



TIMBER SALE PRESCRIPTION

GENERAL	
Date 8/29/2008	Forest, Mineral and Fire Management Unit GRMUN (Indian River)
Timber Sale Number (if applicable)	Sale Name (or prescription name) Compartment 127 Contract

LOCAL CONTACT	
Name Shannon Harig	Telephone (231) 238 - 9313 ext 4742
Email Address harigs@Michigan.gov	FAX (231) 238 - 6757

Map of Project Area Attached

LEGAL DESCRIPTION
T34N R04W Section(s) 29-32 Description T34N R05W Sec. 29

Year of Entry: 2009 Compartment(s):127 Stand Number(s): 2, 4, 5, 14, 20, 29, 37, 39, 40, 42, 49, 65

THIS TIMBER SALE CONTRACT IS BASED ON THE FOLLOWING ACREAGE

Estimated Acres: 280 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
2, 5, 14, 20, 29	R6	75	170 avg	Thinning	Red Pine
4, 42	M6	37	110/130	Selection	Northern Hardwood
39, 65	A6	71	90/70	Clearcut	Aspen
37	M6	13	150	Clearcut	Aspen
40	A3	4	0	Clearcut	Aspen
49	R9	80	150	Clearcut	Northern Hardwood

PRESCRIPTION
1. Stands 2,5,14,20,29: Mark stands to 110 BA. Mark hardwood as necessary to improve operability. 2. Stands 4,42: Reduce stand BA to 80 sq. feet using single tree selection/crop tree release marking techniques. Retain at least 2-3 12"DBH + trees/acre of declining vigor(cull) to serve as future den trees. When possible, release pockets of advanced hardwood regen by creating an overhead canopy gap. 3. Stands 37,39,49: Clearcut. 3-10% of area must be left in multiple pockets for retention. 4. Stands 40,65: Clearcut, no retention pockets. 5. 6. 7.
Access

DNR PREPARATION WORK TO BE DONE PRIOR TO CONTRACT WORK	ESTIMATED DATE
Blue painted private boundary.	11/30/2008

CONTRACT WORK CAN BEGIN

Immediately Date: 12/1/2008

CONTRACT WORK MUST BE COMPLETED BY Date 08/21/2009

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 checked="" type="checkbox"/>	<input type="checkbox"/> Blue	<input type="checkbox"/> Other:
Sale boundary	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/> Red	<input type="checkbox"/> Other:
Sale cutting unit	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" 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

In stands 37,39 and 49, retention pockets must be delineated with red paint and gps'd. See sale administrator for details.

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 checked="" type="checkbox"/> GPS <input type="checkbox"/> String Chain <input type="checkbox"/> Other	
Payment Unit	<input checked="" 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:

Must provide administrator with shapefile and acreage of sale area and cutting units.

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

CRUISING UNITS	NUMBER OF PLOTS PER ACRE	SPACING (CHAINS)
Stands 37,39,40,49	1 point / 1.2 acres	4 X 3
All other stands	1 point / acre	3 X 3
		X
		X
TOTAL NUMBER OF CRUISE POINTS		

Cruise Special Instructions:

Stands 37, 39, 40, 49, 65: Cruise all species separately.
 Stands 2, 5, 14, 20, 29: Sawlogs and pulp will be cruised at the same time. Residual BA must be tallied at each cruise point.
 Stands 4, 42: Only pulpwood will be cruised, sawlogs are 100% tallied. Sugar Maple, Red Maple, White Birch, Beech and Black Cherry pulp can be combined as mixed hardwood. All other pulp species (White Ash, Basswood, aspen) must be cruised separately. Residual BA must be tallied at each cruise point.

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): Hdwds (stands 4 and 42): 80 (Minimum 70 to Maximum 90)
 RP (stands 2, 5, 14, 20, 29): 110 (Minimum 100 to Maximum 120)

TREATMENT	NUMBER	SIZE	
Regeneration Gaps Per Acre	N.A.	N.A.	
Girdled Trees Per Acre	1-2 Hw	12"+	
PRODUCT	MARKING SYMBOL	MINIMUM DBH	TOP DIB
Sawlogs	2 slashes w/dots	12 inches	10 inches
Sawbolts	N.A.	N.A.	N.A.
Pulpwood	slash	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
Hardwood Sawlogs	1 : 1
	1 :
	1 :
	1 :

SPECIAL MARKING INSTRUCTIONS
 Individual stems within multiple stemmed clumps must either all be marked for removal or must all be left unmarked. Do not mark elm or juneberry. Mark girdle trees (only in hardwood stands) with an orange "X" on both sides of tree. Avoid marking under-represented species, they will be retained to maintain diversity. Red Pine (stands 2,5,14,20,29) can be marked to cut with 1 orange slash on opposite sides of the tree on all products.

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

RESTRICTIONS

1. Forest, Mineral 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 Shannon Harig at (231) 238 - 9313 ext 4742, to make arrangements for paint.
2. Paint will be supplied from Indian River.
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.
4. GPS files for any GPS work.

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDf Status
1	M4	3	73	50	northern hardwood	sparse		0	pruning	
comnts Fmd : OPEN GROWN STAND OF CHERRY AND HARDWOOD THAT IS FILLING IN AN OPENING. THERE ARE ALSO SOME APPLE TREES THAT WILDLIFE DIVISION INDICATED THEY MIGHT WANT TO PRUNE.										
2	R6	50	45	60	red pine	immature	thinning	1		
comnts Fmd : STAND WAS PLANTED IN 1963. IT WAS THIRD ROW THINNED IN 1996. THIS TIME AROUND IT WILL NEED TO BE SELECTIVELY THINNED. WILL NEED A SEASONAL SNOWMOBILE SPECIFICATION PLUS SOME ADDED CONSIDERATION DUE TO THE NORTH COUNTRY PATHWAY. RECOMMEND THINNING TO ABOUT 110 SQ. FT. VERY FEW HARDWOODS EXIST IN THIS STAND. DO NOT SPECIFICALLY TARGET THE HARDWOODS FOR REMOVAL BUT ELIMINATE AS NEEDED TO IMPROVE OPERABILITY.										
4	M6	24		60	northern hardwood	unevenaged	selection	2		
comnts Fmd : NICE STAND THAT MAY NOT HAVE BEEN THINNED BEFORE DUE TO HILLY TERRAIN. WOULD LIKE TO TRY THOUGH IN CONJUNCTION WITH THE NEXT THINNING OF THE ADJACENT RED PINE. THE SOUTH PORTION HAS SOME HEMLOCK IN IT THAT SHOULD BE LEFT. ***WHEN MARKING THIS STAND, DO NOT MARK AREAS OF EXCESSIVELY STEEP SLOPES***										
5	R6	2	45	60	red pine	immature	thinning	1		
comnts Fmd : STAND WAS PLANTED IN 1963. IT WAS THIRD ROW THINNED IN 1996. THIS TIME AROUND IT WILL NEED TO BE SELECTIVELY THINNED. PRIVATE LINE TO THE SOUTH WILL NEED TO BE IDENTIFIED. TRY TO THIN TO ABOUT 110 SQ. FT. VERY FEW HARDWOODS EXIST IN THIS STAND. DO NOT SPECIFICALLY TARGET THE HARDWOODS FOR REMOVAL BUT ELIMINATE AS NEEDED TO IMPROVE OPERABILITY.										
13	A6	9	75	70	aspen (upland)	mature	final harvest	1		
comnts Fmd : NICE SMALL STAND OF MATURE ASPEN/HARDWOOD MIX. SHOULD REGENERATE QUITE WELL TO A MIXTURE OF ASPEN AND HARDWOOD REGENERATION IF CUT.										
14	R6	12	48	65	red pine	immature	thinning	2		
comnts Fmd : THIS STAND HAS NEVER BEEN THINNED. LOTS OF HARDWOODS ARE INTERMIXED BUT SOME PORTIONS ARE VERY HEAVILY STOCKED PINE. DUE TO THE AMOUNT OF HARDWOODS IN THE STAND, A ROW THINNING MIGHT NOT BE PRACTICAL. MAY NEED TO SELECTIVELY MARK. DO NOT SPECIFICALLY TARGET THE HARDWOODS FOR REMOVAL BUT ELIMINATE AS NEEDED TO IMPROVE OPERABILITY.										
20	R6	6	48	65	red pine	immature	thinning	1		
comnts Fmd : THIS STAND WAS THIRD ROW THINNED IN 2000. COULD BE THINNED AGAIN NOW. TRY TO THIN DOWN TO ABOUT 110 SQ. FT. VERY FEW HARDWOODS EXIST IN THIS STAND. DO NOT SPECIFICALLY TARGET THE HARDWOODS FOR REMOVAL BUT ELIMINATE AS NEEDED TO IMPROVE OPERABILITY. DUE TO THE SMALL VOLUME TO BE REMOVED I WOULD PREFER THAT THE WOOD PRODUCTS BE FORWARDED SOUTH DOWN TO STAND #29 USING THE SAME SKID TRAIL THAT WAS USED IN 2000.										
29	R6	5	48	65	red pine	immature	thinning	2		
comnts Fmd : THIS STAND HAS NEVER BEEN THINNED. DUE TO THE AMOUNT OF HARDWOODS IN THE STAND A ROW THINNING MIGHT NOT BE PRACTICAL. MAY NEED TO SELECTIVELY MARK. DO NOT SPECIFICALLY TARGET THE HARDWOODS FOR REMOVAL BUT ELIMINATE AS NEEDED TO IMPROVE OPERABILITY.										
37	M6	13	92	65	aspen (upland)	mature	final harvest	1		
comnts Fmd : THE ASPEN COMPONENT IN THIS STAND IS SIGNIFICANT ENOUGH THAT IT SHOULD BE FINAL HARVESTED AND MANAGED FOR ASPEN REGENERATION. THE STAND OCCUPIES FLAT GROUND SO IT WOULD BE EASILY HARVESTED. THE RESULTING REGENERATION WILL BE A MIXTURE OF ASPEN AND NORTHERN HARDWOOD SPECIES. AREAS OF THE STAND HEAVIEST TO NORTHERN HARDWOODS WOULD MAKE NICE RETENTION ISLANDS.										
39	A6	48	65	65	aspen (upland)	mature	final harvest	1		
comnts Fmd : THIS STAND HAS MIXED AGE CLASSES IN IT. I WOULD RECOMMEND FINAL HARVESTING AT THIS TIME TO RE-ESTABLISH A UNIFORM AGE CLASS OF NATURAL REGENERATION. QUITE A HEAVY UNDERSTORY OF DEVELOPING HARDWOOD WOULD EVENTUALLY TAKE OVER THIS STAND WITHOUT TREATMENT. THE MOTORCYCLE TRAIL SHOULD BE MOVED TO THE NORTHERN EDGE OF THE HARVEST AREA PRIOR TO TREATMENT. IF ANY OAK IS PRESENT IT SHOULD BE LEFT IN CLUMPS FOR RETENTION. IN ADDITION, LEAVE SCATTERED SMALL REPRESENTATIVE RETENTION ISLANDS THROUGHOUT THE HARVEST AREA.										

GAYLORD MANAGEMENT UNIT

**Proposed Treatments
With NO Limiting Factors**

Compartment: 127 Entry Year: 2009

Stand	Cover Type	Acres	Age	Site Index	Mgt Obj	Condition	Method Cut	Harvest Priority	Cultural Need	FDF Status
40	A3	4	25	65	aspen (upland)	immature	final harvest	2		
comnts Fmd : THIS STAND WAS APPARENTLY CUT IN 1983 SIZE CLASSES RANGE FROM 2 - 5 INCHES IN DBH. I WOULD RECOMMEND CLEARCUTTING THIS WHEN STAND #39 IS CUT. THE ROAD LEADING THROUGH THIS STAND WILL NEED TO BE WIDENED DURING THE HARVESTING OF STAND #39 SO A LARGE PORTION OF THIS VERY NARROW STAND WILL BE DAMAGED ANYWAY. MIGHT BE BETTER TO START EVERYTHING OVER AT THE SAME TIME. NO RETENTION WILL BE NECESSARY IN THIS STAND SINCE ISLANDS WILL BE LEFT IN THE LARGER HARVEST AREA. THE STAND SHOULD REGENERATE QUITE SUCCESSFULLY PRIMARILY TO ASPEN BUT SOME NORTHERN HARDWOODS WILL ALSO RE-SPROUT AS WELL.										
42	M6	13		55	northern hardwood	unevenaged	selection	2		
comnts Fmd : THIS IS NOT GREAT QUALITY HARDWOOD BUT IT SHOULD STILL BE THINNED. WILL STRICTLY BE A LOW VALUE TSI SALE.										
49	R9	80	71	60	northern hardwood	mature	final harvest	1		
comnts Fmd : THIS STAND WAS THINNED IN THE MID-90'S. RECOMMEND FINAL HARVESTING THIS STAND AND ALLOWING IT TO CONVERT TO NORTHERN HARDWOODS. THIS RED PINE STAND IS GROWING ON A HARDWOOD SITE AND TRYING TO RE-ESTABLISH RED PINE HERE WOULD INVOLVE A CONSIDERABLE EFFORT IN ORDER TO CONTROL THE COMPETING HARDWOOD REGENERATION. RETENTION ISLANDS SHOULD BE LEFT FOR BIO-DIVERSITY. THE LOCATIONS OF THESE ISLANDS SHOULD ALSO BE DESIGNED TO HELP LESSEN THE IMPACT TO THE TRAVEL INFLUENCE ZONE. THE RESULTING REGENERATION WILL LIKELY BE A MIX OF NORTHERN HARDWOOD SPECIES ALONG WITH SCATTERED ASPEN. SOME PINE REGENERATION MIGHT ALSO BECOME ESTABLISHED ESPECIALLY WHERE THE SOIL IS EXPOSED DURING THE HARVEST OPERATION.										
60	U0	38			upland brush	nonstocked		0	pruning	
comnts Fmd : THIS IS PRIMARILY A FIELD OF OPEN GROWN WHITE PINE "BUSHES" ALONG WITH QUITE A FEW APPLE TREES. WILDLIFE DIVISION INDICATED THAT THEY MIGHT WANT TO PRUNE THESE APPLE TREES.										
65	A6	23	82	60	aspen (upland)	mature	final harvest	1		
comnts Fmd : THIS STAND TRANSITIONS DOWN INTO A SWAMP STAND FURTHER TO THE SOUTH. QUITE A BIT OF FIR IS IN THE UNDERSTORY. THIS IS NOT A HIGH QUALITY STAND BUT IT CERTAINLY SHOULD REGENERATE IF CUT. THE RESULTING REGENERATION WILL HAVE FIR MIXED IN ALONG WITH ASPEN AND RED MAPLE. THIS HARVEST WILL CERTAINLY RESULT IN A SIGNIFICANT VISUAL IMPACT ALONG MAXWELL ROAD, BUT WE DECIDED NOT TO LEAVE RETENTION ISLANDS BECAUSE IT IS SO NARROW.										

Total Acres..... 330