



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Leonard Elk
Sale 341-10-47

District: Astoria

Date: February 11, 2010

cost summary

| | Conifer | Hardwood | Total |
|------------------------------------|----------------|--------------------------|----------------|
| Gross Timber Sale Value | \$1,065,403.24 | \$129,789.10 | \$1,195,192.34 |
| | | Project Work: | \$(225,213.00) |
| | | Advertised Value: | \$969,979.34 |



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timber description

Location: Portions of Sections 30, 31, and 32, T7N, R7W, and portions of Section 36, T7N, R8W, W.M., Clatsop County, Oregon.

Stand Stocking: 80%

| SpecieName | AvgDBH | Amortization (%) | Recovery (%) |
|-----------------------|--------|------------------|--------------|
| Douglas - Fir | 22 | 0 | 92 |
| Western Hemlock / Fir | 16 | 0 | 91 |
| Sitka Spruce | 21 | 0 | 92 |
| Alder (Red) | 14 | 0 | 95 |

| Volume by Grade | 2S | 3S | 4S | Camprur | Other | SM | Total |
|-----------------------|-------|-------|-----|---------|-------|----|-------|
| Douglas - Fir | 563 | 204 | 22 | 0 | 0 | 36 | 825 |
| Western Hemlock / Fir | 2,137 | 2,035 | 277 | 0 | 0 | 0 | 4,449 |
| Sitka Spruce | 670 | 694 | 94 | 0 | 355 | 0 | 1,813 |
| Alder (Red) | 0 | 0 | 0 | 395 | 0 | 0 | 395 |
| Total | 3,370 | 2,933 | 393 | 395 | 355 | 36 | 7,482 |



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

Expected Log Markets: Tillamook, OR; Garibaldi, OR; Forest Grove, OR; Mist, OR; Aberdeen, WA; Clatskanie, OR; Springfield, OR.

Western redcedar Stumpage Price = Pond Value minus Logging Cost
 $\$636.11/\text{MBF} = \$790.00/\text{MBF} - \$153.89/\text{MBF}$

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

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

HAULING COST ALLOWANCE

Hauling costs equivalent to $\$700$ daily truck cost.

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

Additional Logging Costs:

Branding and Painting: $\$1/\text{MBF} \times 7,323\text{MBF} = \$7,323$

Block and waterbar dirt roads Areas 1 and 2: $1.5 \text{ hours} \times \$94/\text{hr} = \$141$

Install and remove stream crossings required in Area 2: $8 \text{ hrs} \times \$94/\text{hr} = \752

Slash Piling:

Slash Piling estimates: $48.3 \text{ hours} \times \$120/\text{hr} = \$5,796$

Cover Material for piles: $217 \text{ piles} \times \$5/\text{pile} = \$1,085$

Move-in cost for excavator to pile slash post harvest: $\$945$

TOTAL Other Costs (with Profit and Risk to be added) = $\$16,042$

Other Costs (No Profit & Risk added):

None.

NOTE:

Sitka Spruce has been split apart as follows:

Net Volume:

SS < 22" Scaling Diameter: Total Volume 1,458 MBF
(19% of Total Sale Volume)

2Saw = 670 MBF

3Saw = 694 MBF

4Saw = 94 MBF

SS = 22" or > Scaling Diameter *: Total Volume 355 MBF **
(5% of Total Sale Volume)

2Saw = 196 MBF

3Saw = 159 MBF

4Saw = 0 MBF

* SS = 22" or > Scaling Diameter was listed as "Other" for grade in the Appraisal.

** This volume appraised at 1 load per day to Springfield, OR.



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logging conditions

combination#: 1

| | |
|-----------------------|--------|
| Douglas - Fir | 56.00% |
| Western Hemlock / Fir | 56.00% |
| Sitka Spruce | 56.00% |
| Alder (Red) | 56.00% |

yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Manual Delimiting

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 12.0 **bd. ft / load:** 3,500

cost / mbf: \$59.63

machines: Shovel Logger

combination#: 2

| | |
|-----------------------|--------|
| Douglas - Fir | 44.00% |
| Western Hemlock / Fir | 44.00% |
| Sitka Spruce | 44.00% |
| Alder (Red) | 44.00% |

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Medium Tower >40 - <70 **Process:** Stroke Delimber

tree size: Small / Thinning 12in (130 Bft/tree), 12-17 logs/MBF

loads / day: 9.0 **bd. ft / load:** 4,300

cost / mbf: \$86.41

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



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logging costs

| | | | |
|--------------------|--------------|--------------------|-------------|
| Operating Seasons: | 3.00 | Profit Risk: | 12.00% |
| Project Costs: | \$225,213.00 | Other Costs (P/R): | \$16,042.00 |
| Slash Disposal: | \$0.00 | Other Costs: | \$0.00 |

Miles of Road

Road Maintenance: \$4.42

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

Hauling Costs

| Species | \$ / MBF | Trips/Day | MBF / Load |
|-----------------------|----------|-----------|------------|
| Douglas - Fir | \$0.00 | 5.0 | 4.4 |
| Western Hemlock / Fir | \$0.00 | 3.0 | 4.3 |
| Sitka Spruce | \$0.00 | 2.0 | 3.0 |
| Alder (Red) | \$0.00 | 2.0 | 4.0 |

Local Pond Values

| Date | Specie | Grade | Value |
|---------|--------------|-------|----------|
| 2/11/10 | Sitka Spruce | Other | \$350.00 |



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District: Astoria

Date: February 11, 2010

logging costs breakdown

| Logging | Road Maint | Fire Protect | Hauling | Other P/R appl | Profit & Risk | Slash Disposal | Scaling | Other | Total |
|------------------------------|------------|--------------|----------|----------------|---------------|----------------|---------|--------|----------|
| Douglas - Fir | | | | | | | | | |
| \$71.41 | \$4.77 | \$1.76 | \$30.68 | \$2.14 | \$13.29 | \$0.00 | \$5.00 | \$0.00 | \$129.05 |
| Western Hemlock / Fir | | | | | | | | | |
| \$71.41 | \$4.82 | \$1.76 | \$52.81 | \$2.14 | \$15.95 | \$0.00 | \$5.00 | \$0.00 | \$153.89 |
| Sitka Spruce | | | | | | | | | |
| \$71.41 | \$4.77 | \$1.76 | \$112.50 | \$2.14 | \$23.11 | \$0.00 | \$5.00 | \$0.00 | \$220.69 |
| Alder (Red) | | | | | | | | | |
| \$71.41 | \$4.64 | \$1.76 | \$82.03 | \$2.14 | \$19.44 | \$0.00 | \$5.00 | \$0.00 | \$186.42 |

| Specie | Amortization | Pond Value | Stumpage | Amortized |
|-----------------------|--------------|------------|----------|-----------|
| Douglas - Fir | \$0.00 | \$392.55 | \$263.50 | \$0.00 |
| Western Hemlock / Fir | \$0.00 | \$296.07 | \$142.18 | \$0.00 |
| Sitka Spruce | \$0.00 | \$339.53 | \$118.84 | \$0.00 |
| Alder (Red) | \$0.00 | \$515.00 | \$328.58 | \$0.00 |



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summary

Amortized

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

Unamortized

| Specie | MBF | Value | Total |
|-----------------------|-------|----------|--------------|
| Douglas - Fir | 825 | \$263.50 | \$217,387.50 |
| Western Hemlock / Fir | 4,449 | \$142.18 | \$632,558.82 |
| Sitka Spruce | 1,813 | \$118.84 | \$215,456.92 |
| Alder (Red) | 395 | \$328.58 | \$129,789.10 |

Gross Timber Sale Value

Recovery: \$1,195,192.34

Prepared by: Ed Holloran

Phone: 503-325-5451

Road Maintenance Cost Summary (Interim and Post Harvest)

Sale: Leonard Elk
Date: January 19, 2010
By: Ed Holloran

MBF: 7,482
\$/MBF: \$4.42

| Type | Equipment/Rationale | Move-in Rate | Times | Hours | Rate | Cost |
|--------------------------------|--------------------------------|--------------|-------|-------|------|-----------------|
| Interim Operations Entries - 1 | Grader 14G | \$675 | 1 | 30 | \$93 | \$3,465 |
| | Dump Truck 12CY | \$141 | 1 | 10 | \$73 | \$871 |
| | FE Loader C966 | \$675 | 1 | 10 | \$77 | \$1,445 |
| Final Road Maintenance | Grader 14G | \$675 | 1 | 64 | \$93 | \$6,627 |
| | Dump Truck 12CY | \$141 | 2 | 80 | \$73 | \$6,122 |
| | FE Loader C966 on Tilt Trailer | \$675 | 1 | 40 | \$77 | \$3,755 |
| | Vibratory Roller | \$675 | 1 | 56 | \$72 | \$4,707 |
| | Water Truck 2,500 gallon | \$165 | 1 | 40 | \$83 | \$3,485 |
| | Backhoe-small | \$279 | 1 | 22 | \$72 | \$1,863 |
| | Labor | | | 20 | \$38 | \$760 |
| Total | | | | | | \$33,100 |

Interim Operations Road Maintenance

| Production Rates | Miles/day | Distance (miles) | Days | Hours |
|------------------|-----------|------------------|------|-------|
| Grader | 2.0 | 6.0 | 3.0 | 30.0 |

Final Road Maintenance

| Production Rates | Miles/day | Distance (miles) | Days | Hours |
|------------------|-----------|------------------|------|-------|
| Process - Grader | 1.5 | 8.8 | 5.9 | 58.7 |
| Vibratory Roller | 1.5 | 8.4 | 5.6 | 56.0 |

Process and Compact: California Barrel Road to Prop. line (4.7 mi.), Elk Mtn. road (0.3 mi.), Leonard Basin Road (1.9 mi.), South Fork Road (0.49), new Logging spurs (1.06 mi.) and Port Blakely spur EM 178 (0.44 mi.)

Total Miles = 8.83 miles

Grade Only on EM 178

SUMMARY OF ALL PROJECT COSTS

SALE NAME: Leonard Elk

NEW CONSTRUCTION:

| | <u>Road segment</u> | <u>Length/Sta</u> | <u>Cost</u> |
|---------------|--|-------------------|-----------------|
| Project No. 1 | Dirt (1A to 1B, 1C to 1D and 2A to 2B-14+00 to 19+60) | 12.70 | \$2,730 |
| | Rocked (2A to 2B-0+00 to 14+00, 2C to 2D, 2E to 2F, 2G to 2H, 3A to 3B, & 3C to 3D) (53.45-5.6 = 47.85) | 47.85 | \$68,406 |
| TOTALS | 1.15 miles | 60.55 Stations | \$71,136 |

ROAD IMPROVEMENT

| | <u>Road segment</u> | <u>Length/Sta</u> | <u>Cost</u> |
|---------------|--|-------------------|------------------|
| Project No. 2 | I1 to I2, I3 to I4-(2+50 to 26+80), I5 to I6, and I7 to I8 (255.65 - 2.5 = 253.15) | 253.15 | \$57,819 |
| Project No. 3 | I3-I4 (0+00 to 2+50) (Type F Box Structure) | 2.50 | \$82,192 |
| TOTALS | 4.84 miles | 255.65 Stations | \$140,011 |

SPECIAL PROJECTS

| <u>Description</u> | <u>Cost</u> |
|--------------------------------------|----------------|
| Project Road Maintenance (3.9 miles) | \$5,563 |
| TOTALS | \$5,563 |

MOVE IN:

| <u>Equipment</u> | <u>Cost</u> |
|---|----------------|
| Excavator (C330) | \$1,220 |
| Excavator (C312 @ \$699) | \$1,398 |
| Dozer (D8) | \$1,220 |
| Rubber Tired Skidder | \$622 |
| Vibratory Roller with grid | \$675 |
| Front End Loader (C966 X 2 @ \$675) | \$1,350 |
| 10-12 yd dump truck (X 6 (@ \$141 each) | \$846 |
| Large Grader (14G) | \$675 |
| Water Truck (2,500 gal) | \$165 |
| 20yd dump truck w/pup trailer (X 2 @ \$166 each) | \$332 |
| TOTAL | \$8,503 |

GRAND TOTAL **\$225,213**

Compiled By: Ed Holloran

Date: 01/22/2010

| SURFACING | Subgrade prep: | Stations | Description | Stations/amount | x | Rate/ sta/amt | Cost |
|---------------------------------------|----------------|----------|-----------------------|-----------------|---|---------------|----------|
| 1A-1B, 1C-1D (dirt) | | 7.10 | Grade, Shape, Outside | 7.10 | x | \$15.93 | \$113.10 |
| 2A-2B (14+00 to 19+60 - dirt) | | 5.60 | Grade, Shape, Outside | 5.60 | x | \$15.93 | \$89.21 |
| 2A to 2B (0+00 to 14+00 ditched) | | 14.00 | Grade, Shape, Ditch | 14.00 | x | \$21.55 | \$301.70 |
| 2C-2D, 2E-2F, 2G-2H, 3A-3B, 3C-3D | | 33.85 | Grade, Shape, Ditch | 33.85 | x | \$21.55 | \$729.47 |
| 2A-2B 0+00-14+00, 2C-2D, 2E-2F, 2G-2H | | | | | | | |
| 3A-3B, 3C-3D | | 47.85 | Subgrade Compaction | 47.85 | x | \$17.52 | \$838.33 |

| ROAD SEGMENTS | | 2A to 2B | | POINT TO POINT | | Sta. to Sta. | | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost | |
|------------------------------|--------------------|---------------|------------------------|-----------------|-----------|---------------|---------------|-------------------|------------------|---------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | Volume (CY) per | Number of | 0+00 to 19+60 | 0+00 to 19+60 | | | | |
| Base Rock | 6"-0" pit run | 0+00 to 14+00 | 9 | station | 56 | stations | 14 | 784.0 | \$4.18 | \$3,277 | |
| Junctions | 6"-0" pit run | 2C | N/A | junction | 33 | junctions | 1.0 | 33.0 | \$4.18 | \$138 | |
| Turnouts | 6"-0" pit run | 6+50 8+50 | N/A | turnout | 22 | turnouts | 2.0 | 44.0 | \$4.18 | \$184 | |
| Subgrade reinforcement | 6"-0" pit run | 2+00 to 7+00 | N/A | N/A | N/A | N/A | N/A | 300.0 | \$4.18 | \$1,254 | |
| Total Rock for Road Segment: | | | | | | | | 2A to 2B | 1,161.0 | | \$4,853 |

| ROAD SEGMENT | | 2C to 2D | | POINT TO POINT | | Sta. to Sta. | | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost | |
|------------------------------|--------------------|--------------|------------------------|-----------------|-----------|--------------|--------------|-------------------|------------------|-------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | Volume (CY) per | Number of | 0+00 to 3+70 | 0+00 to 3+70 | | | | |
| Base Rock | 6"-0" pit run | 0+00 to 3+70 | 9 | station | 56 | stations | 3.7 | 207.0 | \$4.18 | \$865 | |
| Culvert Bedding | 1 1/2"-0" crushed | 0+75 | N/A | culvert | 40 | culverts | 1.0 | 40.0 | \$3.07 | \$123 | |
| Fill Armor | 24"-6" riprap | 0+40 to 1+40 | N/A | fill | 100 | fills | 1.0 | 100.0 | \$7.37 | \$737 | |
| Landings | 6"-0" pit run | 3+70 | N/A | landing | 50 | landings | 1.0 | 50.0 | \$4.18 | \$209 | |
| Total Rock for Road Segment: | | | | | | | | 2C to 2D | 397.0 | | \$1,934 |

| ROAD SEGMENT | | 2E to 2F | | POINT TO POINT | | Sta. to Sta. | | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost | |
|------------------------------|--------------------|---------------|------------------------|-----------------|-----------|---------------|---------------|-------------------|------------------|---------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | Volume (CY) per | Number of | 0+00 to 10+65 | 0+00 to 10+65 | | | | |
| Base Rock | 6"-0" pit run | 0+00 to 10+65 | 9 | station | 56 | stations | 10.65 | 597.0 | \$4.18 | \$2,495 | |
| Surface Traction Rock | 3/4"-0" crushed | 0+50 to 8+50 | 2 | station | 13 | stations | 8.00 | 104.0 | \$3.07 | \$319 | |
| Turnouts | 6"-0" pit run | 2+80, 7+00 | N/A | turnout | 22 | turnouts | 2.0 | 44.0 | \$4.18 | \$184 | |
| Junctions | 6"-0" pit run | 2G | N/A | junction | 33 | junctions | 1.0 | 33.0 | \$4.18 | \$138 | |
| Landings | 6"-0" pit run | 10+65 | N/A | landing | 50 | landings | 1.0 | 50.0 | \$4.18 | \$209 | |
| Total Rock for Road Segment: | | | | | | | | 2E to 2F | 828.0 | | \$3,346 |

| ROAD SEGMENT | | 2G to 2H | | POINT TO POINT | | Sta. to Sta. | | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost | |
|------------------------------|--------------------|--------------|------------------------|-----------------|-----------|--------------|--------------|-------------------|------------------|-------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | Volume (CY) per | Number of | 0+00 to 4+20 | 0+00 to 4+20 | | | | |
| Base Rock | 6"-0" pit run | 0+00 to 4+20 | 9 | station | 56 | stations | 4.2 | 235.0 | \$4.18 | \$982 | |
| Fill Widening | 6"-0" pit run | 1+45 to 1+90 | 9 | fill | 20 | fills | 1 | 20.0 | \$4.18 | \$84 | |
| Culvert Bedding | 1 1/2"-0" crushed | 1+80 | N/A | culvert | 40 | culverts | 1 | 40.0 | \$3.07 | \$123 | |
| Culvert Bedding | 24"-6" riprap | 1+80 | N/A | culvert | 50 | culverts | 1 | 50.0 | \$7.37 | \$369 | |
| Dissipator Rock | 24"-6" riprap | 1+05, 2+35 | N/A | culvert | 10 | culverts | 2 | 20.0 | \$7.37 | \$147 | |
| Fill Armor | 24"-6" riprap | 1+45 to 1+90 | N/A | fill | N/A | fills | 1.0 | 100.0 | \$7.37 | \$737 | |
| Landings | 6"-0" pit run | 4+20 | N/A | landing | 50 | landings | 1.0 | 50.0 | \$4.18 | \$209 | |
| Total Rock for Road Segment: | | | | | | | | 2G to 2H | 515.0 | | \$2,651 |

| ROAD SEGMENT | | 3A to 3B | | POINT TO POINT | | Sta. to Sta. | | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost | |
|------------------------------|--------------------|--------------|------------------------|-----------------|-----------|--------------|--------------|-------------------|------------------|---------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | Volume (CY) per | Number of | 0+00 to 9+50 | 0+00 to 9+50 | | | | |
| Base Rock | 6"-0" pit run | 0+00 to 9+50 | 9 | station | 56 | stations | 9.5 | 532.0 | \$4.18 | \$2,224 | |
| Junctions | 6"-0" pit run | 3C | N/A | junction | 33 | junctions | 1 | 33.0 | \$4.18 | \$138 | |
| Dissipator Rock | 24"-6" riprap | 1+50, 7+60 | N/A | culvert | 10 | culverts | 2 | 20.0 | \$7.37 | \$147 | |
| Landings | 6"-0" pit run | 6+20, 9+50 | N/A | landing | 80 | landings | 2 | 160.0 | \$4.18 | \$669 | |
| Total Rock for Road Segment: | | | | | | | | 3A to 3B | 745.0 | | \$3,178 |

| ROAD SEGMENT | | 3C to 3D | | POINT TO POINT | | Sta. to Sta. | | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost | |
|------------------------------|--------------------|--------------|------------------------|-----------------|-----------|--------------|--------------|-------------------|------------------|---------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | Volume (CY) per | Number of | 0+00 to 5+80 | 0+00 to 5+80 | | | | |
| Base Rock | 6"-0" pit run | 0+00 to 5+80 | 9 | station | 56 | stations | 5.8 | 325.0 | \$4.18 | \$1,359 | |
| Dissipator Rock | 24"-6" riprap | 3+75 | N/A | culvert | 10 | culverts | 1 | 10.0 | \$7.37 | \$74 | |
| Landings | 6"-0" pit run | 5+80 | N/A | landing | 80 | landings | 1 | 80.0 | \$4.18 | \$334 | |
| Total Rock for Road Segment: | | | | | | | | 3C to 3D | 415.0 | | \$1,767 |

| Processing: | Description | No. sta | Rate/sta | Cost |
|-------------|--|---------|----------|---------|
| | Crushed Rock process and compact + Water Truck (2E-2F) | 8.00 | \$49.02 | \$392 |
| | Pit Run Rock process and compact (grid roller - New Roads) | 47.85 | \$51.39 | \$2,459 |

| SUB TOTAL FOR SURFACING | 36"-0" rr | 24"-6" rr | 6"-0" pr | 4"-0" | 1 1/2"-0" | 3/4"-0" | Total | | |
|-------------------------|-----------|-----------|----------|-------|-----------|---------|-------|-------|----------|
| | 0 | 300 | 3,577 | 0 | 80.0 | 104 | 4,061 | 4,061 | \$22,651 |

| SPECIAL PROJECTS | | Description | cy/amount | Cost | per amount = | Cost |
|------------------|--|---|-----------|--------|--------------|------------|
| | | Geo-textiles - 6 1/2 oz. (woven) x 12.5' wide (2A-2B) | 500 | \$1.20 | /lf | \$600.00 |
| | | 6"-0" Develop pit run rock at Elk Mtn. | 3,577 | \$2.30 | /cy | \$8,227.10 |

| | | | | | | |
|--------------------------------|--|--|--|--|--|---------|
| SUB TOTAL FOR SPECIAL PROJECTS | | | | | | \$8,827 |
|--------------------------------|--|--|--|--|--|---------|

Subtotal of Surfacing & Spec. Proj. \$31,478
Subtotal of Cleaning, Exc., Culv. \$39,658

| | | | | | | |
|--------------------|--|--|--|--|--|-----------------|
| GRAND TOTAL | | | | | | \$71,136 |
|--------------------|--|--|--|--|--|-----------------|

Compiled By: _____ Ed Holloran _____ Date: 01/19/2010

SUMMARY OF NEW CONSTRUCTION COSTS

SALE NAME: Leonard Elk
 ROAD: 1A-1B, 1C-1D, 2A-2B, 2C-2D, 2E-2F, 2G-2H, 3A-3B, & 3C-3D
 POINTS:

NEW CONSTRUCTION: 47.85 STATIONS 0.91 MILES
 DIRT CONSTRUCTION: 12.70 STATIONS 0.24 MILES

| CLEARING & GRUBBING | | | | | | |
|--|--|--------------|---|------------|---|----------------|
| | Method | Acres/amount | x | Rate | = | Cost |
| Dirt | Scatter outside of r/w - New Roads - \$/ac | 1.20 | x | \$1,161.00 | = | \$1,393.20 |
| Rocked | Scatter outside of r/w - New Roads - \$/ac | 4.40 | x | \$1,161.00 | = | \$5,108.40 |
| | | | x | | = | |
| SUB TOTAL FOR CLEARING & GRUBBING | | | | | | \$6,502 |

| EXCAVATION | | | | | | |
|---------------------------------|--|-----------|---|----------|---|-----------------|
| | Material | Cy/amount | x | Rate | = | Cost |
| 1A to 1B & 1C to 1D | | | | | | |
| 7+10 | Balanced Construction (dirt) \$/sta | 7.10 | x | \$106.00 | = | \$752.60 |
| 2A to 2B | | | | | | |
| 0+00 to 14+00 | Balanced Construction \$/sta | 14.00 | x | \$106.00 | = | \$1,484.00 |
| 16+00 to 19+60 | Balanced Construction (dirt) \$/sta | 3.60 | x | \$106.00 | = | \$381.60 |
| 14+00 to 16+00 | drift earth 200' \$/sta | 2.00 | x | \$165.00 | = | \$330.00 |
| 16+00 to 18+00 | End Haul \$/cyd | 2,000.00 | x | \$3.50 | = | \$7,000.00 |
| 2+00 to 7+00 | Compact fill \$/cyd | 750.00 | x | \$0.60 | = | \$450.00 |
| 2C to 2D | | | | | | |
| 0+00 to 3+70 | drift earth 200' \$/sta | 3.70 | x | \$165.00 | = | \$610.50 |
| 0+30 to 1+50 | Compact fill \$/cyd | 1,250.00 | x | \$0.60 | = | \$750.00 |
| 2E to 2F | | | | | | |
| 0+00 to 10+65 | Balanced Construction \$/sta | 7.00 | x | \$106.00 | = | \$742.00 |
| 7+00 to 10+65 | drift earth 200' \$/sta | 3.65 | x | \$165.00 | = | \$602.25 |
| 2G to 2H | | | | | | |
| 0+00 to 4+20 | drift earth 200' \$/sta | 4.20 | x | \$165.00 | = | \$693.00 |
| 1+45 to 1+90 | Compact fill \$/cyd | 1,000.00 | x | \$0.60 | = | \$600.00 |
| 3A to 3B & 3C to 3D | | | | | | |
| 15+30 | Balanced Construction \$/sta | 15.30 | x | \$106.00 | = | \$1,621.80 |
| | | | | | | |
| | Undesigned landings - New roads \$/land. | 9.00 | | \$338.00 | | \$3,042.00 |
| SUB TOTAL FOR EXCAVATION | | | | | | \$19,060 |

| CULVERT MATERIALS AND INSTALLATION | | | | | | | | | | | |
|------------------------------------|----------|----------|------------|---------|------------|------|----------|----------|------------|------|------|
| | Location | Dia/type | Lineal ft. | Rate | Cost | Seg. | Location | Dia/type | Lineal ft. | Rate | Cost |
| 2A-2B | 0+50 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| | 4+00 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| | 7+50 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| | 12+00 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| 2C-2D | 0+75 | 30" CMP | 50 | \$36.04 | \$1,802.00 | | | | | | |
| | 1+60 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| 2E-2F | 0+90 | 18" CPP | 40 | \$17.64 | \$705.60 | | | | | | |
| | 4+10 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| 2G-2H | 8+80 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| | 1+05 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| | 1+80 | 36" CMP | 55 | \$44.64 | \$2,455.20 | | | | | | |
| 3A-3B | 2+35 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| | 1+50 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| 3C-3D | 4+25 | 18" CPP | 35 | \$17.64 | \$617.40 | | | | | | |
| | 7+60 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |
| | 3+75 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | | |

| | Description | Quantity | Rate | Cost |
|----------------------|---|--|----------|----------|
| Other/miscellaneous: | Beveled Inlet 2 CMP (\$30+\$36) | 66.00 | \$1.00 | \$66.00 |
| | Installation of large culverts on 2C-2D & 2G-2H | | | |
| | - see worksheet for Additional Cost- | | | \$802.00 |
| | Mulch for 2C-2D & 2G-2H fills (bales) | 10 | \$10.00 | \$100.00 |
| | Grass seed for 2C-2D & 2G-2H fills (lbs.) | 50 | \$1.40 | \$70.00 |
| | Labor for seeding (hours) | 4 | \$38.00 | \$152.00 |
| | Equip. Move - C330 - 4 walking moves \$/hr | 4 | \$144.00 | \$576.00 |
| | Labor to install grid \$/hr | 2 | \$38.00 | \$76.00 |
| | Vibratory roller - standby time \$/hr | 1 | \$72.00 | \$72.00 |
| | Culvert stakes & markers: | Fiberglass Culvert Markers - New Roads | 14 | \$18.00 |
| | | | | |

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION \$14,097
 Costed by: Ed Holloran Date: 01/22/2010 Subtotal of Clearing, Exc., Culv. **\$39,658**

| SURFACING | | | | Stations/ | x | Rate/ | Cost |
|--------------------------------------|----------|-------------------------------------|--|-----------|---|---------|------------|
| Subgrade prep: | Stations | Description | | amount | | sta/amt | |
| M-12, 13-14, 15-16, & 17-18 (255.65) | 253.15 | Grade, Shape, Compact and Ditch 16" | | 253.15 | x | \$21.55 | \$5,455.38 |

| ROAD SEGMENT | | I1 to I2 | | POINT TO POINT | | Sta. to Sta. | | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost |
|------------------------------|--------------------|------------------|------------------------|-----------------|-----------|----------------|------|-------------------|------------------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | Volume (CY) per | Number of | 0+00 to 124+00 | | | | |
| Surface Rock | 3/4"-0" crushed | 0+00 to 46+00 | 1 | station | 6 | stations | 46.0 | 276.0 | \$5.27 | \$1,455 |
| Surface Rock | 3/4"-0" crushed | 46+00 to 124+00 | 1 | station | 6 | stations | 78.0 | 468.0 | \$3.07 | \$1,437 |
| Curve Widening | 3/4"-0" crushed | 0+00 to 46+00 | N/A | curve | 11 | curves | 5 | 55.0 | \$5.27 | \$290 |
| Curve Widening | 3/4"-0" crushed | 46+00 to 124+00 | N/A | curve | 11 | curves | 5 | 55.0 | \$3.07 | \$169 |
| Turnouts | 3/4"-0" crushed | 0+00 to 46+00 | N/A | turnout | 11 | turnouts | 6 | 66.0 | \$5.27 | \$348 |
| Turnouts | 3/4"-0" crushed | 46+00 to 124+00 | N/A | turnout | 11 | turnouts | 10 | 110.0 | \$3.07 | \$338 |
| Junctions | 3/4"-0" crushed | 0+00 to 46+00 | N/A | junction | 22 | junctions | 5 | 110.0 | \$5.27 | \$580 |
| Junctions | 3/4"-0" crushed | 46+00 to 124+00 | N/A | junction | 22 | junctions | 5 | 110.0 | \$3.07 | \$338 |
| Surface Rock on Switchback | 3/4"-0" crushed | 55+00 to 56+00 | 2 | station | 13 | stations | 3.0 | 39.0 | \$3.07 | \$120 |
| Bridge Repair | 3/4"-0" crushed | 0+00 | N/A | project | 10 | projects | 1 | 10.0 | \$5.27 | \$53 |
| Bridge Repair | 24"-6" riprap | 0+00 | N/A | project | 50 | projects | 1 | 50.0 | \$7.37 | \$369 |
| Culvert Bedding | 1 1/2"-0" crushed | See Culvert list | N/A | culvert | 11 | culverts | 5 | 55.0 | \$3.07 | \$159 |
| Dissipator Rock | 24"-6" riprap | 54+70, 107+10 | N/A | culvert | 10 | culverts | 2 | 20.0 | \$7.37 | \$147 |
| Total Rock for Road Segment: | | | | | | | | 1,424.0 | | \$5,810 |

| ROAD SEGMENT | | I3 to I4 | | POINT TO POINT | | Sta. to Sta. | | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost |
|------------------------------|--------------------|---------------------------|------------------------|-----------------|-----------|---------------|-------|-------------------|------------------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | Volume (CY) per | Number of | 2+50 to 27+80 | | | | |
| Surface Rock | 1 1/2"-0" crushed | 2+50 to 27+80 | 4 | station | 19 | stations | 25.30 | 481 | \$5.27 | \$2,535 |
| Curve Widening | 1 1/2"-0" crushed | | N/A | curve | 11 | curves | 6 | 66.0 | \$5.27 | \$348 |
| Turnouts | 1 1/2"-0" crushed | | N/A | turnout | 22 | turnouts | 4 | 88.0 | \$5.27 | \$464 |
| Junctions | 6"-0" pit run | 1A | N/A | junction | 33 | junctions | 1 | 33.0 | \$4.18 | \$138 |
| Junctions | 1 1/2"-0" crushed | | N/A | junction | 22 | junctions | 1 | 22.0 | \$5.27 | \$116 |
| Culvert Bedding | 1 1/2"-0" crushed | See Culvert list | N/A | culvert | 11 | culverts | 6 | 66.0 | \$5.27 | \$348 |
| Dissipator Rock | 24"-6" riprap | 2+54, 8+87, 14+15 | N/A | culvert | 10 | culverts | 3 | 30.0 | \$7.30 | \$219 |
| Landings | 6"-0" pit run | 10+40, 17+40, 21+40 (T/O) | | landing | 80 | landings | 3 | 240.0 | \$4.10 | \$984 |
| Total Rock for Road Segment: | | | | | | | | 1,026.0 | | \$5,151 |

| ROAD SEGMENT | | I5 to I6 | | POINT TO POINT | | Sta. to Sta. | | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost |
|-------------------------------|--------------------|---------------|------------------------|-----------------|-----------|---------------|------|-------------------|------------------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | Volume (CY) per | Number of | 0+00 to 64+55 | | | | |
| Surface Rock | 3/4"-0" crushed | 0+00 to 64+55 | 2 | station | 13 | stations | 64.6 | 839.0 | \$3.07 | \$2,576 |
| Surface Rock -Y Junction (I5) | 3/4"-0" crushed | 0+00 to 3+00 | 2 | station | 13 | stations | 3.0 | 39.0 | \$3.07 | \$120 |
| Curve Widening | 3/4"-0" crushed | | N/A | curve | 11 | curves | 6 | 66.0 | \$3.07 | \$203 |
| Leveling Rock | 3/4"-0" crushed | 13+75 | N/A | | 1 | | 22 | 22.0 | \$3.07 | \$68 |
| Turnouts | 3/4"-0" crushed | | N/A | turnout | 11 | turnouts | 3 | 33.0 | \$3.07 | \$101 |
| Junctions | 3/4"-0" crushed | | N/A | junction | 22 | junctions | 3 | 66.0 | \$3.07 | \$203 |
| Junctions | 6"-0" pit run | 2A, 2E | N/A | junction | 33 | junctions | 2 | 66.0 | \$4.18 | \$276 |
| Culvert Bedding | 1 1/2"-0" crushed | 22+50 | N/A | culvert | 11 | culverts | 1 | 11.0 | \$3.07 | \$34 |
| Fill Armor | 24"-6" riprap | 10+15 | N/A | fill | 20 | fills | 1 | 20.0 | \$7.37 | \$147 |
| Total Rock for Road Segment: | | | | | | | | 1,162.0 | | \$3,727 |

| ROAD SEGMENT | | I7 to I8 | | POINT TO POINT | | Sta. to Sta. | | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost |
|------------------------------|--------------------|---------------------------------|------------------------|-----------------|-----------|---------------|------|-------------------|------------------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | Volume (CY) per | Number of | 0+00 to 39+30 | | | | |
| Surface Rock | 4"-0" | 0+00 to 16+30 | 6 | station | 38 | stations | 16.3 | 620 | \$3.07 | \$1,903 |
| Curve Widening | 4"-0" | | N/A | curve | 11 | curves | 4 | 44.0 | \$3.07 | \$135 |
| Turnouts | 4"-0" | | N/A | turnout | 11 | turnouts | 1 | 11.0 | \$3.07 | \$34 |
| Junctions | 4"-0" | 3A | N/A | junction | 33 | junctions | 1 | 33.0 | \$3.07 | \$101 |
| Culvert Bedding | 1 1/2"-0" crushed | See Culvert list | N/A | culvert | 22 | culverts | 7 | 154.0 | \$3.07 | \$473 |
| Dissipator Rock | 24"-6" riprap | 6+25, 9+20, 10+85, 12+00, 14+35 | N/A | culvert | 10 | culverts | 5 | 50.0 | \$7.37 | \$369 |
| Fill Armor | 24"-6" riprap | 9+20, 10+85, 14+35 | N/A | fill | 40 | fills | 3 | 120.0 | \$7.37 | \$884 |
| Landings | 6"-0" pit run | 0+50, 6+00 | | landing | 80 | landings | 2 | 160.0 | \$4.18 | \$669 |
| Total Rock for Road Segment: | | | | | | | | 1,192.0 | | \$4,568 |

| Processing: | Description | No. sta | Rate/sta | Cost |
|-------------|---|---------|----------|----------|
| | Crushed Rock process and compact + Water (Road Improvement) | 255.65 | \$49.02 | \$12,532 |

| Rock Size | 24"-6" riprap | 6"-0" pit run | 4"-0" | 1 1/2"-0" crushed | 3/4"-0" crushed | Total |
|-----------|---------------|---------------|-------|-------------------|-----------------|-------|
| Quantity | 0 | 290 | 499 | 706 | 943 | 2,364 |
| Rate | | | | | | 4.804 |
| Cost | | | | | | 4,804 |

SUB TOTAL FOR SURFACING \$37,243

| SPECIAL PROJECTS | | Description | cy/amount | Cost | per amount = | Cost |
|------------------|--|---|-----------|--------|--------------|------------|
| | | 6"-0" Develop pit run rock at Elk Mtn. | 499 | \$2.30 | /cy | \$1,147.70 |
| | | 24"-6" Develop riprap rock at Elk Mtn (on Haul sheet) | 290 | \$0.00 | /cy | \$0.00 |

SUB TOTAL FOR SPECIAL PROJECTS \$1,148

Subtotal of Surfacing & Spec. Proj. \$38,391
 Subtotal of Clearing, Exc., Culv. \$19,429

GRAND TOTAL \$57,819

Compiled By: Ed Holloran Date: 01/19/2010

SUMMARY OF ROAD IMPROVEMENT COSTS

SALE NAME: Leonard Elk
 ROAD: 11-12, 13-14, 15-16, & 17-18 (255.65 less 2.5)
 POINTS:

NEW CONSTRUCTION: _____ STATIONS
 IMPROVEMENT: 253.15 STATIONS

MILES
4.79 MILES

CLEARING & GRUBBING

| Method | Acres/amount | x | Rate | = | Cost |
|--|--------------|---|------|---|------|
| Scatter outside of r/w - New Roads - \$/ac | | x | | = | |
| | | x | | = | |
| | | x | | = | |

SUB TOTAL FOR CLEARING & GRUBBING

EXCAVATION

| Material | Cy/amount | x | Rate | = | Cost |
|---|-----------|---|------------|---|------------|
| 11 to 12 | | | | | |
| 0+00 to 1240+00 Ditch Work/Culvert Basins-C312 \$/hr | 5.00 | x | \$94.00 | = | \$470.00 |
| 0+00 Bridge Repair (see Additional Cost) \$ | 1 | x | \$1,156.00 | = | \$1,156.00 |
| 13 to 14 | | | | | |
| 2+60 to 27+30 Ditch Clean out (2+50 to 27+80) \$/sta | 25.30 | x | \$19.89 | = | \$503.22 |
| 0+00 to 2+50 See Project No. 3 | | x | | = | |
| 2+50 to 27+80 Debris removal (dump truck) \$/hr | 2.00 | x | \$73.00 | = | \$146.00 |
| 2+50 to 27+80 Subgrade clean up (C330) \$/hr | 8.00 | x | \$144.00 | = | \$1,152.00 |
| 15 to 16 | | | | | |
| 0+00 to 64+55 Repair Road @ sta. 10+15 \$/hr | 2.00 | x | \$94.00 | = | \$188.00 |
| 17 to 18 | | | | | |
| 0+00 to 39+30 Fill and Culvert Removal (Additional Cost) \$ | 1 | x | \$1,304.00 | = | \$1,304.00 |
| Ditch Clean out (12+00 to 12+70) \$/sta | 0.70 | x | \$19.89 | = | \$13.92 |
| Undesigned landings-Road Imp. \$/land. | 3.00 | | \$338.00 | | \$1,014.00 |

SUB TOTAL FOR EXCAVATION

\$5,947

CULVERT MATERIALS AND INSTALLATION

| Location | Dia/type | Lineal ft. | Rate | Cost | Seg. | Location | Dia/type | Lineal ft. | Rate | Cost |
|-----------------|----------|------------|------|---------|----------|----------|----------|------------|------|------|
| 11 to 12 | 24+55 | 18" CPP | 40 | \$17.64 | \$705.60 | | | | | |
| | 54+70 | 18" CPP | 40 | \$17.64 | \$705.60 | | | | | |
| | 96+75 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | |
| | 98+95 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | |
| | 107+10 | 18" CPP | 40 | \$17.64 | \$705.60 | | | | | |
| 13-14 | 2+54 | 18" CPP | 35 | \$17.64 | \$617.40 | | | | | |
| | 4+90 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | |
| | 8+87 | 18" CPP | 35 | \$17.64 | \$617.40 | | | | | |
| | 11+15 | 18" CPP | 35 | \$17.64 | \$617.40 | | | | | |
| | 14+15 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | |
| | 17+75 | 18" CPP | 45 | \$17.64 | \$793.80 | | | | | |
| 15-16 | 22+50 | 18" CPP | 30 | \$17.64 | \$529.20 | | | | | |
| 17-18 | 6+25 | 18" CPP | 35 | \$17.64 | \$617.40 | | | | | |
| | 9+20 | 18" CPP | 40 | \$17.64 | \$705.60 | | | | | |
| | 10+85 | 24" CPP | 40 | \$24.64 | \$985.60 | | | | | |
| | 12+00 | 24" CPP | 40 | \$24.64 | \$985.60 | | | | | |
| | 12+70 | 18" CPP | 35 | \$17.64 | \$617.40 | | | | | |
| | 14+35 | 24" CPP | 40 | \$24.64 | \$985.60 | | | | | |
| | 15+25 | 18" CPP | 35 | \$17.64 | \$617.40 | | | | | |

| Other/miscellaneous: | Description | Quantity | Rate | Cost |
|---------------------------|---|----------|---------|----------|
| | | | | |
| | | | | |
| | | | | |
| Culvert stakes & markers: | Fiberglass Culvert Marker - Rd Imp. (19 + 12) | 31 | \$18.00 | \$558.00 |

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION

\$13,481

Costed by: Ed Holloran

Date: 01/19/2010

Subtotal of Clearing, Exc., Culv.

\$19,429

| SURFACING | | Stations/ amount | x | Rate/ sta/amt | Cost |
|----------------|--|------------------|---|---------------|---------|
| Subgrade prep: | Description | | | | |
| | Grade, Shape and Ditch 16' (North/South legs of junction) | 3.04 | x | \$21.55 | \$65.51 |
| | Grade, Shape and Ditch 16' (Triangle) | 0.13 | x | \$21.55 | \$2.80 |
| | Subgrade Compaction (North/South legs of junction, triangle) | 3.42 | x | \$17.52 | \$59.92 |

| ROAD SEGMENT | I3 to I4 | Project No. 3 | POINT TO POINT | | Sta. to Sta. | TOTAL VOLUME (CY) | Rate/ Sta./ amt. | Cost |
|--------------------------|--------------------|---------------|------------------------|--------------------------|------------------------|-------------------|----------------------|---------|
| Application | Rock Size and Type | Location | Depth of Rock (inches) | I3 to I4 Volume (CY) per | 0+00 to 2+50 Number of | | | |
| Base Rock | 6"-0" pit-run | | 10 | station 63 | stations 2.27 | 143.0 | \$5.27 | \$754 |
| Box Culvert & approaches | 6"-0" pit-run | | 10 | N/A 25 | N/A 0.25 | 25.0 | \$5.27 | \$132 |
| "Y" Junction | 6"-0" pit-run | | 10 | station 63 | stations 0.77 | 48.5 | \$5.27 | \$256 |
| Fill Widening | 6"-0" pit-run | | 10 | N/A 3 | N/A | 3.0 | \$5.27 | \$16 |
| Curve Widening | 6"-0" pit-run | | 10 | N/A 63 | N/A | 63.0 | \$5.27 | \$332 |
| "Y" Junction (fill in) | 6"-0" pit-run | | N/A | N/A | N/A | 11.0 | \$5.27 | \$58 |
| Box Culvert deck | 6"-0" pit-run | | N/A | deck 14 | deck 1 | 18.0 | \$5.27 | \$95 |
| Select Backfill (Borrow) | 6"-0" pit-run | | N/A | N/A | N/A | 481.0 | In Box Culvert cost. | |
| East Approach | 6"-0" pit-run | | N/A | N/A n/a | N/A | 17.0 | \$5.27 | \$89.59 |
| Surface Rock | 1 1/2"-0" crushed | | 4 | station 25 | stations 3.02 | 76.0 | \$5.46 | \$415 |
| Box Culvert deck | 1 1/2"-0" crushed | | 4 | N/A 18 | N/A | 23.0 | \$5.46 | \$126 |
| Footing material | 3/4"-0" crushed | | N/A | footing n/a | footings 2 | 28.0 | \$5.46 | \$153 |
| "Y" Junction | 1 1/2"-0" crushed | | N/A | N/A 10 | N/A | 10.0 | \$5.46 | \$55 |
| Fill Widening | 1 1/2"-0" crushed | | 4 | N/A 2 | N/A | 2.0 | \$5.46 | \$11 |
| Curve Widening | 1 1/2"-0" crushed | | 4 | N/A 25 | N/A | 25.0 | \$5.46 | \$137 |
| "Y" Junction (fill in) | 1 1/2"-0" crushed | | N/A | N/A | N/A | 5.0 | \$5.46 | \$27 |
| Footing material | 24"-6" riprap | | | | N/A | 80.0 | \$7.37 | \$590 |
| Fill Armor | 24"-6" riprap | | N/A | N/A | N/A | 88.0 | \$7.37 | \$649 |
| Channel Riprap | 24"-6" riprap | | N/A | N/A | N/A | 77.0 | \$7.37 | \$567 |
| Rock Spread cost | 6"-0" pit-run | | N/A | N/A 329 | N/A | 329 | \$1.01 | \$332 |

Total Rock for Road Segment: I3 to I4 Project No. 3 1,553 \$4,792

| Processing: | Description | No. sta | Rate/sta | Cost |
|-------------|-------------------------------------|---------|----------|-------|
| | Water, Process & Compact: (3/4"-0") | 5.90 | \$49.02 | \$289 |
| | Process & Compact: (Pit-run) | 5.64 | \$51.39 | \$290 |

SUB TOTAL FOR SURFACING 245 810 141 28 1,224 1,553 \$5,499

| SPECIAL PROJECTS | | Description | Cost |
|------------------|--|-----------------------|-------------|
| | | Box Culvert structure | \$75,058.61 |

SUB TOTAL FOR SPECIAL PROJECTS \$75,059
 Subtotal of Surfacing & Spec. Proj. \$80,558
 Subtotal of Cleaning, Exc., Culv. \$1,634

GRAND TOTAL \$82,192

Compiled By: D.Mellison/Ed Holoran Date: 01/22/10

SUMMARY OF CONSTRUCTION COSTS

SALE NAME: Leonard Elk
 ROAD: South Fork Road
 POINTS: 13 to 14

NEW CONSTRUCTION: _____ STATIONS
 IMPROVEMENT: 2.50 STATIONS _____ MILES
 0.05 MILES

| CLEARING & GRUBBING | | | | | |
|--|--------------|---|------------|---|--------------|
| Method | Acres/amount | x | Rate | = | Cost |
| Scatter (south leg) | 0.22 | x | \$1,161.00 | = | \$255.42 |
| Scatter (north leg - junction) | 0.07 | x | \$1,161.00 | = | \$81.27 |
| Borrow Site: | | | | | |
| C330 (Hrs.) | 2 | x | \$144.00 | = | \$288.00 |
| Dump Truck (Hrs) | 4 | x | \$73.00 | = | \$292.00 |
| SUB TOTAL FOR CLEARING & GRUBBING | | | | | \$917 |

| EXCAVATION | | | | | |
|---|-----------|---|-----------------------------|---|--------------|
| Material | Cy/amount | x | Rate | = | Cost |
| South leg excavation drifted to roadway | 137 | x | \$1.60 | = | \$219.20 |
| North leg excavation drifted to roadway | 78 | x | \$1.60 | = | \$124.80 |
| Structure embankment compaction | 30 | x | Costs with structure costs. | | |
| Roadway embankment compaction | 185 | x | \$0.60 | = | \$111.00 |
| Waste excavation to haul | 95 | x | \$2.46 | = | \$233.70 |
| Waste compaction | 95 | x | \$0.30 | = | \$28.50 |
| | | x | | = | |
| | | x | | = | |
| | | x | | = | |
| | | x | | = | |
| | | x | | = | |
| | | x | | = | |
| SUB TOTAL FOR EXCAVATION | | | | | \$717 |

| CULVERT MATERIALS AND INSTALLATION | | | | | | | | | |
|------------------------------------|----------|------------|------|------|----------|----------|------------|------|------|
| Location | Dia/type | Lineal ft. | Rate | Cost | Location | Dia/type | Lineal ft. | Rate | Cost |
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| Other/miscellaneous: | Description | Quantity | Rate | Cost |
|---------------------------|-------------|----------|------|------|
| Culvert stakes & markers: | | | | |
| | | | | |

SUB TOTAL FOR CULVERT MATERIALS & INSTALLATION Subtotal of Clearing, Exc., Culv. **\$1,634**

Sale Name: Leonard Elk

S.F. N.F. Klaskanine River BOX CULVERT

Prepared by: d.mellison

Project: No. 3

e.holloran

Project Type: S.F. N.F. Klaskanine Type F Stream Crossing

Date: 07/17/09

01/19/2010

Phase I: Water diversion West shore

| Qty. | Equipment/Activity | Qty | (\$/Qty) | Hours | Cost (\$) |
|------|--|-----|----------|-------|------------|
| 315 | Sandbags | | \$0.49 | | \$154.35 |
| | Sand purchased and loaded (Big River) | 8 | \$11.00 | | \$88.00 |
| | Dump truck to pickup/deliver sand for sandbags | | \$73.00 | 2.5 | \$182.50 |
| 2 | Fill sandbags (labor) | | \$38.00 | 2.5 | \$190.00 |
| | Visqueen | 2 | \$50.00 | | \$100.00 |
| 2 | Place sandbags & visqueen (labor) | | \$38.00 | 5 | \$380.00 |
| | Place sandbags (C330 Excavator) | | \$144.00 | 5 | \$720.00 |
| | | | | | \$1,814.85 |

Phase II: Development of Footing bed

| Qty. | Equipment/Activity | Qty (Cy) | (\$/Cy) | Hours | (\$/Hr) | Cost (\$) |
|------|--|----------|------------------------------------|-------|----------|------------|
| | Excavate equip pad/trail east shore (C330) | 125 | | 1.5 | \$144.00 | \$216.00 |
| | Excavate for footings/structure (C330) | 365 | | 4.5 | \$144.00 | \$648.00 |
| | Excavated material use as fill on (I3 - I4) junction | 370 | Costs in (I3-I4) summary | | | |
| | Miscellaneous Drilling (Jack hammer rental) | | | 8 | \$11.00 | \$88.00 |
| | Jack Hammer labor | | | 8 | \$38.00 | \$304.00 |
| | Sorting and stockpiling coble (C330) | | | 1 | \$144.00 | \$144.00 |
| | Load, haul, dump footing mat. (3/4"-0") Crushed Rock | 28 | Costs in Project 3 (I3-I4) summary | | | |
| | Load,haul,dump footing mat. (24"-6") Riprap | 80 | Costs in Project 3 (I3-I4) summary | | | |
| | Spread footing material (C330) | | | 3 | \$144.00 | \$432.00 |
| 2 | Laborer (Footing material) | | | 6 | \$38.00 | \$456.00 |
| 1 | Water Pump (Footing Trench, west shore) | | | 12 | \$9.00 | \$108.00 |
| | Water Pump labor | | | 4 | \$38.00 | \$152.00 |
| | Footing Base Fabric | 100 | \$2.50 | | | \$250.00 |
| 1 | Hand Held Tamper | | | 6 | \$9.00 | \$54.00 |
| | | | | | | \$2,852.00 |

Phase III: Install box segments and Wing walls

| Qty. | Equipment/Activity | Qty | (\$/Qty) | Hours | (\$/Hr) | Cost (\$) |
|------|---|-----|----------|-------|----------|-------------|
| 1 | Crane set up | | | 1 | \$250.00 | \$250.00 |
| 1 | Setting Box Components (Crane) | | | 5 | \$250.00 | \$1,250.00 |
| | Set Footings (C330) | | | 4 | \$144.00 | \$576.00 |
| | Purchasing ecology blocks | 40 | \$41.00 | | | \$1,640.00 |
| | Transporting ecology blocks (Dump Truck/till trailer) | | | 8 | \$92.00 | \$736.00 |
| | Set Ecology blocks (C330) | | | 5 | \$144.00 | \$720.00 |
| | Labor setting ecology blocks | | | 8 | \$38.00 | \$304.00 |
| | Cement for transition block | 12 | \$25.00 | | | \$300.00 |
| | Portable cement mixer | | | 8 | \$4.00 | \$32.00 |
| | Cement mixing/pouring labor | | | 12 | \$38.00 | \$456.00 |
| 3 | Labor unloading and setting box culvert components | | | 4 | \$38.00 | \$456.00 |
| | Joint Grouting (sacks) | 54 | \$22.14 | | | \$1,195.56 |
| 2 | Joint grouting labor | | | 9 | \$38.00 | \$684.00 |
| 1 | Portable grout mixer | | | 9 | \$4.00 | \$36.00 |
| 1 | Concrete Open Bottom Slab Culvert (HS-25 loading), 25' x 8' | 25 | \$1,590 | | | \$39,750.00 |
| 2 | Concrete headwall (curb) | | \$550 | | | \$1,100.00 |
| | Footings (both sides) | 50 | \$175 | | | \$8,750.00 |
| | | | | | | \$58,235.56 |

Phase IV: Approach Backfills and Riprap/cobble placement

| Qty. | Equipment/Activity | Qty | (\$/Qty) | Hours | (\$/Hr) | Cost (\$) |
|------|---|-----|------------------------------------|-------|----------|------------|
| | Backfill with Select Borrow Material (Expansion of 1.3) | 481 | \$6.35 | | | \$3,054.35 |
| 1 | Hand Held Tamper | | | 4 | \$9.00 | \$36.00 |
| | Machine Compaction of structure embankment | 481 | \$0.60 | | | \$288.60 |
| | Labor | | | 4 | \$38.00 | \$152.00 |
| | Haul/Dump Fill Armor riprap material | 77 | Costs in Project 3 (I3-I4) summary | | | |
| | Haul/Dump Channel riprap material | 88 | Costs in Project 3 (I3-I4) summary | | | |
| | East approach fill, extra 6"-0" pit-run for blending | 17 | Costs in Project 3 (I3-I4) summary | | | |
| | Spread (Cobble) (C330) | | | 1 | \$144.00 | \$144.00 |
| | Armor/Riprap placement, Channel Development (C330) | | | 6 | \$144.00 | \$864.00 |
| | | | | | | \$4,538.95 |

Phase V: Surfacing and Mulching

| Qty. | Equipment | Qty (Cy) | (\$/Cy) | Unit | (\$/Unit) | Cost (\$) |
|------|--|----------|------------------------------------|------|-----------|-----------|
| 1 | 1 1/2"-0" Surface Rock for structure deck. | 23 | Costs in Project 3 (I3-I4) summary | | | |
| | 6"-0" Pit-run for deck | 18 | Costs in Project 3 (I3-I4) summary | | | |
| | Shape approaches (Grader) | | | 1 | \$93.00 | \$93.00 |
| 3 | Process Crushed Rock (3 lifts) | | | 0.75 | \$49.02 | \$110.30 |
| | Straw Mulch w/Seed Application)(Site and waste area) | | | 0.15 | \$1,173 | \$175.95 |
| | | | | | | \$379.25 |

Miscellaneous Costs

| Qty. | Equipment | Qty. | \$ | Hours | (\$/Hr.) | Cost (\$) |
|------|-------------------------------|------|----|-------|----------|------------|
| 1 | Crane Mobilization from Salem | | | 7 | \$250 | \$1,750.00 |
| 2 | Crane crew per diem | | | | \$100.00 | \$200.00 |
| | Develop borrow area (C330) | | | 2 | \$144.00 | \$288.00 |
| | Engineering Fees | | | | | \$5,000.00 |
| | | | | | | \$7,238.00 |

Total Project Cost = \$75,058.61

ADDITIONAL COSTS
Leonard Elk T.S. #341-10-47

Part of Project No. 1
Large Culvert Installations

Ed Holloran

11/03/2009

Locations 2C to 2D 0+75
 2G to 2H 1+80

Cost Summary

Dewatering, Preparation, Repair, Clean-up, and Mulching

| | | | | | | |
|--------------|---------|---|---------|---------|---|-----------------|
| Labor | 16 hrs. | x | \$38.00 | \$/hr | = | \$608.00 |
| Pump | 16 hrs. | x | \$9.00 | \$/hr | = | \$144.00 |
| Straw | 5 bales | x | \$10.00 | \$/bale | = | \$50.00 |
| TOTAL | | | | | | \$802.00 |

Costs in cost summary under other misc. costs for New Construction

Part of Project No. 2

Bridge Repair

Cullen Bangs

10/23/2009

Location I1 to I2 0+00

Cost Summary

Dewatering, Preparation, Repair, Clean-up, and Mulching

| | | | | | | |
|-----------------|----------|---|---------|---------|---|-------------------|
| Excavator C 312 | 8 hrs. | x | \$94.00 | \$/hr | = | \$752.00 |
| Labor | 8 hrs. | x | \$38.00 | \$/hr | = | \$304.00 |
| Straw | 10 bales | x | \$10.00 | \$/bale | = | \$100.00 |
| TOTAL | | | | | | \$1,156.00 |

Refer to Specific instructions in Contract Exhibit D

Costs in cost summary under I1 to I2 for Road Improvement

Rock Needs: 10 cyds. of 3/4"-0" crushed
 50 cyds. of 24"-6" riprap

Rock costs in Surfacing cost summary under I1 to I2 for Road Improvement

Fill and Culvert Removal

Ed Holloran

01/19/2010

Location I7 to I8 9+20, 10+85, 14+35

Cost Summary

Removal and replacement of old fills and culverts

| | | | | | | |
|--------------------|---------|---|----------|---------|---|----------|
| Excavator C 330 | 4 hrs. | x | \$144.00 | \$/hr | = | \$576.00 |
| Dump Truck 12 yard | 4 hrs. | x | \$73.00 | \$/hr | = | \$292.00 |
| Labor | 8 hrs. | x | \$38.00 | \$/hr | = | \$304.00 |
| Pump | 8 hrs. | x | \$9.00 | \$/hr | = | \$72.00 |
| Straw | 6 bales | x | \$10.00 | \$/bale | = | \$60.00 |

TOTAL

\$1,304.00

Cost in Excavation cost summary under I7 to I8 for Road Improvement

PIT RUN ROCK COST

SALE NAME: Leonard Elk
 PROJECT: No. 3
 QUARRY: N/A

MATERIAL: Borrow

DATE: 01/19/10
 BY: d.mellison/e. holloran

| Segment | Stations | Cubic Yards | | | | | | | Total |
|-----------------|----------|-------------|------|----------|------------|----------|------------|----------|-------|
| | | Borrow | Base | App/Deck | Fill Widen | Junction | Curve Wide | Triangle | |
| Select Backfill | | 481 | | | | | | | 481 |
| 6"-0" Pit-run | | | 143 | 61 | 3 | 48 | 63 | 11 | 329 |
| | | | | | | | | | |
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| | | | | | | | | | |
| Grand Total | | 481 | 143 | 61 | 3 | 48 | 63 | 11 | 810 |

| Road Segment | Stations | Cubic Yards | ONE WAY HAUL IN MILES | | | | | | | Total Haul |
|--|----------|-------------|-----------------------|--------|--------|--------|--------|--------|-------|-------------------|
| | | | 50 MPH | 30 MPH | 25 MPH | 20 MPH | 15 MPH | 10 MPH | 5 MPH | |
| Select Backfill | | 481 | | | | 2.00 | 0.50 | 0.10 | 0.10 | 2.70 |
| 6"-0" Pit-run | | 329 | | | | 2.00 | 0.50 | 0.13 | 0.10 | 2.73 |
| | | | | | | | | | | |
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| TOTAL | | 810 | | | | | | | | |
| | STA./NO. | CU. YD. | | | | | | | | |
| CUBIC YARD WEIGHTED HAUL | | | | | | 2.00 | 0.50 | 0.11 | 0.10 | AVERAGE HAUL 2.71 |
| Average Round Trip Distance (miles) 5.42 | | | | | | | | | | |

ROCK HAUL:

Truck type: D20 No. trucks: _____
 Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks: 4
 Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks: _____
 Delay min.: 5 Efficiency: 85%

Ave haul: \$2.96 /cy
 * Load: \$1.42 /cy
 Spread: /cy
 ** Development: \$0.89 /cy
 Production: cy/day = 788

PIT RUN ROCK HAUL COSTS 810 cy @ \$5.27 /cy

* Load: 810 cy/8hrs = 101.25 cy/hr @ \$144/hr / 98.38 cy/hr = \$1.42/cy
 ** Development: 810 x 1.2 = 972 CY:4 hrs. (C330) @\$144/hr = \$576 + 2 hrs. travel (\$288) = \$864/972 bcy = \$0.89/bcy

Note: Development cost for select backfill is in Box Culvert costs.

PIT RUN ROCK COST

SALE NAME: Leonard Elk
 PROJECT: No. 3 (Type F Crossing)
 QUARRY: N/A

MATERIAL: Waste

DATE: 07/17/09
 BY: d.mellison

| Segment | Stations | Cubic Yards | | | | | | | Total |
|--------------------|----------|-------------|---------|---------|------------|----------|-------|------|-------|
| | | Base | Landing | Turnout | Turnaround | Junction | Waste | Misc | |
| I3 - I4(1+39-1+66) | | | | | | | 95 | | 95 |
| | | | | | | | | | |
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| Grand Total | | | | | | | 95 | | 95 |

| Road Segment | Stations | Cubic Yards | ONE WAY HAUL IN MILES | | | | | | | Total Haul |
|--|----------|-------------|-----------------------|--------|--------|--------|--------|--------|-------|-------------------|
| | | | 50 MPH | 30 MPH | 25 MPH | 20 MPH | 15 MPH | 10 MPH | 5 MPH | |
| I3 - I4(1+39-1+66) | | 95 | | | | 0.18 | 0.30 | 0.10 | 0.10 | 0.68 |
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| | | | | | | | | | | |
| TOTAL | | 95 | | | | 0.18 | 0.30 | 0.10 | 0.10 | AVERAGE HAUL 0.68 |
| CUBIC YARD WEIGHTED HAUL | | STA./NO. | CU. YD. | | | | | | | |
| Average Round Trip Distance (miles) 1.36 | | | | | | | | | | |

ROCK HAUL:

Truck type: D20 No. trucks:
 Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks: 1
 Delay min.: 6 Efficiency: 85%

Ave haul: 1.4528431 /cy
 Load: \$1.01 /cy
 Compaction: /cy

Production: cy/day = 401

PIT RUN ROCK HAUL COSTS 95 cy @ \$2.46 /cy

PIT RUN ROCK COST

SALE NAME: Leonard Elk
 PROJECT: Nos. 1, 2, & 3
Elk Mtn. Quarry

MATERIAL: 6'-0" Pit Run

DATE: 12/10/2009
 BY: Holloran

| Segment | Stations | Cubic Yards | | | | | | | Total |
|-------------|----------|-------------|---------|---------|------------|----------|----------|---------|-------|
| | | Base | Landing | Turnout | Turnaround | Junction | Subgrade | Fill W. | |
| 2A to 2B | 14.00 | 784 | | 44 | | 33 | 300 | | 1,161 |
| 2C to 2D | 3.70 | 207 | 50 | | | | | | 257 |
| 2E to 2F | 10.65 | 597 | 50 | 44 | | 33 | | | 724 |
| 2G to 2H | 4.20 | 235 | 50 | | | | | 20 | 305 |
| 3A to 3B | 9.50 | 532 | 160 | | | 33 | | | 725 |
| 3C to 3D | 5.80 | 325 | 80 | | | | | | 405 |
| | | | | | | | | | |
| I3 to I4 | 26.15 | | 240 | | | 33 | | | 273 |
| I5 to I6 | 64+55 | | | | | 66 | | | 66 |
| I7 to I8 | 39.30 | | 160 | | | | | | 160 |
| | | | | | | | | | |
| Grand Total | 113.30 | 2,680 | 790 | 88 | | 198 | 300 | 20 | 4,076 |

| Road Segment | Stations | Cubic Yards | ONE WAY HAUL IN MILES | | | | | | | Total Haul |
|--------------------------|----------|-------------|-----------------------|--------|--------|--------|--------|--------|-------|-------------------|
| | | | 50 MPH | 30 MPH | 25 MPH | 20 MPH | 15 MPH | 10 MPH | 5 MPH | |
| 2A to 2B | 14.00 | 1,161 | | 0.50 | 0.50 | 0.75 | 0.80 | 0.40 | 0.14 | 3.09 |
| 2C to 2D | 3.70 | 257 | | 0.50 | 0.50 | 0.75 | 0.90 | 0.40 | 0.16 | 3.21 |
| 2E to 2F | 10.65 | 724 | | 0.50 | 0.50 | 0.65 | 0.85 | 0.45 | 0.06 | 3.01 |
| 2G to 2H | 4.20 | 305 | | 0.50 | 0.50 | 0.75 | 0.90 | 0.40 | 0.10 | 3.15 |
| 3A to 3B | 9.50 | 725 | | | | 0.50 | 0.30 | 0.30 | 0.14 | 1.24 |
| 3C to 3D | 5.80 | 405 | | | | 0.50 | 0.30 | 0.30 | 0.15 | 1.25 |
| | | | | | | | | | | |
| I3 to I4 | 26.15 | 273 | | | 0.30 | 0.50 | 0.60 | 0.80 | 0.17 | 2.37 |
| I5 to I6 | 64+55 | 66 | | | 0.30 | 0.50 | 0.60 | 0.80 | 0.15 | 2.35 |
| I7 to I8 | 39.30 | 160 | | | | | 0.20 | 0.20 | 0.07 | 0.47 |
| | | | | | | | | | | |
| TOTAL | 113.30 | 4,076 | | | | | | | | |
| CUBIC YARD WEIGHTED HAUL | | STA./NO. | CU. YD. | 0.30 | 0.33 | 0.61 | 0.64 | 0.41 | 0.12 | AVERAGE HAUL 2.41 |

Average Round Trip Distance (miles) 4.83

ROCK HAUL:

Truck type: D20 No. trucks:
 Delay min.: 8 Efficiency: 85%

Ave haul: \$2.93 /cy
 Load: \$0.48 /cy
 Spread: \$0.78 /cy

Truck type: D12 No. trucks: 6
 Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
 Delay min.: 5 Efficiency: 85%

Production: cy/day = 1,196

PIT RUN ROCK HAUL COSTS 4,076 cy @ \$4.18 /cy

RIP RAP ROCK COST

SALE NAME: Leonard Elk
 PROJECT: Nos. 1, 2, & 3
 QUARRY: Elk Mtn. Quarry

MATERIAL: Riprap

DATE: 12/10/2009
 BY: Holloran

| Segment | Stations | Cubic Yards | | | | | | | Total |
|-------------|----------|-------------|-------|--|--------|----------|--|------|-------|
| | | Dissapator | Armor | | Bridge | Box Cul. | | Misc | |
| 2C to 2D | 1.00 | | 100 | | | | | | 100 |
| 2G to 2H | 1.20 | 20 | 150 | | | | | | 170 |
| 3A to 3B | 1.00 | 20 | | | | | | | 20 |
| 3C to 3D | 1.00 | 10 | | | | | | | 10 |
| | | | | | | | | | |
| I1 to I2 | 1.00 | 20 | | | 50 | | | | 70 |
| I3 to I4 | 2.50 | 30 | | | | 245 | | | 275 |
| I5 to I6 | 1.00 | | 20 | | | | | | 20 |
| i^ to I7 | 2.00 | 50 | 120 | | | | | | 170 |
| | | | | | | | | | |
| | | | | | | | | | |
| Grand Total | 10.70 | 150 | 390 | | 50 | 245 | | | 835 |

| Road Segment | Stations | Cubic Yards | ONE WAY HAUL IN MILES | | | | | | | Total Haul |
|-------------------------------------|----------|-------------|-----------------------|--------|--------|--------|--------|--------|-------|----------------------|
| | | | 50 MPH | 30 MPH | 25 MPH | 20 MPH | 15 MPH | 10 MPH | 5 MPH | |
| 2C to 2D | 1.00 | 100 | | 0.50 | 0.95 | 0.75 | 0.40 | 0.40 | 0.18 | 3.18 |
| 2G to 2H | 1.20 | 170 | | 0.50 | 0.50 | 0.75 | 0.90 | 0.40 | 0.10 | 3.15 |
| 3A to 3B | 1.00 | 20 | | | | 0.50 | 0.30 | 0.30 | 0.14 | 1.24 |
| 3C to 3D | 1.00 | 10 | | | | 0.50 | 0.30 | 0.30 | 0.15 | 1.25 |
| | | | | | | | | | | |
| I1 to I2 | 1.00 | 70 | | | 0.20 | 0.60 | 0.50 | 0.80 | 0.15 | 2.25 |
| I3 to I4 | 2.50 | 275 | | | 0.30 | 0.60 | 1.00 | 0.20 | 0.20 | 2.30 |
| I5 to I6 | 1.00 | 20 | | | 0.50 | 0.50 | 0.60 | 0.60 | 0.15 | 2.35 |
| i^ to I7 | 2.00 | 170 | | | | | 0.20 | 0.20 | 0.07 | 0.47 |
| | | | | | | | | | | |
| | | | | | | | | | | |
| TOTAL | 10.70 | 835 | | | | | | | | |
| | STA./NO. | CU. YD. | | | | | | | | |
| CUBIC YARD WEIGHTED HAUL | | | | 0.16 | 0.34 | 0.52 | 0.67 | 0.33 | 0.14 | AVERAGE HAUL 2.16 |
| Average Round Trip Distance (miles) | | | | | | | | | | 4.33 |

ROCK HAUL:

Truck type: D12 No. trucks: 3
 Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks:
 Delay min.: 5 Efficiency: 85%

Ave haul: \$2.77 /cy
 Load: \$0.90 /cy
 Develop: \$3.70 /cy

Production: cy/day = 632

RIP RAP ROCK HAUL COSTS

835 cy @ \$7.37 /cy

CRUSHED ROCK COST

SALE NAME: Leonard Elk
 PROJECT: Nos. 1, 2, & 3
 QUARRY: Elk Mt.

MATERIAL: Crushed
3/4"-0", 1 1/2"-0", 4"-0"

DATE: 12/11/2009
 BY: Holloran

| Segment | Stations | Cubic Yards | | | | | | | Total |
|-------------|----------|-------------|---------|---------|----------|----------|----------|------|-------|
| | | Base 4"-0" | Running | Turnout | Curve W. | Junction | Culverts | Misc | |
| 2C-3D | 0+75 | | | | | | 40 | | 40 |
| 2E-2F | 8.00 | | 104 | | | | | | 104 |
| 2G-2H | 1+80 | | | | | | 40 | | 40 |
| I1 to I2 | 78.00 | | 468 | 110 | 55 | 110 | 55 | 39 | 837 |
| I5 to I6 | 64.55 | | 839 | 33 | 66 | 105 | 11 | 22 | 1,076 |
| I7 to I8 | 39.30 | 619 | | 11 | 44 | 33 | 154 | | 861 |
| Grand Total | 189.85 | 619 | 1,411 | 154 | 165 | 248 | 300 | 61 | 2,958 |

| Road Segment | Stations | Cubic Yards | ONE WAY HAUL IN MILES | | | | | | | Total Haul |
|--|----------|-------------|-----------------------|--------|--------|--------|--------|--------|-------|-------------------|
| | | | 50 MPH | 30 MPH | 25 MPH | 20 MPH | 15 MPH | 10 MPH | 5 MPH | |
| 2C-3D | 0+75 | 40 | | 0.50 | 0.50 | 0.75 | 0.80 | 0.40 | 0.10 | 3.05 |
| 2E-2F | 8.00 | 104 | | 0.50 | 0.50 | 0.70 | 0.80 | 0.25 | 0.04 | 2.79 |
| 2G-2H | 1+80 | 40 | | 0.50 | 0.50 | 0.70 | 0.80 | 0.25 | 0.15 | 2.90 |
| I1 to I2 | 78.00 | 837 | | | 0.20 | 0.30 | 0.30 | 0.30 | 0.07 | 1.17 |
| I5 to I6 | 64.55 | 1,076 | | | 0.50 | 0.50 | 0.50 | 0.60 | 0.10 | 2.20 |
| I7 to I8 | 39.30 | 861 | | | 0.10 | 0.20 | 0.30 | 0.30 | 0.11 | 1.01 |
| TOTAL | 189.85 | 2,958 | | | | | | | | |
| CUBIC YARD WEIGHTED HAUL | | CU. YD. | | 0.03 | 0.30 | 0.37 | 0.40 | 0.41 | 0.09 | AVERAGE HAUL 1.60 |
| Average Round Trip Distance (miles) 3.21 | | | | | | | | | | |

ROCK HAUL:

Truck type: D20 No. trucks: _____
 Delay min.: 8 Efficiency: 85%

Ave haul: \$2.29 /cy
 Load: \$0.30 /cy
 Spread: \$0.48 /cy

Truck type: D12 No. trucks: 6
 Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks: _____
 Delay min.: 5 Efficiency: 85%

Production: cy/day = 1,527

CRUSHED ROCK HAUL COSTS 2,958 cy @ \$3.07 /cy

CRUSHED ROCK COST

SALE NAME: Leonard Elk
 PROJECT: Nos. 1, 2, & 3
 QUARRY: Simmons

MATERIAL: Crushed
3/4"-0", 1 1/2"-0", 4"-0"

DATE: 01/19/2010
 BY: Holloran

| | | Cubic Yards | | | | | | | | |
|--------------------|--------------|-------------|------------|------------|------------|------------|-----------|-----------|--------------|--|
| Segment | Stations | Project #3 | Running | Turnout | Curve W. | Junction | Culverts | Misc | Total | |
| 11 to 12 | 23.90 | | 276 | 66 | 55 | 110 | | 10 | 517 | |
| 13 to 14 | 23.65 | 169 | 481 | 88 | 66 | 22 | 66 | | 892 | |
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| Grand Total | 47.55 | 169 | 757 | 154 | 121 | 132 | 66 | 10 | 1,409 | |

| Road Segment | Stations | Cubic Yards | ONE WAY HAUL IN MILES | | | | | | | Total Haul |
|---------------------------------|-----------------|----------------|-----------------------|-------------|-------------|-------------|-------------|-------------|-------------|---------------------|
| | | | 50 MPH | 30 MPH | 25 MPH | 20 MPH | 15 MPH | 10 MPH | 5 MPH | |
| 11 to 12 | 23.90 | 517 | 1.00 | 2.00 | 1.50 | 0.40 | 0.40 | 0.20 | 0.15 | 5.65 |
| 13 to 14 | 23.65 | 892 | 1.00 | 2.00 | 1.40 | 0.40 | 0.40 | 0.20 | 0.10 | 5.50 |
| | | | | | | | | | | |
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| | | | | | | | | | | |
| TOTAL | 47.55 | 1,409 | | | | | | | | |
| | STA./NO. | CU. YD. | | | | | | | | AVERAGE HAUL |
| CUBIC YARD WEIGHTED HAUL | | | 1.00 | 2.00 | 1.44 | 0.40 | 0.40 | 0.20 | 0.12 | 5.56 |

Average Round Trip Distance (miles) 11.11

ROCK HAUL:

Truck type: D20 No. trucks: 2
 Delay min.: 8 Efficiency: 85%

Truck type: D12 No. trucks:
 Delay min.: 6 Efficiency: 85%

Truck type: D10 No. trucks: 4
 Delay min.: 5 Efficiency: 85%

Ave haul: \$3.95 /cy
 Load: \$0.48 /cy
 Spread: \$0.84 /cy

Production: cy/day = 971

CRUSHED ROCK HAUL COSTS 1,409 cy @ \$5.27 /cy

Project Work Road Maintenance Cost Summary

Sale: Leonard Elk
Date: January 19, 2010
By: Ed Holloran

| Type | Equipment/Rationale | Hours | Rate | Cost | |
|------------------------------|-------------------------|-------|------|--------------|----------------|
| Projects Road Maintenance | Grader 14G | 21 | \$93 | \$1,953 | |
| | Vibratory Roller | 21 | \$72 | \$1,512 | |
| | Water Truck | 10 | \$83 | \$830 | |
| | Dump Truck | 10 | \$73 | \$730 | |
| | Front End Loader (C966) | 6 | \$77 | \$462 | |
| | Labor | 2 | \$38 | \$76 | |
| | | | | Total | \$5,563 |

Production Rates
 Grader - Processing
 Vibratory Roller

| Miles/day | Distance (miles) | Days | Hours |
|-----------|------------------|------|-------|
| 1.5 | 3.9 | 2.6 | 20.8 |
| 1.5 | 3.9 | 2.6 | 20.8 |

Simmons Quarry road to Highway 202 - 1.4 miles. Spur 30 Jct. to Highway 202 - 2.2 miles, and the new
 Borrow pit on Spur off Calif. Barrel to the California Barrel road - 0.3 miles,

TOTAL MILES for MAINTENANCE =3.9 miles

**LEONARD ELK
FY 2009
TIMBER CRUISE REPORT**

1. **Sale Area Location:** Areas 1, 2, and 3 are located in portions of Sections 30, 31, and 32, T7N, R7W, and a portion of Section 36, T7N, R8W, W.M., Clatsop County, Oregon.

All timber sale areas are posted with ODF "Timber Sale Boundary" signs and pink ribbon.

2. **Fund Distribution:** **Fund:** BOF (100%)
 Tax Code: 1-02 (100%)

3. **Sale Acreage by Area:**

| Area | Harvest Type | Gross Acreage | Non- Merch Acreage | Stream Buffer Acreage | Existing R/W Acreage | Net Acreage |
|---------------|--------------|---------------|--------------------|-----------------------|----------------------|--------------|
| 1 | MC | 47.0 | 0.0 | -1.7 | -2.2 | 43.1 |
| 2 | MC | 71.3 | 0.0 | -16.6 | 0.0 | 54.7 |
| 3 | MC | 88.6 | -7.1 | -4.4 | -1.4 | 75.7 |
| 4 | R/W * | 0.7 | 0.0 | 0.0 | 0.0 | 0.7 |
| TOTALS | | 207.6 | -7.1 | -22.7 | -3.6 | 174.2 |

* Outside Timber Sale Boundary. New Construction R/W inside Timber Sale included in Area acres.

4. **Cruisers and Cruise Dates:** Area 1 was cruised by Jay Morey (May 7 & 8, 2009). Area 2 was cruised by Ed Holloran (May 7 & 8, 2009). Area 3 was cruised by Ed Holloran (May 21 & 28, 2009), Jason McCoy (May 21, 2009), and Kraig Kirkpatrick (May 28, 2009).
5. **Cruise Method and Computation:** Cruisers used Corvallis MicroTechnology (CMT) and Juniper Allegro data collectors, and were downloaded to the Atterbury Super A.C.E. program in District for computing. See the attached Cruise Design for more details on the cruise method. The cruise calculations were processed in the Astoria District office. The cruise was original designed as part of the California Elk Timber Sale and then was separated out as its own timber sale.

Areas 1, 2 and 3 (Modified Clear Cuts), were variable plot cruised with a 40 BAF. 77 plots were sampled on a cruise grid of 5 chains by 5 chains, with a count/cruise plot ratio of 2:1 (2 count for every 1 cruise plot).

Area 4 (R/W) has negligible volume and was not cruised, but it is to be removed with this sale.

| <u>AREAS</u> | <u>PROJECT</u> | <u>TRACT</u> | <u>CRUISE TYPE</u> |
|--------------|----------------|-------------------|--------------------|
| 1, 2 & 3 | LEOELK | A123, TAKE, LEAVE | 0MC2 |

6. **Timber Description:**

Areas 1, 2 and 3 (Modified Clearcut) – These stands are approximately 65 to 75 years old, consisting mostly of a hemlock, and spruce with some Douglas-fir and patches of hardwoods along the draws and streams. The average "take" volume per acre is 43.1 MBF, tree size is 16.6" DBH and 58 feet to a merchantable top (6" D.I.B. or 40% of the diameter at 16 feet.).

7. **Statistical Analysis: (See also "Statistics Reports," attached.)**

| Area | Target CV | Target SE% | Actual CV | Actual SE% |
|----------|-----------|------------|-----------|------------|
| 1, 2 & 3 | 50 | 10 | 40.3 | 4.6 |

The statistics for Areas 1, 2, and 3 are based on "Take" trees only.

8. **Take Volumes by Species and Log Grades for All Sale Areas by MBF:** (See "Species, Sort Grade-Board Feet Volumes (Project)" and the "Stand Table Summary" attached, of the regeneration harvest areas combined.) Volumes do not include "ingrowth." The majority of defect and breakage was culled out during the cruise.


| Species | Ave. DBH | Net Vol. | SM | 2 Saw | 3Saw | 4 Saw | Camp Run | % D & B | % Sale |
|----------------|----------|--------------|-----------|--------------|--------------|------------|------------|------------|------------|
| Hemlock | 15.7" | 4,437 | | 2,127 | 2,033 | 277 | - | 8.9 | 59 |
| Noble Fir * | 21.0" | 12 | | 10 | 2 | | | 5.7 | 1 |
| Douglas-fir | 22.1" | 825 | 36 | 563 | 204 | 22 | - | 8.3 | 11 |
| Spruce '22" ** | 20.5" | 1,458 | | 670 | 694 | 94 | - | 7.8 | 19 |
| Spruce <22" ** | | 355 | | 196 | 159 | | | | 5 |
| Hardwoods | 14.0" | 395 | | - | - | - | 395 | 19.9 | 5 |
| TOTAL | | 7,482 | 36 | 3,566 | 3,092 | 393 | 395 | 9.2 | 100 |

* Noble Fir and Hemlock volumes were combined in the Appraisal.

** These diameter break downs are scaling diameters (small end).

9. Prepared by: Edward M. Holloran

Date: January 22, 2010

10. Approved by: 

Date: 1/28/10

- 11, Attachments:
- Species, Sort, Grade Reports (4 pages)
 - Statistics Reports (4 pages)
 - Take Stand Table Summary (2 pages)
 - Leave Stand Table Summary Reports (1 page)
 - Take - Log Stock Table Reports (2 pages)
 - Cruise Plans & Maps (5 pages)

| T TSPCSTGR | | Species, Sort Grade - Board Foot Volumes (Type) | | | | | | | | | | Page 1 | | | | | | | | |
|---------------------|---------------|---|------------|------------------|--------|--------|--------------------|-------------------------------|------|---------------------|----|-----------------|----|-----|----|-------------|-------|-------|----------------|-------|
| | | Project: LEOELK | | | | | | | | | | Date 12/11/2009 | | | | | | | | |
| | | | | | | | | | | | | Time 11:46:39AM | | | | | | | | |
| T07N R07W S30 T0MC2 | | | | | | | | | | T07N R07W S30 T0MC2 | | | | | | | | | | |
| Twp | Rge | Sec | Tract | Type | Acres | Plots | Sample Trees | CuFt | BdFt | | | | | | | | | | | |
| 07N | 07W | 30 | TAKE | 0MC2 | 173.50 | 77 | 231 | 1 | W | | | | | | | | | | | |
| Spp | So | Gr | % Net BdFt | Bd. Ft. per Acre | | | Total Net MBF | Percent Net Board Foot Volume | | | | | | | | Average Log | | | Logs Per /Acre | |
| | | | | Def% | Gross | Net | | Log Scale Dia. | | | | Log Length | | | | Ln Ft | Bd Ft | CF/Lf | | |
| H | DO | CU | | 00.0 | 1,770 | | | | | | | | | | | | 11 | 0.00 | 23.0 | |
| H | DO | 2S | 47 | 3.9 | 12,757 | 12,262 | 2,127 | 2 | 68 | 30 | 3 | 0 | 18 | 79 | 37 | 299 | 1.91 | 41.1 | | |
| H | DO | 3S | 46 | 2.0 | 11,954 | 11,716 | 2,033 | 88 | 6 | 5 | 4 | 1 | 50 | 46 | 34 | 87 | 0.72 | 135.0 | | |
| H | DO | 4S | 7 | .7 | 1,609 | 1,598 | 277 | 100 | | | 75 | 22 | 3 | | 18 | 26 | 0.44 | 62.3 | | |
| H | Totals | | 59 | 8.9 | 28,090 | 25,576 | 4,437 | 48 | 36 | 17 | 8 | 2 | 32 | 59 | 29 | 98 | 0.90 | 261.4 | | |
| S | DO | CU | | 00.0 | 648 | | | | | | | | | | 7 | | 0.00 | 9.9 | | |
| S | DO | 2S | 47 | 1.7 | 5,080 | 4,991 | 866 | 3 | 41 | 56 | 8 | | 18 | 74 | 35 | 344 | 2.26 | 14.5 | | |
| S | DO | 3S | 47 | 2.8 | 5,061 | 4,918 | 853 | 33 | 23 | 44 | 13 | 3 | 24 | 59 | 31 | 151 | 1.33 | 32.6 | | |
| S | DO | 4S | 6 | 1.2 | 548 | 541 | 94 | 5 | 95 | | 41 | 23 | 2 | 34 | 22 | 39 | 0.65 | 13.7 | | |
| S | Totals | | 24 | 7.8 | 11,336 | 10,451 | 1,813 | 0 | 22 | 30 | 48 | 12 | 3 | 20 | 65 | 27 | 148 | 1.43 | 70.8 | |
| D | DO | CU | | 00.0 | 243 | | | | | | | | | | 8 | | 0.00 | 3.5 | | |
| D | DO | 2S | 68 | 4.2 | 3,386 | 3,242 | 563 | 3 | 55 | 42 | 2 | | 32 | 67 | 36 | 315 | 2.13 | 10.3 | | |
| D | DO | 3S | 25 | 1.8 | 1,199 | 1,177 | 204 | 100 | | | | 1 | 54 | 45 | 35 | 96 | 0.84 | 12.3 | | |
| D | DO | 4S | 2 | 13.2 | 143 | 124 | 22 | 100 | | | 77 | | 23 | | 19 | 28 | 0.48 | 4.5 | | |
| D | DO | SM | 5 | | 205 | 205 | 36 | | | 100 | | | | 100 | 40 | 1250 | 5.48 | .2 | | |
| D | Totals | | 11 | 8.3 | 5,176 | 4,749 | 825 824 | 29 | 38 | 33 | 3 | 0 | 35 | 61 | 30 | 154 | 1.33 | 30.8 | | |
| A | DO | CU | | 00.0 | 453 | | | | | | | | | | 8 | | 0.00 | 15.5 | | |
| A | DO | CR | 100 | 4.7 | 2,390 | 2,277 | 395 | 75 | 25 | | 58 | 22 | 20 | | 21 | 48 | 0.70 | 47.2 | | |
| A | Totals | | 5 | 19.9 | 2,843 | 2,277 | 395 | 75 | 25 | | 58 | 22 | 20 | | 18 | 36 | 0.63 | 62.8 | | |
| NF | DO | 2S | 81 | 6.9 | 63 | 58 | 10 | | 100 | | | | | 100 | 40 | 270 | 1.88 | .2 | | |
| NF | DO | 3S | 19 | | 13 | 13 | 2 | | 100 | | | | | 100 | 40 | 60 | 0.67 | .2 | | |
| NF | Totals | | 0 | 5.7 | 76 | 71 | 12 | 18 | 82 | | | | | 100 | 40 | 165 | 1.27 | .4 | | |
| Type Totals | | | | | 9.3 | 47,521 | 43,124 | 7,482 | 0 | 41 | 34 | 25 | 11 | 3 | 29 | 58 | 27 | 101 | 0.99 | 426.1 |

T07N R07W S30 T0MC2 T07N R07W S30 T0MC2
 Twp Rge Sec Tract Type Acres Plots Sample Trees CuFt BdFt
 07N 07W 30 LEAVE 0MC2 173.50 77 33 1 W

| Spp | S T | So rt | Gr ad | % Net BdFt | Bd. Ft. per Acre | | | Total Net MBF | Percent Net Board Foot Volume | | | | | | | | Average Log | | | Logs Per /Acre |
|--------------------|---------------|----------|----------|------------------|------------------|-------|-------|------------------|-------------------------------|------|-------|-----|------------|-------|-------|-------|-------------|----------|-----------|----------------------|
| | | | | | Def% | Gross | Net | | Log Scale Dia. | | | | Log Length | | | | Ln Ft | Bd Ft | CF/ Lf | |
| | | | | | | | | | 4-5 | 6-11 | 12-16 | 17+ | 12-20 | 21-30 | 31-35 | 36-99 | | | | |
| SN | | DO | CU | | 00.0 | 600 | | | | | | | | | | | 33 | 0.00 | 6.7 | |
| SN | Totals | | | | 00.0 | 600 | | | | | | | | | | | 33 | 0.00 | 6.7 | |
| SL | | DO | CU | | 00.0 | 53 | | | | | | | | | | | 24 | 0.00 | 1.3 | |
| SL | | DO | 2S | 80 | 3.0 | 1,073 | 1,041 | 181 | | 10 | 90 | | | 100 | | 40 | 732 | 3.88 | 1.4 | |
| SL | | DO | 3S | 20 | 6.7 | 264 | 246 | 43 | 30 | 37 | 33 | 15 | 8 | 77 | | 31 | 135 | 1.39 | 1.8 | |
| SL | Totals | | | 37 | 7.4 | 1,390 | 1,287 | 224 | 6 | 15 | 79 | 3 | 1 | 96 | | 32 | 282 | 2.06 | 4.6 | |
| HL | | DO | CU | | 00.0 | 78 | | | | | | | | | | 7 | 0.00 | .8 | | |
| HL | | DO | 2S | 76 | 3.8 | 821 | 790 | 137 | | 44 | 56 | | | 73 | 27 | 33 | 343 | 2.28 | 2.3 | |
| HL | | DO | 3S | 24 | 6.0 | 252 | 237 | 41 | 55 | 45 | | | 7 | 21 | 72 | 37 | 84 | 0.81 | 2.8 | |
| HL | Totals | | | 29 | 10.8 | 1,152 | 1,028 | 178 | 13 | 45 | 43 | | | 2 | 61 | 37 | 31 | 174 | 1.38 | 5.9 |
| DL | | DO | CU | | 00.0 | 44 | | | | | | | | | | 16 | 0.00 | .3 | | |
| DL | | DO | 2S | 93 | 3.5 | 914 | 882 | 153 | | 12 | 88 | 7 | | 25 | 69 | 34 | 440 | 2.84 | 2.0 | |
| DL | | DO | 3S | 4 | | 36 | 36 | 6 | 67 | 33 | | 33 | | 67 | | 26 | 86 | 1.07 | .4 | |
| DL | | DO | 4S | 3 | | 23 | 23 | 4 | 100 | | | 41 | 59 | | 21 | 40 | 0.71 | .6 | | |
| DL | Totals | | | 27 | 7.5 | 1,018 | 942 | 163 | 5 | 13 | 82 | 8 | 1 | 26 | 64 | 29 | 287 | 2.24 | 3.3 | |
| NFL | | DO | 2S | 90 | 8.8 | 182 | 166 | 29 | | 21 | 79 | | | 100 | | 40 | 621 | 3.62 | .3 | |
| NFL | | DO | 3S | 10 | | 17 | 17 | 3 | 100 | | | 35 | | 65 | | 28 | 96 | 1.31 | .2 | |
| NFL | Totals | | | 5 | 8.0 | 200 | 184 | 32 | 9 | 19 | 72 | 3 | | 97 | | 35 | 410 | 2.87 | .4 | |
| AL | | DO | CR | 100 | | 79 | 79 | 14 | 100 | | | | | 100 | | 32 | 70 | 0.58 | 1.1 | |
| AL | Totals | | | 2 | | 79 | 79 | 14 | 100 | | | | | 100 | | 32 | 70 | 0.58 | 1.1 | |
| Type Totals | | | | | 20.7 | 4,438 | 3,519 | 611 | 10 | 23 | 67 | 3 | 1 | 27 | 68 | 32 | 160 | 1.20 | 22.0 | |

Species, Sort Grade - Board Foot Volumes (Project)

T07N R07W S30 Ty0MC2 173.50

Project: LEOELK
Acres 173.50

Page 1
Date 12/11/2009
Time 11:49:42AM

| Spp | S T | So rt | Gr ad | % Net BdFt | Bd. Ft. per Acre | | | Total Net MBF | Percent of Net Board Foot Volume | | | | | | | | Average Log | | | Logs Per /Acre | |
|-----------|---------------|----------|----------|------------------|------------------|--------|--------|------------------|----------------------------------|------|-------|-----|------------|-------|-------|-------|-------------|----------|-----------|----------------------|-------|
| | | | | | Def% | Gross | Net | | Log Scale Dia. | | | | Log Length | | | | Ln Ft | Bd Ft | CF/ Lf | | |
| | | | | | | | | | 4-5 | 6-11 | 12-16 | 17+ | 12-20 | 21-30 | 31-35 | 36-99 | | | | | |
| H | | DOCU | | | 100.0 | 1,770 | | | | | | | | | | 11 | | 0.00 | 23.0 | | |
| H | | DO2S | | 47 | 3.9 | 12,757 | 12,262 | 2,127 | | 2 | 68 | 30 | | 3 | 0 | 18 | 79 | 37 | 299 | 1.91 | 41.1 |
| H | | DO3S | | 46 | 2.0 | 11,954 | 11,716 | 2,033 | | 88 | 6 | 5 | | 4 | 1 | 50 | 46 | 34 | 87 | 0.72 | 135.0 |
| H | | DO4S | | 7 | .7 | 1,609 | 1,598 | 277 | | 100 | | | | 75 | 22 | 3 | | 18 | 26 | 0.44 | 62.3 |
| H | Totals | | | 55 | 8.9 | 28,090 | 25,576 | 4,437 | | 48 | 36 | 17 | | 8 | 2 | 32 | 59 | 29 | 98 | 0.90 | 261.4 |
| A | | DOCU | | | 100.0 | 453 | | | | | | | | | | | 8 | | 0.00 | 15.5 | |
| A | | DOCR | | 100 | 4.7 | 2,390 | 2,277 | 395 | | 75 | 25 | | | 58 | 22 | 20 | | 21 | 48 | 0.70 | 47.2 |
| A | Totals | | | 5 | 19.9 | 2,843 | 2,277 | 395 | | 75 | 25 | | | 58 | 22 | 20 | | 18 | 36 | 0.63 | 62.8 |
| SN | | DOCU | | | 100.0 | 600 | | | | | | | | | | | 33 | | 0.00 | 6.7 | |
| SN | Totals | | | | 100.0 | 600 | | | | | | | | | | | 33 | | 0.00 | 6.7 | |
| S | | DOCU | | | 100.0 | 648 | | | | | | | | | | | 7 | | 0.00 | 9.9 | |
| S | | DO2S | | 47 | 1.7 | 5,080 | 4,991 | 866 | | 3 | 41 | 56 | | 8 | | 18 | 74 | 35 | 344 | 2.26 | 14.5 |
| S | | DO3S | | 47 | 2.8 | 5,061 | 4,918 | 853 | | 33 | 23 | 44 | | 13 | 3 | 24 | 59 | 31 | 151 | 1.33 | 32.6 |
| S | | DO4S | | 6 | 1.2 | 548 | 541 | 94 | | 5 | 95 | | | 41 | 23 | 2 | 34 | 22 | 39 | 0.65 | 13.7 |
| S | Totals | | | 22 | 7.8 | 11,336 | 10,451 | 1,813 | | 0 | 22 | 30 | 48 | 12 | 3 | 20 | 65 | 27 | 148 | 1.43 | 70.8 |
| D | | DOCU | | | 100.0 | 243 | | | | | | | | | | | 8 | | 0.00 | 3.5 | |
| D | | DO2S | | 68 | 4.2 | 3,386 | 3,242 | 563 | | 3 | 55 | 42 | | 2 | | 32 | 67 | 36 | 315 | 2.13 | 10.3 |
| D | | DO3S | | 25 | 1.8 | 1,199 | 1,177 | 204 | | 100 | | | | | 1 | 54 | 45 | 35 | 96 | 0.84 | 12.3 |
| D | | DO4S | | 2 | 13.2 | 143 | 124 | 22 | | 100 | | | | 77 | | 23 | | 19 | 28 | 0.48 | 4.5 |
| D | | DOSM | | 5 | | 205 | 205 | 36 | | | | 100 | | | | 100 | 40 | 1250 | 5.48 | .2 | |
| D | Totals | | | 10 | 8.3 | 5,176 | 4,749 | 825 | | 29 | 38 | 33 | | 3 | 0 | 35 | 61 | 30 | 154 | 1.33 | 30.8 |
| HL | | DOCU | | | 100.0 | 78 | | | | | | | | | | | 7 | | 0.00 | .8 | |
| HL | | DO2S | | 76 | 3.8 | 821 | 790 | 137 | | | 44 | 56 | | | | 73 | 27 | 33 | 343 | 2.28 | 2.3 |
| HL | | DO3S | | 24 | 6.0 | 252 | 237 | 41 | | 55 | 45 | | | | 7 | 21 | 72 | 37 | 84 | 0.81 | 2.8 |
| HL | Totals | | | 2 | 10.8 | 1,152 | 1,028 | 178 | | 13 | 45 | 43 | | | 2 | 61 | 37 | 31 | 174 | 1.38 | 5.9 |
| DL | | DOCU | | | 100.0 | 44 | | | | | | | | | | | 16 | | 0.00 | .3 | |
| DL | | DO2S | | 93 | 3.5 | 914 | 882 | 153 | | | 12 | 88 | | 7 | | 25 | 69 | 34 | 440 | 2.84 | 2.0 |
| DL | | DO3S | | 4 | | 36 | 36 | 6 | | 67 | 33 | | | 33 | | 67 | | 26 | 86 | 1.07 | .4 |
| DL | | DO4S | | 3 | | 23 | 23 | 4 | | 100 | | | | 41 | 59 | | | 21 | 40 | 0.71 | .6 |
| DL | Totals | | | 2 | 7.5 | 1,018 | 942 | 163 | | 5 | 13 | 82 | | 8 | 1 | 26 | 64 | 29 | 287 | 2.24 | 3.3 |
| SL | | DOCU | | | 100.0 | 53 | | | | | | | | | | | 24 | | 0.00 | 1.3 | |
| SL | | DO2S | | 80 | 3.0 | 1,073 | 1,041 | 181 | | | 10 | 90 | | | | 100 | | 40 | 732 | 3.88 | 1.4 |
| SL | | DO3S | | 20 | 6.7 | 264 | 246 | 43 | | 30 | 37 | 33 | | 15 | 8 | 77 | | 31 | 135 | 1.39 | 1.8 |
| SL | Totals | | | 3 | 7.4 | 1,390 | 1,287 | 224 | | 6 | 15 | 79 | | 3 | 1 | 96 | | 32 | 282 | 2.06 | 4.6 |
| AL | | DOCR | | 100 | | 79 | 79 | 14 | | 100 | | | | | | 100 | | 32 | 70 | 0.58 | 1.1 |
| AL | Totals | | | 0 | | 79 | 79 | 14 | | 100 | | | | | | 100 | | 32 | 70 | 0.58 | 1.1 |

T07N R07W S30 Ty0MC2 173.50

Project: LEOELK
Acres 173.50

Page 2
Date 12/11/2009
Time 11:49:42AM

| Spp | S T | So rt | Gr ad | % Net BdFt | Bd. Ft. per Acre | | | Total Net MBF | Percent of Net Board Foot Volume | | | | | | | | Average Log | | | Logs Per /Acre | |
|---------------|---------------|----------|----------|------------------|------------------|--------|--------|------------------|----------------------------------|------|-------|-----|------------|-------|-------|-------|-------------|----------|-----------|----------------------|-------|
| | | | | | Def% | Gross | Net | | Log Scale Dia. | | | | Log Length | | | | Ln Ft | Bd Ft | CF/ Lf | | |
| | | | | | | | | | 4-5 | 6-11 | 12-16 | 17+ | 12-20 | 21-30 | 31-35 | 36-99 | | | | | |
| NFL | | DO2S | | 90 | 8.8 | 182 | 166 | 29 | | | 21 | 79 | | | 100 | 40 | 621 | 3.62 | .3 | | |
| NFL | | DO3S | | 10 | | 17 | 17 | 3 | | 100 | | | | 35 | 65 | 28 | 96 | 1.31 | .2 | | |
| NFL | Totals | | | 0 | 8.0 | 200 | 184 | 32 | | 9 | 19 | 72 | | 3 | 97 | 35 | 410 | 2.87 | .4 | | |
| NF | | DO2S | | 81 | 6.9 | 63 | 58 | 10 | | | 100 | | | | 100 | 40 | 270 | 1.88 | .2 | | |
| NF | | DO3S | | 19 | | 13 | 13 | 2 | | 100 | | | | | 100 | 40 | 60 | 0.67 | .2 | | |
| NF | Totals | | | 0 | 5.7 | 76 | 71 | 12 | | 18 | 82 | | | 100 | 40 | 165 | 1.27 | .4 | | | |
| Totals | | | | | 10.2 | 51,959 | 46,643 | 8,093 | 0 | 38 | 33 | 28 | | 10 | 3 | 28 | 58 | 27 | 104 | 1.00 | 448.1 |

| TC PSTATS | | PROJECT STATISTICS | | | | | | | PAGE | 1 |
|--|--------------|--------------------|-----------------|------------|----------------|-----------------------|----------------------|---------------|---------------|---------------|
| | | PROJECT | | LEOELK | | | DATE | | 12/11/2009 | |
| TWP | RGE | SC | TRACT | TYPE | ACRES | PLOTS | TREES | CuFt | BdFt | |
| 07N | 07 | 30 | A123 | 0MC2 | 173.50 | 77 | 652 | 1 | W | |
| | | | PLOTS | TREES | TREES PER PLOT | ESTIMATED TOTAL TREES | PERCENT SAMPLE TREES | | | |
| TOTAL | | | 77 | 652 | 8.5 | | | | | |
| CRUISE | | | 34 | 263 | 7.7 | 37,746 | .7 | | | |
| DBH COUNT | | | | | | | | | | |
| REFOREST | | | | | | | | | | |
| COUNT | | | 43 | 364 | 8.5 | | | | | |
| BLANKS | | | | | | | | | | |
| 100 % | | | | | | | | | | |
| STAND SUMMARY | | | | | | | | | | |
| | SAMPLE TREES | TREES /ACRE | AVG DBH | BOLE LEN | REL DEN | BASAL AREA | GROSS BF/AC | NET BF/AC | GROSS CF/AC | NET CF/AC |
| WHEMLOCK | 137 | 135.5 | 15.7 | 57 | | 181.3 | 28,090 | 25,576 | 7,113 | 6,729 |
| S SPRUCE | 52 | 28.6 | 20.5 | 68 | | 65.5 | 11,336 | 10,451 | 2,814 | 2,698 |
| R ALDER | 15 | 28.1 | 14.0 | 41 | | 30.1 | 2,843 | 2,277 | 810 | 707 |
| DOUG FIR | 26 | 11.4 | 22.1 | 84 | | 30.1 | 5,176 | 4,749 | 1,276 | 1,228 |
| SNAG | 11 | 6.6 | 17.8 | 55 | | 11.4 | 600 | | 170 | |
| SPRUCELV | 7 | 2.9 | 21.5 | 53 | | 7.3 | 1,390 | 1,287 | 317 | 299 |
| HEMLEAV | 7 | 2.4 | 21.6 | 79 | | 6.2 | 1,152 | 1,028 | 270 | 256 |
| DOUGLEAV | 4 | 1.0 | 29.2 | 99 | | 4.7 | 1,018 | 942 | 224 | 216 |
| NFIRLEAV | 2 | .2 | 32.5 | 90 | 0 | 1.0 | 200 | 184 | 45 | 45 |
| ALDRLEAV | 1 | .6 | 13.0 | 66 | | .5 | 79 | 79 | 21 | 21 |
| NOB FIR | 1 | .2 | 21.0 | 82 | 0 | .5 | 76 | 71 | 22 | 22 |
| TOTAL | 263 | 217.6 | 16.9 | 59 | | 338.7 | 51,959 | 46,643 | 13,081 | 12,220 |
| CONFIDENCE LIMITS OF THE SAMPLE | | | | | | | | | | |
| 68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR | | | | | | | | | | |
| CL | 68.1 | COEFF | TREES/ACRE | | | # OF PLOTS REQ. | | INF. POP. | | |
| SD: | 1.0 | VAR.% | S.E.% | LOW | AVG | HIGH | 5 | 10 | 15 | |
| WHEMLOCK | | 78.1 | 8.9 | 123 | 136 | 148 | | | | |
| S SPRUCE | | 110.4 | 12.6 | 25 | 29 | 32 | | | | |
| R ALDER | | 236.7 | 27.0 | 21 | 28 | 36 | | | | |
| DOUG FIR | | 159.1 | 18.1 | 9 | 11 | 13 | | | | |
| SNAG | | 203.1 | 23.1 | 5 | 7 | 8 | | | | |
| SPRUCELV | | 298.4 | 34.0 | 2 | 3 | 4 | | | | |
| HEMLEAV | | 324.3 | 37.0 | 2 | 2 | 3 | | | | |
| DOUGLEAV | | 282.1 | 32.1 | 1 | 1 | 1 | | | | |
| NFIRLEAV | | 616.7 | 70.3 | 0 | 0 | 0 | | | | |
| ALDRLEAV | | 877.5 | 100.0 | 0 | 1 | 1 | | | | |
| NOB FIR | | 877.5 | 100.0 | 0 | 0 | 0 | | | | |
| TOTAL | | 45.6 | 5.2 | 206 | 218 | 229 | 83 | 21 | 9 | |
| CL | 68.1 | COEFF | BASAL AREA/ACRE | | | # OF PLOTS REQ. | | INF. POP. | | |
| SD: | 1.0 | VAR.% | S.E.% | LOW | AVG | HIGH | 5 | 10 | 15 | |
| WHEMLOCK | | 61.7 | 7.0 | 169 | 181 | 194 | | | | |
| S SPRUCE | | 108.1 | 12.3 | 57 | 65 | 74 | | | | |
| R ALDER | | 229.1 | 26.1 | 22 | 30 | 38 | | | | |
| DOUG FIR | | 152.5 | 17.4 | 25 | 30 | 35 | | | | |
| SNAG | | 178.3 | 20.3 | 9 | 11 | 14 | | | | |
| SPRUCELV | | 248.0 | 28.3 | 5 | 7 | 9 | | | | |
| HEMLEAV | | 295.6 | 33.7 | 4 | 6 | 8 | | | | |
| DOUGLEAV | | 276.7 | 31.5 | 3 | 5 | 6 | | | | |
| NFIRLEAV | | 616.4 | 70.2 | 0 | 1 | 2 | | | | |
| ALDRLEAV | | 877.5 | 100.0 | 0 | 1 | 1 | | | | |
| NOB FIR | | 877.5 | 100.0 | 0 | 1 | 1 | | | | |
| TOTAL | | 30.0 | 3.4 | 327 | 339 | 350 | 36 | 9 | 4 | |

PROJECT STATISTICS
PROJECT LEOELK

| TWP | RGE | SC | TRACT | TYPE | ACRES | PLOTS | TREES | CuFt | BdFt |
|-----|-----|----|-------|------|--------|-------|-------|------|------|
| 07N | 07 | 30 | A123 | 0MC2 | 173.50 | 77 | 652 | 1 | W |

| CL | 68.1 | COEFF | NET BF/ACRE | | | # OF PLOTS REQ. | | INF. POP. | |
|--------------|------|-------------|-------------|---------------|---------------|-----------------|-----------|-----------|----------|
| SD: | 1.0 | VAR. % | S.E. % | LOW | AVG | HIGH | 5 | 10 | 15 |
| WHEMLOCK | | 62.4 | 7.1 | 23,756 | 25,576 | 27,396 | | | |
| S SPRUCE | | 113.6 | 12.9 | 9,098 | 10,451 | 11,803 | | | |
| R ALDER | | 229.6 | 26.2 | 1,682 | 2,277 | 2,873 | | | |
| DOUG FIR | | 152.7 | 17.4 | 3,922 | 4,749 | 5,575 | | | |
| SNAG | | | | | | | | | |
| SPRUCELV | | 267.3 | 30.5 | 895 | 1,287 | 1,679 | | | |
| HEMLEAV | | 290.5 | 33.1 | 687 | 1,028 | 1,368 | | | |
| DOUGLEAV | | 276.9 | 31.6 | 645 | 942 | 1,239 | | | |
| NFIRLEAV | | 630.2 | 71.8 | 52 | 184 | 315 | | | |
| ALDRLEAV | | 877.5 | 100.0 | 0 | 79 | 158 | | | |
| NOB FIR | | 877.5 | 100.0 | 0 | 71 | 143 | | | |
| TOTAL | | 37.2 | 4.2 | 44,666 | 46,643 | 48,619 | 55 | 14 | 6 |

| TC TSTATS | | | | STATISTICS | | | | PAGE | 1 | |
|--|-----------------|-----------------|---------------|-------------------|-----------------------------|----------------------------|----------------|---------------|----------------|---------------|
| | | | | PROJECT | LEOELK | | | DATE | 12/11/2009 | |
| TWP | RGE | SECT | TRACT | TYPE | ACRES | PLOTS | TREES | CuFt | BdFt | |
| 07N | 07W | 30 | TAKE | OMC2 | 173.50 | 77 | 592 | 1 | W | |
| | | PLOTS | TREES | TREES PER PLOT | ESTIMATED TOTAL TREES | PERCENT SAMPLE TREES | | | | |
| TOTAL | | 77 | 592 | 7.7 | | | | | | |
| CRUISE | | 32 | 231 | 7.2 | 35,372 | .7 | | | | |
| DBH COUNT REFOREST COUNT | | 45 | 354 | 7.9 | | | | | | |
| BLANKS 100 % | | | | | | | | | | |
| STAND SUMMARY | | | | | | | | | | |
| | SAMPLE TREES | TREES /ACRE | AVG DBH | BOLE LEN | REL DEN | BASAL AREA | GROSS BF/AC | NET BF/AC | GROSS CF/AC | NET CF/AC |
| WHEMLOCK | 137 | 135.5 | 15.7 | 57 | | 181.3 | 28,090 | 25,576 | 7,113 | 6,729 |
| S SPRUCE | 52 | 28.6 | 20.5 | 68 | | 65.5 | 11,336 | 10,451 | 2,814 | 2,698 |
| R ALDER | 15 | 28.1 | 14.0 | 41 | | 30.1 | 2,843 | 2,277 | 810 | 707 |
| DOUG FIR | 26 | 11.4 | 22.1 | 84 | | 30.1 | 5,176 | 4,749 | 1,276 | 1,228 |
| NOB FIR | 1 | .2 | 21.0 | 82 | 0 | .5 | 76 | 71 | 22 | 22 |
| TOTAL | 231 | 203.9 | 16.6 | 58 | | 307.5 | 47,521 | 43,124 | 12,034 | 11,383 |
| CONFIDENCE LIMITS OF THE SAMPLE | | | | | | | | | | |
| 68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR | | | | | | | | | | |
| CL: 68.1 % | COEFF | TREES/ACRE | | | | # OF PLOTS REQ. | | INF. POP. | | |
| SD: 1.0 | VAR.% | S.E.% | LOW | AVG | HIGH | 5 | 10 | 15 | | |
| WHEMLOCK | 78.1 | 8.9 | 123 | 136 | 148 | | | | | |
| S SPRUCE | 110.4 | 12.6 | 25 | 29 | 32 | | | | | |
| R ALDER | 236.7 | 27.0 | 21 | 28 | 36 | | | | | |
| DOUG FIR | 159.1 | 18.1 | 9 | 11 | 13 | | | | | |
| NOB FIR | 877.5 | 100.0 | 0 | 0 | 0 | | | | | |
| TOTAL | 50.8 | 5.8 | 192 | 204 | 216 | 103 | 26 | 11 | | |
| CL: 68.1 % | COEFF | BASAL AREA/ACRE | | | | # OF PLOTS REQ. | | INF. POP. | | |
| SD: 1.0 | VAR.% | S.E.% | LOW | AVG | HIGH | 5 | 10 | 15 | | |
| WHEMLOCK | 61.7 | 7.0 | 169 | 181 | 194 | | | | | |
| S SPRUCE | 108.1 | 12.3 | 57 | 65 | 74 | | | | | |
| R ALDER | 229.1 | 26.1 | 22 | 30 | 38 | | | | | |
| DOUG FIR | 152.5 | 17.4 | 25 | 30 | 35 | | | | | |
| NOB FIR | 877.5 | 100.0 | 0 | 1 | 1 | | | | | |
| TOTAL | 36.3 | 4.1 | 295 | 308 | 320 | 53 | 13 | 6 | | |
| CL: 68.1 % | COEFF | NET BF/ACRE | | | | # OF PLOTS REQ. | | INF. POP. | | |
| SD: 1.0 | VAR.% | S.E.% | LOW | AVG | HIGH | 5 | 10 | 15 | | |
| WHEMLOCK | 62.4 | 7.1 | 23,756 | 25,576 | 27,396 | | | | | |
| S SPRUCE | 113.6 | 12.9 | 9,098 | 10,451 | 11,803 | | | | | |
| R ALDER | 229.6 | 26.2 | 1,682 | 2,277 | 2,873 | | | | | |
| DOUG FIR | 152.7 | 17.4 | 3,922 | 4,749 | 5,575 | | | | | |
| NOB FIR | 877.5 | 100.0 | 0 | 71 | 143 | | | | | |
| TOTAL | 40.3 | 4.6 | 41,141 | 43,124 | 45,107 | 65 | 16 | 7 | | |

| TC TSTATS | | | | STATISTICS | | | | PAGE | 1 | |
|--|-----------------|-----------------|--------------|-------------------|-----------------------------|----------------------------|----------------|--------------|----------------|--------------|
| | | | | PROJECT | LEOELK | | | DATE | 12/11/2009 | |
| TWP | RGE | SECT | TRACT | TYPE | ACRES | PLOTS | TREES | CuFt | BdFt | |
| 07N | 07W | 30 | LEAVE | OMC2 | 173.50 | 77 | 60 | 1 | W | |
| | | PLOTS | TREES | TREES PER PLOT | ESTIMATED TOTAL TREES | PERCENT SAMPLE TREES | | | | |
| TOTAL | | 77 | 60 | .8 | | | | | | |
| CRUISE | | 23 | 32 | 1.4 | 2,374 | 1.3 | | | | |
| DBH COUNT | | | | | | | | | | |
| REFOREST | | | | | | | | | | |
| COUNT | | 17 | 24 | 1.4 | | | | | | |
| BLANKS | | 37 | | | | | | | | |
| 100 % | | | | | | | | | | |
| STAND SUMMARY | | | | | | | | | | |
| | SAMPLE TREES | TREES /ACRE | AVG DBH | BOLE LEN | REL DEN | BASAL AREA | GROSS BF/AC | NET BF/AC | GROSS CF/AC | NET CF/AC |
| SNAG | 11 | 6.6 | 17.8 | 55 | | 11.4 | 600 | | 170 | |
| SPRUCELV | 7 | 2.9 | 21.5 | 53 | | 7.3 | 1,390 | 1,287 | 317 | 299 |
| HEMLEAV | 7 | 2.4 | 21.6 | 79 | | 6.2 | 1,152 | 1,028 | 270 | 256 |
| DOUGLEAV | 4 | 1.0 | 29.2 | 99 | | 4.7 | 1,018 | 942 | 224 | 216 |
| NFIRLEAV | 2 | .2 | 32.5 | 90 | 0 | 1.0 | 200 | 184 | 45 | 45 |
| ALDRLEAV | 1 | .6 | 13.0 | 66 | | .5 | 79 | 79 | 21 | 21 |
| TOTAL | 32 | 13.7 | 20.4 | 63 | | 31.2 | 4,438 | 3,519 | 1,047 | 837 |
| CONFIDENCE LIMITS OF THE SAMPLE | | | | | | | | | | |
| 68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR | | | | | | | | | | |
| CL: 68.1 % | COEFF | TREES/ACRE | | | | # OF PLOTS REQ. | | INF. POP. | | |
| SD: 1.0 | VAR.% | S.E.% | LOW | AVG | HIGH | 5 | 10 | 15 | | |
| SNAG | 203.1 | 23.1 | 5 | 7 | 8 | | | | | |
| SPRUCELV | 298.4 | 34.0 | 2 | 3 | 4 | | | | | |
| HEMLEAV | 324.3 | 37.0 | 2 | 2 | 3 | | | | | |
| DOUGLEAV | 282.1 | 32.1 | 1 | 1 | 1 | | | | | |
| NFIRLEAV | 616.7 | 70.3 | 0 | 0 | 0 | | | | | |
| ALDRLEAV | 877.5 | 100.0 | 0 | 1 | 1 | | | | | |
| TOTAL | 135.7 | 15.5 | 12 | 14 | 16 | | 737 | 184 | 82 | |
| CL: 68.1 % | COEFF | BASAL AREA/ACRE | | | | # OF PLOTS REQ. | | INF. POP. | | |
| SD: 1.0 | VAR.% | S.E.% | LOW | AVG | HIGH | 5 | 10 | 15 | | |
| SNAG | 178.3 | 20.3 | 9 | 11 | 14 | | | | | |
| SPRUCELV | 248.0 | 28.3 | 5 | 7 | 9 | | | | | |
| HEMLEAV | 295.6 | 33.7 | 4 | 6 | 8 | | | | | |
| DOUGLEAV | 276.7 | 31.5 | 3 | 5 | 6 | | | | | |
| NFIRLEAV | 616.4 | 70.2 | 0 | 1 | 2 | | | | | |
| ALDRLEAV | 877.5 | 100.0 | 0 | 1 | 1 | | | | | |
| TOTAL | 105.4 | 12.0 | 27 | 31 | 35 | | 444 | 111 | 49 | |
| CL: 68.1 % | COEFF | NET BF/ACRE | | | | # OF PLOTS REQ. | | INF. POP. | | |
| SD: 1.0 | VAR.% | S.E.% | LOW | AVG | HIGH | 5 | 10 | 15 | | |
| SNAG | | | | | | | | | | |
| SPRUCELV | 267.3 | 30.5 | 895 | 1,287 | 1,679 | | | | | |
| HEMLEAV | 290.5 | 33.1 | 687 | 1,028 | 1,368 | | | | | |
| DOUGLEAV | 276.9 | 31.6 | 645 | 942 | 1,239 | | | | | |
| NFIRLEAV | 630.2 | 71.8 | 52 | 184 | 315 | | | | | |
| ALDRLEAV | 877.5 | 100.0 | 0 | 79 | 158 | | | | | |
| TOTAL | 148.0 | 16.9 | 2,925 | 3,519 | 4,112 | | 877 | 219 | 97 | |

| TC TSTNDSUM | | Stand Table Summary | | | | | | | | | | | | | | |
|---------------------|--------|---------------------|-------|-----------|-----------|----------------|--------------|---------------------|---------------|---------------|---------------|-----------------------|-----------------------|--------|--------|-----|
| Project LEOELK | | | | | | | | | | | | | | | | |
| T07N R07W S30 T0MC2 | | | | | | | | T07N R07W S30 T0MC2 | | | | | | | | |
| Twp | Rge | Sec | Tract | Type | Acres | Plots | Sample Trees | Page: | 1 | | | | | | | |
| 07N | 07W | 30 | TAKE | 0MC2 | 173.50 | 77 | 231 | Date: | 01/28/20 | | | | | | | |
| | | | | | | | | Time: | 7:18:42AM | | | | | | | |
| S Spc | T | Sample | | Av | | Trees/ Acre | BA/ Acre | Logs Acre | Average Log | | Tons/ Acre | Net Cu.Ft. Acre | Net Bd.Ft. Acre | Totals | | |
| | | DBH | Trees | FF 16' | Ht Tot | | | | Net Cu.Ft. | Net Bd.Ft. | | | | Tons | Cunits | MBF |
| H | 9 | 4 | 88 | 28 | 12.002 | 5.29 | 12.00 | 6.5 | 22.3 | | 78 | 268 | | 135 | 47 | |
| H | 10 | 7 | 86 | 44 | 17.567 | 9.26 | 17.57 | 11.0 | 39.5 | | 193 | 693 | | 335 | 120 | |
| H | 11 | 5 | 87 | 66 | 9.966 | 6.62 | 11.94 | 15.2 | 51.7 | | 181 | 617 | | 314 | 107 | |
| H | 12 | 6 | 84 | 76 | 10.259 | 7.94 | 17.15 | 13.6 | 47.9 | | 233 | 822 | | 404 | 143 | |
| H | 13 | 9 | 87 | 93 | 13.084 | 11.91 | 24.69 | 18.6 | 65.4 | | 460 | 1,614 | | 799 | 280 | |
| H | 14 | 13 | 88 | 86 | 16.093 | 17.20 | 32.19 | 19.6 | 74.6 | | 630 | 2,402 | | 1,093 | 417 | |
| H | 15 | 8 | 83 | 86 | 8.627 | 10.59 | 14.02 | 23.1 | 85.4 | | 324 | 1,197 | | 561 | 208 | |
| H | 16 | 7 | 87 | 99 | 6.697 | 9.26 | 15.29 | 24.5 | 91.6 | | 374 | 1,401 | | 650 | 243 | |
| H | 17 | 4 | 88 | 94 | 3.358 | 5.29 | 7.56 | 26.3 | 95.6 | | 199 | 722 | | 345 | 125 | |
| H | 18 | 6 | 85 | 94 | 4.493 | 7.94 | 8.99 | 34.4 | 118.3 | | 309 | 1,063 | | 537 | 184 | |
| H | 19 | 12 | 87 | 95 | 8.065 | 15.88 | 16.80 | 34.6 | 127.6 | | 581 | 2,144 | | 1,008 | 372 | |
| H | 20 | 14 | 87 | 99 | 8.492 | 18.53 | 18.20 | 41.3 | 147.0 | | 751 | 2,675 | | 1,303 | 464 | |
| H | 21 | 3 | 85 | 97 | 1.651 | 3.97 | 3.85 | 38.4 | 141.4 | | 148 | 545 | | 257 | 95 | |
| H | 22 | 4 | 87 | 107 | 2.005 | 5.29 | 5.01 | 50.3 | 189.0 | | 252 | 947 | | 437 | 164 | |
| H | 23 | 10 | 87 | 112 | 4.587 | 13.23 | 12.38 | 50.5 | 199.6 | | 625 | 2,472 | | 1,085 | 429 | |
| H | 24 | 8 | 88 | 102 | 3.370 | 10.59 | 8.00 | 58.9 | 230.5 | | 472 | 1,845 | | 819 | 320 | |
| H | 25 | 3 | 87 | 113 | 1.165 | 3.97 | 2.72 | 60.1 | 257.1 | | 163 | 699 | | 284 | 121 | |
| H | 26 | 2 | 83 | 114 | .718 | 2.65 | 1.79 | 50.8 | 204.0 | | 91 | 366 | | 158 | 64 | |
| H | 27 | 5 | 87 | 103 | 1.664 | 6.62 | 3.99 | 62.9 | 274.2 | | 251 | 1,095 | | 436 | 190 | |
| H | 28 | 1 | 91 | 111 | .309 | 1.32 | .93 | 72.0 | 366.7 | | 67 | 340 | | 116 | 59 | |
| H | 31 | 1 | 77 | 107 | .252 | 1.32 | .50 | 66.0 | 290.0 | | 33 | 146 | | 58 | 25 | |
| H | 32 | 2 | 88 | 122 | .474 | 2.65 | 1.42 | 95.5 | 451.7 | | 136 | 642 | | 236 | 111 | |
| H | 33 | 2 | 89 | 95 | .446 | 2.65 | 1.11 | 92.4 | 432.0 | | 103 | 481 | | 179 | 83 | |
| H | 35 | 1 | 89 | 131 | .198 | 1.32 | .59 | 125.3 | 636.7 | | 74 | 378 | | 129 | 66 | |
| H | Totals | 137 | 87 | 79 | 135.541 | 181.30 | 238.70 | 28.2 | 107.1 | | 6,729 | 25,576 | | 11,674 | 4,437 | |
| S | 12 | 2 | 84 | 48 | 3.205 | 2.52 | 4.81 | 11.3 | 36.7 | | 54 | 176 | | 95 | 31 | |
| S | 13 | 2 | 83 | 71 | 2.731 | 2.52 | 5.46 | 10.8 | 35.0 | | 59 | 191 | | 102 | 33 | |
| S | 15 | 2 | 83 | 66 | 2.051 | 2.52 | 3.08 | 24.7 | 80.0 | | 76 | 246 | | 132 | 43 | |
| S | 16 | 4 | 86 | 87 | 3.606 | 5.03 | 7.21 | 27.4 | 91.2 | | 197 | 658 | | 343 | 114 | |
| S | 17 | 2 | 86 | 96 | 1.597 | 2.52 | 3.99 | 24.2 | 94.0 | | 97 | 375 | | 168 | 65 | |
| S | 18 | 2 | 80 | 90 | 1.425 | 2.52 | 2.85 | 32.7 | 95.0 | | 93 | 271 | | 162 | 47 | |
| S | 19 | 3 | 84 | 79 | 1.918 | 3.78 | 3.20 | 36.0 | 112.0 | | 115 | 358 | | 200 | 62 | |
| S | 20 | 4 | 84 | 103 | 2.308 | 5.03 | 5.19 | 44.2 | 147.8 | | 230 | 767 | | 398 | 133 | |
| S | 21 | 4 | 85 | 103 | 2.093 | 5.03 | 5.23 | 39.5 | 159.0 | | 207 | 832 | | 359 | 144 | |
| S | 22 | 2 | 86 | 103 | .954 | 2.52 | 2.38 | 45.4 | 178.0 | | 108 | 424 | | 188 | 74 | |
| S | 23 | 1 | 85 | 111 | .436 | 1.26 | 1.31 | 47.7 | 190.0 | | 62 | 249 | | 108 | 43 | |
| S | 24 | 2 | 87 | 100 | .801 | 2.52 | 1.60 | 71.7 | 270.0 | | 115 | 433 | | 200 | 75 | |
| S | 25 | 2 | 83 | 111 | .739 | 2.52 | 2.22 | 54.8 | 211.7 | | 121 | 469 | | 211 | 81 | |
| S | 26 | 1 | 86 | 111 | .341 | 1.26 | 1.02 | 60.7 | 250.0 | | 62 | 256 | | 108 | 44 | |
| S | 27 | 4 | 84 | 109 | 1.266 | 5.03 | 2.85 | 73.4 | 281.1 | | 209 | 801 | | 363 | 139 | |
| S | 29 | 2 | 84 | 95 | .549 | 2.52 | 1.10 | 95.5 | 335.0 | | 105 | 368 | | 182 | 64 | |
| S | 30 | 2 | 87 | 121 | .513 | 2.52 | 1.54 | 80.5 | 373.3 | | 124 | 574 | | 215 | 100 | |
| S | 31 | 3 | 86 | 114 | .720 | 3.78 | 1.92 | 98.9 | 447.5 | | 190 | 860 | | 330 | 149 | |
| S | 32 | 1 | 78 | 111 | .225 | 1.26 | .68 | 87.7 | 350.0 | | 59 | 237 | | 103 | 41 | |
| S | 35 | 1 | 82 | 111 | .188 | 1.26 | .57 | 107.7 | 483.3 | | 61 | 273 | | 106 | 47 | |
| S | 36 | 1 | 83 | 121 | .178 | 1.26 | .53 | 120.3 | 560.0 | | 64 | 299 | | 112 | 52 | |
| S | 37 | 2 | 84 | 126 | .337 | 2.52 | .84 | 135.4 | 668.0 | | 114 | 563 | | 198 | 98 | |
| S | 39 | 1 | 83 | 110 | .152 | 1.26 | .46 | 128.3 | 613.3 | | 58 | 279 | | 101 | 48 | |
| S | 40 | 1 | 71 | 121 | .144 | 1.26 | .43 | 136.7 | 493.3 | | 59 | 213 | | 103 | 37 | |
| S | 42 | 1 | 83 | 134 | .131 | 1.26 | .39 | 143.7 | 706.7 | | 56 | 277 | | 98 | 48 | |
| S | Totals | 52 | 84 | 88 | 28.610 | 65.45 | 60.87 | 44.3 | 171.7 | | 2,698 | 10,451 | | 4,680 | 1,813 | |

| TC TSTNDSUM | | Stand Table Summary | | | | | | | | | | | | | | | |
|-------------------|-----|---------------------|-------|--------|-----|------------|--------|--------------|-------|-----------------|---------------------|--------|--------|------|--------|--------|--|
| Project LEOELK | | | | | | | | | | | T07N R07W S30 T0MC2 | | | | | | |
| Twp Rge Sec Tract | | Type | | Acres | | Plots | | Sample Trees | | Page: 2 | | | | | | | |
| 07N 07W 30 TAKE | | 0MC2 | | 173.50 | | 77 | | 231 | | Date: 01/28/20 | | | | | | | |
| | | | | | | | | | | Time: 7:18:42AM | | | | | | | |
| Spc | S T | Sample | | Av | | Trees/ BA/ | | Logs | | Average Log | | Net | | Net | | Totals | |
| | | DBH | Trees | FF | Ht | Acres | Acres | Acres | Net | Net | Tons/ | Cu.Ft. | Bd.Ft. | Tons | Cunits | MBF | |
| D | | 15 | 1 | 85 | 107 | .944 | 1.16 | 1.89 | 25.0 | 85.0 | | 47 | 161 | | 82 | 28 | |
| D | | 17 | 1 | 87 | 87 | .735 | 1.16 | 1.47 | 26.5 | 90.0 | | 39 | 132 | | 68 | 23 | |
| D | | 18 | 3 | 81 | 93 | 1.967 | 3.48 | 3.93 | 27.5 | 95.0 | | 108 | 374 | | 188 | 65 | |
| D | | 19 | 2 | 86 | 109 | 1.177 | 2.32 | 2.94 | 32.6 | 112.0 | | 96 | 330 | | 166 | 57 | |
| D | | 20 | 1 | 86 | 105 | .531 | 1.16 | 1.59 | 29.0 | 106.7 | | 46 | 170 | | 80 | 29 | |
| D | | 21 | 1 | 82 | 103 | .482 | 1.16 | .96 | 38.5 | 140.0 | | 37 | 135 | | 64 | 23 | |
| D | | 22 | 2 | 85 | 109 | .878 | 2.32 | 2.19 | 36.0 | 144.0 | | 79 | 316 | | 137 | 55 | |
| D | | 23 | 2 | 85 | 117 | .803 | 2.32 | 2.01 | 50.4 | 190.0 | | 101 | 382 | | 176 | 66 | |
| D | | 24 | 1 | 88 | 109 | .369 | 1.16 | .74 | 66.0 | 220.0 | | 49 | 162 | | 84 | 28 | |
| D | | 25 | 4 | 83 | 114 | 1.360 | 4.64 | 3.74 | 54.4 | 197.3 | | 203 | 738 | | 353 | 128 | |
| D | | 26 | 2 | 86 | 114 | .629 | 2.32 | 1.57 | 62.4 | 252.0 | | 98 | 396 | | 170 | 69 | |
| D | | 27 | 3 | 85 | 128 | .874 | 3.48 | 2.62 | 59.6 | 257.8 | | 156 | 676 | | 271 | 117 | |
| D | | 29 | 1 | 84 | 101 | .253 | 1.16 | .51 | 83.0 | 300.0 | | 42 | 152 | | 73 | 26 | |
| D | | 33 | 1 | 86 | 146 | .195 | 1.16 | .59 | 106.3 | 506.7 | | 62 | 297 | | 108 | 51 | |
| D | | 36 | 1 | 88 | 146 | .164 | 1.16 | .49 | 129.3 | 670.0 | | 64 | 330 | | 110 | 57 | |
| D | | Totals | 26 | 84 | 108 | 11.361 | 30.13 | 27.25 | 45.1 | 174.3 | | 1,228 | 4,749 | | 2,130 | 824 | |
| A | | 10 | 2 | 86 | 63 | 7.088 | 4.02 | 10.49 | 9.1 | 30.0 | | 95 | 315 | | 165 | 55 | |
| A | | 12 | 1 | 87 | 45 | 2.785 | 2.01 | 2.78 | 15.0 | 40.0 | | 42 | 111 | | 72 | 19 | |
| A | | 14 | 3 | 87 | 53 | 5.779 | 6.03 | 11.56 | 13.1 | 41.6 | | 152 | 481 | | 263 | 83 | |
| A | | 15 | 3 | 86 | 61 | 4.910 | 6.03 | 9.82 | 13.2 | 45.0 | | 129 | 442 | | 224 | 77 | |
| A | | 16 | 2 | 86 | 71 | 2.877 | 4.02 | 4.32 | 25.0 | 90.0 | | 108 | 388 | | 187 | 67 | |
| A | | 17 | 2 | 86 | 60 | 2.549 | 4.02 | 5.10 | 20.0 | 62.5 | | 102 | 319 | | 177 | 55 | |
| A | | 18 | 1 | 86 | 38 | 1.137 | 2.01 | 1.14 | 31.0 | 60.0 | | 35 | 68 | | 61 | 12 | |
| A | | 19 | 1 | 87 | 60 | 1.020 | 2.01 | 2.04 | 21.5 | 75.0 | | 44 | 153 | | 76 | 27 | |
| A | | Totals | 15 | 86 | 58 | 28.144 | 30.13 | 47.25 | 15.0 | 48.2 | | 707 | 2,277 | | 1,226 | 395 | |
| NF | | 21 | 1 | 85 | 99 | .216 | .52 | .65 | 34.0 | 110.0 | | 22 | 71 | | 38 | 12 | |
| NF | | Totals | 1 | 85 | 99 | .216 | .52 | .65 | 34.0 | 110.0 | | 22 | 71 | | 38 | 12 | |
| Totals | | | 231 | 86 | 79 | 203.873 | 307.53 | 374.70 | 30.4 | 115.1 | | 11383 | 43,124 | | 19,749 | 7,482 | |

| TC TSTNDSUM | | Stand Table Summary | | | | | | | | | | | | | | |
|---------------------|--------|---------------------|-------|-----------|----------------|-------------|---------------------|-------------|---------------|----------------------|-----------------------|-----------------------|---------------|------|--------|-----|
| Project LEOELK | | | | | | | | | | | | | | | | |
| T07N R07W S30 T0MC2 | | | | | | | T07N R07W S30 T0MC2 | | | | | | | | | |
| Twp | Rge | Sec | Tract | Type | Acres | Plots | Sample Trees | | Page: | | | | | | | |
| 07N | 07W | 30 | LEAVE | 0MC2 | 173.50 | 77 | 33 | | Date: | 12/11/201 | | | | | | |
| | | | | | | | | | Time: | 10:53:35AM | | | | | | |
| S SpC | T | Sample | | Av | Trees/ Acre | BA/ Acre | Logs Acre | Average Log | | Net Tons/ Acre | Net Cu.Ft. Acre | Net Bd.Ft. Acre | Totals | | | |
| | | DBH | Trees | FF 16' | | | | Ht Tot | Net Cu.Ft. | | | | Net Bd.Ft. | Tons | Cunits | MBF |
| SL | | 12 | 1 | 80 | 34 | 1.323 | 1.04 | | | | | | | | | |
| SL | | 17 | 1 | 83 | 57 | .659 | 1.04 | .66 | 40.0 | 70.0 | | 26 | 46 | | 46 | 8 |
| SL | | 27 | 1 | 85 | 126 | .261 | 1.04 | .78 | 75.3 | 346.7 | | 59 | 272 | | 102 | 47 |
| SL | | 29 | 1 | 89 | 121 | .227 | 1.04 | .68 | 82.7 | 390.0 | | 56 | 265 | | 97 | 46 |
| SL | | 35 | 1 | 85 | 131 | .156 | 1.04 | .47 | 125.7 | 633.3 | | 59 | 295 | | 102 | 51 |
| SL | | 37 | 1 | 82 | 121 | .139 | 1.04 | .42 | 127.7 | 596.7 | | 53 | 249 | | 92 | 43 |
| SL | | 40 | 1 | 82 | 99 | .119 | 1.04 | .24 | 190.0 | 670.0 | | 45 | 160 | | 78 | 28 |
| SL | Totals | 7 | 82 | 67 | | 2.883 | 7.27 | 3.24 | 92.1 | 396.6 | | 299 | 1,287 | | 518 | 223 |
| HL | | 18 | 3 | 87 | 97 | 1.512 | 2.67 | 3.02 | 34.7 | 110.0 | | 105 | 333 | | 182 | 58 |
| HL | | 20 | 1 | 89 | 87 | .408 | .89 | .82 | 39.5 | 135.0 | | 32 | 110 | | 56 | 19 |
| HL | | 24 | 1 | 86 | 94 | .283 | .89 | .57 | 46.5 | 195.0 | | 26 | 111 | | 46 | 19 |
| HL | | 35 | 1 | 88 | 122 | .133 | .89 | .40 | 115.3 | 616.7 | | 46 | 247 | | 80 | 43 |
| HL | | 40 | 1 | 80 | 135 | .102 | .89 | .31 | 152.3 | 743.3 | | 47 | 228 | | 81 | 39 |
| HL | Totals | 7 | 87 | 98 | | 2.439 | 6.23 | 5.11 | 50.1 | 201.0 | | 256 | 1,028 | | 444 | 178 |
| DL | | 25 | 1 | 85 | 125 | .343 | 1.17 | 1.03 | 54.7 | 216.7 | | 56 | 223 | | 98 | 39 |
| DL | | 28 | 1 | 88 | 125 | .273 | 1.17 | .82 | 59.7 | 303.3 | | 49 | 249 | | 85 | 43 |
| DL | | 30 | 1 | 85 | 125 | .238 | 1.17 | .71 | 76.7 | 313.3 | | 55 | 224 | | 95 | 39 |
| DL | | 38 | 1 | 85 | 125 | .148 | 1.17 | .45 | 125.0 | 553.3 | | 56 | 246 | | 97 | 43 |
| DL | Totals | 4 | 86 | 125 | | 1.003 | 4.68 | 3.01 | 71.7 | 313.1 | | 216 | 942 | | 374 | 163 |
| NFL | | 32 | 1 | 83 | 99 | .093 | .52 | .19 | 108.0 | 390.0 | | 20 | 73 | | 35 | 13 |
| NFL | | 33 | 1 | 89 | 121 | .087 | .52 | .26 | 96.7 | 423.3 | | 25 | 111 | | 44 | 19 |
| NFL | Totals | 2 | 86 | 110 | | .180 | 1.04 | .45 | 101.4 | 409.5 | | 45 | 184 | | 79 | 32 |
| AL | | 13 | 1 | 87 | 99 | .564 | .52 | 1.13 | 18.5 | 70.0 | | 21 | 79 | | 36 | 14 |
| AL | Totals | 1 | 87 | 99 | | .564 | .52 | 1.13 | 18.5 | 70.0 | | 21 | 79 | | 36 | 14 |
| SN | | 11 | 1 | 83 | 39 | 1.574 | 1.04 | | | | | | | | | |
| SN | | 13 | 1 | 89 | 34 | 1.127 | 1.04 | | | | | | | | | |
| SN | | 14 | 1 | 85 | 110 | 1.045 | 1.04 | | | | | | | | | |
| SN | | 16 | 1 | 89 | 87 | .744 | 1.04 | | | | | | | | | |
| SN | | 21 | 1 | 85 | 55 | .432 | 1.04 | | | | | | | | | |
| SN | | 22 | 1 | 78 | 80 | .394 | 1.04 | | | | | | | | | |
| SN | | 24 | 2 | 89 | 53 | .661 | 2.08 | | | | | | | | | |
| SN | | 25 | 1 | 89 | 60 | .305 | 1.04 | | | | | | | | | |
| SN | | 32 | 1 | 86 | 88 | .186 | 1.04 | | | | | | | | | |
| SN | | 36 | 1 | 89 | 17 | .147 | 1.04 | | | | | | | | | |
| SN | Totals | 11 | 86 | 61 | | 6.616 | 11.43 | | | | | | | | | |
| Totals | | 32 | 85 | 76 | | 13.685 | 31.17 | 12.94 | 64.7 | 271.9 | | 837 | 3,519 | | 1,452 | 611 |

Log Stock Table - MBF
Project: LEOELK

T07N R07W S30 T0MC2

T07N R07W S30 T0MC

Twp Rge Sec Tract Type Acres Plots Sample Trees Page
07N 07W 30 TAKE 0MC2 173.50 77 231 Date 1/28/2010
Time 7:23:55AM

| Spp | S | So | Gr | Log | Gross | % Def | Net | % Spc | Net Volume by Scaling Diameter in Inches | | | | | | | | | | | |
|-----|--------|----|----|-----|-------|-------|-------|-------|--|-----|-----|-----|-----|-----|-------|-------|-------|-------|-------|-------|
| | | | | | | | | | MBF | MBF | 2-3 | 4-5 | 6-7 | 8-9 | 10-11 | 12-13 | 14-15 | 16-19 | 20-21 | 22-29 |
| H | DO | CU | 2 | | 2 | 100.0 | | | | | | | | | | | | | | |
| H | DO | CU | 6 | | 57 | 100.0 | | | | | | | | | | | | | | |
| H | DO | CU | 8 | | 57 | 100.0 | | | | | | | | | | | | | | |
| H | DO | CU | 10 | | 23 | 100.0 | | | | | | | | | | | | | | |
| H | DO | CU | 12 | | 25 | 100.0 | | | | | | | | | | | | | | |
| H | DO | CU | 13 | | 16 | 100.0 | | | | | | | | | | | | | | |
| H | DO | CU | 16 | | 75 | 100.0 | | | | | | | | | | | | | | |
| H | DO | CU | 20 | | 12 | 100.0 | | | | | | | | | | | | | | |
| H | DO | CU | 32 | | 24 | 100.0 | | | | | | | | | | | | | | |
| H | DO | CU | 33 | | 17 | 100.0 | | | | | | | | | | | | | | |
| H | DO | 2S | 16 | | 29 | | 29 | .7 | | | | | | 29 | | | | | | |
| H | DO | 2S | 20 | | 26 | | 26 | .6 | | | | | | | | | | | 26 | |
| H | DO | 2S | 24 | | 4 | | 4 | .1 | | | | | 4 | | | | | | | |
| H | DO | 2S | 32 | | 379 | 4.3 | 362 | 8.2 | | | | | 147 | 68 | 114 | | | | 33 | |
| H | DO | 2S | 34 | | 22 | | 22 | .5 | | | | | 22 | | | | | | | |
| H | DO | 2S | 40 | | 1,753 | 4.0 | 1,684 | 37.9 | | | | | 39 | 361 | 506 | 619 | 41 | | 118 | |
| H | DO | 3S | 16 | | 26 | | 26 | .6 | | | | 6 | | 19 | | | | | | |
| H | DO | 3S | 18 | | 16 | | 16 | .4 | | | | | | 16 | | | | | | |
| H | DO | 3S | 20 | | 41 | 5.8 | 38 | .9 | | | | 5 | 15 | | 19 | | | | | |
| H | DO | 3S | 22 | | 2 | | 2 | .0 | | | | | | | | | | | | |
| H | DO | 3S | 24 | | 11 | | 11 | .2 | | | | 7 | 3 | | | | | | | |
| H | DO | 3S | 30 | | 4 | | 4 | .1 | | | | 4 | | | | | | | | |
| H | DO | 3S | 32 | | 1,040 | 3.1 | 1,007 | 22.7 | | | | 302 | 292 | 361 | 36 | | 16 | | | |
| H | DO | 3S | 36 | | 38 | | 38 | .9 | | | | 18 | 21 | | | | | | | |
| H | DO | 3S | 37 | | 3 | | 3 | .1 | | | | | 3 | | | | | | | |
| H | DO | 3S | 40 | | 895 | .7 | 888 | 20.0 | | | | 240 | 299 | 198 | 43 | 17 | 50 | 40 | | |
| H | DO | 4S | 14 | | 4 | | 4 | .1 | | | | 4 | | | | | | | | |
| H | DO | 4S | 16 | | 157 | | 157 | 3.5 | | | | 146 | 11 | | | | | | | |
| H | DO | 4S | 17 | | 3 | | 3 | .1 | | | | 3 | | | | | | | | |
| H | DO | 4S | 18 | | 2 | | 2 | .1 | | | | | 2 | | | | | | | |
| H | DO | 4S | 20 | | 42 | | 42 | .9 | | | | 42 | | | | | | | | |
| H | DO | 4S | 22 | | 5 | | 5 | .1 | | | | 3 | 2 | | | | | | | |
| H | DO | 4S | 24 | | 36 | | 36 | .8 | | | | 33 | 3 | | | | | | | |
| H | DO | 4S | 26 | | 12 | | 12 | .3 | | | | 12 | | | | | | | | |
| H | DO | 4S | 30 | | 8 | | 8 | .2 | | | | 4 | 4 | | | | | | | |
| H | DO | 4S | 32 | | 9 | 20.0 | 7 | .2 | | | | 7 | | | | | | | | |
| H | Totals | | | | 4,874 | 8.9 | 4,437 | 59.3 | | | | 838 | 657 | 617 | 630 | 638 | 799 | 81 | 178 | |
| S | DO | CU | 4 | | 9 | 100.0 | | | | | | | | | | | | | | |
| S | DO | CU | 6 | | 39 | 100.0 | | | | | | | | | | | | | | |
| S | DO | CU | 10 | | 8 | 100.0 | | | | | | | | | | | | | | |
| S | DO | CU | 13 | | 25 | 100.0 | | | | | | | | | | | | | | |
| S | DO | CU | 16 | | 16 | 100.0 | | | | | | | | | | | | | | |
| S | DO | CU | 18 | | 15 | 100.0 | | | | | | | | | | | | | | |
| S | DO | 2S | 18 | | 30 | | 30 | 1.6 | | | | | | 15 | 14 | | | | | |
| S | DO | 2S | 20 | | 41 | 5.4 | 39 | 2.2 | | | | | | | 19 | | | | 20 | |
| S | DO | 2S | 32 | | 159 | 3.2 | 154 | 8.5 | | | | | | 57 | 35 | | | | 31 | 32 |
| S | DO | 2S | 40 | | 652 | 1.2 | 643 | 35.5 | | | | | 27 | 79 | 136 | 239 | 50 | | 113 | |
| S | DO | 3S | 16 | | 35 | | 35 | 1.9 | | | | 17 | 2 | | 16 | | | | | |
| S | DO | 3S | 18 | | 5 | | 5 | .3 | | | | 5 | | | | | | | | |
| S | DO | 3S | 20 | | 77 | 3.1 | 74 | 4.1 | | | | | 35 | | 39 | | | | | |

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

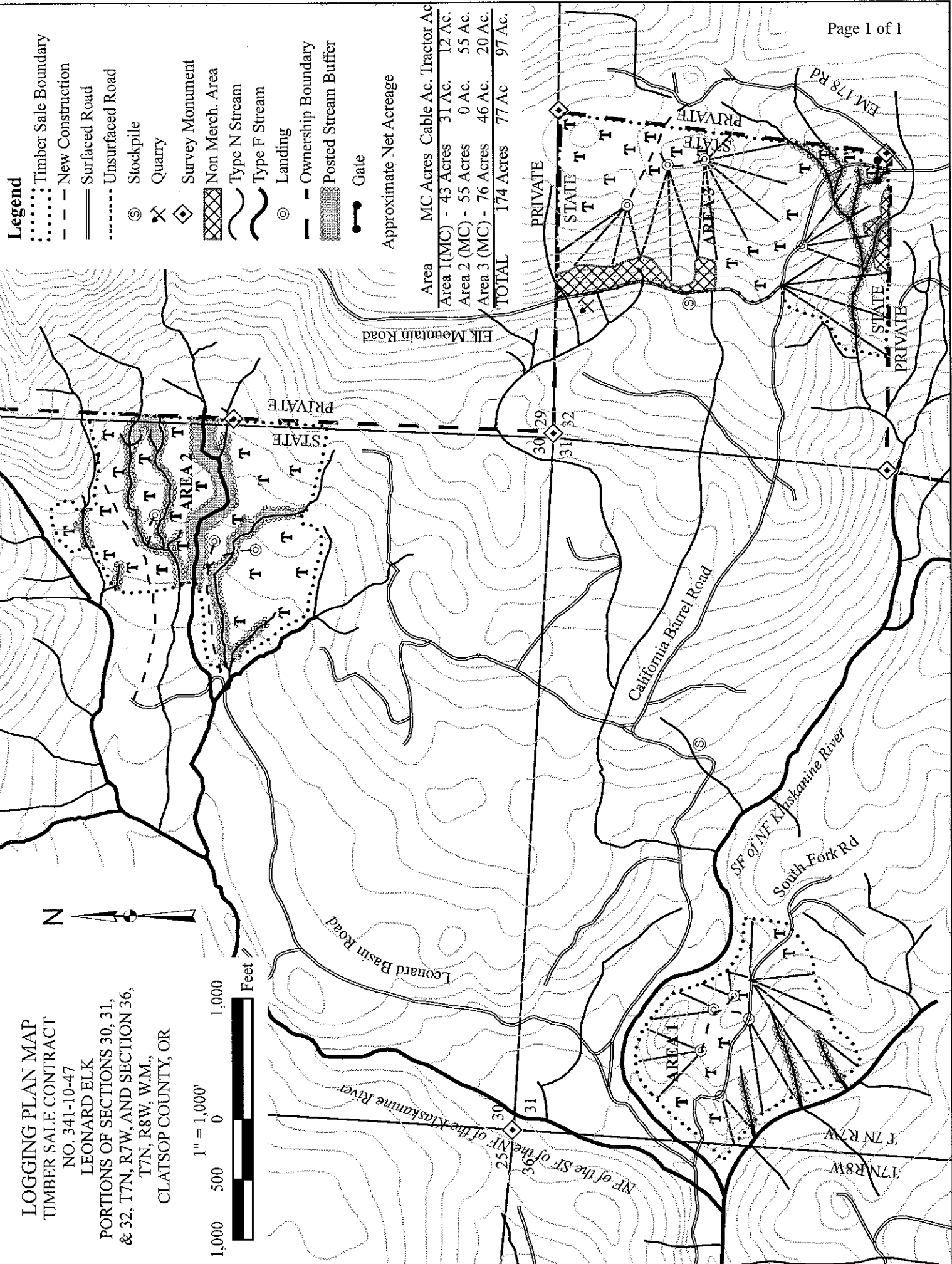
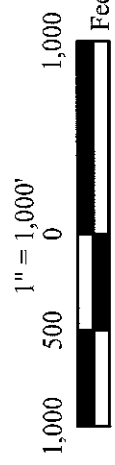
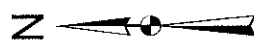
T07N R07W S30 T0MC2

T07N R07W S30 T0MC

Twp **07N** Rge **07W** Sec **30** Tract **TAKE** Type **0MC2** Acres **173.50** Plots **77** Sample Trees **231** Page **2**
Date **1/28/2010** Time **7:23:55AM**

| Spp | S | So | Gr | Log | Gross MBF | % Def | Net MBF | % Spc | Net Volume by Scaling Diameter in Inches | | | | | | | | | | | | |
|-------------------|--------|----|----|-----|-----------|-------|---------|-------|--|-----|------|-----|-------|-------|-------|-------|-------|-------|-------|-----|----|
| | | | | | | | | | 2-3 | 4-5 | 6-7 | 8-9 | 10-11 | 12-13 | 14-15 | 16-19 | 20-21 | 22-29 | 30-39 | 40+ | |
| S | DO | 3S | 24 | | 22 | 7.0 | 21 | 1.1 | | | | | | 21 | | | | | | | |
| S | DO | 3S | 30 | | 5 | | 5 | .3 | | | | | 5 | | | | | | | | |
| S | DO | 3S | 32 | | 218 | 4.4 | 208 | 11.5 | | | 40 | | 74 | 69 | 9 | | | 16 | | | |
| S | DO | 3S | 36 | | 4 | | 4 | .2 | | | | 4 | | | | | | | | | |
| S | DO | 3S | 40 | | 512 | 2.2 | 501 | 27.6 | | | 56 | 20 | 23 | 38 | 15 | 131 | 60 | 159 | | | |
| S | DO | 4S | 16 | | 35 | | 35 | 1.9 | | 5 | 4 | 26 | | | | | | | | | |
| S | DO | 4S | 18 | | 4 | | 4 | .2 | | | 4 | | | | | | | | | | |
| S | DO | 4S | 22 | | 4 | | 4 | .2 | | | | 4 | | | | | | | | | |
| S | DO | 4S | 24 | | 15 | | 15 | .8 | | | 15 | | | | | | | | | | |
| S | DO | 4S | 26 | | 3 | | 3 | .2 | | | 3 | | | | | | | | | | |
| S | DO | 4S | 32 | | 2 | | 2 | .1 | | | | | | | | | | | | | 2 |
| S | DO | 4S | 40 | | 33 | 3.4 | 32 | 1.7 | | | | | | | | | | | | | 32 |
| S | Totals | | | | 1,967 | 7.8 | 1,813 | 24.2 | | 5 | 127 | 122 | 145 | 281 | 174 | 479 | 126 | 323 | | | 32 |
| D | DO | CU | 4 | | 3 | 100.0 | | | | | | | | | | | | | | | |
| D | DO | CU | 6 | | 22 | 100.0 | | | | | | | | | | | | | | | |
| D | DO | CU | 12 | | 11 | 100.0 | | | | | | | | | | | | | | | |
| D | DO | CU | 16 | | 7 | 100.0 | | | | | | | | | | | | | | | |
| D | DO | 2S | 20 | | 14 | 22.2 | 11 | 1.3 | | | | | | 11 | | | | | | | |
| D | DO | 2S | 32 | | 182 | 2.5 | 178 | 21.6 | | | | | 16 | 23 | 65 | 23 | 50 | | | | |
| D | DO | 2S | 40 | | 392 | 4.5 | 374 | 45.4 | | | | | | 50 | 75 | 218 | | | | | 32 |
| D | DO | 3S | 28 | | 3 | | 3 | .3 | | | | 3 | | | | | | | | | |
| D | DO | 3S | 32 | | 111 | 1.2 | 110 | 13.3 | | | 28 | 22 | 60 | | | | | | | | |
| D | DO | 3S | 40 | | 94 | 2.7 | 92 | 11.2 | | | 16 | 23 | 53 | | | | | | | | |
| D | DO | 4S | 16 | | 17 | | 17 | 2.0 | | | 12 | 5 | | | | | | | | | |
| D | DO | 4S | 32 | | 8 | 40.0 | 5 | .6 | | | 5 | | | | | | | | | | |
| D | DO | SM | 40 | | 36 | | 36 | 4.3 | | | | | | | | | | | | | 36 |
| D | Totals | | | | 898 | 8.3 | 824 | 11.0 | | | 60 | 53 | 129 | 73 | 151 | 241 | 50 | 67 | | | |
| A | DO | CU | 2 | | 4 | 100.0 | | | | | | | | | | | | | | | |
| A | DO | CU | 4 | | 6 | 100.0 | | | | | | | | | | | | | | | |
| A | DO | CU | 6 | | 28 | 100.0 | | | | | | | | | | | | | | | |
| A | DO | CU | 10 | | 11 | 100.0 | | | | | | | | | | | | | | | |
| A | DO | CU | 12 | | 11 | 100.0 | | | | | | | | | | | | | | | |
| A | DO | CU | 16 | | 19 | 100.0 | | | | | | | | | | | | | | | |
| A | DO | CR | 10 | | 33 | | 33 | 8.4 | | | | | | 15 | 18 | | | | | | |
| A | DO | CR | 16 | | 130 | 11.4 | 115 | 29.2 | | | 38 | | 13 | 43 | 22 | | | | | | |
| A | DO | CR | 18 | | 21 | | 21 | 5.3 | | | | | 21 | | | | | | | | |
| A | DO | CR | 20 | | 60 | | 60 | 15.1 | | | 13 | 24 | 23 | | | | | | | | |
| A | DO | CR | 24 | | 9 | | 9 | 2.2 | | | | 9 | | | | | | | | | |
| A | DO | CR | 28 | | 19 | | 19 | 4.9 | | | 19 | | | | | | | | | | |
| A | DO | CR | 30 | | 61 | | 61 | 15.3 | | | 28 | | 32 | | | | | | | | |
| A | DO | CR | 32 | | 82 | 5.7 | 77 | 19.6 | | | 21 | 29 | 27 | | | | | | | | |
| A | Totals | | | | 493 | 19.9 | 395 | 5.3 | | | 119 | 62 | 117 | 43 | 38 | 18 | | | | | |
| NF | DO | 2S | 40 | | 11 | 6.9 | 10 | 81.8 | | | | | | 10 | | | | | | | |
| NF | DO | 3S | 40 | | 2 | | 2 | 18.2 | | | 2 | | | | | | | | | | |
| NF | Totals | | | | 13 | 5.7 | 12 | .2 | | | 2 | | | 10 | | | | | | | |
| Total All Species | | | | | 8,245 | 9.3 | 7,482 | 100.0 | | 5 | 1146 | 894 | 1008 | 1026 | 1010 | 1537 | 257 | 567 | | | 32 |

LOGGING PLAN MAP
TIMBER SALE CONTRACT
 NO. 341-10-47
 LEONARD ELK
 PORTIONS OF SECTIONS 30, 31,
 & 32, T7N, R7W, AND SECTION 36,
 T7N, R8W, W.M.,
 CLATSOP COUNTY, OR



Legend

- Timber Sale Boundary
- New Construction
- ===== Surfaced Road
- Unsurfaced Road
- ⊙ Stockpile
- ⊗ Quarry
- ◇ Survey Monument
- ▨ Non Merch. Area
- ~ Type N Stream
- ~ Type F Stream
- ⊙ Landing
- - - Ownership Boundary
- ▨ Posted Stream Buffer
- Gate

Approximate Net Acreage

| Area | MC Acres | Cable Ac. | Tractor Ac. |
|--------------|------------------|--------------|---------------|
| Area 1 (MC) | 43 Acres | 31 Ac. | 12 Ac. |
| Area 2 (MC) | 55 Acres | 0 Ac. | 55 Ac. |
| Area 3 (MC) | 76 Acres | 46 Ac. | 20 Ac. |
| TOTAL | 174 Acres | 77 Ac | 97 Ac. |