\$52.32
Move in D-8	1		\$324.52	=	\$324.52
Move in Excavator	1		\$353.87	=	\$353.87
Move in Trucks	3		\$50.21	=	\$150.63
Move in Water Truck	1		\$59.02	=	\$59.02

Subtotal \$1,122.44

Base Cost=	\$2.83	Per Cu.Yd.	
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TOTAL PRODUCTION COSTS	\$8,050.75
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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 Turn Around	6.24	1.10	2.83	10.17	10	\$101.70
C to D 0 1630	6.02	1.10	2.83	9.95	870	\$8,656.50
C to D Landing Rock	6.17	1.10	2.83	10.10	100	\$1,010.00
C to D Base Rock	5.89	0.75	2.83	9.47	20	\$189.40
C to D Fill Construction	5.94	0.75	2.83	9.52	150	\$1,428.00
E to F 0 970	6.09	1.10	2.83	10.02	530	\$5,310.60
E to F Landing Rock	6.17	1.10	2.83	10.10	100	\$1,010.00
G to H 560 2360	6.55	1.10	2.83	10.48	950	\$9,956.00
G to H Energy Dissipator	6.40	0.60	2.83	9.83	5	\$49.15
G to H Landing Rock	6.71	1.10	2.83	10.64	100	\$1,064.00
I to J Energy Dissipator	5.34	0.60	2.83	8.77	5	\$43.85
Total C.Y.					2840	Sub Total
						\$28,819.20

TOTAL ROCKING COSTS	\$28,819.20
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Move-In Calculations for Project Work not Involving Rocking/Pit Work

Sale: **Beaver Power**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
5.0	Pavement	30
3.0	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	Excavator (Large)	\$357.70	1	\$44.80	0.00	0.00	0	\$0.00	\$357.70
1	Tractor (D8)	\$332.19	2	\$15.10	0.00	0.00	0	\$0.00	\$332.19
2	Dump Trucks (10 cy +)	\$132.31		\$2.85	0.00	0.00	0	\$0.00	\$132.31
1	Water Truck (1500 Gal)	\$50.21		\$2.85	0.00	0.00	0	\$0.00	\$50.21
TOTAL MOVE-IN COSTS:									\$872.41

Road Segment A to B

Road Rock	Size of Rock	Compacted Depth	Point to Point	Station to Station	Volume per Station	Approx. Total Truck Measure Volume
Crushed	1 1/2"-0"	"	A to B	6+80 to 8+40	CY	CY
Crushed	1 1/2"-0"	"	A to B	9+35 to 10+65	CY	CY
Crushed	1 1/2"-0"	"	A to B	12+75 to 17+75	CY	CY
Curve Widening	Size of Rock	Compacted Depth	Point to Point	Station to Station	Approx. Total Truck Measure Volume	
Crushed	1 1/2"-0"	"	A to B	6+80 to 8+40	CY	
Crushed	1 1/2"-0"	"	A to B	9+35 to 10+65	CY	
Crushed	1 1/2"-0"	"	A to B	12+75 to 17+75		
Turnouts:	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Volume per T. O.	Approx. Total Truck Measure Volume
Crushed	1 1/2"-0"	"	1	A to B	CY	CY
Crushed	1 1/2"-0"	"	1	A to B	CY	CY
Crushed	1 1/2"-0"	"	1	A to B	CY	CY
Turnarounds:	Size of Rock	Compacted Depth	No. of T. A.	Location	Volume per T. A.	Approx. Total Truck Measure Volume
Crushed	1 1/2"-0"	"	1	40+60	8 CY	
Crushed	1 1/2"-0"	"	0	0+00	#DIV/0!	CY
Crushed	1 1/2"-0"	"	0	0+00	#DIV/0!	CY
Misc. Type of Rock	Size of Rock	Compacted Depth	Location	Use	Approx. Total Truck Measure Volume	
Crushed	1 1/2"-0"	---	A to B Various	Spot Rock	140 CY	
Pit-Run	6"-0"	---	A to B 40+60			
Pit-Run	6"-0"	---	A to B 40+60	Turn Around	10 CY	
Crushed	1 1/2"-0"	---	A to B 0+00	Junction Rock	20 CY	
Riprap	48"-24"	---	A to B 0+00	Slope Stabilization	CY	
Riprap	24"-12"	---	A to B 0+00	Energy Dissipator	CY	
Pit-Run	6"-0"	---	A to B 0+00	Ditch/Embankment Fill	CY	
Pit-Run	6"-0"	---	A to B 0+00	Leveling	CY	
Pit-Run	6"-0"	---	A to B 0+00	Backfill	CY	
Pit-Run	6"-0"	---	A to B 0+00	Bedding/Backfill	CY	

Road Segment C to D

Road Rock	Size of Rock	Compacted Depth	Point to Point	Station to Station	Volume (CY) per Station	Approx. Total Truck Measure Volume
Pit-run	6"-0"	"	C to D	0+00 to 0+00	#DIV/0!	CY
Pit-run	6"-0"	9"	C to D	0+00 to 16+30	48 CY	775 CY
0	0"-0"	"	C to D	0+00 to 0+00	#DIV/0!	CY
Curve Widening	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Approx. Total Truck Measure Volume	
Pit-run	6"-0"	"	C to D	0+00 to 0+00	CY	
Pit-run	6"-0"	9"	C to D	0+00 to 16+30	25 CY	
0	0"-0"	"	C to D	0+00 to 0+00	CY	
Turnouts:	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Volume per T. O.	Approx. Total Truck Measure Volume
Pit-run	6"-0"	"	0	C to D	#DIV/0!	CY
Pit-run	6"-0"	9"	3	C to D	15 CY	45 CY
0	0"-0"	"	0	C to D	#DIV/0!	CY

Turnarounds:	Size of Rock	Compacted Depth	No. of T.A.	Location	Volume per T. A.	Approx. Total Truck Measure Volume
Pit-run	6"-0"	9"	1	13+45	25 CY	25 CY
Pit-run	6"-0"	9"	1	13+45	25 CY	25 CY
"	0"-0"	"	0	0+00	#DIV/0!	CY
Misc. Type of Rock	Size of Rock	Compacted Depth	Location	Use	Approx. Total Truck Measure Volume	
Crushed	1 1/2"-0"	---	C to D 0+00	Culvert Backfill	CY	
Pit-Run	6"-0"	9	C to D 16+30	Landing Rock	100 CY	
Riprap	48"-24"	---	C to D 0+00	Fill Armor	CY	
Pit-run	---	---	C to D 0+00	Junction Rock	CY	
Riprap	48"-24"	---	C to D 0+00	Slope Stabilization	CY	
Riprap	24"-12"	---	C to D 0+00	Energy Dissipator	CY	
Pit-Run	6"-0"	---	C to D 0+00	Ditch/Embankment Fill	CY	
Pit-Run	---	---	C to D 0+20-0+55	Base Rock	20 CY	
Pit-Run	6"-0"	---	C to D 3+20-3+90	Fill Construction	150 CY	
Pit-Run	6"-0"	---	C to D 0+00	Bedding/Backfill	CY	

Road Segment E to F

Road Rock	Size of Rock	Compacted Depth	Point to Point	Station to Station	Volume (CY) per Station	Approx. Total Truck Measure Volume
Pit-run	6"-0"	9"	E to F	0+00 to 9+70	48 CY	465 CY
0	0"-0"	"	E to F	0+00 to 0+00	#DIV/0!	CY
0	0"-0"	"	E to F	0+00 to 0+00	#DIV/0!	CY
Curve Widening	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Approx. Total Truck Measure Volume	
Pit-run	6"-0"	9"	E to F	0+00 to 9+70	20 CY	
0	0"-0"	"	E to F	0+00 to 0+00	CY	
0	0"-0"	"	E to F	0+00 to 0+00	CY	
Turnouts:	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Volume per T. O.	Approx. Total Truck Measure Volume
Pit-run	6"-0"	9"	2	E to F	15 CY	30 CY
0	0"-0"	"	0	E to F	#DIV/0!	CY
0	0"-0"	"	0	E to F	#DIV/0!	CY
Turnarounds:	Size of Rock	Compacted Depth	No. of T.A.	Location	Volume per T. A.	Approx. Total Truck Measure Volume
Pit-run	6"-0"	9"	1	0+00	25 CY	25 CY
"	0"-0"	"	0	0+00	#DIV/0!	CY
"	0"-0"	"	0	0+00	#DIV/0!	CY
Misc. Type of Rock	Size of Rock	Compacted Depth	Location	Use	Approx. Total Truck Measure Volume	
Crushed	1 1/2"-0"	---	E to F 0+00	Culvert Backfill	CY	
Pit-Run	6"-0"	9	E to F 9+70	Landing Rock	100 CY	
Riprap	48"-24"	---	E to F 0+00	Fill Armor	CY	
Pit-run	---	---	E to F 0+00	Junction Rock	CY	
Riprap	48"-24"	---	E to F 0+00	Slope Stabilization	CY	
Riprap	24"-12"	---	E to F	Energy Dissipator	CY	

Pit-Run	6"-0"	---	0+00 E to F 0+00	Ditch/Embankment Fill	CY
Pit-Run	6"-0"	---	0+00 E to F 0+00	Leveling	CY
Pit-Run	6"-0"	---	0+00 E to F 0+00	Backfill	CY
Pit-Run	6"-0"	---	0+00 E to F 0+00	Bedding/Backfill	CY

Road Segment G to H

Road Rock	Size of Rock	Compacted Depth	Point to Point	Station to Station	Volume (CY) per Station	Approx. Total Truck Measure Volume
Pit-run	6"-0"	9"	G to H	0+00 to 0+00	#DIV/0!	CY
Pit-run	6"-0"	9"	G to H	5+60 to 23+60	48 CY	360 CY
0	0"-0"	"	G to H	0+00 to 0+00	#DIV/0!	CY
Curve Widening	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Approx. Total Truck Measure Volume	
Pit-run	6"-0"	9"	G to H	0+00 to 0+00	CY	
Pit-run	6"-0"	9"	G to H	5+60 to 23+60	35 CY	
0	0"-0"	"	G to H	0+00 to 0+00	CY	
Turnouts:	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Volume per T. O.	Approx. Total Truck Measure Volume
Pit-run	6"-0"	9"	0	G to H	#DIV/0!	CY
Pit-run	6"-0"	9"	3	G to H	15 CY	45 CY
0	0"-0"	"	0	G to H	#DIV/0!	CY
Turnarounds:	Size of Rock	Compacted Depth	No. of T.A.	Location	Volume per T. A.	Approx. Total Truck Measure Volume
Pit-run	6"-0"	9"	0	20+50	#DIV/0!	CY
Pit-run	6"-0"	9"	1	0+00	25 CY	25 CY
"	0"-0"	"	0	0+00	#DIV/0!	CY
Misc. Type of Rock	Size of Rock	Compacted Depth	Location	Use	Approx. Total Truck Measure Volume	
Crushed	1 1/2"-0"	---	G to H 0+00	Culvert Backfill	CY	
Riprap	24"-12"	---	G to H 6+40	Energy Dissipator	5 CY	
Riprap	48"-24"	---	G to H 0+00	Fill Armor	CY	
Crushed	1 1/2"-0"	---	G to H 0+00	Junction Rock	20 CY	
Riprap	48"-24"	---	G to H 0+00	Slope Stabilization	CY	
Riprap	24"-12"	---	G to H 6+40	Energy Dissipator		
Pit-Run	6"-0"	9	G to H 23+60	Landing Rock	100 CY	
Pit-Run	6"-0"	---	G to H 5+85	Leveling	CY	
Pit-Run	6"-0"	---	G to H 0+00	Backfill	CY	
Pit-Run	6"-0"	---	G to H 0+00	Bedding/Backfill	CY	

Road Segment I to J

Road Rock	Size of Rock	Compacted Depth	Point to Point	Station to Station	Volume (CY) per Station	Approx. Total Truck Measure Volume
0	0"-0"	"	I to J	0+00 to 0+00	#DIV/0!	CY
0	0"-0"	"	I to J	0+00 to 0+00	#DIV/0!	CY
0	0"-0"	"	I to J	0+00 to 0+00	#DIV/0!	CY
Curve Widening	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Approx. Total Truck Measure Volume	

0	0'-0"	"	I to J	0+00 to 0+00	CY	
0	0'-0"	"	I to J	0+00 to 0+00	CY	
0	0'-0"	"	I to J	0+00 to 0+00	CY	
Turnouts:	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Volume per T. O.	Approx. Total Truck Measure Volume
0	0'-0"	"	0	I to J	#DIV/0!	CY
0	0'-0"	"	0	I to J	#DIV/0!	CY
0	0'-0"	"	0	I to J	#DIV/0!	CY
Turnarounds:	Size of Rock	Compacted Depth	No. of T.A.	Location	Volume per T. A.	Approx. Total Truck Measure Volume
0	0'-0"	"	0	0+00	#DIV/0!	CY
"	0'-0"	"	0	0+00	#DIV/0!	CY
"	0'-0"	"	0	0+00	#DIV/0!	CY
Misc. Type of Rock	Size of Rock	Compacted Depth	Location	Use	Approx. Total Truck Measure Volume	
Crushed	1 1/2"-0"	---	I to J 57+00	Culvert Replace	10 CY	
Pit-Run	6"-0"	---	I to J 0+00	Landing Rock	CY	
Riprap	48"-24"	---	I to J 0+00	Fill Armor	CY	
Crushed	1 1/2"-0"	---	I to J 0+00	Junction Rock	CY	
Riprap	48"-24"	---	I to J 0+00	Slope Stabilization	CY	
Pit-run	---	---	A to I 17+80	Energy Dissipator		
Riprap	24"-12"	---	I to J 18+80	Energy Dissipator	5 CY	
Crushed	1 1/2"-0"	---	I to J Various	Spot Rock	100 CY	
Pit-Run	6"-0"	---	I to J 0+00	Backfill	CY	
Pit-Run	6"-0"	---	I to J 0+00	Bedding/Backfill	CY	

Road Segment K to L

Road Rock	Size of Rock	Compacted Depth	Point to Point	Station to Station	Volume (CY) per Station	Approx. Total Truck Measure Volume
0	0'-0"	"	K to L	0+00 to 0+00	#DIV/0!	CY
0	0'-0"	"	K to L	0+00 to 0+00	#DIV/0!	CY
0	0'-0"	"	K to L	0+00 to 0+00	#DIV/0!	CY
Curve Widening	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Approx. Total Truck Measure Volume	
0	0'-0"	"	0	0+00 to 0+00	CY	
0	0'-0"	"	0	0+00 to 0+00	CY	
0	0'-0"	"	0	0+00 to 0+00	CY	
Turnouts:	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Volume per T. O.	Approx. Total Truck Measure Volume
0	0'-0"	"	0	K to L	#DIV/0!	CY
0	0'-0"	"	0	K to L	#DIV/0!	CY
0	0'-0"	"	0	K to L	#DIV/0!	CY
Turnarounds:	Size of Rock	Compacted Depth	No. of T.A.	Location	Volume per T. A.	Approx. Total Truck Measure Volume
0	0'-0"	"	0	0+00	#DIV/0!	CY
"	0'-0"	"	0	0+00	#DIV/0!	CY
"	0'-0"	"	0	0+00	#DIV/0!	CY
Misc. Type of Rock	Size of Rock	Compacted Depth	Location	Use	Approx. Total Truck Measure Volume	
Crushed	1 1/2"-0"	---	K to L Various	Spot Rock	100 CY	

Pit-Run	6"-0"	---	K to L 0+00	Landing Rock	CY
Riprap	48"-24"	---	K to L 0+00	Fill Armor	CY
Crushed	1 1/2"-0"	---	K to L 0+00	Junction Rock	CY
Riprap	48"-24"	---	K to L 0+00	Slope Stabilization	CY
Riprap	24"-12"	---	K to L 0+00	Energy Dissipator	CY
Pit-Run	6"-0"	---	K to L 0+00	Ditch/Embankment Fill	CY
Pit-Run	6"-0"	---	K to L 0+00	Leveling	CY
Pit-Run	6"-0"	---	K to L 0+00	Backfill	CY
Pit-Run	6"-0"	---	K to L 0+00	Bedding/Backfill	CY

Road Segment M to N

Road Rock	Size of Rock	Compacted Depth	Point to Point	Station to Station	Volume (CY) per Station	Approx. Total Truck Measure Volume
0	0"-0"	"	M to N	0+00 to 0+00	#DIV/0!	CY
0	0"-0"	"	M to N	0+00 to 0+00	#DIV/0!	CY
0	0"-0"	"	M to N	0+00 to 0+00	#DIV/0!	CY
Curve Widening	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Approx. Total Truck Measure Volume	
0	0"-0"	"	M to N	0+00 to 0+00	CY	
0	0"-0"	"	M to N	0+00 to 0+00	CY	
0	0"-0"	"	M to N	0+00 to 0+00	CY	
Turnouts:	Size of Rock	Compacted Depth	No. of T. O.	Point to Point	Volume per T. O.	Approx. Total Truck Measure Volume
0	0"-0"	"	0	M to N	#DIV/0!	CY
0	0"-0"	"	0	M to N	#DIV/0!	CY
0	0"-0"	"	0	M to N	#DIV/0!	CY
Turnarounds:	Size of Rock	Compacted Depth	No. of T. A.	Location	Volume per T. A.	Approx. Total Truck Measure Volume
0	0"-0"	"	0	0+00	#DIV/0!	CY
"	0"-0"	"	0	0+00	#DIV/0!	CY
"	0"-0"	"	0	0+00	#DIV/0!	CY
Misc. Type of Rock	Size of Rock	Compacted Depth	Location	Use	Approx. Total Truck Measure Volume	
Crushed	1 1/2"-0"	---	M to N 0+00	Culvert Backfill	CY	
Pit-Run	6"-0"	---	M to N 0+00	Landing Rock	CY	
Riprap	48"-24"	---	M to N 0+00	Fill Armor	CY	
Crushed	1 1/2"-0"	---	M to N 0+00	Junction Rock	CY	
Riprap	48"-24"	---	M to N 0+00	Slope Stabilization	CY	
Riprap	24"-12"	---	M to N 0+00	Energy Dissipator	CY	
Pit-Run	6"-0"	---	M to N 0+00	Ditch/Embankment Fill	CY	
Pit-Run	6"-0"	---	M to N 0+00	Leveling	CY	
Pit-Run	6"-0"	---	M to N 0+00	Backfill	CY	
Pit-Run	6"-0"	---	M to N 0+00	Bedding/Backfill	CY	

ROAD SEGMENT: A to B		STATIONS: 0+00 to 40+60	
Application	Rock Size and Type	Location	Approx. Total (CY)
Spot Rock	Crushed 1 1/2"-0"	Various*	140
Turn Around	Pit-Run 6"-0"	40+60	10
Junction Rock	Crushed 1 1/2"-0"	0+00	20

ROAD SEGMENT: C to D		STATIONS: 0+00 to 16+30					
Application	Rock Size and Type	Location	Compacted Depth	Volume (CY) per	Number of Units	Curve Widen (CY)	Approx. Total (CY)
Road Rock	Pit-run 6"-0"	0+00 to 16+30	9 "	station	47	16.30	800
Turnouts	Pit-run 6"-0"	C to D	9 "	TO	15	3	45
Turnarounds	Pit-run 6"-0"	13+45	9 "	TA	25	1	25
Application	Rock Size and Type	Location	Approx. Total (CY)				
Landing Rock	Pit-Run 6"-0"	16+30	100				
Base Rock	Pit-Run 6"-0"	0+20-0+55	20				
Fill Construction	Pit-Run 6"-0"	3+20-3+90	150				

ROAD SEGMENT: E to F		STATIONS: 0+00 to 9+70					
Application	Rock Size and Type	Location	Compacted Depth	Volume (CY) per	Number of Units	Curve Widen (CY)	Approx. Total (CY)
Road Rock	Pit-run 6"-0"	0+00 to 9+70	9 "	station	47	9.70	475
Turnouts	Pit-run 6"-0"	E to F	9 "	TO	15	2	30
Turnarounds	Pit-run 6"-0"	6+30	9 "	TA	25	1	25
Application	Rock Size and Type	Location	Approx. Total (CY)				
Landing Rock	Pit-Run 6"-0"	9+70	100				

ROAD SEGMENT: G to H		STATIONS: 0+00 to 23+60					
Application	Rock Size and Type	Location	Compacted Depth	Volume (CY) per	Number of Units	Curve Widen (CY)	Approx. Total (CY)
Road Rock	Pit-run 6"-0"	5+60 to 23+60	9 "	station	47	18.00	880
Turnouts	Pit-run 6"-0"	G to H	9 "	TO	15	3	45
Turnarounds	Pit-run 6"-0"	20+50	9 "	TA	25	1	25
Application	Rock Size and Type	Location	Approx. Total (CY)				
Junction Rock	Crushed 1 1/2"-0"	0+00	20				
Energy Dissipator	Riprap 24"-12"	6+40	5				
Landing Rock	Pit-Run 6"-0"	23+60	100				

ROAD SEGMENT: I to J		STATIONS: 0+00 to 141+00	
Application	Rock Size and Type	Location	Approx. Total (CY)
Culvert Replace	Crushed 1 1/2"-0"	57+00	10
Energy Dissipator	Riprap 24"-12"	57+00	5
Spot Rock	Crushed 1 1/2"-0"	Various*	100

ROAD SEGMENT: K to L		STATIONS: 0+00 to 141+60	
Application	Rock Size and Type	Location	Approx. Total (CY)
Spot Rock	Crushed 1 1/2"-0"	Various*	100



OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT
Beaver Power
341-12-01

1. Type of Sale

Partial cut. Conifer/hardwood recovery.

2. Legal Description

Portions of Sections 7 and 18, T1S, R9W, W.M., Tillamook County, Oregon.

3. Sale Acreage

The sale boundary was plotted on a digital orthophotograph and the acreage was calculated with GIS.

ACRES		
	Sale	Net
Area 1 (Partial Cut)	46	45
Area 2 (Partial Cut)	48	39
Total	94	84

Sale Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.

Partial Cut - Sale acres less areas of low stocking, hardwoods, roads, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. Cruising Procedures

A. Cruise Method

A total of 32 plots were taken. Cruise lines and plots were placed to obtain representative sampling throughout the sale area. 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. A BAF of 40 was used for 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. Take and leave trees were determined by considering desired residual basal area, diameter class distribution,

calculated stand density indices and relative densities, windfirmness, and desired future conditions. No in-growth adjustments were made. The coefficients of variation and standard errors for the net MBF/acre are as follows:

Area	C.V. (%)	S.E. (%)
1	56.7	14.2
2	32.3	8.6

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 harvested in the late 1920's and has naturally regenerated. The sale area is predominantly composed of western hemlock with scattered Sitka spruce, Douglas-fir, western red cedar, bigleaf maple, and patches of red alder. The sale area has had no management since the last harvest. The stand is approximately 75 years old.

Area 1 (Heavy Partial Cut) –This area consists of Western Hemlock (74%), Sitka spruce, (12%), alder (4%), Douglas-fir (7%), and a small amount Red Cedar and big leaf maple. The understory is comprised of mostly sword fern with pockets of salmonberry.

Area 2 (Moderate Partial Cut) - This area consists of Western Hemlock (76%), Sitka spruce, (10%), alder (10%), Douglas-fir (4%), and a small amount Red Cedar and big leaf maple. The understory is comprised of mostly sword fern with pockets of salmonberry.

	DBH	Hieght	Merch Top
Area 1			
Douglas-fir	18.8	73	5"
Hemlock	22.4	73	5"
Spruce	16.4	45	5"
Alder	18.2	43	6"
Area 2			
Douglas-fir	16	79	5"
Hemlock	19.3	74	5"
Spruce	16.9	49	5"

8. Cruiser Names/Dates

Neuman, Brown, Keim, Yau. November, 2006 and September, 2007.

9. Revenue Distribution

100% FDF

Tax Code: 9-2

Deed Numbers: 168, 333

10. Attachments

- Stand Table
- Log Stock Tables
- Volume Summary
- Logging Plan

11. Stand and Log Stock Tables Species Key

WH – Western hemlock take

WL – Western hemlock leave (reserved)

SS – Sitka spruce take

SL – Sitka spruce leave (reserved)

RA – Red alder take

RL – Red alder leave (reserved)

DF – Douglas-fir

DL – Douglas-fir (reserved)

RC – Western redcedar (reserved)

OC – Other conifer (snag)

OH – Other hardwood (snag)



"STEWARDSHIP IN FORESTRY"

Beaver Power

Volume Summary

Area 1- Partial Cut 80-100				
45 acres				
SPECIES	Gross MBF/ Acre	Gross MBF	Hidden D&B	Net Vol MBF
Douglas-fir	0.8	36	10.5%	32
Hemlock	11.5	518	5.4%	490
Spruce	2.0	90	7.2%	84
Noble Fir		0	5.0%	0
Alder	1.4	65	10.0%	59
TOTAL	15.8	709		664

Areas 2-Partial Cut 140-160				
39 acres				
SPECIES	Gross MBF/ Acre	Gross MBF	Hidden D&B	Net Vol MBF
Douglas-fir	0.3	12	5%	11
Hemlock	9.4	367	5%	349
Spruce	1.3	52	5%	49
Noble Fir		0	5%	0
Alder		0	10%	0
TOTAL	11.1	431		409

TOTAL SALE VOLUME			84	acres
SPECIES	Gross Vol. (MBF)	Net Vol. (MBF)		
Douglas-fir	48	44		
Hemlock	885	839		
Spruce	142	133		
Noble Fir	0	0		
Red Alder	65	59		
TOTAL	1140	1074		

Log Stock Table - MBF
Project: **BEVPOW**

T01S R009 S07 TPC

T01S R009 S07 TPC

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
 01S 009 07 80-100 PC 45.00 17 93 Date 3/24/2011
 Time 4:06:13PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
WH	DO	2M	40		334		334	64.4					38	71	99	126				
WH	DO	3M	32		22		22	4.2					2	5	15					
WH	DO	3M	33		8		8	1.5				6	2							
WH	DO	3M	34		1		1	.3				1								
WH	DO	3M	35		2		2	.3				2								
WH	DO	3M	40		121		121	23.3				11	6	12	45	36	11			
WH	DO	4M	15		2		2	.4		0		1	1							
WH	DO	4M	19		2		2	.5		1			2							
WH	DO	4M	21		1		1	.1				1								
WH	DO	4M	23		1		1	.3				1								
WH	DO	4M	24		4		4	.8				4								
WH	DO	4M	26		1		1	.2				1								
WH	DO	4M	28		1		1	.3				1								
WH	DO	4M	29		2		2	.4				2								
WH	DO	4M	30		2		2	.4				2								
WH	DO	4M	32		1		1	.1		1										
WH	DO	4M	34		4		4	.8				4								
WH	DO	4M	40		9		9	1.7		2		7								
WH	Totals				518		518	40.3		4	45	12	17	82	123	109	126			
WL	DO	2M	32		9		9	2.3								9				
WL	DO	2M	40		298		298	76.9						5	12	44	133	90	16	
WL	DO	3M	15		1		1	.2					1							
WL	DO	3M	16		1		1	.2					1							
WL	DO	3M	18		1		1	.2						1						
WL	DO	3M	28		2		2	.6			1		1							
WL	DO	3M	30		3		3	.8			1		2							
WL	DO	3M	32		4		4	1.0					4							
WL	DO	3M	33		3		3	.8			1	2								
WL	DO	3M	34		2		2	.4				2								
WL	DO	3M	36		5		5	1.4				5								
WL	DO	3M	38		2		2	.5				2								
WL	DO	3M	40		50		50	12.8			2		8		12	11	16			
WL	DO	4M	12		0		0	.1				0								
WL	DO	4M	13		0		0	.1				0								
WL	DO	4M	19		1		1	.2			1									
WL	DO	4M	22		4		4	1.0						4						
WL	DO	4M	24		1		1	.2				1								
WL	DO	4M	40		1		1	.3				1								
WL	Totals				388		388	30.1			6	14	8	14	15	65	143	106	16	
SL	DO	2M	40		56	1.2	56	58.7							11	44				
SL	DO	3M	32		17		17	18.4					17							
SL	DO	3M	36		2		2	1.9				2								
SL	DO	3M	38		2		2	1.8				2								
SL	DO	3M	40		3	4.2	3	3.1			2	1								
SL	DO	4M	24		4		4	4.2		4										
SL	DO	4M	32		3		3	3.5			3									
SL	DO	4M	40		8	3.3	8	8.3			4	4								
SL	Totals				96	1.1	95	7.4		4	8	9	17		11	44				

Log Stock Table - MBF
Project: **BEVPOW**

T01S R009 S07 TPC

T01S R009 S07 TPC

Twp Rge Sec Tract Type Acres Plots Sample Trees Page 2
 01S 009 07 80-100 PC 45.00 17 93 Date 3/24/2011
 Time 4:06:13PM

SPP	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches											
									MBF	MBF	MBF	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23
SS	DO	2M	40		47	4.3	45	50.7						8		36				
SS	DO	3M	34		2		2	1.8			2									
SS	DO	3M	40		11		11	12.2					11							
SS	DO	4M	17		3		3	3.6			3									
SS	DO	4M	30		3		3	3.4		3										
SS	DO	4M	35		5		5	5.2		5										
SS	DO	4M	40		20		20	23.0			20									
SS	Totals				90	2.2	88	6.8		8	25		11	8		36				
RA	DO	2M	14		10		10	15.9												10
RA	DO	2M	32		12		12	19.0						12						
RA	DO	2M	40		12		12	17.9					12							
RA	DO	3M	32		9		9	14.0					9							
RA	DO	4M	18		1		1	2.0			1									
RA	DO	4M	27		1		1	2.2			1									
RA	DO	4M	28		2		2	3.7			2									
RA	DO	4M	29		3		3	4.7			3									
RA	DO	4M	30		3		3	4.1			3									
RA	DO	4M	34		6		6	9.2			6									
RA	DO	4M	40		5		5	7.2			5									
RA	Totals				65		65	5.0			22		9	12	12					10
DL	DO	2M	40		42		42	63.1						11						31
DL	DO	3M	32		5		5	7.1							5					
DL	DO	3M	40		18		18	26.6			3			4		11				
DL	DO	4M	17		1		1	1.0				1								
DL	DO	4M	38		1		1	2.2		1										
DL	Totals				67		67	5.2		1	3	1	4	11	15					31
DF	DO	2M	40		11		11	30.7						11						
DF	DO	3M	32		8	25.0	6	17.5						6						
DF	DO	3M	40		11		11	31.2						11						
DF	DO	4M	22		3		3	7.8				3								
DF	DO	4M	23		1		1	3.1		1										
DF	DO	4M	26		2		2	5.8			2									
DF	DO	4M	32		1		1	3.8		1										
DF	Totals				36	5.5	34	2.7		4		3	6	21						
RC	DO	2M	40		26		26	79.0								11				14
RC	DO	3M	40		5		5	15.5			2			3						
RC	DO	4M	35		2		2	5.4		2										
RC	Totals				32		32	2.5		2	2		3			11				14
Total All Species					1,293		1,288	100.0		23	111	38	77	148	166	233	360	116		16

TC		TSTNDSUM		Stand Table Summary												
Project														BEVPOW		
T01S R009 S07 TPC										T01S R009 S07 TPC						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1		Date:	03/24/2011				
01S	009	07	80-100	PC	45.00	17	93	Time:	4:06:58PM							
Spc	S T	Sample			Av			Average Log		Net			Totals			
		DBH	Trees	16'	FF	Ht	Trees/	BA/	Logs	Net	Net	Tons/	Net	Net	Tons	Cunits
					Acres	Acres	Acres	Cu.Ft.	Bd.Ft.	Acres	Acres	Acres				
WH		14	1	94	29	2.201	2.35	2.20	13.4	30.0	.95	30	66	43	13	3
WH		15	1	93	43	1.917	2.35	1.92	21.5	50.0	1.32	41	96	59	19	4
WH		18	2	87	106	2.663	4.71	5.33	36.1	142.5	6.15	192	759	277	87	34
WH		19	1	84	98	1.195	2.35	2.39	36.8	120.0	2.81	88	287	127	40	13
WH		20	6	90	84	6.471	14.12	11.86	40.1	149.1	15.24	476	1,769	686	214	80
WH		21	2	91	93	1.956	4.71	4.89	37.4	164.0	5.86	183	802	263	82	36
WH		22	3	86	97	2.674	7.06	5.35	50.2	186.7	8.60	269	998	387	121	45
WH		23	1	92	79	.816	2.35	1.63	47.9	195.0	2.50	78	318	113	35	14
WH		24	1	88	95	.749	2.35	1.50	61.3	230.0	2.94	92	345	132	41	16
WH		26	3	88	94	1.915	7.06	4.47	60.0	245.7	8.58	268	1,098	386	121	49
WH		28	2	91	86	1.101	4.71	2.20	77.9	327.5	5.49	171	721	247	77	32
WH		29	4	83	107	2.052	9.41	5.64	70.8	289.1	12.78	400	1,631	575	180	73
WH		31	3	84	109	1.347	7.06	3.59	84.6	383.7	9.72	304	1,378	437	137	62
WH		32	2	91	88	.843	4.71	1.69	103.9	467.5	5.60	175	788	252	79	35
WH		34	1	83	107	.373	2.35	1.12	89.9	416.7	3.22	101	466	145	45	21
WH		Totals	33	89	86	28.272	77.65	55.77	51.4	206.6	91.74	2,867	11,522	4,129	1,290	518
WL		22	1	86	97	.891	2.35	1.78	49.7	175.0	2.84	89	312	128	40	14
WL		27	1	90	83	.592	2.35	1.18	69.8	290.0	2.64	83	343	119	37	15
WL		28	2	86	103	1.101	4.71	2.75	70.2	296.0	6.18	193	814	278	87	37
WL		29	3	87	97	1.539	7.06	3.59	76.8	327.1	8.83	276	1,175	397	124	53
WL		30	3	88	98	1.438	7.06	3.36	83.3	361.4	8.94	279	1,213	402	126	55
WL		31	1	82	113	.449	2.35	1.35	76.8	326.7	3.31	103	440	149	47	20
WL		32	1	89	88	.421	2.35	.84	104.2	470.0	2.81	88	396	126	40	18
WL		34	1	89	93	.373	2.35	.75	119.9	525.0	2.86	89	392	129	40	18
WL		35	1	90	87	.352	2.35	.70	124.0	565.0	2.79	87	398	126	39	18
WL		36	2	90	83	.666	4.71	1.33	125.0	557.5	5.32	166	742	240	75	33
WL		37	2	83	87	.630	4.71	1.26	130.5	477.5	5.26	164	602	237	74	27
WL		39	2	85	99	.567	4.71	1.42	130.0	596.0	5.90	184	845	265	83	38
WL		41	1	79	108	.257	2.35	.77	125.5	560.0	3.09	97	431	139	43	19
WL		47	1	80	122	.195	2.35	.59	186.8	883.3	3.50	109	518	158	49	23
WL		Totals	22	87	96	9.471	51.76	21.67	92.7	397.8	64.28	2,009	8,621	2,893	904	388
SL		17	3	80	63	4.478	7.06	7.46	25.0	74.0	4.86	187	552	219	84	25
SL		18	1	82	50	1.331	2.35	1.33	39.3	60.0	1.36	52	80	61	24	4
SL		27	1	69	51	.592	2.35	.59	105.0	80.0	1.62	62	47	73	28	2
SL		29	1	89	93	.513	2.35	1.03	90.3	375.0	2.41	93	385	109	42	17
SL		30	2	84	96	.959	4.71	1.92	96.5	360.0	4.81	185	690	217	83	31
SL		33	1	79	101	.396	2.35	.79	118.7	410.0	2.45	94	325	110	42	15
SL		39	1	89	46	.284	2.35	.28	166.0	110.0	1.23	47	31	55	21	1
SL		Totals	10	81	67	8.553	23.53	13.41	53.7	157.4	18.74	720	2,111	843	324	95
SS		11	1	93	20	3.565	2.35	3.57	6.3	20.0	.58	22	71	26	10	3
SS		12	1	81	65	2.996	2.35	3.00	19.6	60.0	1.53	59	180	69	26	8
SS		13	1	83	46	2.553	2.35	2.55	18.5	40.0	1.23	47	102	55	21	5
SS		17	2	88	52	2.985	4.71	2.99	34.4	65.0	2.67	103	194	120	46	9
SS		18	1	84	89	1.331	2.35	2.66	30.2	105.0	2.09	81	280	94	36	13
SS		22	1	77	86	.891	2.35	1.78	48.6	120.0	2.25	87	214	101	39	10
SS		26	1	78	97	.638	2.35	1.28	72.6	230.0	2.41	93	294	108	42	13
SS		27	1	90	90	.592	2.35	1.18	74.8	280.0	2.30	89	331	103	40	15
SS		28	1	77	98	.550	2.35	1.10	83.3	265.0	2.38	92	292	107	41	13
SS		Totals	10	85	56	16.102	23.53	20.11	33.4	97.4	17.45	671	1,957	785	302	88

TC		TSTNDSUM		Stand Table Summary													
Project														BEVPOW			
T01S R009 S07 TPC												T01S R009 S07 TPC					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees			Page:	2						
01S	009	07	80-100	PC	45.00	17	93			Date:	03/24/2011						
										Time:	4:06:58PM						
Spc	S 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	
DL		21	1	86	100	.978	2.35	1.96	42.2	150.0	2.27	83	293	102	37	13	
DL		23	1	83	93	.816	2.35	1.63	51.0	165.0	2.29	83	269	103	37	12	
DL		28	1	91	109	.550	2.35	1.10	87.1	440.0	2.64	96	484	119	43	22	
DL		34	1	83	110	.373	2.35	1.12	85.0	386.7	2.62	95	433	118	43	19	
DL		Totals		4	86	101	2.717	9.41	5.81	61.4	254.8	9.81	357	1,480	442	161	67
RA		14	1	89	47	2.201	2.35	2.20	20.2	60.0	1.22	44	132	55	20	6	
RA		16	1	80	87	1.685	2.35	3.37	22.4	80.0	2.07	75	270	93	34	12	
RA		17	2	85	47	2.985	4.71	2.99	30.4	55.0	2.49	91	164	112	41	7	
RA		20	2	83	61	2.157	4.71	3.24	36.9	106.7	3.29	119	345	148	54	16	
RA		21	1	94	62	.978	2.35	1.96	34.0	155.0	1.83	67	303	82	30	14	
RA		31	1	94	17	.449	2.35	.45	64.3	510.0	.79	29	229	36	13	10	
RA		Totals		8	86	56	10.456	18.82	14.20	30.0	101.7	11.70	425	1,443	526	191	65
DF		17	1	82	75	1.493	2.35	2.99	21.4	60.0	1.82	64	179	82	29	8	
DF		19	1	80	109	1.195	2.35	3.59	25.1	90.0	2.56	90	323	115	40	15	
DF		21	1	89	86	.978	2.35	1.96	39.5	135.0	2.20	77	264	99	35	12	
DF		Totals		3	83	89	3.666	7.06	8.53	27.1	89.8	6.59	231	766	296	104	34
RC		21	1	81	41	.978	2.35	.98	44.5	40.0	1.02	44	39	46	20	2	
RC		26	1	80	100	.638	2.35	1.28	70.4	235.0	2.11	90	300	95	40	13	
RC		31	1	82	108	.449	2.35	.90	104.9	425.0	2.21	94	382	100	42	17	
RC		Totals		3	81	74	2.065	7.06	3.15	72.2	228.6	5.35	228	721	241	102	32
Totals				93	86	76	81.303	218.82	142.64	52.6	200.6	225.66	7508	28,620	10,154	3,379	1,288

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page 1									
Project: BEVPOW												Date 3/24/2011									
												Time 4:03:17PM									
T01S R009 S07 IPC										T01S R009 S07 TPC											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
01S	009	07	140-160	PC	39.00	15	96	S	W												
Spp	S	So	Gr	%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
					Net BdFt	Def%	Gross		Net	Log Scale Dia.				Log Length				Ln Ft	Bd Ft		CF/Lf
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
WL	DO	2M	62	.2	11,642	11,613	453				18	82			1	99	40	573	2.95	20.3	
WL	DO	3M	32	.6	5,818	5,784	226			22	40	38			1	11	89	38	238	1.71	24.3
WL	DO	4M	6		1,075	1,075	42		12	88				19	10	9	61	28	57	0.75	18.8
WL	Totals		53	.3	18,536	18,472	720		1	12	24	63		1	1	4	94	35	291	1.93	63.4
WH	DO	2M	36		3,456	3,456	135				68	32				100	40	354	1.94	9.8	
WH	DO	3M	54		5,105	5,105	199			51	49					19	81	38	158	1.13	32.2
WH	DO	4M	10		854	854	33		73	27				16	13		71	31	36	0.45	23.7
WH	Totals		27		9,415	9,415	367		7	30	52	12		1	1	10	87	36	143	1.05	65.7
RL	DO	3M	61		1,988	1,988	78			87	13					32	68	37	130	1.05	15.3
RL	DO	4M	39		1,240	1,240	48		43	57				3	13	42	43	32	41	0.40	30.4
RL	Totals		9		3,228	3,228	126		17	75	8			1	5	36	58	34	71	0.63	45.6
SS	DO	2M	38		515	515	20				100					100	40	200	1.43	2.6	
SS	DO	3M	45		608	608	24			100						100	40	142	1.17	4.3	
SS	DO	4M	17		220	220	9		100					28	48		25	24	24	0.44	9.0
SS	Totals		4		1,343	1,343	52		16	45	38			5	8		88	31	85	0.90	15.9
SL	DO	2M	90	5.7	987	931	36				100					100	40	520	3.21	1.8	
SL	DO	3M	4		44	44	2			100						100	38	70	1.12	.6	
SL	DO	4M	6		53	53	2			100					41	59		29	45	0.99	1.2
SL	Totals		3	5.2	1,084	1,027	40			9	91				2	3	95	36	287	2.24	3.6
DL	DO	3M	88		1,109	1,109	43				66	34				12	88	39	428	2.53	2.6
DL	DO	4M	12		146	146	6		28	72				14			86	37	67	0.71	2.2
DL	Totals		4		1,255	1,255	49		3	8	58	30		2		10	88	38	262	1.72	4.8
DF	DO	3M	75		229	229	9			100						100	40	120	0.92	1.9	
DF	DO	4M	25		76	76	3		100							100	37	40	0.29	1.9	
DF	Totals		1		306	306	12		25	75						100	39	80	0.62	3.8	
Type Totals				.3	35,165	35,046	1,367		5	24	31	40		1	2	9	88	35	173	1.26	202.8

TC TLOGSTVB

Log Stock Table - MBF
Project: **BEVPOW**

T01S R009 S07 TPC

T01S R009 S07 TPC

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
 01S 009 07 140-160 PC 39.00 15 96 2
 Date 3/24/2011
 Time 4:05:22PM

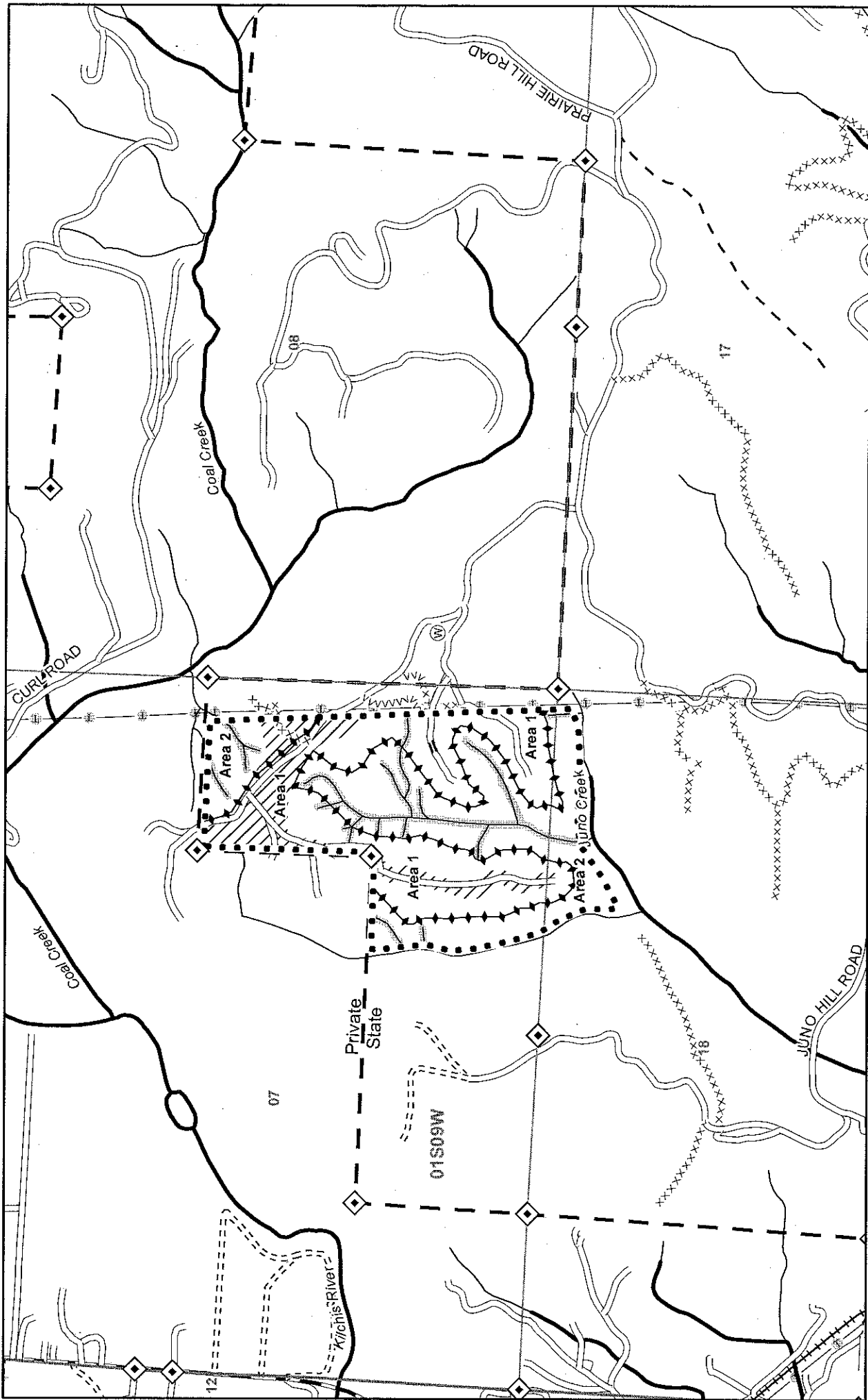
Spp	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches											
									MBF	MBF	Sp	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23
SS		DO	3M	40	24		24	45.3				4	19							
SS		DO	4M	19	2		2	4.5		2										
SS		DO	4M	21	3		3	5.1		3										
SS		DO	4M	24	1		1	2.7		1										
SS		DO	4M	40	2		2	4.0		2										
SS		Totals			52		52	3.8		9		4	19	20						
SL		DO	2M	40	38	5.7	36	90.6								36				
SL		DO	3M	38	2		2	4.2			2									
SL		DO	4M	23	1		1	2.1				1								
SL		DO	4M	35	1		1	3.0			1									
SL		Totals			42	5.2	40	2.9			3	1				36				
DL		DO	3M	32	5		5	10.2												
DL		DO	3M	40	38		38	78.2							11	12	15			
DL		DO	4M	19	1		1	1.6				1								
DL		DO	4M	40	2		2	3.2		2										
DL		DO	4M	41	3		3	6.9			3									
DL		Totals			49		49	3.6		2	3	1			11	17	15			
DF		DO	3M	40	9		9	75.0				9								
DF		DO	4M	37	3		3	25.0		3										
DF		Totals			12		12	.9		3		9								
Total All Species					1,371		1,367	100.0		63	71	96	166	171	140	363	281	16		

T01S R009 S07 TPC T01S R009 S07 TPC
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt BdFt
 01S 009 07 80-100 PC 45.00 17 93 S W

S- T Spp	So- rt ad	Gr- ad	% Net BdFt	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	Bd Ft	CF/ Lf			
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
WH	DO	2M	64	7,422	7,422	334			37	63					100	40	454	2.37	16.4		
WH	DO	3M	30	3,417	3,417	154			31	62	7			21	79	38	162	1.28	21.1		
WH	DO	4M	6	683	683	31		14	86				15	41	16	28	28	37	0.58	18.3	
WH	Totals		40	11,522	11,522	518		1	14	42	43		1	2	7	89	35	207	1.46	55.8	
WL	DO	2M	79	6,830	6,830	307				5	95			3	97	40	713	3.66	9.6		
WL	DO	3M	19	1,625	1,625	73			34	13	53		3	7	11	78	34	175	1.81	9.3	
WL	DO	4M	2	166	166	7			51	49			21	62	17	21	59	0.93	2.8		
WL	Totals		30	8,621	8,621	388		7	8	85			1	3	4	92	35	398	2.67	21.7	
SL	DO	2M	58	1.2	1,255	1,239	56				100				100	40	664	3.79	1.9		
SL	DO	3M	25	.5	535	532	24			100					73	27	34	112	1.43	4.7	
SL	DO	4M	17	1.7	345	339	15		26	74				26	22	52	31	50	0.96	6.8	
SL	Totals		7	1.1	2,135	2,111	95		4	37	59			4	22	74	34	157	1.60	13.4	
SS	DO	2M	50	4.3	1,036	991	45			45	55				100	40	371	2.66	2.7		
SS	DO	3M	14		275	275	12			100					13	87	38	143	1.16	1.9	
SS	DO	4M	36		691	691	31		24	76			10	10	15	65	32	45	0.60	15.5	
SS	Totals		7	2.2	2,002	1,957	88		9	41	23	28		4	3	7	86	34	97	0.98	20.1
RA	DO	2M	52		762	762	34			70	30		30		36	34	32	304	1.85	2.5	
RA	DO	3M	14		202	202	9			100					100		32	120	1.06	1.7	
RA	DO	4M	34		479	479	22			100			6	45	28	22	30	48	0.72	10.0	
RA	Totals		5		1,443	1,443	65		47	37	16		18	15	42	25	31	102	0.97	14.2	
DL	DO	2M	63		933	933	42			25	75				100	40	491	2.52	1.9		
DL	DO	3M	33		499	499	22			32	68				21	79	39	184	1.33	2.7	
DL	DO	4M	4		48	48	2		69	31			31		69	31	40	0.64	1.2		
DL	Totals		5		1,480	1,480	67		2	12	39	47		1	7	92	38	255	1.63	5.8	
DF	DO	2M	30		235	235	11			100					100	40	240	1.55	1.0		
DF	DO	3M	49	10.7	418	373	17			36	64				36	64	36	139	1.22	2.7	
DF	DO	4M	21		158	158	7		62	38				81	19		25	32	0.43	4.9	
DF	Totals		3	5.5	811	766	34		13	25	62			17	21	62	30	90	0.89	8.5	
RC	DO	2M	79		570	570	26			45	55				100	40	524	3.18	1.1		
RC	DO	3M	15		112	112	5			100					100	40	103	1.05	1.1		
RC	DO	4M	6		39	39	2		100						100	35	40	1.27	1.0		
RC	Totals		3		721	721	32		5	16	35	44			5	95	38	229	1.88	3.2	
Type Totals				.4	28,733	28,620	1,288		2	18	27	53		2	3	10	85	34	201	1.54	142.6

TC		TSTNDSUM		Stand Table Summary											
Project														BEVPOW	
T01S R009 S07 TPC												T01S R009 S07 TPC			
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1		Date: 03/24/2011		Time: 4:07:44PM		
01S	009	07	140-160	PC	39.00	15	96								
Spc	S T	DBH	Sample Trees	Av FF Ht 16' 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
WL	19	1	86	99	1.354	2.67	2.71	39.5	140.0	3.42	107	379	133	42	15
WL	20	1	80	107	1.222	2.67	2.44	45.2	155.0	3.53	110	379	138	43	15
WL	21	1	86	115	1.109	2.67	3.33	34.4	143.3	3.66	114	477	143	45	19
WL	23	2	85	109	1.848	5.33	5.55	40.1	168.3	7.11	222	933	277	87	36
WL	24	5	86	105	4.244	13.33	9.34	57.5	230.0	17.17	537	2,148	670	209	84
WL	25	3	85	109	2.347	8.00	6.26	54.0	222.5	10.81	338	1,392	422	132	54
WL	26	2	91	97	1.447	5.33	2.89	74.0	322.5	6.85	214	933	267	84	36
WL	27	2	81	110	1.341	5.33	3.35	65.9	260.0	7.07	221	872	276	86	34
WL	28	1	92	86	.624	2.67	1.25	77.9	330.0	3.11	97	412	121	38	16
WL	29	4	89	95	2.325	10.67	4.65	89.5	378.7	13.32	416	1,762	519	162	69
WL	30	8	85	108	4.346	21.33	10.32	86.7	372.1	28.64	895	3,841	1,117	349	150
WL	31	3	87	113	1.526	8.00	4.07	87.2	396.2	11.36	355	1,613	443	138	63
WL	32	3	86	114	1.432	8.00	3.82	92.3	430.0	11.29	353	1,642	440	138	64
WL	34	2	84	114	.846	5.33	2.54	93.0	433.3	7.56	236	1,100	295	92	43
WL	41	1	81	122	.291	2.67	.87	143.6	676.7	4.01	125	590	156	49	23
WL	Totals	39	86	106	26.303	104.00	63.39	68.5	291.4	138.92	4,341	18,472	5,418	1,693	720
WH	15	2	89	66	4.346	5.33	6.52	22.0	70.0	4.58	143	456	179	56	18
WH	16	1	88	103	1.910	2.67	3.82	28.5	110.0	3.49	109	420	136	42	16
WH	17	4	88	89	6.767	10.67	13.53	27.0	97.5	11.70	366	1,320	456	143	51
WH	18	2	79	96	3.018	5.33	6.04	33.3	107.5	6.42	201	649	251	78	25
WH	19	4	86	95	5.417	10.67	10.83	35.7	151.3	12.39	387	1,639	483	151	64
WH	20	3	83	103	3.667	8.00	8.56	37.7	138.6	10.31	322	1,186	402	126	46
WH	22	1	92	87	1.010	2.67	2.02	47.7	205.0	3.08	96	414	120	38	16
WH	23	3	89	96	2.773	8.00	5.55	56.0	221.7	9.94	311	1,229	388	121	48
WH	24	2	85	98	1.698	5.33	3.40	61.7	220.0	6.71	210	747	262	82	29
WH	26	1	79	108	.723	2.67	1.45	75.1	260.0	3.48	109	376	136	42	15
WH	27	2	84	110	1.341	5.33	4.02	55.5	243.3	7.14	223	979	279	87	38
WH	Totals	25	86	92	32.671	66.67	65.73	37.7	143.2	79.24	2,476	9,415	3,090	966	367
RL	9	1	79	68	6.036	2.67	6.04	9.8	40.0	1.63	59	241	64	23	9
RL	11	1	80	66	4.041	2.67	4.04	15.9	40.0	1.77	64	162	69	25	6
RL	13	1	80	83	2.893	2.67	5.79	13.0	45.0	2.06	75	260	80	29	10
RL	14	2	86	55	4.989	5.33	4.99	23.4	60.0	3.20	117	299	125	45	12
RL	15	1	78	105	2.173	2.67	4.35	22.8	75.0	2.73	99	326	106	39	13
RL	16	3	78	95	5.730	8.00	11.46	25.1	90.0	7.90	287	1,031	308	112	40
RL	17	2	78	86	3.384	5.33	6.77	25.7	85.0	4.77	174	575	186	68	22
RL	21	1	77	98	1.109	2.67	2.22	45.7	150.0	2.79	101	333	109	40	13
RL	Totals	12	80	78	30.354	32.00	45.64	21.4	70.7	26.86	977	3,228	1,048	381	126
SS	12	1	88	25	3.395	2.67	3.40	9.7	20.0	.85	33	68	33	13	3
SS	17	1	84	76	1.692	2.67	3.38	24.5	85.0	2.15	83	288	84	32	11
SS	19	2	84	86	2.709	5.33	5.42	33.4	110.0	4.71	181	596	184	71	23
SS	20	2	88	65	2.445	5.33	3.67	38.9	106.7	3.71	143	391	145	56	15
SS	Totals	6	86	59	10.240	16.00	15.86	27.7	84.6	11.42	439	1,343	446	171	52
DL	22	1	85	97	1.010	2.67	2.02	49.1	165.0	2.73	99	333	106	39	13
DL	25	1	84	99	.782	2.67	1.56	64.4	255.0	2.77	101	399	108	39	16
DL	35	1	85	112	.399	2.67	1.20	92.4	436.7	3.04	111	523	119	43	20
DL	Totals	3	85	100	2.192	8.00	4.78	65.0	262.5	8.54	311	1,255	333	121	49
SL	28	2	84	92	1.247	5.33	2.49	82.0	272.5	5.32	205	680	207	80	27
SL	30	1	91	76	.543	2.67	1.09	78.9	320.0	2.23	86	348	87	33	14

TC		TSTNDSUM		Stand Table Summary												
Project														BEVPOW		
T01S R009 S07 TPC											T01S R009 S07 TPC					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees			Page:	2					
01S	009	07	140-160	PC	39.00	15	96			Date:	03/24/2011					
										Time:	4:07:44PM					
Spc	S 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
SL		Totals	3	86	87	1.791	8.00	3.58	81.1	286.9	7.55	290	1,027	294	113	40
DF		16	1	77	106	1.910	2.67	3.82	23.7	80.0	2.58	91	306	101	35	12
DF		Totals	1	77	106	1.910	2.67	3.82	23.7	80.0	2.58	91	306	101	35	12
OC		12	1	64	25	3.395	2.67									
OC		14	1	84	63	2.495	2.67									
OC		16	1	74	111	1.910	2.67									
OC		18	2	92	41	3.018	5.33									
OC		22	1	76	35	1.010	2.67									
OC		26	1	99	17	.723	2.67									
OC		Totals	7	79	50	12.551	18.67									
Totals			96	84	85	118.011	256.00	202.81	44.0	172.8	275.12	8925	35,046	10,730	3,481	1,367



LOGGING PLAN

Timber Sale Contract No. 341-12-001
BEAVER POWER
 Portions of Sections 7 and 18
 T1S, R9W, W.M.,
 Tillamook County, Oregon

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

Area boundary
 Sale boundary
 Ownership boundary
 Perennial Type-F stream
 Perennial Type-N stream
 Unsurfaced road
 Surfaced road
 Paved road
 Abandoned road

Landing
 Buffer
 Non-required thinning
 Cable yarding
 Ground yarding
 Helicopter yarding
 Downhill yarding
 Green tree retention area

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

Area
 1
 2
Total

Type of Operation
 Partial cut
 Partial cut
Total

Area	Type of Operation	Acres
1	Partial cut	46
2	Partial cut	45
Total		94

Tillamook District GIS
 04/01/2011

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