



"STAND FOR THE FOREST"

# Timber Sale Appraisal SMoore

Sale TL-341-2016-59-

District: Tillamook

Date: February 29, 2016

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## Cost Summary

|                         | Conifer        | Hardwood          | Total          |
|-------------------------|----------------|-------------------|----------------|
| Gross Timber Sale Value | \$3,029,052.60 | \$51,346.80       | \$3,080,399.40 |
|                         |                | Project Work:     | (\$725,850.00) |
|                         |                | Advertised Value: | \$2,354,549.40 |



"SUSTAINABLE FORESTRY"

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District: Tillamook

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## Timber Description

**Location:** Portions of Sections 17, 18, and 19, T1N, R6W, and portions of Sections 13, 14, 23, and 24, T1N, R7W, W.M., Tillamook County, Oregon.

**Stand Stocking:** 60%

| Specie Name   | AvgDBH | Amortization (%) | Recovery (%) |
|---------------|--------|------------------|--------------|
| Douglas - Fir | 18     | 0                | 95           |
| Alder (Red)   | 16     | 0                | 90           |

| Volume by Grade | 2S    | 3S    | 4S  | 8" - 9" | 10" - 11" | 12"+ | 6" - 7" | Total  |
|-----------------|-------|-------|-----|---------|-----------|------|---------|--------|
| Douglas - Fir   | 6,002 | 3,174 | 958 | 0       | 0         | 0    | 0       | 10,134 |
| Alder (Red)     | 0     | 0     | 0   | 16      | 61        | 69   | 109     | 255    |
| <b>Total</b>    | 6,002 | 3,174 | 958 | 16      | 61        | 69   | 109     | 10,389 |

**Comments:** Pond Values Used: 4th Quarter Calendar Year 2015.

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:  
 $\$160/\text{MBF} = \$430/\text{MBF} - \$270/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:  
 $\$880/\text{MBF} = \$1,150/\text{MBF} - \$270/\text{MBF}$

Pulp (Conifer and Hardwood) Price =  $\$25/\text{MBF}$

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

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

HAULING COST ALLOWANCE

Hauling costs equivalent to  $\$780$  daily truck cost.

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

Brand and Paint:  $\$2/\text{MBF} \times 10,389 \text{ MBF} = \$20,778$

Snag Creation, Girdling at Base:  $\$10/\text{tree} \times 673 \text{ trees} = \$6,730$

Directional Falling 2,400' linear, 3.9 acres  $\times 169 \text{ trees/acre} \times \$5/\text{tree} = \$3,295$

TOTAL Other Costs (with Profit & Risk to be added) =  $\$30,803$

Other Costs (No Profit & Risk added):

Machine Cleaning:  $\$1,000/\text{machine} \times 3 = \$3,000$

Heliport Construction: 6 hours machine loader time for slash moving @  $\$140/\text{hour} = \$840$

Large Wood Placement, Ben Smith Creek: 4 structures  $\times 3\frac{1}{2}$  hours of machine loader time per structure  $\times \$140/\text{hour} = \$1,960$

Non-Project Roads #1:  $630' \times \$250/100' = \$1,575$

Non-Project Roads #2:  $550' \times \$250/100' = \$1,375$

Non-Project Roads #3:  $710' \times \$250/100' = \$1,775$

Non-Project and Un-Surfaced Road Blocking:  $\$50/\text{block} \times 4 \text{ roads} = \$200$

Cover Materials for Piles:  $\$5/\text{pile} \times 42 \text{ piles} = \$210$

Slash Piling and Sorting (Cable Ground):  $\$5/\text{acre} \times 236 \text{ acres} = \$1,180$

Ditch Cleaning and Bank Sluff Removal:

Mobilization: two times – dump truck w/ tilt bed & small excavator:  $\$890 \times 2 = \$1,780$

Small Excavator (Cat 312 or equivalent): 40 hours @  $\$95/\text{hour} = \$3,800$

Dump Truck: 40 hours @  $\$70/\text{hour} = \$2,800$

TOTAL Other Costs (No Profit & Risk added) =  $\$20,495$

ROAD MAINTENANCE:

Spot rocking:

Lyda and S. Fork Roads:  $20\text{cy}/\text{mmbf}/\text{mile} \times 10.4 \text{ MMBF} \times \$8.00/\text{cy} \times 12.2 \text{ miles}/10,389 \text{ MBF} = \$1.95/\text{MBF}$

Grading:

Lyda and S. Fork Roads:  $\$250/\text{mile} \times 12.2 \text{ miles} \times 5 \text{ times}/10,389 \text{ MBF} = \$1.47/\text{MBF}$

Final Maintenance Grading:  $\$500 \times 12.2 \text{ miles}/10,389 \text{ MBF} = \$0.59/\text{MBF}$

Total Road Maintenance:  $\$4.01/\text{MBF}$



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## Logging Conditions

|                          |                                                                 |                                 |
|--------------------------|-----------------------------------------------------------------|---------------------------------|
| <b>Combination#:</b> 1   | Douglas - Fir                                                   | 65.29%                          |
| <b>Logging System:</b>   | Cable: Medium Tower >40 - <70                                   | <b>Process:</b> Stroke Delimber |
| <b>yarding distance:</b> | Short (400 ft)                                                  | <b>downhill yarding:</b> No     |
| <b>tree size:</b>        | Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF |                                 |
| <b>loads / day:</b>      | 7                                                               | <b>bd. ft / load:</b> 3800      |
| <b>cost / mbf:</b>       | \$225.56                                                        |                                 |
| <b>machines:</b>         | Log Loader (A)<br>Stroke Delimber (A)<br>Tower Yarder (Medium)  |                                 |
| <b>Combination#:</b> 2   | Douglas - Fir                                                   | 34.71%                          |
| <b>Logging System:</b>   | Shovel                                                          | <b>Process:</b> Stroke Delimber |
| <b>yarding distance:</b> | Short (400 ft)                                                  | <b>downhill yarding:</b> No     |
| <b>tree size:</b>        | Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF |                                 |
| <b>loads / day:</b>      | 8                                                               | <b>bd. ft / load:</b> 3800      |
| <b>cost / mbf:</b>       | \$104.34                                                        |                                 |
| <b>machines:</b>         | Stroke Delimber (B)                                             |                                 |
| <b>Combination#:</b> 3   | Alder (Red)                                                     | 68.73%                          |
| <b>Logging System:</b>   | Cable: Medium Tower >40 - <70                                   | <b>Process:</b> Stroke Delimber |
| <b>yarding distance:</b> | Short (400 ft)                                                  | <b>downhill yarding:</b> No     |
| <b>tree size:</b>        | Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF |                                 |
| <b>loads / day:</b>      | 7.5                                                             | <b>bd. ft / load:</b> 2800      |
| <b>cost / mbf:</b>       | \$285.71                                                        |                                 |
| <b>machines:</b>         | Log Loader (A)<br>Stroke Delimber (A)<br>Tower Yarder (Medium)  |                                 |
| <b>Combination#:</b> 4   | Alder (Red)                                                     | 31.27%                          |
| <b>Logging System:</b>   | Shovel                                                          | <b>Process:</b> Stroke Delimber |
| <b>yarding distance:</b> | Short (400 ft)                                                  | <b>downhill yarding:</b> No     |
| <b>tree size:</b>        | Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF |                                 |
| <b>loads / day:</b>      | 7                                                               | <b>bd. ft / load:</b> 2800      |
| <b>cost / mbf:</b>       | \$161.84                                                        |                                 |
| <b>machines:</b>         | Stroke Delimber (B)                                             |                                 |



# Timber Sale Appraisal SMoore

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Date: February 29, 2016

## Logging Costs

|                             |                                |
|-----------------------------|--------------------------------|
| Operating Seasons: 2.00     | Profit Risk: 12%               |
| Project Costs: \$725,850.00 | Other Costs (P/R): \$30,803.00 |
| Slash Disposal: \$0.00      | Other Costs: \$20,495.00       |

Miles of Road

Road Maintenance: \$4.01

| 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       | 4.0        |
| Alder (Red)   | \$0.00   | 3.0       | 2.8        |



OREGON DEPARTMENT OF FORESTRY

# Timber Sale Appraisal SMoore

Sale TL-341-2016-59-

District: Tillamook

Date: February 29, 2016

## Logging Costs Breakdown

| Logging              | Road Maint | Fire Protect | Hauling  | Other P/R appl | Profit & Risk | Slash Disposal | Scaling | Other  | Total    |
|----------------------|------------|--------------|----------|----------------|---------------|----------------|---------|--------|----------|
| <b>Douglas - Fir</b> |            |              |          |                |               |                |         |        |          |
| \$183.48             | \$4.21     | \$0.84       | \$68.25  | \$2.96         | \$31.17       | \$0.00         | \$5.00  | \$1.97 | \$297.88 |
| <b>Alder (Red)</b>   |            |              |          |                |               |                |         |        |          |
| \$246.98             | \$4.41     | \$0.84       | \$102.15 | \$2.96         | \$42.88       | \$0.00         | \$5.00  | \$1.97 | \$407.19 |

| Specie        | Amortization | Pond Value | Stumpage | Amortized |
|---------------|--------------|------------|----------|-----------|
| Douglas - Fir | \$0.00       | \$596.78   | \$298.90 | \$0.00    |
| Alder (Red)   | \$0.00       | \$608.55   | \$201.36 | \$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 | 10,134 | \$298.90 | \$3,029,052.60 |
| Alder (Red)   | 255    | \$201.36 | \$51,346.80    |

### Gross Timber Sale Value

Recovery: \$3,080,399.40

Prepared By: David Wells

Phone: 503-842-2545



"STEWARDSHIP IN FORESTRY"

## PROJECT SUMMARY SHEET

Sale: S'Moore

### CONSTRUCTION

|                              |        |       |            |                    |
|------------------------------|--------|-------|------------|--------------------|
| Point                        | A to B | 3+00  | stations = | \$4,368.70         |
| Point                        | C to D | 5+65  | stations = | \$6,432.16         |
| Point                        | E to F | 14+10 | stations = | \$14,542.27        |
| Point                        | G to H | 9+80  | stations = | \$9,378.46         |
| Point                        | M to N | 23+55 | stations = | \$26,524.40        |
| Point                        | O to P | 34+85 | stations = | \$25,008.88        |
| <b>SUBTOTAL CONSTRUCTION</b> |        |       |            | <b>\$86,254.87</b> |

### IMPROVEMENT

|                             |        |        |            |                     |
|-----------------------------|--------|--------|------------|---------------------|
| Point                       | I to J | 101+00 | stations = | \$80,148.69         |
| Point                       | M to N | 53+25  | stations = | \$49,608.34         |
| Point                       | O to P | 105+50 | stations = | \$46,350.67         |
| Point                       | Q to R | 400+50 | stations = | \$295,248.74        |
| Point                       | S to T | 7+80   | stations = | \$85,705.90         |
| Point                       | U to V | 17+40  | stations = | \$2,783.80          |
| <b>SUBTOTAL IMPROVEMENT</b> |        |        |            | <b>\$559,846.14</b> |

### RECONSTRUCTION

|                                |        |       |            |                    |
|--------------------------------|--------|-------|------------|--------------------|
| Point                          | K to L | 13+00 | stations = | \$17,224.45        |
| <b>SUBTOTAL RECONSTRUCTION</b> |        |       |            | <b>\$17,224.45</b> |

### SPECIAL PROJECTS

|                                                     |      |                         |                    |
|-----------------------------------------------------|------|-------------------------|--------------------|
| Quarry Exploration and Drilling Project 5           |      |                         | 6,300.00           |
| Construct 1,500 CY Stockpile of 1 1/2"-0" Project 3 |      |                         | 28,755.00          |
| Brush                                               | 23.5 | miles of road Project 6 | \$19,975.00        |
| <b>SUBTOTAL SPECIAL PROJECTS</b>                    |      |                         | <b>\$55,030.00</b> |

**MOVE IN** **\$7,494.54**

**GRAND TOTAL** **\$725,850.00**

| Sale:                                                                                                                                             |  |                                                      | S'Moore   |                |                       | Road:             |                      |                         | A to B                  |                                      |                          |
|---------------------------------------------------------------------------------------------------------------------------------------------------|--|------------------------------------------------------|-----------|----------------|-----------------------|-------------------|----------------------|-------------------------|-------------------------|--------------------------------------|--------------------------|
| <u>Construction -</u>                                                                                                                             |  |                                                      | 3+00      | stations       | <u>Improvement -</u>  | 0+00              | stations             | <u>Reconstruction -</u> | 0+00                    | stations                             |                          |
|                                                                                                                                                   |  |                                                      | 0.06      | miles          |                       | 0.00              | miles                |                         | 0.00                    | miles                                |                          |
| <b><u>CONSTRUCTION:</u></b> CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA - |  |                                                      |           |                |                       |                   |                      |                         |                         |                                      |                          |
|                                                                                                                                                   |  | <u>Station</u>                                       | <u>to</u> | <u>Station</u> | <u>Avg. Sideslope</u> | <u>Avg. Dist.</u> | <u>To W.A. (mi.)</u> | <u>Outslope/Ditch</u>   | <u>Cost per Station</u> |                                      |                          |
|                                                                                                                                                   |  | 0+00                                                 |           | 2+40           | 30%                   |                   |                      | Outslope                | \$191                   | =                                    | \$458.40                 |
|                                                                                                                                                   |  | 2+40                                                 |           | 3+00           | Land. Const.          |                   |                      | Outslope                | \$500                   | =                                    | \$300.00                 |
|                                                                                                                                                   |  |                                                      |           |                |                       |                   |                      |                         |                         |                                      | <b><u>TOTAL</u></b>      |
|                                                                                                                                                   |  |                                                      |           |                |                       |                   |                      |                         |                         |                                      | <b>\$758.40</b>          |
| <b>ROCK</b>                                                                                                                                       |  |                                                      |           |                |                       |                   |                      |                         |                         |                                      |                          |
|                                                                                                                                                   |  | 0+00                                                 | to        | 3+00           | 160                   | cy. of            |                      | Crushed                 | @                       | \$12.93 per c.y.=                    | \$2,068.80               |
|                                                                                                                                                   |  | Landing Rock                                         |           | 2+70           | 80                    | cy. of            |                      | Crushed                 | @                       | \$12.96 per c.y.=                    | \$1,036.80               |
|                                                                                                                                                   |  | Junction Rock                                        |           | 0+00           | 20                    | cy. of            |                      | Crushed                 | @                       | \$12.89 per c.y.=                    | \$257.80                 |
|                                                                                                                                                   |  |                                                      |           |                |                       |                   |                      |                         |                         |                                      | <b><u>TOTAL ROCK</u></b> |
|                                                                                                                                                   |  |                                                      |           |                |                       |                   |                      |                         |                         |                                      | <b>\$3,363.40</b>        |
| <b>SPECIAL PROJECTS</b>                                                                                                                           |  |                                                      |           |                |                       |                   |                      |                         |                         |                                      |                          |
|                                                                                                                                                   |  | Grade and shape road -                               |           |                |                       |                   | 3.00                 | stations @              | \$15.50                 | per station                          | \$46.50                  |
|                                                                                                                                                   |  | Roll subgrade w/ vibratory roller prior to rocking - |           |                |                       |                   | 3.00                 | stations @              | \$13.20                 | per station                          | \$39.60                  |
|                                                                                                                                                   |  | Remove large stump at junction (0+00) -              |           |                |                       |                   | 1.00                 | lump sum @              | \$130.00                |                                      | \$130.00                 |
|                                                                                                                                                   |  | Grass seed and fertilize -                           |           |                |                       |                   | 0.14                 | acres @                 | \$220.00                | per acre                             | \$30.80                  |
|                                                                                                                                                   |  |                                                      |           |                |                       |                   |                      |                         |                         | <b><u>TOTAL SPECIAL PROJECTS</u></b> | <b>\$246.90</b>          |
| <b>GRAND TOTAL</b>                                                                                                                                |  |                                                      |           |                |                       |                   |                      |                         |                         |                                      | <b>\$4,368.70</b>        |

## SUMMARY OF CONSTRUCTION COST

Sale: S'Moore

Road: C to D

|                       |             |          |                      |             |          |                         |             |          |
|-----------------------|-------------|----------|----------------------|-------------|----------|-------------------------|-------------|----------|
| <u>Construction</u> - | <u>5+65</u> | stations | <u>Improvement</u> - | <u>0+00</u> | stations | <u>Reconstruction</u> - | <u>0+00</u> | stations |
|                       | <u>0.11</u> | miles    |                      | <u>0.00</u> | miles    |                         | <u>0.00</u> | miles    |

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

| <u>Station</u> | <u>to</u> | <u>Station</u> | <u>Avg. Sideslope</u><br><u>or Activity</u> | <u>Avg. Dist.</u><br><u>To W.A. (mi.)</u> | <u>Outslope/Ditch</u> | <u>Cost per Station</u> |   |              |                   |
|----------------|-----------|----------------|---------------------------------------------|-------------------------------------------|-----------------------|-------------------------|---|--------------|-------------------|
| 0+00           |           | 5+00           | 35%                                         |                                           |                       | \$191                   | = |              | \$955.00          |
| 5+00           |           | 5+65           | Land Const.                                 |                                           |                       | \$500                   | = |              | \$325.00          |
|                |           |                |                                             |                                           |                       |                         |   | <u>TOTAL</u> | <b>\$1,280.00</b> |

## ROCK

|               |    |      |     |        |         |   |                    |                   |                   |
|---------------|----|------|-----|--------|---------|---|--------------------|-------------------|-------------------|
| 0+00          | to | 5+65 | 280 | cy. of | Crushed | @ | \$12.97 per c.y. = | \$3,631.60        |                   |
| Landing Rock  |    | 5+35 | 80  | cy. of | Crushed | @ | \$13.04 per c.y. = | \$1,043.20        |                   |
| Junction Rock |    | 0+00 | 20  | cy. of | Crushed | @ | \$12.90 per c.y. = | \$258.00          |                   |
|               |    |      |     |        |         |   |                    | <b>TOTAL ROCK</b> | <b>\$4,932.80</b> |

## SPECIAL PROJECTS

|                                                      |      |            |          |             |                 |
|------------------------------------------------------|------|------------|----------|-------------|-----------------|
| Grade and shape road -                               | 5.65 | stations @ | \$15.50  | per station | \$87.58         |
| Roll subgrade w/ vibratory roller prior to rocking - | 5.65 | stations @ | \$13.20  | per station | \$74.58         |
| Grass seed and fertilize -                           | 0.26 | acres @    | \$220.00 | per acre    | \$57.20         |
| TOTAL SPECIAL PROJECTS                               |      |            |          |             | <b>\$219.36</b> |

|             |            |
|-------------|------------|
| GRAND TOTAL | \$6,432.16 |
|-------------|------------|

SUMMARY OF CONSTRUCTION COST

|                  |       |          |               |      |          |
|------------------|-------|----------|---------------|------|----------|
| Sale: S'Moore    |       |          | Road: E to F  |      |          |
| Construction -   | 14+10 | stations | Improvement - | 0+00 | stations |
|                  | 0.27  | miles    |               | 0.00 | miles    |
| Reconstruction - | 0+00  | stations |               |      |          |
|                  | 0.00  | miles    |               |      |          |

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

| Station | to | Station | Avg. Sideslope<br>or Activity | Avg. Dist.<br>To W.A. (mi.) | Outslope/Ditch | Cost per Station |   |              |                   |
|---------|----|---------|-------------------------------|-----------------------------|----------------|------------------|---|--------------|-------------------|
| 0+00    |    | 3+55    | 55%                           |                             | Outslope       | \$689            | = | \$2,445.95   |                   |
| 3+55    |    | 10+00   | 20%                           |                             |                | \$139            | = | \$896.55     |                   |
| 10+00   |    | 13+50   | 40%                           |                             |                | \$243            | = | \$850.50     |                   |
| 13+50   |    | 14+10   | Land. Const.                  |                             |                | \$500            | = | \$300.00     |                   |
|         |    |         |                               |                             |                |                  |   | <b>TOTAL</b> | <b>\$4,493.00</b> |

|               |    |       |     |        |         |   |                    |                   |                   |
|---------------|----|-------|-----|--------|---------|---|--------------------|-------------------|-------------------|
| ROCK          |    |       |     |        |         |   |                    |                   |                   |
| 0+00          | to | 14+10 | 660 | cy. of | Crushed | @ | \$12.49 per c.y. = | \$8,243.40        |                   |
| Landing Rock  |    | 13+80 | 80  | cy. of | Crushed | @ | \$12.65 per c.y. = | \$1,012.00        |                   |
| Junction Rock |    | 0+00  | 20  | cy. of | Crushed | @ | \$12.31 per c.y. = | \$246.20          |                   |
|               |    |       |     |        |         |   |                    | <b>TOTAL ROCK</b> | <b>\$9,501.60</b> |

|                                                      |  |       |            |          |             |          |  |                               |                    |
|------------------------------------------------------|--|-------|------------|----------|-------------|----------|--|-------------------------------|--------------------|
| SPECIAL PROJECTS                                     |  |       |            |          |             |          |  |                               |                    |
| Grade and shape road -                               |  | 14.10 | stations @ | \$15.50  | per station | \$218.55 |  |                               |                    |
| Roll subgrade w/ vibratory roller prior to rocking - |  | 14.10 | stations @ | \$13.20  | per station | \$186.12 |  |                               |                    |
| Grass seed and fertilize -                           |  | 0.65  | acres @    | \$220.00 | per acre    | \$143.00 |  |                               |                    |
|                                                      |  |       |            |          |             |          |  | <b>TOTAL SPECIAL PROJECTS</b> | <b>\$547.67</b>    |
|                                                      |  |       |            |          |             |          |  | <b>GRAND TOTAL</b>            | <b>\$14,542.27</b> |

## SUMMARY OF CONSTRUCTION COST

Sale: S'Moore

Road: G to H

|                       |                      |                      |                      |                         |                      |
|-----------------------|----------------------|----------------------|----------------------|-------------------------|----------------------|
| <u>Construction</u> - | <u>9+80</u> stations | <u>Improvement</u> - | <u>0+00</u> stations | <u>Reconstruction</u> - | <u>0+00</u> stations |
|                       | 0.19 miles           |                      | 0.00 miles           |                         | 0.00 miles           |

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

[illegible]

## ROCK

|               |    |      |     |        |         |   |                    |                   |                   |
|---------------|----|------|-----|--------|---------|---|--------------------|-------------------|-------------------|
| 0+00          | to | 9+80 | 470 | cy. of | Crushed | @ | \$12.11 per c.y. = | \$5,691.70        |                   |
| Landing Rock  |    | 9+50 | 80  | cy. of | Crushed | @ | \$12.23 per c.y. = | \$978.40          |                   |
| Junction Rock |    | 0+00 | 20  | cy. of | Crushed | @ | \$12.00 per c.y. = | \$240.00          |                   |
|               |    |      |     |        |         |   |                    | <b>TOTAL ROCK</b> | <b>\$6,910.10</b> |

## SPECIAL PROJECTS

|                                                      |      |            |          |                        |                 |
|------------------------------------------------------|------|------------|----------|------------------------|-----------------|
| Grade and shape road -                               | 9.80 | stations @ | \$15.50  | per station            | \$151.90        |
| Roll subgrade w/ vibratory roller prior to rocking - | 9.80 | stations @ | \$13.20  | per station            | \$129.36        |
| Grass seed and fertilize -                           | 0.45 | acres @    | \$220.00 | per acre               | \$99.00         |
|                                                      |      |            |          | TOTAL SPECIAL PROJECTS | <b>\$380.26</b> |

|             |            |
|-------------|------------|
| GRAND TOTAL | \$9,378.46 |
|-------------|------------|

## SUMMARY OF CONSTRUCTION COST

Sale: S'Moore

Road: I to J

|                       |                      |                      |                        |                         |                      |
|-----------------------|----------------------|----------------------|------------------------|-------------------------|----------------------|
| <u>Construction -</u> | <u>0+00</u> stations | <u>Improvement -</u> | <u>101+00</u> stations | <u>Reconstruction -</u> | <u>0+00</u> stations |
|                       | 0.00 miles           |                      | 1.91 miles             |                         | 0.00 miles           |

**IMPROVEMENT:** CLEARING AND GRUBBING -

|            |       |         |                                    |                   |                   |
|------------|-------|---------|------------------------------------|-------------------|-------------------|
| Scattering | 1.160 | acres @ | \$1,500.00 per acre =              | <u>\$1,740.00</u> |                   |
|            |       |         | <b>TOTAL CLEARING AND GRUBBING</b> |                   | <b>\$1,740.00</b> |

**IMPROVEMENT:** EXCAVATION -

|                         |       |    |        |       |        |          |            |                   |
|-------------------------|-------|----|--------|-------|--------|----------|------------|-------------------|
| Road Ditching End-Haul  | 4+60  | to | 30+00  | 25.40 | sta. @ | \$80.00  | per sta. = | \$2,032.00        |
| Road Ditching           | 30+00 | to | 35+00  | 5.00  | sta. @ | \$80.00  | per sta. = | \$400.00          |
| Road Ditching End-Haul  | 38+85 | to | 55+00  | 16.15 | sta. @ | \$100.00 | per sta. = | \$1,615.00        |
| Road Ditching           | 58+10 | to | 64+60  | 6.50  | sta. @ | \$80.00  | per sta. = | \$520.00          |
| Pullback                | 67+20 | to | 68+10  | 250   | cy. @  | \$1.40   | per c.y.=  | \$350.00          |
| Road Ditching End-Haul  | 69+20 | to | 101+00 | 31.80 | sta. @ | \$100.00 | per sta. = | \$3,180.00        |
| <b>TOTAL EXCAVATION</b> |       |    |        |       |        |          |            | <b>\$8,097.00</b> |

**IMPROVEMENT:** ENDHAUL -

|                  |       |    |       |      |       |        |                      |          |                   |
|------------------|-------|----|-------|------|-------|--------|----------------------|----------|-------------------|
| Pullback         | 67+20 | to | 68+10 | 250  | cy. @ | \$2.67 | per c.y.=            | \$667.50 |                   |
| Spread & compact |       |    |       | 2250 | cy. @ | \$0.25 | per c.y.=            | \$562.50 |                   |
|                  |       |    |       |      |       |        | <b>TOTAL ENDHAUL</b> |          | <b>\$1,230.00</b> |

## CULVERTS - MATERIALS & INSTALLATION

|                                     |           |                   |    |                       |                   |
|-------------------------------------|-----------|-------------------|----|-----------------------|-------------------|
| <u>Culverts</u>                     |           |                   |    |                       |                   |
| 150                                 | LF of 18" | \$3,045.10        | 35 | LF of 24"             | \$920.61          |
| 40                                  | LF of 30" | \$1,297.38        | 40 | LF of 36"             | \$1,616.14        |
| 50                                  | LF of 42" | \$2,970.87        | 95 | LF of 48"             | \$6,556.44        |
|                                     |           | <u>\$7,313.35</u> |    |                       | <u>\$9,093.19</u> |
| <u>Culvert Stakes &amp; Markers</u> |           |                   |    |                       |                   |
| 11 markers                          |           | <u>\$88.00</u>    |    |                       |                   |
|                                     |           | \$88.00           |    |                       |                   |
|                                     |           |                   |    | <b>TOTAL CULVERTS</b> |                   |

## ROCK

|                          |                 |        |       |        |         |   |                    |                   |                    |
|--------------------------|-----------------|--------|-------|--------|---------|---|--------------------|-------------------|--------------------|
| +00                      | to              | 101+00 | 3,530 | cy. of | Crushed | @ | \$12.35 per c.y. = | \$43,595.50       |                    |
| Culvert Backfill/Bedding | 11 Culvert Loc. |        | 200   | cy. of | Crushed | @ | \$11.30 per c.y. = | \$2,260.00        |                    |
| Fill Armor               | 0+30            |        | 10    | cy. of | Riprap  | @ | \$7.07 per c.y. =  | \$70.70           |                    |
| Fill Armor               | 37+95           |        | 10    | cy. of | Riprap  | @ | \$7.07 per c.y. =  | \$70.70           |                    |
| Fill Armor               | 64+60           |        | 10    | cy. of | Riprap  | @ | \$7.07 per c.y. =  | \$70.70           |                    |
| Energy Dissipator        | 11 Culvert Loc. |        | 70    | cy. of | Riprap  | @ | \$7.07 per c.y. =  | \$494.90          |                    |
| Energy Dissipator Repair | 58+10           |        | 10    | cy. of | Riprap  | @ | \$7.07 per c.y. =  | \$70.70           |                    |
| Energy Dissipator Repair | 85+40           |        | 5     | cy. of | Riprap  | @ | \$7.07 per c.y. =  | \$35.35           |                    |
| Junction Rock            | 0+00            |        | 20    | cy. of | Crushed | @ | \$12.35 per c.y. = | \$247.00          |                    |
| Ditch Rock Filters       | 13+00           |        | 10    | cy. of | Drain   | @ | \$10.50 per c.y. = | \$105.00          |                    |
|                          |                 |        |       |        |         |   |                    | <b>TOTAL ROCK</b> | <b>\$47,020.55</b> |

## SPECIAL PROJECTS

|                                                      |        |            |          |                        |                   |
|------------------------------------------------------|--------|------------|----------|------------------------|-------------------|
| Construct waste areas -                              | 2.00   | hours @    | \$130.00 | per hour               | \$260.00          |
| Construct ditchouts as directed by STATE-            | 10.00  | @          | \$60.00  | each                   | \$600.00          |
| Fill Repair @ 23+95                                  | 4.00   | hours @    | \$145.00 | per hour               | \$580.00          |
| Grade and shape road -                               | 101.00 | stations @ | \$15.50  | per station            | \$1,565.50        |
| Roll subgrade w/ vibratory roller prior to rocking - | 101.00 | stations @ | \$13.20  | per station            | \$1,333.20        |
| Remove culverts from state lands                     | 6.00   | @          | \$567.50 | total                  | \$567.50          |
| Grass seed and fertilize -                           | 2.32   | acres @    | \$220.00 | per acre               | \$510.40          |
| Mulching -                                           | 0.250  | acres @    | \$600.00 | per acre               | <u>\$150.00</u>   |
|                                                      |        |            |          | TOTAL SPECIAL PROJECTS | <b>\$5,566.60</b> |

|             |             |
|-------------|-------------|
| GRAND TOTAL | \$80,148.69 |
|-------------|-------------|

## SUMMARY OF CONSTRUCTION COST

Sale: S'Moore

Road: K to L

|                       |             |          |                      |             |          |                         |              |          |
|-----------------------|-------------|----------|----------------------|-------------|----------|-------------------------|--------------|----------|
| <u>Construction -</u> | <u>0+00</u> | stations | <u>Improvement -</u> | <u>0+00</u> | stations | <u>Reconstruction -</u> | <u>13+00</u> | stations |
|                       | 0.00        | miles    |                      | 0.00        | miles    |                         | 0.25         | miles    |

**RECONSTRUCTION:** CLEARING AND GRUBBING -

|            |       |         |                                    |                   |                   |
|------------|-------|---------|------------------------------------|-------------------|-------------------|
| Scattering | 1.550 | acres @ | \$980.00 per acre =                | <u>\$1,519.00</u> |                   |
|            |       |         | <b>TOTAL CLEARING AND GRUBBING</b> |                   | <b>\$1,519.00</b> |

**RECONSTRUCTION:** EXCAVATION -

|                                                  |      |    |       |        |          |                         |            |                   |
|--------------------------------------------------|------|----|-------|--------|----------|-------------------------|------------|-------------------|
| Road Earthwork                                   |      |    | 13.00 | sta. @ | \$100.00 | per sta. =              | \$1,300.00 |                   |
| Pullback                                         | 0+00 | to | 1+00  | 200    | cy. @    | \$1.40                  | per c.y.=  | \$280.00          |
| Fill construction & log punch-in removal @ 11+05 |      |    | 200   | cy. @  | \$1.40   | per c.y.=               | \$280.00   |                   |
|                                                  |      |    |       |        |          | <b>TOTAL EXCAVATION</b> |            | <b>\$1,860.00</b> |

**RECONSTRUCTION:** ENDHAUL -

|                  |      |    |      |     |       |        |                      |          |                 |
|------------------|------|----|------|-----|-------|--------|----------------------|----------|-----------------|
| Pullback         | 0+00 | to | 1+00 | 200 | cy. @ | \$2.58 | per c.y.=            | \$516.00 |                 |
| Spread & compact |      |    |      | 200 | cy. @ | \$0.25 | per c.y.=            | \$50.00  |                 |
|                  |      |    |      |     |       |        | <b>TOTAL ENDHAUL</b> |          | <b>\$566.00</b> |

## CULVERTS - MATERIALS & INSTALLATION

|                                     |           |                |    |                       |                   |
|-------------------------------------|-----------|----------------|----|-----------------------|-------------------|
| <u>Culverts</u>                     |           |                |    |                       |                   |
| 40                                  | LF of 30" | \$1,297.38     | 0  | LF of 36"             | \$0.00            |
| 0                                   | LF of 42" | <u>\$0.00</u>  | 30 | LF of 48"             | <u>\$2,122.47</u> |
|                                     |           | \$1,297.38     |    |                       | <u>\$2,122.47</u> |
| <u>Culvert Stakes &amp; Markers</u> |           |                |    |                       |                   |
| 2                                   | markers   | <u>\$16.00</u> |    |                       |                   |
|                                     |           | \$16.00        |    |                       |                   |
|                                     |           |                |    | <b>TOTAL CULVERTS</b> |                   |

# ROCK

|                          |    |             |     |        |         |   |                    |                   |
|--------------------------|----|-------------|-----|--------|---------|---|--------------------|-------------------|
| +00                      | to | 13+00       | 620 | cy. of | Crushed | @ | \$12.23 per c.y. = | \$7,582.60        |
| Culvert Backfill/Bedding |    | 4+40, 11+05 | 40  | cy. of | Crushed | @ | \$11.18 per c.y. = | \$447.20          |
| Landing Rock             |    | 12+50       | 70  | cy. of | Crushed | @ | \$12.23 per c.y. = | \$856.10          |
| Fill/Inlet Armor         |    | 11+05       | 10  | cy. of | Riprap  | @ | \$6.95 per c.y. =  | \$69.50           |
| Junction Rock            |    | 0+00        | 20  | cy. of | Crushed | @ | \$12.11 per c.y. = | \$242.20          |
| Energy Dissipator        |    | 4+40, 11+05 | 10  | cy. of | Riprap  | @ | \$6.95 per c.y. =  | \$69.50           |
|                          |    |             |     |        |         |   |                    | <b>TOTAL ROCK</b> |
|                          |    |             |     |        |         |   |                    | <b>\$9,267.10</b> |

## SPECIAL PROJECTS

|                                                      |       |            |          |                        |          |                 |
|------------------------------------------------------|-------|------------|----------|------------------------|----------|-----------------|
| Grade and shape road -                               | 13.00 | stations @ | \$15.50  | per station            | \$201.50 |                 |
| Roll subgrade w/ vibratory roller prior to rocking - | 13.00 | stations @ | \$13.20  | per station            | \$171.60 |                 |
| Grass seed and fertilize -                           | 0.60  | acres @    | \$220.00 | per acre               | \$132.00 |                 |
| Mulching -                                           | 0.119 | acres @    | \$600.00 | per acre               | \$71.40  |                 |
|                                                      |       |            |          | TOTAL SPECIAL PROJECTS |          | <b>\$576.50</b> |

|             |             |
|-------------|-------------|
| GRAND TOTAL | \$17,224.45 |
|-------------|-------------|

## SUMMARY OF CONSTRUCTION COST

Sale: **S'Moore**

Road: **M to N**

|                       |              |          |                      |              |          |                         |             |          |
|-----------------------|--------------|----------|----------------------|--------------|----------|-------------------------|-------------|----------|
| <u>Construction -</u> | <u>23+55</u> | stations | <u>Improvement -</u> | <u>53+25</u> | stations | <u>Reconstruction -</u> | <u>0+00</u> | stations |
|                       | 0.45         | miles    |                      | 1.01         | miles    |                         | 0.00        | miles    |

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

| <u>Station</u> | <u>to</u> | <u>Station</u> | <u>Avg. Sideslope</u><br><u>or Activity</u> | <u>Avg. Dist.</u><br><u>To W.A. (mi.)</u> | <u>Outslope/Ditch</u> | <u>Cost per Station</u> |   |                   |
|----------------|-----------|----------------|---------------------------------------------|-------------------------------------------|-----------------------|-------------------------|---|-------------------|
| 53+25          |           | 54+50          | 20%                                         |                                           | Outslope              | \$139                   | = | \$173.75          |
| 54+50          |           | 55+40          | Fill Const.                                 |                                           | Outslope              | \$900                   | = | \$810.00          |
| 55+40          |           | 62+20          | 30%                                         |                                           | Outslope              | \$191                   | = | \$1,298.80        |
| 62+20          |           | 70+15          | 50%                                         |                                           | Outslope              | \$459                   | = | \$3,649.05        |
| 70+15          |           | 76+20          | 25%                                         |                                           | Outslope              | \$165                   | = | \$998.25          |
| 76+20          |           | 76+80          | Land. Const                                 |                                           | Outslope              | \$600                   | = | \$360.00          |
|                |           |                |                                             |                                           |                       |                         |   | <b>TOTAL</b>      |
|                |           |                |                                             |                                           |                       |                         |   | <b>\$7,289.85</b> |

**IMPROVEMENT:** CLEARING AND GRUBBING -

|            |       |         |          |            |                                    |                   |
|------------|-------|---------|----------|------------|------------------------------------|-------------------|
| Scattering | 2.440 | acres @ | \$980.00 | per acre = | <u>\$2,391.20</u>                  |                   |
|            |       |         |          |            | <b>TOTAL CLEARING AND GRUBBING</b> | <b>\$2,391.20</b> |

**IMPROVEMENT:** EXCAVATION -

|                         |       |    |       |       |        |          |            |                         |
|-------------------------|-------|----|-------|-------|--------|----------|------------|-------------------------|
| Road Ditching, End-Haul | 2+50  | to | 19+20 | 16.70 | sta. @ | \$100.00 | per sta. = | \$1,670.00              |
| Road Ditching, End-Haul | 29+50 | to | 48+05 | 18.55 | sta. @ | \$100.00 | per sta. = | <u>\$1,855.00</u>       |
|                         |       |    |       |       |        |          |            | <b>TOTAL EXCAVATION</b> |
|                         |       |    |       |       |        |          |            | <b>\$3,525.00</b>       |

**IMPROVEMENT:** ENDHAUL -

|                  |     |       |        |           |                      |                 |
|------------------|-----|-------|--------|-----------|----------------------|-----------------|
| Spread & compact | 800 | cy. @ | \$0.25 | per c.y.= | <u>\$200.00</u>      |                 |
|                  |     |       |        |           | <b>TOTAL ENDHAUL</b> | <b>\$200.00</b> |

### CULVERTS - MATERIALS & INSTALLATION

| <u>Culverts</u>                     |           |                   |     |                |                       |                   |
|-------------------------------------|-----------|-------------------|-----|----------------|-----------------------|-------------------|
| 120                                 | LF of 18" | \$2,433.00        | 30  | LF of 24"      | \$775.18              |                   |
| 40                                  | LF of 30" | \$1,297.38        | 100 | LF of 6" perf. | \$450.00              |                   |
| 50                                  | LF of 42" | <u>\$2,970.87</u> |     |                |                       |                   |
|                                     |           | \$6,701.25        |     |                | <u>\$1,225.18</u>     |                   |
| <u>Culvert Stakes &amp; Markers</u> |           |                   |     |                |                       |                   |
| 7 markers                           |           | <u>\$56.00</u>    |     |                |                       |                   |
|                                     |           | \$56.00           |     |                |                       |                   |
|                                     |           |                   |     |                | <b>TOTAL CULVERTS</b> | <b>\$7,982.43</b> |

### ROCK

|                          |                |       |        |         |   |         |           |                    |
|--------------------------|----------------|-------|--------|---------|---|---------|-----------|--------------------|
| 0+00 to                  | 76+80          | 3,580 | cy. of | Crushed | @ | \$12.89 | per c.y.= | \$46,146.20        |
| Culvert Backfill/Bedding | 8 Culvert Loc. | 100   | cy. of | Crushed | @ | \$11.04 | per c.y.= | \$1,104.00         |
| Landing Rock             | 76+20 to 76+80 | 60    | cy. of | Crushed | @ | \$13.79 | per c.y.= | \$827.40           |
| Fill Armor               | 55+15          | 10    | cy. of | Riprap  | @ | \$8.00  | per c.y.= | \$80.00            |
| Junction Rock            | 0+00           | 50    | cy. of | Crushed | @ | \$12.28 | per c.y.= | \$614.00           |
| Fill Repair              | 12+20          | 15    | cy. of | Riprap  | @ | \$8.00  | per c.y.= | \$120.00           |
| Energy Dissipator        | 7 Culvert Loc. | 40    | cy. of | Riprap  | @ | \$7.61  | per c.y.= | \$304.40           |
| Ditchline Drain Rock     | 8+00 to 9+00   | 20    | cy. of | Drain   | @ | \$10.33 | per c.y.= | <u>\$206.60</u>    |
|                          |                |       |        |         |   |         |           | <b>TOTAL ROCK</b>  |
|                          |                |       |        |         |   |         |           | <b>\$49,402.60</b> |

### SPECIAL PROJECTS

|                                                      |       |            |          |             |                |            |
|------------------------------------------------------|-------|------------|----------|-------------|----------------|------------|
| Construct Ditchline Subdrain 8+00 to 9+00 -          | 2.00  | hours @    | \$145.00 | per hour    | \$290.00       |            |
| 3.5 OZ Nonwoven Geotextile for Ditchline Subdrain -  | 1.00  | @          | \$200.00 | total       | \$200.00       |            |
| Install Nonwoven Geotextile for Ditchline Subdrain - | 2.00  | hours @    | \$60.00  | per hour    | \$120.00       |            |
| Construct ditchouts as directed by STATE -           | 4.00  | @          | \$60.00  | each        | \$240.00       |            |
| Fill Repair @ 12+20                                  | 5.00  | hours @    | \$145.00 | per hour    | \$725.00       |            |
| Daylight outside berm at junction/Point M -          | 2.00  | hours @    | \$145.00 | per hour    | \$290.00       |            |
| Construct waste areas -                              | 2.00  | hours @    | \$130.00 | per hour    | \$260.00       |            |
| Grade and shape road -                               | 76.80 | stations @ | \$15.50  | per station | \$1,190.40     |            |
| Roll subgrade w/ vibratory roller prior to rocking - | 76.80 | stations @ | \$13.20  | per station | \$1,013.76     |            |
| Remove culverts from state lands                     | 5.00  | @          | \$527.90 | total       | \$527.90       |            |
| Grass seed and fertilize -                           | 1.87  | acres @    | \$220.00 | per acre    | \$411.40       |            |
| Mulching -                                           | 0.122 | acres @    | \$600.00 | per acre    | <u>\$73.20</u> |            |
| TOTAL SPECIAL PROJECTS                               |       |            |          |             |                | \$5,341.66 |

**GRAND TOTAL**

**\$76,132.74**

| Sale:                                                                                                                                      |               |                   | S'Moore                       |                             | Road:             |                  | O to P              |                                    |            |
|--------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------|-------------------------------|-----------------------------|-------------------|------------------|---------------------|------------------------------------|------------|
| Construction -                                                                                                                             | 34+85<br>0.66 | stations<br>miles | Improvement -                 | 105+50<br>2.00              | stations<br>miles | Reconstruction - | 0+00<br>0.00        | stations<br>miles                  |            |
| <b>CONSTRUCTION:</b> CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA - |               |                   |                               |                             |                   |                  |                     |                                    |            |
| Station                                                                                                                                    | to            | Station           | Avg. Sideslope<br>or Activity | Avg. Dist.<br>To W.A. (mi.) | Outslope/Ditch    | Cost per Station |                     |                                    |            |
| 105+50                                                                                                                                     |               | 108+25            | 50%                           |                             | Outslope          | \$459            | =                   | \$1,262.25                         |            |
| 108+25                                                                                                                                     |               | 119+35            | 25%                           |                             | Outslope          | \$165            | =                   | \$1,831.50                         |            |
| 119+35                                                                                                                                     |               | 123+25            | 60%                           |                             | Outslope          | \$1,493          | =                   | \$5,822.70                         |            |
| 123+25                                                                                                                                     |               | 125+30            | 25%                           |                             | Outslope          | \$165            | =                   | \$338.25                           |            |
| 125+30                                                                                                                                     |               | 127+55            | 35%                           |                             | Outslope          | \$191            | =                   | \$429.75                           |            |
| 127+55                                                                                                                                     |               | 136+05            | 25%                           |                             | Outslope          | \$165            | =                   | \$1,402.50                         |            |
| 136+05                                                                                                                                     |               | 139+70            | 40%                           |                             | Outslope          | \$243            | =                   | \$886.95                           |            |
| 139+70                                                                                                                                     |               | 140+35            | Land. Const                   |                             | Outslope          | \$750            | =                   | \$487.50                           |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>TOTAL</b>                       |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>\$12,461.40</b>                 |            |
| <b>IMPROVEMENT:</b> CLEARING AND GRUBBING -                                                                                                |               |                   |                               |                             |                   |                  |                     |                                    |            |
| Scattering                                                                                                                                 |               |                   |                               |                             |                   |                  |                     |                                    |            |
|                                                                                                                                            |               |                   |                               |                             | 1.940             | acres @          | \$980.00 per acre = | \$1,901.20                         |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>TOTAL CLEARING AND GRUBBING</b> |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>\$1,901.20</b>                  |            |
| <b>IMPROVEMENT:</b> EXCAVATION -                                                                                                           |               |                   |                               |                             |                   |                  |                     |                                    |            |
| Road Earthwork & Widening                                                                                                                  |               |                   |                               |                             |                   |                  |                     |                                    |            |
| 93+15                                                                                                                                      |               | to                | 105+50                        | 12.35                       | sta. @            | \$300.00         | per sta. =          | \$3,705.00                         |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>TOTAL EXCAVATION</b>            |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>\$3,705.00</b>                  |            |
| <b>IMPROVEMENT:</b> ENDHAUL -                                                                                                              |               |                   |                               |                             |                   |                  |                     |                                    |            |
| Widening                                                                                                                                   |               |                   |                               |                             |                   |                  |                     |                                    |            |
| 93+15                                                                                                                                      |               | to                | 105+50                        | 1500                        | cy. @             | \$1.59           | per c.y. =          | \$2,385.00                         |            |
| Spread & compact                                                                                                                           |               |                   |                               |                             |                   |                  |                     |                                    |            |
|                                                                                                                                            |               |                   |                               | 1500                        | cy. @             | \$0.25           | per c.y. =          | \$375.00                           |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>TOTAL ENDHAUL</b>               |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>\$2,760.00</b>                  |            |
| <b>ROCK</b>                                                                                                                                |               |                   |                               |                             |                   |                  |                     |                                    |            |
| 93+15                                                                                                                                      | to            | 140+35            | 2,200                         | cy. of                      | Crushed           | @                | \$16.15 per c.y. =  | \$35,530.00                        |            |
| Landing Rock                                                                                                                               |               | 140+00            | 70                            | cy. of                      | Crushed           | @                | \$16.69 per c.y. =  | \$1,168.30                         |            |
| Junction Rock                                                                                                                              |               | 0+00              | 0                             | cy. of                      | Crushed           | @                | \$0.00 per c.y. =   | \$0.00                             |            |
| Spot Rock                                                                                                                                  |               | 0+00 to 65+40     | 170                           | cy. of                      | Crushed           | @                | \$26.20 per c.y. =  | \$4,454.00                         |            |
| Spot Rock                                                                                                                                  |               | 65+40 to 93+15    | 260                           | cy. of                      | Crushed           | @                | \$15.28 per c.y. =  | \$3,972.80                         |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>TOTAL ROCK</b>                  |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>\$45,125.10</b>                 |            |
| <b>SPECIAL PROJECTS</b>                                                                                                                    |               |                   |                               |                             |                   |                  |                     |                                    |            |
| Construct ditchouts -                                                                                                                      |               |                   |                               |                             |                   |                  |                     |                                    |            |
|                                                                                                                                            |               |                   |                               |                             | 10.00             | @                | \$60.00             | each                               | \$600.00   |
| Grade and shape road -                                                                                                                     |               |                   |                               |                             |                   |                  |                     |                                    |            |
|                                                                                                                                            |               |                   |                               |                             | 140.35            | stations @       | \$15.50             | per station                        | \$2,175.43 |
| Roll subgrade w/ vibratory roller prior to rocking -                                                                                       |               |                   |                               |                             |                   |                  |                     |                                    |            |
|                                                                                                                                            |               |                   |                               |                             | 140.35            | stations @       | \$13.20             | per station                        | \$1,852.62 |
| Grass seed and fertilize -                                                                                                                 |               |                   |                               |                             |                   |                  |                     |                                    |            |
|                                                                                                                                            |               |                   |                               |                             | 3.54              | acres @          | \$220.00            | per acre                           | \$778.80   |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>TOTAL SPECIAL PROJECTS</b>      |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>\$5,406.85</b>                  |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>GRAND TOTAL</b>                 |            |
|                                                                                                                                            |               |                   |                               |                             |                   |                  |                     | <b>\$71,359.55</b>                 |            |

## SUMMARY OF CONSTRUCTION COST

Sale: S'Moore

Road: O to R

|                |      |          |               |        |          |                  |      |          |
|----------------|------|----------|---------------|--------|----------|------------------|------|----------|
| Construction - | 0+00 | stations | Improvement - | 400+50 | stations | Reconstruction - | 0+00 | stations |
|                | 0.00 | miles    |               | 7.59   | miles    |                  | 0.00 | miles    |

**IMPROVEMENT:** CLEARING AND GRUBBING -

|            |       |         |                                    |                   |                   |
|------------|-------|---------|------------------------------------|-------------------|-------------------|
| Scattering | 1.380 | acres @ | \$1,500.00 per acre =              | <u>\$2,070.00</u> |                   |
|            |       |         | <b>TOTAL CLEARING AND GRUBBING</b> |                   | <b>\$2,070.00</b> |

**IMPROVEMENT: EXCAVATION -**

[illegible]

## CULVERTS - MATERIALS & INSTALLATION

## Culverts

|     |           |                   |    |           |                   |
|-----|-----------|-------------------|----|-----------|-------------------|
| 160 | LF of 18" | \$3,259.40        | 80 | LF of 24" | \$2,054.16        |
| 30  | LF of 30" | \$979.18          |    |           |                   |
| 30  | LF of 42" | \$1,792.15        |    |           |                   |
|     |           | <u>\$6,030.73</u> |    |           | <u>\$2,054.16</u> |

### Culvert Stakes & Markers

|           |         |
|-----------|---------|
| 9 markers | \$72.00 |
|           | <hr/>   |
|           | \$72.00 |

|                |            |
|----------------|------------|
| TOTAL CULVERTS | \$8,156.89 |
|----------------|------------|

**ROCK**

|                          |    |                |        |        |         |   |         |            |                     |
|--------------------------|----|----------------|--------|--------|---------|---|---------|------------|---------------------|
| 0+00                     | to | 75+00          | 2,180  | cy. of | Crushed | @ | \$16.64 | per c.y. = | \$36,275.20         |
| 16+00                    | to | 20+60          | 150    | cy. of | Crushed | @ | \$16.38 | per c.y. = | \$2,457.00          |
| 75+00                    | to | 400+50         | 11,330 | cy. of | Crushed | @ | \$18.83 | per c.y. = | \$213,343.90        |
| Culvert Backfill/Bedding |    | 9 Culvert Loc. | 120    | cy. of | Crushed | @ | \$18.53 | per c.y. = | \$2,223.60          |
| Energy Dissipator        |    | 9 Culvert Loc. | 50     | cy. of | Riprap  | @ | \$13.08 | per c.y. = | \$654.00            |
| <b>TOTAL ROCK</b>        |    |                |        |        |         |   |         |            | <b>\$254,953.70</b> |

## SPECIAL PROJECTS

|                                                      |        |            |          |                        |                 |                    |
|------------------------------------------------------|--------|------------|----------|------------------------|-----------------|--------------------|
| Grade and shape road -                               | 400.50 | stations @ | \$15.50  | per station            | \$6,207.75      |                    |
| Roll subgrade w/ vibratory roller prior to rocking - | 400.50 | stations @ | \$13.20  | per station            | \$5,286.60      |                    |
| Remove culverts from state lands                     | 2.00   | @          | \$402.50 | total                  | \$402.50        |                    |
| Grass seed and fertilize -                           | 1.84   | acres @    | \$220.00 | per acre               | <u>\$404.80</u> |                    |
|                                                      |        |            |          | TOTAL SPECIAL PROJECTS |                 | <b>\$12,301.65</b> |

|                    |                     |
|--------------------|---------------------|
| <b>GRAND TOTAL</b> | <b>\$295,248.74</b> |
|--------------------|---------------------|

# SUMMARY OF CONSTRUCTION COST

|                         |             |          |                      |             |          |
|-------------------------|-------------|----------|----------------------|-------------|----------|
| Sale: <b>S'Moore</b>    |             |          | Road: <b>S to T</b>  |             |          |
| <u>Construction -</u>   | <u>0+00</u> | stations | <u>Improvement -</u> | <u>7+80</u> | stations |
|                         | <u>0.00</u> | miles    |                      | <u>0.15</u> | miles    |
| <u>Reconstruction -</u> | <u>0+00</u> | stations |                      |             |          |
|                         | <u>0.00</u> | miles    |                      |             |          |

CULVERTS - MATERIALS & INSTALLATION (see below for install cost for Muti-Plate Arch)

|                                     |    |               |                    |                       |                    |
|-------------------------------------|----|---------------|--------------------|-----------------------|--------------------|
| <u>Culverts</u>                     |    |               |                    |                       |                    |
| Multi-Plate Arch                    | 65 | LF of 204x106 | <u>\$19,602.50</u> | 30                    | LF of 36"          |
|                                     |    |               | \$19,602.50        |                       | <u>\$1,231.64</u>  |
|                                     |    |               |                    |                       | \$1,231.64         |
| <u>Culvert Stakes &amp; Markers</u> |    |               |                    |                       |                    |
|                                     | 1  | markers       | <u>\$8.00</u>      |                       |                    |
|                                     |    |               | \$8.00             |                       |                    |
|                                     |    |               |                    | <b>TOTAL CULVERTS</b> | <b>\$20,842.14</b> |

ROCK

|                             |      |     |        |         |   |                   |                    |
|-----------------------------|------|-----|--------|---------|---|-------------------|--------------------|
| 0+00 to                     | 7+80 | 300 | cy. of | Crushed | @ | \$24.63 per c.y.= | \$7,389.00         |
| 6" Top Base for Footings    | 1+25 | 20  | cy. of | Crushed | @ | \$28.18 per c.y.= | \$563.60           |
| 12" Base for Footings       | 1+25 | 30  | cy. of | Crushed | @ | \$17.60 per c.y.= | \$528.00           |
| Inlet Fill Armor            | 1+25 | 20  | cy. of | Riprap  | @ | \$11.77 per c.y.= | \$235.40           |
| Outlet Fill Armor           | 1+25 | 20  | cy. of | Riprap  | @ | \$11.77 per c.y.= | \$235.40           |
| Footing Armor Inside Pipe   | 1+25 | 10  | cy. of | Riprap  | @ | \$15.37 per c.y.= | \$153.70           |
| Energy Dissipator           | 7+40 | 10  | cy. of | Riprap  | @ | \$11.73 per c.y.= | \$117.30           |
| Plate Arch/Culvert Backfill | 1+25 | 100 | cy. of | Crushed | @ | \$28.18 per c.y.= | \$2,818.00         |
|                             |      |     |        |         |   |                   | <u>\$2,818.00</u>  |
|                             |      |     |        |         |   |                   | <b>TOTAL ROCK</b>  |
|                             |      |     |        |         |   |                   | <b>\$12,040.40</b> |

SPECIAL PROJECTS (Installation of Multi-Plate Arch)

|                                                                      |       |            |             |                               |                    |
|----------------------------------------------------------------------|-------|------------|-------------|-------------------------------|--------------------|
| Clearing & Grubbing of plate arch pipe site -                        | 0.20  | acres @    | \$1,500.00  | per acre                      | \$300.00           |
| Excavation (fill removal, footing holes, stream bed tapering) -      | 35.00 | hours @    | \$175.00    | per hour                      | \$6,125.00         |
| Haul fill waste -                                                    | 35.00 | hours @    | \$84.00     | per hour                      | \$2,940.00         |
| Footing(s) placement -                                               | 6.00  | hours @    | \$175.00    | per hour                      | \$1,050.00         |
| Intial backfill (pipe sides & top 30 in.) placement and compaction - | 30.00 | hours @    | \$75.00     | per hour                      | \$2,250.00         |
| Remaining backfill construction & compaction -                       | 6.00  | hours @    | \$175.00    | per hour                      | \$1,050.00         |
| De-watering site -                                                   | 1.00  | lump sum @ | \$1,000.00  |                               | \$1,000.00         |
| General labor -                                                      | 40.00 | hours @    | \$30.00     | per hour                      | \$1,200.00         |
| Engineering services (site survey, designs, inspections)-            | 1.00  | lump sum @ | \$8,000.00  |                               | \$8,000.00         |
| Footings (Express Foundation System) & Delivery -                    | 1.00  | lump sum @ | \$23,450.00 |                               | \$23,450.00        |
| Concrete & Labor for remaining footing construction -                | 38    | cy. @      | \$125.00    | per c.y.=                     | \$4,750.00         |
| Roll subgrade w/ vibratory roller prior to rocking -                 | 7.80  | stations @ | \$13.20     | per station                   | \$102.96           |
| Grade and shape road -                                               | 7.80  | hours @    | \$15.50     | per station                   | \$120.90           |
| Remove culverts from state lands                                     | 2.00  | @          | \$402.50    | total                         | \$402.50           |
| Grass seed and fertilize -                                           | 0.10  | acres @    | \$220.00    | per acre                      | \$22.00            |
| Mulching -                                                           | 0.100 | acres @    | \$600.00    | per acre                      | \$60.00            |
|                                                                      |       |            |             | <b>TOTAL SPECIAL PROJECTS</b> | <b>\$52,823.36</b> |
|                                                                      |       |            |             | <b>GRAND TOTAL</b>            | <b>\$85,705.90</b> |

## SUMMARY OF CONSTRUCTION COST

Sale: S'Moore

Road: U to V

|                       |                      |                      |                       |                         |                      |
|-----------------------|----------------------|----------------------|-----------------------|-------------------------|----------------------|
| <u>Construction -</u> | <u>0+00</u> stations | <u>Improvement -</u> | <u>17+40</u> stations | <u>Reconstruction -</u> | <u>0+00</u> stations |
|                       | 0.00 miles           |                      | 0.33 miles            |                         | 0.00 miles           |

|                                    |       |        |         |                         |                   |                   |
|------------------------------------|-------|--------|---------|-------------------------|-------------------|-------------------|
| <b>IMPROVEMENT:</b> EXCAVATION -   |       |        |         |                         |                   |                   |
| Road Earthwork, shaping, waterbars | 17.40 | sta. @ | \$60.00 | per sta. =              | <u>\$1,044.00</u> |                   |
|                                    |       |        |         | <b>TOTAL EXCAVATION</b> |                   | <b>\$1,044.00</b> |

## SPECIAL PROJECTS

|                                  |       |            |          |                        |                |                   |
|----------------------------------|-------|------------|----------|------------------------|----------------|-------------------|
| Remove fill @ 0+25 and 13+40 -   | 6.00  | hours @    | \$175.00 | per hour               | \$1,050.00     |                   |
| Grade and shape road -           | 17.40 | stations @ | \$15.50  | per station            | \$269.70       |                   |
| Remove culverts from state lands | 2.00  | @          | \$402.50 | total                  | \$402.50       |                   |
| Grass seed and fertilize -       | 0.08  | acres @    | \$220.00 | per acre               | <u>\$17.60</u> |                   |
|                                  |       |            |          | TOTAL SPECIAL PROJECTS |                | <b>\$1,739.80</b> |

|             |            |
|-------------|------------|
| GRAND TOTAL | \$2,783.80 |
|-------------|------------|

## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

|             |                |                    |                                |
|-------------|----------------|--------------------|--------------------------------|
| Pit:        | Upper_Jordan   | Location:          | SW 1/4 Sec. 18, T1N, R7W, W.M. |
| Sale:       | <b>S'Moore</b> | Road:              | 13110 c.y.                     |
| Swell:      | 1.40           |                    |                                |
| Shrinkage:  | 1.16           | Total Truck Loads: | 13110 c.y.                     |
| Drill Pct.: | 75%            | In Place Total:    | 9364 c.y.                      |

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$14,064.14

|                  |                |   |               |   |             |
|------------------|----------------|---|---------------|---|-------------|
| Drill & Shoot:   | \$2.50 /cu.yd. | x | 7023 cu.yds.  | = | \$17,557.50 |
| Rip Rock:        | \$1.90 /cu.yd. | x | 2341 cu.yds.  | = | \$4,447.90  |
| Load Crusher:    | \$0.70 /cu.yd. | x | 13110 cu.yds. | = | \$9,177.00  |
| Crush Rock:      | \$2.80 /cu.yd. | x | 13110 cu.yds. | = | \$36,708.00 |
| Load Dump Truck: | \$0.70 /cu.yd. | x | 13110 cu.yds. | = | \$9,177.00  |
|                  |                |   | Subtotal      |   | \$91,131.54 |

|                                         |   |   |            |   |            |
|-----------------------------------------|---|---|------------|---|------------|
| Move In/Set-up Crusher                  |   |   |            |   | \$1,500.00 |
| Move In and set up Drill and Compressor | 1 | @ | \$653.58   | = | \$653.58   |
| Move in Roller and Compactor            | 1 | @ | \$653.58   | = | \$653.58   |
| Move in Grader                          | 1 | @ | \$253.07   | = | \$253.07   |
| Move in D-8                             | 1 | @ | \$1,065.78 | = | \$1,065.78 |
| Move in Excavator                       | 1 | @ | \$1,181.87 | = | \$1,181.87 |
| Move in Trucks                          | 3 | @ | \$217.14   | = | \$651.42   |
| Move in Water Truck                     | 1 | @ | \$255.24   | = | \$255.24   |
|                                         |   |   | Subtotal   |   | \$6,214.54 |

|            |        |            |                               |                    |
|------------|--------|------------|-------------------------------|--------------------|
| Base Cost= | \$7.43 | Per Cu.Yd. | <b>TOTAL PRODUCTION COSTS</b> | <b>\$97,346.08</b> |
|------------|--------|------------|-------------------------------|--------------------|

| 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 0 300 (Crushed)                    | 3.05                   | 2.45                   | 7.43                    | 12.93             | 160               | \$2,068.80   |
| A to B Landing Rock (Crushed)             | 3.08                   | 2.45                   | 7.43                    | 12.96             | 80                | \$1,036.80   |
| A to B Junction Rock (Crushed)            | 3.01                   | 2.45                   | 7.43                    | 12.89             | 20                | \$257.80     |
| C to D 0 565 (Crushed)                    | 3.09                   | 2.45                   | 7.43                    | 12.97             | 280               | \$3,631.60   |
| C to D Landing Rock (Crushed)             | 3.16                   | 2.45                   | 7.43                    | 13.04             | 80                | \$1,043.20   |
| C to D Junction Rock (Crushed)            | 3.02                   | 2.45                   | 7.43                    | 12.90             | 20                | \$258.00     |
| E to F 0 1410 (Crushed)                   | 2.61                   | 2.45                   | 7.43                    | 12.49             | 660               | \$8,243.40   |
| E to F Landing Rock (Crushed)             | 2.77                   | 2.45                   | 7.43                    | 12.65             | 80                | \$1,012.00   |
| E to F Junction Rock (Crushed)            | 2.43                   | 2.45                   | 7.43                    | 12.31             | 20                | \$246.20     |
| G to H 0 980 (Crushed)                    | 2.23                   | 2.45                   | 7.43                    | 12.11             | 470               | \$5,691.70   |
| G to H Landing Rock (Crushed)             | 2.35                   | 2.45                   | 7.43                    | 12.23             | 80                | \$978.40     |
| G to H Junction Rock (Crushed)            | 2.12                   | 2.45                   | 7.43                    | 12.00             | 20                | \$240.00     |
| I to J 0 10100 (Crushed)                  | 2.47                   | 2.45                   | 7.43                    | 12.35             | 3530              | \$43,595.50  |
| I to J Culvert Backfill/Bedding (Crushed) | 2.47                   | 1.40                   | 7.43                    | 11.30             | 200               | \$2,260.00   |
| I to J Fill Armor (Riprap)                | 2.47                   | 1.40                   | 3.20                    | 7.07              | 10                | \$70.70      |
| I to J Fill Armor (Riprap)                | 2.47                   | 1.40                   | 3.20                    | 7.07              | 10                | \$70.70      |
| I to J Fill Armor (Riprap)                | 2.47                   | 1.40                   | 3.20                    | 7.07              | 10                | \$70.70      |
| I to J Energy Dissipator (Riprap)         | 2.47                   | 1.40                   | 3.20                    | 7.07              | 70                | \$494.90     |
| I to J Energy Dissipator Repair (Riprap)  | 2.47                   | 1.40                   | 3.20                    | 7.07              | 10                | \$70.70      |
| I to J Energy Dissipator Repair (Riprap)  | 2.47                   | 1.40                   | 3.20                    | 7.07              | 5                 | \$35.35      |
| I to J Junction Rock (Crushed)            | 2.47                   | 2.45                   | 7.43                    | 12.35             | 20                | \$247.00     |
| I to J Ditch Rock Filters (Drain)         | 2.47                   | 0.60                   | 7.43                    | 10.50             | 10                | \$105.00     |
| K to L 0 1300 (Crushed)                   | 2.35                   | 2.45                   | 7.43                    | 12.23             | 620               | \$7,582.60   |
| K to L Culvert Backfill/Bedding (Crushed) | 2.35                   | 1.40                   | 7.43                    | 11.18             | 40                | \$447.20     |
| K to L Landing Rock (Crushed)             | 2.35                   | 2.45                   | 7.43                    | 12.23             | 70                | \$856.10     |
| K to L Fill/Inlet Armor (Riprap)          | 2.35                   | 1.40                   | 3.20                    | 6.95              | 10                | \$69.50      |
| K to L Junction Rock (Crushed)            | 2.23                   | 2.45                   | 7.43                    | 12.11             | 20                | \$242.20     |
| K to L Energy Dissipator (Riprap)         | 2.35                   | 1.40                   | 3.20                    | 6.95              | 10                | \$69.50      |
| M to N 0 7680 (Crushed)                   | 3.01                   | 2.45                   | 7.43                    | 12.89             | 3580              | \$46,146.20  |
| M to N Culvert Backfill/Bedding (Crushed) | 3.01                   | 0.60                   | 7.43                    | 11.04             | 100               | \$1,104.00   |
| M to N Landing Rock (Crushed)             | 3.91                   | 2.45                   | 7.43                    | 13.79             | 60                | \$827.40     |
| M to N Fill Armor (Riprap)                | 3.40                   | 1.40                   | 3.20                    | 8.00              | 10                | \$80.00      |
| M to N Junction Rock (Crushed)            | 2.40                   | 2.45                   | 7.43                    | 12.28             | 50                | \$614.00     |
| M to N Fill Repair (Riprap)               | 3.40                   | 1.40                   | 3.20                    | 8.00              | 15                | \$120.00     |
| M to N Energy Dissipator (Riprap)         | 3.01                   | 1.40                   | 3.20                    | 7.61              | 40                | \$304.40     |
| M to N Ditchline Drain Rock (Drain)       | 2.30                   | 0.60                   | 7.43                    | 10.33             | 20                | \$206.60     |
| O to P 9315 14035 (Crushed)               | 6.27                   | 2.45                   | 7.43                    | 16.15             | 2200              | \$35,530.00  |
| O to P Landing Rock (Crushed)             | 6.81                   | 2.45                   | 7.43                    | 16.69             | 70                | \$1,168.30   |
| O to P Spot Rock (Crushed)                | 5.40                   | 2.45                   | 7.43                    | 15.28             | 260               | \$3,972.80   |
| S to T 12" Base for Footings (Crushed)    | 7.17                   | 3.00                   | 7.43                    | 17.60             | 30                | \$528.00     |
| S to T Inlet Fill Armor (Riprap)          | 7.17                   | 1.40                   | 3.20                    | 11.77             | 20                | \$235.40     |
| S to T Outlet Fill Armor (Riprap)         | 7.17                   | 1.40                   | 3.20                    | 11.77             | 20                | \$235.40     |
| S to T Footing Armor Inside Pipe (Riprap) | 7.17                   | 5.00                   | 3.20                    | 15.37             | 10                | \$153.70     |
| S to T Energy Dissipator (Riprap)         | 7.13                   | 1.40                   | 3.20                    | 11.73             | 10                | \$117.30     |
| Total C.Y.                                |                        |                        |                         |                   | 13110             | Sub Total    |
|                                           |                        |                        |                         |                   |                   | \$172,339.05 |

|                            |                     |
|----------------------------|---------------------|
| <b>TOTAL ROCKING COSTS</b> | <b>\$172,339.05</b> |
|----------------------------|---------------------|

## ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

|             |                |                    |                                       |
|-------------|----------------|--------------------|---------------------------------------|
| Pit:        | Browns_Camp    | Location:          | SE 1/4 SE 1/4 Sec. 36, T2N, R6W, W.M. |
| Sale:       | <b>S'Moore</b> | Road & Stockpile:  | 15920 c.y.                            |
| Swell:      | 1.40           |                    |                                       |
| Shrinkage   | 1.16           | Total Truck Loads: | 15920 c.y.                            |
| Drill Pct.: | 100%           | In Place Total:    | 11371 c.y.                            |

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$11,000.00

|                  |                |   |               |   |              |
|------------------|----------------|---|---------------|---|--------------|
| Drill & Shoot:   | \$2.80 /cu.yd. | x | 11371 cu.yds. | = | \$31,838.80  |
| Push Rock:       | \$0.80 /cu.yd. | x | 15920 cu.yds. | = | \$12,736.00  |
| Load Crusher:    | \$0.80 /cu.yd. | x | 15920 cu.yds. | = | \$12,736.00  |
| Crush Rock:      | \$3.30 /cu.yd. | x | 15920 cu.yds. | = | \$52,536.00  |
| Load Dump Truck: | \$0.80 /cu.yd. | x | 15920 cu.yds. | = | \$12,736.00  |
|                  |                |   | Subtotal      |   | \$133,582.80 |

|                                         |   |   |            |   |             |
|-----------------------------------------|---|---|------------|---|-------------|
| Move In & Set-up Crusher                |   |   |            |   | \$6,613.00  |
| Move In and set up Drill and Compressor | 1 | @ | \$653.58   | = | \$653.58    |
| Move in Roller and Compactor            | 1 | @ | \$653.58   | = | \$653.58    |
| Move in Grader                          | 1 | @ | \$253.07   | = | \$253.07    |
| Move in and clean D-8                   | 1 | @ | \$2,065.78 | = | \$2,065.78  |
| Move in Loader                          | 1 | @ | \$903.16   | = | \$903.16    |
| Move in & clean Excavator               | 1 | @ | \$2,181.87 | = | \$2,181.87  |
| Move in Trucks                          | 6 | @ | \$217.14   | = | \$1,302.84  |
| Move in Water Truck                     | 1 | @ | \$255.24   | = | \$255.24    |
| Gradation Rock Test (per 2,000 cy)      | 6 | @ | \$71.50    | = | \$429.00    |
|                                         |   |   | Subtotal   |   | \$15,311.12 |

|            |        |            |  |  |                               |                     |
|------------|--------|------------|--|--|-------------------------------|---------------------|
|            |        |            |  |  | <b>TOTAL PRODUCTION COSTS</b> | <b>\$148,893.92</b> |
| Base Cost= | \$9.35 | 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 |
|----------------------------------------------|------------------------|------------------------|-------------------------|-------------------|-------------------|--------------|
| O to P Spot Rock (Crushed)                   | 14.40                  | 2.45                   | 9.35                    | 26.20             | 170               | \$4,454.00   |
| Q to R 0 7500 (Crushed)                      | 4.84                   | 2.45                   | 9.35                    | 16.64             | 2180              | \$36,275.20  |
| Q to R 1600 2060 (Crushed)                   | 4.58                   | 2.45                   | 9.35                    | 16.38             | 150               | \$2,457.00   |
| Q to R 7500 40050 (Crushed)                  | 7.03                   | 2.45                   | 9.35                    | 18.83             | 11330             | \$213,343.90 |
| Q to R Culvert Backfill/Bedding (Crushed)    | 8.08                   | 1.10                   | 9.35                    | 18.53             | 120               | \$2,223.60   |
| Q to R Energy Dissipator (Riprap)            | 8.08                   | 1.40                   | 3.60                    | 13.08             | 50                | \$654.00     |
| S to T 0 780 (Crushed)                       | 12.83                  | 2.45                   | 9.35                    | 24.63             | 300               | \$7,389.00   |
| S to T 6" Top Base for Footings (Crushed)    | 12.83                  | 6.00                   | 9.35                    | 28.18             | 20                | \$563.60     |
| S to T Plate Arch/Culvert Backfill (Crushed) | 12.83                  | 6.00                   | 9.35                    | 28.18             | 100               | \$2,818.00   |
| 1,500 cy Stockpile @ Lyda Camp               | 8.52                   | 1.30                   | 9.35                    | 19.17             | 1500              | \$28,755.00  |
|                                              |                        |                        |                         | Total C.Y.        | 15920             | Sub Total    |
|                                              |                        |                        |                         |                   |                   | \$298,933.30 |

|                            |                     |
|----------------------------|---------------------|
| <b>TOTAL ROCKING COSTS</b> | <b>\$298,933.30</b> |
|----------------------------|---------------------|

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

Sale: **S'Moore**

| LOWBOY HAUL (Round Trip) |              |                 |
|--------------------------|--------------|-----------------|
| DIST. (mi)               | ROADWAY      | AVE SPEED (mph) |
| 50.0                     | Pavement     | 30              |
| 8.0                      | Main Lines   | 7               |
| 7.0                      | 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   | Excavators (Small)      | \$653.58     |            | \$22.00                    | 0.00          | 4.00        | 4           | \$88.00          | \$741.58   |
| 1   | Excavators (Large)      | \$1,220.20   | 1          | \$44.80                    | 0.00          | 4.00        | 4           | \$179.20         | \$1,399.40 |
| 1   | Tired Backhoes/Skidlers | \$653.58     |            | \$3.00                     | 0.00          | 0.00        | 0           | \$0.00           | \$653.58   |
| 2   | Tractor (D8)            | \$2,284.89   | 2          | \$15.10                    | 0.00          | 4.00        | 4           | \$120.80         | \$2,405.69 |
| 1   | Dump Truck (10 cy +)    | \$314.37     |            | \$2.85                     | 0.00          | 4.00        | 4           | \$11.40          | \$325.77   |
| 2   | Dump Truck (Off Hiway)  | \$1,930.52   | 1          | \$4.75                     | 0.00          | 4.00        | 4           | \$38.00          | \$1,968.52 |

|  |                      |            |
|--|----------------------|------------|
|  | TOTAL MOVE-IN COSTS: | \$7,494.54 |
|--|----------------------|------------|



## OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *S'Moore*

### 1. Type of Sale

Regeneration harvest, Recovery

### 2. Legal Description

Portions of Sections 17, 18, and 19, T1N, R6W, and Sections 13, 14, 23, and 24, 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> |
|----------------------------|--------------|------------|
| Area 1 (Modified Clearcut) | 109          | 74         |
| Area 3 (Modified Clearcut) | 119          | 109        |
| Area 3 (Modified Clearcut) | 136          | 117        |
| Area 4 (Modified Clearcut) | 136          | 95         |

#### 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

All Areas were cruised with full point variable plots at a spacing of 700' between lines and 350' between plots. All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 10 inches DBH and greater containing 30 net board feet were recorded on all plots. Information recorded for plot trees are; species, merchantable bole height, diameter, and form factor. Merchantable heights were recorded to 6" and 7" outside bark for conifers and hardwoods respectively.

| Area  | # of plots | SE%  | CV%  |
|-------|------------|------|------|
| 1     | 10         | 14.6 | 43.8 |
| 2     | 10         | 10.7 | 32.0 |
| 3     | 13         | 10.2 | 35.4 |
| 4     | 11         | 12.4 | 39.2 |
| Total | 44         | 5.6  | 37.4 |

#### **B. Plot size**

A basal area factor of 40 was used for all plots. The point of observation is 4.5 feet.

#### **C. Grading System**

All species were graded using Columbia River Log Scaling and Grading Bureau rules favoring a 40' log.

### **5. Computation Procedure**

The volumes and statistics for the timber cruise were computed using SuperACE 2008, developed by Atterbury Consultants, Inc. Computations for standard error and coefficient of variation are based on net board feet per acre.

This stand was mostly cruised in 2013 and has been grown forward three years to June 2016 using the SuperACE program. In Area 4, seven plots were cruised in 2015 to complete the cruise grid.

### **6. Hidden Defect and Breakage**

A 1% reduction was applied to conifers and a 10% reduction to hardwood volumes for hidden defect and breakage. This was in addition to visual defect deducted during the cruise.

### **7. Timber Description**

All of the sale areas were burned in the 1933 Tillamook Fire. Areas 1, 2, 3, and the west ½ of Area 4 were burned in the 1939 Saddle Mountain Fire. The entire area was also burned in the 1945 Wilson River Fire.

Like many of the stands in the Forest Grove District, Areas 1, 2, 3 and a majority of 4 were reforested between 1949 and 1951. In the southern portion of Area 4, 26-acres were planted in 1949-50 and an additional six-acres in 1974.

Past herbicide spray damage to red alder was observed on all in the areas with about 30% of Area 3 (primarily along the middle creek) and 10% of Area 4's northwest edge specifically observed in the 1977 aerial photo flight.

Most of Area 2 and about a tenth of Area 3 were commercially thinned in 1993 and 2001 respectively.

| Sale Area - Species  | DBH  | Merchantable<br>Bole Height (feet) | Merchantable<br>Top (inches) |
|----------------------|------|------------------------------------|------------------------------|
| Area 1 – Douglas-fir | 17.0 | 68                                 | 5                            |
|                      |      |                                    |                              |
| Area 2 – Douglas-fir | 18.9 | 62                                 | 5                            |
|                      |      |                                    |                              |
| Area 3 – Douglas-fir | 23.0 | 79                                 | 5                            |
| Area 3 - Alder       | 17.4 | 52                                 | 6                            |
|                      |      |                                    |                              |
| Area 4 – Douglas-fir | 15.4 | 65                                 | 5                            |
| Area 4 - Alder       | 15.7 | 42                                 | 6                            |

*Above data derived from Statistics (type) report using SuperAce 2008, developed by Atterbury Consultants, Inc.*

#### 8. **Cruiser Names/Dates**

Contract Cruise/ 2013; District personnel – fill in plots/ 2015

#### 9. **Revenue Distribution**

FDF 100%

Tax Code: 9-2

Deed Numbers: 145, 157, 159, and 160

#### 10. **Attachments**

Volume Summary

Stand Tables

Log Stock Tables

Logging Plan Map

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

DF – Douglas-fir take

RA – Red alder take

WH – Western hemlock take

OC-2 – Hard Snag, Decay Class 2

| FI TLOGSTVB         |     |     |        | Log Stock Table - MBF |          |            |              |                                          |           |                    |           |       |       |       |       |       |       |       |     |  |
|---------------------|-----|-----|--------|-----------------------|----------|------------|--------------|------------------------------------------|-----------|--------------------|-----------|-------|-------|-------|-------|-------|-------|-------|-----|--|
|                     |     |     |        | Project: SMOORE       |          |            |              |                                          |           |                    |           |       |       |       |       |       |       |       |     |  |
| T01N R07W S13 TSALE |     |     |        |                       |          |            |              |                                          |           | T01N R07W S13 TSAL |           |       |       |       |       |       |       |       |     |  |
| Twp                 | Rge | Sec | Tract  | Type                  | Acres    | Plots      | Sample Trees | Page                                     | 1         |                    |           |       |       |       |       |       |       |       |     |  |
| 01N                 | 07W | 13  | AREA_1 | SALE                  | 74.00    | 10         | 57           | Date                                     | 1/27/2016 |                    |           |       |       |       |       |       |       |       |     |  |
|                     |     |     |        |                       |          |            |              |                                          |           | Time               | 9:29:56AM |       |       |       |       |       |       |       |     |  |
| S<br>Spp            | 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                  | CO  | 2   | 20     | 24                    |          | 24         | 1.2          |                                          |           |                    |           |       |       |       |       |       | 24    |       |     |  |
| DF                  | CO  | 2   | 32     | 11                    |          | 11         | .5           |                                          |           |                    |           | 11    |       |       |       |       |       |       |     |  |
| DF                  | CO  | 2   | 40     | 1,084                 | .6       | 1,078      | 53.8         |                                          |           |                    |           | 496   |       | 247   | 336   |       |       |       |     |  |
| DF                  | CO  | 3   | 26     | 3                     |          | 3          | .1           |                                          |           |                    | 3         |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 3   | 32     | 152                   | 2.9      | 147        | 7.3          |                                          |           |                    | 123       | 24    |       |       |       |       |       |       |     |  |
| DF                  | CO  | 3   | 38     | 5                     |          | 5          | .3           |                                          |           | 5                  |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 3   | 40     | 524                   |          | 524        | 26.2         |                                          |           | 150                | 139       | 235   |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 16     | 8                     |          | 8          | .4           |                                          | 8         |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 17     | 7                     |          | 7          | .4           |                                          | 5         | 2                  |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 18     | 2                     |          | 2          | .1           |                                          | 2         |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 19     | 5                     |          | 5          | .3           |                                          | 5         |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 20     | 11                    |          | 11         | .5           |                                          | 9         | 2                  |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 21     | 22                    |          | 22         | 1.1          |                                          | 22        |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 22     | 3                     |          | 3          | .1           |                                          | 3         |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 23     | 4                     |          | 4          | .2           |                                          | 4         |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 26     | 7                     |          | 7          | .3           |                                          | 7         |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 27     | 3                     |          | 3          | .2           |                                          | 3         |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 28     | 15                    |          | 15         | .7           |                                          | 15        |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 29     | 5                     |          | 5          | .3           |                                          | 5         |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 31     | 12                    |          | 12         | .6           |                                          | 12        |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 33     | 5                     |          | 5          | .2           |                                          | 5         |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 34     | 37                    |          | 37         | 1.8          |                                          | 37        |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 37     | 12                    |          | 12         | .6           |                                          | 12        |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 38     | 11                    |          | 11         | .6           |                                          | 11        |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 39     | 25                    |          | 25         | 1.2          |                                          | 25        |                    |           |       |       |       |       |       |       |       |     |  |
| DF                  | CO  | 4   | 40     | 15                    |          | 15         | .7           |                                          | 15        |                    |           |       |       |       |       |       |       |       |     |  |
| DF Totals           |     |     |        | 2,013                 |          | 2,003      | 100.0        |                                          | 206       | 159                | 265       | 259   | 507   | 247   | 336   | 24    |       |       |     |  |
| Total All Species   |     |     |        | 2,013                 |          | 2,003      | 100.0        |                                          | 206       | 159                | 265       | 259   | 507   | 247   | 336   | 24    |       |       |     |  |

| FI                  |   | TSTNDSUM |       |     |     |         |        |        |        |             |        |       |        |        | Stand Table Summary |       |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
|---------------------|---|----------|-------|-----|-----|---------|--------|--------|--------|-------------|--------|-------|--------|--------|---------------------|-------|-------------|---------------------|--|------------|--|--|--|--|--|--|--|--|--|--|
| Project             |   |          |       |     |     |         |        |        |        |             |        |       |        |        |                     |       |             | SMOORE              |  |            |  |  |  |  |  |  |  |  |  |  |
| T01N R07W S13 TSALE |   |          |       |     |     |         |        |        |        |             |        |       |        |        |                     |       |             | T01N R07W S13 TSALE |  |            |  |  |  |  |  |  |  |  |  |  |
| Twp                 |   | Rge      |       | Sec |     | Tract   |        | Type   |        |             | Acres  |       | Plots  |        | Sample Trees        |       |             | Page:               |  | 1          |  |  |  |  |  |  |  |  |  |  |
| 01N                 |   | 07W      |       | 13  |     | AREA_1  |        | SALE   |        |             | 74.00  |       | 10     |        | 57                  |       |             | Date:               |  | 01/27/2016 |  |  |  |  |  |  |  |  |  |  |
|                     |   |          |       |     |     |         |        |        |        |             |        |       |        |        |                     |       |             | Time:               |  | 9:28:47AM  |  |  |  |  |  |  |  |  |  |  |
| S                   | T | Sample   |       | FF  | Ht  | Av      | Trees/ | BA/    | Logs   | Average Log |        | Net   |        | Net    | Net                 |       | T o t a l s |                     |  |            |  |  |  |  |  |  |  |  |  |  |
|                     |   | DBH      | Trees |     |     |         |        |        |        | Net         | Net    | Tons/ | Cu.Ft. |        | Bd.Ft.              | Tons  | Cunits      | MBF                 |  |            |  |  |  |  |  |  |  |  |  |  |
| Spc                 |   |          |       | 16' | Tot | Acre    | Acre   | Acre   | Cu.Ft. | Bd.Ft.      | Acre   | Acre  | Acre   |        |                     |       |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 9        |       | 87  | 66  | 7.454   | 3.46   | 7.63   | 8.6    | 42.7        | 1.88   | 66    | 326    | 139    | 49                  | 24    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 10       |       | 87  | 43  | 6.038   | 3.46   | 6.18   | 8.5    | 32.0        | 1.49   | 52    | 198    | 111    | 39                  | 15    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 11       |       | 88  | 76  | 4.990   | 3.46   | 5.11   | 15.5   | 64.0        | 2.26   | 79    | 327    | 167    | 59                  | 24    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 12       |       | 88  | 60  | 8.386   | 6.91   | 8.58   | 17.1   | 53.4        | 4.18   | 147   | 458    | 310    | 109                 | 34    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 13       |       | 88  | 89  | 7.145   | 6.91   | 14.63  | 14.5   | 58.7        | 6.04   | 212   | 859    | 447    | 157                 | 64    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 14       |       | 86  | 66  | 6.161   | 6.91   | 9.46   | 17.5   | 60.5        | 4.73   | 166   | 572    | 350    | 123                 | 42    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 15       |       | 88  | 80  | 16.100  | 20.74  | 30.21  | 19.5   | 71.8        | 16.78  | 589   | 2,169  | 1,242  | 436                 | 161   |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 16       |       | 89  | 94  | 2.358   | 3.46   | 4.83   | 24.1   | 96.1        | 3.32   | 116   | 464    | 245    | 86                  | 34    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 17       |       | 88  | 91  | 8.357   | 13.83  | 17.11  | 26.8   | 105.4       | 13.08  | 459   | 1,803  | 968    | 340                 | 133   |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 18       |       | 89  | 111 | 16.771  | 31.11  | 41.96  | 29.2   | 118.4       | 34.96  | 1,227 | 4,968  | 2,587  | 908                 | 368   |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 19       |       | 88  | 105 | 10.035  | 20.74  | 22.25  | 32.0   | 120.7       | 20.31  | 713   | 2,686  | 1,503  | 527                 | 199   |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 20       |       | 88  | 110 | 7.547   | 17.28  | 20.08  | 33.6   | 137.1       | 19.23  | 675   | 2,754  | 1,423  | 499                 | 204   |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 22       |       | 88  | 100 | 2.738   | 6.91   | 5.60   | 46.7   | 176.1       | 7.46   | 262   | 987    | 552    | 194                 | 73    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 23       |       | 88  | 114 | 4.990   | 13.83  | 12.77  | 44.4   | 191.1       | 16.16  | 567   | 2,440  | 1,196  | 420                 | 181   |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 24       |       | 86  | 103 | 1.141   | 3.46   | 2.34   | 56.2   | 224.2       | 3.74   | 131   | 524    | 277    | 97                  | 39    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 25       |       | 87  | 107 | 3.145   | 10.37  | 7.51   | 54.4   | 227.2       | 11.64  | 409   | 1,706  | 862    | 302                 | 126   |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 26       |       | 87  | 103 | 3.864   | 13.83  | 7.91   | 64.7   | 250.8       | 14.60  | 512   | 1,984  | 1,080  | 379                 | 147   |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 27       |       | 87  | 107 | .893    | 3.46   | 1.83   | 72.4   | 293.5       | 3.77   | 132   | 537    | 279    | 98                  | 40    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 28       |       | 87  | 113 | .828    | 3.46   | 2.54   | 55.5   | 256.2       | 4.02   | 141   | 651    | 298    | 104                 | 48    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | 30       |       | 88  | 116 | .718    | 3.46   | 2.20   | 58.3   | 295.3       | 3.66   | 129   | 651    | 271    | 95                  | 48    |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| DF                  |   | Totals   |       | 88  | 89  | 119.659 | 197.04 | 230.73 | 29.4   | 117.3       | 193.32 | 6,783 | 27,063 | 14,306 | 5,019               | 2,003 |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |
| Totals              |   |          |       | 88  | 89  | 119.659 | 197.04 | 230.73 | 29.4   | 117.3       | 193.32 | 6783  | 27,063 | 14,306 | 5,019               | 2,003 |             |                     |  |            |  |  |  |  |  |  |  |  |  |  |

| FI TLOGSTVB         |     |     |        | Log Stock Table - MBF |        |              |              |            |           |                                          |           |                    |     |       |       |       |       |       |       |       |     |  |  |  |  |  |
|---------------------|-----|-----|--------|-----------------------|--------|--------------|--------------|------------|-----------|------------------------------------------|-----------|--------------------|-----|-------|-------|-------|-------|-------|-------|-------|-----|--|--|--|--|--|
|                     |     |     |        | Project: SMOORE       |        |              |              |            |           |                                          |           |                    |     |       |       |       |       |       |       |       |     |  |  |  |  |  |
| T01N R06W S18 TSALE |     |     |        |                       |        |              |              |            |           |                                          |           | T01N R06W S18 TSAL |     |       |       |       |       |       |       |       |     |  |  |  |  |  |
| Twp                 | Rge | Sec | Tract  | Type                  | Acres  | Plots        | Sample Trees | Page       | 1         |                                          |           |                    |     |       |       |       |       |       |       |       |     |  |  |  |  |  |
| 01N                 | 06W | 18  | AREA_2 | SALE                  | 109.00 | 10           | 65           | Date       | 1/27/2016 |                                          |           |                    |     |       |       |       |       |       |       |       |     |  |  |  |  |  |
|                     |     |     |        |                       |        |              |              |            |           | Time                                     | 9:33:23AM |                    |     |       |       |       |       |       |       |       |     |  |  |  |  |  |
| 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                  |     | CO  | 2      |                       | 40     | 1,444        | .2           | 1,441      | 56.9      |                                          |           |                    |     | 532   |       | 565   | 344   |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 3      |                       | 26     | 4            |              |            | 4         | .2                                       |           |                    |     | 4     |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 3      |                       | 29     | 11           |              |            | 11        | .4                                       |           |                    |     | 11    |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 3      |                       | 32     | 69           |              |            | 69        | 2.7                                      |           |                    |     | 13    |       | 56    |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 3      |                       | 33     | 6            | 16.7         |            | 5         | .2                                       |           |                    |     | 5     |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 3      |                       | 37     | 8            |              |            | 8         | .3                                       |           |                    |     | 8     |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 3      |                       | 38     | 7            |              |            | 7         | .3                                       |           |                    |     | 7     |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 3      |                       | 40     | 704          | .4           |            | 702       | 27.7                                     |           |                    |     | 188   | 167   | 347   |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 16     | 5            |              |            | 5         | .2                                       |           |                    | 5   |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 17     | 3            |              |            | 3         | .1                                       |           |                    | 3   |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 18     | 9            |              |            | 9         | .3                                       |           |                    | 9   |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 20     | 8            |              |            | 8         | .3                                       |           |                    | 4   | 3     |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 22     | 14           |              |            | 14        | .5                                       |           |                    | 10  | 4     |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 23     | 11           | 8.7          |            | 10        | .4                                       |           |                    | 7   | 3     |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 24     | 22           | 8.2          |            | 20        | .8                                       |           |                    | 20  |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 25     | 7            |              |            | 7         | .3                                       |           |                    | 7   |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 26     | 32           |              |            | 32        | 1.3                                      |           |                    | 32  |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 27     | 43           |              |            | 43        | 1.7                                      |           |                    | 43  |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 28     | 8            |              |            | 8         | .3                                       |           |                    | 8   |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 29     | 21           |              |            | 21        | .8                                       |           |                    | 21  |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 30     | 10           |              |            | 10        | .4                                       |           |                    | 10  |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 31     | 18           |              |            | 18        | .7                                       |           |                    | 18  |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 32     | 9            |              |            | 9         | .4                                       |           |                    | 9   |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 33     | 7            |              |            | 7         | .3                                       |           |                    | 7   |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 34     | 26           |              |            | 26        | 1.0                                      |           |                    | 26  |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 38     | 19           |              |            | 19        | .7                                       |           |                    | 11  | 7     |       |       |       |       |       |       |     |  |  |  |  |  |
| DF                  |     | CO  | 4      |                       | 40     | 18           |              |            | 18        | .7                                       |           |                    | 18  |       |       |       |       |       |       |       |     |  |  |  |  |  |
| DF Totals           |     |     |        |                       |        | 2,542        |              |            | 2,533     | 100.0                                    |           |                    | 269 | 249   | 171   | 403   | 532   | 565   | 344   |       |     |  |  |  |  |  |
| Total All Species   |     |     |        |                       |        | 2,542        |              |            | 2,533     | 100.0                                    |           |                    | 269 | 249   | 171   | 403   | 532   | 565   | 344   |       |     |  |  |  |  |  |

| FI                  |   | TSTNDSUM |       |     |     |                |             |              |             |       |               |        |        |        | Stand Table Summary |             |           |       |  |            |  |  |  |  |  |  |  |
|---------------------|---|----------|-------|-----|-----|----------------|-------------|--------------|-------------|-------|---------------|--------|--------|--------|---------------------|-------------|-----------|-------|--|------------|--|--|--|--|--|--|--|
|                     |   |          |       |     |     |                |             |              |             |       |               |        |        |        | Project SMOORE      |             |           |       |  |            |  |  |  |  |  |  |  |
| T01N R06W S18 TSALE |   |          |       |     |     |                |             |              |             |       |               |        |        |        | T01N R06W S18 TSALE |             |           |       |  |            |  |  |  |  |  |  |  |
| Twp                 |   | Rge      |       | Sec |     | Tract          |             | Type         |             |       | Acres         |        | Plots  |        | Sample Trees        |             |           | Page: |  | 1          |  |  |  |  |  |  |  |
| 01N                 |   | 06W      |       | 18  |     | AREA_2         |             | SALE         |             |       | 109.00        |        | 10     |        | 65                  |             |           | Date: |  | 01/27/2016 |  |  |  |  |  |  |  |
|                     |   |          |       |     |     |                |             |              |             |       |               |        |        |        | Time:               |             | 9:32:21AM |       |  |            |  |  |  |  |  |  |  |
| S<br>Spc            | T | Sample   |       | Av  |     | Trees/<br>Acre | BA/<br>Acre | Logs<br>Acre | Average Log |       | Tons/<br>Acre | Net    |        | Net    |                     | T o t a l s |           |       |  |            |  |  |  |  |  |  |  |
|                     |   | DBH      | Trees | FF  | Ht  |                |             |              | Net         | Net   |               | Cu.Ft. | Bd.Ft. | Tons   | Cunits              | MBF         |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 13       |       | 80  | 62  | 7.166          | 6.92        | 10.99        | 13.6        | 42.6  | 4.25          | 149    | 468    | 463    | 163                 | 51          |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 14       |       | 83  | 62  | 18.536         | 20.75       | 25.28        | 18.2        | 54.6  | 13.11         | 460    | 1,380  | 1,429  | 502                 | 150         |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 15       |       | 84  | 78  | 10.764         | 13.83       | 16.51        | 23.7        | 78.1  | 11.15         | 391    | 1,290  | 1,216  | 427                 | 141         |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 16       |       | 83  | 70  | 11.826         | 17.29       | 16.93        | 28.0        | 77.6  | 13.51         | 474    | 1,314  | 1,473  | 517                 | 143         |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 17       |       | 85  | 69  | 6.285          | 10.37       | 10.71        | 24.5        | 80.9  | 7.47          | 262    | 867    | 815    | 286                 | 95          |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 18       |       | 82  | 77  | 3.738          | 6.92        | 7.65         | 25.8        | 93.2  | 5.63          | 197    | 712    | 613    | 215                 | 78          |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 19       |       | 88  | 105 | 1.677          | 3.46        | 3.43         | 36.9        | 138.5 | 3.61          | 127    | 475    | 394    | 138                 | 52          |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 20       |       | 84  | 84  | 12.110         | 27.66       | 24.77        | 35.3        | 115.2 | 24.93         | 875    | 2,853  | 2,718  | 954                 | 311         |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 21       |       | 84  | 84  | 9.611          | 24.20       | 19.66        | 39.2        | 128.6 | 21.97         | 771    | 2,528  | 2,395  | 840                 | 276         |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 23       |       | 85  | 85  | 8.757          | 24.20       | 17.91        | 43.5        | 145.3 | 22.19         | 779    | 2,603  | 2,419  | 849                 | 284         |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 24       |       | 85  | 95  | 4.578          | 13.83       | 9.36         | 52.0        | 189.1 | 13.88         | 487    | 1,770  | 1,513  | 531                 | 193         |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 25       |       | 85  | 96  | 5.256          | 17.29       | 10.75        | 57.6        | 220.5 | 17.66         | 620    | 2,370  | 1,925  | 675                 | 258         |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 26       |       | 85  | 99  | .969           | 3.46        | 1.98         | 66.3        | 250.3 | 3.74          | 131    | 496    | 408    | 143                 | 54          |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 27       |       | 83  | 93  | 6.270          | 24.20       | 12.82        | 66.3        | 237.4 | 24.24         | 851    | 3,044  | 2,643  | 927                 | 332         |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 28       |       | 85  | 92  | .831           | 3.46        | 1.70         | 70.5        | 239.6 | 3.41          | 120    | 407    | 372    | 130                 | 44          |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 29       |       | 82  | 79  | .772           | 3.46        | 1.58         | 66.5        | 207.7 | 2.99          | 105    | 328    | 326    | 114                 | 36          |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | 31       |       | 75  | 86  | .673           | 3.46        | 1.38         | 84.8        | 239.6 | 3.33          | 117    | 330    | 362    | 127                 | 36          |           |       |  |            |  |  |  |  |  |  |  |
| DF                  |   | Totals   |       | 84  | 78  | 109.819        | 224.75      | 193.42       | 35.8        | 120.1 | 197.10        | 6,916  | 23,235 | 21,484 | 7,538               | 2,533       |           |       |  |            |  |  |  |  |  |  |  |
| Totals              |   |          |       | 84  | 78  | 109.819        | 224.75      | 193.42       | 35.8        | 120.1 | 197.10        | 6916   | 23,235 | 21,484 | 7,538               | 2,533       |           |       |  |            |  |  |  |  |  |  |  |

| FI TLOGSTVB         |        |     |        | Log Stock Table - MBF |        |       |              |      |           |                    |         |       |                                          |     |     |     |       |       |       |       |       |       |       |     |  |  |
|---------------------|--------|-----|--------|-----------------------|--------|-------|--------------|------|-----------|--------------------|---------|-------|------------------------------------------|-----|-----|-----|-------|-------|-------|-------|-------|-------|-------|-----|--|--|
|                     |        |     |        | Project: SMOORE       |        |       |              |      |           |                    |         |       |                                          |     |     |     |       |       |       |       |       |       |       |     |  |  |
| T01N R06W S18 TSALE |        |     |        |                       |        |       |              |      |           | T01N R06W S18 TSAL |         |       |                                          |     |     |     |       |       |       |       |       |       |       |     |  |  |
| Twp                 | Rge    | Sec | Tract  | Type                  | Acres  | Plots | Sample Trees | Page | 1         |                    |         |       |                                          |     |     |     |       |       |       |       |       |       |       |     |  |  |
| 01N                 | 06W    | 18  | AREA_3 | SALE                  | 117.00 | 13    | 71           | Date | 1/27/2016 |                    |         |       |                                          |     |     |     |       |       |       |       |       |       |       |     |  |  |
|                     |        |     |        |                       |        |       |              |      | Time      | 9:38:42AM          |         |       |                                          |     |     |     |       |       |       |       |       |       |       |     |  |  |
| Spp                 | S      | So  | Gr     | Log                   | T      | rt    | de           | Len  | Gross MBF | % Def              | Net MBF | % Spc | Net Volume by Scaling Diameter in Inches |     |     |     |       |       |       |       |       |       |       |     |  |  |
|                     |        |     |        |                       |        |       |              |      |           |                    |         |       | 2-3                                      | 4-5 | 6-7 | 8-9 | 10-11 | 12-13 | 14-15 | 16-19 | 20-23 | 24-29 | 30-39 | 40+ |  |  |
| DF                  | CO     | 2   | 20     |                       |        |       |              |      | 27        |                    | 27      | .9    |                                          |     |     |     |       |       | 27    |       |       |       |       |     |  |  |
| DF                  | CO     | 2   | 24     |                       |        |       |              |      | 32        |                    | 32      | 1.1   |                                          |     |     |     |       |       | 32    |       |       |       |       |     |  |  |
| DF                  | CO     | 2   | 30     |                       |        |       |              |      | 27        |                    | 27      | .9    |                                          |     |     |     |       | 27    |       |       |       |       |       |     |  |  |
| DF                  | CO     | 2   | 32     |                       |        |       |              |      | 99        |                    | 99      | 3.4   |                                          |     |     |     |       | 58    | 41    |       |       |       |       |     |  |  |
| DF                  | CO     | 2   | 40     |                       |        |       |              |      | 2,155     | 1.0                | 2,133   | 72.8  |                                          |     |     |     |       | 272   | 548   | 912   | 401   |       |       |     |  |  |
| DF                  | CO     | 3   | 25     |                       |        |       |              |      | 3         |                    | 3       | .1    |                                          |     |     | 3   |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 3   | 26     |                       |        |       |              |      | 6         |                    | 6       | .2    |                                          |     |     | 6   |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 3   | 32     |                       |        |       |              |      | 96        | 3.4                | 93      | 3.2   |                                          |     | 10  | 51  | 32    |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 3   | 33     |                       |        |       |              |      | 6         |                    | 6       | .2    |                                          |     | 6   |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 3   | 36     |                       |        |       |              |      | 11        |                    | 11      | .4    |                                          |     | 11  |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 3   | 38     |                       |        |       |              |      | 19        |                    | 19      | .7    |                                          |     | 19  |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 3   | 39     |                       |        |       |              |      | 7         |                    | 7       | .2    |                                          |     | 7   |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 3   | 40     |                       |        |       |              |      | 334       |                    | 334     | 11.4  |                                          |     | 48  | 113 | 173   |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 16     |                       |        |       |              |      | 5         |                    | 5       | .2    |                                          |     | 2   | 2   |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 17     |                       |        |       |              |      | 9         |                    | 9       | .3    |                                          | 3   | 4   | 2   |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 18     |                       |        |       |              |      | 6         |                    | 6       | .2    |                                          | 6   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 19     |                       |        |       |              |      | 10        |                    | 10      | .4    |                                          | 8   | 2   |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 20     |                       |        |       |              |      | 14        |                    | 14      | .5    |                                          | 3   | 8   | 3   |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 21     |                       |        |       |              |      | 6         |                    | 6       | .2    |                                          | 3   |     | 3   |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 22     |                       |        |       |              |      | 4         |                    | 4       | .1    |                                          | 4   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 23     |                       |        |       |              |      | 4         |                    | 4       | .1    |                                          |     | 4   |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 25     |                       |        |       |              |      | 5         |                    | 5       | .2    |                                          | 5   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 27     |                       |        |       |              |      | 12        |                    | 12      | .4    |                                          | 12  |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 30     |                       |        |       |              |      | 9         |                    | 9       | .3    |                                          | 4   | 4   |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 32     |                       |        |       |              |      | 9         |                    | 9       | .3    |                                          | 9   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 33     |                       |        |       |              |      | 9         |                    | 9       | .3    |                                          | 9   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 35     |                       |        |       |              |      | 5         |                    | 5       | .2    |                                          | 5   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 36     |                       |        |       |              |      | 9         |                    | 9       | .3    |                                          | 9   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 38     |                       |        |       |              |      | 6         |                    | 6       | .2    |                                          | 6   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 39     |                       |        |       |              |      | 6         |                    | 6       | .2    |                                          | 6   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | CO     | 4   | 40     |                       |        |       |              |      | 6         |                    | 6       | .2    |                                          | 6   |     |     |       |       |       |       |       |       |       |     |  |  |
| DF                  | Totals |     |        |                       |        |       |              |      | 2,956     |                    | 2,930   | 93.6  |                                          | 98  | 126 | 183 | 205   | 357   | 589   | 970   | 401   |       |       |     |  |  |
| RA                  | H      | 3   | 24     |                       |        |       |              |      | 20        |                    | 20      | 17.1  |                                          |     |     |     | 20    |       |       |       |       |       |       |     |  |  |
| RA                  | H      | 3   | 30     |                       |        |       |              |      | 22        |                    | 22      | 18.5  |                                          |     |     |     |       | 22    |       |       |       |       |       |     |  |  |
| RA                  | H      | 3   | 32     |                       |        |       |              |      | 54        | 6.1                | 50      | 42.3  |                                          |     |     |     | 28    | 23    |       |       |       |       |       |     |  |  |
| RA                  | H      | 4   | 17     |                       |        |       |              |      | 5         |                    | 5       | 3.9   |                                          |     | 5   |     |       |       |       |       |       |       |       |     |  |  |
| RA                  | H      | 4   | 20     |                       |        |       |              |      | 3         |                    | 3       | 2.7   |                                          |     | 3   |     |       |       |       |       |       |       |       |     |  |  |
| RA                  | H      | 4   | 40     |                       |        |       |              |      | 21        | 11.1               | 18      | 15.4  |                                          |     |     | 18  |       |       |       |       |       |       |       |     |  |  |
| RA                  | Totals |     |        |                       |        |       |              |      | 124       | 4.5                | 119     | 3.8   |                                          |     | 8   | 18  | 48    | 45    |       |       |       |       |       |     |  |  |
| OC                  | *      | *   | 32     |                       |        |       |              |      | 76        |                    | 76      | 100.0 |                                          |     | 76  |     |       |       |       |       |       |       |       |     |  |  |
| OC                  | Totals |     |        |                       |        |       |              |      | 76        |                    | 76      | 2.4   |                                          |     | 76  |     |       |       |       |       |       |       |       |     |  |  |
| WH                  | CO     | 4   | 28     |                       |        |       |              |      | 6         |                    | 6       | 100.0 |                                          | 6   |     |     |       |       |       |       |       |       |       |     |  |  |
| WH                  | Totals |     |        |                       |        |       |              |      | 6         |                    | 6       | .2    |                                          | 6   |     |     |       |       |       |       |       |       |       |     |  |  |
| Total All Species   |        |     |        |                       |        |       |              |      | 3,162     |                    | 3,131   | 100.0 |                                          | 105 | 210 | 202 | 253   | 402   | 589   | 970   | 401   |       |       |     |  |  |

| FI                  |     | TSTNDSUM |        |           |                |             |              |             |               |               |               |                |                  |                     |        | Stand Table Summary |  |  |  |  |  |
|---------------------|-----|----------|--------|-----------|----------------|-------------|--------------|-------------|---------------|---------------|---------------|----------------|------------------|---------------------|--------|---------------------|--|--|--|--|--|
| Project             |     |          |        |           |                |             |              |             |               |               |               |                |                  | SMOORE              |        |                     |  |  |  |  |  |
| T01N R06W S18 TSALE |     |          |        |           |                |             |              |             |               |               |               |                |                  | T01N R06W S18 TSALE |        |                     |  |  |  |  |  |
| Twp                 | Rge | Sec      | Tract  | Type      |                |             | Acres        |             | Plots         | Sample Trees  |               |                | Page: 1          |                     |        |                     |  |  |  |  |  |
| 01N                 | 06W | 18       | AREA_3 | SALE      |                |             | 117.00       |             | 13            | 71            |               |                | Date: 01/27/2016 |                     |        |                     |  |  |  |  |  |
|                     |     |          |        |           |                |             |              |             |               |               |               |                |                  | Time: 9:37:40AM     |        |                     |  |  |  |  |  |
| S<br>Spc            | T   | Sample   |        | Av        | Trees/<br>Acre | BA/<br>Acre | Logs<br>Acre | Average Log |               | Tons/<br>Acre | Net           | Net            | T o t a l s      |                     |        |                     |  |  |  |  |  |
|                     |     | DBH      | Trees  | FF<br>16' |                |             |              | Ht<br>Tot   | Net<br>Cu.Ft. |               | Net<br>Bd.Ft. | Cu.Ft.<br>Acre | Bd.Ft.<br>Acre   | Tons                | Cunits | MBF                 |  |  |  |  |  |
| DF                  |     | 14       |        | 87        | 70             | 2.370       | 2.66         | 4.85        | 14.1          | 58.6          | 1.95          | 69             | 284              | 229                 | 80     | 33                  |  |  |  |  |  |
| DF                  |     | 15       |        | 86        | 81             | 2.064       | 2.66         | 4.22        | 18.7          | 74.6          | 2.25          | 79             | 315              | 263                 | 92     | 37                  |  |  |  |  |  |
| DF                  |     | 17       |        | 88        | 87             | 1.607       | 2.66         | 3.29        | 25.2          | 96.0          | 2.36          | 83             | 315              | 276                 | 97     | 37                  |  |  |  |  |  |
| DF                  |     | 18       |        | 84        | 83             | 4.300       | 7.97         | 8.80        | 26.8          | 99.5          | 6.72          | 236            | 875              | 787                 | 276    | 102                 |  |  |  |  |  |
| DF                  |     | 19       |        | 86        | 79             | 3.860       | 7.97         | 7.90        | 29.6          | 101.3         | 6.66          | 234            | 800              | 779                 | 273    | 94                  |  |  |  |  |  |
| DF                  |     | 20       |        | 86        | 96             | 4.644       | 10.63        | 9.50        | 39.8          | 141.3         | 10.78         | 378            | 1,342            | 1,262               | 443    | 157                 |  |  |  |  |  |
| DF                  |     | 22       |        | 87        | 102            | 5.266       | 13.29        | 12.93       | 37.1          | 144.8         | 13.67         | 480            | 1,872            | 1,599               | 561    | 219                 |  |  |  |  |  |
| DF                  |     | 23       |        | 86        | 97             | 4.798       | 13.29        | 9.81        | 48.0          | 177.0         | 13.44         | 471            | 1,737            | 1,572               | 552    | 203                 |  |  |  |  |  |
| DF                  |     | 24       |        | 86        | 95             | 3.512       | 10.63        | 7.18        | 51.5          | 186.6         | 10.53         | 370            | 1,340            | 1,232               | 432    | 157                 |  |  |  |  |  |
| DF                  |     | 25       |        | 85        | 96             | 3.225       | 10.63        | 7.42        | 51.1          | 199.0         | 10.81         | 379            | 1,477            | 1,265               | 444    | 173                 |  |  |  |  |  |
| DF                  |     | 26       |        | 86        | 108            | 7.431       | 26.58        | 17.48       | 59.5          | 245.2         | 29.63         | 1,040          | 4,287            | 3,467               | 1,217  | 502                 |  |  |  |  |  |
| DF                  |     | 27       |        | 86        | 106            | 1.374       | 5.32         | 3.51        | 54.0          | 226.0         | 5.41          | 190            | 794              | 633                 | 222    | 93                  |  |  |  |  |  |
| DF                  |     | 28       |        | 86        | 109            | 5.097       | 21.26        | 11.73       | 71.6          | 299.1         | 23.94         | 840            | 3,509            | 2,801               | 983    | 411                 |  |  |  |  |  |
| DF                  |     | 29       |        | 84        | 102            | 1.777       | 7.97         | 4.24        | 71.0          | 283.3         | 8.58          | 301            | 1,202            | 1,004               | 352    | 141                 |  |  |  |  |  |
| DF                  |     | 30       |        | 86        | 117            | 1.104       | 5.32         | 2.82        | 78.3          | 341.2         | 6.30          | 221            | 964              | 738                 | 259    | 113                 |  |  |  |  |  |
| DF                  |     | 31       |        | 87        | 125            | 1.032       | 5.32         | 3.17        | 74.8          | 364.3         | 6.75          | 237            | 1,154            | 790                 | 277    | 135                 |  |  |  |  |  |
| DF                  |     | 32       |        | 86        | 107            | .483        | 2.66         | .99         | 102.8         | 453.2         | 2.90          | 102            | 448              | 339                 | 119    | 52                  |  |  |  |  |  |
| DF                  |     | 33       |        | 85        | 111            | 1.361       | 7.97         | 3.25        | 99.2          | 440.2         | 9.18          | 322            | 1,430            | 1,074               | 377    | 167                 |  |  |  |  |  |
| DF                  |     | 34       |        | 85        | 115            | .426        | 2.66         | 1.31        | 85.1          | 394.5         | 3.17          | 111            | 516              | 371                 | 130    | 60                  |  |  |  |  |  |
| DF                  |     | 35       |        | 83        | 105            | .402        | 2.66         | .82         | 122.1         | 463.8         | 2.86          | 100            | 381              | 335                 | 117    | 45                  |  |  |  |  |  |
| DF                  |     | Totals   |        | 86        | 97             | 56.134      | 170.08       | 125.22      | 49.8          | 200.0         | 177.90        | 6,242          | 25,044           | 20,814              | 7,303  | 2,930               |  |  |  |  |  |
| RA                  |     | 16       |        | 85        | 65             | 3.577       | 5.27         | 5.43        | 25.4          | 79.5          | 3.80          | 138            | 431              | 444                 | 162    | 50                  |  |  |  |  |  |
| RA                  |     | 17       |        | 85        | 68             | 1.584       | 2.64         | 1.60        | 26.1          | 108.4         | 1.15          | 42             | 174              | 134                 | 49     | 20                  |  |  |  |  |  |
| RA                  |     | 20       |        | 82        | 68             | 1.268       | 2.64         | 2.57        | 28.5          | 86.7          | 2.01          | 73             | 222              | 235                 | 85     | 26                  |  |  |  |  |  |
| RA                  |     | 21       |        | 85        | 69             | 1.145       | 2.64         | 1.16        | 43.6          | 162.6         | 1.39          | 50             | 188              | 162                 | 59     | 22                  |  |  |  |  |  |
| RA                  |     | Totals   |        | 84        | 66             | 7.574       | 13.18        | 10.75       | 28.2          | 94.5          | 8.34          | 303            | 1,016            | 976                 | 355    | 119                 |  |  |  |  |  |
| OC                  |     | 21       |        | 86        | 69             | 1.133       | 2.65         | 1.13        | 120.7         | 572.2         | 3.42          | 137            | 648              | 400                 | 160    | 76                  |  |  |  |  |  |
| OC                  |     | Totals   |        | 86        | 69             | 1.133       | 2.65         | 1.13        | 120.7         | 572.2         | 3.42          | 137            | 648              | 400                 | 160    | 76                  |  |  |  |  |  |
| WH                  |     | 18       |        | 83        | 34             | 1.568       | 2.65         | 1.60        | 23.0          | 32.8          | 1.18          | 37             | 53               | 138                 | 43     | 6                   |  |  |  |  |  |
| WH                  |     | Totals   |        | 83        | 34             | 1.568       | 2.65         | 1.60        | 23.0          | 32.8          | 1.18          | 37             | 53               | 138                 | 43     | 6                   |  |  |  |  |  |
| Totals              |     |          |        | 86        | 92             | 66.409      | 188.58       | 138.71      | 48.4          | 192.9         | 190.84        | 6719           | 26,761           | 22,328              | 7,861  | 3,131               |  |  |  |  |  |

|                       |          |        |        |      |       |              |              |            |           |                                          |           |     |     |                    |       |       |       |       |       |       |
|-----------------------|----------|--------|--------|------|-------|--------------|--------------|------------|-----------|------------------------------------------|-----------|-----|-----|--------------------|-------|-------|-------|-------|-------|-------|
| FI                    | TLOGSTVB |        |        |      |       |              |              |            |           |                                          |           |     |     |                    |       |       |       |       |       |       |
| Log Stock Table - MBF |          |        |        |      |       |              |              |            |           |                                          |           |     |     |                    |       |       |       |       |       |       |
| Project: SMOORE       |          |        |        |      |       |              |              |            |           |                                          |           |     |     |                    |       |       |       |       |       |       |
| T01N R06W S18 TSALE   |          |        |        |      |       |              |              |            |           |                                          |           |     |     | T01N R06W S18 TSAL |       |       |       |       |       |       |
| Twp                   | Rge      | Sec    | Tract  | Type | Acres | Plots        | Sample Trees | Page       | 1         |                                          |           |     |     |                    |       |       |       |       |       |       |
| 01N                   | 06W      | 18     | AREA_4 | SALE | 95.00 | 11           | 72           | Date       | 1/27/2016 |                                          |           |     |     |                    |       |       |       |       |       |       |
|                       |          |        |        |      |       |              |              |            |           | Time                                     | 9:57:38AM |     |     |                    |       |       |       |       |       |       |
| S<br>Spp              | T        | So     | Gr     | Log  | Len   | 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 |
| DF                    |          | CO     | 2      |      | 23    | 9            |              | 9          | .3        |                                          |           |     |     | 9                  |       |       |       |       |       |       |
| DF                    |          | CO     | 2      |      | 30    | 34           |              | 34         | 1.2       |                                          |           |     |     |                    |       | 34    |       |       |       |       |
| DF                    |          | CO     | 2      |      | 32    | 13           |              | 13         | .5        |                                          |           |     |     | 13                 |       |       |       |       |       |       |
| DF                    |          | CO     | 2      |      | 40    | 1,144        | 1.0          | 1,133      | 40.9      |                                          |           |     |     | 416                | 187   | 427   | 103   |       |       |       |
| DF                    |          | CO     | 3      |      | 26    | 3            |              | 3          | .1        |                                          |           |     | 3   |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 3      |      | 29    | 3            |              | 3          | .1        |                                          |           | 3   |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 3      |      | 30    | 12           |              | 12         | .4        |                                          |           |     | 12  |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 3      |      | 32    | 120          |              | 120        | 4.3       |                                          |           | 32  | 61  | 26                 |       |       |       |       |       |       |
| DF                    |          | CO     | 3      |      | 40    | 1,082        | .7           | 1,074      | 38.8      |                                          |           | 194 | 462 | 419                |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 13    | 2            |              | 2          | .1        |                                          | 2         |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 14    | 2            |              | 2          | .1        |                                          | 2         |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 15    | 10           |              | 10         | .4        |                                          | 10        |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 16    | 4            |              | 4          | .2        |                                          | 2         | 2   |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 17    | 16           |              | 16         | .6        |                                          | 14        | 2   |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 18    | 8            |              | 8          | .3        |                                          | 8         |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 19    | 17           |              | 17         | .6        |                                          | 13        | 4   |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 20    | 19           |              | 19         | .7        |                                          | 17        | 2   |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 21    | 9            |              | 9          | .3        |                                          | 9         |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 22    | 12           |              | 12         | .4        |                                          | 12        |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 24    | 4            |              | 4          | .1        |                                          |           | 4   |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 25    | 20           |              | 20         | .7        |                                          | 17        | 3   |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 26    | 16           |              | 16         | .6        |                                          | 16        |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 27    | 40           |              | 40         | 1.4       |                                          | 40        |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 28    | 7            |              | 7          | .2        |                                          | 7         |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 29    | 21           |              | 21         | .8        |                                          | 17        | 4   |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 30    | 26           |              | 26         | .9        |                                          | 26        |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 31    | 6            |              | 6          | .2        |                                          | 6         |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 32    | 7            |              | 7          | .2        |                                          | 7         |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 33    | 10           |              | 10         | .4        |                                          | 10        |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 34    | 12           |              | 12         | .4        |                                          | 12        |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 36    | 6            |              | 6          | .2        |                                          | 6         |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 37    | 5            |              | 5          | .2        |                                          | 5         |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 38    | 19           |              | 19         | .7        |                                          | 19        |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 39    | 35           |              | 35         | 1.3       |                                          | 35        |     |     |                    |       |       |       |       |       |       |
| DF                    |          | CO     | 4      |      | 40    | 40           |              | 40         | 1.4       |                                          | 40        |     |     |                    |       |       |       |       |       |       |
| DF                    |          | Totals |        |      |       | 2,790        |              | 2,770      | 94.4      |                                          | 348       | 250 | 539 | 445                | 437   | 187   | 461   | 103   |       |       |
| RA                    |          | *      | *      |      | 32    | 62           |              | 62         | 37.7      |                                          |           | 62  |     |                    |       |       |       |       |       |       |
| RA                    |          | H      | 2      |      | 20    | 21           | 8.3          | 19         | 11.5      |                                          |           |     |     | 19                 |       |       |       |       |       |       |
| RA                    |          | H      | 3      |      | 14    | 11           |              | 11         | 7.0       |                                          |           |     |     |                    | 11    |       |       |       |       |       |
| RA                    |          | H      | 3      |      | 24    | 22           | 10.0         | 19         | 11.9      |                                          |           |     |     | 19                 |       |       |       |       |       |       |
| RA                    |          | H      | 4      |      | 31    | 10           |              | 10         | 6.0       |                                          |           | 10  |     |                    |       |       |       |       |       |       |
| RA                    |          | H      | 4      |      | 38    | 34           | 13.3         | 30         | 18.1      |                                          |           | 30  |     |                    |       |       |       |       |       |       |
| RA                    |          | H      | 4      |      | 40    | 15           | 14.3         | 13         | 7.9       |                                          |           | 13  |     |                    |       |       |       |       |       |       |
| RA                    |          | Totals |        |      |       | 175          | 6.1          | 164        | 5.6       |                                          |           | 114 |     | 19                 | 19    | 11    |       |       |       |       |
| Total All Species     |          |        |        |      | 2,964 | 1.0          | 2,935        | 100.0      |           | 348                                      | 365       | 539 | 465 | 456                | 198   | 461   | 103   |       |       |       |

| Stand Table Summary |     |          |        |           |                |             |              |             |               |               |               |                     |                |        |        |       |       |
|---------------------|-----|----------|--------|-----------|----------------|-------------|--------------|-------------|---------------|---------------|---------------|---------------------|----------------|--------|--------|-------|-------|
| FI                  |     | TSTNDSUM |        |           |                |             |              |             |               |               |               |                     |                |        |        |       |       |
| Project SMOORE      |     |          |        |           |                |             |              |             |               |               |               |                     |                |        |        |       |       |
| T01N R06W S18 TSALE |     |          |        |           |                |             |              |             |               |               |               | T01N R06W S18 TSALE |                |        |        |       |       |
| Twp                 | Rge | Sec      | Tract  | Type      |                |             | Acres        | Plots       | Sample Trees  |               |               | Page:               | 1              |        |        |       |       |
| 01N                 | 06W | 18       | AREA_4 | SALE      |                |             | 95.00        | 11          | 72            |               |               | Date:               | 01/27/2016     |        |        |       |       |
|                     |     |          |        |           |                |             |              |             |               |               |               | Time:               | 9:56:38AM      |        |        |       |       |
| S<br>Spc            | T   | Sample   |        | Av        | Trees/<br>Acre | BA/<br>Acre | Logs<br>Acre | Average Log |               | Tons/<br>Acre | Net           | Net                 | T o t a l s    |        |        |       |       |
|                     |     | DBH      | Trees  | FF<br>16' |                |             |              | Ht<br>Tot   | Net<br>Cu.Ft. |               | Net<br>Bd.Ft. | Cu.Ft.<br>Acre      | Bd.Ft.<br>Acre | Tons   | Cunits | MBF   |       |
| DF                  |     | 9        |        | 83        | 64             | 20.535      | 9.31         | 21.01       | 9.1           | 34.9          | 5.42          | 190                 | 732            | 515    | 181    | 70    |       |
| DF                  |     | 10       |        | 88        | 60             | 11.089      | 6.21         | 11.34       | 10.8          | 47.1          | 3.50          | 123                 | 534            | 333    | 117    | 51    |       |
| DF                  |     | 11       |        | 90        | 59             | 9.164       | 6.21         | 9.37        | 13.6          | 41.8          | 3.64          | 128                 | 392            | 346    | 121    | 37    |       |
| DF                  |     | 12       |        | 88        | 85             | 23.102      | 18.62        | 39.39       | 13.6          | 55.4          | 15.29         | 537                 | 2,184          | 1,453  | 510    | 207   |       |
| DF                  |     | 13       |        | 85        | 101            | 9.842       | 9.31         | 20.14       | 15.4          | 59.3          | 8.84          | 310                 | 1,194          | 839    | 295    | 113   |       |
| DF                  |     | 14       |        | 87        | 100            | 14.144      | 15.51        | 31.83       | 16.9          | 72.3          | 15.36         | 538                 | 2,300          | 1,459  | 511    | 219   |       |
| DF                  |     | 15       |        | 85        | 98             | 12.321      | 15.51        | 27.73       | 19.1          | 74.2          | 15.12         | 531                 | 2,057          | 1,437  | 504    | 195   |       |
| DF                  |     | 16       |        | 86        | 101            | 10.829      | 15.51        | 24.37       | 22.9          | 93.2          | 15.91         | 558                 | 2,271          | 1,511  | 530    | 216   |       |
| DF                  |     | 17       |        | 88        | 111            | 5.756       | 9.31         | 13.74       | 26.6          | 106.1         | 10.41         | 365                 | 1,458          | 989    | 347    | 138   |       |
| DF                  |     | 18       |        | 86        | 111            | 8.556       | 15.51        | 22.76       | 26.3          | 101.4         | 17.02         | 598                 | 2,307          | 1,617  | 568    | 219   |       |
| DF                  |     | 19       |        | 84        | 120            | 4.608       | 9.31         | 12.57       | 31.3          | 120.3         | 11.22         | 394                 | 1,512          | 1,066  | 374    | 144   |       |
| DF                  |     | 20       |        | 86        | 103            | 4.158       | 9.31         | 8.51        | 39.7          | 144.7         | 9.61          | 338                 | 1,231          | 913    | 321    | 117   |       |
| DF                  |     | 21       |        | 82        | 129            | 1.257       | 3.10         | 3.86        | 34.1          | 132.5         | 3.75          | 132                 | 511            | 357    | 125    | 49    |       |
| DF                  |     | 22       |        | 86        | 102            | 2.291       | 6.21         | 5.86        | 39.0          | 150.6         | 6.51          | 228                 | 883            | 618    | 217    | 84    |       |
| DF                  |     | 23       |        | 87        | 118            | 2.096       | 6.21         | 6.43        | 40.4          | 179.6         | 7.42          | 260                 | 1,155          | 704    | 247    | 110   |       |
| DF                  |     | 24       |        | 87        | 101            | 2.888       | 9.31         | 6.89        | 48.0          | 192.8         | 9.42          | 331                 | 1,329          | 895    | 314    | 126   |       |
| DF                  |     | 25       |        | 87        | 122            | 2.661       | 9.31         | 7.26        | 55.4          | 241.9         | 11.46         | 402                 | 1,756          | 1,089  | 382    | 167   |       |
| DF                  |     | 26       |        | 86        | 111            | 1.640       | 6.21         | 4.19        | 58.6          | 242.7         | 7.00          | 246                 | 1,018          | 665    | 233    | 97    |       |
| DF                  |     | 27       |        | 84        | 104            | .761        | 3.10         | 1.56        | 70.8          | 298.1         | 3.14          | 110                 | 464            | 298    | 105    | 44    |       |
| DF                  |     | 28       |        | 85        | 119            | 2.829       | 12.41        | 7.96        | 66.7          | 284.3         | 15.12         | 531                 | 2,263          | 1,437  | 504    | 215   |       |
| DF                  |     | 30       |        | 96        | 132            | .616        | 3.10         | 1.89        | 82.4          | 470.7         | 4.44          | 156                 | 890            | 422    | 148    | 85    |       |
| DF                  |     | 31       |        | 87        | 134            | .577        | 3.10         | 1.77        | 81.8          | 408.0         | 4.13          | 145                 | 722            | 392    | 138    | 69    |       |
| DF                  |     | Totals   |        | 86        | 91             | 151.722     | 201.67       | 290.41      | 24.6          | 100.4         | 203.75        | 7,149               | 29,162         | 19,357 | 6,792  | 2,770 |       |
| RA                  |     | 11       |        | 87        | 67             | 4.466       | 3.06         | 4.52        | 16.9          | 53.4          | 2.09          | 76                  | 241            | 199    | 73     | 23    |       |
| RA                  |     | 15       |        | 86        | 40             | 2.402       | 3.06         | 2.43        | 20.4          | 42.7          | 1.36          | 50                  | 104            | 129    | 47     | 10    |       |
| RA                  |     | 16       |        | 84        | 62             | 4.222       | 6.13         | 4.27        | 30.1          | 80.0          | 3.52          | 129                 | 342            | 334    | 122    | 32    |       |
| RA                  |     | 18       |        | 83        | 68             | 1.668       | 3.06         | 1.69        | 28.0          | 117.4         | 1.29          | 47                  | 198            | 123    | 45     | 19    |       |
| RA                  |     | 19       |        | 82        | 37             | 1.497       | 3.06         | 1.50        | 81.5          | 434.6         | 3.41          | 122                 | 651            | 324    | 116    | 62    |       |
| RA                  |     | 22       |        | 68        | 72             | 1.117       | 3.06         | 2.26        | 28.8          | 85.4          | 1.78          | 65                  | 193            | 169    | 62     | 18    |       |
| RA                  |     | Totals   |        | 84        | 59             | 15.371      | 21.44        | 16.66       | 29.4          | 103.7         | 13.45         | 489                 | 1,728          | 1,277  | 464    | 164   |       |
| Totals              |     |          |        |           | 86             | 88          | 167.093      | 223.11      | 307.07        | 24.9          | 100.6         | 217.20              | 7638           | 30,890 | 20,634 | 7,256 | 2,935 |



"STEWARDSHIP IN FORESTRY"

## S'Moore

### Volume Summary

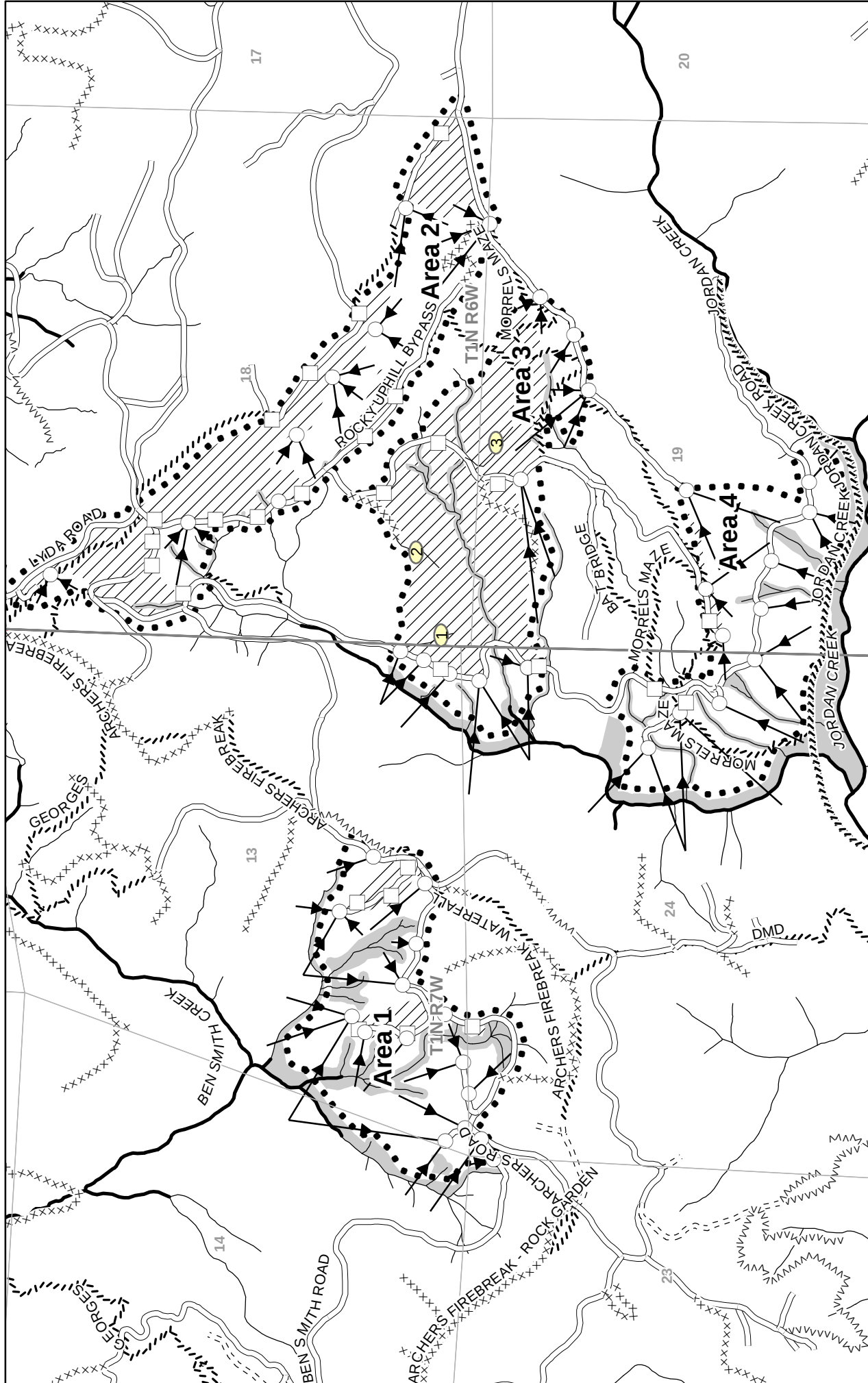
| Area 1-Modified Clearcut |           |             |        |          |
|--------------------------|-----------|-------------|--------|----------|
| 74 acres                 |           |             |        |          |
| SPECIES                  | Cruised   | Cruised Net | Hidden | Net Sale |
|                          | MBF/ Acre | MBF         | D&B    | MBF      |
| Douglas-fir              | 26.8      | 2003        | 1%     | 1983     |
| TOTAL                    | 26.8      | 2003        |        | 1983     |

| Areas 2-Modified Clearcut |         |             |        |          |
|---------------------------|---------|-------------|--------|----------|
| 109 acres                 |         |             |        |          |
| SPECIES                   | Cruised | Cruised Net | Hidden | Net Sale |
|                           | Net     | MBF         | D&B    | MBF      |
| Douglas-fir               | 23.0    | 2533        | 1%     | 2508     |
| TOTAL                     | 23.0    | 2533        |        | 2508     |

| Areas 3-Modified Clearcut |         |             |        |          |
|---------------------------|---------|-------------|--------|----------|
| 117 acres                 |         |             |        |          |
| SPECIES                   | Cruised | Cruised Net | Hidden | Net Sale |
|                           | Net     | MBF         | D&B    | MBF      |
| Douglas-fir               | 24.8    | 2930        | 1%     | 2901     |
| Alder                     | 0.9     | 119         | 10%    | 107      |
| TOTAL                     | 25.7    | 3049        |        | 3008     |

| Areas 4-Modified Clearcut |         |             |        |          |
|---------------------------|---------|-------------|--------|----------|
| 95 acres                  |         |             |        |          |
| SPECIES                   | Cruised | Cruised Net | Hidden | Net Sale |
|                           | Net     | MBF         | D&B    | MBF      |
| Douglas-fir               | 28.9    | 2770        | 1%     | 2742     |
| Alder                     | 1.4     | 164         | 10%    | 148      |
| TOTAL                     | 30.2    | 2934        |        | 2890     |

| Total Sale Volume |                   |                |
|-------------------|-------------------|----------------|
| 395 acres         |                   |                |
| Species           | Cruised Net (MBF) | Net Sale (MBF) |
| Douglas-fir       | 10236             | 10134          |
| Alder             | 283               | 255            |
| TOTAL             | 10519             | 10389          |



Rock source

Stock pile

Waste area

Bridge

Gate

Survey corner

Helicopter landing zone

Cultural site

Buffer

Cable yarding

Ground yarding

Helicopter yarding

Downhill yarding

Green tree retention area

Area boundary

Sale boundary

Ownership boundary

Fish stream

Non-fish stream

Unsurfaced road

Paved road

Abandoned road

Swing road

Non-project road

Blocked road

OHV trail

Non-motorized trail

Cable yarding

Ground Landing

Yarder Landing

LOGGING PLAN

Timber Sale Contract No. 341-16-59

SMOORE

Portions of Sections 17, 18, & 19, T1N, R6W, and Sections 13, 14, 23, & 24, T1N, R7W, W.M., Tillamook County, Oregon

N

1,000 0 1,000 Feet

|       | Type of Operation | Acres |
|-------|-------------------|-------|
| 1     | Modified Clearcut | 109   |
| 2     | Modified Clearcut | 74    |
| 3     | Modified Clearcut | 119   |
| 4     | Modified Clearcut | 109   |
| Total |                   | 395   |

Tillamook District GIS

1/14/2016

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