



Timber Sale Appraisal
Dean Miller
Sale CS-341-2018-37-

District: Coos

Date: May 17, 2017

Cost Summary

| | Conifer | Hardwood | Total |
|-------------------------|--------------|-------------------|---------------|
| Gross Timber Sale Value | \$338,391.67 | \$103,287.45 | \$441,679.12 |
| | | Project Work: | (\$10,327.00) |
| | | Advertised Value: | \$431,352.12 |



Timber Sale Appraisal Dean Miller Sale CS-341-2018-37-

District: Coos

Date: May 17, 2017

Timber Description

Location: Portions of Section 16, T22S, R11W, W.M., Douglas County, Oregon.

Stand Stocking: 60%

| Specie Name | AvgDBH | Amortization (%) | Recovery (%) |
|-----------------------|--------|------------------|--------------|
| Douglas - Fir | 17 | 0 | 95 |
| Western Hemlock / Fir | 14 | 0 | 95 |
| Alder (Red) | 18 | 0 | 90 |
| Maple | 16 | 0 | 90 |

| Volume by Grade | 2S | 3S | 4S | 8" - 9" | 10" - 11" | 12"+ | 6" - 7" | Total |
|-----------------------|-----|-----|-----|---------|-----------|------|---------|-------|
| Douglas - Fir | 337 | 386 | 264 | 0 | 0 | 0 | 0 | 987 |
| Western Hemlock / Fir | 6 | 18 | 14 | 0 | 0 | 0 | 0 | 38 |
| Alder (Red) | 0 | 0 | 0 | 23 | 85 | 165 | 54 | 327 |
| Maple | 0 | 0 | 0 | 0 | 21 | 7 | 10 | 38 |
| Total | 343 | 404 | 278 | 23 | 106 | 172 | 64 | 1,390 |

Comments: Pond Values Used: 1st Quarter Calendar Year 2017 + Local Pond Values.

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
 $\$827.01/\text{MBF} = \$1,175/\text{MBF} - \$347.99/\text{MBF}$

Regeneration harvest containing approximately 72 acres of 45-53 year-old Douglas-fir, hemlock, and red alder/bigleaf maple mix.

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

BRANDING AND PAINTING COST ALLOWANCE = $\$2.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$3.00/\text{Gallon}$

HAULING COST ALLOWANCE
Hauling costs equivalent to $\$780$ daily truck cost.

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

FELLING:

Felling of Unmerchantable Material: $\$80/\text{acre} \times 2 \text{ acres} = \160

YARDING AND LOADING:

Cull Sorting / Slash Piling / Landing Cleanup: $\$125/\text{landing} \times 5 \text{ landings} = \625

Rig Tail/Lift Trees: $\$150/\text{lift tree} \times 4 \text{ lift trees} = \600

Artificial Guy Anchors: $\$500/\text{anchor} \times 1 \text{ anchor} = \500

Cover Landing Slash Piles: $\$50/\text{pile} \times 5 \text{ piles} = \250

MISCELLANEOUS COSTS

Maintenance Spot Rocking (Section 2130): $\$32.59/\text{yard} \times 80 \text{ yards} = \$2,607$

Grader Move-in: $\$500/\text{grader} \times 1 \text{ grader} = \500

Road Maintenance Haul Route Outside Sale Area, Point A to Dean Creek Road, grade, shape, pull ditches:
 $\$24.83/\text{station} \times 142 \text{ stations} = \$3,526$

TOTAL Other Costs (with Profit & Risk to be added) = $\$8,768$

Other Costs (No Profit & Risk added):

DSL Fee for timber wedge removal at Point H: $\$456.46/\text{MBF} \times .88 \text{ MBF} = \402

TOTAL Other Costs (No Profit & Risk added) = $\$402$



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Logging Conditions

Combination#: 1

| | |
|-----------------------|--------|
| Douglas - Fir | 82.00% |
| Western Hemlock / Fir | 82.00% |
| Alder (Red) | 82.00% |
| Maple | 82.00% |

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber

yarding distance: Medium (800 ft) **downhill yarding:** No

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 10 **bd. ft / load:** 3800

cost / mbf: \$157.90

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

Combination#: 2

| | |
|-----------------------|--------|
| Douglas - Fir | 18.00% |
| Western Hemlock / Fir | 18.00% |
| Alder (Red) | 18.00% |
| Maple | 18.00% |

Logging System: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber

yarding distance: Short (400 ft) **downhill yarding:** Yes

tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF

loads / day: 10 **bd. ft / load:** 3800

cost / mbf: \$197.37

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



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Logging Costs

| | |
|----------------------------|-------------------------------|
| Operating Seasons: 1.00 | Profit Risk: 20% |
| Project Costs: \$10,327.00 | Other Costs (P/R): \$8,768.00 |
| Slash Disposal: \$0.00 | Other Costs: \$402.00 |

Miles of Road

Road Maintenance: \$0.00

| Dirt | Rock (Contractor) | Rock (State) | Paved |
|------|----------------------|-----------------|-------|
| 1.0 | 1.0 | 0.0 | 0.0 |

Hauling Costs

| Species | \$ / MBF | Trips/Day | MBF / Load |
|-----------------------|----------|-----------|------------|
| Douglas - Fir | \$0.00 | 2.0 | 3.8 |
| Western Hemlock / Fir | \$0.00 | 2.0 | 3.8 |
| Alder (Red) | \$0.00 | 2.0 | 3.0 |
| Maple | \$0.00 | 2.0 | 3.0 |



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Logging Costs Breakdown

| Logging | Road Maint | Fire Protect | Hauling | Other P/R appl | Profit & Risk | Slash Disposal | Scaling / Brand & Paint | Other | Total |
|------------------------------|------------|--------------|----------|----------------|---------------|----------------|-------------------------|--------|----------|
| Douglas - Fir | | | | | | | | | |
| \$165.00 | \$1.70 | \$3.15 | \$107.76 | \$6.31 | \$56.78 | \$0.00 | \$7.00 | \$0.29 | \$347.99 |
| Western Hemlock / Fir | | | | | | | | | |
| \$165.00 | \$1.70 | \$3.15 | \$107.76 | \$6.31 | \$56.78 | \$0.00 | \$7.00 | \$0.29 | \$347.99 |
| Alder (Red) | | | | | | | | | |
| \$165.00 | \$1.78 | \$3.15 | \$143.00 | \$6.31 | \$63.85 | \$0.00 | \$7.00 | \$0.29 | \$390.38 |
| Maple | | | | | | | | | |
| \$165.00 | \$1.78 | \$3.15 | \$143.00 | \$6.31 | \$63.85 | \$0.00 | \$7.00 | \$0.29 | \$390.38 |

| Specie | Amortization | Pond Value | Stumpage | Amortized |
|-----------------------|--------------|------------|----------|-----------|
| Douglas - Fir | \$0.00 | \$684.52 | \$336.53 | \$0.00 |
| Western Hemlock / Fir | \$0.00 | \$512.11 | \$164.12 | \$0.00 |
| Alder (Red) | \$0.00 | \$686.93 | \$296.55 | \$0.00 |
| Maple | \$0.00 | \$556.58 | \$166.20 | \$0.00 |



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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 |
| Maple | 0 | \$0.00 | \$0.00 |

Unamortized

| Specie | MBF | Value | Total |
|-----------------------|-----|----------|--------------|
| Douglas - Fir | 987 | \$336.53 | \$332,155.11 |
| Western Hemlock / Fir | 38 | \$164.12 | \$6,236.56 |
| Alder (Red) | 327 | \$296.55 | \$96,971.85 |
| Maple | 38 | \$166.20 | \$6,315.60 |

Gross Timber Sale Value

Recovery: \$441,679.12

Prepared By: Jon Haynes

Phone: 541-267-1758

Summary of "Other Costs" for Timber Sale Appraisals

Sale Name: Dean Miller

Additional "Other Cost" with additional profit and risk to be added:

| <u>Felling</u> | <u>Units</u> | <u>Quantity</u> | <u>Cost/unit</u> | <u>Total Cost</u> |
|--|---------------------|------------------------|-------------------------|--------------------------|
| Felling of unmerch material | acre | 2 | \$ 80.00 | \$ 160 |
| <u>Yarding and Loading</u> | | | | |
| Cull sorting/slash piling/landing cleanup | landing | 5 | \$ 125.00 | \$ 625 |
| Rig tail/lift trees | lift tree | 4 | \$ 150.00 | \$ 600 |
| Artificial guy anchors(dozer, skidder) | anchor | 1 | \$ 500.00 | \$ 500 |
| Cover landing slash piles w/sheeting | landing | 5 | \$ 50.00 | \$ 250 |
| <u>Miscellaneous Costs</u> | | | | |
| Maintenance rock (Section 2130) | yards | 80 | \$ 32.59 | \$ 2,607 |
| Grader Move-in | grader | 1 | \$ 500.00 | \$ 500 |
| Road Maintenance Haul Route Outside Sale Area | station | 142 | \$ 24.83 | \$ 3,526 |
| Point A to Dean Creek Rd. grade, shape, pull ditches | | | | |

Total additional "Other Cost" with additional profit and risk to be added

\$ 8,768

Additional "Other Cost" with no additional profit and Risk

| <u>Units</u> | <u>Quantity</u> | <u>Cost/unit</u> | <u>Total Cost</u> |
|---|------------------------|-------------------------|--------------------------|
| DSL Fee for timber wedge removal at Point H | MBF | 0.88 | \$ 456.46 |
| | | | \$ 402 |

Total additional "Other Cost" with no additional profit and Risk

\$ 402

Summary of Construction Costs Dean Miller

Project 1A: Road Improvement

Points: A - F Length: 3,120' Type: 14' no ditch

| | | | | | |
|---|-------------|---------|-----------------|----------|-----------------|
| Excavator, tank trap & boulder removal | <u>4</u> | hrs at | <u>\$175.00</u> | per hour | <u>\$700.00</u> |
| Cat time, shape road prism | <u>4</u> | hrs at | <u>\$155.00</u> | per hour | <u>\$620.00</u> |
| Grader, final smoothing | <u>2</u> | hrs at | <u>\$85.00</u> | per hour | <u>\$170.00</u> |
| Dump Truck, end haul material | <u>2</u> | hrs at | <u>\$100.00</u> | per hour | <u>\$200.00</u> |
| Laborer | <u>4</u> | hrs at | <u>\$38.00</u> | per hour | <u>\$152.00</u> |
| Road Brushing | <u>0.25</u> | days at | <u>\$600.00</u> | per day | <u>\$150.00</u> |
| 18 " culvert at Point I (includes installation) | <u>40</u> | ft at | <u>\$17.00</u> | per ft | <u>\$680.00</u> |
| 18 " bands | <u>1</u> | bands | <u>\$19.00</u> | per band | <u>\$19.00</u> |

Total Project 1A: \$2,691.00

Project 1B: Road Improvement

Points: C - G Length: 370' Type: 14' no ditch

| | | | | | |
|--------------------------------------|-------------|---------|-----------------|----------|-----------------|
| Excavator, re-align road junction | <u>4</u> | hrs at | <u>\$175.00</u> | per hour | <u>\$700.00</u> |
| Cat time, shape road prism | <u>3</u> | hrs at | <u>\$155.00</u> | per hour | <u>\$465.00</u> |
| Grader, final shaping | <u>1</u> | hrs at | <u>\$85.00</u> | per hour | <u>\$85.00</u> |
| Dump Truck, end haul excess material | <u>2</u> | hrs at | <u>\$100.00</u> | per hour | <u>\$200.00</u> |
| Laborer | <u>2</u> | hrs at | <u>\$38.00</u> | per hour | <u>\$76.00</u> |
| Road Brushing | <u>0.25</u> | days at | <u>\$600.00</u> | per day | <u>\$150.00</u> |

Total Project 1B: \$1,676.00

Project 1C: Road Improvement

Points: D - H Length: 200' Type: 14' no ditch

| | | | | | |
|---|----------|--------|-----------------|----------|-----------------|
| Cat time, shape & compact landing floor | <u>1</u> | hrs at | <u>\$155.00</u> | per hour | <u>\$155.00</u> |
| Grader, final smoothing | <u>1</u> | hrs at | <u>\$85.00</u> | per hour | <u>\$85.00</u> |

Total Project 1C: \$240.00

Project 1D: Road Improvement

Points: A - D Length: 3,430' Type: 16' no ditch

| | | | | | |
|-------------------------|----------|--------|----------------|----------|-----------------|
| Grader, final smoothing | <u>4</u> | hrs at | <u>\$85.00</u> | per hour | <u>\$340.00</u> |
|-------------------------|----------|--------|----------------|----------|-----------------|

Total Project 1D: \$340.00

Summary of Construction Costs Dean Miller

Move-in

| Equipment | Miles | hrs/RT | Rate/hr | Total |
|------------|-------|--------|----------|----------|
| Excavator | 35 | 7 | \$125.00 | \$875.00 |
| Cat | 35 | 7 | \$125.00 | \$875.00 |
| Dump Truck | 35 | 5 | \$100.00 | \$500.00 |
| Grader | 35 | 6 | \$125.00 | \$750.00 |

Total Move-In \$3,000.00

Project 1E: Landing Improvement

Points: B, E, F, G, H Length: n/a Type: n/a

| | | | | | |
|--|---|--------|----------|----------|----------|
| Excavator - landing cleanup, boulder removal | 4 | hrs at | \$175.00 | per hour | \$700.00 |
| Cat time - smooth landing surface & compact | 4 | hrs at | \$155.00 | per hour | \$620.00 |
| Dump Truck - haul boulders to waste areas | 4 | hrs at | \$100.00 | per hour | \$400.00 |
| Slash relocation at Point B | 2 | hrs at | \$175.00 | per hour | \$350.00 |

Total Project 1E: \$2,070.00

Project 1F: Waste Area Improvement

Points: Where marked in field

| | | | | | |
|----------------------------|---|--------|----------|----------|----------|
| Cat time, prep waste areas | 2 | hrs at | \$155.00 | per hour | \$310.00 |
|----------------------------|---|--------|----------|----------|----------|

Total Project 1F: \$310.00

Project 1 Total \$10,327.00

TIMBER SALE SUMMARY

Dean Miller

1. Type of Sale: Final Harvest, Recovery, Sealed Bid

2. Boundary Lines: Timber sale boundaries are marked on the ground with white "Timber Sale Boundary" posters, red flagging, and red paint at locations shown on the Exhibit "A".

3. Revenue Distribution: 100% BOF; 100% Douglas County

4. Sale Acreage: The total sale area is approximately 72 acres. Sale acreage was determined from LIDAR imagery using electronic digitizing with the ArcMap 10.4 GIS program. The cruise expansion acres include only the timbered acres and not existing interior roads or landings.

| | Posted GIS Acres | Interior Roads/Landings | Non-Stocked Acres | Net Cruise Acres | Net Harvest Acres |
|------------------|-----------------------------|------------------------------------|------------------------------|-----------------------------|------------------------------|
| Sale Area | 75.12 | 2.91 | 2.52 | 69.69 | 72.21 |

5. Volume by Species

| Species | Total Volume (MBF) | Volume (MBF) per Acre |
|----------------|-------------------------------|----------------------------------|
| Douglas-fir | 987 | 13.7 |
| Hemlock | 38 | .5 |
| Red Alder | 327 | 4.5 |
| Bigleaf Maple | 38 | .5 |
| Total | 1390 | 19.3 |

6. Grade: (by Percent,)

| Species | 3 Peeler % | Special Mill % | 2 Saw (12"+) % | 3 Saw % (10" – 11") % | Big 3 Saw % | 4 Saw % (8" – 9") % | 6" – 7" % Hardwood |
|----------------|-----------------------|---------------------------|---------------------------|----------------------------------|------------------------|--------------------------------|-------------------------------|
| Douglas-fir | | | 34 % | 39 % | | 27 % | |
| Hemlock | | | 16 % | 46 % | | 38 % | |
| Red Alder | | | 51 % | 26 % | | 7 % | 16 % |
| Bigleaf Maple | | | 19 % | 56 % | | | 25 % |

7. Cruise: The timber cruise from the recently prepared adjacent Hakki Headwaters (341-17-51) sale was used as the basis for Dean Miller. Stand age, species composition, and average diameter are very similar for both these sales. Dean Miller was adjusted to reflect particular stand characteristics and 4 percent ingrowth was added to account for time elapsed since the Hakki Headwaters cruise date.

Hakki Headwaters was variable plot cruised using a nested Big BAF plot method. The Big BAF method is a combination of count plots and individually measured trees. Plots were spaced 150 feet apart on cruise lines spaced 400 feet apart. A 20 BAF full plot was used to determine tree counts for all species. Trees were sighted in at DBH. A total of 64 count plots were installed. A 160 BAF full plot at DBH was taken on every plot to determine which Douglas-fir trees would be fully measured. A total of 54 Douglas-fir trees were measured for DBH, height, grade, and defect. Minor species were measured on every third plot with a 20 BAF at DBH. A total of 37 red alder, 4 hemlock and 4 bigleaf maple trees were

fully measured. Cruise data was compiled using Superace. Cruising was done by ODF Coos Unit staff J. Riding (primary cruiser, 60 plots) and C. Hall (4 plots) in October and November 2015, and January 2016.

8. Grading: All trees were graded according to the Official Bureau Log Scaling and Grading Rules. Trees were graded to maximize grade where possible and field net volume was calculated by converting all logs to 40 foot lengths. No field deductions were made for defect. Additional deductions were made for hidden defect and for breakage (Table B).

A. Summary data:

| Diam | Ht. Stand | Form Pt. | Form Factor | CV % | SE % |
|------|-----------------------------------|------------------|---|--------|-------|
| DBH | 5" DIB Conifer 6" DIB Hardwood | All species: DBH | Recorded for all cruised trees by estimate and measure | 56.1 % | 7.0 % |

B. Defect and Breakage Summary:

BY PERCENT

| SPECIES | CRUISED | HIDDEN DEFECT | BREAKAGE | TOTAL % |
|---------------|---------|---------------|----------|---------|
| DOUGLAS FIR | 0 | 4 | 2 | 6 |
| HEMLOCK | 0 | 4 | 2 | 6 |
| RED ALDER | 0 | 6 | 6 | 12 |
| BIGLEAF MAPLE | 0 | 6 | 6 | 12 |

C. Stand Data:

| SPECIES | DBH | TREES/ACRE | BASAL AREA/AC | NET MBF/ACRE |
|---------------|-----|------------|---------------|--------------|
| DOUGLAS FIR | 17" | 60 | 94 | 13.7 |
| HEMLOCK | 14" | 5 | 5 | < 1 |
| RED ALDER | 18" | 29 | 53 | 4.5 |
| BIGLEAF MAPLE | 16" | 6 | 8 | < 1 |

D. Green Tree Retention: There are three (3) Green Tree Reserve (GTR) areas associated with this sale that are reserved from cutting. These areas consist of a couple of Type N perennial reaches and several Type N seasonal other reaches. Approximately one third of GTR is posted outside of the sale area within stream buffers and was not included in the timber cruise expansion acres. The remaining two thirds of GTR is on seasonal other reaches and has been individually painted with yellow paint and its total estimated volume of 25 MBF has been removed from the timber cruise. A total of 317 GTR are distributed across the sale area for an average of 4.4 GTR per acre. The FPA requirement for this sale is 150 leave trees. The table below summarizes the GTR areas.

| Green Tree Retention (GTR) Area | Conifer Count | Conifer Vol. Removed | Hardwood Count | Hardwood Vol. Removed |
|--|---------------|----------------------|----------------|-----------------------|
| Type N Perennial Stream Buffers | 34 | 0 | 72 | 0 |
| Seasonal Other Reaches, Yellow Painted "W" trees | 81 | 14 | 130 | 11 |
| TOTALS | 115 | 14 | 202 | 11 |

E. Down Wood: The down woody debris requirement of this sale is to leave 60 – 120 cubic feet per acre of hard logs across the sale area. This will be achieved by retaining hard logs containing a minimum of 20 cubic feet for any individual piece. Existing down wood can be used to achieve this target provided they meet the definition of a hard log (sound wood in decay class 1 or 2 indicated by intact bark and original wood color).

9. Timber Description: Timber across the sale area is predominately 45-53 year-old third growth Douglas-fir with significant amounts of red alder, and some minor amounts of western hemlock and bigleaf maple. Stocking is medium with some areas of sparse stocking dominated by brush.

10. Topography: North of the 2000 road, the timber sale area is situated in headwater tributaries of Dean Creek. South of the 2000 road, the timber sale area is situated in headwater tributaries of Miller Creek. Aspects are generally north and northwest facing with some easterly facing. Slopes are generally greater than 65 percent across the entire sale area. Most of the stream reaches within the sale area are classified as Type N seasonal. Miller Creek is classified as a Type N perennial in the western part of the sale area. A rocky ridge running east to west divides the sale area.

11. Logging Method: The sale area is designed primarily to be uphill cable logged from existing landings on the 2000, 2770, and 2780 roads. Because a rocky ridge bisects the sale area with no opportunities to locate landings on this ridge, some downhill cable logging will be necessary. The northern portion of the sale area is located adjacent to a Logging Restricted Area which is off-limits for stringing cable lines or locating tailholds. In addition, there is a 100 meter wide Chainsaw Restricted Area adjacent to the northern and southeastern boundaries of the timber sale area. Chainsaw operations for tailhold or guy anchor establishment is not allowed from April 1 to August 5 within the Chainsaw Restricted Area. Full suspension will be required while yarding over the posted stream buffers and other drainages shown on Exhibit A. Guy anchors or tailholds located on adjacent Division of State Lands (DSL) ownership will require prior ODF inspection and permit approval. Guy anchors or tailholds felled or notched more than 50 percent will require compensation to DSL at \$70 per tree. Single end suspension will be maintained over the remainder of the sale areas. In unit lift/tail trees may be necessary to achieve the required deflection and has been costed for in the appraisal. Felling of unmerchantable material has also been costed for in the appraisal. A small wedge of DSL timber in vicinity of Landing H will likely need removal at a fee of \$402. This fee has been costed for in the appraisal. Impacts to the 2000 road are anticipated during yarding and 80 yards of post haul repair and patch rock has been costed for in the appraisal. Purchaser is responsible for maintenance of the 2000 road from Point D all the way north to the junction with the paved Dean Creek Road and has been costed for in the appraisal. The sale is designed for dry season operability. If Purchaser opts for winter and wet weather operations, Purchaser will bear cost of rocking landings, dirt spurs, and any necessary pre-haul spread on the 2000, 2770, and 2780 roads.

12. Access: (All miles approximate). To access the timber sale area from State Highway 38 take the Dean Creek Road located approximately 6.5 east of Reedsport. Proceed on Dean Creek Road for 2.5 miles to the gravel 2000 road at the end of the pavement. Turn right onto the 2000 road and proceed uphill for 2.4 miles to the timber sale area.

13. Projects: See attached "Project Cost Summary Sheet"

Project No. 1: Road, Landing, and Waste Area Improvement

Operating Periods Restrictions Matrix for

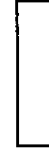
Dean Miller

341-18-37

| Harvesting | January | February | March | April | May | June | | July | | August | | September | | October | | November | | December | |
|--|---------|----------|-------|-------|-----|------|------|------|--|--------|-----|-----------|------|---------|------|----------|--|----------|--|
| | | | | | | 15th | 16th | | | 5th | 6th | 15th | 16th | 14th | 15th | | | | |
| Ground-based Yarding | | | | | | | | | | | | | | | | | | | |
| Cable Yarding from 2770 and 2780 roads or from unsurfaced landings on 2000 road. | | | | | | | | | | | | | | | | | | | |
| Chain Saw use in Chainsaw Restricted Area. | | | | | | | | | | | | | | | | | | | |
| Logging Activity in Logging Restricted Areas (includes guylines and tailholds). | | | | | | | | | | | | | | | | | | | |

| Hauling | January | February | March | April | May | June | | July | | August | | September | | October | | November | | December | |
|---|---------|----------|-------|-------|-----|------|------|------|--|--------|--|-----------|--|---------|------|----------|--|----------|--|
| | | | | | | 15th | 16th | | | | | | | 14th | 15th | | | | |
| Log Hauling on 2770 & 2780 roads, or road segment D - H | | | | | | | | | | | | | | | | | | | |

| Project Work | January | February | March | April | May | June | | July | | August | | September | | October | | November | | December | |
|---|---------|----------|-------|-------|-----|------|------|------|--|--------|-----|-----------|------|---------|------|----------|--|----------|--|
| | | | | | | 15th | 16th | | | 5th | 6th | 15th | 16th | 14th | 15th | | | | |
| Project 1 | | | | | | | | | | | | | | | | | | | |
| Non-project Roads and Landings | | | | | | | | | | | | | | | | | | | |
| Non-project Roads and Landings in Chainsaw Restricted Area. | | | | | | | | | | | | | | | | | | | |
| Non-project Roads in Logging Restricted Area. | | | | | | | | | | | | | | | | | | | |



Operations Allowed



Activity Restricted 2 hours before sunset through 2 hours after sunrise



Operations Prohibited - T & E



Operations Prohibited for weather conditions: unless otherwise approved in writing by STATE

Operating Matrix represents the seasonal restrictions contained within the body of the timber sale contract. See Section 2455 for further information on seasonal restrictions.

CRUISE VOLUME COMPUTATION REPORT

| | | | |
|-----------------|--|-------|------------|
| SALE NAME: | Dean Miller | DATE: | 05/01/2017 |
| LEGAL LOCATION: | Portions of Section 16, T22S R11W WM. Douglas County OR | BY: | J. Haynes |

FIELD CULL PERCENTAGE

Sale Area

| Species | Doug-fir | Spruce | Cedar | Hemlock | Red Alder | Bigleaf Maple |
|------------|----------|--------|-------|---------|-----------|---------------|
| Field cull | 0% | 0 | 0% | 0% | 0% | 0 |

NET FIELD VOLUME MBF (Gross vol. less field cull)

| SPECIES>>>>> | Doug-fir | Spruce | Cedar | Hemlock | Red Alder | Bigleaf Maple | TOTAL |
|------------------|----------|--------|-------|---------|-----------|---------------|-------|
| Sale Area | 1064 | 0 | 0 | 40 | 383 | 43 | 1530 |
| less GTR vol | 14 | 0 | 0 | 0 | 11 | 0 | 25 |
| TOTAL | 1050 | 0 | 0 | 40 | 372 | 43 | 1505 |

HIDDEN DEFECT AND BREAKAGE

| Species | Doug-fir | Spruce | Cedar | Hemlock | Red Alder | Bigleaf Maple |
|--------------|----------|--------|-------|---------|-----------|---------------|
| Hidden cull | 0.04 | 0 | 0 | 0.04 | 0.06 | 0.06 |
| Breakage | 0.02 | 0 | 0 | 0.02 | 0.06 | 0.06 |
| TOTAL | 0.06 | 0.00 | 0.00 | 0.06 | 0.12 | 0.12 |

NET VOLUME BY MBF BY AREA

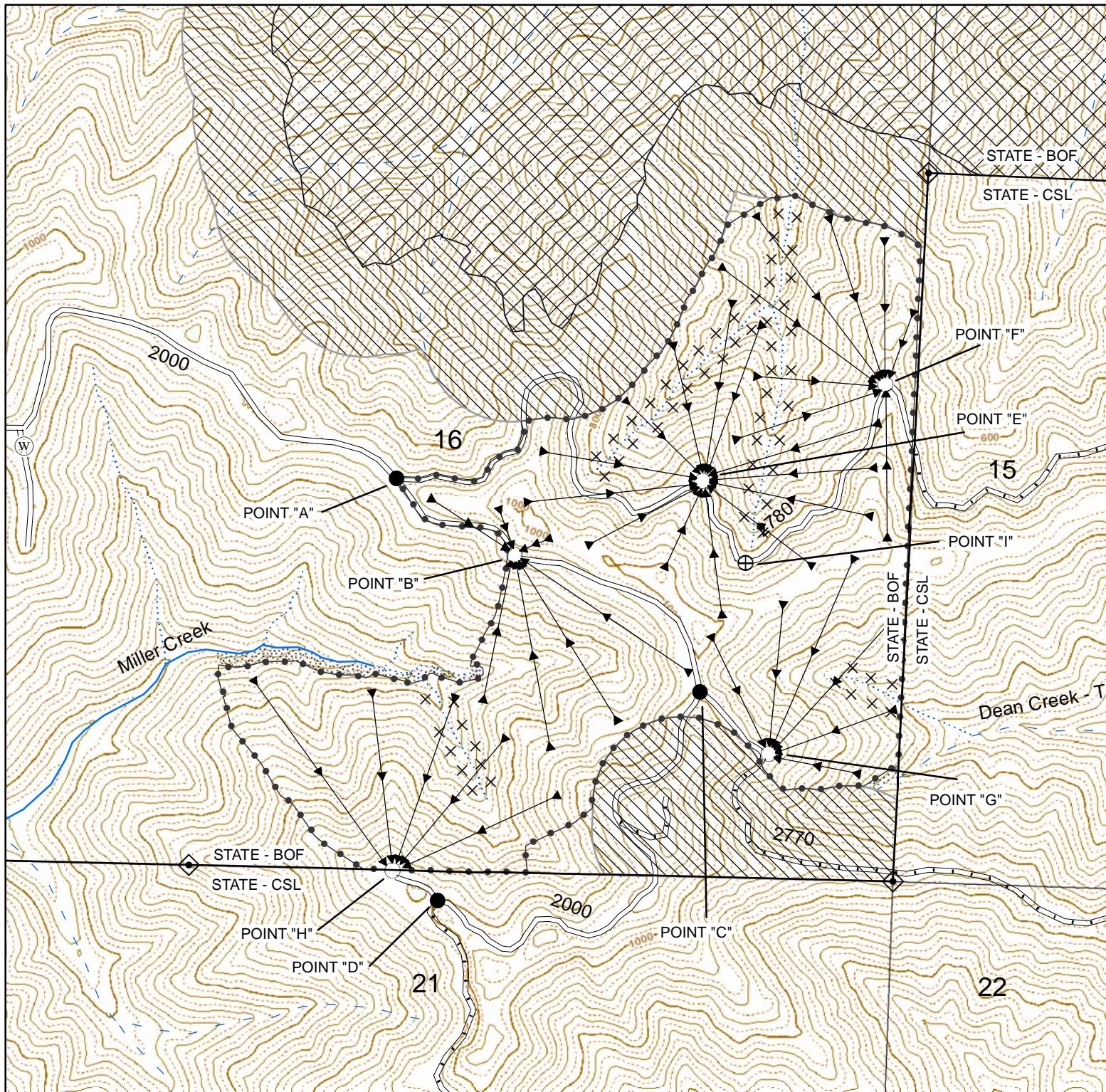
| SPECIES>>>>> | Doug-fir | Spruce | Cedar | Hemlock | Red Alder | Bigleaf Maple | TOTALS |
|------------------|------------|----------|----------|-----------|------------|---------------|-------------|
| Sale Area | 987 | 0 | 0 | 38 | 327 | 38 | 1390 |
| TOTALS | 987 | 0 | 0 | 38 | 327 | 38 | 1390 |

NET VOLUME BY GRADE AND MBF

| Grade >>>>>>>>>> | 2PEE | 3PEE | S.M. | 2SAW (12"+) | 3SAW (10"-11") | Big 3 SAW | 4SAW (8"-9") | (6"-7") |
|------------------|------|------|------|-------------|----------------|-----------|--------------|---------|
| Sale Area | | | | | | | | |
| Doug-Fir | 0 | 0 | 0 | 337 | 386 | 0 | 264 | 0 |
| Hemlock | 0 | 0 | 0 | 6 | 18 | 0 | 14 | 0 |
| Red Alder | 0 | 0 | 0 | 165 | 85 | 0 | 23 | 54 |
| Cedar | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Maple | 0 | 0 | 0 | 7 | 21 | 0 | 0 | 10 |

GRADE DISTRIBUTION BY PERCENT

| Grade >>>>>>>>>> | 2PEE | 3PEE | S.M. | 2SAW (12"+) | 3SAW (10"-11") | Big 3 SAW | 4SAW (8"-9") | (6"-7") |
|------------------|------|------|------|-------------|----------------|-----------|--------------|---------|
| Sale Area | | | | | | | | |
| Doug-fir | 0% | 0% | 0% | 34% | 39% | 0% | 27% | 0% |
| Hemlock | 0% | 0% | 0% | 16% | 46% | 0% | 38% | 0% |
| Red Alder | 0% | 0% | 0% | 51% | 26% | 0% | 7% | 16% |
| Cedar | 0% | 0% | 0% | 0% | 0% | 0% | 0% | 0% |
| Maple | 0% | 0% | 0% | 19% | 56% | 0% | 0% | 25% |



- Timber Sale Boundary
- Cable Yarding
- Logging Restricted Area
- Chainsaw Restricted Area
- Existing Road
STATE Maintained
- Existing Road
Purchaser Maintained
- Existing Road
County Maintained
- Landing
- Road Point

- Waste Area
- Culvert
- Survey Corner
- Type F Stream
- Perennial Type N
Stream
- Seasonal Type N
Stream
- Unclassified
- Streambuffers /
Green Tree Retention Areas
- Individual Green Tree Retention

LOGGING PLAN

Sale No. 341-18-37

Dean Miller

Portions of Section 16
T22S, R11W, W.M.
Douglas County, Oregon
Regulated Use Area CS-1
100% BOF
20 foot contours



Approximately 72 Net
Harvest Acres

500 250 0 500
Feet

1:6,000 1 inch = 500 feet

The information shown on Exhibit "A" map(s) are approximate locations. Exact locations of features represented by map symbols will be determined on site and shall depend upon the conditions that exist on site. Activities shall be conducted based upon features determined on site rather than features shown on maps.