## **Tip of the Week**

## November 8, 2004

## It's Cold Out There

It's getting that time of the year again. Days are getting shorter and the snow is on its way. Like it or not, we have to prepare ourselves for working in the cold. Here are a few tips to help deal with stack testing in colder climates:



- Be prepared...just because its 80 in Houston don't assume it will be warm when you get to Rochester. Don't forget to pack a jacket and dress in layers.
- Consider wearing a balaclava or hard hat liner. Sure, you may look like Bullwinkle, but by covering your head and neck, you'll prevent body heat loss by up to 80%.
- Want to start the day with a warm meter? Put a trouble light (75W) in the pump box and cover the whole meter and pump with a garbage bag overnight. Make sure you use a metal light housing, and be careful that the bulb does not touch anything plastic. If it's still cold as heck in the morning, leave the garbage bag on for awhile...just cut a hole in the front to allow access to the meter, and duct-tape the edges down. Don't forget, though, to make sure you factor the warmer meter temperature into your K-factor for that first run of the day.
- Sometimes hot boxes just don't want to stay hot, or take forever to heat up in cold or especially windy conditions. Try covering the filter box with a plastic bag to cut down on convective cooling. You'll be amazed at how much difference that can make.
- If you have to connect two heated sample lines, don't forget to insulate the connection. In some cases, you may even have to wrap the connection with heat-trace tape.
- Don't forget that liquids freeze in the cold. Avoid storing chemicals and samples outside or in unheated areas (e.g., box truck) overnight.

## Head Warming Accessories

Standard Hard Hat Liner
Patriotic Hard Hat Liner
Cool Hard Hat Liner
Knitted Tube Liner Keeps head and ears warm, and is easily rolled out of the way when not needed. Does nothing for the neck, though.
Balaclava







- Put a 75-watt trouble light in the meter pump box.
- Use either a light with a metal housing, or no housing at all.
- Avoid direct contact of the light with hoses, plastic bottles, etc.

• Turn light on and replace pump box cover to seal as tightly as you can.

• Cover the whole meter box and pump with a garbage bag.



Meter with hole cut in plastic bag to allow operational access.