



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Holey Oak
Sale 341-10-24

District: Forest Grove

Date: July 09, 2009

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$385,469.10	\$43,017.15	\$428,486.25
		Project Work:	\$(46,700.00)
		Advertised Value:	\$381,786.25



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timber description

Location: Portions of Section 16, T5N, R3W, W.M., Columbia County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	16	0	98
Western Hemlock / Fir	12	0	98
Alder (Red)	15	0	95

Volume by Grade	2S	3S	4S	Camprun	Total
Douglas - Fir	1,041	975	331	0	2,347
Western Hemlock / Fir	153	304	116	0	573
Alder (Red)	0	0	0	165	165
Total	1,194	1,279	447	165	3,085



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comments: Pond Values Used: 2nd Quarter Calendar Year 2009.

Western Red Cedar Stumpage Price = Pond Value minus DF Logging Cost

\$581/MBF = \$740/MBF - \$159/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: 3,090 MBF @ \$1.00/MBF = \$3,090

TOTAL Other Costs (with Profit & Risk to be added) = \$3,090

Other Costs (No Profit & Risk added):

Blocking and Waterbarring of skid roads: 4 hours @ \$150/hour = \$600.

Firewood Sorting: 12 hours @ \$150/hour = \$1,800

TOTAL Other Costs (No Profit & Risk added) = \$2,400

ROAD MAINTENANCE

Move-in: \$1,000

General Road Maintenance (\$1,000/Mile*10.0 miles): \$10,000

TOTAL: \$11,000 (\$3.56/MBF)

SLASH

Mechanical slash manipulation: 25 Acres @ \$150/Acre = \$3,750

TOTAL Slash = \$3,750



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logging conditions

combination#: 1 Douglas - Fir 86.32%
 Western Hemlock / Fir 81.65%
 Alder (Red) 95.00%

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Harvester Head Delimbing
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 12.0 **bd. ft / load:** 4,500
cost / mbf: \$76.94

machines: Forwarder
Harvester

combination#: 2 Douglas - Fir 13.68%
 Western Hemlock / Fir 18.35%
 Alder (Red) 5.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process:** Harvester Head Delimbing
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 12.0 **bd. ft / load:** 4,800
cost / mbf: \$87.78

machines: Log Loader (A)
Forwarder
Harvester
Tower Yarder (Small)



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logging costs

Operating Seasons:	2.00	Profit Risk:	15.00%
Project Costs:	\$46,700.00	Other Costs (P/R):	\$3,090.00
Slash Disposal:	\$3,750.00	Other Costs:	\$2,400.00

Miles of Road

Road Maintenance: \$3.56

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
Western Hemlock / Fir	\$0.00	3.0	4.0
Alder (Red)	\$0.00	3.0	3.8



"STEWARDSHIP IN FORESTRY"

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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$78.42	\$3.63	\$2.84	\$45.99	\$1.00	\$19.78	\$1.22	\$5.00	\$0.78	\$158.66
Western Hemlock / Fir									
\$78.93	\$3.63	\$2.84	\$51.73	\$1.00	\$20.72	\$1.22	\$5.00	\$0.78	\$165.85
Alder (Red)									
\$77.48	\$3.74	\$2.84	\$56.06	\$1.00	\$21.17	\$1.22	\$5.00	\$0.78	\$169.29

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$303.17	\$144.51	\$0.00
Western Hemlock / Fir	\$0.00	\$246.66	\$80.81	\$0.00
Alder (Red)	\$0.00	\$430.00	\$260.71	\$0.00



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Holey Oak
Sale 341-10-24

District: Forest Grove

Date: July 09, 2009

summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
Western Hemlock / Fir	0	\$0.00	\$0.00
Alder (Red)	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	2,347	\$144.51	\$339,164.97
Western Hemlock / Fir	573	\$80.81	\$46,304.13
Alder (Red)	165	\$260.71	\$43,017.15

Gross Timber Sale Value

Recovery: \$428,486.25

Prepared by: Jeff Peck

Phone: 503-359-7461

PROJECT COST SUMMARY SHEET

Timber Sale: Holey Oak

Sale Number: 341-10-24

PROJECT NO. 1: ROAD CONSTRUCTION AND IMPROVEMENT

CONSTRUCTION

<u>Road Segment</u>	<u>Length</u>	<u>Cost</u>
A to B	30+70	\$10,860.62
E to F	27+00	\$7,453.58
	57+70 stations	
	1.09 miles	

TOTAL PROJECT NO. 1 COST = **\$18,314.20**

PROJECT NO. 2: SURFACING

<u>Road Segment</u>	<u>Amount</u>	<u>Type</u>	<u>Cost</u>
A to B	1,573 cy	6" - 0	\$12,930.06
E to F	1,250 cy	6" - 0	\$9,825.00
E to F	80 cy	1 1/2" - 0	\$524.00
Total	2,823 cy	6" - 0	
	80 cy	1 1/2" - 0	

TOTAL PROJECT NO. 2 COST = **\$23,279.06**

PROJECT NO. 3: GRASS SEEDING, FERTILIZING, & MULCHING

Grass seed and fertilize areas of disturbed soil. \$529.84

TOTAL PROJECT NO. 3 COST = **\$529.84**

MOVE IN **\$4,576.79**

TOTAL ALL PROJECTS **\$46,699.90**

TOTAL CREDITS **\$46,700.00**

Move-In Calculations

Timber Sale: **Holey Oak**
 Sale Number: **341-10-24**

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

No.	EQUIPMENT DESCRIPTION	Base Cost	Woods Cost	Pilot Cars	Within Area	Begin Mileage	End Mileage	Total Miles	Within	Total Cost
					Move (\$/mile)				Area Cost	
0	Drill & Compressor	\$0.00	\$0.00		\$46.00	0.0	0.0	0.0	0.0	\$0.00
0	Brush Cutter	\$0.00	\$0.00		\$4.00	0.0	0.0	0.0	0.0	\$0.00
1	Graders	\$300.00	\$286.92		\$3.65	0.0	0.0	0.0	0.0	\$586.92
0	Loader (Small)	\$0.00	\$0.00	1	\$3.55	0.0	0.0	0.0	0.0	\$0.00
1	Loader (Med. & Large)	\$414.39	\$363.27	1	\$9.00	0.0	0.0	0.0	0.0	\$777.66
1	Rollers (smooth/grid) & Compactors	\$308.59	\$296.89		\$5.00	0.0	0.0	0.0	0.0	\$605.48
0	Excavators (Small)	\$0.00	\$0.00		\$22.00	0.0	0.0	0.0	0.0	\$0.00
0	Excavators (Med.)	\$0.00	\$0.00		\$35.50	0.0	0.0	0.0	0.0	\$0.00
1	Excavators (Large)	\$466.14	\$412.76	1	\$44.80	0.0	0.0	0.0	0.0	\$878.90
0	Tired Backhoes/Skidlers	\$0.00	\$0.00		\$3.00	0.0	0.0	0.0	0.0	\$0.00
0	Tractors (D6)	\$0.00	\$0.00	2	\$7.10	0.0	0.0	0.0	0.0	\$0.00
0	Tractors (D7)	\$0.00	\$0.00	2	\$11.30	0.0	0.0	0.0	0.0	\$0.00
1	Tractor (D8)	\$473.80	\$383.43	2	\$15.10	0.0	0.0	0.0	0.0	\$857.23
3	Dump Truck (10 cy +)	\$350.00	\$334.74		\$2.85	0.0	0.0	0.0	0.0	\$684.74
0	Dump Truck (Off Hiway)	\$0.00	\$0.00	1	\$4.75	0.0	0.0	0.0	0.0	\$0.00
1	Water Truck (1500 Gal)	\$95.00	\$90.86		\$2.85	0.0	0.0	0.0	0.0	\$185.86
0	Water Truck (2500 Gal)	\$0.00	\$0.00		\$2.85	0.0	0.0	0.0	0.0	\$0.00

TOTAL MOVE-IN COSTS: \$4,576.79

SUMMARY OF CONSTRUCTION COST

Timber Sale: Holey Oak
Road Segment: A to B

Timber Sale No. : 341-10-24
Construction : 30+70 stations
0.58 miles

PROJECT NO. 1**EXCAVATION**

Clearing and Grubbing (Scatter)	2.82	acres @	\$1,274.00	per acre =	\$3,591.53
Balanced Road Construction	30.70	sta @	\$90.00	per sta =	\$2,763.00
Construct Turnouts	4	ea @	\$60.00	per ea =	\$240.00
Construct Turnaround	2	ea @	\$75.00	per ea =	\$150.00
Landing	3	ea @	\$285.00	per ea =	\$855.00
Grade, Ditch, and Roll	30.70	sta @	\$28.70	per sta =	\$881.09
TOTAL EXCAVATION COSTS=					\$8,480.62

CULVERTS - MATERIALS & INSTALLATION**Culverts**

130 LF of 18" \$2,340.00

Culvert Markers

4 markers \$40.00

TOTAL CULVERT COSTS = \$2,380.00

PROJECT NO. 1 TOTAL COST = \$10,860.62

PROJECT NO. 2:**SURFACING**

	8	" deep =	42 cy/sta		
A to B	1,289	cy of	6" - 0	@	\$8.22 per cy = \$10,595.58
Curve Widening	20	cy of	6" - 0	@	\$8.22 per cy = \$164.40
Turnaround (2)	28	cy of	6" - 0	@	\$8.22 per cy = \$230.16
Turnouts (4)	56	cy of	6" - 0	@	\$8.22 per cy = \$460.32
Landing (3)	180	cy of	6" - 0	@	\$8.22 per cy = \$1,479.60
Total =	1,573	cy of	6" - 0		

PROJECT NO. 2 TOTAL COST = \$12,930.06

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil. 1.41 acres @ \$200.00 per acre = \$281.91

PROJECT NO. 3 TOTAL COST = \$281.91

TOTAL COST = \$24,072.59

SUMMARY OF CONSTRUCTION COST

Timber Sale: Holey Oak
 Road Segment: E to F

Timber Sale No. : 341-10-24
 Construction : 27+00 stations
0.51 miles

PROJECT NO. 1**EXCAVATION**

Clearing and Grubbing (Scatter)	2.48	acres @	\$1,274.00	per acre =	\$3,158.68
Balanced Road Construction	27.00	sta @	\$90.00	per sta =	\$2,430.00
Construct Turnouts	3	ea @	\$60.00	per ea =	\$180.00
Construct Turnaround	1	ea @	\$75.00	per ea =	\$75.00
Landing	1	ea @	\$285.00	per ea =	\$285.00
Grade, Ditch, and Roll	27.00	sta @	\$28.70	per sta =	\$774.90
TOTAL EXCAVATION COSTS=					\$6,903.58

CULVERTS - MATERIALS & INSTALLATION**Culverts**

30 LF of 18" \$540.00

Culvert Markers

1 markers \$10.00

TOTAL CULVERT COSTS = \$550.00

PROJECT NO. 1 TOTAL COST = \$7,453.58

PROJECT NO. 2:**SURFACING**

	8	" deep =	42 cy/sta		
	4	" deep =	20 cy/sta		
E to F (Base Lift 10")	1,134	cy of	6" - 0	@	\$7.86 per cy = \$8,913.24
E to F (Surfacing Lift 4")	80	cy of	1 1/2" - 0	@	\$6.55 per cy = \$524.00
Turnaround (1)	14	cy of	6" - 0	@	\$7.86 per cy = \$110.04
Turnouts (3)	42	cy of	6" - 0	@	\$7.86 per cy = \$330.12
Landing (1)	60	cy of	6" - 0	@	\$7.86 per cy = \$471.60
Total =	80	cy of	1 1/2" - 0		
	1,250	cy of	6" - 0		

PROJECT NO. 2 TOTAL COST = \$10,349.00

PROJECT NO. 3:

Grass seed and fertilize areas of disturbed soil. 1.24 acres @ \$200.00 per acre = \$247.93

PROJECT NO. 3 TOTAL COST = \$247.93

TOTAL COST = \$18,050.51

ROCK DEVELOPMENT COST SUMMARY

Timber Sale: Holey Oak
Sale Number: 341-10-24
Pit Name: Rudy Pit

Swell: 1.30
Shrinkage: 1.16
Drill Pct.: 100%

Pit Run (trk measure) 2,823 cy
Total Truck Yardage: 2,823 cy
Total In Place Yardage: 2,172 cy

Rip Rock:	<u>\$1.90 /cy x</u>	<u>2,172 cy</u>	=	<u>\$4,125.92</u>
Push Rock:	<u>\$0.70 /cy x</u>	<u>2,823 cy</u>	=	<u>\$1,976.10</u>
Load Dump Truck:	<u>\$0.70 /cy x</u>	<u>2,823 cy</u>	=	<u>\$1,976.10</u>
		Subtotal		<u>\$8,078.12</u>

Move in Excavator	<u>\$548.94</u>
Move in D-8	<u>\$556.60</u>
Clean Up Pit	<u>\$300.00</u>
	Subtotal <u>\$1,405.54</u>

PIT DEVELOPMENT COST \$3.36/cy

TOTAL PRODUCTION COST \$9,483.66

TIMBER SALE SUMMARY
Holey Oak
341-10-24

1. **Type of Sale:** Modified clearcut and moderate partial cut. This is a recovery, sealed-bid auction.
2. **Revenue Distribution:** 100% BOF, Columbia County
3. **Sale Acreage:** Area 1 is 53 acres, Area 2 is 64 acres, and Area 3 R/W is 4 acres, all determined using ArcGIS. Approximately .25 acres of existing roads, 3 acres of road construction, and 0.5 acres of stream buffer within the sale were removed from the 122 gross acre measurement.

<u>SPECIES</u>	<u>2 SAW</u>	<u>3 SAW</u>	<u>4 SAW</u>	<u>Camprun</u>	<u>SPECIES TOTAL</u>
<u>Douglas-fir</u>	1,041	975	331		2,347
<u>Hemlock</u>	153	304	116	-	573
<u>Alder / Other Hardwoods</u>	-	-	-	165	165
TOTAL:	1,194	1,279	447	165	3,085

4. **Cruise Data:** The timber sale area was variable-plot cruised using a 40 BAF and full plots. All data was compiled using the SuperACE 2004 program.

Cruise statistics for Area 1 yielded a CV 45.0% and an SE 12.5%, with 14 measured plots. Cruise statistics for Area 2 yielded a CV 46.2% and an SE 9.8%, with 23 measured plots.

5. **Timber Description:** The stand is composed of moderately stocked to over-stocked Douglas-fir with a moderate amount of western hemlock. The average “take” Douglas-fir and Hemlock DBH is 16 and 12 inches, respectively. Take tree volumes per acre average are an estimated 32.0 MBF Douglas-fir and 8.0 MBF Hemlock in the clearcut. Take volume per acre in the thinning averages 9.7 MBF per acre for Douglas-fir and 3.9 MBF per acre for Hemlock.
6. **Topography and Logging Method:** The timber sale is 70% ground-based yarding and 30% cable-based yarding, with slopes ranging from 10-50%; aspects are predominately southern. Maximum estimated cable setting distance is 1000 feet. Elevation ranges from 1300 to 1600 feet.

7. **Access:** From approximately mile post 53.25 on Hwy. 47 north of Vernonia , take Apiary Rd. Go approximately 6 miles to the Karth Rd. go approximately 2 miles on the Karth Rd to intersection with Rudy Pit Rd.

To access east side of sale from the north → turn right on Rudy Pit Rd, go approximately ¼ mile turn right onto Oak Ranch Creek Rd, approximately 1/3rd mile through gate, turn on spur road to left go approximately ½ mile to timber sale.

To access west side of sale from the south → stay on Karth Rd turn another 2 miles turn right on Rudy Pit Rd, go approximately ¼ mile turn right onto spur immediately after crossing Oak Ranch Creek, go approximately 1/3rd mile through gate, turn on spur road to left go approximately ½ mile to timber sale.

There is a gate on spur road off Rudy Pit Rd (access route from north). A key may be obtained from the Forest Grove District office. Total distance from Forest Grove to the timber sale is approximately 49 miles.

8. **Projects:**

Project No. 1 consists of constructing and improving 1.27 miles of road within the sale costing \$18,314.20.

Project No. 2 consists of surfacing 1.27 miles of road costing \$23,279.06.

Project No. 3 consists of grass seeding, fertilization and mulching in areas of disturbed soil costing \$529.84.

Move in cost is \$4,576.79.

Total credit for all projects is \$46,700.00.

9. **Other Costs:**

Costs with (P/R):

Brand and paint (3,090 MBF @ \$1/MBF): \$3,090

Total (P/R): \$ 3,090

Costs (NO P/R):

Blocking and Water barring of skid roads (4 hours @ \$150/hour): \$ 600

Slash piling for firewood (12 hours @ \$150/hour): \$ 1,800

Total (NO P/R) \$ 2,400

Road Maintenance

Move-in: \$ 1,000

General Road Maintenance (\$1,000/Mile * 10.0 miles) : \$10,000

Total: (\$3.56/MBF) \$ 11,000

CRUISE REPORT

Holey Oak

341-10-24

1. Acreage Calculation: Area 1 is 53 acres, Area 2 is 64 acres. Area 3 R/W is 4 acres of the timber sale area. Acreage determined using ArcGIS. Approximately .25 acres of existing road, 3 acres of new road construction, .50 acres of stream buffer were removed from the gross acreage of 122 acres.

2. Cruise Method: Areas 1 and 2 were variable-plot cruised using a 40 BAF and full plots. Area 1 plots were 3 chain spacing on predetermined lines. Area 2 plots were installed on a 3 chains x 3 chains fixed grid. Area 1 had 14 plots, and Area 2 had 23 plots. R/W volume was determined using average volumes multiplied by R/W acreage.

3. Sampling Intensity:

Area 1	Estimated	Actual
CV	45	45.0
SE	13	12.5
# of Plots	12	14

Area 2	Estimated	Actual (Stand Avg.)
CV	60	46.2
SE	13	9.8
# of Plots	21	23

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 for were computed using the Super Ace program.

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: Sale cruised by Jeff Peck in May 2009.

12. Signatures:

Prepared by: _____
J. Peck Date

Unit Forester: _____
Erik Marcy Date

TC PSTATS				PROJECT STATISTICS				PAGE 1				
				PROJECT		HOLEYOAK		DATE 6/26/2009				
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt			
05N	03	16	MC	7072	53.00	14	93	S	W			
				TREES	ESTIMATED	PERCENT						
				PER PLOT	TOTAL	SAMPLE						
					TREES	TREES						
PLOTS			TREES									
TOTAL			14	93	6.6							
CRUISE			14	93	6.6	10,652	.9					
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	
DOUG FIR			63	105.6	17.7	112	44	180.0	32,381	32,105	7,318	7,319
WHEMLOCK			22	79.1	12.1	81	13	62.9	8,299	8,043	1,896	1,893
R ALDER			7	15.5	15.4	81		20.0	3,290	3,290	757	757
WR CEDAR			1	.8	26.0	85		2.9	310	310	98	98
TOTAL			93	201.0	15.6	97		265.7	44,279	43,747	10,069	10,067
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		60.1	7.6	387	419	450						
WHEMLOCK		121.4	26.5	146	199	252						
R ALDER		55.1	22.4	229	296	362						
WR CEDAR												
TOTAL		72.2	7.5	330	357	384	208	52	23			
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		56.4	7.1	88	94	101						
WHEMLOCK		108.8	23.7	35	46	57						
R ALDER		54.5	22.2	52	67	82						
WR CEDAR												
TOTAL		67.7	7.0	75	81	87	183	46	20			
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		98.6	27.3	77	106	134						
WHEMLOCK		102.0	28.3	57	79	101						
R ALDER		206.9	57.3	7	15	24						
WR CEDAR		374.2	103.6		1	2						
TOTAL		47.5	13.1	175	201	227	97	24	11			
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		70.7	19.6	145	180	215						
WHEMLOCK		85.4	23.7	48	63	78						
R ALDER		232.0	64.3	7	20	33						
WR CEDAR		374.2	103.6		3	6						
TOTAL		37.2	10.3	238	266	293	59	15	7			
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		70.1	19.4	25,870	32,105	38,341						
WHEMLOCK		100.2	27.8	5,810	8,043	10,275						
R ALDER		250.6	69.4	1,006	3,290	5,573						
WR CEDAR		374.2	103.6		310	631						

TC PSTATS				PROJECT HOLEYOAK				PAGE 2		
								DATE 6/26/2009		
TWP	RGE	SC	TRACT	TYPE	ACRES		PLOTS	TREES	CuFt	BdFt
05N	03	16	MC	7072	53.00		14	93	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	15	
TOTAL		45.0	12.5	38,294	43,747	49,201	87	22	10	
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		69.9	19.4	5,902	7,319	8,735				
WHEMLOCK		92.4	25.6	1,409	1,893	2,378				
R ALDER		246.0	68.1	241	757	1,272				
WR CEDAR		374.2	103.6		98	200				
TOTAL		42.8	11.9	8,873	10,067	11,260	79	20	9	

Log Stock Table - MBF

T05N R03W S16 Ty7072 53.00

Project: HOLEYOAK
Acres 53.00Page 2
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S T Spp	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches												
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+	
WH	DO	3S	33	5		5	1.1		5											
WH	DO	3S	38	5		5	1.2			5										
WH	DO	3S	40	178	2.4	174	40.8			46	73	55								
WH	DO	4S	16	3	50.0	1	.3		1											
WH	DO	4S	22	7		7	1.5		1		5									
WH	DO	4S	24	22		22	5.1		9	13										
WH	DO	4S	25	27		27	6.4			27										
WH	DO	4S	26	14		14	3.2		14											
WH	DO	4S	29	2		2	.4		2											
WH	DO	4S	31	1		1	.3		1											
WH	DO	4S	32	7	22.2	6	1.3		6											
WH	DO	4S	34	7		7	1.6		7											
WH	Totals			440	3.1	426	18.4		45	91	94	55	68		44	29				
RA	DO	2S	40	45		45	25.7							23	22					
RA	DO	3S	22	6		6	3.2				6									
RA	DO	3S	23	1		1	.7		1											
RA	DO	3S	40	88		88	50.7				44	22	22							
RA	DO	4S	20	5		5	3.1				5									
RA	DO	4S	22	2		2	.9		2											
RA	DO	4S	34	11		11	6.4		11											
RA	DO	4S	37	5		5	2.8		5											
RA	DO	4S	38	5		5	2.8		5											
RA	DO	4S	40	6		6	3.6		6											
RA	Totals			174		174	7.5		30			55	22	45	22					
RC	DO	2S	40	15		15	90.0							15						
RC	DO	4S	33	2		2	10.0		2											
RC	Totals			16		16	.7		2					15						
Total	All Species			2,347	1.2	2,319	100.0		218	202	373	368	342	284	459	73				

Species, Sort Grade - Board Foot Volumes (Project)

T05N R03W S16 Ty7072 53.00

Project: HOLEYOAK

Page 1

Acres 53.00

Date 6/26/2009

Time 7:24:36AM

S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log			Logs Per /Acre
				Def%	Gross	Net		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		DO2S	53	.3	17,122	17,076	905			65	35	1			99	40	327	1.74	52.1
DF		DO3S	37	1.9	12,131	11,901	631	0	98	1		0	2	1	97	39	111	0.68	107.5
DF		DO4S	10		3,128	3,128	166	84	16			13	38	23	26	27	31	0.31	100.7
DF	Totals		73	.9	32,381	32,105	1,702	8	38	35	19	2	4	3	91	35	123	0.81	260.3
WH		DO2S	32	4.3	2,764	2,646	140			48	52				100	40	322	1.65	8.2
WH		DO3S	47	2.1	3,851	3,771	200	2	98					10	90	38	86	0.55	43.8
WH		DO4S	21	3.4	1,683	1,626	86	47	53			2	82	16		26	26	0.26	62.7
WH	Totals		18	3.1	8,299	8,043	426	11	57	16	17	0	17	8	75	32	70	0.52	114.7
RA		DO2S	25		846	846	45			51	49				100	40	403	1.93	2.1
RA		DO3S	55		1,799	1,799	95	1	53	46			7		93	36	171	0.95	10.5
RA		DO4S	20		645	645	34	84	16			16	5	33	47	34	41	0.44	15.8
RA	Totals		8		3,290	3,290	174	17	32	38	13	3	5	6	86	35	116	0.76	28.4
RC		DO2S	90		279	279	15			100					100	40	360	2.60	.8
RC		DO4S	10		31	31	2	100						100		33	40	0.68	.8
RC	Totals		1		310	310	16	10		90				10	90	37	200	1.73	1.5
Totals				1.2	44,279	43,747	2,319	9	41	32	18	2	7	4	88	34	108	0.73	404.9

TC		Stand Table Summary											Page Date:		1 6/26/2009	
T05N R03W S16 Ty7072 53.00					Project HOLEYOAK								Time: 7:24:53AM			
					Acres 53.00								Grown Year:			
S Spec T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
	DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
DF	11	2	91	92	8.659	5.71	17.32	10.4	47.5	5.13	180	823	272	95	44	
DF	12	3	91	96	10.913	8.57	21.83	13.5	60.0	8.39	294	1,310	445	156	69	
DF	13	4	89	106	12.399	11.43	27.90	15.6	72.2	12.43	436	2,015	659	231	107	
DF	14	4	90	106	10.691	11.43	24.05	17.4	74.4	11.91	418	1,791	631	221	95	
DF	15	2	89	125	4.656	5.71	13.97	17.1	78.3	6.82	239	1,094	361	127	58	
DF	16	5	89	110	10.231	14.29	24.56	22.4	91.7	15.66	550	2,251	830	292	119	
DF	17	3	88	112	5.438	8.57	14.50	24.2	92.5	9.99	350	1,341	530	186	71	
DF	18	4	88	109	6.467	11.43	16.17	27.1	107.0	12.46	437	1,730	661	232	92	
DF	19	2	89	125	2.902	5.71	8.71	28.7	120.0	7.11	250	1,045	377	132	55	
DF	20	6	87	115	7.858	17.14	20.95	33.1	138.8	19.74	693	2,907	1,046	367	154	
DF	22	8	87	122	8.659	22.86	19.48	43.5	196.7	24.14	847	3,831	1,279	449	203	
DF	23	3	87	131	2.971	8.57	8.91	44.7	203.3	11.35	398	1,812	601	211	96	
DF	24	8	86	130	7.276	22.86	21.83	47.6	215.0	29.59	1,038	4,693	1,568	550	249	
DF	25	1	87	135	.838	2.86	2.51	52.6	233.3	3.77	132	587	200	70	31	
DF	26	3	86	138	2.325	8.57	6.97	59.2	275.6	11.77	413	1,922	624	219	102	
DF	27	2	86	134	1.437	5.71	5.03	52.9	248.6	7.59	266	1,250	402	141	66	
DF	28	1	86	128	.668	2.86	2.00	64.4	290.0	3.68	129	581	195	68	31	
DF	29	1	87	123	.623	2.86	1.87	68.5	323.3	3.65	128	604	193	68	32	
DF	30	1	86	115	.582	2.86	1.75	68.2	296.7	3.40	119	518	180	63	27	
DF	Totals	63	89	112	105.593	180.00	260.31	28.1	123.3	208.57	7,319	32,105	11,054	3,879	1,702	
WH	8	2	90	75	16.370	5.71	16.37	4.5	25.0	2.35	73	409	124	39	22	
WH	9	3	90	73	19.402	8.57	32.34	6.3	28.0	6.63	205	905	351	108	48	
WH	11	2	91	89	8.659	5.71	12.99	12.6	53.3	5.23	163	693	277	87	37	
WH	12	3	90	75	10.913	8.57	10.91	18.6	73.3	6.50	203	800	345	108	42	
WH	13	3	89	75	9.299	8.57	9.30	21.4	86.7	6.33	199	806	336	105	43	
WH	14	1	90	72	2.673	2.86	5.35	14.5	35.0	2.51	78	187	133	41	10	
WH	15	1	89	91	2.328	2.86	4.66	21.2	85.0	3.16	99	396	167	52	21	
WH	16	1	92	105	2.046	2.86	6.14	18.6	80.0	3.65	114	491	193	60	26	
WH	18	2	92	109	3.234	5.71	6.47	36.6	157.5	7.58	237	1,019	402	126	54	
WH	19	1	92	101	1.451	2.86	2.90	38.2	140.0	3.54	111	406	187	59	22	
WH	23	2	93	121	1.981	5.71	4.95	53.4	238.0	8.47	264	1,178	449	140	62	
WH	26	1	92	126	.775	2.86	2.32	63.4	323.3	4.72	147	752	250	78	40	
WH	Totals	22	90	81	79.131	62.86	114.69	16.5	70.1	60.67	1,893	8,043	3,215	1,003	426	
RA	10	1	83	49	5.238	2.86	5.24	11.6	40.0	1.67	61	210	88	32	11	
RA	15	2	94	96	4.656	5.71	9.31	24.8	110.0	6.34	231	1,024	336	122	54	
RA	16	1	93	98	2.046	2.86	4.09	29.3	120.0	3.30	120	491	175	64	26	
RA	19	1	94	98	1.451	2.86	4.35	26.8	126.7	3.21	117	551	170	62	29	
RA	21	1	94	100	1.188	2.86	3.56	32.7	156.7	3.20	117	558	170	62	30	
RA	24	1	93	92	.909	2.86	1.82	61.7	250.0	3.09	112	455	164	60	24	
RA	Totals	7	90	81	15.490	20.00	28.38	26.7	115.9	20.81	757	3,290	1,103	401	174	
RC	26	1	80	85	.775	2.86	1.55	63.3	200.0	2.30	98	310	122	52	16	
RC	Totals	1	80	85	.775	2.86	1.55	63.3	200.0	2.30	98	310	122	52	16	
Totals		93	89	97	200.988	265.71	404.93	24.9	108.0	292.35	10,067	43,747	15,495	5,335	2,319	

TC PSTATS				PROJECT STATISTICS				PAGE 1				
				PROJECT HOLEYOAK				DATE 6/26/2009				
TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt			
05N	03	16	PC-M	7073	64.00	23	132	S	W			
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES					
TOTAL			23	132	5.7							
CRUISE			23	132	5.7	11,090	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
DF LEAVE			71	60.1	19.4	116		123.5	24,193	24,109	5,346	5,347
DF TAKE			34	64.2	13.0	100		59.1	9,747	9,747	2,184	2,188
WH TAKE			16	35.4	12.0	90		27.8	3,962	3,921	858	860
WH LEAVE			9	12.1	15.4	94		15.7	2,605	2,538	575	574
WR CEDAR			2	1.4	21.4	103		3.5	513	504	144	144
TOTAL			132	173.3	15.6	103		229.6	41,022	40,818	9,107	9,112
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		59.1	7.0	549	590	632						
DF TAKE		59.5	10.2	195	217	239						
WH TAKE		72.8	18.8	129	159	189						
WH LEAVE		90.2	31.8	243	357	470						
WR CEDAR		78.2	73.3	126	470	814						
TOTAL		79.3	6.9	395	424	453	251	63	28			
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		54.5	6.5	121	129	137						
DF TAKE		60.9	10.4	44	50	55						
WH TAKE		71.8	18.5	29	35	42						
WH LEAVE		77.9	27.5	56	78	99						
WR CEDAR		68.0	63.7	47	129	211						
TOTAL		74.4	6.5	88	94	100	221	55	25			
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		72.5	15.5	51	60	69						
DF TAKE		119.9	25.6	48	64	81						
WH TAKE		170.0	36.2	23	35	48						
WH LEAVE		166.8	35.5	8	12	16						
WR CEDAR		361.2	77.0	0	1	2						
TOTAL		69.7	14.8	148	173	199	203	51	23			
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		32.3	6.9	115	123	132						
DF TAKE		115.1	24.5	45	59	74						
WH TAKE		158.9	33.8	18	28	37						
WH LEAVE		149.0	31.7	11	16	21						
WR CEDAR		331.3	70.6	1	3	6						
TOTAL		45.6	9.7	207	230	252	87	22	10			

PROJECT STATISTICS

PROJECT HOLEYOAK

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
05N	03	16	PC-M	7073	64.00	23	132	S	W

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		33.5	7.1	22,389	24,109	25,828			
DF TAKE		117.6	25.0	7,306	9,747	12,189			
WH TAKE		165.1	35.2	2,542	3,921	5,300			
WH LEAVE		159.5	34.0	1,676	2,538	3,400			
WR CEDAR		337.1	71.8	142	504	865			
TOTAL		46.2	9.8	36,800	40,818	44,836	89	22	10

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		32.9	7.0	4,972	5,347	5,721			
DF TAKE		118.2	25.2	1,637	2,188	2,738			
WH TAKE		163.9	34.9	560	860	1,160			
WH LEAVE		155.7	33.2	384	574	764			
WR CEDAR		332.5	70.8	42	144	246			
TOTAL		44.9	9.6	8,240	9,112	9,983	84	21	9

Log Stock Table - MBF

T05N R03W S16 Ty7073 64.00

Project: HOLEYOAK
Acres 64.00Page 2
Date 6/26/2009
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S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches										
							2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39 40+
DT	DO 4S	20	4		4	.7				4							
DT	DO 4S	21	10		10	1.7		1	10								
DT	DO 4S	22	8		8	1.4		8									
DT	DO 4S	23	11		11	1.7		7		4							
DT	DO 4S	24	42		42	6.7		22	14	6							
DT	DO 4S	25	4		4	.7		4									
DT	DO 4S	26	5		5	.8		5									
DT	DO 4S	28	6		6	.9		6									
DT	DO 4S	29	4		4	.6		4									
DT	DO 4S	31	4		4	.7		4									
DT	DO 4S	33	10		10	1.5		10									
DT	DO 4S	35	4		4	.7		4									
DT	DO 4S	38	11		11	1.8		11									
DT	DO 4S	40	23		23	3.7		23									
DT	Totals		624		624	23.9		116	55	204	109	54	86				
HT	DO 2S	40	47		47	18.6					14	33					
HT	DO 3S	32	3		3	1.2			3								
HT	DO 3S	40	155	1.7	152	60.6			52	60	40						
HT	DO 4S	16	2		2	1.0		2									
HT	DO 4S	24	15		15	6.0			10	5							
HT	DO 4S	26	12		12	4.9		12									
HT	DO 4S	28	4		4	1.7		4									
HT	DO 4S	30	10		10	3.8		10									
HT	DO 4S	40	6		6	2.3		6									
HT	Totals		254	1.0	251	9.6		34	64	65	40	14	33				
HL	DO 2S	29	6		6	3.6						6					
HL	DO 2S	30	1		1	.5		1									
HL	DO 2S	40	74	3.6	72	44.1					21	31	20				
HL	DO 3S	40	73	2.3	71	43.8			14	26	31						
HL	DO 4S	16	2		2	1.3		2									
HL	DO 4S	23	4		4	2.2				4							
HL	DO 4S	24	3		3	1.7		3									
HL	DO 4S	33	1		1	.9		1									
HL	DO 4S	40	3		3	2.0		3									
HL	Totals		167	2.6	162	6.2		10	14	30	31	21	6	31	20		

Log Stock Table - MBF

T05N R03W S16 Ty7073 64.00

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Acres 64.00Page 3
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S Spp T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Spc	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
RC	DO	2S	40	14		14	42.8							14					
RC	DO	3S	40	16	3.9	15	47.8					15							
RC	DO	4S	23	1		1	1.6		1										
RC	DO	4S	36	3		3	7.8		3										
RC	Totals			33	1.9	32	1.2		3			15		14					
Total	All Species			2,625		2,612	100.0		257	215	445	322	344	391	463	157	18		

T TSPCSTGR			Species, Sort Grade - Board Foot Volumes (Type)												Page 1					
			Project: HOLEYOAK												Date 6/26/2009					
															Time 7:28:42AM					
T05N R03W S16 T7073												T05N R03W S16 T7073								
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt											
05N	03W	16	PC-M	7073	64.00	23	132	S	W											
S Spp	So T	Gr ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent Net Board Foot Volume								Average Log			Logs Per /Acre	
								Log Scale Dia.				Log Length				Ln Ft	Bd Ft	CF/ Lf		
				Def%	Gross	Net		4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99					
DL	DO	2S	68	.3	16,655	16,602	1,063				58	42			100	40	366	1.88	45.4	
DL	DO	3S	23	.6	5,477	5,445	348	0	94	6				2	1	97	40	107	0.69	50.7
DL	DO	4S	9		2,062	2,062	132	70	21	9			17	65	5	14	25	32	0.35	64.5
DL	Totals		59	.4	24,193	24,109	1,543	6	23	42	29		1	6	1	92	34	150	0.98	160.6
DT	DO	2S	22		2,186	2,186	140			100					100	40	258	1.41	8.5	
DT	DO	3S	53		5,158	5,158	330			100					100	40	105	0.61	49.1	
DT	DO	4S	25		2,403	2,403	154	76	24				8	58	12	22	27	30	0.25	78.9
DT	Totals		24		9,747	9,747	624	19	59	22			2	14	3	81	32	71	0.50	136.4
HT	DO	2S	18		729	729	47			100					100	40	273	1.36	2.7	
HT	DO	3S	62	1.7	2,465	2,424	155			100					2	98	40	95	0.55	25.5
HT	DO	4S	20		769	769	49	69	31				5	84		12	27	32	0.24	24.1
HT	Totals		10	1.0	3,962	3,921	251	14	68	19			1	16	1	81	34	75	0.49	52.2
HL	DO	2S	48	3.3	1,265	1,223	78	1		51	48			9		91	38	322	1.77	3.8
HL	DO	3S	43	2.3	1,137	1,111	71			100						100	40	104	0.60	10.7
HL	DO	4S	9		204	204	13	72	28				16	49	11	24	26	33	0.40	6.3
HL	Totals		6	2.6	2,605	2,538	162	6	46	24	23		1	8	1	90	35	122	0.79	20.7
RC	DO	2S	42		216	216	14			100					100	40	530	3.34	.4	
RC	DO	3S	48	3.9	250	241	15			100					100	40	173	1.29	1.4	
RC	DO	4S	10		48	48	3	100						17		83	32	34	0.39	1.4
RC	Totals		1	1.9	513	504	32	9	48	43				2		98	37	158	1.23	3.2
Type Totals				.5	41,022	40,818	2,612	10	38	33	19		1	9	1	88	33	109	0.73	373.2

TC		PSTNDSUM		Stand Table Summary										Page		1			
														Date:		6/26/2009			
T05N R03W S16 Ty7073				64.00		Project HOLEYOAK										Time:		7:29:16AM	
						Acres 64.00										Grown Year:			
S Spec T	DBH	Sample		FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals					
		Trees							Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF			
DL	9	1	92	88	3.937	1.74	7.87	6.6	35.0	1.49	52	276	95	33	18				
DL	10	2	90	98	6.377	3.48	12.75	8.7	45.0	3.18	112	574	203	71	37				
DL	11	1	90	104	2.635	1.74	5.27	11.2	50.0	1.68	59	264	107	38	17				
DL	12	1	90	86	2.214	1.74	4.43	11.5	45.0	1.44	51	199	92	33	13				
DL	14	1	90	110	1.627	1.74	4.88	13.5	60.0	1.88	66	293	120	42	19				
DL	15	1	90	105	1.417	1.74	2.83	23.0	95.0	1.85	65	269	119	42	17				
DL	16	3	89	115	3.737	5.22	11.21	18.9	82.2	6.03	211	922	386	135	59				
DL	17	2	88	98	2.207	3.48	5.52	21.9	90.0	3.45	121	497	220	77	32				
DL	18	5	88	118	4.921	8.70	12.79	27.3	112.3	9.94	349	1,437	636	223	92				
DL	19	5	89	124	4.416	8.70	13.25	28.0	119.3	10.56	370	1,581	676	237	101				
DL	20	7	88	124	5.580	12.17	16.74	30.7	134.3	14.67	515	2,248	939	329	144				
DL	21	3	88	122	2.169	5.22	6.51	33.8	142.2	6.27	220	926	401	141	59				
DL	22	6	88	126	3.953	10.43	11.86	38.0	175.0	12.85	451	2,075	823	289	133				
DL	23	3	88	124	1.808	5.22	5.42	42.7	192.2	6.59	231	1,043	422	148	67				
DL	24	6	86	129	3.321	10.43	9.96	47.2	212.8	13.42	471	2,120	859	301	136				
DL	26	9	87	133	4.245	15.65	12.74	58.0	264.8	21.04	738	3,373	1,347	473	216				
DL	27	1	86	142	.437	1.74	1.31	66.0	310.0	2.47	87	407	158	55	26				
DL	28	6	86	135	2.440	10.43	7.32	67.2	305.6	14.01	492	2,237	896	315	143				
DL	30	5	86	142	1.771	8.70	5.31	81.3	397.3	12.32	432	2,112	788	277	135				
DL	32	1	86	136	.311	1.74	.93	88.3	433.3	2.35	83	405	150	53	26				
DL	33	1	87	132	.293	1.74	.88	94.5	460.0	2.36	83	404	151	53	26				
DL	34	1	86	145	.276	1.74	.83	107.4	543.3	2.53	89	450	162	57	29				
DL	Totals	71	89	116	60.094	123.48	160.63	33.3	150.1	152.37	5,347	24,109	9,752	3,422	1,543				
DT	8	3	91	85	14.947	5.22	24.91	5.3	30.0	3.71	133	747	238	85	48				
DT	9	1	92	82	3.937	1.74	3.94	10.0	40.0	1.09	39	157	70	25	10				
DT	10	1	90	100	3.189	1.74	6.38	8.3	40.0	1.51	53	255	96	34	16				
DT	12	7	90	99	15.500	12.17	31.00	13.7	60.7	12.09	424	1,882	773	271	120				
DT	13	3	90	98	5.660	5.22	11.32	15.2	63.3	4.90	172	717	314	110	46				
DT	14	3	90	109	4.881	5.22	13.01	15.2	70.0	5.65	198	911	362	127	58				
DT	15	1	90	114	1.417	1.74	4.25	16.1	73.3	1.95	69	312	125	44	20				
DT	16	5	88	116	6.228	8.70	16.19	21.6	95.4	9.97	350	1,544	638	224	99				
DT	18	3	88	123	2.952	5.22	8.86	25.2	105.6	6.35	223	935	406	143	60				
DT	19	1	89	121	.883	1.74	2.65	27.9	116.7	2.10	74	309	135	47	20				
DT	20	4	88	123	3.189	6.96	9.57	32.2	141.7	8.77	308	1,355	561	197	87				
DT	21	2	87	120	1.446	3.48	4.34	33.6	143.3	4.16	146	622	266	93	40				
DT	Totals	34	90	100	64.229	59.13	136.42	16.0	71.5	62.25	2,188	9,747	3,984	1,400	624				
HT	8	2	90	76	9.964	3.48	14.95	5.3	30.0	2.54	79	448	163	51	29				
HT	10	1	92	86	3.189	1.74	3.19	12.8	60.0	1.30	41	191	83	26	12				
HT	11	3	90	91	7.906	5.22	7.91	17.0	70.0	4.31	135	553	276	86	35				
HT	12	2	92	102	4.429	3.48	8.86	15.2	67.5	4.29	135	598	275	86	38				
HT	13	2	92	87	3.774	3.48	5.66	17.2	73.3	3.09	97	415	198	62	27				
HT	15	1	93	114	1.417	1.74	4.25	18.4	90.0	2.51	78	383	161	50	24				
HT	17	1	92	96	1.103	1.74	1.10	37.7	180.0	1.33	42	199	85	27	13				
HT	18	2	93	113	1.968	3.48	2.95	41.4	196.7	3.91	122	581	250	78	37				
HT	19	1	92	114	.883	1.74	1.77	36.9	155.0	2.08	65	274	133	42	18				
HT	20	1	92	94	.797	1.74	1.59	41.1	175.0	2.10	65	279	134	42	18				
HT	Totals	16	91	90	35.430	27.83	52.23	16.5	75.1	27.46	860	3,921	1,758	550	251				
HL	10	1	92	88	3.189	1.74	3.19	14.2	70.0	1.45	45	223	93	29	14				
HL	12	1	87	88	2.214	1.74	2.21	22.7	90.0	1.61	50	199	103	32	13				
HL	14	1	90	72	1.627	1.74	3.25	14.5	50.0	1.53	47	163	98	30	10				
HL	15	1	93	110	1.417	1.74	4.25	17.3	83.3	2.36	74	354	151	47	23				

TC		PSTNDSUM		Stand Table Summary										Page		2	
														Date:		6/26/2009	
T05N R03W S16 Ty7073 64.00				Project HOLEYOAK										Time:		7:29:16AM	
				Acres 64.00										Grown Year:			
S Spc	T	Sample		Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals			
		DBH	Trees	FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF	
HL		16	1	92	100	1.246	1.74	2.49	26.8	110.0	2.14	67	274	137	43	18	
HL		18	1	93	112	.984	1.74	1.97	37.5	150.0	2.37	74	295	152	47	19	
HL		24	1	92	84	.554	1.74	1.11	55.5	200.0	1.96	61	221	126	39	14	
HL		26	1	91	130	.472	1.74	.94	82.7	420.0	2.50	78	396	160	50	25	
HL		27	1	93	118	.437	1.74	1.31	59.0	313.3	2.48	77	411	159	50	26	
HL		Totals	9	91	94	12.139	15.65	20.73	27.7	122.4	18.39	574	2,538	1,177	367	162	
RC		18	1	80	96	.984	1.74	1.97	33.5	105.0	1.55	66	207	99	42	13	
RC		28	1	80	119	.407	1.74	1.22	63.7	243.3	1.83	78	297	117	50	19	
RC		Totals	2	80	103	1.391	3.48	3.19	45.1	157.9	3.38	144	504	216	92	32	
Totals			132	90	103	173.283	229.57	373.19	24.4	109.4	263.85	9,112	40,818	16,886	5,831	2,612	

Holey Oak
341-10-24
Volume Summary (Shown in MBF)
June 2009

Area 1: Modified Clearcut

SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	SPECIES TOTAL
Douglas-fir	Take Volume	905	631	166		1702
	Right of Way ¹	0	0	0		0
	Total - 2% Defect	887	618	163		1668
	% Total	49	39	12		
Hemlock	Take Volume	140	200	86		426
	ReserveWH>=23"	-34	-48	-20		-102
	Right of Way ¹	0	0	0		0
	Total - 2% Defect	104	149	65		318
	% Total	33	47	20		
Red Alder	Take Volume	45	95	34		174
	Right of Way ¹	0	0	0		0
	Total - 2% Defect	43	90	32		165
	% Total	26	55	19		

Areas 2: Moderate Partial Cut

SPECIES		2 SAW	3 SAW	4 SAW	CAMPRUN	SPECIES TOTAL
Douglas-fir	Take Volume	140	330	154		624
	Right of Way ¹	17	35	17		69
	Total - 2% Defect	154	357	168		679
	% Total	23	53	25		
Hemlock	Take Volume	47	155	49		251
	Right of Way ¹	3	3	3		9
	Total - 2% Defect	49	155	51		255
	% Total	19	61	20		

Totals:

Douglas fir: 2,347 MBF
Hemlock: 573 MBF
Red Alder: 165 MBF
Total Volume: 3,085 MBF

¹ ODF right of way is estimated to be 2.0 acres in Area 1 and 2.0 acres in Areas 2, obtained using ArcGIS. R/W volumes for Area 2 (PC-M) were established using volume per acre estimates from the SuperAce 2004 program and R/W volumes for Area 1 are included in take volume.

Residual Stand Specifications
Holey Oak
341-10-24

Area 2 Moderate Partial Cut

Residual QMD assumption (from cruise leave tree information) - 17 inches.
Target Relative Density - 34

	Minimum	Target	Maximum
Relative Density	32	34	36
Basal Area	130	140	150
Trees per Acre	82	89	95

$$RD = BA / \sqrt{DBH}$$

$$BA = \sqrt{DBH} (RD)$$

$$BA/tree = (\pi r^2) / (144)$$

$$TPA = (BA/acre) / (BA/tree)$$

