



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal  
Mary's Butte  
Sale 341-09-49

District: Tillamook

Date: December 16, 2008

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**cost summary**

|                                | <b>Conifer</b> | <b>Hardwood</b>          | <b>Total</b>   |
|--------------------------------|----------------|--------------------------|----------------|
| <b>Gross Timber Sale Value</b> | \$560,821.69   | \$32,364.16              | \$593,185.85   |
|                                |                | <b>Project Work:</b>     | \$(236,100.00) |
|                                |                | <b>Advertised Value:</b> | \$357,085.85   |



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**timber description**

**Location:** Portions of Sections 4, 5, 6, 7, 8, and 9, T1N, R7W, W.M., Tillamook County, Oregon.

**Stand Stocking:** 60%

| SpecieName    | AvgDBH | Amortization (%) | Recovery (%) |
|---------------|--------|------------------|--------------|
| Douglas - Fir | 16     | 0                | 95           |
| Alder (Red)   | 14     | 0                | 90           |

| Volume by Grade | 2S  | 3S    | 4S  | Total |
|-----------------|-----|-------|-----|-------|
| Douglas - Fir   | 818 | 2,992 | 779 | 4,589 |
| Alder (Red)     | 0   | 46    | 198 | 244   |
| Total           | 818 | 3,038 | 977 | 4,833 |



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comments: Pond Values Used: 3rd Quarter Calendar Year 2008.

Western Red Cedar Stumpage Price = Pond Value minus Logging Cost  
\$655/MBF = \$955/MBF - \$300/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: \$2/MBF x 4,833 MBF = \$ 9,666

Snag Creation by Girdling: 60 snags @ \$ 10 each = \$ 600

Temporary Culvert Placement and Removal (with mulching):

2 hrs @ \$125/hr and \$ 100 materials = \$ 350

TOTAL Other Costs (with Profit and Risk to be added) = \$10,616

Other Costs (No Profit & Risk to be added):

Ditch pulling and end hauling final maintenance: \$5.15 / yd<sup>3</sup> x 30 yards = \$ 155

Removal of barriers blocking road access: \$25 / blockage x 1 blockage = \$ 25

Tank trap road at Point A, C, I, and 4 other locations shown on Exhibit A Recreation: 7 x \$60 = \$420

Non-project road in Area 3: 3 Stations x \$ 200/ station = \$ 600

OHV Trail Clearing: \$40 / station x 51 stations = \$ 2,040

OHV Dip Installation: \$125 each dip on trail x 44 dips = \$ 5,500

OHV Filter Construction: \$75 each filter location x 4 filters = \$ 300

Deliver 10 cubic yards pit run rock to temporary culvert location in Area 4: 10 x \$7.00/ cy = \$ 70

TOTAL Other Costs (No Profit & Risk added) = \$9,110

Road Maintenance: Jones Creek, Cedar Creek, Diamond Mill, and North Fork Roads

Interim grading (Jones Creek and Cedar Creek Roads): \$250/mile x 2.0 miles x 2 times / 3,283 MBF = \$ 0.30/MBF

Interim grading (North Fork and Diamond Mill Roads): \$250/ mile x 1.5 miles x 1 time/ 1,550 MBF = \$ 0.24/ MBF

Final grading (Cedar Creek Road): \$500/mile x 0.2 miles/ 3,283 MBF = \$ 0.03

Final grading (North Fork and Diamond Mill Roads): \$500/mile x 2.5 miles / 1,550 MBF = \$ 0.81/ MBF

Spot rocking: 20cy/mile x \$ 7/cy x 4.8 MMBF x 2.7 miles / 4,833 MBF = \$ 0.38/MBF

Compaction Diamond Mill, North Fork, Cedar Creek Roads: ((190 stations x \$18/ station) + \$111 move-in) / 4833 MBF = \$ 0.73/ MBF

TOTAL ROAD MAINTENANCE COST: \$ 2.49 / MBF



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**logging conditions**

**combination#: 1**                    Douglas - Fir                    3.94%  
   Alder (Red)                    46.32%

**yarding distance:** Short (400 ft)                    **downhill yarding:** No  
**logging system:** Cable: Medium Tower >40 - <70                    **Process:** Stroke Delimber  
**tree size:** Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF  
**loads / day:** 3.0                    **bd. ft / load:** 3,500  
**cost / mbf:** \$318.49

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

**combination#: 2**                    Douglas - Fir                    4.52%  
   Alder (Red)                    53.68%

**yarding distance:** Medium (800 ft)                    **downhill yarding:** No  
**logging system:** Shovel                    **Process:** Stroke Delimber  
**tree size:** Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF  
**loads / day:** 4.8                    **bd. ft / load:** 3,500  
**cost / mbf:** \$85.61

**machines:** Stroke Delimber (B)

**combination#: 3**                    Douglas - Fir                    82.25%

**yarding distance:** Long (1,500 ft)                    **downhill yarding:** No  
**logging system:** Cable: Medium Tower >40 - <70                    **Process:** Stroke Delimber  
**tree size:** Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF  
**loads / day:** 4.9                    **bd. ft / load:** 3,500  
**cost / mbf:** \$193.81

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

**combination#: 4**                    Douglas - Fir                    9.30%

**yarding distance:** Medium (800 ft)                    **downhill yarding:** No  
**logging system:** Track Skidder                    **Process:** Stroke Delimber  
**tree size:** Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF  
**loads / day:** 5.2                    **bd. ft / load:** 3,500  
**cost / mbf:** \$79.02

**machines:** Stroke Delimber (B)



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**logging costs**

|                    |              |                    |             |
|--------------------|--------------|--------------------|-------------|
| Operating Seasons: | 2.00         | Profit Risk:       | 15.00%      |
| Project Costs:     | \$236,100.00 | Other Costs (P/R): | \$10,616.00 |
| Slash Disposal:    | \$0.00       | Other Costs:       | \$9,110.00  |

**Miles of Road**

Road Maintenance: \$2.49

| Dirt | Rock<br>(Contractor) | Rock<br>(State) | Paved |
|------|----------------------|-----------------|-------|
| 0.0  | 0.0                  | 0.0             | 0.0   |

**Hauling Costs**

| Species       | \$ / MBF | Trips/Day | MBF / Load |
|---------------|----------|-----------|------------|
| Douglas - Fir | \$0.00   | 3.0       | 3.5        |
| Alder (Red)   | \$0.00   | 3.0       | 3.2        |

**Local Pond Values**

| Date     | Specie      | Grade | Value    |
|----------|-------------|-------|----------|
| 12/16/08 | Alder (Red) | 3S    | \$450.00 |
| 12/16/08 | Alder (Red) | 4S    | \$450.00 |



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**logging costs breakdown**

| Logging              | Road Maint | Fire Protect | Hauling | Other P/R appl | Profit & Risk | Slash Disposal | Scaling | Other  | Total    |
|----------------------|------------|--------------|---------|----------------|---------------|----------------|---------|--------|----------|
| <b>Douglas - Fir</b> |            |              |         |                |               |                |         |        |          |
| \$183.16             | \$2.61     | \$1.81       | \$60.87 | \$2.20         | \$37.60       | \$0.00         | \$5.00  | \$1.88 | \$295.13 |
| <b>Alder (Red)</b>   |            |              |         |                |               |                |         |        |          |
| \$193.48             | \$2.74     | \$1.81       | \$69.75 | \$2.20         | \$40.50       | \$0.00         | \$5.00  | \$1.88 | \$317.36 |

| Specie        | Amortization | Pond Value | Stumpage | Amortized |
|---------------|--------------|------------|----------|-----------|
| Douglas - Fir | \$0.00       | \$417.34   | \$122.21 | \$0.00    |
| Alder (Red)   | \$0.00       | \$450.00   | \$132.64 | \$0.00    |



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summary

**Amortized**

| Specie        | MBF | Value  | Total  |
|---------------|-----|--------|--------|
| Douglas - Fir | 0   | \$0.00 | \$0.00 |
| Alder (Red)   | 0   | \$0.00 | \$0.00 |

**Unamortized**

| Specie        | MBF   | Value    | Total        |
|---------------|-------|----------|--------------|
| Douglas - Fir | 4,589 | \$122.21 | \$560,821.69 |
| Alder (Red)   | 244   | \$132.64 | \$32,364.16  |

**Gross Timber Sale Value**

Recovery: \$593,185.85

Prepared by: David Wells

Phone: 503-842-2545



**PROJECT SUMMARY SHEET**

Sale: Mary's Butte

**CONSTRUCTION**

|                              |        |       |            |                    |
|------------------------------|--------|-------|------------|--------------------|
| Point                        | A to B | 20+73 | stations = | \$8,038.99         |
| Point                        | C to D | 3+70  | stations = | \$8,289.38         |
| Point                        | E to F | 5+56  | stations = | \$1,711.63         |
| Point                        | G to H | 4+86  | stations = | \$7,682.71         |
| Point                        | I to J | 12+07 | stations = | \$5,327.42         |
| Point                        | M to N | 21+04 | stations = | \$17,499.44        |
| Point                        | O to P | 3+47  | stations = | \$1,558.02         |
| Point                        | Q to R | 12+00 | stations = | \$10,960.15        |
| Point                        | S to T | 7+26  | stations = | \$1,323.76         |
| <b>SUBTOTAL CONSTRUCTION</b> |        |       |            | <b>\$62,391.50</b> |

**IMPROVEMENT**

|                             |        |       |            |                    |
|-----------------------------|--------|-------|------------|--------------------|
| Point                       | E to F | 26+90 | stations = | \$4,478.58         |
| Point                       | K to L | 46+25 | stations = | \$44,325.44        |
| <b>SUBTOTAL IMPROVEMENT</b> |        |       |            | <b>\$48,804.02</b> |

**RECONSTRUCTION**

|                                |        |       |            |                     |
|--------------------------------|--------|-------|------------|---------------------|
| Point                          | E to F | 21+23 | stations = | \$20,890.68         |
| Point                          | K to L | 69+55 | stations = | \$98,184.39         |
| <b>SUBTOTAL RECONSTRUCTION</b> |        |       |            | <b>\$119,075.07</b> |

**SPECIAL PROJECTS**

|                                  |                   |
|----------------------------------|-------------------|
| Road Maintenance (Rock Haul)     | 3,331.00          |
| Stream Enhancement Project       | \$2,319.90        |
| <b>SUBTOTAL SPECIAL PROJECTS</b> | <b>\$5,650.90</b> |

**MOVE IN** **\$5,829.41**

**GRAND TOTAL** **\$236,100.00**



## SUMMARY OF CONSTRUCTION COST

Sale: **Mary's Butte** Road: **A to B**

|                |       |          |               |      |          |                  |      |          |
|----------------|-------|----------|---------------|------|----------|------------------|------|----------|
| Construction - | 20+73 | stations | Improvement - | 0+00 | stations | Reconstruction - | 0+00 | stations |
|                | 0.39  | miles    |               | 0.00 | miles    |                  | 0.00 | miles    |

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

| Station           | to | Station | Avg. Sideslope | Avg. Dist.<br>To W.A. (mi.) | Outslope/Ditch | Cost per Station |                  |                   |
|-------------------|----|---------|----------------|-----------------------------|----------------|------------------|------------------|-------------------|
| 0+00              |    | 0+78    | 30%            |                             | Ditch          | \$256            | =                | \$198.40          |
| 0+78              |    | 1+87    | 20%            |                             | Ditch          | \$183            | =                | \$199.47          |
| 1+87              |    | 2+45    | 10%            |                             | Ditch          | \$143            | =                | \$82.94           |
| 2+45              |    | 3+84    | 5%             |                             | Ditch          | \$132            | =                | \$183.48          |
| 3+84              |    | 4+69    | 10%            |                             | Outslope       | \$90             | =                | \$76.50           |
| 4+69              |    | 6+35    | 35%            |                             | Outslope       | \$191            | =                | \$317.06          |
| 6+35              |    | 8+36    | 30%            |                             | Outslope       | \$191            | =                | \$383.91          |
| 8+36              |    | 9+26    | 15%            |                             | Outslope       | \$107            | =                | \$96.30           |
| 9+26              |    | 11+38   | 0%             |                             | Outslope       | \$55             | =                | \$116.60          |
| 11+38             |    | 17+32   | 5%             |                             | Outslope       | \$74             | =                | \$439.56          |
| 17+32             |    | 18+07   | 15%            |                             | Outslope       | \$107            | =                | \$80.25           |
| 18+07             |    | 18+55   | 30%            |                             | Outslope       | \$191            | =                | \$91.68           |
| 18+55             |    | 19+26   | 20%            |                             | Outslope       | \$139            | =                | \$98.69           |
| 19+26             |    | 19+97   | 5%             |                             | Outslope       | \$74             | =                | \$52.54           |
| 19+97             |    | 20+73   | 15%            |                             | Outslope       | \$107            | =                | \$81.32           |
| <b>TOTAL</b>      |    |         |                |                             |                |                  |                  | <b>\$2,498.70</b> |
| <b>ROCK</b>       |    |         |                |                             |                |                  |                  |                   |
| 0+00              | to | 6+35    | 470            | cy. of                      | Pit-Run        | @                | \$5.81 per c.y.= | \$2,730.70        |
| <b>TOTAL ROCK</b> |    |         |                |                             |                |                  |                  | <b>\$2,730.70</b> |

**SPECIAL PROJECTS**

|  |       |            |            |             |                   |
|--|-------|------------|------------|-------------|-------------------|
| Grade and shape road -                               | 20.73 | stations @ | \$15.50    | per station | \$321.32          |
| Proof-Roll subgrade prior to rocking                 | 20.73 | stations @ | \$4.70     | per station | \$97.43           |
| Roll subgrade w/ vibratory roller prior to rocking - | 20.73 | stations @ | \$13.20    | per station | \$273.64          |
| Remove large stumps -                                | 1.00  | lump sum @ | \$1,950.00 |             | \$1,950.00        |
| Remove culverts from state lands                     | 0.00  | @          | \$0.00     | total       | \$0.00            |
| Grass seed and fertilize -                           | 0.76  | acres @    | \$220.00   | per acre    | \$167.20          |
| <b>TOTAL SPECIAL PROJECTS</b>                        |       |            |            |             | <b>\$2,809.59</b> |

**GRAND TOTAL** **\$8,038.99**

## SUMMARY OF CONSTRUCTION COST

Sale: **Mary's Butte** Road: **C to D**

|                |      |          |               |      |          |                  |      |          |
|----------------|------|----------|---------------|------|----------|------------------|------|----------|
| Construction - | 3+70 | stations | Improvement - | 0+00 | stations | Reconstruction - | 0+00 | stations |
|                | 0.07 | miles    |               | 0.00 | miles    |                  | 0.00 | miles    |

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

| Station                | to | Station | Avg. Sideslope | Avg. Dist.<br>To W.A. (mi.) | Outslope/Ditch | Cost per Station | =      |                      |
|------------------------|----|---------|----------------|-----------------------------|----------------|------------------|--------|----------------------|
| 3+20                   |    | 3+70    | 5%             |                             | Ditch          | \$132            |        | \$66.00              |
| Through Cut EXCAVATION |    | 0+00    | to             | 3+20                        | 2000           | cy. @            | \$1.40 | per c.y.= \$2,800.00 |
| Through Cut ENDHAUL    |    | 0+00    | to             | 3+20                        | 2000           | cy. @            | \$0.99 | per c.y.= \$1,980.00 |
| <b>TOTAL</b>           |    |         |                |                             |                |                  |        | <b>\$4,846.00</b>    |
| <b>ROCK</b>            |    |         |                |                             |                |                  |        |                      |
| 0+00                   | to | 3+20    | 250            | cy. of                      | Pit-Run        | @                | \$6.20 | per c.y.= \$1,550.00 |
| Landing Rock           |    | 3+45    | 120            | cy. of                      | Pit-Run        | @                | \$6.52 | per c.y.= \$782.40   |
| <b>TOTAL ROCK</b>      |    |         |                |                             |                |                  |        | <b>\$2,332.40</b>    |

**SPECIAL PROJECTS**

|  |       |            |          |             |                   |
|--|-------|------------|----------|-------------|-------------------|
| Construct waste areas -                              | 3.00  | hours @    | \$130.00 | per hour    | \$390.00          |
| Grade and shape road -                               | 3.70  | stations @ | \$15.50  | per station | \$57.35           |
| Proof-Roll subgrade prior to rocking                 | 3.70  | stations @ | \$4.70   | per station | \$17.39           |
| Roll subgrade w/ vibratory roller prior to rocking - | 3.70  | stations @ | \$13.20  | per station | \$48.84           |
| Remove large stumps -                                | 1.00  | lump sum @ | \$260.00 |             | \$260.00          |
| Grass seed and fertilize -                           | 0.17  | acres @    | \$220.00 | per acre    | \$37.40           |
| Mulching -   | 0.500 | acres @    | \$600.00 | per acre    | \$300.00          |
| <b>TOTAL SPECIAL PROJECTS</b>                        |       |            |          |             | <b>\$1,110.98</b> |

**GRAND TOTAL** **\$8,289.38**

## SUMMARY OF CONSTRUCTION COST

Sale: **Mary's Butte** Road: **E to F**

|                |      |          |               |       |          |                  |       |          |
|----------------|------|----------|---------------|-------|----------|------------------|-------|----------|
| Construction - | 5+56 | stations | Improvement - | 26+90 | stations | Reconstruction - | 21+23 | stations |
|                | 0.11 | miles    |               | 0.51  | miles    |                  | 0.40  | miles    |

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

| Station      | to | Station | Avg. Sideslope | Avg. Dist.<br>To W.A. (mi.) | Outslope/Ditch | Cost per Station |   |          |                 |
|--------------|----|---------|----------------|-----------------------------|----------------|------------------|---|----------|-----------------|
| 48+13        |    | 48+49   | 50%            |                             | Outslope       | \$459            | = | \$165.24 |                 |
| 48+49        |    | 49+21   | 20%            |                             | Outslope       | \$139            | = | \$100.08 |                 |
| 49+21        |    | 49+55   | 35%            |                             | Outslope       | \$191            | = | \$64.94  |                 |
| 49+55        |    | 49+85   | 25%            |                             | Outslope       | \$165            | = | \$49.50  |                 |
| 49+85        |    | 50+30   | 20%            |                             | Outslope       | \$139            | = | \$62.55  |                 |
| 50+30        |    | 50+75   | 20%            |                             | Outslope       | \$139            | = | \$62.55  |                 |
| 50+75        |    | 52+30   | 10%            |                             | Outslope       | \$90             | = | \$139.50 |                 |
| 52+30        |    | 52+72   | 10%            |                             | Outslope       | \$90             | = | \$37.80  |                 |
| 52+72        |    | 53+69   | 15%            |                             | Outslope       | \$107            | = | \$103.79 |                 |
| <b>TOTAL</b> |    |         |                |                             |                |                  |   |          | <b>\$785.95</b> |

**RECONSTRUCTION:** CLEARING AND GRUBBING -

|                                    |       |         |          |            |                   |
|------------------------------------|-------|---------|----------|------------|-------------------|
| Widening 29+90 to 34+74            | 0.045 | acres @ | \$660.00 | per acre = | \$29.70           |
| Widening 34+74 to 39+62            | 0.051 | acres @ | \$660.00 | per acre = | \$33.66           |
| Scattering                         | 1.560 | acres @ | \$980.00 | per acre = | \$1,528.80        |
| <b>TOTAL CLEARING AND GRUBBING</b> |       |         |          |            | <b>\$1,592.16</b> |

**RECONSTRUCTION:** EXCAVATION -

|                         |       |    |       |        |         |            |                       |
|-------------------------|-------|----|-------|--------|---------|------------|-----------------------|
| Road Earthwork          |       |    | 21.23 | sta. @ | \$50.00 | per sta. = | \$1,061.50            |
| Widening                | 26+90 | to | 34+74 | 167    | cy. @   | \$1.40     | per c.y. = \$233.80   |
| Widening                | 34+74 | to | 39+62 | 297    | cy. @   | \$1.40     | per c.y. = \$415.80   |
| Exc./Repl. Subgrade     | 46+72 | to | 47+34 | 48     | cy. @   | \$1.40     | per c.y. = \$67.20    |
| Widening/Full Bench     | 39+62 | to | 43+23 | 1750   | cy. @   | \$3.20     | per c.y. = \$5,600.00 |
| <b>TOTAL EXCAVATION</b> |       |    |       |        |         |            | <b>\$7,378.30</b>     |

**RECONSTRUCTION:** ENDHAUL -

|                      |       |    |       |      |       |        |            |                   |
|----------------------|-------|----|-------|------|-------|--------|------------|-------------------|
| Widening             | 26+90 | to | 28+00 | 43   | cy. @ | \$3.12 | per c.y. = | \$134.16          |
| Widening             | 29+24 | to | 30+13 | 9    | cy. @ | \$3.18 | per c.y. = | \$28.62           |
| Widening             | 30+13 | to | 31+28 | 34   | cy. @ | \$3.21 | per c.y. = | \$109.14          |
| Widening             | 31+66 | to | 32+06 | 7    | cy. @ | \$3.24 | per c.y. = | \$22.68           |
| Widening             | 32+06 | to | 33+11 | 10   | cy. @ | \$3.26 | per c.y. = | \$32.60           |
| Widening             | 33+11 | to | 34+74 | 64   | cy. @ | \$3.29 | per c.y. = | \$210.56          |
| Widening             | 34+74 | to | 36+38 | 90   | cy. @ | \$3.33 | per c.y. = | \$299.70          |
| Widening             | 36+38 | to | 36+86 | 14   | cy. @ | \$3.36 | per c.y. = | \$47.04           |
| Widening             | 36+86 | to | 37+48 | 150  | cy. @ | \$3.38 | per c.y. = | \$507.00          |
| Widening             | 37+48 | to | 37+93 | 18   | cy. @ | \$3.39 | per c.y. = | \$61.02           |
| Widening             | 37+93 | to | 38+45 | 12   | cy. @ | \$3.40 | per c.y. = | \$40.80           |
| Widening             | 38+45 | to | 39+62 | 13   | cy. @ | \$3.43 | per c.y. = | \$44.59           |
| Exc./Repl. Subgrade  | 46+72 | to | 47+34 | 48   | cy. @ | \$3.64 | per c.y. = | \$174.72          |
| Widening/Full Bench  | 39+62 | to | 43+23 | 1750 | cy. @ | \$3.49 | per c.y. = | \$6,107.50        |
| Spread & compact     |       |    |       | 2262 | cy. @ | \$0.25 | per c.y. = | \$565.50          |
| <b>TOTAL ENDHAUL</b> |       |    |       |      |       |        |            | <b>\$8,385.63</b> |

**ROCK**

|                   |    |       |     |        |           |   |        |            |                   |
|-------------------|----|-------|-----|--------|-----------|---|--------|------------|-------------------|
| 0+00              | to | 26+90 | 250 | cy. of | Spot Rock | @ | \$6.00 | per c.y. = | \$1,500.00        |
| 26+90             | to | 50+30 | 840 | cy. of | Crushed   | @ | \$6.00 | per c.y. = | \$5,040.00        |
| <b>TOTAL ROCK</b> |    |       |     |        |           |   |        |            | <b>\$6,540.00</b> |

**SPECIAL PROJECTS**

|  |       |            |          |             |                   |
|--|-------|------------|----------|-------------|-------------------|
| Grade and shape road -                               | 53.69 | stations @ | \$15.50  | per station | \$832.20          |
| Proof-Roll subgrade prior to rocking                 | 53.69 | stations @ | \$4.70   | per station | \$252.34          |
| Roll subgrade w/ vibratory roller prior to rocking - | 53.69 | stations @ | \$13.20  | per station | \$708.71          |
| Remove large stumps -                                | 1.00  | lump sum @ | \$390.00 |             | \$390.00          |
| Grass seed and fertilize -                           | 0.98  | acres @    | \$220.00 | per acre    | \$215.60          |
| <b>TOTAL SPECIAL PROJECTS</b>                        |       |            |          |             | <b>\$2,398.85</b> |

**GRAND TOTAL** **\$27,080.89**

## SUMMARY OF CONSTRUCTION COST

Sale: **Mary's Butte** Road: **G to H**

|                |                             |               |                             |                  |                             |
|----------------|-----------------------------|---------------|-----------------------------|------------------|-----------------------------|
| Construction - | 4+86 stations<br>0.09 miles | Improvement - | 0+00 stations<br>0.00 miles | Reconstruction - | 0+00 stations<br>0.00 miles |
|----------------|-----------------------------|---------------|-----------------------------|------------------|-----------------------------|

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

| Station               | to | Station | Avg. Sideslope | Avg. Dist.<br>To W.A. (mi.) | Outslope/Ditch | Cost per Station |        |           |                   |
|-----------------------|----|---------|----------------|-----------------------------|----------------|------------------|--------|-----------|-------------------|
| 0+00                  |    | 0+65    | 13%            |                             | Outslope       | \$90             | =      |           | \$58.50           |
| 0+65                  |    | 1+27    | 6%             |                             | Outslope       | \$74             | =      |           | \$45.51           |
| 1+27                  |    | 2+14    | 8%             |                             | Outslope       | \$74             | =      |           | \$64.38           |
| Full Bench EXCAVATION |    | 2+14    | to             | 4+86                        | 2130           | cy. @            | \$1.40 | per c.y.= | \$2,982.00        |
| Full Bench ENDHAUL    |    | 2+14    | to             | 4+86                        | 2130           | cy. @            | \$1.08 | per c.y.= | \$2,300.40        |
| <b>TOTAL</b>          |    |         |                |                             |                |                  |        |           | <b>\$5,450.79</b> |

|                   |    |      |     |        |         |   |        |           |                   |
|-------------------|----|------|-----|--------|---------|---|--------|-----------|-------------------|
| <b>ROCK</b>       |    |      |     |        |         |   |        |           |                   |
| 0+00              | to | 4+86 | 180 | cy. of | Crushed | @ | \$6.00 | per c.y.= | \$1,080.00        |
| <b>TOTAL ROCK</b> |    |      |     |        |         |   |        |           | <b>\$1,080.00</b> |

**SPECIAL PROJECTS**

|  |       |            |          |             |          |  |  |  |                   |
|--|-------|------------|----------|-------------|----------|--|--|--|-------------------|
| Construct waste areas -                              | 3.00  | hours @    | \$130.00 | per hour    | \$390.00 |  |  |  |                   |
| Grade and shape road -                               | 4.86  | stations @ | \$15.50  | per station | \$75.33  |  |  |  |                   |
| Proof-Roll subgrade prior to rocking                 | 4.86  | stations @ | \$4.70   | per station | \$22.84  |  |  |  |                   |
| Roll subgrade w/ vibratory roller prior to rocking - | 4.86  | stations @ | \$13.20  | per station | \$64.15  |  |  |  |                   |
| Remove large stumps -                                | 1.00  | lump sum @ | \$260.00 |             | \$260.00 |  |  |  |                   |
| Grass seed and fertilize -                           | 0.18  | acres @    | \$220.00 | per acre    | \$39.60  |  |  |  |                   |
| Mulching -   | 0.500 | acres @    | \$600.00 | per acre    | \$300.00 |  |  |  |                   |
| <b>TOTAL SPECIAL PROJECTS</b>                        |       |            |          |             |          |  |  |  | <b>\$1,151.92</b> |

**GRAND TOTAL** **\$7,682.71**

## SUMMARY OF CONSTRUCTION COST

Sale: **Mary's Butte** Road: **I to J**

|                |       |          |               |      |          |                  |      |          |
|----------------|-------|----------|---------------|------|----------|------------------|------|----------|
| Construction - | 12+07 | stations | Improvement - | 0+00 | stations | Reconstruction - | 0+00 | stations |
|                | 0.23  | miles    |               | 0.00 | miles    |                  | 0.00 | miles    |

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

| Station      | to | Station | Avg. Sideslope | Avg. Dist.<br>To W.A. (mi.) | Outslope/Ditch | Cost per Station |   |                   |
|--------------|----|---------|----------------|-----------------------------|----------------|------------------|---|-------------------|
| 0+00         |    | 0+35    | 32%            |                             | Outslope       | \$191            | = | \$66.85           |
| 0+35         |    | 0+80    | 39%            |                             | Outslope       | \$191            | = | \$85.00           |
| 0+80         |    | 1+30    | 39%            |                             | Outslope       | \$191            | = | \$95.50           |
| 1+30         |    | 1+69    | 36%            |                             | Outslope       | \$191            | = | \$74.49           |
| 1+69         |    | 2+34    | 32%            |                             | Outslope       | \$191            | = | \$124.15          |
| 2+34         |    | 2+74    | 25%            |                             | Outslope       | \$139            | = | \$56.30           |
| 2+74         |    | 3+30    | 31%            |                             | Outslope       | \$191            | = | \$106.96          |
| 3+30         |    | 4+36    | 37%            |                             | Outslope       | \$191            | = | \$202.46          |
| 4+36         |    | 4+86    | 32%            |                             | Outslope       | \$191            | = | \$95.50           |
| 4+86         |    | 5+90    | 21%            |                             | Outslope       | \$139            | = | \$143.87          |
| 5+90         |    | 6+75    | 12%            |                             | Outslope       | \$90             | = | \$76.50           |
| 6+75         |    | 7+33    | 7%             |                             | Outslope       | \$74             | = | \$42.92           |
| 7+33         |    | 8+12    | 3%             |                             | Outslope       | \$55             | = | \$43.45           |
| 8+12         |    | 8+69    | 0%             |                             | Outslope       | \$55             | = | \$31.35           |
| 8+69         |    | 9+16    | 18%            |                             | Outslope       | \$129            | = | \$61.28           |
| 9+16         |    | 10+13   | 27%            |                             | Outslope       | \$165            | = | \$160.05          |
| 10+13        |    | 10+48   | 22%            |                             | Outslope       | \$139            | = | \$47.96           |
| 10+48        |    | 11+01   | 29%            |                             | Outslope       | \$165            | = | \$87.45           |
| 11+01        |    | 12+07   | 21%            |                             | Outslope       | \$139            | = | \$148.04          |
| <b>TOTAL</b> |    |         |                |                             |                |                  |   | <b>\$1,750.08</b> |

|             |      |    |      |     |        |          |   |                  |                   |                   |
|-------------|------|----|------|-----|--------|----------|---|------------------|-------------------|-------------------|
| <b>ROCK</b> | 0+00 | to | 5+00 | 380 | cy. of | Pit- run | @ | \$5.64 per c.y.= | \$2,143.20        |                   |
|             |      |    |      |     |        |          |   |                  | <b>TOTAL ROCK</b> | <b>\$2,143.20</b> |

|  |       |            |          |             |          |  |  |  |                               |                   |
|--|-------|------------|----------|-------------|----------|--|--|--|-------------------------------|-------------------|
| <b>SPECIAL PROJECTS</b>                              |       |            |          |             |          |  |  |  |                               |                   |
| Grade and shape road -                               | 12.07 | stations @ | \$15.50  | per station | \$187.09 |  |  |  |                               |                   |
| Proof-Roll subgrade prior to rocking                 | 12.07 | stations @ | \$4.70   | per station | \$56.73  |  |  |  |                               |                   |
| Roll subgrade w/ vibratory roller prior to rocking - | 12.07 | stations @ | \$13.20  | per station | \$159.32 |  |  |  |                               |                   |
| Remove large stumps -                                | 1.00  | lump sum @ | \$910.00 |             | \$910.00 |  |  |  |                               |                   |
| Grass seed and fertilize -                           | 0.55  | acres @    | \$220.00 | per acre    | \$121.00 |  |  |  |                               |                   |
|  |       |            |          |             |          |  |  |  | <b>TOTAL SPECIAL PROJECTS</b> | <b>\$1,434.14</b> |

**GRAND TOTAL** **\$5,327.42**

## SUMMARY OF CONSTRUCTION COST

Sale: **Mary's Butte** Road: **K to L**

|                |      |          |               |       |          |                  |       |          |
|----------------|------|----------|---------------|-------|----------|------------------|-------|----------|
| Construction - | 0+00 | stations | Improvement - | 46+25 | stations | Reconstruction - | 69+55 | stations |
|                | 0.00 | miles    |               | 0.88  | miles    |                  | 1.32  | miles    |

**IMPROVEMENT: CLEARING AND GRUBBING -**

|                                    |       |         |          |            |                   |
|------------------------------------|-------|---------|----------|------------|-------------------|
| Widening                           | 0.098 | acres @ | \$660.00 | per acre = | \$64.68           |
| Scattering                         | 1.700 | acres @ | \$980.00 | per acre = | \$1,666.00        |
| <b>TOTAL CLEARING AND GRUBBING</b> |       |         |          |            | <b>\$1,730.68</b> |

**IMPROVEMENT: EXCAVATION -**

|                         |       |        |         |            |                   |
|-------------------------|-------|--------|---------|------------|-------------------|
| Road Earthwork          | 46.25 | sta. @ | \$60.00 | per sta. = | \$2,775.00        |
| Widening                | 841   | cy. @  | \$1.40  | per c.y.=  | \$1,177.40        |
| <b>TOTAL EXCAVATION</b> |       |        |         |            | <b>\$3,952.40</b> |

**IMPROVEMENT: ENDHAUL -**

|                      |       |    |       |     |       |        |           |                   |
|----------------------|-------|----|-------|-----|-------|--------|-----------|-------------------|
| Widening             | 22+55 | to | 25+00 | 797 | cy. @ | \$1.04 | per c.y.= | \$828.88          |
| Widening             | 38+10 | to | 39+30 | 44  | cy. @ | \$1.39 | per c.y.= | \$61.16           |
| Spread & compact     |       |    |       | 841 | cy. @ | \$0.25 | per c.y.= | \$210.25          |
| <b>TOTAL ENDHAUL</b> |       |    |       |     |       |        |           | <b>\$1,100.29</b> |

**RECONSTRUCTION: CLEARING AND GRUBBING -**

|                                    |       |         |          |            |                   |
|------------------------------------|-------|---------|----------|------------|-------------------|
| Widening                           | 0.222 | acres @ | \$660.00 | per acre = | \$146.52          |
| Scattering                         | 4.470 | acres @ | \$980.00 | per acre = | \$4,380.60        |
| <b>TOTAL CLEARING AND GRUBBING</b> |       |         |          |            | <b>\$4,527.12</b> |

**RECONSTRUCTION: EXCAVATION -**

|                         |       |        |         |            |                    |
|-------------------------|-------|--------|---------|------------|--------------------|
| Road Earthwork          | 69.55 | sta. @ | \$60.00 | per sta. = | \$4,173.00         |
| Widening                | 1403  | cy. @  | \$1.40  | per c.y.=  | \$1,964.20         |
| Full Bench              | 6700  | cy. @  | \$1.40  | per c.y.=  | \$9,380.00         |
| Through Cut             | 3450  | cy. @  | \$1.40  | per c.y.=  | \$4,830.00         |
| <b>TOTAL EXCAVATION</b> |       |        |         |            | <b>\$20,347.20</b> |

**RECONSTRUCTION: ENDHAUL -**

|                      |       |    |       |       |       |        |           |                    |
|----------------------|-------|----|-------|-------|-------|--------|-----------|--------------------|
| Widening             | 46+25 | to | 50+50 | 1229  | cy. @ | \$1.65 | per c.y.= | \$2,027.85         |
| Widening             | 60+00 | to | 73+00 | 126   | cy. @ | \$2.18 | per c.y.= | \$274.68           |
| Widening             | 73+00 | to | 82+90 | 48    | cy. @ | \$0.93 | per c.y.= | \$44.64            |
| Full Bench           | 82+90 | to | 87+70 | 6700  | cy. @ | \$1.07 | per c.y.= | \$7,169.00         |
| Through Cut          | 87+70 | to | 90+90 | 3450  | cy. @ | \$1.29 | per c.y.= | \$4,450.50         |
| Spread & compact     |       |    |       | 11553 | cy. @ | \$0.25 | per c.y.= | \$2,888.25         |
| <b>TOTAL ENDHAUL</b> |       |    |       |       |       |        |           | <b>\$16,854.92</b> |

**CULVERTS - MATERIALS & INSTALLATION**

|                                     |     |           |            |     |           |                   |
|-------------------------------------|-----|-----------|------------|-----|-----------|-------------------|
| <u>Culverts</u>                     | 120 | LF of 18" | \$2,100.00 | 120 | LF of 24" | \$3,240.00        |
|                                     |     |           | \$2,100.00 |     |           | \$3,240.00        |
| <u>Culvert Stakes &amp; Markers</u> |     |           |            |     |           |                   |
| 6 markers                           |     |           | \$48.00    |     |           |                   |
|                                     |     |           | \$48.00    |     |           |                   |
| <b>TOTAL CULVERTS</b>               |     |           |            |     |           | <b>\$5,388.00</b> |

**ROCK**

|                   |        |       |        |            |   |         |           |                    |
|-------------------|--------|-------|--------|------------|---|---------|-----------|--------------------|
| 0+00 to           | 100+65 | 5,750 | cy. of | 4" Crushed | @ | \$13.40 | per c.y.= | \$77,050.00        |
| Junction Rock     | 90+70  | 60    | cy. of | 4" Crushed | @ | \$12.48 | per c.y.= | \$748.80           |
| Energy Dissipator | 0+00   | 50    | cy. of | Riprap     | @ | \$5.25  | per c.y.= | \$262.50           |
| Free Drain        | 13+70  | 20    | cy. of | Drain Rock | @ | \$8.00  | per c.y.= | \$160.00           |
| <b>TOTAL ROCK</b> |        |       |        |            |   |         |           | <b>\$78,221.30</b> |

**SPECIAL PROJECTS**

|  |        |            |          |             |                    |
|--|--------|------------|----------|-------------|--------------------|
| Construct waste areas -                              | 16.00  | hours @    | \$130.00 | per hour    | \$2,080.00         |
| Construct ditchouts -                                | 10.00  | @          | \$60.00  | each        | \$600.00           |
| Construct Free Drain w/Perf Pipe 13+70               | 6.00   | hours @    | \$130.00 | per hour    | \$780.00           |
| Geotextile for free drain                            | 80.00  | Sq. Yards  | \$1.00   | per yard    | \$80.00            |
| 6" Perforated Pipe                                   | 60.00  | LF         | \$3.50   | per foot    | \$210.00           |
| Grade and shape road -                               | 115.80 | stations @ | \$15.50  | per station | \$1,794.90         |
| Proof-Roll subgrade prior to rocking                 | 115.80 | stations @ | \$4.70   | per station | \$544.26           |
| Roll subgrade w/ vibratory roller prior to rocking - | 115.80 | stations @ | \$13.20  | per station | \$1,528.56         |
| Grass seed and fertilize -                           | 4.41   | acres @    | \$220.00 | per acre    | \$970.20           |
| Mulching -   | 3.000  | acres @    | \$600.00 | per acre    | \$1,800.00         |
| <b>TOTAL SPECIAL PROJECTS</b>                        |        |            |          |             | <b>\$10,387.92</b> |

**GRAND TOTAL** **\$142,509.83**

## SUMMARY OF CONSTRUCTION COST

Sale: **Mary's Butte** Road: **M to N**

|                |               |                   |               |              |                   |                  |              |                   |
|----------------|---------------|-------------------|---------------|--------------|-------------------|------------------|--------------|-------------------|
| Construction - | 21+04<br>0.40 | stations<br>miles | Improvement - | 0+00<br>0.00 | stations<br>miles | Reconstruction - | 0+00<br>0.00 | stations<br>miles |
|----------------|---------------|-------------------|---------------|--------------|-------------------|------------------|--------------|-------------------|

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

| Station               | to | Station | Avg. Sideslope | To W.A. (mi.) | Outslope/Ditch | Cost per Station | =      |                      |
|-----------------------|----|---------|----------------|---------------|----------------|------------------|--------|----------------------|
| 0+00                  |    | 0+41    | 30%            |               | Outslope       | \$191            | =      | \$77.36              |
| 0+41                  |    | 1+35    | 43%            |               | Outslope       | \$243            | =      | \$229.64             |
| 1+35                  |    | 1+96    | 18%            |               | Outslope       | \$107            | =      | \$65.27              |
| 5+46                  |    | 6+31    | 5%             |               | Outslope       | \$74             | =      | \$62.53              |
| 6+31                  |    | 7+27    | 8%             |               | Outslope       | \$74             | =      | \$71.04              |
| 7+27                  |    | 7+83    | 6%             |               | Outslope       | \$74             | =      | \$41.44              |
| 7+83                  |    | 8+40    | 6%             |               | Outslope       | \$74             | =      | \$42.18              |
| 8+40                  |    | 9+12    | 14%            |               | Outslope       | \$90             | =      | \$64.80              |
| 9+12                  |    | 9+44    | 28%            |               | Outslope       | \$165            | =      | \$52.80              |
| 9+44                  |    | 9+80    | 44%            |               | Outslope       | \$243            | =      | \$88.70              |
| 9+80                  |    | 10+38   | 68%            |               | Outslope       | \$1,832          | =      | \$1,053.40           |
| 10+38                 |    | 10+84   | 54%            |               | Outslope       | \$459            | =      | \$213.44             |
| 10+84                 |    | 11+82   | 19%            |               | Outslope       | \$129            | =      | \$126.42             |
| 11+82                 |    | 12+55   | 35%            |               | Outslope       | \$191            | =      | \$139.43             |
| 12+55                 |    | 13+67   | 60%            |               | Outslope       | \$1,493          | =      | \$1,672.16           |
| 13+67                 |    | 14+28   | 60%            |               | Outslope       | \$1,493          | =      | \$910.73             |
| 14+28                 |    | 15+26   | 49%            |               | Outslope       | \$274            | =      | \$267.15             |
| 15+26                 |    | 16+35   | 21%            |               | Outslope       | \$139            | =      | \$151.51             |
| 16+35                 |    | 17+17   | 20%            |               | Outslope       | \$139            | =      | \$114.68             |
| 17+17                 |    | 18+20   | 35%            |               | Outslope       | \$191            | =      | \$195.78             |
| 18+20                 |    | 18+91   | 29%            |               | Outslope       | \$165            | =      | \$117.15             |
| 18+91                 |    | 19+51   | 20%            |               | Outslope       | \$139            | =      | \$84.10              |
| 19+51                 |    | 20+20   | 11%            |               | Outslope       | \$90             | =      | \$62.10              |
| 20+20                 |    | 21+04   | 5%             |               | Outslope       | \$74             | =      | \$61.79              |
|                       |    |         |                |               |                |                  |        |                      |
| Full Bench EXCAVATION |    | 1+96    | to             | 5+46          | 500            | cy. @            | \$1.40 | per c.y.= \$700.00   |
| Full Bench ENDHAUL    |    | 1+96    | to             | 5+46          | 500            | cy. @            | \$2.39 | per c.y.= \$1,195.00 |
| <b>TOTAL</b>          |    |         |                |               |                |                  |        | <b>\$7,860.60</b>    |

|                   |    |       |  |       |        |         |   |                             |
|-------------------|----|-------|--|-------|--------|---------|---|-----------------------------|
| <b>ROCK</b>       |    |       |  |       |        |         |   |                             |
| 0+00              | to | 21+04 |  | 1,530 | cy. of | Pit-Run | @ | \$5.39 per c.y.= \$8,246.70 |
| <b>TOTAL ROCK</b> |    |       |  |       |        |         |   | <b>\$8,246.70</b>           |

|  |  |       |            |  |  |          |             |                   |
|--|--|-------|------------|--|--|----------|-------------|-------------------|
| <b>SPECIAL PROJECTS</b>                              |  |       |            |  |  |          |             |                   |
| Grade and shape road -                               |  | 21.04 | stations @ |  |  | \$15.50  | per station | \$326.12          |
| Proof-Roll subgrade prior to rocking                 |  | 21.04 | stations @ |  |  | \$4.70   | per station | \$98.89           |
| Roll subgrade w/ vibratory roller prior to rocking - |  | 21.04 | stations @ |  |  | \$13.20  | per station | \$277.73          |
| Remove large stumps -                                |  | 1.00  | lump sum @ |  |  | \$520.00 |             | \$520.00          |
| Grass seed and fertilize -                           |  | 0.77  | acres @    |  |  | \$220.00 | per acre    | \$169.40          |
| <b>TOTAL SPECIAL PROJECTS</b>                        |  |       |            |  |  |          |             | <b>\$1,392.14</b> |

**GRAND TOTAL** **\$17,499.44**

## SUMMARY OF CONSTRUCTION COST

Sale: **Mary's Butte** Road: **O to P**

|                |      |          |               |      |          |                  |      |          |
|----------------|------|----------|---------------|------|----------|------------------|------|----------|
| Construction - | 3+47 | stations | Improvement - | 0+00 | stations | Reconstruction - | 0+00 | stations |
|                | 0.07 | miles    |               | 0.00 | miles    |                  | 0.00 | miles    |

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

| Station      | to | Station | Avg. Sideslope | Avg. Dist.<br>To W.A. (mi.) | Outslope/Ditch | Cost per Station | = |                   |
|--------------|----|---------|----------------|-----------------------------|----------------|------------------|---|-------------------|
| 0+00         |    | 0+77    | 60%            |                             | Outslope       | \$1,493          | = | \$1,149.61        |
| 0+77         |    | 1+43    | 30%            |                             | Outslope       | \$191            | = | \$126.06          |
| 1+43         |    | 2+12    | 3%             |                             | Outslope       | \$55             | = | \$37.95           |
| 2+12         |    | 3+17    | 5%             |                             | Outslope       | \$74             | = | \$77.70           |
| 3+17         |    | 3+47    | 5%             |                             | Outslope       | \$74             | = | \$22.20           |
| <b>TOTAL</b> |    |         |                |                             |                |                  |   | <b>\$1,413.52</b> |

**SPECIAL PROJECTS**

|  |      |            |          |             |                 |
|--|------|------------|----------|-------------|-----------------|
| Grade and shape road -                               | 3.47 | stations @ | \$15.50  | per station | \$53.79         |
| Proof-Roll subgrade prior to rocking                 | 3.47 | stations @ | \$4.70   | per station | \$16.31         |
| Roll subgrade w/ vibratory roller prior to rocking - | 3.47 | stations @ | \$13.20  | per station | \$45.80         |
| Grass seed and fertilize -                           | 0.13 | acres @    | \$220.00 | per acre    | \$28.60         |
| <b>TOTAL SPECIAL PROJECTS</b>                        |      |            |          |             | <b>\$144.50</b> |

**GRAND TOTAL** **\$1,558.02**



## SUMMARY OF CONSTRUCTION COST

Sale: **Mary's Butte** Road: **Q to R**

|                |       |          |               |      |          |                  |      |          |
|----------------|-------|----------|---------------|------|----------|------------------|------|----------|
| Construction - | 12+00 | stations | Improvement - | 0+00 | stations | Reconstruction - | 0+00 | stations |
|                | 0.23  | miles    |               | 0.00 | miles    |                  | 0.00 | miles    |

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

| Station      | to | Station | Avg. Sideslope | Avg. Dist.<br>To W.A. (mi.) | Outslope/Ditch | Cost per Station | = |                   |
|--------------|----|---------|----------------|-----------------------------|----------------|------------------|---|-------------------|
| 0+00         |    | 1+52    | 65%            |                             | Outslope       | \$1,832          | = | \$2,784.64        |
| 1+52         |    | 2+05    | 44%            |                             | Outslope       | \$243            | = | \$128.79          |
| 2+05         |    | 2+66    | 47%            |                             | Outslope       | \$274            | = | \$167.14          |
| 2+66         |    | 3+20    | 43%            |                             | Outslope       | \$243            | = | \$131.22          |
| 3+20         |    | 3+90    | 28%            |                             | Outslope       | \$165            | = | \$115.50          |
| 3+90         |    | 4+25    | 23%            |                             | Outslope       | \$139            | = | \$48.65           |
| 4+25         |    | 4+78    | 30%            |                             | Outslope       | \$191            | = | \$101.23          |
| 4+78         |    | 5+32    | 48%            |                             | Outslope       | \$274            | = | \$147.96          |
| 5+32         |    | 5+88    | 58%            |                             | Outslope       | \$689            | = | \$385.84          |
| 5+88         |    | 6+23    | 44%            |                             | Outslope       | \$243            | = | \$85.05           |
| 6+23         |    | 6+74    | 44%            |                             | Outslope       | \$243            | = | \$123.93          |
| 6+74         |    | 7+27    | 45%            |                             | Outslope       | \$269            | = | \$142.57          |
| 7+27         |    | 8+23    | 35%            |                             | Outslope       | \$191            | = | \$183.36          |
| 8+23         |    | 9+01    | 25%            |                             | Outslope       | \$165            | = | \$128.70          |
| 9+01         |    | 9+51    | 20%            |                             | Outslope       | \$139            | = | \$69.50           |
| 9+51         |    | 10+22   | 13%            |                             | Outslope       | \$90             | = | \$63.90           |
| 10+22        |    | 10+95   | 6%             |                             | Outslope       | \$74             | = | \$54.02           |
| 10+95        |    | 12+00   | 4%             |                             | Outslope       | \$55             | = | \$57.75           |
| <b>TOTAL</b> |    |         |                |                             |                |                  |   | <b>\$4,919.75</b> |

|             |      |    |       |     |        |         |   |                  |                   |                   |
|-------------|------|----|-------|-----|--------|---------|---|------------------|-------------------|-------------------|
| <b>ROCK</b> | 0+00 | to | 12+00 | 880 | cy. of | Pit-Run | @ | \$5.56 per c.y.= | \$4,892.80        |                   |
|             |      |    |       |     |        |         |   |                  | <b>TOTAL ROCK</b> | <b>\$4,892.80</b> |

|  |       |            |          |             |          |  |  |  |                               |                   |
|--|-------|------------|----------|-------------|----------|--|--|--|-------------------------------|-------------------|
| <b>SPECIAL PROJECTS</b>                              |       |            |          |             |          |  |  |  |                               |                   |
| Grade and shape road -                               | 12.00 | stations @ | \$15.50  | per station | \$186.00 |  |  |  |                               |                   |
| Proof-Roll subgrade prior to rocking                 | 12.00 | stations @ | \$4.70   | per station | \$56.40  |  |  |  |                               |                   |
| Roll subgrade w/ vibratory roller prior to rocking - | 12.00 | stations @ | \$13.20  | per station | \$158.40 |  |  |  |                               |                   |
| Grass seed and fertilize -                           | 0.44  | acres @    | \$220.00 | per acre    | \$96.80  |  |  |  |                               |                   |
|  |       |            |          |             |          |  |  |  | <b>TOTAL SPECIAL PROJECTS</b> | <b>\$1,147.60</b> |

**GRAND TOTAL** **\$10,960.15**

## SUMMARY OF CONSTRUCTION COST

Sale: **Mary's Butte** Road: **S to T**

|                |                             |               |                             |                  |                             |
|----------------|-----------------------------|---------------|-----------------------------|------------------|-----------------------------|
| Construction - | 7+26 stations<br>0.14 miles | Improvement - | 0+00 stations<br>0.00 miles | Reconstruction - | 0+00 stations<br>0.00 miles |
|----------------|-----------------------------|---------------|-----------------------------|------------------|-----------------------------|

**CONSTRUCTION:** CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

| Station | to | Station | Avg. Sideslope | Avg. Dist.<br>To W.A. (mi.) | Outslope/Ditch | Cost per Station | = |              |                   |
|---------|----|---------|----------------|-----------------------------|----------------|------------------|---|--------------|-------------------|
| 0+00    |    | 0+79    | 0%             |                             | Outslope       | \$55             | = | \$43.45      |                   |
| 0+79    |    | 1+50    | 0%             |                             | Outslope       | \$55             | = | \$39.05      |                   |
| 1+50    |    | 2+23    | 20%            |                             | Outslope       | \$139            | = | \$101.47     |                   |
| 2+23    |    | 3+34    | 5%             |                             | Outslope       | \$74             | = | \$82.14      |                   |
| 3+24    |    | 4+24    | 40%            |                             | Outslope       | \$243            | = | \$243.00     |                   |
| 4+24    |    | 5+28    | 40%            |                             | Outslope       | \$243            | = | \$252.72     |                   |
| 5+28    |    | 6+04    | 30%            |                             | Outslope       | \$191            | = | \$145.16     |                   |
| 6+04    |    | 6+86    | 5%             |                             | Outslope       | \$74             | = | \$60.68      |                   |
| 6+86    |    | 7+25    | 20%            |                             | Outslope       | \$139            | = | \$54.21      |                   |
|         |    |         |                |                             |                |                  |   | <b>TOTAL</b> | <b>\$1,021.88</b> |

**SPECIAL PROJECTS**

|  |      |            |          |             |                               |
|--|------|------------|----------|-------------|-------------------------------|
| Grade and shape road -                               | 7.26 | stations @ | \$15.50  | per station | \$112.53                      |
| Proof-Roll subgrade prior to rocking                 | 7.26 | stations @ | \$4.70   | per station | \$34.12                       |
| Roll subgrade w/ vibratory roller prior to rocking - | 7.26 | stations @ | \$13.20  | per station | \$95.83                       |
| Grass seed and fertilize -                           | 0.27 | acres @    | \$220.00 | per acre    | \$59.40                       |
|  |      |            |          |             | <b>TOTAL SPECIAL PROJECTS</b> |
|  |      |            |          |             | <b>\$301.88</b>               |
| <b>GRAND TOTAL</b>                                   |      |            |          |             | <b>\$1,323.76</b>             |

## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

|             |                     |                    |                                |
|-------------|---------------------|--------------------|--------------------------------|
| Pit:        | Pit_Run1            | Location:          | 1/4 SE, Sec.4 , T1N, R7W, W.M. |
| Sale:       | <b>Mary's Butte</b> | Road:              | 1220 c.y.                      |
| Swell:      | 1.40                | Stockpile:         | c.y.                           |
| Shrinkage:  | 1.16                | Total Truck Loads: | 1220 c.y.                      |
| Drill Pct.: | 0%                  | In Place Total:    | 871 c.y.                       |

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$860.14

|                  |        |         |   |      |         |   |            |
|------------------|--------|---------|---|------|---------|---|------------|
| Rip Rock:        | \$1.90 | /cu.yd. | x | 871  | cu.yds. | = | \$1,654.90 |
| Push Rock:       | \$0.60 | /cu.yd. | x | 1220 | cu.yds. | = | \$732.00   |
| Load Dump Truck: | \$0.70 | /cu.yd. | x | 1220 | cu.yds. | = | \$854.00   |

Subtotal \$4,101.04

|            |        |            |  |                        |            |
|------------|--------|------------|--|------------------------|------------|
| Base Cost= | \$3.36 | Per Cu.Yd. |  | TOTAL PRODUCTION COSTS | \$4,101.04 |
|------------|--------|------------|--|------------------------|------------|

| Road Segment                         | Haul Cost<br>\$/cu.yd. | Proc Cost<br>\$/cu.yd. | Base Cost.<br>\$/cu.yd. | Cost<br>\$/cu.yd. | Number<br>Cu. Yds | ROCK<br>COST |
|--------------------------------------|------------------------|------------------------|-------------------------|-------------------|-------------------|--------------|
| A to B 0 635 (Pit-Run)               | 1.35                   | 1.10                   | 3.36                    | 5.81              | 470               | \$2,730.70   |
| C to D 0 320 (Pit-Run)               | 1.74                   | 1.10                   | 3.36                    | 6.20              | 250               | \$1,550.00   |
| C to D Landing Rock (Pit-Run)        | 1.76                   | 1.40                   | 3.36                    | 6.52              | 120               | \$782.40     |
| I to J 0 500 (Pit- run)              | 1.18                   | 1.10                   | 3.36                    | 5.64              | 380               | \$2,143.20   |
| K to L Riprap/Stream Enhan. (Riprap) | 2.16                   | 1.40                   | 3.77                    | 7.33              | 0                 | \$0.00       |
| Total C.Y.                           |                        |                        |                         |                   | 1220              | Sub Total    |
|                                      |                        |                        |                         |                   |                   | \$7,206.30   |

TOTAL ROCKING COSTS \$7,206.30

## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

|             |                     |                    |                              |
|-------------|---------------------|--------------------|------------------------------|
| Pit:        | Pit_Run2            | Location:          | SE 1/4Sec. 5, T1N, R7W, W.M. |
| Sale:       | <b>Mary's Butte</b> | Road:              | 2410 c.y.                    |
| Swell:      | 1.40                | Stockpile:         | c.y.                         |
| Shrinkage:  | 1.16                | Total Truck Loads: | 2410 c.y.                    |
| Drill Pct.: | 0%                  | In Place Total:    | 1721 c.y.                    |

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$1,676.20

|                  |        |         |   |      |         |   |            |
|------------------|--------|---------|---|------|---------|---|------------|
| Rip Rock:        | \$1.90 | /cu.yd. | x | 1721 | cu.yds. | = | \$3,269.90 |
| Load Dump Truck: | \$0.70 | /cu.yd. | x | 2410 | cu.yds. | = | \$1,687.00 |

Subtotal \$6,633.10

|            |        |            |                        |            |
|------------|--------|------------|------------------------|------------|
| Base Cost= | \$2.75 | Per Cu.Yd. | TOTAL PRODUCTION COSTS | \$6,633.10 |
|------------|--------|------------|------------------------|------------|

| Road Segment            | Haul Cost<br>\$/cu.yd. | Proc Cost<br>\$/cu.yd. | Base Cost.<br>\$/cu.yd. | Cost<br>\$/cu.yd. | Number<br>Cu. Yds | ROCK<br>COST |
|-------------------------|------------------------|------------------------|-------------------------|-------------------|-------------------|--------------|
| M to N 0 2104 (Pit-Run) | 1.54                   | 1.10                   | 2.75                    | 5.39              | 1530              | \$8,246.70   |
| Q to R 0 1200 (Pit-Run) | 1.71                   | 1.10                   | 2.75                    | 5.56              | 880               | \$4,892.80   |
|                         |                        |                        |                         | Total C.Y.        | 2410              | Sub Total    |
|                         |                        |                        |                         |                   |                   | \$13,139.50  |

TOTAL ROCKING COSTS \$13,139.50

## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

|             |                     |                    |                        |
|-------------|---------------------|--------------------|------------------------|
| Pit:        | Crushed             | Location:          | Sec. 7, T1N, R7W, W.M. |
| Sale:       | <b>Mary's Butte</b> | Road:              | 5860 c.y.              |
| Swell:      | 1.40                | Stockpile:         | c.y.                   |
| Shrinkage   | 1.16                | Total Truck Loads: | 5860 c.y.              |
| Drill Pct.: | 80%                 | In Place Total:    | 4186 c.y.              |

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$4,497.84

|                  |        |         |   |              |   |             |
|------------------|--------|---------|---|--------------|---|-------------|
| Drill & Shoot:   | \$2.50 | /cu.yd. | x | 3349 cu.yds. | = | \$8,372.50  |
| Rip Rock:        | \$1.90 | /cu.yd. | x | 837 cu.yds.  | = | \$1,590.30  |
| Push Rock:       | \$0.60 | /cu.yd. | x | 5860 cu.yds. | = | \$3,516.00  |
| Load Crusher:    | \$0.60 | /cu.yd. | x | 5860 cu.yds. | = | \$3,516.00  |
| Crush Rock:      | \$2.35 | /cu.yd. | x | 5860 cu.yds. | = | \$13,771.00 |
| Load Dump Truck: | \$0.70 | /cu.yd. | x | 5860 cu.yds. | = | \$4,102.00  |

Subtotal \$39,365.64

|   |   |  |   |          |   |  |
|---|---|--|---|----------|---|--|
| Move In/Set-up Crusher                  |   |  |   |          |   | \$1,598.00   |
| Move In and set up Drill and Compressor | 1 |  | @ | \$411.32 | = | \$411.32   |
| Move in Loader                          | 1 |  | @ | \$472.06 | = | \$472.06   |
|   |   |  |   |          |   | Subtotal <span style="border-bottom: 1px solid black;">\$2,481.38</span> |

Subtotal \$41,847.02

TOTAL PRODUCTION COSTS \$41,847.02

Base Cost= \$7.14 Per Cu.Yd.

| Road Segment                      | Haul Cost<br>\$/cu.yd. | Proc Cost<br>\$/cu.yd. | Base Cost.<br>\$/cu.yd. | Cost<br>\$/cu.yd. | Number<br>Cu. Yds | ROCK<br>COST   |
|-----------------------------------|------------------------|------------------------|-------------------------|-------------------|-------------------|--|
| K to L 0 10065 (4" Crushed)       | 3.81                   | 2.45                   | 7.14                    | 13.40             | 5750              | \$77,050.00  |
| K to L Junction Rock (4" Crushed) | 4.44                   | 0.90                   | 7.14                    | 12.48             | 60                | \$748.80   |
| K to L Energy Dissipator (Riprap) | 3.25                   | 1.40                   | 0.60                    | 5.25              | 50                | \$262.50   |
|                                   |                        |                        |                         | Total C.Y.        | 5860              | Sub Total <span style="border-bottom: 1px solid black;">\$78,061.30</span> |

TOTAL ROCKING COSTS \$78,061.30

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

Sale: **Mary's Butte**

| LOWBOY HAUL (Round Trip) |              |                 |
|--------------------------|--------------|-----------------|
| DIST. (mi)               | ROADWAY      | AVE SPEED (mph) |
| 22.0                     | Pavement     | 30              |
| 9.0                      | Main Lines   | 7               |
| 2.0                      | Steep Grades | 2               |

| No.                         | EQUIPMENT DESCRIPTION              | Move in Cost | Pilot Cars | Within Area Move (\$/mile) | Begin Mileage | End Mileage | Total Miles | Within Area Cost | Total Cost        |
|-----------------------------|------------------------------------|--------------|------------|----------------------------|---------------|-------------|-------------|------------------|-------------------|
| 1                           | Graders                            | \$479.14     |            | \$3.65                     | 0.00          | 2.00        | 2           | \$7.30           | \$486.44          |
| 1                           | Rollers (smooth/grid) & Compactors | \$411.32     |            | \$5.00                     | 0.00          | 2.00        | 2           | \$10.00          | \$421.32          |
| 3                           | Excavators (Large)                 | \$1,996.40   | 1          | \$44.80                    | 0.00          | 4.00        | 4           | \$537.60         | \$2,534.00        |
| 2                           | Tractors (D7)                      | \$1,177.18   | 2          | \$11.30                    | 0.00          | 2.00        | 2           | \$45.20          | \$1,222.38        |
| 5                           | Dump Truck (10 cy +)               | \$811.08     |            | \$2.85                     | 0.00          | 2.00        | 4           | \$57.00          | \$868.08          |
| 1                           | Water Truck (1500 Gal)             | \$131.37     |            | \$2.85                     | 0.00          | 2.00        | 2           | \$5.70           | \$137.07          |
| 1                           | Water Truck (2500 Gal)             | \$154.42     |            | \$2.85                     | 0.00          | 2.00        | 2           | \$5.70           | \$160.12          |
| <b>TOTAL MOVE-IN COSTS:</b> |                                    |              |            |                            |               |             |             |                  | <b>\$5,829.41</b> |

## Projects Road Maintenance Cost Summary

**Sale:** Mary's Butte  
**Date:** October 31, 2008  
**By:** Aaron Inman

| Type                  | Equipment/Rationale     | Hours | Rate | Cost           |
|-----------------------|-------------------------|-------|------|----------------|
| Post-Projects<br>Road | Grader 14G              | 17.0  | \$84 | \$1,428        |
|                       | Vibratory Roller        | 17.0  | \$79 | \$1,343        |
|                       | Water Truck 2500 gallon | 8     | \$70 | \$560          |
| <b>Total</b>          |                         |       |      | <b>\$3,331</b> |

### Interim Maintenance

| Production Rates | Miles/day | Distance(miles) | Days | Hours |
|------------------|-----------|-----------------|------|-------|
| Grader           |           |                 |      |       |
| Vibratory Roller |           |                 |      | 0.00  |

### Final Road Maintenance

| Production Rates | Miles/day | Distance(miles) | Days | Hours |
|------------------|-----------|-----------------|------|-------|
| Grader           | 1.5       | 2.5             | 1.7  | 17.00 |
| Vibratory Roller | 1.5       | 2.5             | 1.7  | 17.00 |

\*Maintenance calculations were determined as follows:



# OREGON DEPARTMENT OF FORESTRY

## CRUISE REPORT

### *Mary's Butte*

**1. Type of Sale**

Partial Cut/ Modified Clear-cut harvest, Recovery

**2. Legal Description**

Sections 4, 5, 6, 7, 8 and 9, T1N, R7W, W.M. Tillamook County, Oregon

**3. Sale Acreage**

Sale acreage was determined by GPS and orthophotographs along with GIS.

**ACRES**

|                                    | <u>Gross</u> | <u>Net</u> |
|------------------------------------|--------------|------------|
| <b>Area 1 (Modified Clear Cut)</b> | 22           | 21         |
| <b>Area 2 (Modified Clear Cut)</b> | 14           | 14         |
| <b>Area 3 (Partial Cut)</b>        | 295          | 225        |
| <b>Area 4 (Partial Cut)</b>        | 186          | 99         |
| <b>Area 5 (Partial Cut)</b>        | 11           | 11         |

Gross Acres

Area within the Timber Sale Boundary signs

Net acres

*Used for calculating the advertised volume.*

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

**4. Cruising Procedures**

**A. Cruise Method**

Areas 1, 3, and 4 were cruised with plots spaced every 165' on lines 1,320' apart on a N40°E bearing. Areas 2 and 5 were cruised on a 260' square grid on a S50°E bearing. Trees were measured to the nearest foot in height and inch in diameter. Top cruise diameter was 5" for Douglas-fir and 6" for all other species or 25% of diameter breast height whichever was larger. Based on net board feet per acre the combined CV and SE for Areas 1, 3, and 4 is 37.5% and 3.8% respectively and for Areas 2 and 5 is 59.8% and 16.6% respectively.

**B. Plot size**

On Areas 1, 3 and 4 a 40 was used BAF and on Areas 2 and 5 a 33.61 BAF was used. 4½ feet was the point of tree observation.

**C. Grading System**

Trees were graded using Columbia River Log Scaling and Grading rules, favoring 40' logs.



**5. Computation Procedure**

Plot data was entered into SuperAce for computation of stand information and volume. Net take volume was determined by removing the leave tree volume: in Area 1 using VBAR and BA to calculate volume of marked trees; in Area 2 by subtracting the reserved trees SuperAce calculated volumes; and in Areas 3, 4, and 5 designating leave trees on a plot by plot basis based on diameter and defect.

**6. Hidden Defect and Breakage**

A 5% defect and breakage reduction was applied to conifers and a 10% reduction to hardwood volumes for hidden defect. This was in addition to visual defect deducted during the cruise.

**7. Timber Description**

The stand contains 40 to 50 year old timber. Initial planting of Areas 1, 3, and 4 was between 1955 and 1957 and Areas 2 and 5 in 1965-66. Stand management has included: in Area 1 and 3 commercial thinning in 1994; and in Area 4 pre-commercial thinning in 1991. Douglas-fir trees are infected with Swiss Needle Cast with its effect varying from slight to moderate based on crown length. All of the sale areas were burned in 1933 and 1939 and Area 4 was burned again in 1945.

**8. Cruiser Names/Dates**

Tillamook Contract Unit staff, July and August 2008.

**9. Revenue Distribution**

FDF 100%

Tax Code: 9-2 79%

56 21%

Deed Numbers: 0, 96 194, 253

**10. Attachments**

Stand Table (partial cut)

Volume Summaries

Log Stock Tables

Logging Plan Map

**11. Stand and Log Stock Tables Species Key**

DL – Douglas-fir leave

DF – Douglas-fir take

RA – Red alder



TC TSTNDSUM

**Stand Table Summary**

Project **MBUTTE**

**T01N R07W S08 T0101**

**T01N R07W S08 T0101**

Twp Rge Sec Tract Type Acres Plots Sample Trees  
**01N 07W 08 AREA3-SALE 0101 225.00 49 128**

Page: **2**  
 Date: **11/06/200**  
 Time: **3:25:00PM**

| S<br>Sp | T | Sample<br>DBH | FF<br>Trees | Av<br>Ht<br>16'<br>Tot | Trees/<br>Acre | BA/<br>Acre | Logs<br>Acre | Average Log   |               | Tons/<br>Acre | Net<br>Cu.Ft.<br>Acre | Net<br>Bd.Ft.<br>Acre | Totals |        |       |
|---------|---|---------------|-------------|------------------------|----------------|-------------|--------------|---------------|---------------|---------------|-----------------------|-----------------------|--------|--------|-------|
|         |   |               |             |                        |                |             |              | Net<br>Cu.Ft. | Net<br>Bd.Ft. |               |                       |                       | Tons   | Cunits | MBF   |
| Totals  |   | 128           | 84          | 92                     | 153.368        | 231.33      | 290.56       | 25.7          | 96.6          | 207.91        | 7454                  | 28,077                | 46,780 | 16,772 | 6,317 |

| TC TSTNDSUM         |        | Stand Table Summary |                 |                 |           |                |              |              |               |               |                      |                       |                       |        |        |     |
|---------------------|--------|---------------------|-----------------|-----------------|-----------|----------------|--------------|--------------|---------------|---------------|----------------------|-----------------------|-----------------------|--------|--------|-----|
| Project MBUTTE      |        |                     |                 |                 |           |                |              |              |               |               |                      |                       |                       |        |        |     |
| T01N R07W S08 T0101 |        |                     |                 |                 |           |                |              |              |               |               | T01N R07W S08 T0101  |                       |                       |        |        |     |
| Twp                 | Rge    | Sec                 | Tract           | Type            | Acres     | Plots          | Sample Trees | Page:        |               |               |                      |                       |                       |        |        |     |
| 01N                 | 07W    | 08                  | AREA4           | 0101            | 99.00     | 40             | 129          | 1            | Date:         | 11/06/200     |                      | Time: 3:26:38PM       |                       |        |        |     |
| S<br>Spc            | T      | DBH                 | Sample<br>Trees | Av<br>FF<br>16' | Ht<br>Tot | Trees/<br>Acre | BA/<br>Acre  | Logs<br>Acre | Average Log   |               | Net<br>Tons/<br>Acre | Net<br>Cu.Ft.<br>Acre | Net<br>Bd.Ft.<br>Acre | Totals |        |     |
|                     |        |                     |                 |                 |           |                |              |              | Net<br>Cu.Ft. | Net<br>Bd.Ft. |                      |                       |                       | Tons   | Cunits | MBF |
| DL                  | 14     | 1                   | 81              | 85              | 1.777     | 1.90           | 3.55         | 16.5         | 55.0          | 1.61          | 59                   | 196                   | 160                   | 58     | 19     |     |
| DL                  | 15     | 2                   | 86              | 90              | 3.097     | 3.80           | 6.19         | 19.1         | 82.5          | 3.26          | 119                  | 511                   | 323                   | 117    | 51     |     |
| DL                  | 16     | 6                   | 85              | 91              | 8.165     | 11.40          | 16.33        | 22.7         | 85.0          | 10.19         | 370                  | 1,388                 | 1,009                 | 367    | 137    |     |
| DL                  | 17     | 9                   | 85              | 99              | 10.849    | 17.10          | 21.70        | 27.8         | 105.6         | 16.58         | 603                  | 2,290                 | 1,641                 | 597    | 227    |     |
| DL                  | 18     | 5                   | 84              | 97              | 5.376     | 9.50           | 10.75        | 30.3         | 108.0         | 8.94          | 325                  | 1,161                 | 886                   | 322    | 115    |     |
| DL                  | 19     | 2                   | 84              | 96              | 1.930     | 3.80           | 3.86         | 33.8         | 115.0         | 3.59          | 130                  | 444                   | 355                   | 129    | 44     |     |
| DL                  | 20     | 6                   | 83              | 108             | 5.225     | 11.40          | 12.19        | 35.7         | 128.6         | 11.97         | 435                  | 1,568                 | 1,185                 | 431    | 155    |     |
| DL                  | 21     | 2                   | 82              | 113             | 1.580     | 3.80           | 4.74         | 31.2         | 116.7         | 4.06          | 148                  | 553                   | 402                   | 146    | 55     |     |
| DL                  | 22     | 2                   | 83              | 102             | 1.439     | 3.80           | 2.88         | 47.1         | 162.5         | 3.73          | 136                  | 468                   | 369                   | 134    | 46     |     |
| DL                  | 23     | 3                   | 84              | 95              | 1.976     | 5.70           | 3.95         | 49.9         | 175.0         | 5.42          | 197                  | 691                   | 537                   | 195    | 68     |     |
| DL                  | 24     | 2                   | 82              | 107             | 1.210     | 3.80           | 3.02         | 47.7         | 186.0         | 3.97          | 144                  | 562                   | 393                   | 143    | 56     |     |
| DL                  | 25     | 1                   | 84              | 181             | .557      | 1.90           | 1.67         | 56.7         | 293.3         | 2.61          | 95                   | 490                   | 258                   | 94     | 49     |     |
| DL                  | 26     | 1                   | 83              | 129             | .515      | 1.90           | 1.55         | 53.2         | 223.3         | 2.26          | 82                   | 345                   | 224                   | 81     | 34     |     |
| DL                  | 28     | 4                   | 82              | 121             | 1.777     | 7.60           | 4.44         | 70.4         | 282.0         | 8.61          | 313                  | 1,253                 | 852                   | 310    | 124    |     |
| DL                  | 29     | 2                   | 81              | 133             | .828      | 3.80           | 2.90         | 59.1         | 264.3         | 4.71          | 171                  | 766                   | 467                   | 170    | 76     |     |
| DL                  | 30     | 2                   | 84              | 110             | .774      | 3.80           | 1.55         | 94.1         | 382.5         | 4.01          | 146                  | 592                   | 397                   | 144    | 59     |     |
| DL                  | Totals | 50                  | 84              | 101             | 47.075    | 95.00          | 101.28       | 34.3         | 131.1         | 95.51         | 3,473                | 13,279                | 9,456                 | 3,438  | 1,315  |     |
| DF                  | 8      | 1                   | 83              | 44              | 4.805     | 1.68           | 4.81         | 4.2          | 20.0          | .58           | 20                   | 96                    | 57                    | 20     | 10     |     |
| DF                  | 9      | 3                   | 86              | 63              | 11.391    | 5.03           | 11.39        | 7.6          | 30.0          | 2.45          | 86                   | 342                   | 243                   | 85     | 34     |     |
| DF                  | 10     | 4                   | 89              | 72              | 12.302    | 6.71           | 12.30        | 12.2         | 55.0          | 4.29          | 151                  | 677                   | 425                   | 149    | 67     |     |
| DF                  | 12     | 5                   | 85              | 102             | 10.679    | 8.39           | 21.36        | 12.3         | 50.0          | 7.50          | 263                  | 1,068                 | 742                   | 260    | 106    |     |
| DF                  | 13     | 9                   | 86              | 90              | 16.378    | 15.10          | 30.94        | 14.7         | 58.2          | 12.98         | 455                  | 1,802                 | 1,285                 | 451    | 178    |     |
| DF                  | 14     | 7                   | 84              | 104             | 10.984    | 11.74          | 21.97        | 18.7         | 69.3          | 11.71         | 411                  | 1,522                 | 1,159                 | 407    | 151    |     |
| DF                  | 15     | 14                  | 84              | 98              | 19.118    | 23.48          | 38.24        | 20.8         | 76.4          | 22.64         | 794                  | 2,922                 | 2,242                 | 786    | 289    |     |
| DF                  | 16     | 11                  | 84              | 98              | 13.215    | 18.45          | 28.83        | 22.0         | 83.3          | 18.07         | 634                  | 2,403                 | 1,789                 | 628    | 238    |     |
| DF                  | 18     | 3                   | 84              | 87              | 2.848     | 5.03           | 5.70         | 27.5         | 95.0          | 4.48          | 157                  | 541                   | 443                   | 155    | 54     |     |
| DF                  | 19     | 2                   | 85              | 92              | 1.704     | 3.35           | 3.41         | 33.0         | 112.5         | 3.21          | 113                  | 383                   | 318                   | 111    | 38     |     |
| DF                  | 21     | 1                   | 83              | 107             | .697      | 1.68           | 1.39         | 43.4         | 155.0         | 1.73          | 61                   | 216                   | 171                   | 60     | 21     |     |
| DF                  | 24     | 2                   | 82              | 125             | 1.068     | 3.35           | 3.20         | 42.1         | 171.7         | 3.84          | 135                  | 550                   | 380                   | 133    | 54     |     |
| DF                  | Totals | 62                  | 85              | 88              | 105.189   | 104.00         | 183.53       | 17.9         | 68.2          | 93.48         | 3,279                | 12,522                | 9,254                 | 3,247  | 1,240  |     |
| RA                  | 9      | 2                   | 79              | 48              | 7.243     | 3.20           | 3.62         | 8.9          | 30.0          | .89           | 32                   | 109                   | 88                    | 32     | 11     |     |
| RA                  | 10     | 1                   | 80              | 54              | 2.934     | 1.60           | 2.93         | 9.6          | 30.0          | .78           | 28                   | 88                    | 77                    | 28     | 9      |     |
| RA                  | 12     | 1                   | 80              | 64              | 2.037     | 1.60           | 2.04         | 18.2         | 60.0          | 1.02          | 37                   | 122                   | 101                   | 37     | 12     |     |
| RA                  | 13     | 2                   | 79              | 56              | 3.472     | 3.20           | 3.47         | 20.1         | 55.0          | 1.92          | 70                   | 191                   | 190                   | 69     | 19     |     |
| RA                  | 18     | 1                   | 79              | 51              | .905      | 1.60           | .91          | 39.3         | 60.0          | .98           | 36                   | 54                    | 97                    | 35     | 5      |     |
| RA                  | 19     | 2                   | 79              | 55              | 1.625     | 3.20           | 1.63         | 49.8         | 80.0          | 2.23          | 81                   | 130                   | 220                   | 80     | 13     |     |
| RA                  | 28     | 1                   | 79              | 41              | .374      | 1.60           | .37          | 62.5         | 300.0         | .64           | 23                   | 112                   | 64                    | 23     | 11     |     |
| RA                  | Totals | 10                  | 79              | 53              | 18.591    | 16.00          | 14.97        | 20.5         | 53.9          | 8.45          | 307                  | 806                   | 837                   | 304    | 80     |     |
| BM                  | 14     | 2                   | 80              | 37              | 3.274     | 3.50           | 3.27         | 16.7         | 40.0          | 1.45          | 55                   | 131                   | 143                   | 54     | 13     |     |
| BM                  | 18     | 1                   | 80              | 21              | .990      | 1.75           | .99          | 19.9         | 40.0          | .52           | 20                   | 40                    | 52                    | 19     | 4      |     |
| BM                  | 20     | 1                   | 79              | 47              | .802      | 1.75           | .80          | 44.3         | 70.0          | .94           | 36                   | 56                    | 93                    | 35     | 6      |     |
| BM                  | Totals | 4                   | 80              | 35              | 5.066     | 7.00           | 5.07         | 21.7         | 44.7          | 2.91          | 110                  | 227                   | 288                   | 109    | 22     |     |
| OC                  | 6      | 1                   | 98              | 45              | 8.488     | 1.67           |              |              |               |               |                      |                       |                       |        |        |     |
| OC                  | 10     | 1                   | 99              | 17              | 3.056     | 1.67           |              |              |               |               |                      |                       |                       |        |        |     |
| OC                  | 20     | 1                   | 99              | 17              | .764      | 1.67           |              |              |               |               |                      |                       |                       |        |        |     |
| OC                  | Totals | 3                   | 98              | 36              | 12.308    | 5.00           |              |              |               |               |                      |                       |                       |        |        |     |
| Totals              |        | 129                 | 85              | 83              | 188.230   | 227.00         | 304.85       | 23.5         | 88.0          | 200.36        | 7170                 | 26,834                | 19,835                | 7,098  | 2,657  |     |

**Stand Table Summary**

Project **MBUTTE**

**T01N R07W S08 T0120**

**T01N R07W S08 T0120**

**Twp Rge Sec Tract**  
**01N 07W 08 AREA5**

**Type Acres Plots Sample Trees**  
**0120 11.00 8 65**

**Page: 1**  
**Date: 11/06/2001**  
**Time: 3:27:23PM**

| Spc    | S<br>T | Sample |       |           | Av        |                |             | Average Log  |               | Net           |               | Net            | Totals         |       |        |
|--------|--------|--------|-------|-----------|-----------|----------------|-------------|--------------|---------------|---------------|---------------|----------------|----------------|-------|--------|
|        |        | DBH    | Trees | FF<br>16' | Ht<br>Tot | Trees/<br>Acre | BA/<br>Acre | Logs<br>Acre | Net<br>Cu.Ft. | Net<br>Bd.Ft. | Tons/<br>Acre | Cu.Ft.<br>Acre | Bd.Ft.<br>Acre | Tons  | Cunits |
| DL     | 17     | 1      | 86    | 95        | 2.665     | 4.20           | 5.33        | 25.0         | 95.0          | 3.67          | 133           | 506            | 40             | 15    | 6      |
| DL     | 19     | 4      | 83    | 105       | 8.535     | 16.81          | 19.20       | 33.1         | 114.4         | 17.47         | 635           | 2,198          | 192            | 70    | 24     |
| DL     | 21     | 2      | 84    | 117       | 3.493     | 8.40           | 8.73        | 39.4         | 158.0         | 9.47          | 344           | 1,380          | 104            | 38    | 15     |
| DL     | 22     | 1      | 84    | 111       | 1.591     | 4.20           | 4.77        | 34.5         | 133.3         | 4.53          | 165           | 637            | 50             | 18    | 7      |
| DL     | 23     | 1      | 83    | 99        | 1.456     | 4.20           | 2.91        | 52.2         | 175.0         | 4.18          | 152           | 510            | 46             | 17    | 6      |
| DL     | 24     | 1      | 84    | 128       | 1.337     | 4.20           | 4.01        | 45.9         | 193.3         | 5.07          | 184           | 776            | 56             | 20    | 9      |
| DL     | 25     | 4      | 84    | 107       | 4.930     | 16.81          | 12.32       | 51.9         | 198.0         | 17.60         | 640           | 2,440          | 194            | 70    | 27     |
| DL     | 26     | 2      | 84    | 116       | 2.279     | 8.40           | 6.84        | 49.7         | 210.0         | 9.34          | 340           | 1,436          | 103            | 37    | 16     |
| DL     | 27     | 1      | 83    | 87        | 1.057     | 4.20           | 2.11        | 66.2         | 225.0         | 3.85          | 140           | 475            | 42             | 15    | 5      |
| DL     | 28     | 2      | 85    | 99        | 1.965     | 8.40           | 3.93        | 77.1         | 292.5         | 8.33          | 303           | 1,150          | 92             | 33    | 13     |
| DL     | 29     | 2      | 86    | 100       | 1.832     | 8.40           | 4.58        | 67.1         | 282.0         | 8.45          | 307           | 1,291          | 93             | 34    | 14     |
| DL     | 30     | 3      | 84    | 110       | 2.568     | 12.60          | 5.99        | 83.0         | 342.9         | 13.68         | 497           | 2,054          | 150            | 55    | 23     |
| DL     | 32     | 1      | 83    | 120       | .752      | 4.20           | 2.26        | 79.0         | 343.3         | 4.91          | 178           | 775            | 54             | 20    | 9      |
| DL     | 33     | 1      | 83    | 115       | .707      | 4.20           | 2.12        | 80.3         | 363.3         | 4.69          | 170           | 771            | 52             | 19    | 8      |
| DL     | 34     | 1      | 83    | 112       | .666      | 4.20           | 2.00        | 85.0         | 386.7         | 4.67          | 170           | 773            | 51             | 19    | 9      |
| DL     | 38     | 1      | 83    | 126       | .533      | 4.20           | 1.60        | 114.1        | 540.0         | 5.02          | 183           | 864            | 55             | 20    | 10     |
| DL     | Totals | 28     | 84    | 107       | 36.368    | 117.64         | 88.72       | 51.2         | 203.3         | 124.93        | 4,543         | 18,035         | 1,374          | 500   | 198    |
| DF     | 8      | 1      | 83    | 52        | 12.036    | 4.20           | 12.04       | 5.0          | 30.0          | 1.73          | 61            | 361            | 19             | 7     | 4      |
| DF     | 10     | 2      | 84    | 85        | 15.406    | 8.40           | 23.11       | 9.4          | 36.7          | 6.22          | 218           | 847            | 68             | 24    | 9      |
| DF     | 11     | 3      | 84    | 76        | 19.098    | 12.60          | 25.46       | 12.2         | 42.5          | 8.85          | 310           | 1,082          | 97             | 34    | 12     |
| DF     | 12     | 2      | 83    | 101       | 10.698    | 8.40           | 21.40       | 12.8         | 45.0          | 7.83          | 275           | 963            | 86             | 30    | 11     |
| DF     | 13     | 3      | 85    | 112       | 13.674    | 12.60          | 27.35       | 16.3         | 61.7          | 12.73         | 447           | 1,686          | 140            | 49    | 19     |
| DF     | 14     | 3      | 84    | 103       | 11.790    | 12.60          | 23.58       | 19.3         | 76.7          | 12.96         | 455           | 1,808          | 143            | 50    | 20     |
| DF     | 15     | 5      | 84    | 89        | 17.117    | 21.01          | 34.23       | 19.8         | 71.0          | 19.36         | 679           | 2,431          | 213            | 75    | 27     |
| DF     | 16     | 3      | 84    | 106       | 9.027     | 12.60          | 18.05       | 25.4         | 96.7          | 13.08         | 459           | 1,745          | 144            | 50    | 19     |
| DF     | 17     | 2      | 83    | 107       | 5.331     | 8.40           | 10.66       | 29.1         | 107.5         | 8.83          | 310           | 1,146          | 97             | 34    | 13     |
| DF     | 18     | 1      | 84    | 126       | 2.377     | 4.20           | 7.13        | 25.1         | 96.7          | 5.10          | 179           | 689            | 56             | 20    | 8      |
| DF     | 20     | 2      | 82    | 103       | 3.851     | 8.40           | 7.70        | 39.5         | 135.0         | 8.67          | 304           | 1,040          | 95             | 33    | 11     |
| DF     | 21     | 1      | 86    | 99        | 1.747     | 4.20           | 3.49        | 41.6         | 140.0         | 4.14          | 145           | 489            | 46             | 16    | 5      |
| DF     | 23     | 2      | 84    | 97        | 2.912     | 8.40           | 5.82        | 52.3         | 187.5         | 8.67          | 304           | 1,092          | 95             | 33    | 12     |
| DF     | 25     | 1      | 84    | 109       | 1.232     | 4.20           | 3.70        | 44.4         | 180.0         | 4.68          | 164           | 666            | 51             | 18    | 7      |
| DF     | 29     | 1      | 84    | 101       | .916      | 4.20           | 1.83        | 84.7         | 310.0         | 4.42          | 155           | 568            | 49             | 17    | 6      |
| DF     | Totals | 32     | 84    | 91        | 127.213   | 134.44         | 225.56      | 19.8         | 73.7          | 127.28        | 4,466         | 16,614         | 1,400          | 491   | 183    |
| RA     | 14     | 2      | 79    | 59        | 7.860     | 8.40           | 7.86        | 24.7         | 60.0          | 5.33          | 194           | 472            | 59             | 21    | 5      |
| RA     | 18     | 1      | 78    | 45        | 2.377     | 4.20           | 2.38        | 34.4         | 50.0          | 2.25          | 82            | 119            | 25             | 9     | 1      |
| RA     | 21     | 1      | 76    | 49        | 1.747     | 4.20           | 1.75        | 56.7         | 60.0          | 2.72          | 99            | 105            | 30             | 11    | 1      |
| RA     | Totals | 4      | 78    | 54        | 11.984    | 16.81          | 11.98       | 31.3         | 58.0          | 10.30         | 375           | 695            | 113            | 41    | 8      |
| OC     | 8      | 1      | 50    | 20        | 12.036    | 4.20           |             |              |               |               |               |                |                |       |        |
| OC     | Totals | 1      | 50    | 20        | 12.036    | 4.20           |             |              |               |               |               |                |                |       |        |
| Totals |        | 65     | 81    | 88        | 187.600   | 273.08         | 326.27      | 28.8         | 108.3         | 262.52        | 9384          | 35,344         | 2,888          | 1,032 | 389    |

| TC TLOGSTVB         |        | Log Stock Table - MBF |       |      |       |       |              |      |           |  |      |     |           |     |     |     |     |       |       |       |
|---------------------|--------|-----------------------|-------|------|-------|-------|--------------|------|-----------|--|------|-----|-----------|-----|-----|-----|-----|-------|-------|-------|
|                     |        | Project: MBUTTE       |       |      |       |       |              |      |           |  |      |     |           |     |     |     |     |       |       |       |
| T01N R07W S08 T0100 |        |                       |       |      |       |       |              |      |           | T01N R07W S08 T0100                      |      |     |           |     |     |     |     |       |       |       |
| Twp                 | Rge    | Sec                   | Tract | Type | Acres | Plots | Sample Trees | Page | 1         |  | Date |     | 11/6/2008 |     |     |     |     |       |       |       |
| 01N                 | 07W    | 08                    | AREA1 | 0100 | 21.00 | 13    | 37           | Time | 3:23:37PM |  |      |     |           |     |     |     |     |       |       |       |
| Spp                 | T      | S                     | So    | Gr   | Log   | Gross | % Def        | Net  | % Spc     | Net Volume by Scaling Diameter in Inches |      |     |           |     |     |     |     |       |       |       |
|                     |        |                       |       |      |       |       |              |      |           | MBF                                      | MBF  | MBF | MBF       | 2-3 | 4-5 | 6-7 | 8-9 | 10-11 | 12-13 | 14-15 |
| DF                  | DO     | 2M                    | 25    |      |       | 11    | 4.5          | 11   | 2.9       |  |      |     |           | 11  |     |     |     |       |       |       |
| DF                  | DO     | 2M                    | 27    |      |       | 11    |              | 11   | 3.0       |  |      |     |           |     | 11  |     |     |       |       |       |
| DF                  | DO     | 2M                    | 34    |      |       | 14    |              | 14   | 3.8       |  |      |     |           |     |     |     | 14  |       |       |       |
| DF                  | DO     | 2M                    | 40    |      |       | 116   |              | 116  | 31.6      |  |      |     | 40        | 21  | 41  | 15  |     |       |       |       |
| DF                  | DO     | 3M                    | 19    |      |       | 1     |              | 1    | .3        |  |      |     | 1         |     |     |     |     |       |       |       |
| DF                  | DO     | 3M                    | 30    |      |       | 4     |              | 4    | 1.1       |  |      | 4   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 3M                    | 31    |      |       | 1     |              | 1    | .4        |  |      | 1   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 3M                    | 32    |      |       | 31    |              | 31   | 8.3       |  |      | 7   | 19        | 5   |     |     |     |       |       |       |
| DF                  | DO     | 3M                    | 36    |      |       | 6     |              | 6    | 1.6       |  |      |     |           | 6   |     |     |     |       |       |       |
| DF                  | DO     | 3M                    | 40    |      |       | 141   | 1.6          | 139  | 37.8      |  |      | 19  | 26        | 68  | 21  | 6   |     |       |       |       |
| DF                  | DO     | 4M                    | 12    |      |       | 0     |              | 0    | .1        |  |      | 0   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 16    |      |       | 2     |              | 2    | .6        |  |      | 2   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 17    |      |       | 5     |              | 5    | 1.3       |  | 1    | 4   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 18    |      |       | 3     |              | 3    | .9        |  | 2    | 1   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 19    |      |       | 1     |              | 1    | .3        |  |      | 1   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 21    |      |       | 1     |              | 1    | .2        |  |      | 1   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 25    |      |       | 2     |              | 2    | .4        |  |      | 2   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 26    |      |       | 3     |              | 3    | .8        |  | 3    |     |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 28    |      |       | 2     |              | 2    | .6        |  |      | 2   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 31    |      |       | 3     |              | 3    | .8        |  |      | 3   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 32    |      |       | 3     |              | 3    | .8        |  |      | 3   |           |     |     |     |     |       |       |       |
| DF                  | DO     | 4M                    | 33    |      |       | 8     |              | 8    | 2.2       |  | 8    |     |           |     |     |     |     |       |       |       |
| DF                  | Totals |                       |       |      |       | 371   |              | 368  | 67.3      |  | 15   | 45  | 51        | 80  | 60  | 37  | 52  | 15    | 14    |       |
| RA                  | DO     | 3M                    | 24    |      |       | 14    | 4.8          | 13   | 7.4       |  |      |     |           |     | 13  |     |     |       |       |       |
| RA                  | DO     | 4M                    | 21    |      |       | 6     |              | 6    | 3.2       |  |      | 6   |           |     |     |     |     |       |       |       |
| RA                  | DO     | 4M                    | 23    |      |       | 7     |              | 7    | 3.7       |  |      | 7   |           |     |     |     |     |       |       |       |
| RA                  | DO     | 4M                    | 28    |      |       | 32    |              | 32   | 17.7      |  |      | 11  | 21        |     |     |     |     |       |       |       |
| RA                  | DO     | 4M                    | 29    |      |       | 3     |              | 3    | 1.5       |  |      | 3   |           |     |     |     |     |       |       |       |
| RA                  | DO     | 4M                    | 30    |      |       | 13    |              | 13   | 7.2       |  |      | 13  |           |     |     |     |     |       |       |       |
| RA                  | DO     | 4M                    | 35    |      |       | 9     |              | 9    | 4.8       |  |      | 9   |           |     |     |     |     |       |       |       |
| RA                  | DO     | 4M                    | 39    |      |       | 13    |              | 13   | 7.5       |  |      | 13  |           |     |     |     |     |       |       |       |
| RA                  | DO     | 4M                    | 40    |      |       | 86    | 2.6          | 84   | 47.1      |  |      | 60  | 25        |     |     |     |     |       |       |       |
| RA                  | Totals |                       |       |      |       | 181   | 1.6          | 178  | 32.7      |  |      | 120 | 45        |     |     | 13  |     |       |       |       |
| Total All Species   |        |                       |       |      |       | 552   | 1.0          | 546  | 100.0     |  | 15   | 165 | 96        | 80  | 60  | 50  | 52  | 15    | 14    |       |

**Log Stock Table - MBF**  
**Project: MBUTTE**

T01N R07W S08 T0180

T01N R07W S08 T0180

Twp Rge Sec Tract Type Acres Plots Sample Trees Page  
 01N 07W 08 AREA2-SALE 0180 14.00 6 39 1  
 Date 11/6/2008  
 Time 3:24:01PM

| Spp               | T | S      | So | Gr | 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+ |  |  |
| RA                |   | DO     | 3M |    | 24  |     | 6         |       | 6       | 6.6   |  |     |     | 6   |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 3M |    | 28  |     | 6         |       | 6       | 6.9   |  |     |     | 6   |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 3M |    | 32  |     | 6         |       | 6       | 7.2   |  |     |     |     |       | 6     |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 3M |    | 40  |     | 20        |       | 20      | 22.9  |  |     |     | 7   | 13    |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 20  |     | 3         |       | 3       | 3.3   |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 21  |     | 1         |       | 1       | 1.0   |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 22  |     | 4         |       | 4       | 4.3   |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 23  |     | 2         |       | 2       | 2.8   |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 24  |     | 2         |       | 2       | 2.2   |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 26  |     | 1         |       | 1       | .9    |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 28  |     | 5         |       | 5       | 5.9   |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 29  |     | 3         | 25.0  | 3       | 3.0   |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 35  |     | 2         |       | 2       | 2.6   |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 38  |     | 4         |       | 4       | 5.1   |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | 4M |    | 40  |     | 22        |       | 22      | 25.3  |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | Totals |    |    |     |     | 87        |       | 86      | 28.5  |  |     |     | 31  | 17    | 13    | 13    | 12    |       |       |       |     |  |  |
| DF                |   | DO     | 2M |    | 40  |     | 16        |       | 16      | 13.8  |  |     |     |     |       | 16    |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 3M |    | 32  |     | 3         |       | 3       | 2.4   |  |     |     |     | 3     |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 3M |    | 40  |     | 67        |       | 67      | 58.1  |  |     |     | 3   | 39    | 25    |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M |    | 15  |     | 1         |       | 1       | .7    |  |     | 1   |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M |    | 23  |     | 1         |       | 1       | 1.1   |  |     | 1   |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M |    | 27  |     | 1         |       | 1       | 1.3   |  |     | 1   |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M |    | 30  |     | 2         |       | 2       | 1.7   |  |     | 2   |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M |    | 32  |     | 3         |       | 3       | 2.2   |  |     | 3   |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M |    | 35  |     | 3         |       | 3       | 2.5   |  |     | 3   |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M |    | 38  |     | 2         |       | 2       | 1.4   |  |     | 2   |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M |    | 40  |     | 17        |       | 17      | 14.9  |  |     | 14  | 3   |       |       |       |       |       |       |       |     |  |  |
| DF                |   | Totals |    |    |     |     | 116       |       | 116     | 38.2  |  |     | 26  | 6   | 42    | 25    | 16    |       |       |       |       |     |  |  |
| DL                |   | DO     | 2M |    | 40  |     | 77        |       | 77      | 82.9  |  |     |     |     |       | 4     | 8     | 42    | 11    | 11    |       |     |  |  |
| DL                |   | DO     | 3M |    | 21  |     | 1         |       | 1       | .8    |  |     |     |     | 1     |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 3M |    | 32  |     | 6         |       | 6       | 6.2   |  |     |     |     | 6     |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 3M |    | 40  |     | 7         |       | 7       | 7.9   |  |     |     | 2   | 2     | 3     |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M |    | 16  |     | 1         |       | 1       | 1.0   |  |     |     | 1   |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M |    | 19  |     | 1         |       | 1       | .7    |  |     |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M |    | 21  |     | 1         |       | 1       | .7    |  |     |     | 1   |       |       |       |       |       |       |       |     |  |  |
| DL                |   | Totals |    |    |     |     | 93        |       | 93      | 30.5  |  |     |     | 3   | 3     | 10    | 4     | 8     | 42    | 11    | 11    |     |  |  |
| BM                |   | DO     | 4M |    | 29  |     | 3         |       | 3       | 32.8  |  |     |     |     | 3     |       |       |       |       |       |       |     |  |  |
| BM                |   | DO     | 4M |    | 40  |     | 6         |       | 6       | 67.2  |  |     |     |     | 6     |       |       |       |       |       |       |     |  |  |
| BM                |   | Totals |    |    |     |     | 9         |       | 9       | 2.8   |  |     |     | 9   |       |       |       |       |       |       |       |     |  |  |
| Total All Species |   |        |    |    |     |     | 304       |       | 304     | 100.0 |  |     | 26  | 41  | 71    | 47    | 33    | 20    | 42    | 11    | 11    |     |  |  |





**Log Stock Table - MBF**  
Project: **MBUTTE**

T01N R07W S08 T0101

T01N R07W S08 T0101

Twp Rge Sec Tract Type Acres Plots Sample Trees  
01N 07W 08 AREA3-SALE 0101 225.00 49 128

Page 2  
Date 11/6/2008  
Time 3:24:30PM

| Spp               | T | S      | So | Gr | Log | Gross<br>MBF | %<br>Def | Net<br>MBF | %<br>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     | 4M | 25 |     | 16           |          | 16         | .5       |  | 16  |      |      |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 26 |     | 20           |          | 20         | .7       |  | 20  |      |      |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 27 |     | 13           |          | 13         | .4       |  | 13  |      |      |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 28 |     | 41           |          | 41         | 1.4      |  | 32  |      | 9    |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 29 |     | 19           |          | 19         | .7       |  |     |      | 19   |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 31 |     | 36           |          | 36         | 1.2      |  | 26  |      | 10   |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 32 |     | 12           |          | 12         | .4       |  |     |      | 12   |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 34 |     | 34           |          | 34         | 1.1      |  | 34  |      |      |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 36 |     | 38           |          | 38         | 1.3      |  | 38  |      |      |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 38 |     | 9            |          | 9          | .3       |  | 9   |      |      |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 40 |     | 70           |          | 70         | 2.3      |  | 70  |      |      |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 3M | 28 |     | 492          | .2       | 491        | 16.4     |  | 491 |      |      |       |       |       |       |       |       |       |     |  |  |
| DF                |   | Totals |    |    |     | 2,995        |          | 2,990      | 41.4     |  | 330 | 859  | 586  | 644   | 411   | 160   |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 21 |     | 43           |          | 43         | 6.8      |  | 12  |      | 31   |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 22 |     | 83           |          | 83         | 13.2     |  | 24  | 23   |      |       | 37    |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 23 |     | 25           |          | 25         | 3.9      |  |     | 25   |      |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 24 |     | 88           |          | 88         | 13.9     |  | 24  | 29   | 35   |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 25 |     | 22           |          | 22         | 3.5      |  | 22  |      |      |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 26 |     | 10           |          | 10         | 1.6      |  | 10  |      |      |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 28 |     | 89           |          | 89         | 14.0     |  | 10  |      |      | 38    | 40    |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 30 |     | 11           |          | 11         | 1.7      |  | 11  |      |      |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 32 |     | 39           |          | 39         | 6.2      |  |     |      |      | 39    |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 34 |     | 12           |          | 12         | 1.9      |  | 12  |      |      |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 35 |     | 20           |          | 20         | 3.1      |  | 20  |      |      |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 37 |     | 37           |          | 37         | 5.8      |  | 37  |      |      |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 40 |     | 87           |          | 87         | 13.7     |  |     | 87   |      |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 41 |     | 38           |          | 38         | 6.0      |  | 38  |      |      |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 33 |     | 29           |          | 29         | 4.6      |  | 29  |      |      |       |       |       |       |       |       |       |     |  |  |
| RA                |   | Totals |    |    |     | 634          |          | 634        | 8.8      |  | 250 | 163  | 66   | 78    | 77    |       |       |       |       |       |     |  |  |
| Total All Species |   |        |    |    |     | 7,248        |          | 7,225      | 100.0    |  | 525 | 1298 | 1562 | 1329  | 871   | 1013  | 627   |       |       |       |     |  |  |



**T01N R07W S08 T0101** **T01N R07W S08 T0101**  
 Page **2**  
 Twp **Rge Sec Tract Type Acres Plots Sample Trees**  
**01N 07W 08 AREA4 0101 99.00 40 129**  
 Date **11/6/2008**  
 Time **3:25:47PM**

| SPP               | T | S      | So | Gr | Log | Gross<br>MBF | %<br>Def | Net<br>MBF | %<br>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+ |  |  |
| DL                |   | DO     | 4M | 35 |     | 8            |          | 8          | .6       |  | 8   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 36 |     | 10           |          | 10         | .7       |  | 10  |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 37 |     | 5            |          | 5          | .4       |  | 5   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 38 |     | 13           |          | 13         | 1.0      |  | 13  |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 40 |     | 43           |          | 43         | 3.2      |  | 33  |     | 9   |       |       |       |       |       |       |       |     |  |  |
| DL                |   | Totals |    |    |     | 1,319        |          | 1,315      | 49.5     |  | 120 |     | 25  | 108   | 454   | 240   | 125   | 217   |       | 27    |     |  |  |
| RA                |   | DO     | CR | 20 |     | 11           |          | 11         | 13.9     |  |     |     |     |       |       |       | 11    |       |       |       |     |  |  |
| RA                |   | DO     | CR | 26 |     | 9            |          | 9          | 10.9     |  |     | 9   |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 28 |     | 11           |          | 11         | 13.5     |  |     | 11  |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 35 |     | 9            |          | 9          | 10.8     |  |     | 9   |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 37 |     | 22           |          | 22         | 28.1     |  |     | 22  |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 40 |     | 18           |          | 18         | 22.9     |  |     | 11  | 7   |       |       |       |       |       |       |       |     |  |  |
| RA                |   | Totals |    |    |     | 80           |          | 80         | 3.0      |  |     | 61  | 7   |       |       |       | 11    |       |       |       |     |  |  |
| BM                |   | DO     | CR | 17 |     | 6            | 25.0     | 5          | 21.7     |  |     |     | 5   |       |       |       |       |       |       |       |     |  |  |
| BM                |   | DO     | CR | 18 |     | 4            |          | 4          | 17.5     |  |     |     | 4   |       |       |       |       |       |       |       |     |  |  |
| BM                |   | DO     | CR | 29 |     | 8            |          | 8          | 36.1     |  |     |     | 8   |       |       |       |       |       |       |       |     |  |  |
| BM                |   | DO     | CR | 35 |     | 6            | 12.5     | 6          | 24.8     |  |     |     | 6   |       |       |       |       |       |       |       |     |  |  |
| BM                |   | Totals |    |    |     | 25           | 9.7      | 22         | .8       |  |     |     | 22  |       |       |       |       |       |       |       |     |  |  |
| Total All Species |   |        |    |    |     | 2,669        |          | 2,657      | 100.0    |  | 397 |     | 237 | 645   | 686   | 274   | 163   | 228   |       | 27    |     |  |  |

**Log Stock Table - MBF**  
Project: **MBUTTE**

T01N R07W S08 T0120

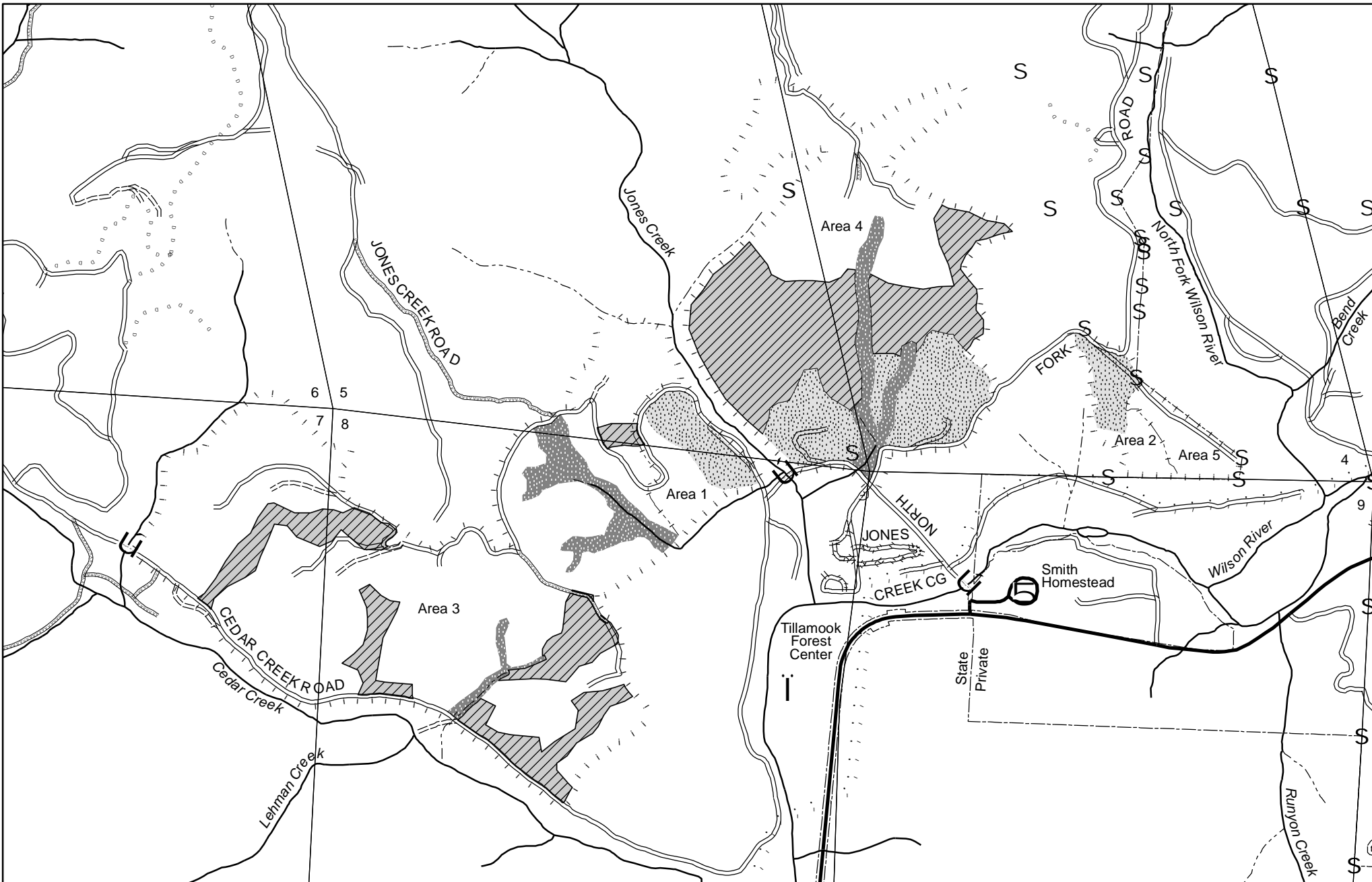
T01N R07W S08 T0120

Twp Rge Sec Tract  
01N 07W 08 AREA5

Type Acres Plots Sample Trees  
0120 11.00 8 65

Page 1  
Date 11/6/2008  
Time 3:27:02PM

| Spp               | T | S      | So | Gr | Log | 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     | 2M | 40 |     | 40        |       | 40      | 22.1  |  |     |     |     | 19    | 10    | 11    |       |       |       |       |     |  |  |
| DF                |   | DO     | 3M | 32 |     | 9         |       | 9       | 5.1   |  |     | 4   | 3   | 2     |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 3M | 40 |     | 92        |       | 92      | 50.1  |  |     | 19  | 48  | 25    |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 16 |     | 1         |       | 1       | .4    |  | 1   | 0   |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 17 |     | 2         |       | 2       | .9    |  | 2   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 18 |     | 1         |       | 1       | .8    |  | 1   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 23 |     | 3         |       | 3       | 1.7   |  | 3   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 24 |     | 1         |       | 1       | .6    |  | 1   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 25 |     | 4         |       | 4       | 2.2   |  | 4   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 27 |     | 1         |       | 1       | .6    |  | 1   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 28 |     | 1         |       | 1       | .6    |  | 1   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 29 |     | 2         |       | 2       | .8    |  | 2   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 30 |     | 2         |       | 2       | 1.3   |  | 2   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 32 |     | 4         |       | 4       | 2.1   |  | 4   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 35 |     | 3         |       | 3       | 1.6   |  | 3   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 38 |     | 3         |       | 3       | 1.5   |  | 3   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | DO     | 4M | 40 |     | 14        |       | 14      | 7.5   |  | 12  | 2   |     |       |       |       |       |       |       |       |     |  |  |
| DF                |   | Totals |    |    |     | 183       |       | 183     | 47.0  |  | 39  | 25  | 51  | 26    | 19    | 10    | 11    |       |       |       |     |  |  |
| DL                |   | DO     | 2M | 40 |     | 147       |       | 147     | 73.9  |  |     |     |     | 21    | 31    | 63    | 25    | 7     |       |       |     |  |  |
| DL                |   | DO     | 3M | 21 |     | 0         |       | 0       | .2    |  |     |     |     | 0     |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 3M | 30 |     | 1         |       | 1       | .3    |  | 1   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 3M | 31 |     | 1         |       | 1       | .3    |  |     | 1   |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 3M | 32 |     | 13        |       | 13      | 6.4   |  |     | 3   | 3   | 2     | 4     |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 3M | 35 |     | 1         |       | 1       | .3    |  | 1   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 3M | 40 |     | 29        | .7    | 28      | 14.3  |  | 5   | 4   | 12  | 2     |       | 5     |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 15 |     | 0         |       | 0       | .2    |  | 0   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 16 |     | 0         |       | 0       | .1    |  | 0   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 17 |     | 1         |       | 1       | .6    |  | 0   | 1   |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 18 |     | 0         |       | 0       | .2    |  | 0   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 19 |     | 1         |       | 1       | .4    |  |     | 1   |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 20 |     | 0         |       | 0       | .2    |  | 0   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 21 |     | 0         |       | 0       | .2    |  |     | 0   |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 22 |     | 0         |       | 0       | .2    |  |     | 0   |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 23 |     | 0         |       | 0       | .2    |  |     | 0   |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 33 |     | 1         |       | 1       | .6    |  | 1   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 35 |     | 1         |       | 1       | .3    |  |     | 1   |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 38 |     | 1         |       | 1       | .5    |  | 1   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | DO     | 4M | 40 |     | 1         |       | 1       | .5    |  | 1   |     |     |       |       |       |       |       |       |       |     |  |  |
| DL                |   | Totals |    |    |     | 199       |       | 198     | 51.0  |  | 4   | 8   | 10  | 16    | 25    | 35    | 69    | 25    | 7     |       |     |  |  |
| RA                |   | DO     | CR | 35 |     | 1         |       | 1       | 17.1  |  |     | 1   |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 38 |     | 3         |       | 3       | 33.9  |  |     | 3   |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | DO     | CR | 40 |     | 4         |       | 4       | 49.0  |  |     | 4   |     |       |       |       |       |       |       |       |     |  |  |
| RA                |   | Totals |    |    |     | 8         |       | 8       | 2.0   |  |     | 8   |     |       |       |       |       |       |       |       |     |  |  |
| Total All Species |   |        |    |    |     | 389       |       | 389     | 100.0 |  | 44  | 41  | 61  | 42    | 44    | 45    | 79    | 25    | 7     |       |     |  |  |



- ( ) Landing
- ( ) Domestic water supply intake
- (H) Helicopter landing zone
- (T) Truck turn-around
- (S) Survey corner
- [ ] Cable yarding
- [ ] Ground yarding
- [X] Helicopter yarding

- [ ] Downhill yarding
- [ ] Buffer
- [ ] Non-required thinning
- [ ] Area boundary
- [ ] Sale boundary
- [ ] Ownership boundary
- [ ] Perennial Type-F stream
- [ ] Perennial Type-N stream
- [ ] Unsurfaced road
- [ ] Surfaced road

- [ ] State/Federal highway
- [ ] County road
- (2) Non-project road
- (A) Swing road
- [ ] Legacy road
- [ ] Blocked road
- [ ] OHV trail
- [ ] Non-motorized trail
- [ ] Transmission line

3

### LOGGING PLAN

Timber Sale Contract No. 341-09-49  
 Mary's Butte  
 Portions of Sections 4, 5, 6,  
 7, 8, and 9, T1N, R7W, W.M.,  
 Tillamook County, Oregon

| Area         | Type of Operation | Acres      |            |
|--------------|-------------------|------------|------------|
|              |                   | Gross      | Net        |
| 1            | Modified Clearcut | 22         | 21         |
| 2            | Modified Clearcut | 14         | 14         |
| 3            | Partial Cut       | 295        | 225        |
| 4            | Partial Cut       | 186        | 99         |
| 5            | Partial Cut       | 11         | 11         |
| <b>Total</b> |                   | <b>528</b> | <b>370</b> |

Tillamook District GIS 11/06/2008

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