



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sharp Ridge
Sale 341-10-35

District: Tillamook

Date: December 11, 2009

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$215,330.02	\$0.00	\$215,330.02
		Project Work:	\$(35,260.00)
		Advertised Value:	\$180,070.02



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 Sharp Ridge
 Sale 341-10-35

District: Tillamook

Date: December 11, 2009

timber description

Location: Portions of Sections 19, 20, and 30, T1N, R9W, W.M.,
 Tillamook County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	24	0	95
Western Hemlock / Fir	19	0	95
Sitka Spruce	19	0	95

Volume by Grade	2S	3S	4S	SM	Total
Douglas - Fir	650	236	49	49	984
Western Hemlock / Fir	331	235	45	26	637
Sitka Spruce	19	34	9	0	62
Total	1,000	505	103	75	1,683



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comments: Pond Values Used: 3rd Quarter Calendar Year 2009.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost
 $\$563/\text{MBF} = \$740/\text{MBF} - \$177/\text{MBF}$

Red Alder & Other Hardwoods Stumpage Price = Pond Value minus
Logging Cost
 $\$358/\text{MBF} = \$535/\text{MBF} - \$177/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$700 daily truck cost.

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

Brand and Paint: $\$2/\text{MBF} \times 1,718 \text{ MBF} = \$3,436$

Snag Creation: $\$40/\text{snag} \times 54 \text{ snags} = \$2,160$

TOTAL Other Costs (with Profit and Risk to be added) = \$5,596

Other Costs (No Profit & Risk added):

Slash Piling and Sorting: $\$1.20 \text{ acre of Partial Cut harvest} \times 54 \text{ acres} = \64.80

Tank trap installation on un-surfaced road and road vacating: $1 \times \$75 + \$300 = \$375$

Road vacating shall include water bars and slashing road segments A-B and C-D.

TOTAL Other Costs (No Profit & Risk added) = \$439.80

ROAD MAINTENANCE

Final Grading: $\$500/\text{mile} \times 6 \text{ miles} / 1718 \text{ MBF} = \$1.75/\text{MBF}$

Spot rocking: $(\$15.00/\text{cy} \times 6 \text{ miles} \times 10\text{cy}/\text{MMBF}/\text{mile} \times 1.7\text{MMBF}) / 1718 \text{ MBF} = \0.89

TOTAL ROAD MAINTENANCE COST: \$ 2.64 / MBF



"STEWARDSHIP IN FORESTRY"

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logging conditions

combination#: 1

	Douglas - Fir	89.43%
	Western Hemlock / Fir	93.88%
	Sitka Spruce	93.55%
yarding distance:	Short (400 ft)	downhill yarding: No
logging system:	Cable: Small Tower <=40	Process: Manual Delimiting
tree size:	Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	7.0	bd. ft / load: 4,800
cost / mbf:	\$80.39	
machines:	Log Loader (A) Tower Yarder (Small)	

combination#: 2

	Douglas - Fir	10.57%
	Western Hemlock / Fir	6.12%
	Sitka Spruce	6.45%
yarding distance:	Short (400 ft)	downhill yarding: No
logging system:	Shovel	Process: Manual Delimiting
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	13.0	bd. ft / load: 4,800
cost / mbf:	\$40.14	
machines:	Shovel Logger	



Timber Sale Appraisal
 Sharp Ridge
 Sale 341-10-35

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: December 11, 2009

logging costs

Operating Seasons:	1.00	Profit Risk:	15.00%
Project Costs:	\$35,260.00	Other Costs (P/R):	\$439.80
Slash Disposal:	\$0.00	Other Costs:	\$5,596.00

Miles of Road

Road Maintenance: \$2.64

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

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$80.00	2.0	4.0
Western Hemlock / Fir	\$56.70	3.0	4.0
Sitka Spruce	\$59.70	3.0	4.0
Alder (Red)	\$55.60	3.0	2.5



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
 Sharp Ridge
 Sale 341-10-35

District: Tillamook

Date: December 11, 2009

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$76.14	\$2.77	\$2.61	\$83.99	\$0.26	\$24.87	\$0.00	\$5.00	\$3.33	\$198.97
Western Hemlock / Fir									
\$77.93	\$2.77	\$2.61	\$59.49	\$0.26	\$21.46	\$0.00	\$5.00	\$3.33	\$172.85
Sitka Spruce									
\$77.79	\$2.77	\$2.61	\$62.68	\$0.26	\$21.92	\$0.00	\$5.00	\$3.33	\$176.36

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$347.60	\$148.63	\$0.00
Western Hemlock / Fir	\$0.00	\$269.07	\$96.22	\$0.00
Sitka Spruce	\$0.00	\$301.94	\$125.58	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sharp Ridge
Sale 341-10-35

District: Tillamook

Date: December 11, 2009

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	984	\$148.63	\$146,251.92
Western Hemlock / Fir	637	\$96.22	\$61,292.14
Sitka Spruce	62	\$125.58	\$7,785.96

Gross Timber Sale Value

Recovery: \$215,330.02

Prepared by: Nick Stumpf

Phone: 503-842-2545



"STEWARDSHIP IN FORESTRY"

Sharp Ridge

Volume Summary

Area 1 - Harvest Type							PC
54 acres							
SPECIES	QMD	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	23.6	76	225	17.1	926	5%	880
Hemlock	19.4	54	216	11.7	630	5%	598
Spruce	17.8	8	137	1.1	60	5%	57
Noble Fir				0.0	0	5%	0
TOTAL					1616		1535

Right Of Way Clearing							
2 acres							
SPECIES	QMD	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	26.4	245	225	55.1	110	5%	105
Hemlock	21.9	95	216	20.5	41	5%	39
Spruce	42.6	19	137	2.6	5	5%	5
Noble Fir				0.0	0	5%	0
TOTAL					156		149

TOTAL SALE VOLUME			56 acres
SPECIES	Gross Vol. (MBF)	Net Vol. (MBF)	
Douglas-fir	1036	984	
Hemlock	671	637	
Spruce	66	62	
Noble Fir	0	0	
TOTAL	1773	1683	

TC TLOGSTVB

Log Stock Table - MBF
Project: **SRDG2**

T01N R09W S20 TRECO

T01N R09W S20 TREC

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
 01N 09W 20 AREA1 RECO 54.00 20 134 1
 Date 11/2/2009
 Time 3:10:51PM

SPP	T	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches										
										MBF	MBF	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23
DL		DO	SM	40		411		411	16.9							154	233	25		
DL		DO	2M	32		15		15	.6						7	8				
DL		DO	2M	40		1,596	.2	1,593	65.4				8	184	359	532	375	135		
DL		DO	3M	17		3		3	.1					3						
DL		DO	3M	19		5		5	.2			4		1						
DL		DO	3M	20		2		2	.1			2								
DL		DO	3M	24		2		2	.1					2						
DL		DO	3M	26		4		4	.1					4						
DL		DO	3M	29		2		2	.1		2									
DL		DO	3M	30		1		1	.1		1									
DL		DO	3M	31		2		2	.1					2						
DL		DO	3M	32		40		40	1.6		2	11	10		18					
DL		DO	3M	33		12		12	.5		2	4	5							
DL		DO	3M	34		7		7	.3			7								
DL		DO	3M	35		2		2	.1			2								
DL		DO	3M	36		2		2	.1		2									
DL		DO	3M	40		290	.1	290	11.9		10	35	51	27	38	86	21	22		
DL		DO	4M	14		1		1	.0		1									
DL		DO	4M	15		1		1	.0			1								
DL		DO	4M	16		1		1	.0			1								
DL		DO	4M	17		4		4	.2		2	2								
DL		DO	4M	19		2		2	.1			2								
DL		DO	4M	20		3		3	.1	1			2							
DL		DO	4M	21		1		1	.1			1								
DL		DO	4M	27		3		3	.1		2	2								
DL		DO	4M	28		6		6	.2		6									
DL		DO	4M	39		5		5	.2		5									
DL		DO	4M	40		16		16	.7		3	13								
DL		Totals				2,439		2,436	50.5		16	35	64	80	44	247	453	707	630	160
DF		DO	SM	40		52	5.0	49	5.3							24	25			
DF		DO	2M	32		8	5.0	8	.9							8				
DF		DO	2M	40		662	5.3	627	67.6				31	96	309	191				
DF		DO	3M	19		1	5.0	1	.1			1								
DF		DO	3M	24		1	5.0	1	.1			1								
DF		DO	3M	30		2	5.0	2	.2		2									
DF		DO	3M	32		31	5.0	30	3.2		2	6	10	11						
DF		DO	3M	34		2	5.0	2	.2		2									
DF		DO	3M	35		3	5.0	2	.3			2								
DF		DO	3M	40		186	5.0	177	19.1		12	14	83	45	24					
DF		DO	4M	14		1	5.0	1	.1			1								
DF		DO	4M	15		2	5.0	2	.2		2									
DF		DO	4M	16		1	5.0	1	.1			1								
DF		DO	4M	17		1	5.0	1	.1		1									
DF		DO	4M	19		1	5.0	1	.1			1								
DF		DO	4M	22		1	5.0	1	.1		1									
DF		DO	4M	23		3	5.0	3	.3		2	1								
DF		DO	4M	26		3	5.0	3	.3		2	1								
DF		DO	4M	27		2	5.0	2	.2			2								
DF		DO	4M	30		4	5.0	4	.4		4									

TC TLOGSTVB

Log Stock Table - MBF

Project: SRDG2

T01N R09W S20 TRECO

T01N R09W S20 TREC

Twp Rge Sec Tract Type Acres Plots Sample Trees
 01N 09W 20 AREA1 RECO 54.00 20 134

Page 2
 Date 11/2/2009
 Time 3:10:51PM

Spp	T	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
DF		DO	4M	32		6	5.0	6	.6		3	3									
DF		DO	4M	39		2	5.0	2	.3		2										
DF		DO	4M	40		2	5.0	2	.2		2										
DF		Totals				979	5.2	928	19.2		14	29	28	93	88	119	317	215	25		
WH		DO	SM	40		27	5.0	26	4.0									26			
WH		DO	2M	40		348	5.0	331	52.2					21	90	120	101				
WH		DO	3M	32		54	5.0	51	8.0			25	18	8							
WH		DO	3M	33		4	5.0	4	.6		4										
WH		DO	3M	34		3	5.0	3	.5		3										
WH		DO	3M	35		6	5.0	6	.9		6										
WH		DO	3M	40		182	5.0	172	27.2		4	12	54	55	48						
WH		DO	4M	15		4	5.0	3	.5		3										
WH		DO	4M	19		2	5.0	2	.3		2										
WH		DO	4M	20		1	5.0	1	.2		1										
WH		DO	4M	21		4	5.0	4	.6		4										
WH		DO	4M	22		2	5.0	1	.2		1										
WH		DO	4M	27		2	5.0	2	.3			2									
WH		DO	4M	40		29	5.0	27	4.3		2	12	14								
WH		Totals				667	5.0	634	13.1		2	41	52	72	83	137	120	126			
WL		DO	SM	40		134		134	23.5									79	29	27	
WL		DO	2M	32		16		16	2.8					7		9					
WL		DO	2M	40		338	2.1	330	57.7					9	10	108	66	112	26		
WL		DO	3M	16		1		1	.2				1								
WL		DO	3M	27		2		2	.3			2									
WL		DO	3M	32		17		17	2.9				6	5		6					
WL		DO	3M	33		2		2	.4				2								
WL		DO	3M	35		2		2	.4					2							
WL		DO	3M	40		56		56	9.8		2	3	24		27						
WL		DO	4M	14		1		1	.1			1									
WL		DO	4M	15		1		1	.2		1										
WL		DO	4M	17		2		2	.3		2										
WL		DO	4M	18		2		2	.4		2										
WL		DO	4M	22		3		3	.5		1	1									
WL		DO	4M	23		1		1	.2			1									
WL		DO	4M	34		2		2	.4		2										
WL		Totals				580	1.2	572	11.9		11	8	33	23	37	123	145	141	52		
SL		DO	2M	40		134		134	85.7						35	18	28	53			
SL		DO	3M	22		1		1	.8			1									
SL		DO	3M	26		2		2	1.3					2							
SL		DO	3M	30		2		2	1.0			2									
SL		DO	3M	32		7		7	4.4					7							
SL		DO	3M	40		9		9	6.0								9				
SL		DO	4M	21		1		1	.8		1										
SL		Totals				156		156	3.2		1	3		9		35	28	28	53		
SS		DO	2M	40		20	5.0	19	31.3						19						

TC TLOGSTVB

Log Stock Table - MBF
Project: SRDG2

T01N R09W S20 TRECO

T01N R09W S20 TREC

Twp Rge Sec Tract
 01N 09W 20 AREA1

Type Acres Plots Sample Trees
 RECO 54.00 20 134

Page 3
 Date 11/2/2009
 Time 3:10:51PM

Spp	T	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches										
										MBF	Def	MBF	Spe	2-3	4-5	6-7	8-9	10-11	12-13	14-15
SS		DO	3M	32		13	5.0	12	20.1				6	6						
SS		DO	3M	40		22	5.0	21	34.1						21					
SS		DO	4M	15		2	5.0	2	3.7			2								
SS		DO	4M	34		7	5.0	7	10.8			7								
SS		Totals				63	5.0	60	1.3			9	6	6		21	19			
RA		DO	CR	52		20	5.0	19	49.3				19							
RA		DO	CR	60		20	5.0	19	50.7				19							
RA		Totals				40	5.0	38	.8				38							
Total All Species						4,923	2.0	4,823	100.0		32	126	199	285	246	560	1066	1220	824	265

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page 1							
		Project: SRDG2										Date 11/2/2009							
												Time 3:13:44PM							
T01N R09W S20 TRECO										T01N R09W S20 TRECO									
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt										
01N	09W	20	AREA1	RECO	54.00	20	134	S	W										
Spp	So	Gr	%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log			Logs Per /Acre
				Net	Def%	Gross		Net	Log Scale Dia.				Log Length				Ln	Bd	
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99				
DL	DO	SM	16		7,615	7,615	411					100			100	40	1073	4.42	7.1
DL	DO	2M	66	.2	29,834	29,777	1,608			15	85			1	99	40	662	2.98	44.9
DL	DO	3M	16	.1	6,932	6,926	374		41	33	26		3	2	17	36	175	1.23	39.7
DL	DO	4M	2		785	785	42	38	62				27	24	49	29	39	0.44	20.3
DL	Totals		50	.1	45,165	45,102	2,436	1	7	15	77	1	1	3	95	36	402	2.11	112.1
DF	DO	SM	5	5.0	955	907	49					100			100	40	987	4.18	.9
DF	DO	2M	68	5.3	12,415	11,762	635			33	67			1	99	40	437	2.18	26.9
DF	DO	3M	24	5.0	4,211	4,001	216		63	37			1	2	16	37	139	0.96	28.8
DF	DO	4M	3	5.0	542	515	28	50	50				18	45	22	26	29	0.43	17.5
DF	Totals		19	5.2	18,124	17,185	928	1	16	31	51	1	2	5	92	36	232	1.41	74.2
WH	DO	SM	4	5.0	499	474	26					100			100	40	798	3.46	.6
WH	DO	2M	52	5.0	6,452	6,129	331			33	67				100	40	430	2.06	14.2
WH	DO	3M	37	5.0	4,603	4,373	236		53	47				27	73	37	135	0.91	32.5
WH	DO	4M	7	5.0	797	757	41	4	96				16	18	66	28	43	0.45	17.5
WH	Totals		13	5.0	12,350	11,732	634	0	26	35	39	1	1	10	88	35	181	1.13	64.8
WL	DO	SM	23		2,489	2,489	134					100			100	40	1036	4.28	2.4
WL	DO	2M	60	2.0	6,544	6,410	346			22	78			5	95	39	610	2.89	10.5
WL	DO	3M	14		1,484	1,484	80		50	42	7		1	2	27	37	175	1.22	8.5
WL	DO	4M	3		218	218	12	100					49	32	19	20	29	0.55	7.5
WL	Totals		12	1.2	10,735	10,601	572	9	19	72		1	1	7	91	33	366	2.13	28.9
SL	DO	2M	85		2,473	2,473	134					100			100	40	969	4.24	2.6
SL	DO	3M	14		389	389	21		14	42	44			23	33	30	181	1.65	2.1
SL	DO	4M	1		24	24	1	100						100		21	30	0.53	.8
SL	Totals		3		2,885	2,885	156	3	6	92			4	4	92	33	525	3.00	5.5
SS	DO	2M	31	5.0	367	349	19					100			100	40	437	2.49	.8
SS	DO	3M	54	5.0	637	605	33		37	63				37	63	35	170	1.17	3.6
SS	DO	4M	15	5.0	171	162	9		100				26	74		25	34	0.56	4.7
SS	Totals		1	5.0	1,176	1,117	60		35	34	31		4	31	65	30	123	1.06	9.1
RA	DO	CR	100	5.0	736	699	38		100						100	56	225	1.16	3.1
RA	Totals		1	5.0	736	699	38		100						100	56	225	1.16	3.1
Type Totals				2.0	91,170	89,322	4,823	1	13	21	66	1	1	5	93	36	300	1.70	297.7

Stand Table Summary																
TC TSINDSUM																
Project SRDG2																
T01N R09W S20 TRECO											T01N R09W S20 TREC					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	2							
01N	09W	20	AREA1	RECO	54.00	20	134	Date:	11/02/2001							
								Time:	3:14:50PM							
S Spc	T	Sample DBH	FF Trees	Av Ht 16' Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
								Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
WH		27	2	91	135	1.369	5.45	4.11	71.3	354.7	9.38	293	1,457	506	158	79
WH		28	1	88	150	.637	2.72	2.55	64.5	330.1	5.25	164	841	284	89	45
WH		29	1	91	141	.594	2.72	1.78	87.0	440.2	4.96	155	784	268	84	42
WH		Totals	20	89	106	26.390	54.45	64.83	39.6	181.0	82.18	2,568	11,732	4,438	1,387	634
WL		16	1	87	70	1.950	2.72	3.90	22.8	85.0	2.84	89	331	153	48	18
WL		22	1	91	110	1.031	2.72	3.09	40.4	190.0	4.00	125	588	216	67	32
WL		24	1	83	100	.867	2.72	2.60	42.5	180.0	3.53	110	468	191	60	25
WL		25	1	90	105	.799	2.72	2.40	49.1	236.7	3.77	118	567	203	64	31
WL		27	3	91	126	2.054	8.17	6.16	68.6	357.8	13.53	423	2,205	731	228	119
WL		31	2	90	115	1.039	5.45	3.12	83.3	440.0	8.31	260	1,371	449	140	74
WL		32	2	90	145	.975	5.45	3.41	92.9	508.6	10.15	317	1,735	548	171	94
WL		34	1	91	124	.432	2.72	1.30	110.5	616.7	4.58	143	799	247	77	43
WL		38	1	90	136	.346	2.72	1.04	145.9	740.0	4.84	151	767	262	82	41
WL		41	1	91	158	.297	2.72	1.19	140.9	800.0	5.36	167	950	289	90	51
WL		45	1	89	131	.246	2.72	.74	204.9	1106.7	4.85	152	818	262	82	44
WL		Totals	15	89	112	10.035	40.84	28.94	71.0	366.3	65.75	2,055	10,601	3,551	1,110	572
SL		25	1	87	111	.799	2.72	2.40	51.8	240.0	3.23	124	575	174	67	31
SL		32	1	90	98	.487	2.72	.97	92.1	375.0	2.33	90	366	126	48	20
SL		35	1	90	132	.407	2.72	1.22	116.5	616.7	3.70	142	754	200	77	41
SL		47	1	91	178	.226	2.72	.90	210.2	1317.5	4.94	190	1,191	267	103	64
SL		Totals	4	89	120	1.920	10.89	5.50	99.4	524.9	14.20	546	2,885	767	295	156
SS		14	1	82	70	2.547	2.72	2.55	21.5	47.5	1.42	55	121	77	30	7
SS		19	1	90	100	1.383	2.72	4.15	29.9	126.7	3.23	124	525	174	67	28
SS		25	1	86	106	.799	2.72	2.40	47.3	196.3	2.95	113	470	159	61	25
SS		Totals	3	85	85	4.728	8.17	9.09	32.1	122.8	7.60	292	1,117	410	158	60
RA		17	1	79	70	1.727	2.72	1.73	55.0	199.5	2.61	95	345	141	51	19
RA		19	1	80	90	1.383	2.72	1.38	75.9	256.5	2.89	105	355	156	57	19
RA		Totals	2	79	79	3.110	5.45	3.11	64.3	224.8	5.50	200	699	297	108	38
Totals			134	88	115	110.849	364.82	297.71	60.3	300.0	517.35	17967	89,322	27,937	9,702	4,823

Volume Relationships by Species

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State	County	Project	Twn	Rng	Sec	Tract	Type No.	Acres
		SRDG2						54.00

Item	Species								
	Total	DL	DF	WH	WL	SL	SS	RA	
Total Gross Cunits	9,702	4,634	2,011	1,387	1,110	295	158	108	
Total Net Cunits	9,702	4,634	2,011	1,387	1,110	295	158	108	
Total Gross MBF	4,923	2,439	979	667	580	156	63	40	
Total Net MBF	4,823	2,436	928	634	572	156	60	38	
Total Tons	27,937	12,743	5,731	4,438	3,551	767	410	297	
BA / Acre	364.82	168.80	76.23	54.45	40.84	10.89	8.17	5.45	
Trees / Acre	110.849	39.739	24.927	26.390	10.035	1.920	4.728	3.110	
QM DBH	24.6	27.9	23.7	19.4	27.3	32.3	17.8	17.9	
Gross CuFt / Acre	17,966	8,581	3,724	2,568	2,055	546	292	200	
Net CuFt / Acre	17,967	8,581	3,724	2,568	2,055	546	292	200	
Net / Gross Ratio	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	
Gross BdFt / Acre	91,170	45,165	18,124	12,350	10,735	2,885	1,176	736	
Net BdFt / Acre	89,322	45,102	17,185	11,732	10,601	2,885	1,117	699	
Net / Gross Ratio	0.980	0.999	0.948	0.950	0.988	1.000	0.950	0.950	
Tons / Acre	517	236	106	82	66	14	8	6	
Logs Per Acre	298	112	74	65	29	5	9	3	
Avg Log Length	36.6	36.0	35.0	34.0	32.0	33.0	30.0	56.0	
Lineal Ft Per Acre	10,888	4,034	2,596	2,204	926	181	273	174	
G CuFt / SqFt BA	49.2	50.8	48.8	47.2	50.3	50.2	35.8	36.7	
N CuFt / SqFt BA	49.2	50.8	48.8	47.2	50.3	50.2	35.8	36.7	
G BdFt / SqFt BA	249.9	267.6	237.8	226.8	262.9	265.0	143.9	135.2	
N BdFt / SqFt BA	244.8	267.2	225.4	215.5	259.6	265.0	136.7	128.4	
Tons / SqFt BA	1.42	1.40	1.39	1.51	1.61	1.30	0.93	1.01	
G CuFt / G MBF	197	190	205	208	191	189	249	272	
N CuFt / N MBF	201	190	217	219	194	189	262	286	
G BdFt / G CuFt	5.07	5.26	4.87	4.81	5.22	5.28	4.02	3.68	
N Bdft / N CuFt	4.97	5.26	4.61	4.57	5.16	5.28	3.82	3.50	
Tons / G CCF	2.88	2.75	2.85	3.20	3.20	2.60	2.60	2.75	
Tons / G MBF	5.67	5.22	5.86	6.65	6.13	4.92	6.46	7.47	
Lbs / G CuFt	57.59	55.00	57.00	64.00	64.00	52.00	52.00	55.00	
Lbs / N BdFt	11.58	10.46	12.35	14.01	12.41	9.85	13.60	15.73	
N CuFt / Lineal Ft	1.65	2.13	1.43	1.17	2.22	3.01	1.07	1.15	
N BdFt / Lineal Ft	8.20	11.18	6.62	5.32	11.45	15.91	4.09	4.02	
Lbs / Lineal Ft	95.03	116.98	81.76	74.57	142.00	156.60	55.71	63.17	

TC TSTATS				STATISTICS				PAGE	1	
				PROJECT	SRDG2			DATE	11/2/2009	
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
01N	09W	20	AREA1	RECO	54.00	20	134	S	W	
		PLOTS	TREES	TREES	ESTIMATED	PERCENT				
				PER PLOT	TOTAL	SAMPLE				
					TREES	TREES				
TOTAL		20	134	6.7						
CRUISE		20	134	6.7	5,986	2.2				
DBH COUNT										
REFOREST										
COUNT										
BLANKS										
100 %										
STAND SUMMARY										
	SAMPLE	TREES	AVG	BOLE	REL	BASAL	GROSS	NET	GROSS	NET
	TREES	/ACRE	DBH	LEN	DEN	AREA	BF/AC	BF/AC	CF/AC	CF/AC
DF-LEAVE	62	39.7	27.9	106		168.8	45,165	45,102	8,581	8,581
DOUG FIR	28	24.9	23.7	109	17	76.2	18,124	17,185	3,724	3,724
WHEMLOCK	20	26.4	19.5	90	10	54.5	12,350	11,732	2,568	2,568
WH-LEAVE	15	10.0	27.3	99		40.8	10,735	10,601	2,055	2,055
SL-LEAVE	4	1.9	32.3	98		10.9	2,885	2,885	546	546
S SPRUCE	3	4.7	17.8	60		8.2	1,176	1,117	292	292
R ALDER	2	3.1	17.9	59		5.4	736	699	200	200
TOTAL	134	110.8	24.6	99		364.8	91,170	89,322	17,966	17,967
CONFIDENCE LIMITS OF THE SAMPLE										
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR										
CL:	68.1 %	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF-LEAVE		55.0	7.0	1,467	1,577	1,687				
DOUG FIR		48.6	9.3	747	824	902				
WHEMLOCK		65.2	15.0	523	615	707				
WH-LEAVE		62.6	16.7	1,222	1,467	1,712				
SL-LEAVE		100.0	57.1	921	2,148	3,374				
S SPRUCE		80.6	55.8	150	339	528				
R ALDER		17.7	16.6	190	228	266				
TOTAL		72.8	6.3	1,155	1,233	1,310	212	53	24	
CL:	68.1 %	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF-LEAVE		46.4	5.9	275	292	309				
DOUG FIR		40.6	7.8	160	174	187				
WHEMLOCK		58.0	13.3	113	130	147				
WH-LEAVE		58.2	15.5	234	277	320				
SL-LEAVE		82.9	47.4	201	382	564				
S SPRUCE		71.6	49.5	43	84	126				
R ALDER		22.6	21.1	52	65	79				
TOTAL		61.5	5.3	224	236	249	151	38	17	
CL:	68.1 %	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF-LEAVE		96.7	22.2	31	40	49				
DOUG FIR		91.3	20.9	20	25	30				
WHEMLOCK		122.8	28.2	19	26	34				
WH-LEAVE		177.9	40.8	6	10	14				
SL-LEAVE		227.8	52.2	1	2	3				
S SPRUCE		273.1	62.6	2	5	8				
R ALDER		309.9	71.0	1	3	5				
TOTAL		46.4	10.6	99	111	123	90	23	10	
CL:	68.1 %	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.	
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	

TC TSTATS		STATISTICS						PAGE	2	
		PROJECT		SRDG2		DATE		11/2/2009		
TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
01N	09W	20	AREA1	RECO	54.00	20	134	S	W	
CL:	68.1 %	COEFF	BASAL AREA/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15	
DF-LEAVE		46.7	10.7	151	169	187				
DOUG FIR		87.9	20.2	61	76	92				
WHEMLOCK		117.0	26.8	40	54	69				
WH-LEAVE		166.8	38.2	25	41	56				
SL-LEAVE		205.2	47.0	6	11	16				
S SPRUCE		244.2	56.0	4	8	13				
R ALDER		307.8	70.6	2	5	9				
TOTAL		26.1	6.0	343	365	387	29	7	3	
CL:	68.1 %	COEFF	NET BF/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF-LEAVE		42.4	9.7	40,720	45,102	49,485				
DOUG FIR		96.3	22.1	13,392	17,185	20,979				
WHEMLOCK		135.2	31.0	8,096	11,732	15,368				
WH-LEAVE		169.9	39.0	6,471	10,601	14,730				
SL-LEAVE		226.8	52.0	1,385	2,885	4,386				
S SPRUCE		275.5	63.2	411	1,117	1,822				
R ALDER		307.8	70.6	206	699	1,193				
TOTAL		33.5	7.7	82,463	89,322	96,181	47	12	5	
CL:	68.1 %	COEFF	NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15	
DF-LEAVE		42.4	9.7	7,747	8,581	9,415				
DOUG FIR		92.4	21.2	2,935	3,724	4,512				
WHEMLOCK		126.7	29.0	1,822	2,568	3,314				
WH-LEAVE		166.8	38.2	1,269	2,055	2,840				
SL-LEAVE		214.0	49.1	278	546	814				
S SPRUCE		257.9	59.1	119	292	465				
R ALDER		308.2	70.7	59	200	341				
TOTAL		30.3	7.0	16,718	17,967	19,216	39	10	4	



OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT
Sharp Ridge

1. Type of Sale

Partial Cut: Conifer– recovery.

2. Legal Description

Portions of Sections 19, 20, and 30, T1N, R9W, W.M., Tillamook County, Oregon

3. Sale Acreage

The sale boundaries were plotted on a digital ortho photograph and the acreage was calculated with GIS.

Acres		
	Sale	Net
<u>Area 1 (Partial cut)</u>	57	54
<u>ROW (modified clearcut)</u>	2	2
<u>Total Acres</u>	59	56

Sale Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.

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

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 20 variable radius plots, measured and graded, were taken across the sale area. All plots in all areas were spaced on a square grid pattern. All conifers 11 inches and greater and all hardwoods 10 inches DBH and greater were recorded on all plots. Species were recorded on all trees and they were graded and measured for merchantable height, diameter and form factor.

B. Plot size

A BAF of 54.45 was used for all trees. The point of observation was at 4.5 feet.

C. Grading System

All conifer trees were graded according to the Columbia River Log Scaling and Grading Rules. Hardwoods were graded camp run. Tree heights were recorded to a 7 inch top outside bark for hemlock, Sitka spruce and cedar; six inch outside bark for Douglas-fir; nine inch top outside bark for hardwoods; or three tenths (0.3) of DBH for all species, whichever was greater. Log lengths all favored 40 feet. Height and diameter measurement standards were to the nearest foot or inch respectively. All diameters were taken at a height of 4.5 feet. Conifers less than 20 board feet and hardwoods less than 30 board feet were not recorded.

5. Computation Procedure

Plot data was entered into the SuperAce program for computation of basal area, stand tables, board foot volumes and grades for each species. This data was then entered into the Volume Summary Worksheet to compute the sale volumes.

Statistics for the cruise were computed using Atterbury Consultants, Inc. SuperAce 98 program. The coefficient of variation was 35% and the Standard Error was 7%

6. Hidden Defect and Breakage

Hidden defect and breakage was 5% for conifers and 10% for hardwoods on all of the areas.

7. Timber Description

The sale area is approximately 80-100 years old. The origin of the stand is natural regeneration with no stand management. See attached stand tables for species mix and tree sizes.

8. Cruiser Names/Dates

Ed Wallmark and Chad Allen, 2007

9. Revenue Distribution

CSL: 100%

Tax Code: 9-2 = 100%

10. Attachments

Volume by grade, Log Stock table, Stand Table, Volume Summaries, and Logging Plan

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

DL – Douglas-fir leave

DF – Douglas-fir take

RA – Red alder

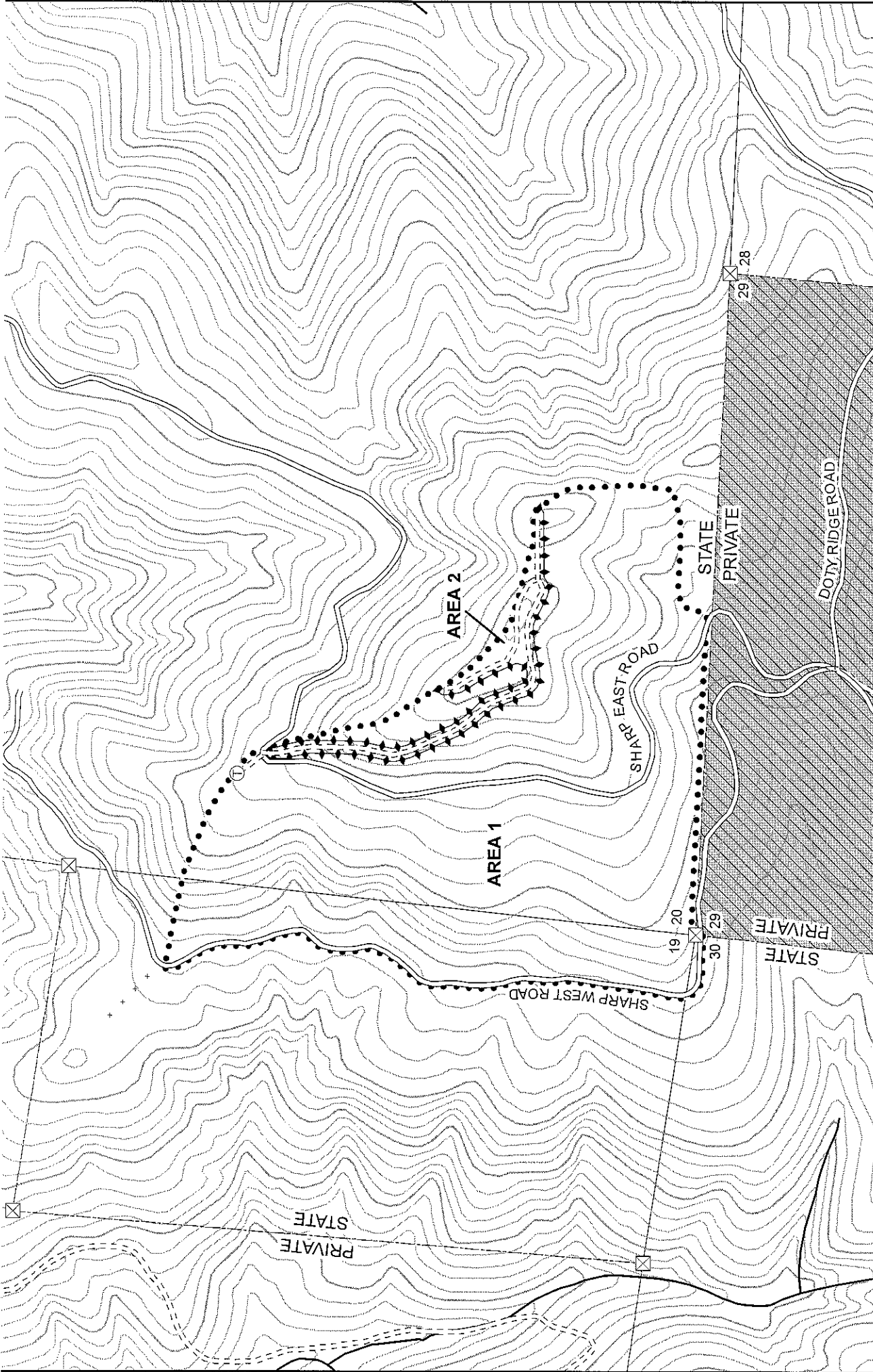
RC – Western red cedar

SS – Sitka spruce take

SL – Sitka spruce leave

WL – Western hemlock leave

WH – Western hemlock take



LOGGING PLAN

Timber Sale Contract No. 341-10-35
 Sharp Ridge
 Portions of Sections 19, 20, and 30,
 T1N, R9W, W.M.,
 Tillamook County, Oregon

Area	Type of Operation	Acres	
		Gross	Net
1	Partial cut	57	54
2	ROW modified clearcut	2	2
Total		59	56

Tillamook District GIS 11/03/2009
 This product is for informational use and may not have been prepared for, or suitable for, legal, engineering, or surveying purposes.

500 Feet

Legend:

- State/Federal highway
- County road
- Non-project road
- Swing road
- Legacy road
- Blocked road
- OHV trail
- Non-motorized trail
- Transmission line

Legend:

- Downhill yarding
- Buffer
- Tailhold Permit Required
- Right-of-Way boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream
- Perennial Type-N stream
- Unsurfaced road
- Surfaced road

Legend:

- Landing
- Domestic water supply intake
- Helicopter landing zone
- Truck turn-around
- Survey corner
- Cable yarding
- Ground yarding
- Helicopter yarding