



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Power Bales
Sale 341-13-76

District: Tillamook

Date: November 06, 2012

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$732,006.46	\$21,390.64	\$753,397.10
		Project Work:	\$(260,850.00)
		Advertised Value:	\$492,547.10



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timber description

Location: Portions of Sections 30 and 31, T2S, R7W; portions of Section 25, T2S, R8W; and portions of Section 6, T3S, R7W, W.M., Tillamook County, Oregon.

Stand Stocking: 60%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	100
Western Hemlock / Fir	14	0	100
Alder (Red)	13	0	100

Volume by Grade	2S	3S	3S 10" -	4S	4S 8" - 9'	Total
Douglas - Fir	506	3,338	0	1,338	0	5,182
Western Hemlock / Fir	0	17	0	22	0	39
Alder (Red)	0	0	10	0	84	94
Total	506	3,355	10	1,360	84	5,315



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comments: Pond Values Used: 3rd Quarter Calendar Year 2012.

Western redcedar & Other Cedars Stumpage Price = Pond Value minus
Logging Cost

\$625/MBF = \$975/MBF - \$350/MBF

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

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$4.00/Gallon

HAULING COST ALLOWANCE

Hauling cost equivalent to \$780 daily truck cost.

Other Costs (with Profit & Risk to be added):

Brand and Paint: \$2/MBF x 5,315 MBF = \$10,630

Snag Creation: \$10/snag x 538 snags = \$5,380

TOTAL Other Costs (with Profit & Risk to be added) = \$16,010

Other Costs (No Profit & Risk added):

Slash Piling and Sorting: \$5/acre x 273(cable) acres = \$1,365

Cover Material for Piles: 20 piles x \$5/pile = \$100

Non-Project Road #1: 4.5/Stations x \$150/Station = \$675

Non-Project Road #2: 3/Stations x \$150/Station = \$450

Non-Project Road #3: 5/Station x \$150/Station = \$750

Approach Rock (pit run): 50 cubic yards/per approach x \$6/cy x 6
possible approaches = \$1,800

Machine Time Dirt Road Vacating (Area 2): 4 hours x \$145/hr = \$580

4wd Filter (Area 2): \$75 x 2 filters = \$150

Quad Filter (Area 5): \$75 x 2 filters = \$150

Motorcycle Filter (Areas 2 and 4): \$75 x 4 filters = \$300

Trail Clearing (Area 2): \$40 per station x 17 stations = \$680

Trail Clearing (Area 4): \$40 per station x 9 stations = \$360

Trail Clearing (Area 5): \$40 per station x 18 stations = \$720

TOTAL Other Costs (No Profit & Risk added) = \$8,080

ROAD MAINTENANCE

Maintenance Rock: (\$12/cy x 10 miles x 20cy/mile x 5.3 MMBF) /
5,315 MBF = \$2.39/MBF

Interim Maintenance (2 gradings): Grading \$250/Mile x 10 miles x
2 gradings / 5,315 MBF = \$.94/MBF

Vibratory Roller: ((350 stations x \$18/ station) + \$111 move-in)
/ 5,315 MBF = \$1.21/MBF

Final Maintenance:

Grading: \$500/Mile x 10 miles / 5,315 MBF = \$.94/MBF

TOTAL Maintenance Cost = \$5.48/MBF



"STEWARDSHIP IN FORESTRY"

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logging conditions

combination#: 1 Douglas - Fir 31.25%
 Western Hemlock / Fir 38.97%
 Alder (Red) 22.44%
yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 5.0 **bd. ft / load:** 3,500
cost / mbf: \$161.96

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

combination#: 2 Douglas - Fir 41.60%
 Alder (Red) 63.05%
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: 3.0 **bd. ft / load:** 3,500
cost / mbf: \$269.93

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

combination#: 3 Douglas - Fir 19.00%
 Western Hemlock / Fir 61.03%
 Alder (Red) 14.51%
yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 6.0 **bd. ft / load:** 3,500
cost / mbf: \$68.49

machines: Stroke Delimber (B)

combination#: 4 Douglas - Fir 8.15%



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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:	2.5	bd. ft / load:	3,700
cost / mbf:	\$306.41		
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:	\$260,850.00	Other Costs (P/R):	\$16,010.00
Slash Disposal:	\$0.00	Other Costs:	\$8,080.00

Miles of Road

Road Maintenance: \$5.48

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	3.5
Western Hemlock / Fir	\$0.00	2.0	3.5
Alder (Red)	\$0.00	2.0	3.5



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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									
\$200.88	\$5.48	\$1.65	\$101.30	\$3.01	\$31.23	\$0.00	\$5.00	\$1.52	\$350.07
Western Hemlock / Fir									
\$104.92	\$5.48	\$1.65	\$101.30	\$3.01	\$21.64	\$0.00	\$5.00	\$1.52	\$244.52
Alder (Red)									
\$216.48	\$5.48	\$1.65	\$101.30	\$3.01	\$32.79	\$0.00	\$5.00	\$1.52	\$367.23

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$490.03	\$139.96	\$0.00
Western Hemlock / Fir	\$0.00	\$417.18	\$172.66	\$0.00
Alder (Red)	\$0.00	\$594.79	\$227.56	\$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
Alder (Red)	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	5,182	\$139.96	\$725,272.72
Western Hemlock / Fir	39	\$172.66	\$6,733.74
Alder (Red)	94	\$227.56	\$21,390.64

Gross Timber Sale Value

Recovery: \$753,397.10

Prepared by: Nick Stumpf

Phone: 503-842-2545



PROJECT SUMMARY SHEET

Sale: Power Bales

CONSTRUCTION

Point	C to D	16+10	stations =	\$16,130.93
Point	E to F	8+05	stations =	\$1,805.47
Point	G to H	7+92	stations =	\$5,364.62
Point	I to J	6+55	stations =	\$5,795.64
Point	K to L	43+85	stations =	\$61,863.35
Point	M to N	11+80	stations =	\$2,523.09
Point	O to P	11+03	stations =	\$17,644.65
Point	Q to R	9+80	stations =	\$17,234.86
Point	S to T	5+07	stations =	\$9,560.77
Point	U to V	5+68	stations =	\$4,578.39
Point	W to X	6+05	stations =	\$1,672.83
SUBTOTAL CONSTRUCTION				\$144,174.60

IMPROVEMENT

Point	A to B	184+70	stations =	\$93,649.09
Point	W to X	69+45	stations =	\$9,458.60
SUBTOTAL IMPROVEMENT				\$103,107.69

RECONSTRUCTION

Point	M to N	8+20	stations =	\$2,215.40
SUBTOTAL RECONSTRUCTION				\$2,215.40

SPECIAL PROJECTS

Brush Project 5	9.8	miles of road		\$7,350.00
Project No. 3	costs included in rock crushing base rates			\$0.00
SUBTOTAL SPECIAL PROJECTS				\$7,350.00

MOVE IN **\$4,002.31**

GRAND TOTAL **\$260,850.00**

SUMMARY OF CONSTRUCTION COST

Sale:			<u>Power Bales</u>			Road:			<u>A to B</u>		
<u>Construction -</u>		0+00	stations	<u>Improvement -</u>		184+70	stations	<u>Reconstruction -</u>		0+00	stations
		0.00	miles			3.50	miles			0.00	miles
ROCK											
0+00	to	184+70	6,430	cy. of	Crushed	@	\$13.74	per c.y. =	<u>\$88,348.20</u>		
									TOTAL ROCK	\$88,348.20	
SPECIAL PROJECTS											
Grade and shape road -					184.70	stations @	\$15.50	per station	\$2,862.85		
Roll subgrade w/ vibratory roller prior to rocking -					184.70	stations @	\$13.20	per station	<u>\$2,438.04</u>		
									TOTAL SPECIAL PROJECTS	\$5,300.89	
									GRAND TOTAL	\$93,649.09	

SUMMARY OF CONSTRUCTION COST

Sale:

Power Bales

Road:

C to D

Construction -	<u>16+10</u>	stations	Improvement -	<u>0+00</u>	stations	Reconstruction -	<u>0+00</u>	stations
	0.30	miles		0.00	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station		
0+00		1+70	40%		Outslope	\$243	=	\$413.10
1+70		2+70	10%		Outslope	\$90	=	\$90.00
2+70		7+65	30%		Crown	\$332	=	\$1,643.40
7+65		10+65	Cut & Drift		Crown	\$134	=	\$402.00
10+65		12+15	Fill		Crown	\$1,585	=	\$2,377.50
12+15		12+83	Cut & Drift		Crown	\$134	=	\$91.12
12+83		13+39	Turnaround		Crown	\$200	=	\$112.00
13+39		15+16	Cut & Drift		Crown	\$134	=	\$237.18
15+16		15+50	20%		Crown	\$134	=	\$45.56
15+50		16+10	Land. Const.		Crown	\$600	=	\$360.00
								TOTAL
								\$5,771.86

CULVERTS - MATERIALS & INSTALLATION

<u>Culverts</u>	30	LF of 18"	\$525.00		
			\$525.00		
<u>Culvert Stakes & Markers</u>	1	markers	\$8.00		
			\$8.00		
					TOTAL CULVERTS
					\$533.00

ROCK

0+00	to	16+10	1,200	cy. of	Pit Run	@	\$7.28 per c.y.=	\$8,736.00	
									TOTAL ROCK
									\$8,736.00

SPECIAL PROJECTS

Construct ditchouts -	9.00	@	\$60.00	each	\$540.00	
Grade and shape road -	16.10	stations @	\$15.50	per station	\$249.55	
Roll subgrade w/ vibratory roller prior to rocking -	16.10	stations @	\$13.20	per station	\$212.52	
Grass seed and fertilize -	0.40	acres @	\$220.00	per acre	\$88.00	
						TOTAL SPECIAL PROJECTS
						\$1,090.07

GRAND TOTAL **\$16,130.93**

SUMMARY OF CONSTRUCTION COST

Sale:

Power Bales

Road:

E to F

Construction -	<u>8+05</u>	stations	Improvement -	<u>0+00</u>	stations	Reconstruction -	<u>0+00</u>	stations
	0.15	miles		0.00	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station		
0+00		1+81	5%		Outslope	\$74	=	\$133.94
1+81		3+75	15%		Outslope	\$107	=	\$207.58
3+75		4+60	5%		Outslope	\$74	=	\$62.90
4+60		4+94	15%		Outslope	\$107	=	\$36.38
4+94		5+50	Turnaround		Outslope	\$350	=	\$196.00
5+50		7+13	25%		Outslope	\$165	=	\$268.95
7+13		7+45	20%		Outslope	\$139	=	\$44.48
7+45		8+05	Land. Const.		Crown	\$500	=	\$300.00
								TOTAL
								\$1,250.23

SPECIAL PROJECTS

Construct ditchouts -	5.00	@	\$60.00	each	\$300.00
Grade and shape road -	8.05	stations @	\$15.50	per station	\$124.78
Roll subgrade w/ vibratory roller prior to rocking -	8.05	stations @	\$13.20	per station	\$106.26
Grass seed and fertilize -	0.11	acres @	\$220.00	per acre	\$24.20
					TOTAL SPECIAL PROJECTS
					\$555.24

GRAND TOTAL **\$1,805.47**

SUMMARY OF CONSTRUCTION COST

Sale:		Power Bales		Road:		G to H	
Construction -		7+92	stations	Improvement -		0+00	stations
		0.15	miles			0.00	miles
Reconstruction -						0+00	stations
						0.00	miles
CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -							
Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station	
0+00		2+75	10%		Outslope	\$90	=
2+75		4+35	Full Cut		Crown	\$358	=
4+35		5+01	Haul & Throghfill		Crown	\$870	=
5+01		6+43	Haul & Throghfill		Crown	\$532	=
6+43		7+45	Full Cut		Crown	\$663	=
7+45		7+92	60%	0.2	Crown	\$1,576	=
						TOTAL	\$3,566.92
ROCK							
0+00	to	2+00	170	cy. of	Pit Run	@	\$6.90 per c.y.=
						TOTAL ROCK	\$1,173.00
SPECIAL PROJECTS							
Construct ditchouts -					6.00	@	\$60.00 each
Grade and shape road -					7.92	stations @	\$15.50 per station
Roll subgrade w/ vibratory roller prior to rocking -					7.92	stations @	\$13.20 per station
Grass seed and fertilize -					0.17	acres @	\$220.00 per acre
						TOTAL SPECIAL PROJECTS	\$624.70
GRAND TOTAL						\$5,364.62	

SUMMARY OF CONSTRUCTION COST

Sale:		<u>Power Bales</u>			Road:		<u>I to J</u>				
<u>Construction -</u>		<u>6+55</u>	stations	<u>Improvement -</u>		<u>0+00</u>	stations	<u>Reconstruction -</u>		<u>0+00</u>	stations
		0.12	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 or Activity</u>	<u>Avg. Dist. To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>				
	0+00		2+20	20%		Outslope	\$139	=		\$305.80	
	2+20		4+50	Fill Const.		Outslope	\$500	=		\$1,150.00	
	4+50		6+55	60%	0.1	Outslope	\$1,521	=		\$3,118.05	
										<u>TOTAL</u>	\$4,573.85
ROCK											
	0+00	to	1+50	140	cy. of	Pit Run	@	\$6.61 per c.y.=		\$925.40	
										<u>TOTAL ROCK</u>	\$925.40
SPECIAL PROJECTS											
Construct ditchouts -						1.00	@	\$60.00	each	\$60.00	
Grade and shape road -						6.55	stations @	\$15.50	per station	\$101.53	
Roll subgrade w/ vibratory roller prior to rocking -						6.55	stations @	\$13.20	per station	\$86.46	
Grass seed and fertilize -						0.22	acres @	\$220.00	per acre	\$48.40	
										<u>TOTAL SPECIAL PROJECTS</u>	\$296.39
GRAND TOTAL										\$5,795.64	

SUMMARY OF CONSTRUCTION COST

Sale:		<u>Power Bales</u>		Road:		<u>K to L</u>	
<u>Construction -</u>		<u>43+85</u>	stations	<u>Improvement -</u>		<u>0+00</u>	stations
		0.83	miles			0.00	miles
<u>Reconstruction -</u>		<u>0+00</u>	stations			<u>0.00</u>	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>	
0+00		43+85	60%	0.5	Outslope	\$903	=

SUMMARY OF CONSTRUCTION COST

Sale:

Power Bales

Road:

M to N

Construction -	<u>11+80</u>	stations	Improvement -	<u>0+00</u>	stations	Reconstruction -	<u>8+20</u>	stations
	0.22	miles		0.00	miles		0.16	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station		
8+20		8+62	5%		Outslope	\$74	=	\$31.08
8+62		10+14	10%		Outslope	\$90	=	\$136.80
10+14		11+46	20%		Outslope	\$139	=	\$183.48
11+46		13+84	35%		Outslope	\$191	=	\$454.58
13+84		15+33	15%		Outslope	\$107	=	\$159.43
15+33		17+00	30%		Outslope	\$191	=	\$318.97
17+00		18+77	25%		Outslope	\$165	=	\$292.05
18+77		19+40	10%		Outslope	\$90	=	\$56.70
19+40		20+00	Const. Land.		Crown	\$500	=	\$300.00
TOTAL								\$1,933.09

RECONSTRUCTION: CLEARING AND GRUBBING -

Scattering	0.980	acres	@	\$980.00	per acre =	\$960.40	
TOTAL CLEARING AND GRUBBING							\$960.40

RECONSTRUCTION: EXCAVATION -

Road Earthwork	0+00	to	2+90	2.90	sta. @	\$80.00	per sta. =	\$232.00
Cut & Drift/Grade Imprve.	2+90	to	6+40	3.50	sta. @	\$134.00	per c.y.=	\$469.00
Road Earthwork	6+40	to	8+20	1.80	sta. @	\$80.00	per c.y.=	\$144.00
TOTAL EXCAVATION								\$845.00

SPECIAL PROJECTS

Construct ditchouts -	6.00	@	\$60.00	each	\$360.00	
Grade and shape road -	20.00	stations @	\$15.50	per station	\$310.00	
Roll subgrade w/ vibratory roller prior to rocking -	20.00	stations @	\$13.20	per station	\$264.00	
Grass seed and fertilize -	0.30	acres @	\$220.00	per acre	<u>\$66.00</u>	
TOTAL SPECIAL PROJECTS						\$1,000.00

GRAND TOTAL **\$4,738.49**

SUMMARY OF CONSTRUCTION COST

Sale:			Power Bales			Road:			O to P		
<u>Construction -</u>	11+03	stations	<u>Improvement -</u>	0+00	stations	<u>Reconstruction -</u>	0+00	stations			
	0.21	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>or Activity</u>	<u>Avg. Dist.</u> <u>To W.A. (mi.)</u>	<u>Outslope/Ditch</u>	<u>Cost per Station</u>					
0+00		2+00	Fill Const.		Crown	\$755	=			\$1,510.00	
2+00		5+35	Full Bench	Use for Fill	Outslope	\$475	=			\$1,591.25	
5+35		7+45	60%	0.7	Outslope	\$1,844	=			\$3,872.40	
7+45		8+70	Trough Cut	0.71	Crown	\$2,125	=			\$2,656.25	
8+70		10+43	Full Bench	0.8	Outslope	\$826	=			\$1,428.98	
10+43		11+03	Land. Const		Crown	\$600	=			\$360.00	
										TOTAL	\$11,418.88
ROCK											
0+00	to	10+43	780	cy. of	Pit Run	@	\$6.13 per c.y.=			\$4,781.40	
Landing Rock		10+73	140	cy. of	Pit-Run	@	\$6.22 per c.y.=			\$870.80	
										TOTAL ROCK	\$5,652.20
SPECIAL PROJECTS											
Construct ditchouts -					3.00	@	\$60.00	each		\$180.00	
Grade and shape road -					11.03	stations @	\$15.50	per station		\$170.97	
Roll subgrade w/ vibratory roller prior to rocking -					11.03	stations @	\$13.20	per station		\$145.60	
Grass seed and fertilize -					0.35	acres @	\$220.00	per acre		\$77.00	
										TOTAL SPECIAL PROJECTS	\$573.57
										GRAND TOTAL	\$17,644.65

SUMMARY OF CONSTRUCTION COST

Sale:		Power Bales			Road:		Q to R							
Construction -		9+80 0.19		stations miles	Improvement -		0+00 0.00		stations miles	Reconstruction -		0+00 0.00		stations miles
CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -														
Station		to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch		Cost per Station						
0+00			1+20	Through Cut	0.74	Crown		\$1,675		=	\$2,010.00			
1+20			3+10	60%	0.77	Outslope		\$1,844		=	\$3,503.60			
3+10			5+10	70%	0.8	Outslope		\$2,909		=	\$5,818.00			
5+10			5+75	55%		Outslope		\$689		=	\$447.85			
5+75			6+50	25%		Outslope		\$165		=	\$123.75			
6+50			9+80	15%		Outslope		\$107		=	\$353.10			
											TOTAL		\$12,256.30	
ROCK														
0+00		to	9+80	730	cy. of	Pit Run	@	\$6.25 per c.y.=				\$4,562.50		
											TOTAL ROCK		\$4,562.50	
SPECIAL PROJECTS														
Construct ditchouts -						1.00	@	\$60.00	each	\$60.00				
Grade and shape road -						9.80	stations @	\$15.50	per station	\$151.90				
Roll subgrade w/ vibratory roller prior to rocking -						9.80	stations @	\$13.20	per station	\$129.36				
Grass seed and fertilize -						0.34	acres @	\$220.00	per acre	\$74.80				
											TOTAL SPECIAL PROJECTS		\$416.06	
											GRAND TOTAL		\$17,234.86	

Sale:			<u>Power Bales</u>			Road:			<u>S to T</u>		
<u>Construction -</u>		5+07	stations	<u>Improvement -</u>		0+00	stations	<u>Reconstruction -</u>		0+00	stations
		0.10	miles			0.00	miles			0.00	miles

[illegible]

0+00	to	5+07	380	cy. of	Pit Run	@	\$5.97 per c.y.=	<u>\$2,268.60</u>	
								TOTAL ROCK	\$2,268.60

Construct waste areas -	4.00	hours @	\$130.00	per hour	\$520.00
Construct ditchouts -	3.00	@	\$60.00	each	\$180.00
Grade and shape road -	5.07	stations @	\$15.50	per station	\$78.59
Roll subgrade w/ vibratory roller prior to rocking -	5.07	stations @	\$13.20	per station	\$66.92
Grass seed and fertilize -	0.20	acres @	\$220.00	per acre	\$44.00
				TOTAL SPECIAL PROJECTS	\$889.51

GRAND TOTAL	\$9,560.77
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SUMMARY OF CONSTRUCTION COST

Sale:			Power Bales			Road:			U to V						
Construction -		5+68		stations	Improvement -		0+00		stations	Reconstruction -		0+00		stations	
		0.11		miles			0.00		miles			0.00		miles	
CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -															
Station		to	Station	Avg. Sideslope	Avg. Dist.	Outslope/Ditch		Cost per Station							
				or Activity	To W.A. (mi.)										
0+00			1+06	35%		Outslope		\$191				= \$202.46			
1+06			2+10	10%		Outslope		\$90				= \$93.60			
2+10			2+54	35%		Outslope		\$191				= \$84.04			
2+55			4+00	40%		Outslope		\$243				= \$352.35			
4+00			4+60	20%		Outslope		\$139				= \$83.40			
4+60			5+08	5%		Outslope		\$74				= \$35.52			
5+08			5+68	Land. Const.		Crown		\$500				= \$300.00			
												TOTAL		\$1,151.37	
ROCK															
0+00		to	5+08	390	cy. of	Pit Run		@	\$5.88	per c.y. =	\$2,293.20				
Landing Rock			5+38	140	cy. of	Pit-Run		@	\$5.92	per c.y. =	\$828.80				
												TOTAL ROCK		\$3,122.00	
SPECIAL PROJECTS															
Construct ditchouts -						2.00	@	\$60.00	each	\$120.00					
Grade and shape road -						5.68	stations @	\$15.50	per station	\$88.04					
Roll subgrade w/ vibratory roller prior to rocking -						5.68	stations @	\$13.20	per station	\$74.98					
Grass seed and fertilize -						0.10	acres @	\$220.00	per acre	\$22.00					
												TOTAL SPECIAL PROJECTS		\$305.02	
												GRAND TOTAL		\$4,578.39	

SUMMARY OF CONSTRUCTION COST

Sale:

Power Bales

Road:

W to X

Construction -	<u>6+05</u>	stations	Improvement -	<u>69+45</u>	stations	Reconstruction -	<u>0+00</u>	stations
	0.11	miles		1.32	miles		0.00	miles

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

Station	to	Station	Avg. Sideslope or Activity	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station		
69+45		70+20	15%		Outslope	\$107	=	\$80.25
70+20		73+05	30%		Outslope	\$191	=	\$544.35
73+05		73+80	5%		Outslope	\$74	=	\$55.50
73+80		74+90	15%		Outslope	\$107	=	\$117.70
74+90		75+50	Land. Const.		Crown	\$500	=	\$300.00
TOTAL								\$1,097.80

IMPROVEMENT: CLEARING AND GRUBBING -

Widening				0.014	acres @	\$660.00	per acre =	\$9.24
Scattering				1.280	acres @	\$980.00	per acre =	\$1,254.40
TOTAL CLEARING AND GRUBBING								\$1,263.64

IMPROVEMENT: EXCAVATION -

Road Earthwork (Const. Ditchouts & Remove Waterbars)				69.45	sta. @	\$20.00	per sta. =	\$1,389.00
Widening	0+00	to	1+00	44	cy. @	\$1.40	per c.y. =	\$61.60
TOTAL EXCAVATION								\$1,450.60

IMPROVEMENT: ENDHAUL -

Widening	0+00	to	1+00	44	cy. @	\$3.01	per c.y. =	\$132.44
Spread & compact				44	cy. @	\$0.25	per c.y. =	\$11.00
TOTAL ENDHAUL								\$143.44

ROCK

69+45 to	74+90	410	cy. of	Pit Run	@	\$5.53	per c.y. =	\$2,267.30
Spot & Leveling Rock	0+00 to 69+45	300	cy. of	Pit-Run	@	\$6.03	per c.y. =	\$1,809.00
Landing Rock	75+20	140	cy. of	Pit-Run	@	\$5.57	per c.y. =	\$779.80
TOTAL ROCK								\$4,856.10

SPECIAL PROJECTS

Construct ditchouts - (New Const.)		2.00	@	\$60.00	each	\$120.00
Grade and shape road -		75.50	stations @	\$15.50	per station	\$1,170.25
Roll subgrade w/ vibratory roller prior to rocking -		75.50	stations @	\$13.20	per station	\$996.60
Grass seed and fertilize -		0.15	acres @	\$220.00	per acre	\$33.00
TOTAL SPECIAL PROJECTS						\$2,319.85

GRAND TOTAL

\$11,131.43

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Bushong Quarry	Location:	SW 1/4 Sec. 19, T2S, R7W, W.M.
Sale:	Pit_Run1	Road:	4680 c.y.
Swell:	Power Bales	Stockpile:	c.y.
Shrinkage	1.40	Total Truck Loads:	4680 c.y.
Drill Pct.:	1.16	In Place Total:	3343 c.y.
	25%		

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact.					\$2,000.00
Drill & Shoot:	\$2.50 /cu.yd.	x	836 cu.yds.	=	\$2,090.00
Rip Rock:	\$1.90 /cu.yd.	x	2507 cu.yds.	=	\$4,763.30
Load Dump Truck:	\$0.70 /cu.yd.	x	4680 cu.yds.	=	\$3,276.00

Subtotal \$12,129.30

Move in Roller and Compactor	1	@	\$557.75	=	\$557.75
Move in Grader	1	@	\$167.90	=	\$167.90
Move in Excavator	1	@	\$903.41	=	\$903.41
Move in Trucks	2	@	\$183.21	=	\$366.42

Subtotal \$1,995.48

Base Cost=	\$3.02	Per Cu.Yd.	TOTAL PRODUCTION COSTS	\$14,124.78
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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
C to D 0 1610 (Pit Run)	3.16	1.10	3.02	7.28	1200	\$8,736.00
G to H 0 200 (Pit Run)	2.78	1.10	3.02	6.90	170	\$1,173.00
I to J 0 150 (Pit Run)	2.49	1.10	3.02	6.61	140	\$925.40
K to L 0 4385 (Pit Run)	2.23	1.10	3.02	6.35	3170	\$20,129.50
				Total C.Y.	4680	Sub Total \$30,963.90

TOTAL ROCKING COSTS \$30,963.90

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Many Bucks	Location:	SW 1/4 NW 1/4 Sec.5 , T3S, R7W, W.M.
Sale:	Pit_Run2	Road:	3410 c.y.
Swell:	Power Bales	Stockpile:	c.y.
Shrinkage	1.40	Total Truck Loads:	3410 c.y.
Drill Pct.:	1.16	In Place Total:	2436 c.y.
	25%		

Pit Development & Cleanup including Clearing and grubbing of					\$1,000.00
Waste Area @ adjacent to pit, place overburden					
in Waste Area, spread and compact.					
Drill & Shoot:	\$2.50 /cu.yd.	x	609 cu.yds.	=	\$1,522.50
Rip Rock:	\$1.90 /cu.yd.	x	1827 cu.yds.	=	\$3,471.30
Load Dump Truck:	\$0.70 /cu.yd.	x	3410 cu.yds.	=	\$2,387.00

Subtotal \$8,380.80

Move in Roller and Compactor	1	@	\$557.75	=	\$557.75
Move in Grader	1	@	\$167.90	=	\$167.90
Move in Excavator	1	@	\$903.41	=	\$903.41
Move in Trucks	2	@	\$183.21	=	\$366.42

Subtotal \$1,995.48

		TOTAL PRODUCTION COSTS	\$10,376.28
Base Cost=	<u>\$3.04</u>	Per Cu.Yd.	

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
O to P 0 1043 (Pit Run)	1.99	1.10	3.04	6.13	780	\$4,781.40
O to P Landing Rock (Pit-Run)	2.08	1.10	3.04	6.22	140	\$870.80
Q to R 0 980 (Pit Run)	2.11	1.10	3.04	6.25	730	\$4,562.50
S to T 0 507 (Pit Run)	1.83	1.10	3.04	5.97	380	\$2,268.60
U to V 0 508 (Pit Run)	1.74	1.10	3.04	5.88	390	\$2,293.20
U to V Landing Rock (Pit-Run)	1.78	1.10	3.04	5.92	140	\$828.80
W to X 6945 7490 (Pit Run)	1.39	1.10	3.04	5.53	410	\$2,267.30
W to X Spot & Leveling Rock (Pit-Run)	1.89	1.10	3.04	6.03	300	\$1,809.00
W to X Landing Rock (Pit-Run)	1.43	1.10	3.04	5.57	140	\$779.80
				Total C.Y.	3410	Sub Total \$20,461.40

TOTAL ROCKING COSTS **\$20,461.40**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Joyce Creek Quarry	Location:	SE 1/4 NW 1/4 Sec.13 , T2S, R8W, W.M.
Sale:	Crushed	Road/Stockpile	6430 c.y.
Swell:	Power Bales		
Shrinkage	1.40	Total Truck Loads:	6430 c.y.
Drill Pct.:	1.16	In Place Total:	4593 c.y.
	50%		

Pit Development (Project #3) \$4,600.00

in Waste Area, spread and compact.

Drill & Shoot:	\$2.50 /cu.yd.	x	2297 cu.yds.	=	\$5,742.50
Rip Rock:	\$1.90 /cu.yd.	x	2296 cu.yds.	=	\$4,362.40
Screen Rock:	\$1.50 /cu.yd.	x	6430 cu.yds.	=	\$9,645.00
Load Crusher:	\$0.70 /cu.yd.	x	6430 cu.yds.	=	\$4,501.00
Crush Rock:	\$2.70 /cu.yd.	x	6430 cu.yds.	=	\$17,361.00
Load Dump Truck:	\$0.70 /cu.yd.	x	6430 cu.yds.	=	\$4,501.00
Waste Screen Reject	\$2.50 /cu.yd.	x	965 cu.yds.	=	\$2,412.50
Upsize Reduction:	\$4.50 /cu.yd.	x	643 cu.yds.	=	\$2,893.50
			Subtotal		\$56,018.90

Move In/Set-up Crusher & Screen					\$3,600.00
Move In and set up Drill and Compressor	1	@	\$156.02	=	\$156.02
Move in Roller and Compactor	1	@	\$156.02	=	\$156.02
Move in Grader	1	@	\$38.93	=	\$38.93
Move in D-8	1	@	\$218.41	=	\$218.41
Move in Loader	1	@	\$126.52	=	\$126.52
Move in Excavator	1	@	\$231.64	=	\$231.64
Move in Trucks	6	@	\$40.99	=	\$245.94
Move in Water Truck	1	@	\$48.18	=	\$48.18
			Subtotal		\$4,821.66

TOTAL PRODUCTION COSTS \$60,840.56

Base Cost= \$9.46 Per Cu.Yd.

Road Segment	Haul Cost \$/cu.yd.	Proc Cost \$/cu.yd.	Base Cost. \$/cu.yd.	Cost \$/cu.yd.	Number Cu. Yds	ROCK COST
A to B 0 18470 (Crushed)	1.83	2.45	9.46	13.74	6430	\$88,348.20
				Total C.Y.	6430	Sub Total \$88,348.20

TOTAL ROCKING COSTS \$88,348.20

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

Sale: **Power Bales**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
30.0	Pavement	30
12.0	Main Lines	7
3.5	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Excavators (Large)	\$926.41	1	\$44.80	0.00	4.10	4.1	\$183.68	\$1,110.09
1	Tractor (D8)	\$867.26	2	\$15.10	0.00	4.10	4.1	\$61.91	\$929.17
1	Dump Truck (10 cy +)	\$225.00		\$2.85	0.00	4.10	4.1	\$11.69	\$236.69
2	Dump Truck (Off Hiway)	\$1,492.51	1	\$4.75	0.00	4.10	4.1	\$38.95	\$1,531.46
1	Water Truck (1500 Gal)	\$183.21		\$2.85	0.00	4.10	4.1	\$11.69	\$194.90
					TOTAL MOVE-IN COSTS:		\$4,002.31		



"STEWARDSHIP IN FORESTRY"

Power Bales

Volume Summary

Area 1-Modified Clearcut				
102 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	17.0	1734	5%	1647
Hemlock		0	5%	0
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder	0.8	79	10%	71
TOTAL	17.8	1813		1718

Areas 2-Modified Clearcut				
108 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	19.1	2064	5%	1961
Hemlock		0	5%	0
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder	0.1	14	10%	13
TOTAL	19.2	2078		1974

Areas 3-Modified Clearcut				
37 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	16.5	611	5%	581
Hemlock		0	5%	0
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder		0	10%	0
TOTAL	16.5	611		581



"STEWARDSHIP IN FORESTRY"

Power Bales

Volume Summary

Areas 4-Partial Cut				
88 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	5.6	494	5%	469
Hemlock		0	5%	0
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder	0.0	0	10%	0
TOTAL	5.6	494		469

Areas 5-Modified Clearcut				
22 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	16.1	354	5%	336
Hemlock	1.8	40	5%	38
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder		0	10%	0
TOTAL	17.9	394		374

Areas 6-Right of Way				
6 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	32.7	196	5%	186
Hemlock	0.3	2	5%	2
Spruce		0	5%	0
Noble Fir		0	5%	0
Alder	1.9	11	10%	10
TOTAL	34.9	210		199



"STEWARDSHIP IN FORESTRY"

Power Bales

Volume Summary

TOTAL SALE VOLUME			363	acres
SPECIES	Cruised Net (MBF)		Net Sale (MBF)	
Douglas-fir	5453		5182	
Hemlock	42		40	
Spruce	0		0	
Noble Fir	0		0	
Red Alder	105		94	
TOTAL	5600		5315	



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

Power Bales

1. Type of Sale

91 net acres of Partial Cut.

269 net acres of Clearcut.

4 acres of Right of Way clearing: S.F. Trask Road.

Recovery.

Legal Description

Portion of Sections 30, and 31, T2S, R7W, Portions of Section 25, T2S, R8W, and Portions of Section 6, T3S, R7W, W.M., Tillamook County, Oregon.

2. Sale Acreage

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

	ACRES	
	<u>Gross</u>	<u>Net</u>
Area 1 (Clearcut)	108	102
Area 2 (Clearcut)	118	108
Area 3 (Clearcut)	39	37
Area 4 (Partial cut)	93	91
Area 5 (Clearcut)	24	22
Area 6 (Right-of-Way)	7	4

Gross Acres

Area within the Timber Sale Boundary signs.

Net acres

Used for calculating the advertised volume.

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

3. Cruising Procedures

A. Cruise Method

A total of 65 variable radius plots were used on the sale area, spaced on a rectangular grid of 350' x 700'. All plots were full cruise plots. All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 9 inches DBH and greater containing 30 net board feet were recorded on all plots.

Species were recorded on all trees and measured for merchantable bole height, diameter, and form factor.

Six strip cruise plots were completed on Area 6, each plot was a 52-foot long, 1/20th (5%) of the area was sampled.

B. Plot size

A basal area factor of 27.78 was used for the sale area. The point of observation is 4.5 feet.

C. Grading System

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

4. Computation Procedure

Tree heights were recorded to a 6 inch top outside bark for all conifers; or three tenths (0.3) of DBH, whichever was greater. All diameters were measured outside bark to the nearest inch. All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 9 inches DBH and greater containing 30 net board feet were sampled for tree species, DBH, form factor, merchantable height, visible defect and grade.

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

Cruise Statistics (Net/BF Volume Per Acre)			
Area	Number of Plots	SE (%)	CV (%)
1	18	10.4	43.0
2	20	7.1	31.0
3	5	2.9	5.8
4	16	3.2	12.2
5	6	9.3	20.8
6	6	18.7	42.1
Total	71	4.7	39.8

5. Hidden Defect and Breakage

A 5% and 10 % hidden defect and breakage was applied to conifers and hardwoods respectively.

6. Timber Description

Area 1 (Modified Clearcut) – all of the stand burned in the 1933 Tillamook fire, 1939

Saddle Mountain fire and again in the 1951 North Fork fire.

Within Area 1 20 acres in the northwest were planted in the 1952-1953 planting season, the rest of the area was planted in 1960-61 and again in 1965-66. About 50 acres in the eastern half of Area 1 was a pre-commercial thin in the mid 1990s. Approximately 10% of alder in the northeast portion was aerially sprayed in the 1970's resulting in short boles with multiple tops. The rest of the Area has had no prior management.

The stand is approximately 48 years old consisting of Douglas-fir (91%), alder (8%), and less than 1% of maple. The understory is dominated by sword fern.

Area 2 (Modified Clearcut)—10% burned in 1933, 100% burned in 1939 and again in 1951. 90% of this area was planted in 1965-66. The stand is approximately 47 years old consisting of Douglas-fir (99%) with red alder making up the remaining 1%. The understory is dominated by sword fern.

Area 3 (Modified Clearcut) — 100% burned in 1939 and again in 1951. There is no reforestation history for this stand. This area was a precommercially thinned in the mid 1990s. The stand is approximately 50 years old dominated by Douglas-fir. The understory is dominated by sword fern.

Area 4 (Partial Cut) -- 100% burned in 1939 and again in 1951. There is no reforestation history for this stand. This area was a precommercially thinned in the mid 1990s. The stand is approximately 50 years old dominated by Douglas-fir. The understory is dominated by sword fern.

Area 5 (Modified Clearcut) — 100% burned in 1939 and again in 1951. There is no reforestation history for this stand. This area was a precommercial thin in the mid 1990s. The stand is approximately 50 years old dominated by Douglas-fir. The understory is dominated by sword fern.

Area 6 (Right-of-Way) – These are trees within 25' of the centerline of the road. About 79% of the volume is Douglas-fir, 17% alder, 4% Hemlock.

Sale Area – Species	DBH	Merchantable Bole Height
Area 1 - Douglas-fir	14.5	63
Area 1 – Alder	12.7	42
Area 2 - Douglas-fir	15.3	65
Area 2 - Alder	17	60
Area 3 - Douglas-fir	13	54
Area 4 - Douglas-fir	13.3	54
Area 4 - Alder	12.2	38
Area 5 - Douglas-fir	13.9	57
Area 5- Hemlock	12.3	43
Area 6 - Douglas-fir	18.7	83

Sale Area – Species	DBH	Merchantable Bole Height
Area 6 - Alder	13.6	40
Area 6 Hemlock	15	42

7. Cruiser Names/Dates

Areas 1 and 2/ Nick Stumpf, Ian Yau, and Kevin Brown/ August 2007.
Areas 3, 4 and 5/ Jim Newman and Jorge Rios/ November 2009.

8. Revenue Distribution

100% FDF
Tax Code: 8-1 59%, 8 41%
Deed Numbers: 169, 230, 295

9. Attachments

Volume Summary
Stand Table Summary
Log Stock Tables
Species Sort Grade Table
Logging Plan

10. Stand and Log Stock Tables Species Key

DL – Douglas-fir leave
DF – Douglas-fir take
RL – Red alder leave
RA – Red alder take
WL – Western hemlock leave
WH – Western hemlock take
OC – measured snags

TC TLOGSTVB				Log Stock Table - MBF																		
				Project: POWERB																		
T02S R07W S30 TMC												T02S R07W S30 TMC										
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1													
02S	07W	30	AREA1	MC	102.00	18	109	Date	4/24/2012													
										Time	9:56:46AM											
Spp	T	S	So	Gr	Log	Len	Gross MBF	% Def	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
											2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		8	2	40			172		172	9.9					154	17						
DF		8	3	32			106	5.8	100	5.8			29	59		12						
DF		8	3	33			8		8	.4			8									
DF		8	3	40			1,036	.2	1,034	59.6			111	379	457	43	28	16				
DF		8	4	19			14		14	.8		14										
DF		8	4	20			14		14	.8		14										
DF		8	4	21			16		16	.9		16										
DF		8	4	22			26		26	1.5		21		5								
DF		8	4	23			9		9	.5		9										
DF		8	4	24			27		27	1.6		27										
DF		8	4	25			17		17	1.0		16	1									
DF		8	4	26			18		18	1.1		18										
DF		8	4	28			12		12	.7		12										
DF		8	4	30			16		16	.9		16										
DF		8	4	31			14		14	.8		14										
DF		8	4	32			6		6	.3		6										
DF		8	4	33			27		27	1.6		27										
DF		8	4	34			24		24	1.4		24										
DF		8	4	35			33		33	1.9		31	2									
DF		8	4	36			18		18	1.0		18										
DF		8	4	37			9		9	.5		9										
DF		8	4	38			8		8	.5		8										
DF		8	4	39			18		18	1.0		18										
DF		8	4	40			77		77	4.5		51	26									
DF		8	4	44			17		17	1.0		17										
DF		Totals					1,742		1,734	93.6		386	177	438	461	198	57	16				
RA		8	4	36			14		14	18.1			14									
RA		8	4	40			65		65	81.9			65									
RA		Totals					79		79	4.3			79									
DL		8	3	40			29		29	81.7			14	15								
DL		8	4	25			3		3	8.6		3										
DL		8	4	31			3		3	9.7		3										
DL		Totals					35		35	1.9		6	14	15								
BM		8	4	37			4		4	100.0			4									
BM		Totals					4		4	.2			4									
Total All Species							1,860		1,851	100.0		393	260	452	476	198	57	16				

TC TLOGSTVB				Log Stock Table - MBF															
				Project: POWERB															
T02S R07W S31 TMC										T02S R07W S31 TMC									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1										
02S	07W	31	AREA2	MC	108.00	20	125	Date	4/24/2012										
									Time	9:58:30AM									
Spp	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches										
									MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15
DF	8	D	21																
DF	8	2	40		260		260	12.6					209	50					
DF	8	3	32		121		121	5.9			43	64	13						
DF	8	3	37		3		3	.1			3								
DF	8	3	40		1,249	.1	1,247	60.4			59	490	664	34					
DF	8	4	14		2		2	.1		2									
DF	8	4	16		9		9	.4		9									
DF	8	4	17		3		3	.1				3							
DF	8	4	18		4		4	.2		4									
DF	8	4	20		9		9	.4		9									
DF	8	4	21		13		13	.6		13									
DF	8	4	22		6		6	.3		6									
DF	8	4	23		5		5	.2		5									
DF	8	4	24		32		32	1.5		27	5								
DF	8	4	25		18		18	.9		18									
DF	8	4	26		20		20	1.0		20									
DF	8	4	27		9		9	.5		9									
DF	8	4	28		31		31	1.5		31									
DF	8	4	29		8		8	.4		8									
DF	8	4	30		13		13	.6		13									
DF	8	4	31		10		10	.5		10									
DF	8	4	32		15		15	.7		15									
DF	8	4	33		8		8	.4		8									
DF	8	4	34		25		25	1.2		25									
DF	8	4	35		16		16	.8		16									
DF	8	4	36		20		20	1.0		20									
DF	8	4	37		22		22	1.1		22									
DF	8	4	38		9		9	.4		9									
DF	8	4	39		15		15	.7		15									
DF	8	4	40		106		106	5.2		73	24	10							
DF	8	4	41		5		5	.2		5									
DF	Totals				2,066		2,064	97.6		392	133	567	678	243	50				
OC	8	D	27																
OC	Totals																		
DL	8	3	40		29		29	79.4			13	16							
DL	8	4	27		3		3	8.8		3									
DL	8	4	37		4		4	11.8		4									
DL	Totals				37		37	1.7		8	13	16							
RA	8	3	32		11		11	80.0			11								
RA	8	4	24		3		3	20.0		3									
RA	Totals				14		14	.7		3	11								
Total All Species					2,116		2,115	100.0		400	136	580	705	243	50				

TC TLOGSTVB				Log Stock Table - MBF Project: POWERB															
T03S R07W S06 T0001										T03S R07W S06 T0001									
Twp	Rge	Sec	Tract		Type	Acres	Plots	Sample Trees		Page	1								
03S	07W	06	AREA 3		0001	37.00	5	31		Date	4/4/2012								
										Time	9:46:51AM								
S Spp	So T	Gr rt	Log de 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+
DF	CO	2	40	19		19	3.1				19								
DF	CO	3	32	389		389	63.6		153	235									
DF	CO	3	40	60		60	9.8			60									
DF	CO	4	12	4		4	.6		4										
DF	CO	4	13	3		3	.5		3										
DF	CO	4	15	16		16	2.6		16										
DF	CO	4	16	14		14	2.3		14										
DF	CO	4	18	16		16	2.6		16										
DF	CO	4	19	17		17	2.7		17										
DF	CO	4	20	3		3	.5		3										
DF	CO	4	22	9		9	1.5		9										
DF	CO	4	24	40		40	6.5		40										
DF	CO	4	33	15		15	2.5		15										
DF	CO	4	41	7		7	1.1		7										
DF	Totals			612		612	95.9		144	153	235	60	19						
DL	CO	2	40	22		22	83.7						22						
DL	CO	3	40	4		4	16.3		4										
DL	Totals			26		26	4.1		4				22						
Total All Species				637		637	100.0		144	158	235	60	19	22					

TC TLOGSTVB				Log Stock Table - MBF Project: POWERB															
T03S R07W S06 T0001										T03S R07W S06 T0001									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1										
03S	07W	06	AREA 4	0001	88.00	16	109	Date	4/4/2012										
								Time	9:53:36AM										
S Spp	So T	Gr rt	Log de Len	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
				MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DL	8	2	40	38		38	3.7					25	13						
DL	8	3	28	11		11	1.1					11							
DL	8	3	32	264		264	25.4			130	107	27							
DL	8	3	40	375		375	36.0			42	120	180	33						
DL	8	4	15	32		32	3.1		32										
DL	8	4	16	10		10	.9		10										
DL	8	4	17	7		7	.6		7										
DL	8	4	18	6		6	.6		6										
DL	8	4	19	18		18	1.7		18										
DL	8	4	20	2		2	.2		2										
DL	8	4	22	3		3	.3		3										
DL	8	4	24	25		25	2.4		25										
DL	8	4	26	12		12	1.2		12										
DL	8	4	28	3		3	.3		3										
DL	8	4	29	3		3	.3		3										
DL	8	4	30	3		3	.3		3										
DL	8	4	31	4		4	.4		4										
DL	8	4	33	11		11	1.1		11										
DL	8	4	34	13		13	1.2		13										
DL	8	4	35	9		9	.9		9										
DL	8	4	36	16		16	1.5		16										
DL	8	4	38	19		19	1.8		19										
DL	8	4	39	8		8	.7		8										
DL	8	4	40	151		151	14.5		41	109									
DL	Totals			1,041		1,041	64.4		243	282	228	218	58	13					
DF	8	3	32	142		142	28.8			93	49								
DF	8	3	40	71		71	14.4			39	32								
DF	8	4	15	25		25	5.1		25										
DF	8	4	16	7		7	1.5		7										
DF	8	4	17	4		4	.8		4										
DF	8	4	18	3		3	.7		3										
DF	8	4	19	9		9	1.7		9										
DF	8	4	21	7		7	1.3		7										
DF	8	4	24	9		9	1.8		9										
DF	8	4	26	4		4	.9		4										
DF	8	4	33	22		22	4.5		22										
DF	8	4	34	14		14	2.8		14										
DF	8	4	36	11		11	2.3		11										
DF	8	4	40	165		165	33.4		34	132									
DF	Totals			494		494	30.5		149	264	81								
WL	8	3	32	13		13	27.3					13							
WL	8	4	24	3		3	6.8		3										
WL	8	4	40	32		32	65.9		32										
WL	Totals			48		48	3.0		35			13							
RA	8	4	32	34		34	100.0			34									
RA	Totals			34		34	2.1			34									
Total All Species				1,618		1,618	100.0		427	579	309	231	58	13					

TC TLOGSTVB				Log Stock Table - MBF															
				Project: POWERB															
T03S R07W S06 T0001										T03S R07W S06 T0001									
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		Page		1	
03S		07W		06		AREA 5		0001		22.00		6		38		Date		4/24/2012	
																Time		10:00:09AM	
S Spp	So T	Gr rt	Log de 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+
DF	8	3	32	59		59	16.8			7	44	9							
DF	8	3	40	195	.3	195	55.1			12	53	109	10	10					
DF	8	4	15	2		2	.6		2										
DF	8	4	21	10		10	2.7		10										
DF	8	4	22	2		2	.5		2										
DF	8	4	23	1		1	.4		1										
DF	8	4	24	11		11	3.2		11										
DF	8	4	26	4		4	1.3		4										
DF	8	4	28	2		2	.5		2										
DF	8	4	33	3		3	.9		3										
DF	8	4	36	6		6	1.6		6										
DF	8	4	38	15		15	4.2		15										
DF	8	4	40	39		39	11.1		22	17									
DF	8	4	41	3		3	1.0		3										
DF Totals				354		354	87.0		83	36	97	118	10	10					
WH	8	3	32	9		9	21.3			9									
WH	8	3	40	9		9	23.2				9								
WH	8	4	19	2		2	4.7		2										
WH	8	4	25	2		2	3.9		2										
WH	8	4	37	7		7	18.6		7										
WH	8	4	38	11		11	28.3		11										
WH Totals				40		40	9.9		22	9	9								
DL	8	3	40	13		13	100.0			3		10							
DL Totals				13		13	3.1			3		10							
Total All Species				407		407	100.0		105	38	105	127	21	10					

TC TLOGSTVB				Log Stock Table - MBF																		
				Project: POWERB																		
T02S R08W S02 TALL										T02S R08W S02 TALL												
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1													
02S	08W	02	DAYLIGHTING	ALL	6.00	6	29	Date	4/25/2012													
										Time	3:19:34PM											
Spp	T	S	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+	
DF		CO	2		40	105	11.3	93	47.2					23		45		24				
DF		CO	3		32	3	10.0	3	1.6				3									
DF		CO	3		36	7	10.0	6	3.1				6									
DF		CO	3		40	85	10.0	76	38.9			9	22	24	22							
DF		CO	4		13	2	10.0	1	.7		0		1									
DF		CO	4		14	2	10.0	1	.7		1		1									
DF		CO	4		15	1	10.0	1	.3		1											
DF		CO	4		19	1	10.0	1	.3		1											
DF		CO	4		22	1	10.0	1	.3		1											
DF		CO	4		27	1	10.0	1	.5		1											
DF		CO	4		30	3	10.0	3	1.6		3											
DF		CO	4		31	1	10.0	1	.5		1											
DF		CO	4		36	2	10.0	1	.7		1											
DF		CO	4		39	2	10.0	1	.7		1											
DF		CO	4		40	6	10.0	5	2.8		5											
DF		Totals				220	10.6	196	93.8		16		10	32	24	45	45		24			
RA		H	4		25	1		1	10.0				1									
RA		H	4		32	2		2	16.7				2									
RA		H	4		37	2		2	20.0				2									
RA		H	4		40	6		6	53.3				3	3								
RA		Totals				11		11	5.4			8	3									
WH		CO	4		39	2		2	100.0		2											
WH		Totals				2		2	.7		2											
Total All Species						233	10.0	209	100.0		18		18	35	24	45	45		24			

T	Species, Sort Grade - Board Foot Volumes (Type)													Page 1					
Project: POWERB															Date	4/24/2012			
															Time	9:56:47AM			
T02S R07W S30 TMC															T02S R07W S30 TMC				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
02S	07W	30	AREA1	MC	102.00	18	109	S	W										
S So Gr T rt ad Spp		% 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				
DF	8	2	9	1,682	1,682	172	100				100				40	222	1.65	7.6	
DF	8	3	66	.7	11,270	11,190	1,141	91	7	1	9 91				39	114	0.82	98.3	
DF	8	4	25		4,126	4,126	421	92	8		7	34	25	35	30	33	0.32	125.9	
DF	Totals		94	.5	17,078	16,997	1,734	22	62	15	1	2	8	12	78	34	73	0.61	231.8
RA	8	4	100	774	774	79	100				100				39	63	0.55	12.2	
RA	Totals		4		774	774	79	100				100				39	63	0.55	12.2
DL	8	3	81	280	280	29	100				100				40	134	0.99	2.1	
DL	8	4	19	63	63	6	100					47	53		28	30	0.31	2.1	
DL	Totals		2		342	342	35	18	82			9	10	82	34	82	0.71	4.2	
BM	8	4	100	38	38	4	100				100				37	60	1.30	.6	
BM	Totals		0		38	38	4	100				100				37	60	1.30	.6
Type Totals				.4	18,232	18,151	1,851	21	64	14	1	1	8	12	79	34	73	0.61	248.8

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)											Page		1			
				Project: POWERB											Date		4/24/2012			
															Time		9:58:31AM			
T02S R07W S31 TMC																T02S R07W S31 TMC				
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		CuFt		BdFt		
02S		07W		31		AREA2		MC		108.00		20		125		S		W		
S So Gr T rt ad Spp		% Net BdFt		Bd. Ft. per Acre Def% Gross Net		Total Net MBF		Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
								Log Scale Dia.				Log Length				Ln	Bd	CF/ Lf		
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	Ft			
DF	8	D														21		0.00	3.1	
DF	8	2	12	2,405	2,405	260			100						100	40	224	1.58	10.8	
DF	8	3	67	.1	12,709	12,695	1,371		98	2				9	91	39	121	0.86	104.7	
DF	8	4	21		4,012	4,012	433	90	10			6	36	17	41	30	33	0.33	120.3	
DF	Totals		98	.1	19,125	19,111	2,064	19	67	14		1	8	9	82	34	80	0.66	238.9	
OC	8	D														27		0.00	1.1	
OC	Totals															27		0.00	1.1	
DL	8	3	79	269	269	29			100						100	40	135	0.90	2.0	
DL	8	4	21	70	70	8	100						43		57	32	35	0.32	2.0	
DL	Totals		2	338	338	37	21	79					9		91	36	85	0.64	4.0	
RA	8	3	80	106	106	11			100						100	32	120	1.16	.9	
RA	8	4	20	26	26	3			100						100	24	30	0.37	.9	
RA	Totals		1	132	132	14			100				20	80		28	75	0.82	1.8	
Type Totals				.1	19,596	19,582	2,115	19	67	14		1	8	10	81	34	80	0.66	245.8	

T	Species, Sort Grade - Board Foot Volumes (Type)													Page 1			
Project: POWERB													Date 4/4/2012				
													Time 9:46:50AM				
T03S R07W S06 T0001													T03S R07W S06 T0001				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt								
03S	07W	06	AREA 3	0001	37.00	5	31	S	W								
S So Gr Spp T rt ad			%	Bd. Ft. per Acre		Total Net MBF	Percent Net Board Foot Volume								Average Log		Logs Per /Acre
			Net BdFt				Log Scale Dia.				Log Length				Ln Ft	Bd Ft	
			Def%	Gross	Net	4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
DF	CO	2	3	509	509	19	100			100				40	200	1.48	2.5
DF	CO	3	73	12,132	12,132	449	100			87 13				32	73	0.60	166.5
DF	CO	4	24	3,886	3,886	144	100			51	34	10	5	20	23	0.25	169.1
DF	Totals		96	16,527	16,527	612	24	73	3	12	8	66	14	26	49	0.48	338.1
DL	CO	2	83	587	587	22	100			100				40	360	2.32	1.6
DL	CO	3	17	114	114	4	100			100				40	70	0.75	1.6
DL	Totals		4	701	701	26	16	84		100				40	215	1.53	3.3
Type Totals				17,228	17,228	637	23	71	6	11	8	63	17	26	50	0.49	341.4

T		TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page		1						
				Project: POWERB										Date		4/4/2012						
														Time		9:53:35AM						
T03S R07W S06 T0001													T03S R07W S06 T0001									
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees		CuFt		BdFt				
03S		07W		06		AREA 4		0001		88.00		16		109		S		W				
S So Gr T rt ad Spp			% Net BdFt		Bd. Ft. per Acre Def% Gross Net			Total Net MBF		Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
										Log Scale Dia.				Log Length				Ln	Bd	CF/ Lf		
										4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ft	Ft			
DL			8 2		3			437 437		38		100			100				40	255	1.88	1.7
DL			8 3		63			7,391 7,391		650		95 5			2 41 58				35	95	0.68	77.6
DL			8 4		34			4,007 4,007		353		69 31			21 14 10 55				28	34	0.35	116.3
DL Totals					64			11,834 11,834		1,041		23 70 7			7 6 29 58				31	61	0.51	195.6
DF			8 3		43			2,425 2,425		213		100			67 33				34	67	0.49	36.1
DF			8 4		57			3,188 3,188		281		53 47			17 7 13 63				30	38	0.31	84.1
DF Totals					31			5,612 5,612		494		30 70			10 4 36 50				31	47	0.37	120.2
WL			8 3		27			149 149		13		100			100				32	120	0.97	1.2
WL			8 4		73			397 397		35		100			9 91				38	39	0.36	10.2
WL Totals					3			546 546		48		73 27			7 27 66				37	48	0.41	11.5
RA			8 4		100			388 388		34		100			100				32	60	0.54	6.5
RA Totals					2			388 388		34		100			100				32	60	0.54	6.5
Type Totals								18,381 18,381		1,618		26 69 4			8 5 33 55				31	55	0.46	333.7

T	Species, Sort Grade - Board Foot Volumes (Type)													Page	1				
Project: POWERB															Date	4/24/2012			
															Time	10:00:10AM			
T03S R07W S06 T0001															T03S R07W S06 T0001				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
03S	07W	06	AREA 5	0001	22.00	6	38	S	W										
S So Gr T rt ad Spp			% 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			
DF	8	3	71	.3	11,581	11,551	254	92	8	23 77				37	121	0.80	95.8		
DF	8	4	29		4,533	4,533	100	83	17	2 31 3 64				31	35	0.34	129.4		
DF	Totals		87	.2	16,113	16,084	354	23	71	6	1 9 18 73				34	71	0.56	225.1	
WH	8	3	44		813	813	18	100			48 52				35	122	0.98	6.7	
WH	8	4	56		1,013	1,013	22	100			9 7 84				34	36	0.38	28.1	
WH	Totals		10		1,826	1,826	40	55	45	5 4 21 70				34	53	0.50	34.8		
DL	8	3	100		577	577	13	20 80			100				40	150	1.11	3.8	
DL	Totals		3		577	577	13	20 80			100				40	150	1.11	3.8	
Type Totals				.2	18,517	18,488	407	26	67	8	1 8 18 74				34	70	0.56	263.7	

T	Species, Sort Grade - Board Foot Volumes (Type)													Page	1				
Project: POWERB															Date	4/25/2012			
															Time	3:18:51PM			
T02S R08W S02 TALL															T02S R08W S02 TALL				
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
02S	08W	02	DAYLIGHTING	ALL	6.00	6	29	S	W										
S So Gr T rt ad Spp			% 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			
DF	CO	2	47	11.3	17,417	15,447	93		74	26				100	40	305	2.06	50.7	
DF	CO	3	43	10.0	15,833	14,250	86		74	26				4	96	39	112	0.89	126.7
DF	CO	4	10	10.0	3,357	3,021	18	91	9		23	26	6	45	27	25	0.39	120.3	
DF	Totals		94	10.6	36,607	32,718	196	8	33	46	12	2	2	2	93	34	110	0.97	297.7
RA	H	4	100		1,900	1,900	11		100			10	17	73	35	60	0.62	31.7	
RA	Totals		5		1,900	1,900	11		100			10	17	73	35	60	0.62	31.7	
WH	CO	4	100		253	253	2	100						100	39	40	0.60	6.3	
WH	Totals		1		253	253	2	100						100	39	40	0.60	6.3	
Type Totals				10.0	38,760	34,871	209	9	37	43	11	2	3	3	92	34	104	0.92	335.7

TC		TSTNDSUM													Stand Table Summary												
Project															POWERB												
T02S R07W S30 TMC															T02S R07W S30 TMC												
Twp		Rge		Sec		Tract		Type			Acres		Plots		Sample Trees			Page:		1							
02S		07W		30		AREA1		MC			102.00		18		109			Date:		04/24/2011							
																		Time:		9:56:48AM							
S Spc	T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s													
		DBH	Trees	FF 16'	Ht Tot				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF											
DF		8	1	83	78	4.421	1.54	4.42	9.5	40.0	1.19	42	177	122	43	18											
DF		9	4	82	86	13.974	6.17	13.97	10.9	40.0	4.35	152	559	443	156	57											
DF		10	3	84	97	8.489	4.63	14.15	9.3	42.0	3.74	131	594	382	134	61											
DF		11	3	84	100	7.016	4.63	11.69	12.4	50.0	4.12	145	585	420	147	60											
DF		12	6	85	93	11.790	9.26	21.62	12.8	50.0	7.88	276	1,081	804	282	110											
DF		13	8	83	90	13.395	12.35	26.79	14.6	53.1	11.16	392	1,423	1,139	400	145											
DF		14	11	84	90	15.881	16.98	31.76	16.9	60.9	15.30	537	1,935	1,560	547	197											
DF		15	11	84	91	13.834	16.98	25.15	21.4	78.0	15.32	537	1,962	1,562	548	200											
DF		16	7	83	92	7.737	10.80	15.47	23.4	84.3	10.32	362	1,304	1,053	370	133											
DF		17	11	83	92	10.770	16.98	21.54	26.1	90.5	16.02	562	1,948	1,634	573	199											
DF		18	10	83	93	8.733	15.43	17.47	30.2	103.5	15.01	527	1,808	1,531	537	184											
DF		19	5	83	92	3.919	7.72	7.84	33.4	110.0	7.45	262	862	760	267	88											
DF		20	3	84	96	2.122	4.63	4.24	38.6	126.7	4.67	164	538	477	167	55											
DF		21	4	81	93	2.567	6.17	5.13	40.0	120.0	5.86	205	616	597	210	63											
DF		22	5	83	95	2.923	7.72	6.43	41.1	134.5	7.53	264	865	768	269	88											
DF		23	1	79	95	.535	1.54	1.07	50.7	140.0	1.55	54	150	158	55	15											
DF		24	1	82	90	.491	1.54	.98	52.7	165.0	1.47	52	162	150	53	17											
DF		25	2	78	87	.905	3.09	1.36	67.1	186.7	2.60	91	254	265	93	26											
DF		29	1	79	93	.336	1.54	.67	81.0	260.0	1.55	54	175	158	56	18											
DF		Totals	97	83	91	129.839	149.70	231.77	20.8	73.3	137.10	4,811	16,997	13,984	4,907	1,734											
RA		11	3	79	80	7.016	4.63	7.02	16.6	60.0	3.19	116	421	326	118	43											
RA		14	1	80	73	1.444	1.54	1.44	26.7	70.0	1.06	39	101	108	39	10											
RA		15	3	80	62	3.773	4.63	3.77	29.4	66.7	3.05	111	252	311	113	26											
RA		Totals	7	79	73	12.232	10.80	12.23	21.7	63.2	7.31	266	774	745	271	79											
DL		16	1	80	97	1.105	1.54	2.21	22.9	75.0	1.39	51	166	142	52	17											
DL		17	1	81	85	.979	1.54	1.96	25.5	90.0	1.37	50	176	140	51	18											
DL		Totals	2	80	91	2.084	3.09	4.17	24.1	82.0	2.76	100	342	282	102	35											
BM		21	1	80	45	.642	1.54	.64	48.1	60.0	.82	31	38	83	32	4											
BM		Totals	1	80	45	.642	1.54	.64	48.1	60.0	0.82	31	38	83	32	4											
OC		12	1	80	87	1.965	1.54																				
OC		39	1	79	25	.186	1.54																				
OC		Totals	2	80	82	2.151	3.09																				
Totals			109	83	90	146.949	168.22	248.81	20.9	73.0	147.99	5208	18,151	15,095	5,312	1,851											

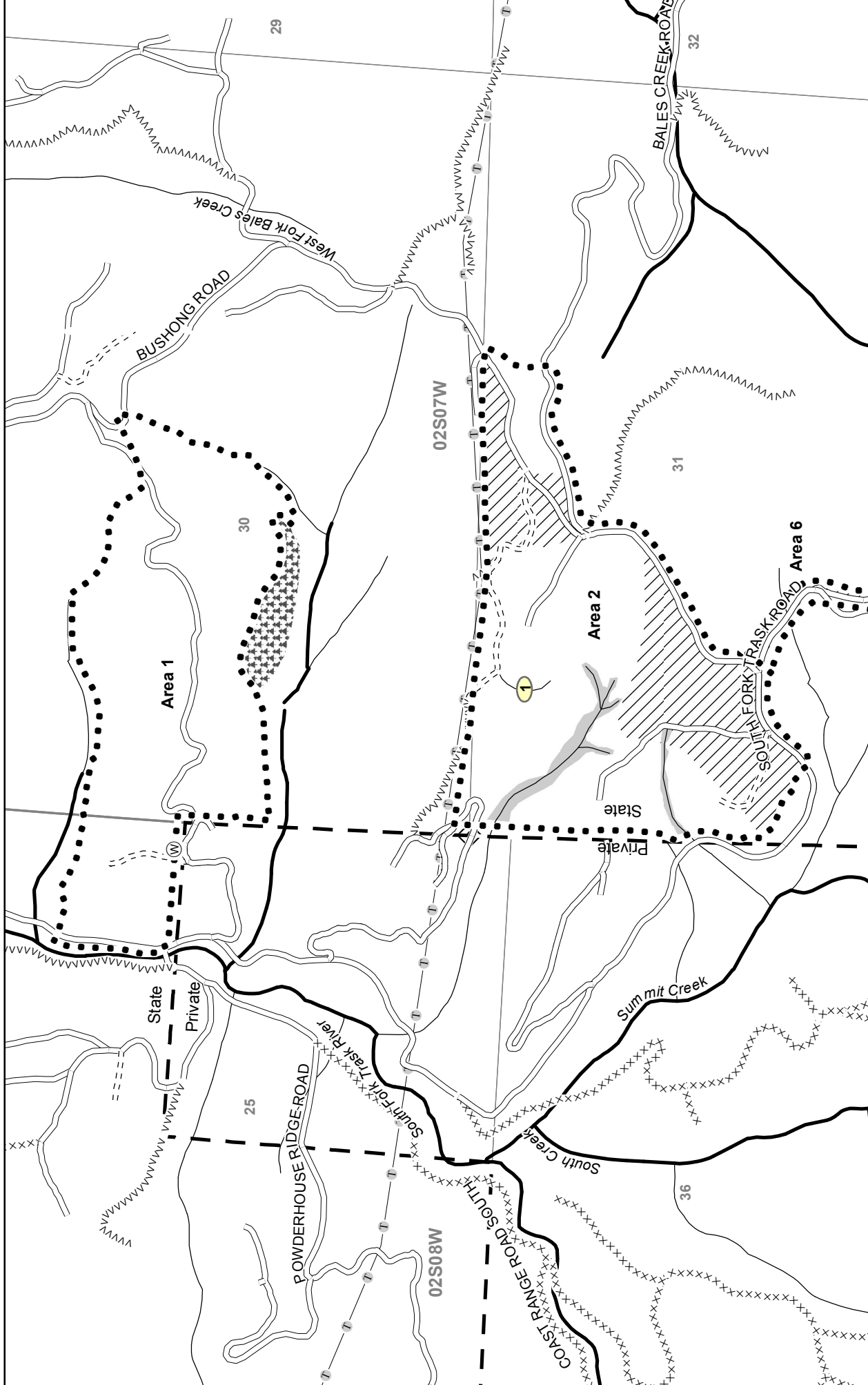
TC		TSTNDSUM		Stand Table Summary												
				Project		POWERB										
T02S R07W S31 TMC												T02S R07W S31 TMC				
Twp	Rge	Sec	Tract	Type				Acres		Plots	Sample Trees		Page:	1		
02S	07W	31	AREA2	MC				108.00		20	125		Date:	04/24/2011		
												Time:	9:58:31AM			
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.		Net Bd.Ft.	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF
DF		8	1	85	20	3.979	1.39	3.98	3.2	20.0	.37	13	80	40	14	9
DF		9	3	83	57	9.432	4.17	6.29	8.8	35.0	1.58	55	220	171	60	24
DF		11	4	84	75	8.419	5.56	10.52	12.7	46.0	3.80	133	484	411	144	52
DF		12	5	82	87	8.843	6.95	15.92	12.2	46.7	5.55	195	743	599	210	80
DF		13	3	84	102	4.521	4.17	9.04	15.9	61.7	4.10	144	558	443	155	60
DF		14	15	84	93	19.490	20.84	38.98	17.1	62.0	19.00	667	2,417	2,052	720	261
DF		15	12	84	96	13.582	16.67	27.16	20.6	77.1	15.99	560	2,094	1,727	605	226
DF		16	22	83	95	21.886	30.56	43.77	23.4	84.3	29.19	1,024	3,691	3,153	1,106	399
DF		17	15	84	88	13.218	20.84	25.55	26.0	92.4	18.97	665	2,362	2,048	719	255
DF		18	15	84	100	11.790	20.84	23.58	31.7	112.7	21.32	748	2,657	2,302	808	287
DF		19	9	84	99	6.349	12.50	13.40	33.0	111.1	12.62	443	1,489	1,363	478	161
DF		20	6	82	97	3.820	8.33	7.64	38.6	120.0	8.41	295	917	908	319	99
DF		21	4	84	101	2.310	5.56	5.20	38.3	130.0	5.67	199	676	613	215	73
DF		22	1	84	97	.526	1.39	1.05	46.2	140.0	1.39	49	147	150	53	16
DF		23	2	81	86	.963	2.78	1.93	47.8	140.0	2.62	92	270	283	99	29
DF		24	2	81	92	.884	2.78	1.77	54.4	175.0	2.74	96	309	296	104	33
DF		Totals	119	84	88	130.012	165.29	235.79	22.8	81.1	153.30	5,378	19,111	16,557	5,808	2,064
DL		16	2	85	95	1.990	2.78	3.98	23.2	85.0	2.53	92	338	274	100	37
DL		Totals	2	85	95	1.990	2.78	3.98	23.2	85.0	2.53	92	338	274	100	37
RA		17	1	79	75	.881	1.39	1.76	23.0	75.0	1.11	40	132	120	44	14
RA		Totals	1	79	75	.881	1.39	1.76	23.0	75.0	1.11	40	132	120	44	14
OC		15	1	83	33	1.132	1.39									
OC		16	1	82	60	.995	1.39									
OC		17	1	85	92	.881	1.39									
OC		Totals	3	83	59	3.008	4.17									
Totals		125	84	88		135.891	173.63	241.53	22.8	81.1	156.95	5510	19,582	16,951	5,951	2,115

TC		TSTNDSUM														Stand Table Summary																			
																		Project			POWERB														
T03S R07W S06 T0001																		T03S R07W S06 T0001																	
Twp		Rge		Sec		Tract		Type			Acres		Plots		Sample Trees		Page: 1																		
03S		07W		06		AREA 3		0001			37.00		5		31		Date: 04/04/2012																		
																		Time: 9:46:49AM																	
S Spc	T	Sample		FF 16'	Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s																					
		DBH	Trees						Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF																			
DF		10	1	84	81	10.187	5.56	20.37	6.1	30.0	3.54	124	611	131	46	23																			
DF		11	3	83	81	25.256	16.67	50.51	8.7	38.3	12.51	439	1,936	463	162	72																			
DF		12	7	83	80	49.519	38.89	99.04	10.4	42.9	29.30	1,028	4,244	1,084	380	157																			
DF		13	7	84	77	42.194	38.89	84.39	12.0	46.4	28.91	1,015	3,918	1,070	375	145																			
DF		14	3	84	72	15.592	16.67	31.18	13.3	50.0	11.85	416	1,559	439	154	58																			
DF		15	3	84	71	13.582	16.67	27.16	15.5	56.7	12.00	421	1,539	444	156	57																			
DF		17	2	81	97	7.050	11.11	14.10	26.8	95.0	10.79	378	1,339	399	140	50																			
DF		18	1	82	95	3.144	5.56	6.29	30.8	110.0	5.53	194	692	204	72	26																			
DF		20	1	82	102	2.547	5.56	5.09	39.1	135.0	5.68	199	688	210	74	25																			
DF		Totals		28	83 79	169.070	155.57	338.14	12.5	48.9	120.11	4,214	16,527	4,444	1,559	612																			
DL		25	1	82	103	1.630	5.56	3.26	61.3	215.0	5.50	200	701	203	74	26																			
DL		Totals		1	82 103	1.630	5.56	3.26	61.3	215.0	5.50	200	701	203	74	26																			
OC		51	1	83	17	.392	5.56																												
OC		84	1	99	17	.144	5.56																												
OC		Totals		2	87 17	.536	11.11																												
Totals		31		83 79		171.236	172.24	341.40	12.9	50.5	125.60	4414	17,228	4,647	1,633	637																			

TC		TSTNDSUM		Stand Table Summary													
				Project		POWERB											
T03S R07W S06 T0001												T03S R07W S06 T0001					
Twp	Rge	Sec	Tract	Type				Acres		Plots	Sample Trees			Page: 1			
03S	07W	06	AREA 4	0001				88.00		16	109			Date: 04/04/2011			
												Time: 9:53:34AM					
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s				
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.		Net Bd.Ft.	Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF	
DL		10	4	83	77	12.733	6.95	15.92	10.5	42.0	4.58	167	669	403	147	59	
DL		11	10	83	71	26.309	17.36	39.46	10.4	42.7	11.30	411	1,684	995	362	148	
DL		12	11	83	66	24.317	19.10	33.16	12.8	44.0	11.65	425	1,459	1,025	374	128	
DL		13	8	84	73	15.069	13.89	24.49	14.0	48.5	9.48	343	1,187	834	302	104	
DL		14	9	85	77	14.617	15.63	27.61	15.4	60.6	11.69	425	1,673	1,029	374	147	
DL		15	5	86	91	7.074	8.68	14.15	18.0	70.0	6.99	254	990	615	224	87	
DL		16	9	86	101	11.191	15.63	21.14	22.5	88.8	13.10	476	1,878	1,153	419	165	
DL		17	3	85	100	3.305	5.21	6.61	25.8	101.7	4.68	170	672	412	150	59	
DL		18	4	84	117	3.930	6.95	7.86	32.0	117.5	6.92	252	924	609	221	81	
DL		19	1	84	112	.882	1.74	1.76	36.8	120.0	1.78	65	212	157	57	19	
DL		23	2	85	79	1.204	3.47	2.41	42.5	135.0	2.81	102	325	248	90	29	
DL		25	1	84	78	.509	1.74	1.02	49.9	160.0	1.40	51	163	123	45	14	
DL		Totals		67	84	78	121.141	116.33	195.58	16.1	60.5	86.40	3,141	11,834	7,603	2,764	1,041
DF		9	1	92	59	3.930	1.74	3.93	8.3	40.0	.92	32	157	81	29	14	
DF		10	12	83	77	38.200	20.84	47.75	10.2	42.0	13.84	486	2,006	1,218	427	176	
DF		11	7	84	76	18.416	12.15	23.68	12.6	51.1	8.47	297	1,210	746	262	106	
DF		12	5	85	78	11.053	8.68	19.90	11.0	44.4	6.26	220	884	551	193	78	
DF		13	5	88	79	9.418	8.68	18.84	12.4	50.0	6.67	234	942	587	206	83	
DF		14	1	89	91	1.624	1.74	3.25	17.4	75.0	1.61	56	244	142	50	21	
DF		15	1	83	76	1.415	1.74	2.83	16.8	60.0	1.36	48	170	119	42	15	
DF		Totals		32	85	76	84.057	55.56	120.17	11.4	46.7	39.14	1,373	5,612	3,445	1,208	494
WL		10	2	84	69	6.367	3.47	6.37	13.6	40.0	2.78	87	255	244	76	22	
WL		11	1	85	64	2.631	1.74	2.63	15.9	40.0	1.34	42	105	118	37	9	
WL		16	1	84	73	1.243	1.74	2.49	19.6	75.0	1.56	49	187	137	43	16	
WL		Totals		4	84	68	10.241	6.95	11.48	15.5	47.6	5.68	178	546	500	156	48
RA		11	1	77	76	2.631	1.74	2.63	14.8	60.0	1.07	39	158	94	34	14	
RA		12	1	79	66	2.211	1.74	2.21	16.8	60.0	1.02	37	133	90	33	12	
RA		14	1	78	55	1.624	1.74	1.62	21.4	60.0	.95	35	97	84	31	9	
RA		Totals		3	78	67	6.466	5.21	6.47	17.2	60.0	3.05	111	388	269	98	34
OC		38	1	99	16	.331	2.60										
OC		42	1	98	17	.271	2.60										
OC		Totals		2	99	16	.601	5.21									
Totals		108		84	77	222.506	189.25	333.70	14.4	55.1	134.27	4802	18,381	11,816	4,226	1,618	

TC		TSTNDSUM															Stand Table Summary																											
															Project															POWERB														
T03S R07W S06 T0001																														T03S R07W S06 T0001														
Twp		Rge		Sec		Tract				Type		Acres		Plots		Sample Trees				Page:		1																						
03S		07W		06		AREA 5				0001		22.00		6		38				Date:		04/24/2012																						
																				Time:		10:00:11AM																						
S Spc	T	Sample		FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s																														
		DBH	Trees						Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF																												
DF		10	1	82	84	8.489	4.63	8.49	13.6	40.0	3.30	116	340	73	25	7																												
DF		11	5	86	62	35.078	23.15	35.08	14.1	44.0	14.06	493	1,543	309	109	34																												
DF		12	2	87	72	11.790	9.26	17.69	13.6	50.0	6.87	241	884	151	53	19																												
DF		13	4	86	72	20.092	18.52	35.16	13.5	54.3	13.58	476	1,909	299	105	42																												
DF		14	2	90	101	8.662	9.26	17.32	16.7	70.0	8.23	289	1,213	181	64	27																												
DF		15	6	87	100	22.637	27.78	45.27	18.2	70.8	23.44	823	3,207	516	181	71																												
DF		16	4	86	96	13.264	18.52	26.53	22.2	87.5	16.82	590	2,321	370	130	51																												
DF		17	5	87	106	14.687	23.15	26.44	27.9	107.8	20.97	737	2,849	461	162	63																												
DF		18	1	86	105	2.620	4.63	5.24	30.5	120.0	4.56	160	629	100	35	14																												
DF		19	1	86	118	2.352	4.63	4.70	35.3	130.0	4.74	166	611	104	37	13																												
DF		23	1	84	120	1.605	4.63	3.21	52.9	180.0	4.84	170	578	106	37	13																												
DF		Totals		32	86	84	141.276	148.16	225.13	18.9	71.4	121.40	4,261	16,084	2,671	937	354																											
WH		10	1	82	66	8.489	4.63	8.49	12.6	40.0	3.43	107	340	75	24	7																												
WH		11	1	83	59	7.016	4.63	7.02	15.1	40.0	3.40	106	281	75	23	6																												
WH		12	1	82	55	5.895	4.63	5.90	17.5	40.0	3.30	103	236	73	23	5																												
WH		14	1	82	71	4.331	4.63	8.66	14.8	55.0	4.11	128	476	90	28	10																												
WH		19	1	82	81	2.352	4.63	4.70	31.3	105.0	4.71	147	494	104	32	11																												
WH		Totals		5	82	64	28.082	23.15	34.76	17.0	52.5	18.94	592	1,826	417	130	40																											
DL		21	1	84	120	1.925	4.63	3.85	44.5	150.0	4.71	171	577	104	38	13																												
DL		Totals		1	84	120	1.925	4.63	3.85	44.5	150.0	4.71	171	577	104	38	13																											
Totals				38	86	81	171.283	175.94	263.74	19.0	70.1	145.05	5024	18,488	3,191	1,105	407																											

TC		TSTNDSUM		Stand Table Summary													
Project														POWERB			
T02S R08W S02 TALL														T02S R08W S02 TALL			
Twp	Rge	Sec	Tract		Type			Acres		Plots	Sample Trees			Page:	1		
02S	08W	02	DAYLIGHTING		ALL			6.00		6	29			Date:	04/25/2011		
														Time:	2:47:27PM		
S Spc	T	Sample		FF	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net	Net	T o t a l s			
		DBH	Trees	16'	Tot				Net Cu.Ft.	Net Bd.Ft.		Cu.Ft. Acre	Bd.Ft. Acre	Tons	Cunits	MBF	
DF		12	2	83	49	12.667	9.95	12.67	13.7	31.5	4.96	174	399	30	10	2	
DF		13	1	88	48	6.333	5.84	6.33	17.0	36.0	2.99	108	228	18	6	1	
DF		14	2	86	83	12.667	13.54	19.00	19.9	66.0	10.78	378	1,254	65	23	8	
DF		15	4	82	79	25.333	31.09	50.67	17.5	51.7	25.12	886	2,622	151	53	16	
DF		16	1	86	94	6.333	8.84	12.67	23.0	81.0	8.31	291	1,026	50	17	6	
DF		17	2	84	110	12.667	19.97	25.33	30.6	103.5	22.11	776	2,622	133	47	16	
DF		18	1	86	121	6.333	11.19	19.00	24.9	84.0	13.49	473	1,596	81	28	10	
DF		19	3	84	103	19.000	37.41	44.33	32.1	101.6	40.55	1,423	4,503	243	85	27	
DF		21	1	86	97	6.333	15.23	12.67	41.6	126.0	15.02	527	1,596	90	32	10	
DF		22	2	84	104	12.667	33.44	31.67	38.7	124.2	34.91	1,225	3,933	209	73	24	
DF		23	1	86	105	6.333	18.27	12.67	53.6	193.5	19.35	679	2,451	116	41	15	
DF		24	2	83	114	12.667	39.79	31.67	48.7	163.8	44.06	1,544	5,187	264	93	31	
DF		31	1	83	120	6.333	33.20	19.00	71.9	279.0	38.95	1,367	5,301	234	82	32	
DF		Totals		23	84	93	145.667	277.76	297.67	33.1	109.9	280.61	9,851	32,718	1,684	591	196
RA		12	1	82	75	6.333	4.97	6.33	21.1	70.0	3.67	133	443	22	8	3	
RA		13	1	80	58	6.333	5.84	6.33	20.7	60.0	3.60	131	380	22	8	2	
RA		14	2	77	51	12.667	13.54	12.67	15.6	40.0	5.39	198	507	32	12	3	
RA		15	1	80	71	6.333	7.77	6.33	35.0	90.0	6.08	222	570	36	13	3	
RA		Totals		5	79	61	31.667	32.12	31.67	21.6	60.0	18.74	684	1,900	112	41	11
WH		15	1	89	51	6.333	7.77	6.33	23.5	40.0	4.76	149	253	29	9	2	
WH		Totals		1	89	51	6.333	7.77	6.33	23.5	40.0	4.76	149	253	29	9	2
Totals		29		83	86	183.667	317.66	335.67	31.8	103.9	304.12	10684	34,871	1,825	641	209	



Rock source

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

Landing

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

Restricted area

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

Swing road

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

LOGGING PLAN

Timber Sale Contract No. 341-13-076

POWER BALES

Portions of Sections 30 and 31, T2S, R7W,
Section 25, T2S, R8W, and
Section 6, T3S, R7W, W.M.,
Tillamook County, Oregon

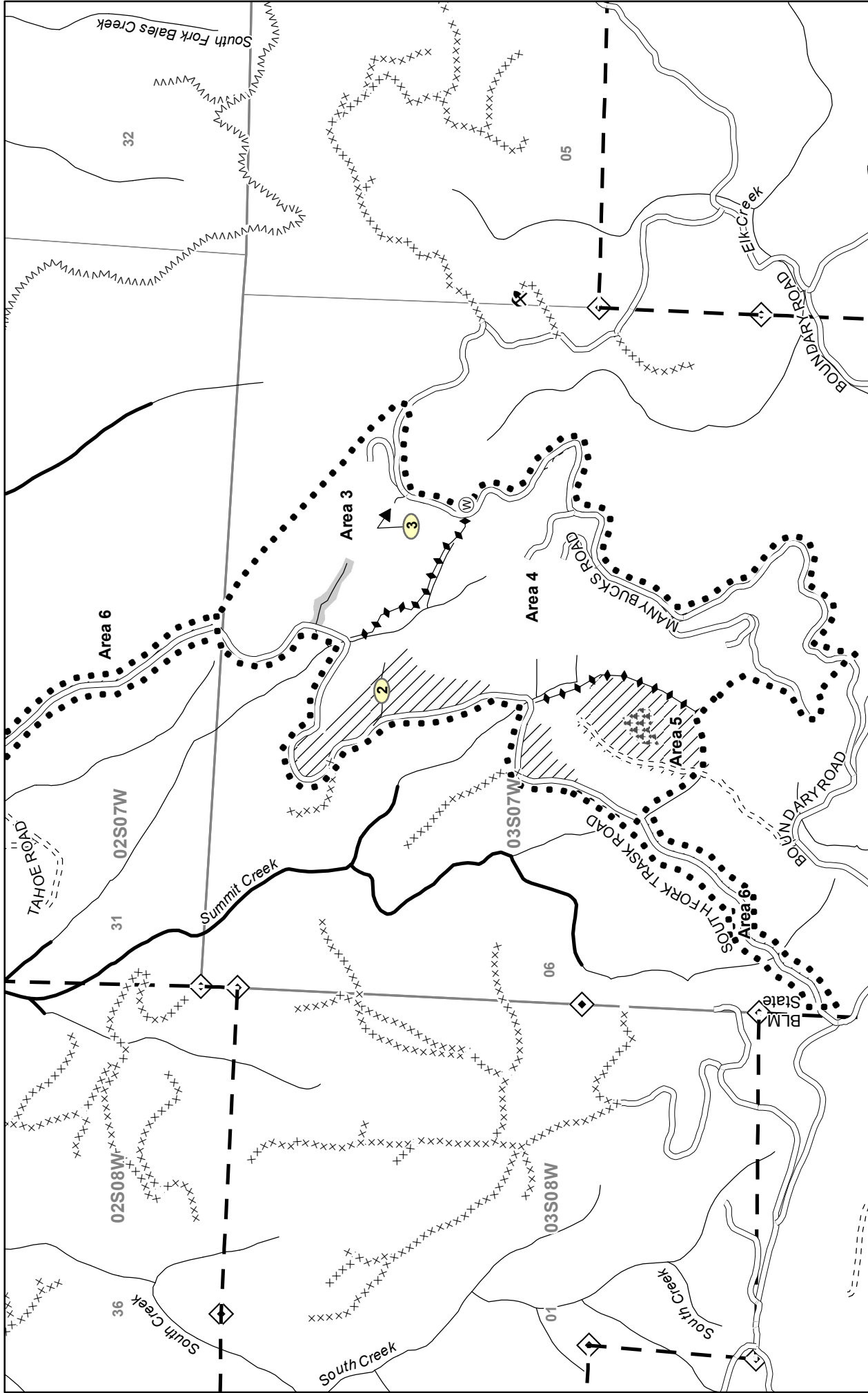
N

1,000

1,000 Feet

Area	Type of Operation	Acres
1	Modified clearcut	108
2	Modified clearcut	118
3	Modified clearcut	39
4	Partial cut	93
5	Modified clearcut	24
6	Right-of-way	7
Total		389

Tillamook District GIS
08/27/2012
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LOGGING PLAN

Timber Sale Contract No. 341-13-076
POWER BALES
 Portions of Sections 30 and 31, T2S, R7W,
 Section 25, T2S, R8W, and
 Section 6, T3S, R7W, W.M.,
 Tillamook County, Oregon

Legend

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

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

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

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

Scale

 0 1,000 1,000 Feet

North Arrow

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

Area

Area	Type of Operation	Acres
1	Modified clearcut	108
2	Modified clearcut	118
3	Modified clearcut	39
4	Partial cut	93
5	Modified clearcut	24
6	Right-of-way	7
Total		389

Tillamook District GIS
06/27/2012
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