



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Oly
Sale 341-10-49

District: Forest Grove

Date: March 02, 2010

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,870,689.66	\$0.00	\$1,870,689.66
Project Work:			\$(78,705.00)
Advertised Value:			\$1,791,984.66



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timber description

Location: Portions of Sections 21, 22 & 23, T4N, R6W, W.M., Clatsop County, Oregon.

Stand Stocking: 80%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	21	0	98

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	6,563	1,557	406	8,526
Total	6,563	1,557	406	8,526



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comments: Pond Values Used: 4th Quarter Calendar Year 2009.

Western Hemlock and Other Conifers Stumpage Price = Pond Value
minus Logging Cost
 $\$138/\text{MBF} = \$310/\text{MBF} - \$172/\text{MBF}$

Western Red Cedar and Other Cedars Stumpage Price = Pond Value
minus Logging Cost
 $\$618/\text{MBF} = \$790/\text{MBF} - \$172/\text{MBF}$

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus
Logging Cost
 $\$343/\text{MBF} = \$515/\text{MBF} - \$172/\text{MBF}$

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: 8,526 MBF @ \$1.00/MBF = \$8,526

Intermediate Supports: 20 @ \$100/support = \$2,000

Equipment Cleaning: \$1,000

TOTAL Other Costs (with Profit & Risk to be added) = \$11,526

Other Costs (No Profit & Risk added):

Blocking/waterbarring skid roads: 1 hr @ \$150/hr = \$150

Firewood sorting: 8 hrs @ \$150/hr = \$1,200

TOTAL Other Costs (No Profit & Risk added) = \$1,350

ROAD MAINTENANCE

Move-in: \$2,000

General Road Maintenance: 9 Miles @ \$1,500/Mile = \$13,500

TOTAL: \$15,500 (\$1.82/MBF)



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logging conditions

combination#:	1	Douglas - Fir	97.99%
yarding distance:	Long (1,500 ft)		downhill yarding: No
logging system:	Cable: Large Tower >=70		Process: Manual Felling/Delimbing
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
loads / day:	9.0	bd. ft / load:	4,500
cost / mbf:	\$91.20		
machines:	Log Loader (A) Tower Yarder (Large)		

combination#:	2	Douglas - Fir	2.01%
yarding distance:	Short (400 ft)		downhill yarding: No
logging system:	Shovel		Process: Manual Delimbing
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF		
loads / day:	8.0	bd. ft / load:	4,500
cost / mbf:	\$69.57		
machines:	Shovel Logger		



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logging costs

Operating Seasons:	2.00	Profit Risk:	20.00%
Project Costs:	\$78,705.00	Other Costs (P/R):	\$11,526.00
Slash Disposal:	\$0.00	Other Costs:	\$1,350.00

Miles of Road

Road Maintenance: \$1.82

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

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	3.0	4.5



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Oly
Sale 341-10-49

District: Forest Grove

Date: March 02, 2010

logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$90.77	\$1.86	\$1.03	\$44.07	\$1.35	\$27.82	\$0.00	\$5.00	\$0.16	\$172.06

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$391.47	\$219.41	\$0.00



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summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	8,526	\$219.41	\$1,870,689.66

Gross Timber Sale Value

Recovery: \$1,870,689.66

Prepared by: Jeff Peck

Phone: 503-359-7461

PROJECT COST SUMMARY SHEET

Timber Sale: OLY
 Sale Number: 341-10-49

PROJECT NO. 1: ROAD CONSTRUCTION**CONSTRUCTION**

Road Segment	Length	Cost
A to B	20+20	
C to D	4+50	\$1,359.11
E to F	9+50	\$7,682.58
	34+20 stations	
	0.65 miles	
SUBTOTAL CONSTRUCTION		\$14,235.24

IMPROVEMENTS

Road Segment	Length	Cost
X to E	69+00	\$1,980.30
	69+00 stations	
	1.31 miles	
SUBTOTAL IMPROVEMENTS		\$1,980.30

TOTAL PROJECT NO. 1 COST = \$16,215.54

PROJECT NO. 2: SURFACING

Road Segment	Amount	Type	Cost
A to B	1,084 cy	6" - 0	\$7,295.32
E to F	210 cy	1 1/2" - 0	\$5,556.60
E to F	358 cy	4" - 0	\$3,583.58
E to F	90 cy	24" - 6"	\$680.40
E to F	90 cy	Reclaimed Rock	\$815.40
X to E	1,380 cy	1 1/2" - 0	\$36,280.20
	1,590 cy	1 1/2"-0	
	1,084 cy	6" - 0	
	358 cy	4" - 0	
	90 cy	Reclaimed Rock	

TOTAL PROJECT NO. 2 COST= \$54,211.50

PROJECT NO. 3: VACATING

Road Segment	Length	Cost
C to D	4+50	\$891.32
V1 to V2	6+75	\$1,577.48
	0.21 miles	

TOTAL PROJECT NO. 3 COST = \$2,468.80

PROJECT NO. 4: GRASS SEEDING, FERTILIZING, & MULCHING

Grass seed and fertilize areas of disturbed soil.	\$314.05
TOTAL PROJECT NO. 4 COST =	\$314.05

MOVE IN

Move in to Sale area	\$2,637.15
Move in to Wolf Cr.	\$2,856.51

TOTAL ALL PROJECTS \$78,703.55
TOTAL CREDITS \$78,705.00

SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>OLY</u>	Timber Sale No. :	<u>341-10-49</u>
Road Segment:	<u>A to B</u>	Construction :	<u>20+20</u> stations
			<u>0.38</u> miles

PROJECT NO. 1**EXCAVATION**

Clearing and Grubbing (Scatter)	1.85	acres @	\$980.00		\$1,817.81
Balanced Road Construction	17.90	sta @	\$90.00	per sta =	\$1,611.00
Drift	2.30	sta @	\$150.00	per sta =	\$345.00
Construct Turnouts	2	ea @	\$60.00	per ea =	\$120.00
Construct Turnaround	2	ea @	\$75.00	per ea =	\$150.00
Landing	2	ea @	\$285.00	per ea =	\$570.00
Grade, Ditch, and Roll	20.20	sta @	\$28.70	per sta =	\$579.74

TOTAL EXCAVATION COSTS= \$5,193.55

PROJECT NO. 1 TOTAL COST = \$5,193.55**PROJECT NO. 2:****SURFACING**

	8	" deep =	42 cy/sta		
A to B	848	cy of	6" - 0	@	\$6.73 per cy = \$5,707.04
Turnaround (2)	28	cy of	6" - 0	@	\$6.73 per cy = \$188.44
Turnouts (2)	28	cy of	6" - 0	@	\$6.73 per cy = \$188.44
Landing (2)	180	cy of	6" - 0	@	\$6.73 per cy = \$1,211.40
Total =	1,084	cy of	6" - 0		

PROJECT NO. 2 TOTAL COST = \$7,295.32**PROJECT NO. 4:**

Grass seed and fertilize areas of disturbed soil.	0.93	acres @	\$200.00	per acre =	\$185.49
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PROJECT NO. 2 TOTAL COST = \$185.49**TOTAL COST = \$12,674.37**

SUMMARY OF CONSTRUCTION COST

Timber Sale:	<u>OLY</u>	Timber Sale No. :	<u>341-10-49</u>
Road Segment:	<u>C to D</u>	Construction :	<u>4+50</u> stations
			<u>0.09</u> miles

PROJECT NO. 1**EXCAVATION**

Clearing and Grubbing (Scatter)	0.41	acres @	\$980.00		\$404.96
Balanced Road Construction	4.50	sta @	\$90.00	per sta =	\$405.00
Construct Turnout (Pt. C)	1	ea @	\$60.00	per ea =	\$60.00
Construct Turnaround	1	ea @	\$75.00	per ea =	\$75.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	4.50	sta @	\$28.70	per sta =	\$129.15
TOTAL EXCAVATION COSTS=					\$1,359.11

PROJECT NO. 1 TOTAL COST = \$1,359.11**PROJECT NO. 3 Vacating****Vacating C to D**

Construct Tank Trap (Pt. C)	2.00	hour @	\$170.00	per hour =	\$340.00
Construct water bars, ditch outs, and obliterate r	3.00	hour @	\$170.00	per hour =	\$510.00
Grass seed and fertilize areas of disturbed soil.	0.21	acres @	\$200.00	per acre =	\$41.32

PROJECT NO. 3 TOTAL COST = \$891.32**PROJECT NO. 4:**

Grass seed and fertilize areas of disturbed soil.	0.21	acres @	\$200.00	per acre =	\$41.32
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PROJECT NO. 4 TOTAL COST = \$41.32**TOTAL COST = \$2,291.75**

SUMMARY OF CONSTRUCTION COSTRoad Segment: E to F

Construction : 9+50 stations

0.18 miles**PROJECT NO. 1****EXCAVATION**

Clearing and Grubbing (Scatter)	0.87	acres @	\$784.00	per acre =	\$683.93
Balanced Road Construction	3.50	sta @	\$90.00		\$315.00
Drift	6.00	sta @	\$150.00	per sta =	\$900.00

FILL EXCAVATION & RECONSTRUCTION

Excavate existing culvert and fill	5	hrs @	\$170.00	per hr =	\$850.00
Pump culvert installation	10	hrs @	\$0.45	per hr =	\$4.50
Place fill and rock	15	hrs @	\$170.00	per hr =	\$2,550.00
Compact fill with plate compactor	5	hrs @	\$6.00	per hr =	\$30.00
Geotextile Fabric, 16' width x 40'	70	sq. yds @	\$0.95	per sq. yd. =	\$66.50
Laborer	10	hrs @	\$25.00	per hr =	\$250.00
Construct Junctions (2+50)	1	ea @	\$60.00	per ea =	\$60.00
Grade, Ditch, and Roll	9.50	sta @	\$28.70	per sta =	\$272.65

TOTAL EXCAVATION COSTS= **\$5,982.58****CULVERTS - MATERIALS & INSTALLATION****Culverts**

70 LF of 24" \$1,680.00

Culvert Markers2 markers \$20.00TOTAL CULVERT COSTS = **\$1,700.00****PROJECT NO. 1 TOTAL COST = \$7,682.58****PROJECT NO. 2:**

8 " deep of 3"-0 = 42 cy/sta

SURFACING

4 " deep of 1 1/2"-0 20 cy/sta

E to F

1st Lift: Reclaimed 3"-C from V1 to V2	90	cy of	Recl	@	\$9.06	per cy =	\$815.40
2nd Lift: 4"-0 Rock	338	cy of	4" - C	@	\$10.01	per cy =	\$3,383.38
3rd Lift: 1 1/2"-0 Rock	190	cy of	1 1/2	@	\$26.46	per cy =	\$5,027.40
Culvert Bedding Rock	20	cy of	1 1/2	@	\$26.46	per cy =	\$529.20
Junction	20	cy of	4" - C	@	\$10.01	per cy =	\$200.20
Free Draining Fill	60	cy of	24" -	@	\$7.56	per cy =	\$453.60
Fill Armor	20	cy of	24" -	@	\$7.56	per cy =	\$151.20
Energy Dissipator	10	cy of	24" -	@	\$7.56	per cy =	\$75.60

Total =

90	cy of	Reclaimed Rock
210	cy of	1 1/2" - 0
358	cy of	4" - 0
90	cy of	24" - 6"

TOTAL SURFACING COSTS = **\$10,635.98****PROJECT NO. 4:**

Grass seed and fertilize areas of disturbed soil.	0.44	acres @	\$200.00	per acre =	\$87.24
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PROJECT NO. 4 TOTAL COST = \$87.24**TOTAL COST = \$18,405.80**

SUMMARY OF CONSTRUCTION COST

Road Segment: X to E Improvment 69+00 stations
1.31 miles

PROJECT NO. 1

EXCAVATION

Grade, Ditch, and Roll 69.00 sta @ \$28.70 per sta = \$1,980.30
TOTAL EXCAVATION COSTS= \$1,980.30

PROJECT NO. 1 TOTAL COST = **\$1,980.30**

PROJECT NO. 2:

SURFACING 4 " deep of 1 1/2"-0 = 20 cy/sta

X to E 1,380 cy of 1 1/2" - 0 @ \$26.29 per cy = \$36,280.20

Total = 1,380 cy of 1 1/2" - 0

PROJECT NO. 2 TOTAL COST = **\$36,280.20**

TOTAL COST = **\$38,260.50**

SUMMARY OF CONSTRUCTION COST

Road Segment: V1 to V2

Vacating : 6+75 stations
0.13 miles

PROJECT NO. 3

EXCAVATION

Vacate the road segments according to the specifications in Exhibit B, G, and H.	10 hrs @	\$ 150.00	per hr =	\$1,500.00
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Grass seed and fertilize areas of disturbed soil. according to specifications in Exhibit I.	0.39 acres @	\$200.00	per acre =	\$77.48
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TOTAL COST = \$1,577.48

Move-In Calculations

Timber Sale: **OLY**
 Sale Number: **341-10-49**

LOWBOY HAUL		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
4.0	Main Lines	7
0.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Base Cost	Woods Cost	Pilot Cars	Within Area Move	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
0	Drill & Compressor	\$0.00	\$0.00		\$46.00	0.0	0.0	0.0	\$ -	\$0.00
0	Brush Cutter	\$0.00	\$0.00		\$4.00	0.0	0.0	0.0	\$ -	\$0.00
1	Graders	\$300.00	\$102.86		\$3.65	0.0	2.0	2.0	\$ 7.30	\$410.16
0	Loader (Small)	\$0.00	\$0.00	1	\$3.55	0.0	0.0	0.0	\$ -	\$0.00
0	Loader (Med. & Large)	\$0.00	\$0.00	1	\$9.00	0.0	0.0	0.0	\$ -	\$0.00
1	Rollers (smooth/grid) & Compactors	\$308.59	\$132.25		\$5.00	0.0	0.0	2.0	\$ 10.00	\$450.84
0	Excavators (Small)	\$0.00	\$0.00		\$22.00	0.0	0.0	0.0	\$ -	\$0.00
0	Excavators (Med.)	\$0.00	\$0.00		\$35.50	0.0	0.0	0.0	\$ -	\$0.00
1	Excavators (Large)	\$466.14	\$201.09	1	\$44.80	0.0	2.0	2.0	\$ 89.60	\$756.83
0	Tired Backhoes/Skidlers	\$0.00	\$0.00		\$3.00	0.0	0.0	0.0	\$ -	\$0.00
0	Tractors (D6)	\$0.00	\$0.00	2	\$7.10	0.0	0.0	0.0	\$ -	\$0.00
0	Tractors (D7)	\$0.00	\$0.00	2	\$11.30	0.0	0.0	0.0	\$ -	\$0.00
1	Tractor (D8)	\$473.80	\$190.58	2	\$15.10	0.0	2.0	2.0	\$ 30.20	\$694.58
2	Dump Truck (10 cy +)	\$233.34	\$80.00		\$2.85	0.0	2.0	2.0	\$ 11.40	\$324.74
0	Dump Truck (Off Hiway)	\$0.00	\$0.00	1	\$4.75	0.0	0.0	0.0	\$ -	\$0.00
0	Water Truck (1500 Gal)	\$0.00	\$0.00		\$2.85	0.0	0.0	0.0	\$ -	\$0.00
0	Water Truck (2500 Gal)	\$0.00	\$0.00		\$2.85	0.0	0.0	0.0	\$ -	\$0.00

TOTAL MOVE-IN COSTS:	\$2,637.15
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Timber Sale: **OLY NF Wolf Creek**
Sale Number: **341-10-49**

[illegible]

TIMBER SALE SUMMARY
Oly
341-10-49

1. **Type of Sale:** Areas 1 and 2 are modified clearcut. This is a recovery, sealed-bid auction.
2. **Revenue Distribution:** 100% BOF, Clatsop County.
3. **Sale Acreage:** Area 1 is 86 acres, Area 2 is 97 acres, determined using ArcGIS. 1 acre of existing road, 1 acre of road construction, 1 acre of rock pit, 9 acres of stream buffer, and 25 acres of green tree retention were removed from the 221 gross acre measurement. Gross area includes sale area and adjacent GTR areas as shown on Exhibit A.

4. **Volume (includes estimated ingrowth, less 2% for hidden defect) MBF:**

Species	2 Saw	3 Saw	4 Saw	Camprun	Volume
Douglas-fir	6,563	1,557	406	0	8,526 MBF

5. **Cruise Data:** Area 1: 23 SLI plots were measured in two stands using a 33.16 BAF, and a 25.08 BAF. Area 2: 12 SLI plots were measured in two stands using a 25.64 BAF and a 24-foot fixed plot. An additional 7 plots were measured, using a 40 BAF, by Jeff Peck and Kyle Abraham to supplement existing SLI cruise plots, for a total of 19 plots.

Cruise statistics for Area 1 had a CV 37.2% and SE 7.9%, Area 2 had a CV of 43.3% and SE of 10.2%.

6. **Timber Description:** Sale areas are composed of moderately stocked Douglas-fir. The average take DBH is 21 inches. Estimated tree volumes per acre average 47 MBF per acre.

7. **Topography and Logging Method:** The timber sale is estimated to be 95% cable-based yarding and 5% ground-based, with slopes ranging from 5-70%; aspects are varied. Maximum cable yarding distance is approximately 1,400 feet in Area 1 and 2,000 feet in Area 2. Elevations range from 1200 to 2160 feet in Area 1 and 1350 to 1850 feet in Area 2.

8. **Access:** Shortest access for Area 1 is via Highway 26 to McGregor Road, and for Area 2 is via Highway 26 to North Fork Wolf Creek Road.

9. Projects:

Project No. 1 consists of constructing 0.65 miles and improving 1.31 miles costing \$16,215.54 for sale access.

Project No. 2 consists of surfacing road segments, costing \$54,211.50.

Project No. 3 consists of vacating 0.21 miles of road costing \$2,468.80.

Project No. 4 consists of grass seeding, fertilizing and mulching, costing \$314.05

Move in cost is \$5,493.66.

Total all projects is \$78,703.55.

10. Other Costs:

Costs with (P/R):

Brand and paint (8,526 MBF @ \$1/MBF):	\$8,526
Intermediate supports (20 @ \$100):	\$2,000
Equipment cleaning:	\$1,000
Total (P/R):	\$11,526

Costs (NO P/R):

Blocking and waterbarring of skid roads (1 hr @ \$150/hr):	\$150
Firewood sorting (8 hrs @ \$150/hr):	\$1,200
Total (NO P/R)	\$1,350

Road Maintenance

Move-in:	\$2,000
General Road Maintenance (\$1,500/Mile x 9 miles):	\$13,500
TOTAL:	(\$1.82/MBF) \$15,500

Timber Sale Viability Analysis

District	NWOA		AOP FY	2010	
Sale Name:	Oly		Assumed Single Species		
		MMBF/Ac.			
CC Acres:	133	MBF	8,528	\$ 1,871,085	Stumpage/MBF \$ 219.41
PC Acres:	0	MBF	0	\$ -	\$ -
Totals	133		8,528	Gross Sale Value \$ 1,871,085	
Tier 0 - minus Project Costs			(minus)	\$ 78,705	4%
			Net Advertised Value	\$ 1,792,380	Project Work Amortized

Fill in shaded fields.

SALE INVESTMENT COSTS

ODF 1/3 Value (36%)		\$ 645,257	\$ 645,257
		COSTS	Running Balance
Tier 1 - Planning Costs	FIXED COSTS - NOT PART OF CURRENT ANALYSIS	\$ -	\$ 645,257
Tier 2 - T&E Survey Costs	No. Yrs.		
NSO: \$16/acre/year X Ac X Yrs	2	\$ 5,856	\$ 639,401
Mamu: \$20/acre/year X Ac X Yrs	0	\$ -	\$ 639,401
Tier 3 - T.S. Layout Costs			
6,000 MBF X \$6.00/MBF or	\$ 51,167	\$ 51,167	\$ 588,234
\$120/acre X # acres, whichever is greater	\$ 21,960		
Tier 4 - Contract Admin Costs	No. of Years		
\$5,200/year x # yrs contract	2	\$ 10,400	\$ 577,834
Tier 5 - Reforestation Costs (FTG)			
CC Ac X \$ 326.00 per acre		\$ 59,658	\$ 518,176
		COSTS	NET BALANCE
TOTALS FOR DISTRICT		\$ 127,081	\$ 518,176

FOR FUTURE DIVISIONAL ANALYSIS

Tier 6 - Administration Costs		
Tier 7 - Recreation Costs		
(Apply only is rec. project associated with T.S.)		
Tier 8 - Sale Operations Costs		
TOTALS FOR SF DIVISION		

TOTAL SALE TIMBER SALE COSTS	\$ 127,081
	\$ 694.43 per acre
	\$ 14.90 per MBF

Timber Sale Viability Analysis

District

AOP FY

Sale Name:

Min Stumpage to Cover ODF Costs

ODF Cost per MBF	ODF Balance	Total Sale Stumpage
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ODF's 36% share of Project Work	\$	28,334
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Projects	\$	3.32	\$	3.32	\$	9.23
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Planning	\$	-	\$	3.32	\$	9.23
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T&E	\$	0.69	\$	4.01	\$	11.14
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T&E	\$	-	\$	4.01	\$	11.14
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Layout	\$	6.00	\$	10.01	\$	27.81
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Admin	\$	1.22	\$	11.23	\$	31.19
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Refo	\$	7.00	\$	18.22	\$ 50.63
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\$ 18.22

\$ 50.63

Minimum Stumpage Price

Oly 341-10-49
Volume Summary (Shown in MBF)
February 2010

Area 1: Modified Clearcut (86 Acres)

SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	SPECIES TOTAL
Douglas-Fir	Volume	2201	985	221		3408
	Growth	56	25	5		86
	Total - 2% Defect	2212	990	222		3424
	<i>% Total</i>	65	29	6		

Area 2: Modified Clearcut (97 Acres)

SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	SPECIES TOTAL
Douglas-Fir	Take Volume	3945	514	165		4624
	Growth	495	64	23		582
	Total - 2% Defect	4351	567	184		5102
	<i>% Total</i>	85	11	4		

***R/W (1 Acre) volume is included and accounted for in Area 1 acreage and volume calculations.**

Acres were estimated using ArcGIS. Volumes were established using cruise volume per acre estimates from the SuperAce 2004 program. Estimated ingrowth volumes are also included in this summary. Please see Cruise Report for a description of this process. Species other than Douglas-fir in the Timber Sale Area, shall be reserved from cutting, except those within rights-of-way, skid trails and roads, skyline cable corridors, and Landings. See SuperAce cruise reports for estimates of incidental other species volumes.

CRUISE REPORT

Oly

341-10-49

1. Acreage Calculation: Area 1 is 86 acres, Area 2 is 97 acres, determined using ArcGIS. 1 acre of existing road, 1 acre of road construction, 1 acre of rock pit, 9 acres of stream buffer, and 25 acres of green tree retention were removed from the 221 gross acre measurement. Gross area includes sale area and adjacent GTR areas as shown on Exhibit A.

2. Cruise Method: Area 1: 23 SLI plots were measured in two stands using a 33.16 BAF, and a 25.08 BAF.

Area 2: 12 SLI plots were measured in two stands using a 25.64 BAF and a 24-foot fixed plot.

An additional 7 plots were measured, using a 40 BAF, by Jeff Peck and Kyle Abraham to supplement existing SLI cruise plots, for a total of 19 plots.

3. Sampling Intensity:

Area 1	Estimated	Actual
CV	45%	37.2%
SE	11%	7.9%
No. of Plots	17	23
Area 2	Estimated	Actual
CV	45%	43.3%
SE	11%	10.2%
No. of Plots	17	19

4. Form Factors: Each tree was estimated or measured for form factor using a relaskop with a form point of 16 feet.

5. Height Standards: Conifer and hardwood merchantable heights were estimated to the nearest foot.

6. Diameter Standards: Diameters were measured outside bark at breast height to the nearest inch.

7. Grading System: All trees were graded favoring 40 foot segments.

8. Merchantable Top: Conifer and hardwood merchantable tops were measured to 6 inches and 7 inches diameter outside bark, respectively, or 25% of DBH, whichever is greater.

9. Computation Procedures: Volumes were computed using the SuperAce 2004 program. Using a function of SuperAce 2004, the stand was grown forward to January 2010. This growth estimate from SuperAce was felt to be too high and a more conservative value of 1000 bf/ac/yr growth estimate was added to the cruise volumes. In-growth estimates were calculated by adding one(1) year in-growth for Area 1 volumes and six(6) years in-growth for Area 2 volumes. Using percentages generated by SuperAce 2004 this additional in-growth was separated and added to the original volume estimate for 2 saw, 3 saw and 4 saw grades to obtain a total volume in each grade, which is displayed in the Volume Summary Table.

10. Deductions: Two percent of the conifer and five percent hardwood volume were subtracted from the computed volumes to account for hidden defect and breakage.

11. Cruisers: The sale was cruised with contractor cruisers in Mar-Apr2004 and Nov2008, and additional variable plots by Jeff Peck and Kyle Abraham in Nov2009.

12. Signatures: Preparer:

Jeff Peck

Date

Unit Forester:

Erik Marcy

Date

Oly Green Tree Retention and Hard Snags:

Hard Snags

****FMP Minimum 2 hard snags/ac $\geq 15"$ dbh**

Area 1 Net Acres=85 x 2snags or green trees/ac = 170

Area 2 Net Acres=97 x 2snags or green trees/ac = 194 (364 total)

Top 170 trees in Area 1 in GTR

Top 194 trees in Area 2 in GTR and Stream Buffers

Note: Normally we would add this level of creation of sale contract, however due to higher levels of hard snags noticed from bark beetle kill in 2009 at the landscape level in this basin, managers decided to not add any more with this sale.

Green Trees

****FMP GTR strategy – minimum of 5 green trees/ac (no min Dbh) for REG:**

Need:

Area 1 85ac * 5/ac = 425 trees

Area 2 97ac * 5/ac = 485 trees (910 trees total)

Have:

Based on clumped along stream associated GTR and stream buffers

Avg RMA width * length = RMA ac * stand table tpa.

Area 1 RMA 200(-100forTypeF)*2000=5ac*106=530 trees

Area 2 RMA 200(-100forTypeF)*2600=6ac*98=588 trees

Area 2 Stream Buffer(TypeN-all count) 9ac*98=882 trees (2000 trees total)

TC PSTATS				PROJECT STATISTICS				PAGE 1				
				PROJECT OLY				DATE 2/8/2010				
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt			
04N	06	21	A1COMB (AREA 1)	MC	86.00	23	157	S	W			
				TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES						
			PLOTS	TREES								
TOTAL			23	157	6.8							
CRUISE			23	157	6.8	10,504	1.5					
DBH COUNT												
REFOREST												
COUNT												
BLANKS												
100 %												
STAND SUMMARY												
			SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR			149	111.9	18.6	108	50	211.8	39,626	39,626	8,896	8,896
WH			4	5.2	13.9	101	1	5.5	783	783	193	193
RC			3	3.9	14.3	71		4.4	432	432	121	121
R ALDER			1	1.1	15.3	104		1.5	217	217	56	56
TOTAL			157	122.1	18.3	106		223.1	41,059	41,059	9,266	9,266
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		
DOUG FIR			62.6	5.1	528	556	585					
WH			39.0	22.3	132	170	208					
RC			48.7	33.7	77	117	156					
R ALDER												
TOTAL			65.5	5.2	507	535	563	172	43	19		
CL	68.1	COEFF	SAMPLE TREES - CF					# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR			56.8	4.6	116	122	127					
WH			47.4	27.1	31	43	55					
RC			32.2	22.3	25	32	39					
R ALDER												
TOTAL			59.4	4.7	112	117	123	141	35	16		
CL	68.1	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR			63.4	13.5	97	112	127					
WH			240.6	51.3	3	5	8					
RC			367.6	78.3	1	4	7					
R ALDER			479.6	102.2		1	2					
TOTAL			63.3	13.5	106	122	139	167	42	19		
CL	68.1	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR			35.4	7.5	196	212	228					
WH			224.7	47.9	3	5	8					
RC			350.9	74.7	1	4	8					
R ALDER			479.6	102.2		1	3					
TOTAL			35.1	7.5	206	223	240	51	13	6		
CL	68.1	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH		5	10	15		
DOUG FIR			37.2	7.9	36,485	39,626	42,768					
WH			226.0	48.1	406	783	1,161					
RC			333.8	71.1	125	432	739					
R ALDER			479.6	102.2		217	440					

TC PSTATS				PROJECT STATISTICS				PAGE	2
				PROJECT OLY				DATE	2/8/2010
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
04N	06	21	AICOMB (AREA 1)	MC	86.00	23	157	S	W
CL	68.1		COEFF	NET BF/ACRE			# OF PLOTS REQ.	INF. POP.	
SD:	1.00		VAR.	S.E.%	LOW	AVG	HIGH	5	10
TOTAL			36.5	7.8	37,863	41,059	44,256	56	14
CL	68.1		COEFF	NET CUFT FT/ACRE			# OF PLOTS REQ.	INF. POP.	
SD:	1.0		VAR.%	S.E.%	LOW	AVG	HIGH	5	10
DOUG FIR			35.8	7.6	8,218	8,896	9,575		
WH			225.5	48.0	100	193	286		
RC			341.3	72.7	33	121	209		
R ALDER			479.6	102.2		56	114		
TOTAL			35.2	7.5	8,572	9,266	9,960	52	13
								6	

TC PSTATS					PROJECT STATISTICS				PAGE 1			
					PROJECT		ONLY		DATE 2/8/2010			
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt			
04_	06_	22	A2COMB AREA 2	MC	97.00	19	93	S	W			
					TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
			PLOTS	TREES								
TOTAL			19	93	4.9							
CRUISE			19	93	4.9	7,534	1.2					
DBH COUNT												
REFOREST												
COUNT												
BLANKS												
100 %												
STAND SUMMARY												
			SAMPLE TREES	TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC
DOUG FIR			92	76.4	22.9	112	48	217.9	48,266	47,668	10,029	10,030
WH			1	1.3	8.0	86	0	.4	51	51	11	11
TOTAL			93	77.7	22.7	111		218.3	48,317	47,718	10,040	10,042
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			
DOUG FIR		72.7	7.6	887	961	1,034						
WH												
TOTAL		73.8	7.7	878	951	1,024	217	54	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			
DOUG FIR		67.5	7.1	183	197	211						
WH												
TOTAL		68.6	7.1	181	195	209	188	47	21			
CL	68.1	COEFF	TREES/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR		61.3	14.4	65	76	87						
WH		435.9	102.7		1	3						
TOTAL		61.4	14.5	66	78	89	159	40	18			
CL	68.1	COEFF	BASAL AREA/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR		36.6	8.6	199	218	237						
WH		435.9	102.7		0	1						
TOTAL		36.3	8.6	200	218	237	56	14	6			
CL	68.1	COEFF	NET BF/ACRE					# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5 10		15			
DOUG FIR		43.3	10.2	42,807	47,668	52,528						
WH		435.9	102.7		51	103						
TOTAL		43.1	10.2	42,871	47,718	52,565	78	20	9			
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			
DOUG FIR		40.5	9.5	9,073	10,030	10,988						
WH		435.9	102.7		11	23						
TOTAL		40.4	9.5	9,087	10,042	10,996	69	17	8			

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page 1									
		Project: OLY										Date 2/8/2010									
												Time 2:11:17PM									
T04N R06W S21 TMC			AREA 1										T04N R06W S21 TMC								
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees				CuFt	BdFt									
04N	06W	21	A1COMB	MC	86.00	23	157				S	W									
S Spp	So T	Gr rt	ad	% 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 Ft	Bd Ft	CF/ Lf		
									4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
DF		DO	2S	64	25,595	25,595	2,201				52	48		0	0	99	40	394	2.02	65.0	
DF		DO	3S	29	11,457	11,457	985			100					7	93	39	110	0.71	103.8	
DF		DO	4S	7	2,574	2,574	221	86	14				5	27	18	51	30	33	0.33	78.0	
DF	Totals			97	39,626	39,626	3,408	6	30	33	31		0	2	3	94	36	161	0.99	246.8	
WH		DO	2S	15	123	123	11			100						100	40	200	1.28	.6	
WH		DO	3S	72	566	566	49			100						100	40	108	0.64	5.2	
WH		DO	4S	13	94	94	8	100								100	32	30	0.28	3.1	
WH	Totals			2	783	783	67	12	72	16						12	88	37	87	0.58	9.0
RC		DO	3S	89	386	386	33			100						100	40	99	0.69	3.9	
RC		DO	4S	11	45	45	4	100					30	70			18	19	0.30	2.4	
RC	Totals			1	432	432	37	11	89				3	7		89	32	68	0.60	6.3	
RA		DO	3S	78	172	172	15			100						100	40	150	0.89	1.1	
RA		DO	4S	22	46	46	4	100								100	40	40	0.34	1.1	
RA	Totals			1	217	217	19	21	79							100	40	95	0.61	2.3	
Type Totals					41,059	41,059	3,531	6	32	33	30		0	2	4	94	36	155	0.96	264.4	

T TSPCSTGR		Species, Sort Grade - Board Foot Volumes (Type)										Page 1									
		Project: OLY										Date 2/8/2010									
												Time 2:13:29PM									
T04_R06_S22 TMC										T04_R06_S22 TMC											
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt												
04_	06_	22	A2COMB	MC	97.00	19	93	S	W												
			AREA 2																		
S So Gr Spp T rt ad			% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre		
			Def%	Gross	Net	Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf					
DF	DO	2S	85	1.5	41,266	40,668	3,945	21 79				100				40	540	2.62	75.3		
DF	DO	3S	11		5,301	5,301	514	100				1 2 97				40	98	0.76	53.8		
DF	DO	4S	4		1,699	1,699	165	93	7					22	15	20	42	27	30	0.35	55.9
DF	Totals		100	1.2	48,266	47,668	4,624	3	11	18	68	1	1	1	98	36	258	1.51	184.9		
WH	DO	4S	100		51	51	5	25	75					100				22	20	0.21	2.5
WH	Totals		0		51	51	5	25	75					100				22	20	0.21	2.5
Type Totals				1.2	48,317	47,718	4,629	3	11	18	67	1	1	1	98	36	255	1.50	187.5		

TC TLOGSTVB				Log Stock Table - MBF															
				Project: OLY															
T04N R06W S21 TMC										T04N R06W S21 TMC									
Twp Rge Sec Tract				Type Acres Plots Sample Trees				Page 1											
04N 06W 21 A1COMB				MC 86.00 23 157				Date 2/8/2010											
								Time 2:11:54PM											
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	DO	2S	30	6		6	.2					6							
DF	DO	2S	32	7		7	.2					7							
DF	DO	2S	40	2,188		2,188	64.2					315		584	936	354			
DF	DO	3S	32	72		72	2.1			52	2	18							
DF	DO	3S	40	913		913	26.8			179	194	540							
DF	DO	4S	7																
DF	DO	4S	12	3		3	.1		3										
DF	DO	4S	13	0		0	.0		0										
DF	DO	4S	14	1		1	.0		1										
DF	DO	4S	17	1		1	.0		1										
DF	DO	4S	19	3		3	.1		3										
DF	DO	4S	20	3		3	.1		1			2							
DF	DO	4S	21	8		8	.2		4		4								
DF	DO	4S	22	6		6	.2		4		2								
DF	DO	4S	23	7		7	.2		3		4								
DF	DO	4S	24	11		11	.3		11										
DF	DO	4S	25	7		7	.2		7										
DF	DO	4S	26	6		6	.2		6										
DF	DO	4S	27	6		6	.2		6										
DF	DO	4S	28	7		7	.2		7										
DF	DO	4S	29	1		1	.0		1										
DF	DO	4S	31	5		5	.1		5										
DF	DO	4S	32	30		30	.9		21	9									
DF	DO	4S	34	2		2	.0		2										
DF	DO	4S	35	3		3	.1		3										
DF	DO	4S	36	14		14	.4		14										
DF	DO	4S	37	20		20	.6		20										
DF	DO	4S	38	8		8	.2		8										
DF	DO	4S	39	11		11	.3		11										
DF	DO	4S	40	60		60	1.8		49	11									
DF	Totals			3,408		3,408	96.5		190	251	206	560	327	584	936	354			
WH	DO	2S	40	11		11	15.8					11							
WH	DO	3S	40	49		49	72.2			3	30	15							
WH	DO	4S	32	8		8	12.1		8										
WH	Totals			67		67	1.9		8	3	30	15	11						
RC	DO	3S	40	33		33	89.5			9	11	14							
RC	DO	4S	14	1		1	3.2		1										
RC	DO	4S	24	3		3	7.4		3										
RC	Totals			37		37	1.1		4	9	11	14							
RA	DO	3S	40	15		15	78.9					15							
RA	DO	4S	40	4		4	21.1		4										
RA	Totals			19		19	.5		4			15							
Total All Species				3,531		3,531	100.0		206	263	246	604	338	584	936	354			

TC TSTNDSUM														Stand Table Summary		
Project OLY																
T04N R06W S21 TMC														T04N R06W S21 TMC		
Twp Rge Sec Tract Type Acres Plots Sample Trees														Page: 1		
04N 06W 21 A1COMB MC 86.00 23 157														Date: 02/08/20		
														Time: 2:12:40PM		
S Spec	T	Sample		Av		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
		DBH	Trees	FF	Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DF		9	3	87	72	8.396	3.64	8.40	9.7	40.0	2.32	82	336	200	70	29
DF		10	2	88	86	5.494	2.92	5.49	13.7	60.0	2.15	75	330	185	65	28
DF		11	3	87	77	7.067	4.38	7.07	14.8	60.0	2.99	105	424	257	90	36
DF		12	4	87	89	7.655	5.85	15.31	11.8	47.0	5.13	180	719	442	155	62
DF		13	6	87	110	9.329	8.77	18.66	18.0	74.8	9.56	335	1,395	822	289	120
DF		14	1	87	96	1.427	1.46	2.85	18.1	75.0	1.47	52	214	127	44	18
DF		15	7	87	100	8.199	10.23	17.59	20.7	85.8	10.40	365	1,509	894	314	130
DF		16	7	88	111	7.477	10.23	17.06	23.0	99.3	11.18	392	1,695	961	337	146
DF		17	6	87	95	5.611	8.77	11.22	26.4	101.5	8.45	297	1,139	727	255	98
DF		18	4	87	97	3.137	5.47	6.27	30.5	118.6	5.46	191	744	469	165	64
DF		19	7	87	112	5.024	9.86	10.77	36.2	142.0	11.10	389	1,528	954	335	131
DF		20	6	87	109	4.028	8.77	8.75	38.5	147.1	9.60	337	1,288	826	290	111
DF		21	9	87	138	5.303	12.78	16.50	36.8	171.2	17.29	607	2,823	1,487	522	243
DF		22	8	87	133	4.549	11.69	13.65	39.9	185.8	15.52	545	2,535	1,335	468	218
DF		23	12	87	121	5.525	15.68	16.58	40.9	181.4	19.31	678	3,007	1,661	583	259
DF		24	10	88	122	4.353	13.50	13.06	45.3	200.5	16.85	591	2,618	1,449	508	225
DF		25	11	88	130	4.656	15.70	13.97	51.9	232.6	20.65	725	3,249	1,776	623	279
DF		26	9	87	124	3.605	13.15	10.41	56.4	255.9	16.74	587	2,664	1,440	505	229
DF		27	11	87	137	4.046	16.07	12.50	62.3	295.4	22.20	779	3,693	1,909	670	318
DF		28	8	87	135	2.598	10.95	7.79	67.3	321.5	14.95	525	2,506	1,286	451	215
DF		29	7	87	134	2.235	10.23	6.71	72.3	348.3	13.82	485	2,336	1,188	417	201
DF		30	1	87	138	.294	1.46	.88	78.8	393.3	1.98	69	347	170	60	30
DF		31	2	88	139	.558	2.92	1.67	87.2	428.2	4.16	146	717	358	126	62
DF		32	3	88	142	.797	4.38	2.13	98.7	497.5	6.00	211	1,062	516	181	91
DF		33	2	87	147	.503	2.92	1.51	99.0	496.7	4.26	149	749	366	128	64
DF		Totals	149	87	108	111.868	211.80	246.80	36.0	160.6	253.54	8,896	39,626	21,804	7,651	3,408
WH		12	1	88	111	1.957	1.46	3.91	14.0	60.0	1.75	55	235	151	47	20
WH		14	1	88	91	1.449	1.46	1.45	27.3	120.0	1.26	40	174	109	34	15
WH		15	1	87	96	1.191	1.46	2.38	23.2	90.0	1.77	55	214	152	47	18
WH		18	1	88	103	.617	1.09	1.23	35.3	130.0	1.40	44	160	120	38	14
WH		Totals	4	88	101	5.214	5.47	8.98	21.5	87.3	6.18	193	783	531	166	67
RC		13	1	88	65	1.492	1.46	1.49	23.8	70.0	1.14	35	104	98	31	9
RC		14	1	87	70	1.367	1.46	2.73	14.4	50.0	1.26	39	137	108	34	12
RC		16	1	88	81	1.060	1.46	2.12	21.8	90.0	1.48	46	191	127	40	16
RC		Totals	3	88	71	3.919	4.38	6.35	19.1	68.1	3.88	121	432	333	104	37
RA		15	1	88	104	1.145	1.46	2.29	24.5	95.0	1.55	56	217	133	48	19
RA		Totals	1	88	104	1.145	1.46	2.29	24.5	95.0	1.55	56	217	133	48	19
Totals			157	87	106	122.145	223.12	264.42	35.0	155.3	265.14	9266	41,059	22,802	7,969	3,531

TC TLOGSTVB				Log Stock Table - MBF																
				Project: OLY																
T04_R06_S22 TMC										T04_R06_S22 TMC										
				AREA 2																
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1											
04_	06_	22	A2COMB	MC	97.00	19	93	Date	2/8/2010											
										Time	2:13:46PM									
S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches												
Spp	T	rt	de	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+
DF		DO	2S	40	4,003	1.5	3,945	85.3					333		378	1285	1231	650		68
DF		DO	3S	28	3		3	.1			3									
DF		DO	3S	34	11		11	.2			11									
DF		DO	3S	36	3		3	.1			3									
DF		DO	3S	40	498		498	10.8			149	143	206							
DF		DO	4S	12	1		1	.0		1										
DF		DO	4S	13	1		1	.0		1										
DF		DO	4S	16	15		15	.3		15										
DF		DO	4S	17	9		9	.2		9										
DF		DO	4S	18	1		1	.0		1										
DF		DO	4S	19	4		4	.1		4										
DF		DO	4S	20	6		6	.1		2	4									
DF		DO	4S	21	3		3	.1		3										
DF		DO	4S	22	2		2	.1		2										
DF		DO	4S	23	5		5	.1		5										
DF		DO	4S	24	4		4	.1		4										
DF		DO	4S	25	5		5	.1		5										
DF		DO	4S	27	1		1	.0		1										
DF		DO	4S	29	5		5	.1		5										
DF		DO	4S	32	9		9	.2		9										
DF		DO	4S	33	1		1	.0		1										
DF		DO	4S	34	22		22	.5		22										
DF		DO	4S	35	1		1	.0		1										
DF		DO	4S	36	28		28	.6		28										
DF		DO	4S	37	25		25	.5		25										
DF		DO	4S	39	2		2	.0		2										
DF		DO	4S	40	10		10	.2		3	7									
DF		DO	4S	41	5		5	.1		5										
DF		Totals			4,682	1.2	4,624	99.9		154	176	143	206	333	378	1285	1231	650		68
WH		DO	4S	21	4		4	75.0			4									
WH		DO	4S	22	1		1	25.0		1										
WH		Totals			5		5	.1		1	4									
Total All Species					4,687	1.2	4,629	100.0		155	180	143	206	333	378	1285	1231	650		68

TC TSTNDSUM				Stand Table Summary												
Project										OLY						
T04_R06_S22 TMC										T04_R06_S22 TMC						
Twp	Rge	Sec	Tract	Type		Acres	Plots	Sample Trees		Page:	1					
04_	06_	22	A2COMB	MC		97.00	19	93		Date:	02/08/20					
										Time:	2:14:02PM					
S Spc	T	Sample		Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF 16'				Ht Tot	Net Cu.Ft.				Net Bd.Ft.	Tons	Cunits	MBF
DF		7	1	88	66	1.268	.34	1.27	4.2	30.0	.15	5	38	15	5	4
DF		8	5	88	69	11.104	3.88	11.10	7.1	40.0	2.24	79	444	217	76	43
DF		10	2	88	78	2.536	1.38	2.54	12.8	60.0	.92	32	152	89	31	15
DF		11	3	87	85	3.805	2.51	7.61	9.7	45.0	2.11	74	342	205	72	33
DF		12	2	88	91	2.536	1.99	5.07	11.6	45.0	1.68	59	228	163	57	22
DF		13	1	88	106	1.268	1.17	2.54	15.7	65.0	1.14	40	165	110	39	16
DF		14	2	88	116	2.536	2.71	6.34	15.8	70.0	2.85	100	444	276	97	43
DF		15	2	88	100	2.536	3.11	5.07	22.5	95.0	3.25	114	482	315	110	47
DF		17	2	87	105	2.124	3.35	4.25	29.0	120.0	3.51	123	510	340	119	49
DF		18	3	87	107	3.805	6.72	7.61	33.4	130.0	7.25	254	989	703	247	96
DF		19	1	88	108	1.268	2.50	2.54	38.1	150.0	2.75	97	380	267	94	37
DF		20	3	87	112	2.852	6.22	7.29	34.6	140.4	7.17	252	1,023	696	244	99
DF		22	4	88	116	3.845	10.15	11.54	37.0	166.7	12.17	427	1,923	1,180	414	186
DF		23	1	88	114	1.268	3.66	3.80	40.7	180.0	4.41	155	685	428	150	66
DF		24	1	88	147	.670	2.11	2.01	53.9	253.3	3.09	108	509	299	105	49
DF		25	4	87	118	3.772	12.86	11.31	48.5	214.4	15.66	549	2,426	1,519	533	235
DF		26	6	87	127	3.508	12.93	11.10	53.2	245.5	16.81	590	2,723	1,631	573	264
DF		27	8	87	136	6.072	24.14	18.22	63.7	295.3	33.08	1,160	5,379	3,208	1,126	522
DF		28	4	88	145	1.793	7.67	5.69	68.5	345.0	11.12	390	1,964	1,079	378	191
DF		29	2	87	135	1.727	7.92	5.64	67.2	325.5	10.81	379	1,836	1,048	368	178
DF		30	2	87	159	.704	3.45	2.82	69.2	358.5	5.55	195	1,009	538	189	98
DF		31	4	87	129	2.185	11.45	6.55	81.9	379.2	15.29	537	2,485	1,483	520	241
DF		32	5	88	136	2.505	13.99	8.13	83.1	405.7	19.25	676	3,300	1,868	656	320
DF		33	6	88	139	4.741	28.16	14.45	96.9	482.6	39.92	1,401	6,973	3,872	1,359	676
DF		34	5	88	150	1.550	9.77	5.65	91.2	444.7	14.68	515	2,513	1,424	500	244
DF		35	2	88	130	1.583	10.58	4.75	107.2	533.4	14.51	509	2,534	1,407	494	246
DF		36	2	88	148	.596	4.21	2.08	104.9	547.1	6.23	219	1,141	604	212	111
DF		37	1	88	155	.282	2.11	1.13	102.0	447.5	3.28	115	505	318	112	49
DF		38	3	88	142	.802	6.32	2.67	120.6	616.0	9.19	322	1,647	891	313	160
DF		40	3	88	142	.724	6.32	2.41	133.0	692.0	9.15	321	1,669	887	311	162
DF		42	2	87	159	.438	4.21	1.75	132.9	713.7	6.63	233	1,249	643	226	121
DF	Totals	92	88	112	76.404	217.89	184.94	54.2	257.7	285.83	10,030	47,668	27,725	9,729	4,624	
WH	8	1	88	86	1.268	.44	2.54	4.4	20.0	.36	11	51	35	11	5	
WH	Totals	1	88	86	1.268	.44	2.54	4.4	20.0	0.36	11	51	35	11	5	
Totals		93	88	111	77.672	218.33	187.47	53.6	254.5	286.19	10042	47,718	27,760	9,740	4,629	

