AMERICAN BIRKEBEINER PRELIMINARY WAX RECOMMENDATION Date of Report Tue FEB. 21th 2012

Forecast
Thursday Feb, 23rd: Cloudy throughout the day with a chance of snow. Forecasted High near 34°F.  
Thursday Night: Mostly Cloudy with a slight chance of snow. Forecasted Low around 18ºF. 
Friday Feb, 24th: Mostly Cloudy with a forecasted High of near 28ºF.  
Friday Night: Mostly Cloudy with a forecasted Low around 12ºF.  
Saturday Feb, 25th: Mostly Cloudy with a forecasted High near 25ºF.  

Course Conditions
The track should be hard and compact. Snow crystals will be primarily old, transformed snow crystals (type 3 in the Swix Classification System). There may be some new snow present on Tuesday which will be tilled and mixed in with the existing snow pack. The snow will be abrasive with some dirt present in the snow pack, due to the freeze/thaw cycle of last week and the lower snow pack totals this year.

WAXING CONSIDERATIONS

1. Base Preparation
We recommend using Swix Cleaner for Flour Glide Wax and Conditioner- I0084 to properly and thoroughly clean the base of any existing wax and foreign contaminates that may be present. Wipe the base with a piece of Fiberlene that has been soaked with I84 Cleaner. While the base is still wet, brush and scrub from tip to tail with a Swix Nylon White Brush- T161. Using a new, clean piece of Fiberlene, wipe the ski base clean and let dry for 5-7 minutes, then brush with the Swix Ultra Fine Steel Brush- T191. The very fine steel bristles of this brush thoroughly clean the base structure of the ski base and removes any remaining wax and dirt that may be present in the structure.

2. DURABILITY
Given the length of the race and the aggressive nature of the snow crystals on the ski track, it will be important to build strong and solid base layers into the ski base, prior to the HF and Cera F wax layers. The first step is to use Swix Moly Flouro Wax- MB77. Apply one layer of MB77, let cool then scrape and brush. Brush with the Fine Steel or Steel (T179) Brush, then polish with the Swix Blue Nylon Brush- T160. Next, apply one layer of Swix Marathon Wax- DHF104BW, scrape and brush, using the same method as the MB-77.

3. SKI SELECTION & STRUCTURE
Expect the racetrack and snow to be firm. Use a medium to stiff flex ski that will be stable in hard pack snow conditions. Medium fine base structures will work well. Additional hand structure is recommended due to the snow crystal type. Use the Swix T0423 Economy Structure tool with the 0.5mm Broken-V structure roller to add structure. Apply the 0.5mm Broken-V structure roller after final waxing and brush with Swix Blue Nylon Brush- T160

FAST LANE TO HAYWARD Waves Elite & 1-5
Base HF wax layers:  
Apply another layer of Swix Marathon Wax- DHF104BW. The Marathon Wax is a highly durable wax for aggressive snow crystals and has a High Flouro content and BW additive to resist dirt. The application of two layers of Marathon Wax will saturate and condition the base for subsequent HF and Cera layers. Iron at 150ºC, let cool 4-6 minutes, then scrape and brush using first the Swix Steel Brush- T179 then the Swix Ultra Fine Steel Brush- T191. Using both brushes properly removes all excess wax and reveals ski base structure. Polish with Swix Blue Nylon Brush- T160.  

Apply one layer of Swix HF6BW or HF6:  Iron at 140ºC, let cool 4-6 minutes, then scrape and brush using above method.  
Race Cera F layer:  
Apply Swix FC78 Super Cera F Powder:  Iron in with one pass (5-7 seconds) with iron temperature at 165ºC. Let cool 3-5 minutes, then brush up the ironed in powder using Swix Black Nylon Brush- T194: Iron a second time using the same process. Let cool 5 minutes. Brush out with Swix Wild Boar Brush- T164 and polish with Swix Blue Nylon Brush.

FAST LANE TO HAYWARD Waves 6-10
Base HF wax layers:  
Apply one layer of NEW Swix Marathon Wax- DHF104BW. The Marathon Wax is a highly durable wax for aggressive snow crystals and has a high Flour content and BW additive to resist dirt. Iron at 140ºC, let cool 4-6 minutes, then scrape and brush using first the Fine Steel Brush- T179 then the Ultra Fine Steel Brush- T191. Using both brushes properly removes all excess wax and reveals ski base structure. Polish with Swix Blue Nylon Brush- T160.  

Apply one layer of Swix HF7BW or HF7:  Iron at 135ºC, let cool 4-6 minutes, then scrape and brush using above method.  
Race Cera F layer:  
Apply Swix FC78 Super Cera F Powder:  Iron in with one pass (5-7 seconds) with iron temperature at 165ºC. Let cool 3-5 minutes, then brush up ironed in powder using Black Nylon Brush- T194: Iron a second time using the same process. Let cool 5 minutes. Brush out with Wild Boar Brush- T164 and polish with Blue Nylon Brush.

GLIDE WAX APPLICATION  
Note that we have (3) levels of glide wax choice based on your wave position and how you classify yourself.
**PERFORMANCE PRO: Waves 1-5**

Base HF wax layers:
Apply two layers of Swix HF6BW or HF6. Iron each layer at 150°C, let cool 4-6 minutes, then scrape and brush thoroughly using the Steel Brush- T179 first, then the Ultra Fine Steel Brush- T191 second. Polish with the Blue Nylon- T160.

Race Cera F layer:
Apply Swix FC7 Cera F powder. Iron in with one pass (5-7 seconds) with iron temperature at 160°C. Let cool 3-5 minutes, then brush up ironed in powder using Black Nylon Brush- T194. Iron a second time using the same process. Let cool 5 minutes. Brush out with Wild Boar Brush- T164 and polish with Blue Nylon Brush. Rub on one thick layer and iron in at a temperature of 160°C with one quick pass tip to tail. Let cool 5 minutes and brush out with Wild Boar Brush- T164, then polish with Blue Nylon.

**PERFORMANCE PRO: Waves 6-10**

Base HF wax layers:
Apply two layers of Swix HF7BW or HF7. Iron each layer at 135°C, let cool 4-6 minutes, then scrape and brush thoroughly using the Steel Brush- T179 first, then the Ultra Fine Steel Brush- T191 second. Polish with the Blue Nylon- T160.

Race Cera F layer:
Apply Swix FCXW5 Turbo Solid Block. Rub on one thick layer and iron in at a temperature of 150°C with one quick pass tip to tail. Let cool 5 minutes and brush out with Wild Boar Brush- T0164, then polish with Blue Nylon. Run on a second layer and hand cork in with Swix Natural Cork- T0020 or T0021. Or, use the Swix Roto Fleece T0018F and roto-fleece the second layer of FC8XWS Turbo Block. Brush out with Wild Boar then polish with Blue Nylon.

**PERFORMANCE: Waves 1-5**

Base LF wax layer:
Apply one layer of Swix LF6. Iron at 140°C, let cool 4-6 minutes, then scrape and brush thoroughly using the Swix Steel Brush- T179. Polish with the Blue Nylon Brush- T160.

Race HF wax layers:
Apply two layers of Swix HF6BW or HF6. Iron at 140°C, let cool 4-6 minutes, then scrape and brush thoroughly using the Steel Brush, then polish with the Blue Nylon. Repeat the process.

**PERFORMANCE: Waves 6-10**

Base LF wax layer:
Apply one layer of Swix LF7. Iron at 135°C, let cool 4-6 minutes, then scrape and brush thoroughly using Swix Steel Brush- T179. Polish with the Blue Nylon Brush- T160.

Race HF wax layers:
Apply two layers of Swix HF7BW or HF7. Iron at 135°C, let cool 4-6 minutes, then scrape and brush thoroughly using Swix Steel Brush- T179. Polish with the Blue Nylon Brush- T160. Repeat the process.

**KICK WAX:**

**KICK WAX APPLICATION**
As the race is still 4 days away, it is difficult to predict the exact kick wax for the Birkie. Based on the forecast, a strong and tough klister binder layer will be needed and this klister binder layer will be covered with hardwax race kick wax. Using the current weather information, we will provide a preliminary Kick Wax recommendation but it will be important to check with Swix at the Expo for recommendation updates, waxing advice, tips and clinics.

**KICK ZONE PREPARATION**
Remove old kick wax with a kick wax scraper and clean the kick zone with Swix Wax Remover and Swix Fiberlene. Let the base dry. Use 80 or 100 grid sandpaper and texture the kick zone by sanding the zone in a manner parallel to the groove in the ski base. The Swix T0011 Cork and Sandpaper combi tool is ideal for this process. A typical adult kick zone is 65-75cm from the back of heel forward. A typical adult klister zone is 60-65cm from the front of the heel forward.

**BASE KICK WAX: Klister Binder**
Apply one (1) thin, even layer of Swix KB020 Base Klister Spray. Smooth even with a thumb or cork. Let cool 5-10 minutes outdoors. The KB20 Base Klister is easy to apply, just spray the klister on within the kick zone and smooth out with your thumb. It is best to do this indoors as the klister is easier to work and smooth.
Next, apply one (1) thin, even layer VG35 Green Base binder over the top of the KB20. Use an iron set at 110°C to smooth even with a cork. The VG35 will bind to the KB20, creating a very strong binder from which the hardwax can be applied over the top.

**RACE KICK WAX: For Hardwax Kicking Layer**
Waves Elite 5-1: Apply 3-5 thin layers of Swix VR40. Cork smooth. If added kick is needed, add one layer of VR45 underneath the foot to 15cm in front of the binding. It is recommended to cork outdoors to keep the wax cold.
Waves 6-10: Apply 3-5 thin layers of Swix VR45. Cork smooth. If added grip is needed, add one layer of VR50 underneath the foot to 15cm in front of the binding. It is recommended to cork outdoors.