

District: Tillamook Date: June 05, 2013

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$172,542.27	\$0.00	\$172,542.27
		Project Work:	\$(43,630.00)
		Advertised Value:	\$128,912.27

6/5/13



"STEWARDSHIP IN FORESTRY"

District: Tillamook Date: June 05, 2013

timber description

Location: Portions of Section 12, T3N, R10W, W.M., Tillamook County, Oregon.

Stand Stocking: 40%

SpecieName	cieName AvgDBH		Recovery (%)	
Douglas - Fir	12	0	95	
Western Hemlock / Fir	10	0	95	

Volume by Grade	3S	4S	Total
Douglas - Fir	92	100	192
Western Hemlock / Fir	111	628	739
Total	203	728	931

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"STEWARDSHIP IN FORESTRY"

District: Tillamook Date: June 05, 2013

comments: Pond Values Used: 1st Quarter Calendar Year 2013. Western redcedar & Other Cedars Stumpage Price = Pond Value minus Logging Cost: \$690/MBF = \$1,000/MBF - \$310/MBFSpruce & Other Conifers Stumpage Price = Pond Value minus Logging Cost: \$90/MBF = \$400/MBF - \$310/MBFRed Alder & Other Hardwoods Stumpage Price = Pond Value minus Logging Cost: \$245/MBF = \$555/MBF - \$310/MBFPulp (Conifer and Hardwood) Price = \$25/MBF SCALING COST ALLOWANCE = \$5.00/MBF FUEL COST ALLOWANCE = \$4.00/Gallon HAULING COST ALLOWANCE Hauling costs equivalent to \$780 daily truck cost. Other Costs (with Profit & Risk to be added): Brand and Paint: $$2/MBF \times 931 MBF = $1,862$ TOTAL Other Costs (with Profit & Risk to be added) = \$1,862 Other Costs (No Profit & Risk added): Equipment Cleaning: $2 \times \$1,000/Piece = \$2,000$ TOTAL Other Costs (No Profit and Risk added) = \$2,000 ROAD MAINTENANCE Maintenance Rock: (\$15.89/cy x 1.56 miles x 20 cy/mile x .931MMBF) / 931 MBF = \$.50/MBFVibratory Roller: ((82 stations x \$18/ station) + \$111 move-in)/ 931 MBF = \$1.70/MBFFinal Maintenance: Grading: $$500/Mile \times 1.56 \text{ miles } /931 \text{ MBF} = $.84/MBF}$

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TOTAL Maintenance Cost = \$3.04/MBF



June 05, 2013 **Tillamook** Date: District:

logging conditions

combination#: 1 Douglas - Fir 100.00%

Western Hemlock / Fir 100.00%

yarding distance: Medium (800 ft) downhill yarding:

Process: Manual Falling/Delimbing logging system: Shovel

Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF tree size:

loads / day: bd. ft / load: 2,700

\$154.61 cost / mbf:

machines: **Shovel Logger**

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"STEWARDSHIP IN FORESTRY"

District: Tillamook Date: June 05, 2013

logging costs

Operating Seasons: 2.00 Profit Risk: 10.00%

Project Costs: \$43,630.00 **Other Costs (P/R):** \$1,862.00

Slash Disposal: \$0.00 Other Costs: \$2,000.00

Miles of Road

Road Maintenance: \$3.04

Dirt	Rock (Contractor)			
0.0	0.0	0.0	0.0	

Hauling Costs

Species	\$/MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	2.4
Western Hemlock / Fir	\$0.00	3.0	2.6

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"STEWARDSHIP IN FORESTRY"

District: Tillamook Date: June 05, 2013

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - \$154.61	Fir \$3.19	\$9.42	\$155.12	\$2.00	\$32.43	\$0.00	\$5.00	\$2.15	\$363.92
	·		φ155.12	φ2.00	φ32.43	φ0.00	φ5.00	φ2.10	φ303.92
Western F	lemlock /	Fir							
\$154.61	\$3.19	\$9.42	\$95.46	\$2.00	\$26.47	\$0.00	\$5.00	\$2.15	\$298.30

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$579.58	\$215.66	\$0.00
Western Hemlock / Fir	\$0.00	\$475.75	\$177.45	\$0.00

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"STEWARDSHIP IN FORESTRY"

District: Tillamook Date: June 05, 2013

summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	192	\$215.66	\$41,406.72
Western Hemlock / Fir	739	\$177.45	\$131,135.55

Gross Timber Sale Value

Recovery: \$172,542.27

Prepared by: Nick Stumpf Phone: 503-842-2545

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PROJECT SUMMARY SHEET

Sale: Outback Flats

CONSTRUCTION

Point	D to E	11+00 stations =	\$13,957.25
		SUBTOTAL CONSTRUCTION	\$13,957.25
IMPROVEMENT			
Point	A to B	53+30 stations =	\$2,492.80
Point	B to C	47+50 stations =	\$3,413.40
Point	D to E	29+10 stations =	\$7,715.52
		SUBTOTAL IMPROVEMENT	\$13 621 72

SPECIAL PROJECTS

Project No. 3 - Road Vacating		\$13,234.40
	SUBTOTAL SPECIAL PROJECTS	\$13,234.40

MOVE IN \$2,816.63

> **GRAND TOTAL** \$43,630.00

SUMMARY OF CONSTRUCTION COST

Outback Flats Sale: Road: A to B

<u>Construction -</u>	0+00 0.00	stations miles	<u>Improvement</u>	=	53+30 1.01	stations miles	Reconstruction -	0+00 0.00	stations miles
IMPROVEMENT: EXCAVAT Ditch Excavation & Scatter	TION -			29.40	sta. @	\$40.00	per sta. = TOTAL	\$1,176.00 EXCAVATION	\$1,176.00
CULVERT MARKERS		Culvert Stakes &	<u>Markers</u> markers	\$88.00 \$88.00			тот	TAL CULVERTS	\$88.00
ROCK Trailhead Parking Area Trailhead Parking Area Spot rock	3+30 14+80 *	20 20 100		Crushed Crushed Crushed	@ @ @	\$8.52	! per c.y.= ! per c.y.= ! per c.y.=	\$170.40 \$170.40 \$888.00 TOTAL ROCK	\$1,228.80

GRAND TOTAL \$2,492.80

SUMMARY OF CONSTRUCTION COST

Road:

B to C

Construction -	0+00	stations	Improvement -	47+50	stations	Reconstruction -	0+00	stations	
	0.00	miles		0.90	miles		0.00	miles	
CULVERTS - MATERIA	ALS & INSTALL	ATION							

<u>Culverts</u>

Outback Flats

26 LF of 18" \$455.00

\$455.00

Culvert Stakes & Markers

1 markers

\$8.00 \$8.00

TOTAL CULVERTS \$463.00

ROCK

Sale:

0+00 to 1+00 30 cy. of Crushed @ \$8.88 per c.y.= \$266.40 Spot Rock * 200 cy. of Crushed @ \$9.44 per c.y.= \$1,888.00

\$1,888.00 TOTAL ROCK \$2,154.40

SPECIAL PROJECTS

Grade and shape road - 20.00 stations @ \$15.50 per station \$310.00 Grass seed and fertilize - 0.05 acres @ \$220.00 per acre \$11.00

per acre \$11.00 TOTAL SPECIAL PROJECTS **\$321.00**

GRAND TOTAL \$3,413.40

SUMMARY OF CONSTRUCTION COST

Sale:	Outback Fla	<u>ts</u>	Road:	D to E	
	1+00 stations 0.21 miles	Improvement -	29+10 stations 0.55 miles		stations miles
CONSTRUCTION: CLEARING, GR	RUBBING, SCATTERING	EXCAVATION, COMPACTION, LOADI	NG, END-HAULING AND SPR	EADING/COMPACTING AT WASTE A	NREA -
	tation Avg. Sideslop 0+10 30%	Avg. Dist. De To W.A. (mi.) Outslope/Ditch (Ditch	Cost per Station \$256 =	\$2,816.00 TOTAL	\$2,816.00
IMPROVEMENT: EXCAVATION - Ditching		29.00	sta. @ \$50.00	0 per sta. = \$1,450.00 TOTAL EXCAVATION	\$1,450.00
CULVERTS - MATERIALS & IN	<u>Culverts</u>	52 LF of 18" \$910.00 \$910.00			
	<u>Culvert Stake</u>	5 & Markers 2 markers \$16.00 \$16.00		TOTAL CULVERTS	\$926.00
29+10 to 40 29+10 to 40 Spot Rock *	0+10 5 0+10 1	50 cy. of Crushed 30 cy. of Crushed 40 cy. of Crushed 80 cy. of Crushed 5 cy. of Riprap	@ \$16.7 @ \$9.0 @ \$15.8	\$88 per c.y.= \$3,108.00 73 per c.y.= \$8,866.90 92 per c.y.= \$1,262.80 93 per c.y.= \$1,271.20 \$28.80 TOTAL ROCK	\$14,537.70
SPECIAL PROJECTS Remove tank traps from roadway Grade and shape road - Roll subgrade w/ vibratory roller - Remove large stumps - Grass seed and fertilize -		2.00 40.10 40.10 1.00 0.51	hours @ \$145.0 stations @ \$15.5 stations @ \$13.2 lump sum @ \$390.0 acres @ \$220.0	50 per station \$621.55 20 per station \$529.32 00 \$390.00	\$1,943.07

\$1,943.07 \$21,672.77

GRAND TOTAL

SUMMARY OF ROAD VACATING COST

Sale: Outback Flats Road: B to C

B to C (2+00 to 19+60)

SPECIAL PROJECTS

Remove Fill/Culverts (B to C) -	72.00	hours @	\$145.00	per hour	\$10,440.00
Dump Truck	24.00	hours @	\$70.00	per hour	\$1,680.00
Road Blocking	1.00	hour @	\$130.00	per hour	\$130.00
Remove culverts from state lands	7.00	lump sum @	\$410.40	total	\$410.40
Grass seed -	0.70	acres @	\$220.00	per acre	\$154.00
Mulching -	0.700	acres @	\$600.00	per acre	\$420.00

TOTAL SPECIAL PROJECTS \$13,234.40

GRAND TOTAL \$13,234.40

ROCK COST SUMMARY

Pit: Molhler S&G & State Stockpile
Outback Flats Sec 15 T3N R10W W.M. 3"-0" Crushed Rock 1 1/2"-0" Crushed Rock Location: Sale: 530 c.y. 860 c.y. **1390 c.y. Total Truck Loads:** \$377.58 \$143.57 \$377.58 \$143.57 Move in Roller and Compactor 1 @ Move in Grader 1 @ Move in Loader 1 @ \$401.93 \$401.93 Move in Trucks @ \$119.43 \$477.72 \$140.38 \$1,541.18 Move in Water Truck @ \$140.38 Subtotal

> TOTAL PRODUCTION COSTS \$1,541.18

State Stockpile - (Move-in/1 1/2"-0" volume) Purchased Commercial Source Quote

Base Cost= 1 1/2"-0" Base Cost= 3"-0"

\$1.79 Per Cu.Yd. \$9.50

Per Cu.Yd.

Road	Load & Haul Cost	Proc Cost	Base Cost.	Cost	Number		ROCK
Segment	\$/cu.yd.	\$/cu.yd.	\$/cu.yd.	\$/cu.yd.	Cu. Yds		COST
A to B Trailhead Parking Area (Crushed)	4.28	2.45	1.79	8.52	20		\$170.40
A to B Trailhead Parking Area (Crushed)	4.28	2.45	1.79	8.52	20		\$170.40
A to B Spot rock (Crushed)	4.64	2.45	1.79	8.88	100		\$888.00
B to C - 0+0 to 1+00 (Crushed)	4.64	2.45	1.79	8.88	30		\$266.40
B to C Spot Rock (Crushed)	5.20	2.45	1.79	9.44	200		\$1,888.00
D to E - 0+00 to 29+10 (1 1/2"-0")	4.64	2.45	1.79	8.88	350		\$3,108.00
D to E - 29+10 to 40+10 (3"-0")	4.78	2.45	9.50	16.73	530		\$8,866.90
D to E - 29+10 to 40+10 (1 1/2"-0")	4.78	2.45	1.79	9.02	140		\$1,262.80
D to E Spot Rock (Crushed)	3.94	2.45	9.50	15.89	80		\$1,271.20
D to E Slope Stabilization (Riprap)	2.57	1.40	1.79	5.76	5		\$28.80
				Total C.Y.	1475	Sub Total	\$17,920.90

TOTAL ROCKING COSTS	\$17,920.90

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

Sale: Outback Flats

LOW	BOY HAUL (Ro	ound Trip)
		AVE SPEED
DIST. (mi)	ROADWAY	(mph)
50.0	Pavement	30
2.0	Main Lines	7
	Steep	
1.0	Grades	2

								Within	
	EQUIPMENT	Move in	Pilot	Within Area	Begin	End	Total	Area	Total
No.	DESCRIPTION	Cost	Cars	Move (\$/mile)	Mileage	Mileage	Miles	Cost	Cost
2	Excavator (Large)	\$1,198.41	1	\$44.80	0.00	0.00	0	\$0.00	\$1,198.41
2	Tractor (D8)	\$1,184.83	2	\$15.10	0.00	0.00	0	\$0.00	\$1,184.83
1	Dump Truck (10 cy +)	\$146.67		\$2.85	0.00	0.00	0	\$0.00	\$146.67
2	Water Truck (2500 Gal)	\$286.72		\$2.85	0.00	0.00	0	\$0.00	\$286.72
					TOTAL M	OVE-IN C	OSTS:		\$2,816.63



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

Outback Flat

1. Type of Sale

Regeneration harvest, 100% Recovery.

2. Legal Description

Section 12, T3S, R10W, W.M., Tillamook County, Oregon.

3. Sale Acreage

Sale acreage was determined by GPS, orthophotographs, Lidar imagery, along with GIS.

ACRES

	<u>Gross</u>	<u>Net</u>
Area 1 (Modified Clear-	60	50
Cut)		

Gross Acres

Area within the Timber Sale Boundary signs.

Net acres

Used for calculating the advertised volume.

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

4. Cruising Procedures

A. Cruise Method

A total of 9 variable radius plots were used on the sale area resulting in an average of 6.4 trees per plot. Plots were spaced on a rectangular grid 350' x 700'. All plots were full cruise plots.

Conifer 8 inches DBH and greater containing 20 net board were sampled for tree species, DBH, form factor, merchantable height, visible defect and grade.

Tree heights were recorded to a 6 inch top outside bark for all conifers; or three tenths (0.3) of DBH, whichever was greater. Log lengths favored 40 feet.

All diameters were measured outside bark to the nearest inch height measurement standards were to the nearest foot.

B. Plot size

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

C. Grading System

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

5. Computation Procedure

The volumes and statistics for the timber cruise 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 S	tatistics (Net/BF Volume	Per Acre)	
Area	Number of Plots	SE (%)	CV (%)
1	9	11	31.20

6. Hidden Defect and Breakage

A 5% hidden defect and breakage was applied to <u>all</u> conifers and. This was in addition to visual defect deducted during the cruise.

7. <u>Timber Description</u>

This sale is predominantly a western hemlock stand, with scattered Douglas-fir. The north eastern quarter was seeded in 1965-66. The northwestern quarter was seeded in 1968-69. According to <u>OSCUR</u> inventory the rest of the stand has a birth year of 1975. The stand contains minor pockets of blow down and the timber has poor height diameter ratios.

The sale area was part of a mixed species growth plot study originating in 1981. Aluminum tags are found on many trees still, but should not pose a problem during harvest. The nails are in the base of the tree with an aluminum tag attached just above ground level, and chain saw performance is not affected by aluminum. In addition, a small aluminum nail in a tree will not pose a problem to the saw mill.

8. Cruiser Names/Dates

J. Rios 11/2011

9. Revenue Distribution

FDF 88% CSL 12%

Tax Codes: 56-1 88%, 56-6 12%

BOF Deed Numbers: 35, 146

10. Attachments

Stand Table
Volume Summaries
Log Stock Tables
Logging Plan Map

11. Stand and Log Stock Tables Species Key

DF – Douglas-fir WH – Western hemlock

TC TI	LOGSTVB						g Stoc oject:	k Tabl		BF BACK									
TWP 03N			Type 0100		ı	Acres Plots 50.00 9			Sample Trees 58		S	Pag Date		3N R10W S12 T0100 Page 1 Date 3/26/2013 Time 8:49:48AM					
S Spp T			Ĭ	Gross	% D-6	Net	% .			Net Vol						Ī		Ī	
			Len	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+
WH WH	CO 3		32 40	108 17	4.4	103 17	13.2 2.2			12	91	17	,						
WH _	CO 4		16	5		5	.6		5										
WH	CO 4		18	14		14	1.7		14										
WH	CO 4		19	13		13	1.7		13										
WH	CO 4		21	2		2	.2		2										
WH	CO 4		22	10		10	1.3		10										
WH	CO 4		23	3		3	.4		3										
WH	CO 4		24	103		103	13.2		77	25									
WH	CO 4		32	309		309	39.7		177	85	47								
WH	CO 4		40	209	4.4	200	25.6		83	117						-			
WH	T	otal	s	792	1.8	778	79.3		384	238	139	17	'						
DF	CO 3		32	16		16	7.8				16								
DF	CO 3		40	84	1.1	83	40.9			49	18	16							
DF _	CO 4		20	14		14	6.7		14										
DF	CO 4		22	10		10	4.8		10										
DF	CO 4		24	25		25	12.1		25										
DF	CO 4		25	5		5	2.3		5										
DF	CO 4		32	31		31	15.1			17	14								
DF	CO 4		40	21		21	10.3		21										
DF	Т	otal	s	204		203	20.7		73	66	48	16	i						
Total All	Species			995	1.5	981	100.0		457	304	186	33							

T	TSPCS	TGR				Speci	es, Sort (Project	Grade - Boar : OUT	d Foo		umes (Typ	pe)]	Page Date Fime	3/26/20 8:49:49	13
T03N Twj 03N	р	V S1 Rg		00 Sec 12	Tract AREA		Type A 0100		es Plots Sample Trees			CuFt S		T03N R10W S12 T0100 BdFt W			100		
				%					Per	cent Ne	Board Foot	Volum	e			Av	erage L	og	
Spp	S S		Gr ad	Net BdFt	Bo Def%	d. Ft. per Acro	e Net	Total Net MBF	I 4-5	og Sca	le Dia. 12-16 17+		g Leng 21-30		36-99	Ln Ft	Bd Ft	CF/ Lf	Logs Per /Acre
WH	(CO	3	15	3.8	2,497	2,402	120		100				86	14	32	76	0.67	31
WH	(CO	4	85	1.4	13,341	13,156	658	58	42		5	18	47	30	31	36	0.32	362.
WH	Tota	als		79	1.8	15,838	15,558	778	49	51		4	15	53	28	31	40	0.35	393.
DF	(co	3	48	1.0	1,993	1,974	99		100				16	84	39	85	0.61	23.
DF	(CO	4	52		2,079	2,079	104	70	30		13	37	30	20	27	34	0.32	61.
DF	Total	ls		21	.5	4,071	4,052	203	36	64		7	19	23	51	30	48	0.42	85.
Туре Т	otals				1.5	19,909	19,611	981	47	53		5	16	47	33	31	41	0.36	478.3

TC TSTNDSUM Stand Table Summary																
Project OUTBACK																
												R10W S12 T0100				
Twp 03N	Rge 10W		ec 2	Tract ARE	A 1	_		ype 100		cres 50.00	Plots 9	Sample Ti 58		Page: Date: Time:	1 03/26/20 8:49:49	
	s	Sar	nple	FF	Av Ht	Trees/	BA/	Logs	Aver:	age Log Net	Tons/	Net Cu.Ft.	Net Bd.Ft.	Т	otals	
Spc	T DB	H Tr	ees	16'	Tot	Acre	Acre	Acre	Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF
WH		8	9	84	63	96.286	33.61	96.29	6.9	30.0	21.27	667	2,889	1,064	334	144
WH		9	13	83	67	109.890	48.55	109.89	9.5	36.9	33.33	1,042	4,057	1,667	521	203
WH	1	0	8	83	69	54.776	29.88	54.78	13.3	40.0	23.23	728	2,191	1,162	364	110
WH	1	1	4	83	79	22.635	14.94	28.29	14.6	50.0	13.25	414	1,415	662	207	71
WH	1	2	8	84	79	38.039	29.88	71.32	12.0	44.0	27.35	857	3,138	1,367	428	157
WH	1	3	2	83	77	8.103	7.47	16.21	12.7	47.5	6.59		770	330	103	38
WH	1	4	1	83	71	3.493	3.73	6.99	14.8	55.0	3.32	104	384	166	52	19
WH	1		1	82	74	3.043	3.73	6.09	16.7	55.0	3.25		335	162	51	17
WH	1	9	1	83	76	1.897	3.73	3.79	30.5	100.0	3.70	116	379	185	58	19
WH	Total	S	47	83	69	338.161	175.52	393.64	10.8	39.5	135.29	4,234	15,558	6,764	2,117	778
DF		8	1	85	54	10.698	3.73	10.70	4.8	30.0	1.48	52	321	74	26	16
DF	1	1	2	85	79	11.317	7.47	16.98	11.1	43.3	5.37	189	736	269	94	37
DF	1	2	3	85	82	14.265	11.20	23.77	13.2	44.0	8.96	314	1,046	448	157	52
DF	1	3	2	85	92	8.434	7.47	16.87	13.2	49.8	6.36	223	840	318	112	42
DF	1	4	1	86	75	3.493	3.73	6.99	14.1	55.0	2.81	98	384	140	49	19
DF	1		1	86	77	3.043	3.73	6.09	15.7	60.0	2.72		365	136	48	18
DF	1	9	1	85	77	1.897	3.73	3.79	29.0	95.0	3.10	110	360	155	55	18
DF	Total	s	11	85	76	53.147	41.08	85.18	12.7	47.6	30.80	1,082	4,052	1,540	541	203
Totals			58	84	70	391.308	216.60	478.82	11.1	41.0	166.08	5316	19,611	8,304	2,658	981



Outback Flat

Volume Summary

Area 1-Harvest Type									
		50 acres							
	Cruised Net	Cruised Net	Hidden	Net Sale					
SPECIES	MBF/ Acre	MBF	D&B	MBF					
Douglas-fir	4.1	203	5%	192					
Hemlock	15.6	778	5%	739					
TOTAL	19.6	981		931					

