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QUICK REFERENCE

SBE *9plus* – OIL SPILL DEPLOYMENT PROTOCOLS

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Sea-Bird CTDs can be deployed in oil; oil will not cause long-term damage. Oil coatings inside the conductivity cell and on the dissolved oxygen sensor membrane can possibly affect the sensor's calibration. Simple measures can help minimize this and the effects:

I. MINIMIZE INGESTION OF OIL INTO CONDUCTIVITY CELL AND DO SENSOR:

Set CTD so that the pump does not turn on until the CTD is in the water and below the layer of surface oil.

- Minimum conductivity frequency and pump delay are not user-programmable for most *9plus* CTDs.
 - If you are using your *9plus* with the *11plus* Deck Unit, the Deck Unit provides power to the *9plus*.
 - Without power, the pump will not turn on.
 - At the start of the deployment, to ensure that you have cleared the surface oil layer before the pump turns on, do not turn on the Deck Unit until the *9plus* is below the surface oil layer.
 - Similarly, on the upcast, turn off the Deck Unit before the *9plus* reaches the surface oil layer.
- If your *9plus* is equipped with the optional *manual pump control*, enable manual pump control via the Pump Control tab in Seasave V7's Configure Inputs dialog box.
 - Once enabled, turn the pump on and off from Seasave V7's Real-Time Control menu.
 - Do not turn the pump on until the CTD is below the surface oil layer.
 - On the upcast, turn pump off before the CTD reaches the surface oil layer.

II. SOME ADDITIONAL DEPLOYMENT TIPS (based on recommendations from a customer working in the Gulf of Mexico oil spill zone):

1. If oil on surface, use boat engines or paddles to clear the surface water.
2. If sheen remains, use dishwashing liquid (e.g., Dawn) to disperse oils.
3. Deploy CTD/carousel through clearing.
4. Repeat 1 and 2 if oil reappears prior to removing CTD/Carousel from water.
5. Recover and clean according to instructions.

If you have methods that are working, and you would like to share them with us and others, please send us an email (cjanzen@seabird.com)!