



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
North Cruz Thin
Sale 341-08-42

District: Tillamook

Date: May 17, 2007

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sales Value	\$174,486.45	\$0.00	\$174,486.45
		Project Work:	\$(18,840.00)
		Advertised Value:	\$155,646.45



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
North Cruz Thin
Sale 341-08-42

District: Tillamook

Date: May 17, 2007

Timber Description

Location: Portions of Section 36, T1S, R7W,
Section 1, T2S, R7W, and Section 6, T2S, R6W, W.M., Tillamook County, Oregon.

Stand Stocking: 40%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	95

Volume by Grade	3S	4S	Total
Douglas - Fir	559	496	1,055
Total	559	496	1,055



Timber Sale Appraisal
North Cruz Thin
Sale 341-08-42

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: May 17, 2007

Comments: Pond Values Used: 1st Quarter Calendar Year 2007.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost
\$794/MBF = \$1,150/MBF - \$356/MBF
Red Alder Stumpage Price = Pond Value minus Logging Cost
\$334/MBF = \$690/MBF - \$356/MBF
Pulp Stumpage: \$25/MBF - \$20/MBF (Trask River Rd Fee) = \$5/MBF

HAULING

Hauling costs equivalent to \$700 daily truck cost.

Other Costs (Profit and Risk to be added):

Brand and Paint: \$2/MBF x 1,055 MBF = \$2,110

Snag Creation (girdling at 4'): \$10/tree x 103 trees = \$1,030

TOTAL Other Costs (Profit and Risk to be added) = \$3,140

OTHER COSTS (No Profit and Risk added):

• Non-Project Roads (Seeding Included):

#1: 3 Sta @ \$138/sta. = \$ 414

#2: 9 Sta @ \$200/sta. = \$1,800

#3: 10 Sta @ \$160/sta. = \$1,600

#4: 2 Sta @ \$125/sta. = \$ 250

#5: 5 Sta @ \$138/sta. = \$ 690

• Approach Rock Pit Run

5 Sta. x 50yrd3/sta. x \$11.01/yr3 = \$2,752

• Slash sorting at cable landings

112 acres / 50 acres/hr x \$125/hr = \$280

• Landing Rock Pit Run

4 Landings x 20yrd3/landing x \$11.01/yr3 = \$881

Rock for additional landing locations as needed = \$660

• Trask River Road Safety Fee (\$20/MBF x 1,055MBF) = \$21,100

TOTAL Other Costs (No Profit and Risk added) = \$30,427

ROAD MAINTENANCE

• Move-In Costs for equipment (\$1,868.00)

\$1,868 / 1,055 mbf = \$1.77

• Spot Rocking

10cy/mile x \$ 6.00/cy x 1.055mbf x 12 miles / 1,055mbf = \$

0.72/mbf

• Final Grading

\$500/mile x 12 miles / 1,055 mbf = \$ 5.69/mbf

TOTAL ROAD MAINTENANCE COST: \$ 8.18/MBF



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
North Cruz Thin
Sale 341-08-42

District: Tillamook

Date: May 17, 2007

Logging Conditions

Combination#: 1 Douglas - Fir 54.00%
Yarding Distance Medium (800 ft) **Downhill Yarding:** No
Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads / Day: 3.5 **Bd. Ft / Load:** 3,500
Cost / MBF: \$272.99

Machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

Combination#: 2 Douglas - Fir 46.00%
Yarding Distance Short (400 ft) **Downhill Yarding:** No
Logging System: Track Skidder **Process:** Manual Falling/Delimiting
Tree Size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF
Loads / Day: 7.5 **Bd. Ft / Load:** 3,500
Cost / MBF: \$131.06

Machines: Log Loader (B)
Track Skidder



Timber Sale Appraisal
 North Cruz Thin
 Sale 341-08-42

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: May 17, 2007

Logging Costs

Operating Seasons:	2.00	Profit Risk:	15.00%
Project Costs:	\$18,840.00	Other Costs (P/R):	\$3,140.00
Slash Disposal:	\$0.00	Other Costs:	\$30,427.00

Miles of Road

Road Maintenance: \$8.18

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	12.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	3.5



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
 North Cruz Thin
 Sale 341-08-42

District: Tillamook

Date: May 17, 2007

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$207.70	\$8.59	\$8.31	\$91.31	\$2.98	\$47.83	\$0.00	\$2.00	\$28.84	\$397.56

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$562.95	\$165.39	\$0.00



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
North Cruz Thin
Sale 341-08-42

District: Tillamook

Date: May 17, 2007

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	1,055	\$165.39	\$174,486.45

Gross Timber Sale Value

Recovery: \$174,486.45

Prepared by: Jason Lee

Phone: 503-842-2545



PROJECT SUMMARY SHEET

Sale: North Cruz Thin

CONSTRUCTION

Point	C to D	3+75	stations =	<u>\$4,479.93</u>
SUBTOTAL CONSTRUCTION				\$4,479.93

IMPROVEMENT

Point	A to B	13+40	stations =	<u>\$5,353.26</u>
SUBTOTAL IMPROVEMENT				\$5,353.26

SPECIAL PROJECTS

Point E to F	Road Vacating	2+00		<u>\$6,158.75</u>
SUBTOTAL SPECIAL PROJECTS				\$6,158.75

MOVE IN **\$2,848.06**

GRAND TOTAL **\$18,840.00**

SUMMARY OF CONSTRUCTION COST

Sale:	<u>North Cruz Thin</u>					Road:	<u>A to B</u>	
Construction -	<u>0+00</u> stations <u>0.00</u> miles					Improvement -	<u>13+40</u> stations <u>0.25</u> miles	
CLEARING AND GRUBBING -								
Scattering		0.310	acres @		\$980.00	per acre =	<u>\$303.80</u>	
							TOTAL CLEARING AND GRUBBING	
							\$303.80	
EXCAVATION -								
Road Earthwork		13.40	sta. @		\$90.00	per sta. =	<u>\$1,206.00</u>	
							TOTAL EXCAVATION	
							\$1,206.00	
ROCK								
10+00 to 13+40		251	cy. of	Pit-Run		\$11.01	per c.y.=	\$2,763.51
JCT Rock 10+00		40	cy. of	Pit-Run		\$11.01	per c.y.=	<u>\$440.40</u>
							TOTAL ROCK	\$3,203.91
SPECIAL PROJECTS								
Grade and shape road -		13.40	stations @		\$15.50	per station	\$207.70	
Roll subgrade w/ vibratory roller prior to rocking -		13.40	stations @		\$13.20	per station	\$176.88	
Grass seed and fertilize -		0.31	acres @		\$220.00	per acre	\$70.17	
Mulching -		0.308	acres @		\$600.00	per acre	<u>\$184.80</u>	
							TOTAL SPECIAL PROJECTS	\$639.55
							GRAND TOTAL	\$5,353.26

SUMMARY OF CONSTRUCTION COST

Sale:	<u>North Cruz Thin</u>				Road: <u>C to D</u>
Construction -	<u>3+75</u> stations <u>0.07</u> miles				Improvement - <u>0+00</u> stations <u>0.00</u> miles
CLEARING AND GRUBBING - Scattering		0.360	acres @	\$980.00 per acre =	<u>\$352.80</u>
				TOTAL CLEARING AND GRUBBING	\$352.80
EXCAVATION - Road Earthwork		3.75	sta. @	\$120.00 per sta. =	<u>\$450.00</u>
				TOTAL EXCAVATION	\$450.00
ROCK 0+00 to JCT Rock	3+75 0+00	275 40	cy. of cy. of	Pit-Run Pit-Run	@ @
				\$11.14 per c.y. =	\$3,063.50
				\$10.04 per c.y. =	<u>\$401.60</u>
				TOTAL ROCK	\$3,465.10
SPECIAL PROJECTS					
Grade and shape road -		3.75	stations @	\$15.50 per station	\$58.13
Roll subgrade w/ vibratory roller prior to rocking -		3.75	stations @	\$13.20 per station	\$49.50
Grass seed and fertilize -		0.24	acres @	\$220.00 per acre	\$52.80
Mulching -		0.086	acres @	\$600.00 per acre	<u>\$51.60</u>
				TOTAL SPECIAL PROJECTS	\$212.03
GRAND TOTAL					\$4,479.93

SUMMARY OF CONSTRUCTION COST

Sale:	<u>North Cruz Thin</u>		Road: <u>E to F</u>
Construction -	<u>0+00</u> stations <u>0.00</u> miles		Improvement - <u>2+00</u> stations <u>0.04</u> miles
CLEARING AND GRUBBING - Scattering	0.030 acres @	\$980.00 per acre =	<u>\$29.40</u> TOTAL CLEARING AND GRUBBING \$29.40
ROCK Road Vacting Block	0+00 to 2+00 100 cy. of Riprap @	\$9.64 per c.y. =	<u>\$964.00</u> TOTAL ROCK \$964.00
SPECIAL PROJECTS			\$989.45
Move In	24.00 hours @	\$145.00 per hour	\$3,480.00
Remove Fill and Culvert end haul waste to waste area -	1.00 hours @	\$130.00 per hour	\$130.00
Construct waste areas -	2.00 lump sum @	\$100.00	\$200.00
Install Tank Traps	1.00 @	\$242.90 total	\$242.90
Remove culverts from state lands	0.15 acres @	\$220.00 per acre	\$33.00
Grass seed and fertilize -	0.150 acres @	\$600.00 per acre	\$90.00
Mulching -			TOTAL SPECIAL PROJECTS \$5,165.35
GRAND TOTAL			\$6,158.75

ROCK DEVELOPMENT COST SUMMARY

Pit:	Pit Run	Location:	Sec. , TN, RW, W.M.
Sale:	North Cruz Thin	Road:	706 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage:	1.16	Total Truck Loads:	706 c.y.
Drill Pct.:	0%	In Place Total:	504 c.y.

Sorting \$722.78

Drill & Shoot:	\$2.50	/cu.yd.	x	0 cu.yds.	=	\$0.00
Rip Rock	\$1.90	/cu.yd.	x	504 cu.yds.	=	\$957.60
Load Dump Truck:	\$0.70	/cu.yd.	x	706 cu.yds.	=	\$494.20

Subtotal \$2,174.58

Move In and set up Drill and Compressor	0	@	\$523.25	=	\$0.00
Move in Roller and Compactor	0	@	\$523.25	=	\$0.00
Move in Grader	0	@	\$265.23	=	\$0.00
Move in D-8	0	@	\$761.45	=	\$0.00
Move in Loader	0	@	\$627.21	=	\$0.00
Move in Excavator	1	@	\$836.28	=	\$836.28
Move in Trucks	2	@	\$171.00	=	\$342.00
Move in Water Truck	0	@	\$201.00	=	\$0.00
				Subtotal	\$1,178.28

TOTAL PRODUCTION COSTS \$3,352.86

Base Cost= \$4.75 Per Cu.Yd.

Road Segment	Haul Cost /cu.yd.	Proc Cost /cu.yd.	Base Cst. /cu.yd.	Cost /cu.yd.	Number Cu. Yds	ROCK COST
A to B	\$4.56	\$1.70	\$4.75	\$11.01	251	\$2,763.51
A to B JCT Rock	\$4.56	\$1.70	\$4.75	\$11.01	40	\$440.40
C to D	\$4.69	\$1.70	\$4.75	\$11.14	275	\$3,063.50
C to D JCT Rock	\$4.69	\$0.60	\$4.75	\$10.04	40	\$401.60
E to F Road Vacting Block	\$2.09	\$2.80	\$4.75	\$9.64	100	\$964.00
				Total C.Y.	706	Sub Total
						\$7,633.01

	TOTAL ROCKING COSTS	\$7,633.01
--	---------------------	------------

Move-In Calculations

Sale: North Cruz Thin

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
22.0	Pavement	30
26.0	Main Lines	15
8.0	Steep Grades	5

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move (\$/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Rollers (smooth/grid) & Compactors	\$523.25		\$5.00	0.00	0.00	0	\$0.00	\$523.25
1	Excavators (Large)	\$855.67	1	\$44.80	0.00	3.00	3	\$134.40	\$990.07
1	Tractors (D7)	\$743.74	2	\$11.30	0.00	0.00	0	\$0.00	\$743.74
2	Dump Truck (10 cy +)	\$420.00		\$2.85	0.00	0.00	0	\$0.00	\$420.00
1	Water Truck (1500 Gal)	\$171.00		\$2.85	0.00	0.00	0	\$0.00	\$171.00
TOTAL MOVE-IN COSTS:									\$2,848.06



OREGON DEPARTMENT OF FORESTRY

CRUISE REPORT

North Cruz Thin

1. Type of Sale

Partial Cut of Conifer; Recovery.

2. Legal Description

Section 36, T1S, R7W; Section 1, T2S, R7W; Section 6, T2S, R6W, W.M.
Tillamook County, Oregon

3. Sale Acreage

How the acreage was determined

	ACRES	
	<u>Sale</u>	<u>Net</u>
Area 1 (Partial Cut)	241	207

Sale Acres

Area within the Timber Sale Boundary signs

Net acres

Total area minus roads, streams, and low stocked areas.

4. Cruising Procedures

A. Cruise Method

A total of 35 plots were taken. Cruise lines and plots were placed to obtain representative sampling intensities throughout the sale area on an East/West grid. All trees were recorded by species, merchantable height, form, and diameter class. Diameters were measured to the nearest inch and heights to the nearest foot. Conifers less than 8" DBH and hardwoods less than 10" DBH were not recorded.

B. Plot size

All plots were variable radius full point plots with a BAF of 40. The point of tree observation was 4.5 feet.

C. Grading System

Tree heights were measured to a 6" merchantable top for Douglas-fir. Conifer was graded using Columbia River rules favoring a 40' log. No hardwoods were recorded during the cruising process.

5. Computation Procedure

Plot data was entered into SuperAce for computation of stand tables. Take and leave trees were determined by reviewing diameters and defect on each plot and SuperAce was rerun to compute basal area, V-BAR, stand tables and diameters.

This data was entered into a volume summary worksheet to compute sale volumes.

The cruise had a coefficient of variation of 37.4% and a standard error of 6.3% for the net board feet/acre.

6. Hidden Defect and Breakage

A 5% defect and breakage reduction was applied to conifers. This was in addition to visual defect deducted during the cruise.

7. Timber Description

The sale contains 50 year old Douglas-fir that was aurally seeded and planted in 1956. The stand was precommercial thinned in 1989 and fertilized in 1992.

8. Cruiser Names/Dates

Sale Prep Staff; December 2006

9. Revenue Distribution

100% FDF

Tax Code: 9-1 (87%, 923 MBF); 9-2 (13%, 139 MBF)

Deed Numbers: 169, 168, 161

10. Attachments

Stand Table (partial cut)

Volume Summaries

Log Stock Table

Logging Plan



"STEWARDSHIP IN FORESTRY"

North Cruz Thin

Volume Summary

Area 1 Modified Clearcut							
207 acres							
SPECIES	QMD	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	14	61	89	5.4	1110	5%	1055
TOTAL					1110		1055

TOTAL STATE VOLUME			207 acres
SPECIES	Gross MBF	Net Vol MBF	
Douglas-fir	1110	1055	
TOTAL	1110	1055	

TC TSTNDSUM

Stand Table Summary

Project NCZTHIN

TT2S RR7W S36 T0001

TT2S RR7W S36 T0001

Twp Rge Sec Tract
T2S R7W 36 AREA 1

Type Acres Plots Sample Trees
0001 207.00 35 157

Page: 1
Date: 04/19/201
Time: 2:15:52PM

Spc	T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net Cu.Ft. Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
									Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DL		12	1	84	45	1.455	1.14	1.46	12.7	30.0	.51	19	44	106	38	9
DL		13	3	85	52	3.720	3.43	3.72	17.6	46.7	1.80	65	174	373	136	36
DL		14	8	86	77	8.553	9.14	14.97	15.8	60.0	6.52	237	898	1,349	490	186
DL		15	9	84	71	8.382	10.29	13.97	18.3	58.0	7.01	255	810	1,452	528	168
DL		16	16	84	77	13.096	18.29	23.74	21.5	74.8	14.01	509	1,776	2,900	1,054	368
DL		17	14	84	80	10.151	16.00	20.30	22.6	82.9	12.62	459	1,682	2,612	950	348
DL		18	14	84	78	9.054	16.00	17.46	26.1	88.5	12.53	456	1,546	2,594	943	320
DL		19	10	84	85	5.804	11.43	11.61	30.1	103.5	9.61	350	1,202	1,989	724	249
DL		20	12	83	83	6.286	13.71	12.57	33.9	107.5	11.70	426	1,352	2,422	881	280
DL		21	7	84	87	3.326	8.00	6.65	37.7	128.6	6.91	251	855	1,429	520	177
DL		22	3	83	96	1.299	3.43	2.60	45.8	143.3	3.27	119	372	677	246	77
DL		23	3	85	91	1.188	3.43	2.77	39.6	154.3	3.02	110	428	625	228	89
DL		24	3	84	87	1.091	3.43	2.18	50.2	170.0	3.01	109	371	623	227	77
DL		25	1	84	83	.335	1.14	.67	53.4	200.0	.98	36	134	204	74	28
DL	Totals		104	84	77	73.740	118.86	134.67	25.3	86.5	93.50	3,401	11,643	19,354	7,039	2,410
DF		9	1	84	100	2.587	1.14	5.17	6.4	35.0	.95	33	181	196	69	37
DF		10	2	84	36	4.191	2.29	4.19	7.1	30.0	.85	30	126	175	61	26
DF		11	4	85	63	6.927	4.57	8.66	10.8	38.0	2.67	94	329	554	194	68
DF		12	6	84	67	8.731	6.86	11.64	12.6	47.5	4.17	146	553	864	303	114
DF		13	10	84	69	12.399	11.43	18.60	14.2	44.7	7.50	263	831	1,553	545	172
DF		14	4	85	67	4.276	4.57	6.41	16.7	56.7	3.05	107	363	631	221	75
DF		15	7	85	78	6.519	8.00	13.04	17.3	65.0	6.42	225	847	1,329	466	175
DF		16	8	84	76	6.548	9.14	13.10	19.2	68.7	7.17	251	900	1,484	521	186
DF		17	7	85	77	5.075	8.00	9.43	23.5	81.5	6.32	222	769	1,308	459	159
DF		18	3	83	82	1.940	3.43	3.88	26.0	88.3	2.88	101	343	595	209	71
DF		19	1	83	85	.580	1.14	1.16	31.7	105.0	1.05	37	122	217	76	25
DF	Totals		53	84	70	59.773	60.57	95.28	15.8	56.3	43.03	1,510	5,364	8,906	3,125	1,110
Totals			157	84	74	133.514	179.43	229.95	21.4	74.0	136.52	4910	17,007	28,260	10,164	3,520

TC TLOGSTVB

Log Stock Table - MBF

Project: **NCZTHIN**

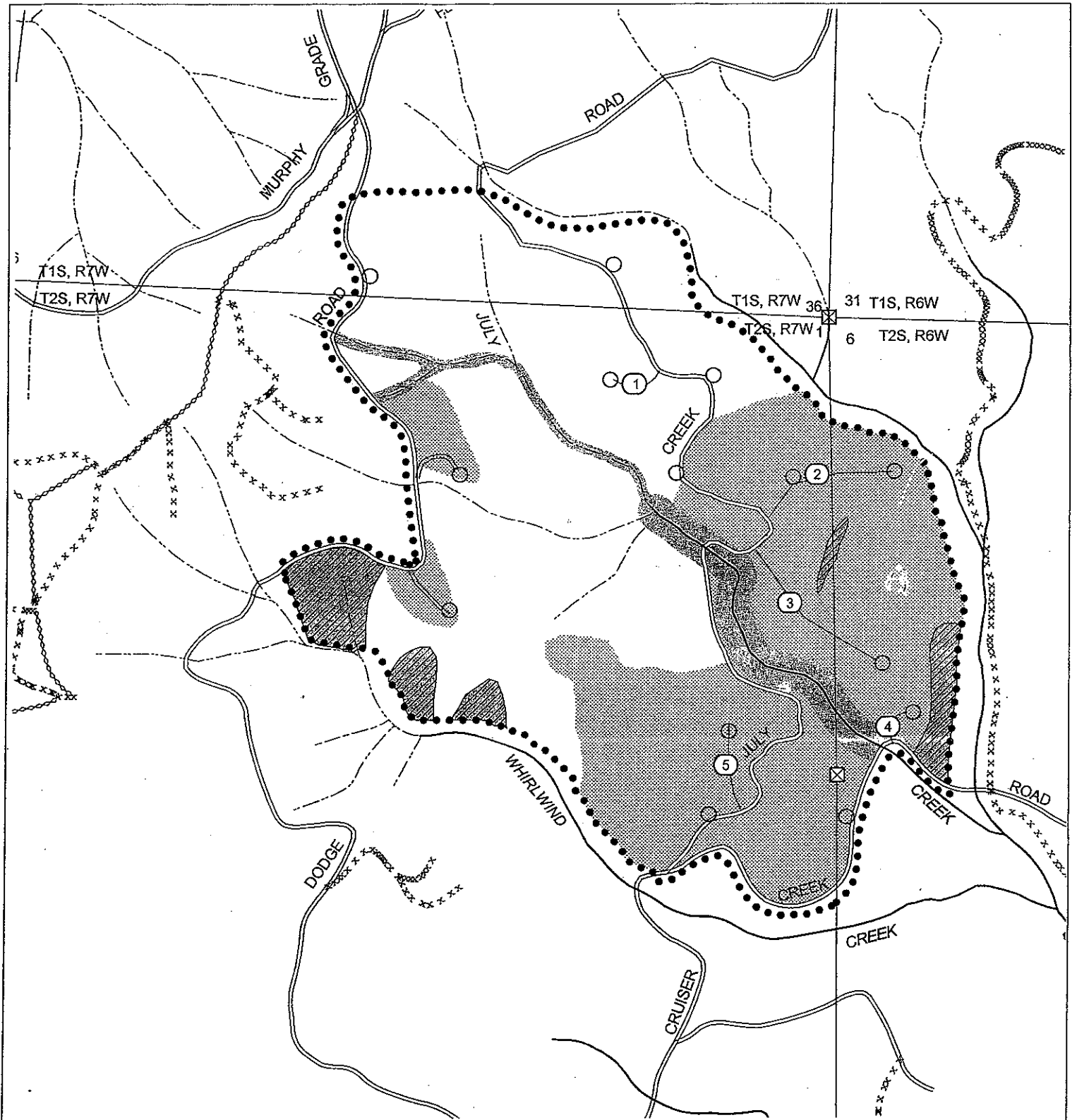
TT2S RR7W S36 T0001

TT2S RR7W S36 T0001

Twp Rge Sec Tract Type Acres Plots Sample Trees
T2S R7W 36 AREA 1 0001 207.00 35 157

Page 2
 Date 4/19/2007
 Time 2:16:09PM

SPP	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	24-29
DF	DO	4M	40		212	.7	211	19.0		45	106	60								
DF	Totals				1,112		1,110	31.5		298	223	349	240							
Total All Species					3,531		3,520	100.0		645	336	770	1231	400	124	16				



- Landing
- ⓓ Domestic water supply intake
- Ⓜ Helicopter landing zone
- Ⓣ Truck turn-around
- ⊠ Survey corner
- Cable yarding
- ▨ Ground yarding
- ▩ Helicopter yarding
- ▧ Downhill yarding
- ▦ Buffer
- ▤ Non-required
- Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream
- Perennial Type-N stream
- == Surfacd road
- Unsurfaced road
- State/Federal highway
- County road
- ② Non-project road
- A— Swing road
- Legacy road
- xxx Blocked road
- OHV trail
- Non-motorized trail

LOGGING PLAN

Timber Sale Contract No. 341-08-42
 North Cruz Thin
 Portions of Section 36, T1S, R7W,
 and Section 6, T2S, R6W, W. M.
 Tillamook County, Oregon

Type of Operation	Acres Sale	Net
Partial Cut	241	207



Tillamook District GIS
 May 3, 2007

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

