



TIMBER SALE PRESCRIPTION

GENERAL

| | |
|------------------------------------|--|
| Date 9/29/11 | Forest, Mineral and Fire Management Unit Shingleton Management Unit |
| Timber Sale Number (if applicable) | Sale Name (or prescription name) Melstrand Contract Hardwoods |

LOCAL CONTACT

| | |
|---|---------------------------------------|
| Name Robert Burnham | Telephone (906) 452 - 6227 ext 240 |
| Email Address Burnhamr2@michigan.gov | FAX (906) 452 - 6584 |

Map of Project Area Attached

LEGAL DESCRIPTION

T47N R17W Section(s) 22, 27 & 34 Description SENW, NWNW, SWNW, NENW of 22, NENE, SENE, SWNW, NWSW, NENE, SENE, NESE, SESE of 27 And NENE of 34

Year of Entry: 2012 Compartment(s):180 Stand Number(s): 8, 35, 49

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 217 Source: OI GPS Other _____

Payment will be made on the basis of these estimated acres.

TREATMENT & OBJECTIVE

| STAND # | COVER TYPE | ACRES | BA | TREATMENT | MANAGEMENT OBJECTIVE |
|-----------------|------------|-------|---------|-----------|----------------------|
| 8 (Units 1-5) | M6 | 78 | 111-140 | Selection | Northern Hardwoods |
| 35 (Units 6-8) | M6 | 61 | 111-140 | Selection | Northern Hardwoods |
| 49 (Units 9-11) | M6 | 78 | 111-140 | Selection | Northern Hardwoods |
| | | | | | |
| | | | | | |
| | | | | | |

PRESCRIPTION

1. Mark all stands according to specifications listed in the Melstrand Contract Hardwoods Prescription Appendix, timber marking specifications, and specific details obtained at the pre-work meeting.
2. Cruise all stands according to specifications listed in the Melstrand Contract Hardwoods Prescription Appendix, timber cruising specifications, and specific details obtained at the pre-work meeting.

Access: H-15 north to H-58, northeast on H-58 3.5 miles to Petrel road

| DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK | ESTIMATED DATE |
|---|------------------------|
| Sale Boundary Line in Red paint and Sale area Determination | Completed October 2011 |
| Blue line - private land lines Stand 8 only (Units 1, 3 & 4 only) | 6/15/12 |
| | |

CONTRACT WORK CAN BEGIN

Immediately Date:

CONTRACT WORK MUST BE COMPLETED BY Date 8/01/2012

PAINT LINE WORK

This is included in the bid This is not included in the bid

Paint line work to be performed: (See attached map for locations)

| TYPE OF LINE | WORK TO BE DONE | NOT APPLICABLE | PAINT COLOR | |
|-------------------|--------------------------|--------------------------|---------------------------------|---------------------------------|
| Private boundary | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Blue | <input type="checkbox"/> Other: |
| Sale boundary | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Red | <input type="checkbox"/> Other: |
| Sale cutting unit | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Yellow | <input type="checkbox"/> Other: |
| Stand type line | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> Other: |

Exclusions to mark and why

Standards for marking lines against private land

AREA CALCULATION

This is included in the bid This is not included in the bid

| UNIT | METHOD | STANDARD |
|--------------|---|----------|
| Sale | <input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other | |
| Payment Unit | <input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other | |
| Stand | <input type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other | |

Special Instructions:

TIMBER CRUISING SPECIFICATIONS

This is included in the bid This is not included in the bid

Required Basal Area Factor: 10 20 Other:

Cruise Line Directions East-West

| CRUISING UNITS | NUMBER OF PLOTS PER ACRE | SPACING (CHAINS) |
|--------------------------------------|--------------------------|------------------|
| Stand 8 (Units 1-5) | 0.83 | 3 X 4 |
| Stand 35 (Units 6-8) | 0.83 | 3 X 4 |
| Stand 49 (Units 9-11) | 0.83 | 3 X 4 |
| TOTAL NUMBER OF CRUISE POINTS | 181 | |

Cruise Special Instructions:

1. Each unit must be recorded on a separate cruise card so volume can be determined by unit.
2. Each cruise plot must be identified on the ground. A map showing the location of cruise plots must be turned in. The map scale must be 1:15840.
3. Residual BA by species must be tallied at each cruise plot, including hemlock, white pine, oak and cedar.
4. Do not cruise sawlog trees marked with an "X." There will be a 100% tally on log trees marked with an "X".
5. Pulpwood species grouping:
 - Mixed hardwood pulp (maple, birch, ash, basswood, ironwood and cherry pulpwood)
 - All beech must be tallied separately
 - Mixed aspen pulpwood (quaking, bigtooth and balsam poplar)
 - All other trees must be cruised by species.

Unless otherwise specified, the tally sheets used must be those supplied by the Forest, Mineral and Fire Management Unit.

TIMBER MARKING SPECIFICATIONS

This is included in the bid This is not included in the bid

Precise specifications to be delineated at pre-work meeting with DNR staff

Total Merchantable Residual BA (Basal Area): See Appendix; Stand(s) Management Objectives

| TREATMENT | | NUMBER | SIZE |
|----------------------------|---|-------------|-------------------|
| Regeneration Gaps Per Acre | | 1 | 70 ft in diameter |
| Girdled Trees Per Acre | | n/a | n/a |
| PRODUCT | MARKING SYMBOL | MINIMUM DBH | TOP DIB |
| Sawlogs | 'X' on 2 opposite sides and 6' above ground level, plus one 3" dot per 8' log | 11.1 inches | 10 inches |
| Pulpwood | Diagonal slash on 2 opposite sides, 6' above ground level | 4.6 inches | 4 inches |

| TYPE OF WORK | WORK TO BE DONE | NOT APPLICABLE | PAINT COLOR |
|-----------------------|-------------------------------------|-------------------------------------|--|
| Trees marked to leave | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> Green <input type="checkbox"/> Other |
| Trees marked to cut | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> Orange <input type="checkbox"/> Other |

TALLY INTENSITIES

| SPECIES / PRODUCT | RATIO |
|-------------------|---------------------------|
| All Sawlogs | 1 : 1 by species and unit |
| | |

SPECIAL MARKING INSTRUCTIONS

- Additional pulpwood volume larger than 10 inches, top DIB, occurring in sawlog trees must be recorded on tally cards supplied by the Local Contact.
- Avoid marking during wet weather conditions, or when tree boles are damp. Paint must last for the duration of the timber sale.
- Each unit must be tallied and summarized separately.

Unless otherwise specified, the tally sheets used must be those provided by the Forest, Mineral and Fire Management Unit.

RESTRICTIONS

1. Forest and Fire Management Division must to be able to identify who did what on the timber sale.
2. The contractor may not have more than two markers in one payment unit without prior approval.
3. Each marker should have an assigned area to mark (not strips).

PAINT

1. Call Robert Tylka at (906) 452 - 6227, to make arrangements for paint.
2. Paint will be supplied from Shingleton.
3. Contractor's work schedule must coincide with the DNR work schedule for paint supply.
4. The DNR will not be available on weekends or evenings.

DELIVERABLES

1. A list of names that marked or cruised each payment unit.
2. A summary of paint used (in quarts).
3. Tally summaries for each payment unit (one summary, regardless of the number of markers) and all of the original tally sheets.

MELSTRAND CONTRACT HARDWOODS TIMBER SALE PRESCRIPTION APPENDIX

When Registered Corners or Witness Trees are discovered:

- Any wooden posts encountered at corners must also be painted/protected.
- Bearing and/or witness trees discovered during the course of sale preparation must be protected. This can be accomplished by painting a ring completely around the tree at 4-6 feet above ground level with either red paint (corner surrounded by state lands). In addition, tying ribbon on these trees helps alert loggers to their presence. Do not mark any trees for harvest if cutting them is likely to result in damage to corner monuments and/or bearing trees.
- Please report the condition of all corners, posts and bearing trees to the local contact.

Stand(s) 8, 35 and 49

Management Objective: All Aged Northern Hardwoods (Mark to Cut)

When marking, prioritize selection of trees to be cut in the following order:

1. Release suitable crop trees. (Refer to The Complete Marker for crop tree specifications.)
2. When appropriate, try to increase the number of lesser occurring species such as yellow birch, hemlock and white pine. Local contact can provide an explanation of this priority.
3. Remove high-risk and poor quality trees.
4. All beech are designated for removal. Mark better quality or resistant trees to leave. At a minimum, mark 2 beech per acre, if they are available. All of the volume for beech is determined with a point sample cruise.
5. Maintain target basal area.
6. Maintain all species diversity.
7. Where aspen clones are present, mark to regenerate and expand.

Reserved Species:

- No hemlock, white pine, oak or cedar can be marked. Avoid marking other trees if harvesting them is likely to result in damage to these reserved species.
- Marking of infrequently occurring species should be avoided. Consult the local contact for clarification.
- Leave 2-4 large, live cull trees per acre for den trees and soft snag production. Reserved tree species may also be used for this purpose. These should be well distributed.
- Do not mark within 100' of any raptor nest trees. Report these to the local contact as soon as possible and directions will be given at that time.

The contractor should contact Robert Burnham, Unit Manager, at the Shingleton Field Office, PO Box 67, M-28, Shingleton, MI 49884 (906) 452-6227 X240 once the contract is awarded. Approximately 1-2 weeks prior to beginning work, the contractor should also contact the DNR's local contract administrator (Robert Tylka, 906-452-6227 x241) to arrange an on-site meeting to discuss the details of these prescriptions. Paperwork should be completed and all of the necessary reports submitted to the Unit secretary as soon as possible after the fieldwork is complete.