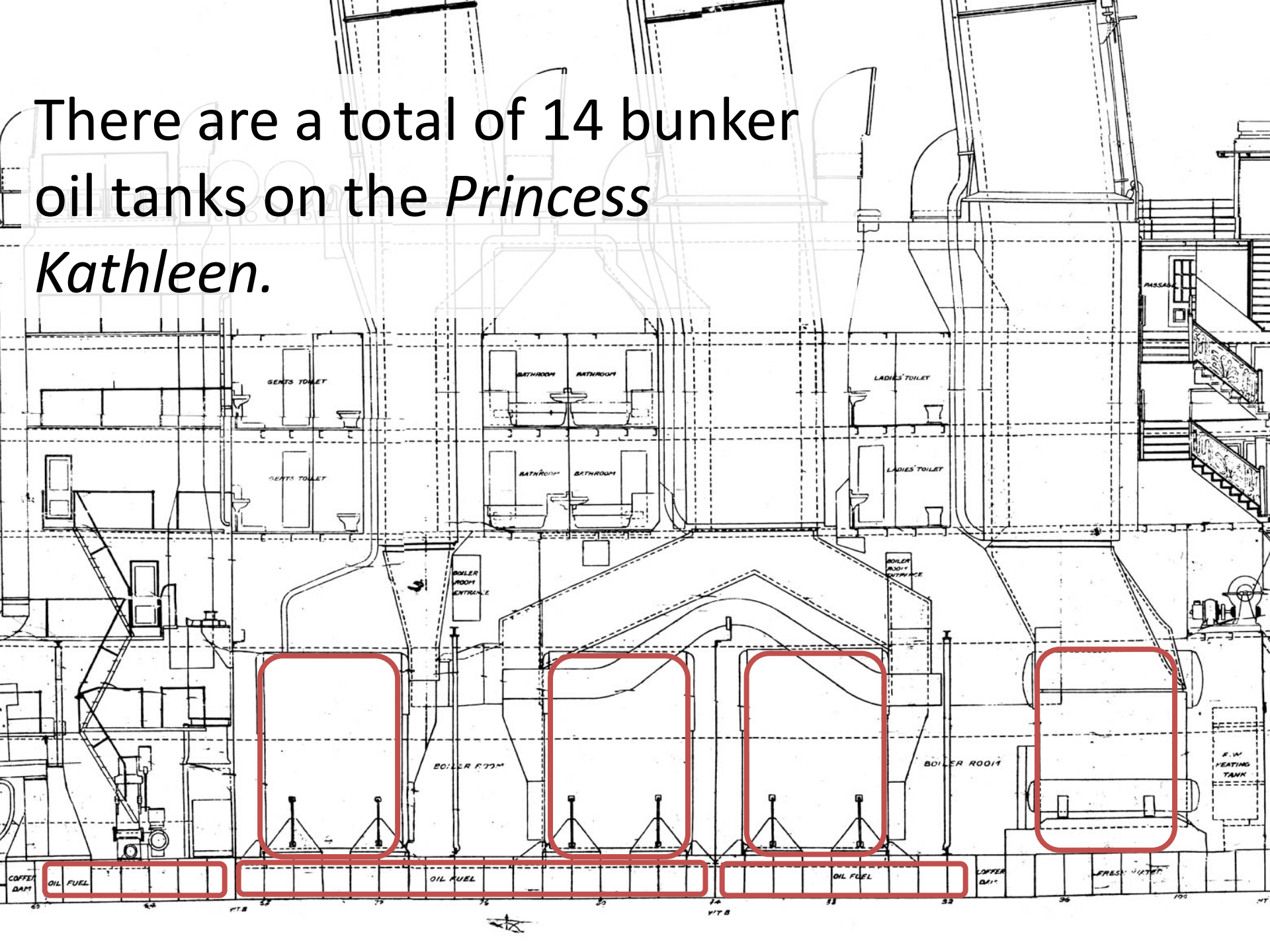
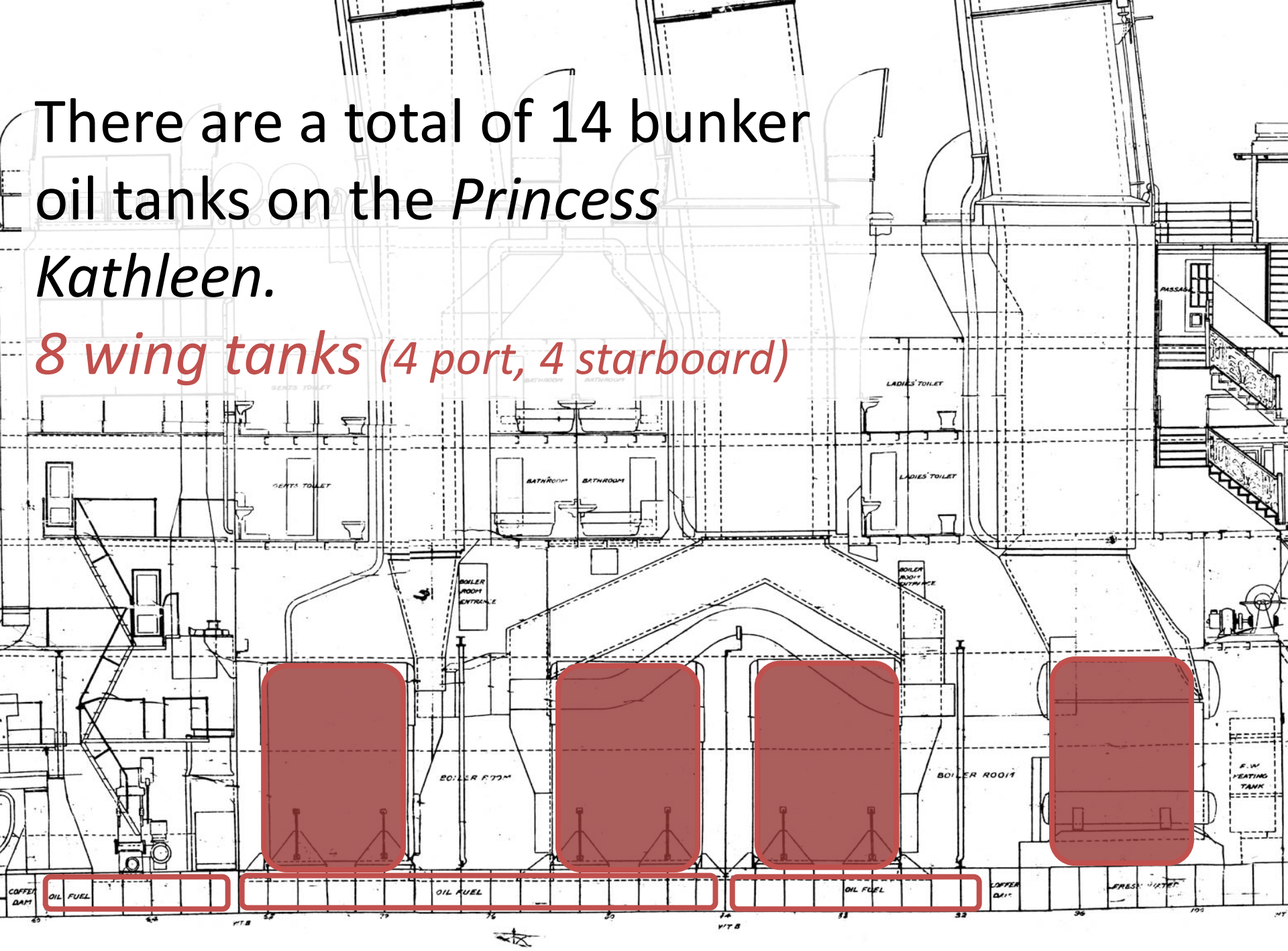
During the dive assessment the Unified Command sought to determine the volume of bunker oil onboard the *Princess Kathleen.*

There are a total of 14 bunker oil tanks on the *Princess Kathleen.*



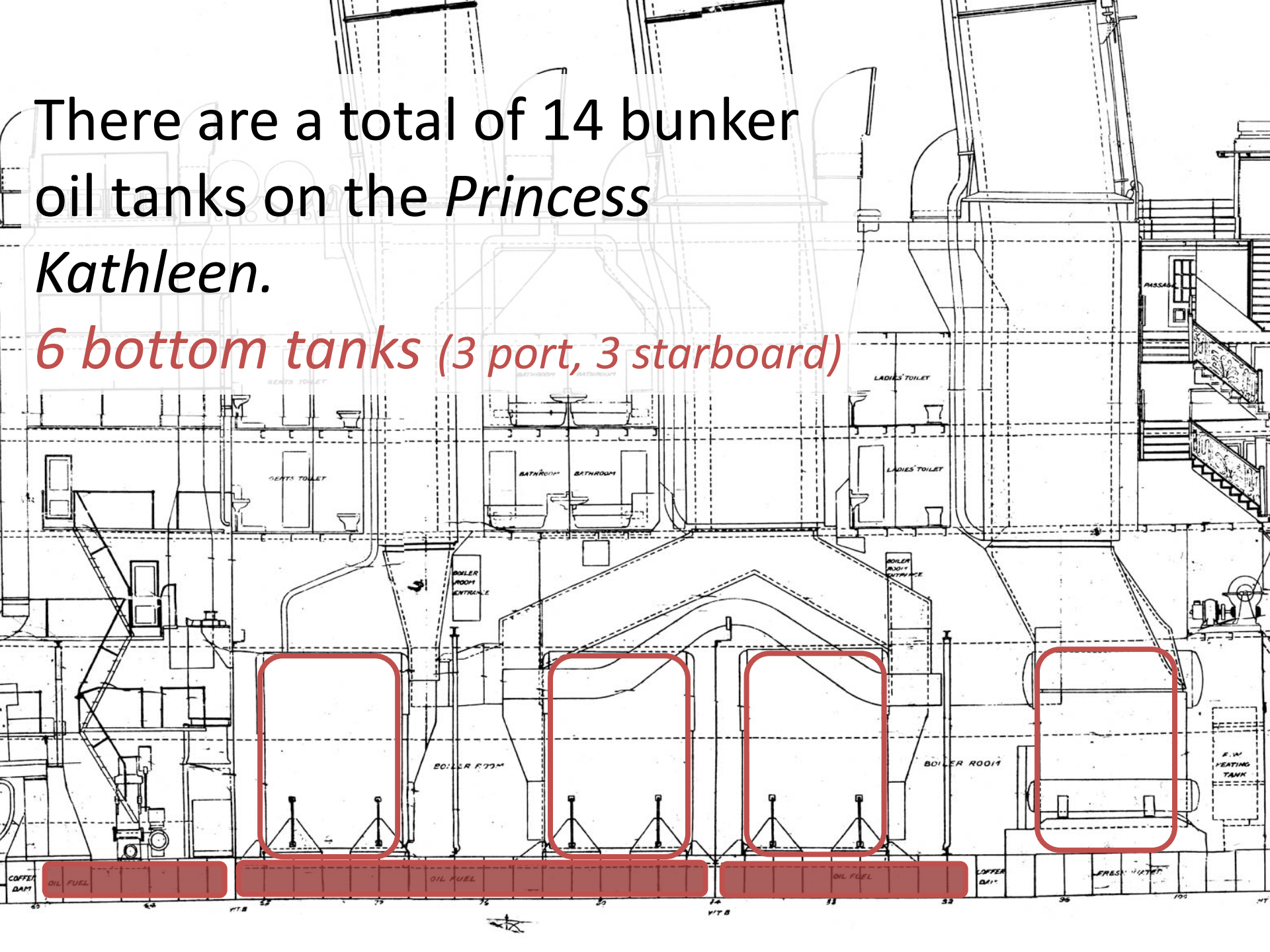
There are a total of 14 bunker oil tanks on the *Princess Kathleen.*

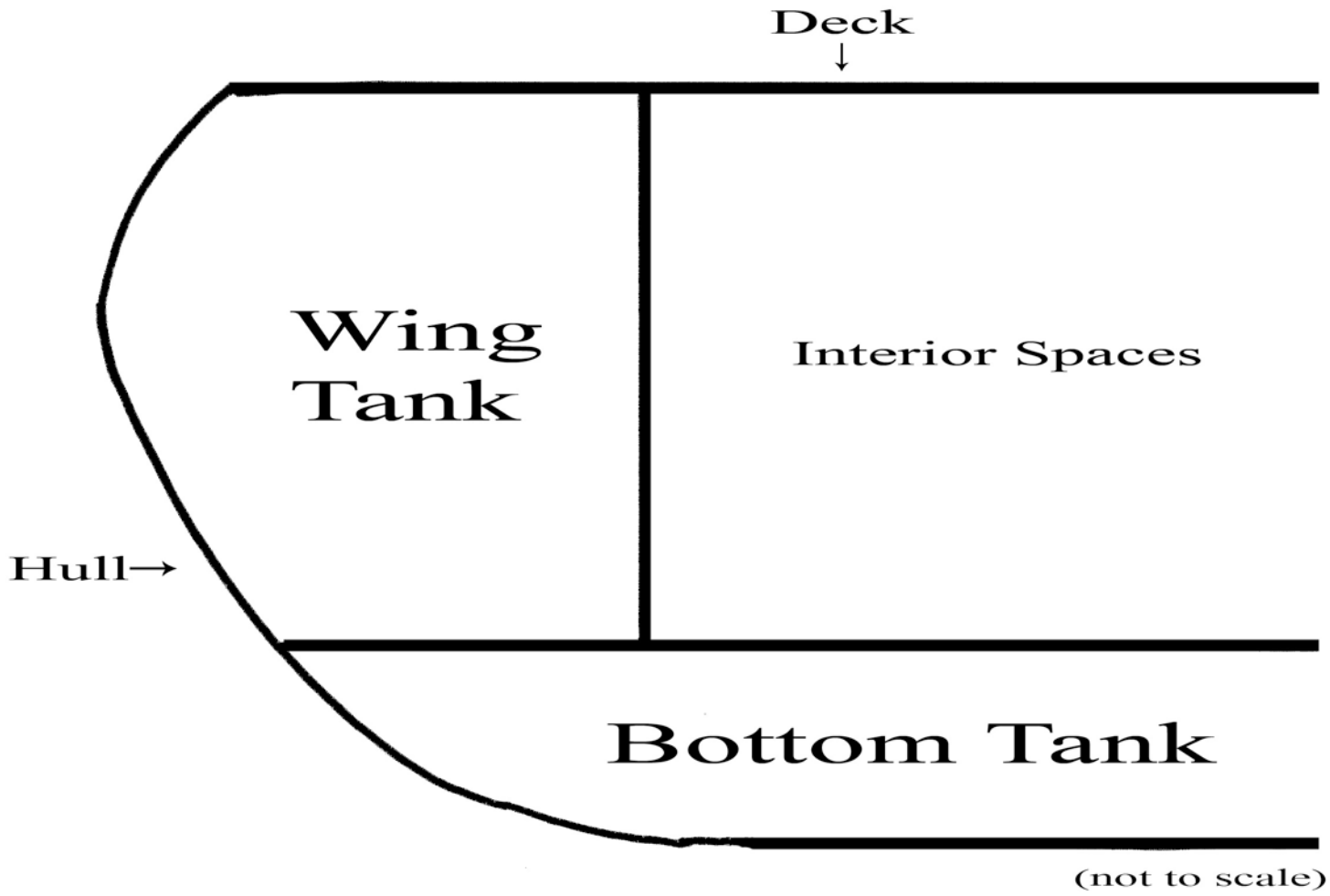
8 wing tanks (4 port, 4 starboard)



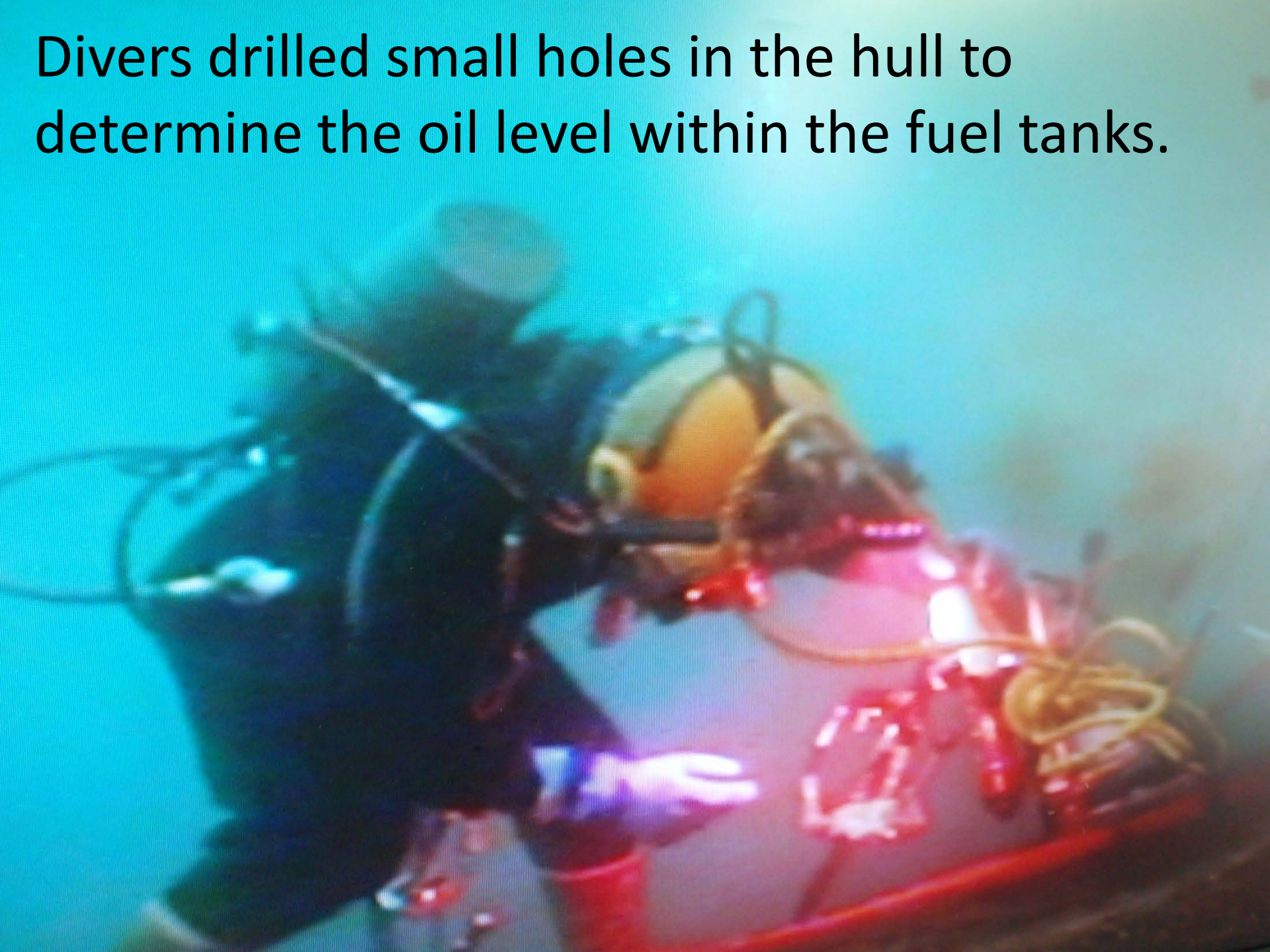
There are a total of 14 bunker oil tanks on the *Princess Kathleen.*

6 bottom tanks (3 port, 3 starboard)

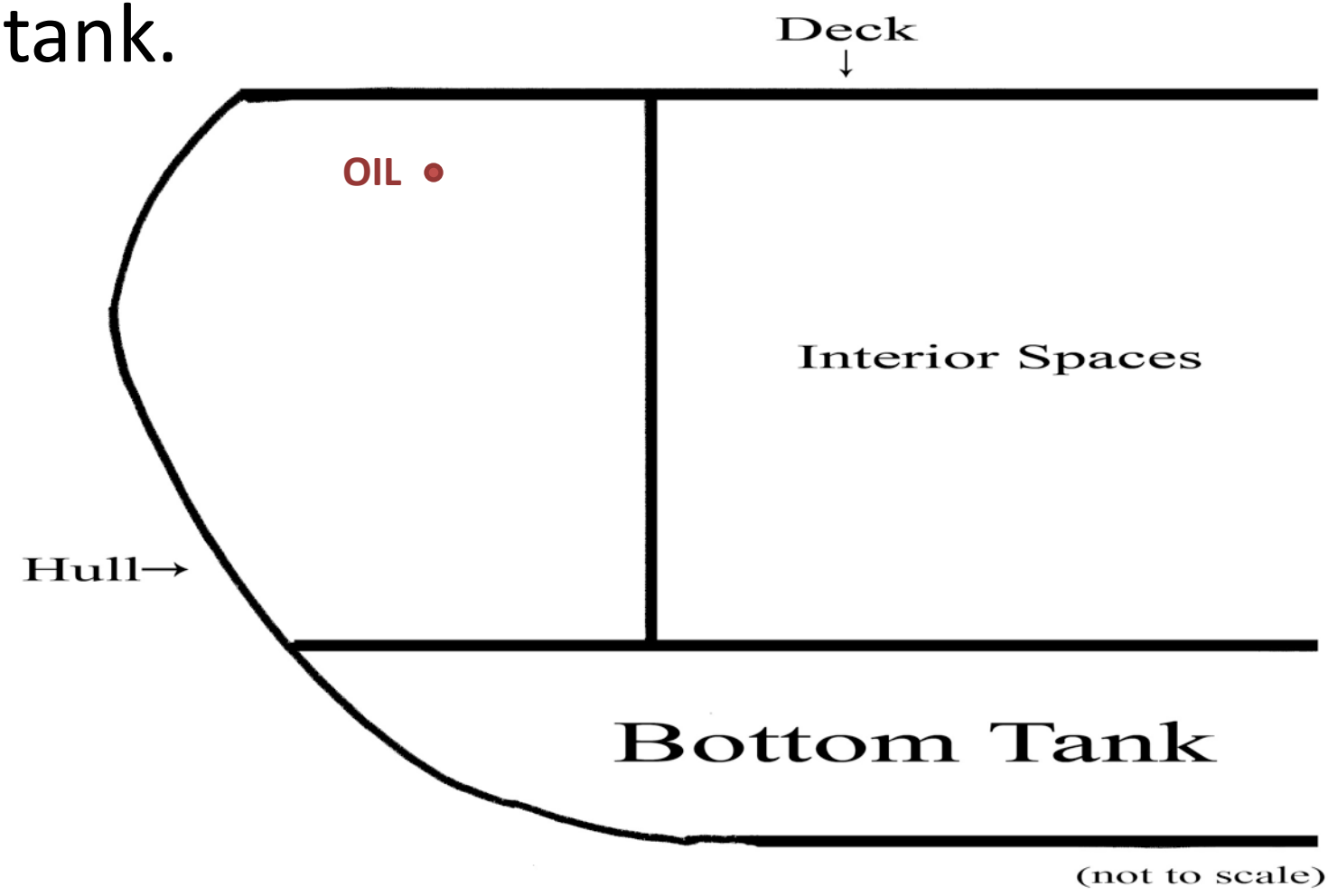



Deck
Wing Tank
Interior Spaces
Hull
Bottom Tank
(not to scale)

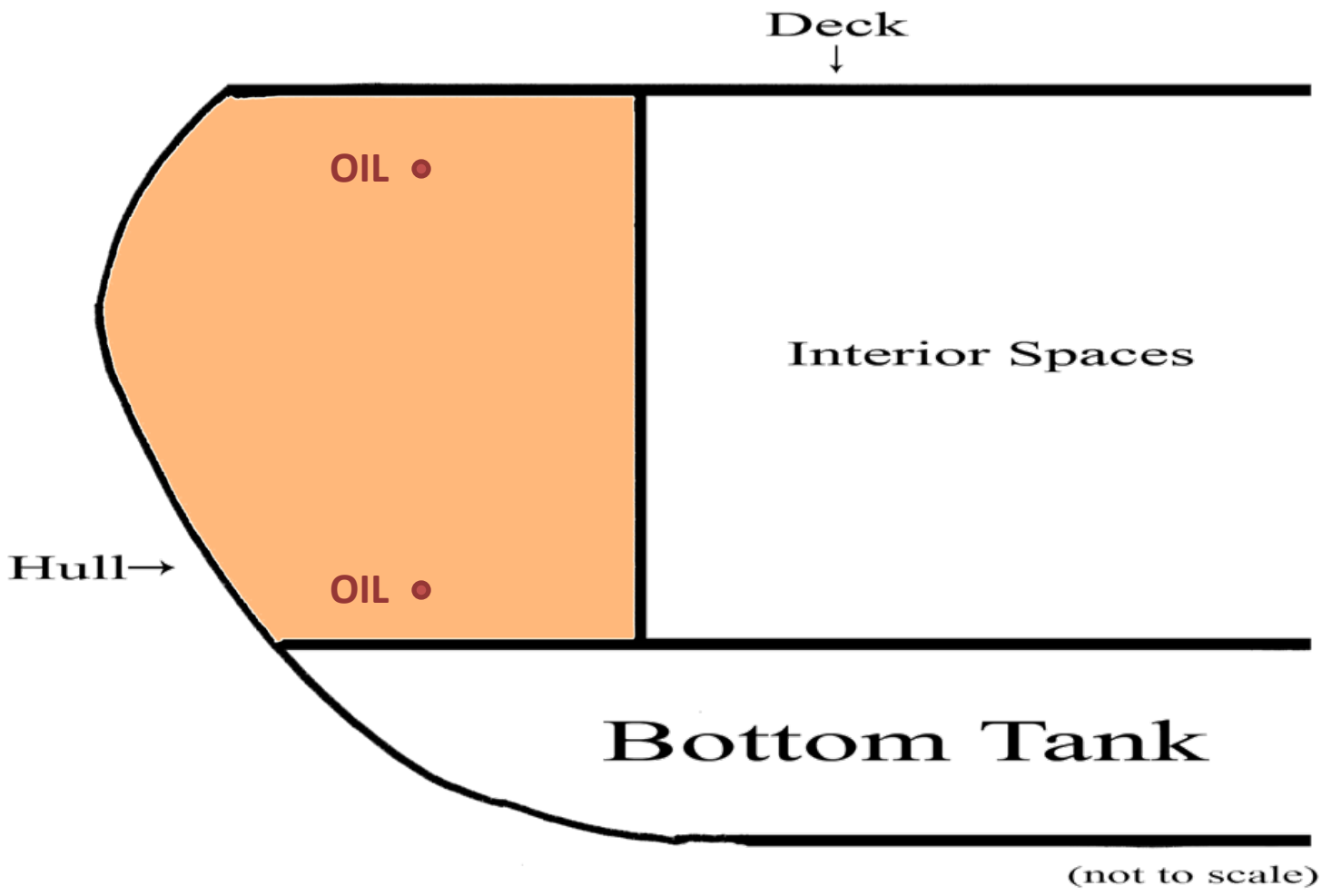
Divers drilled small holes in the hull to determine the oil level within the fuel tanks.



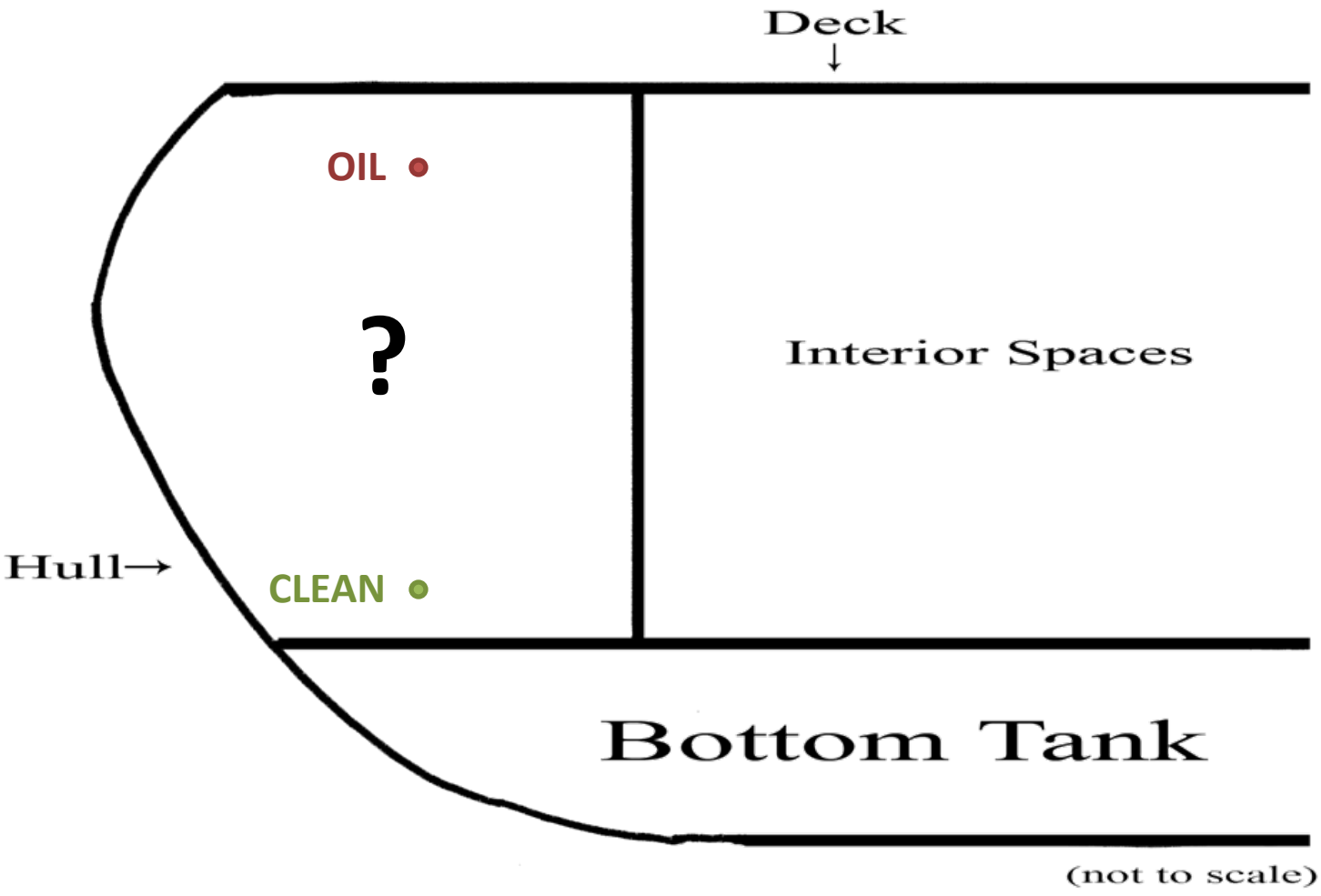
Since oil floats, the first hole is drilled near the top of the tank. If oil is present in the first hole, they know there is some amount of oil in the tank.



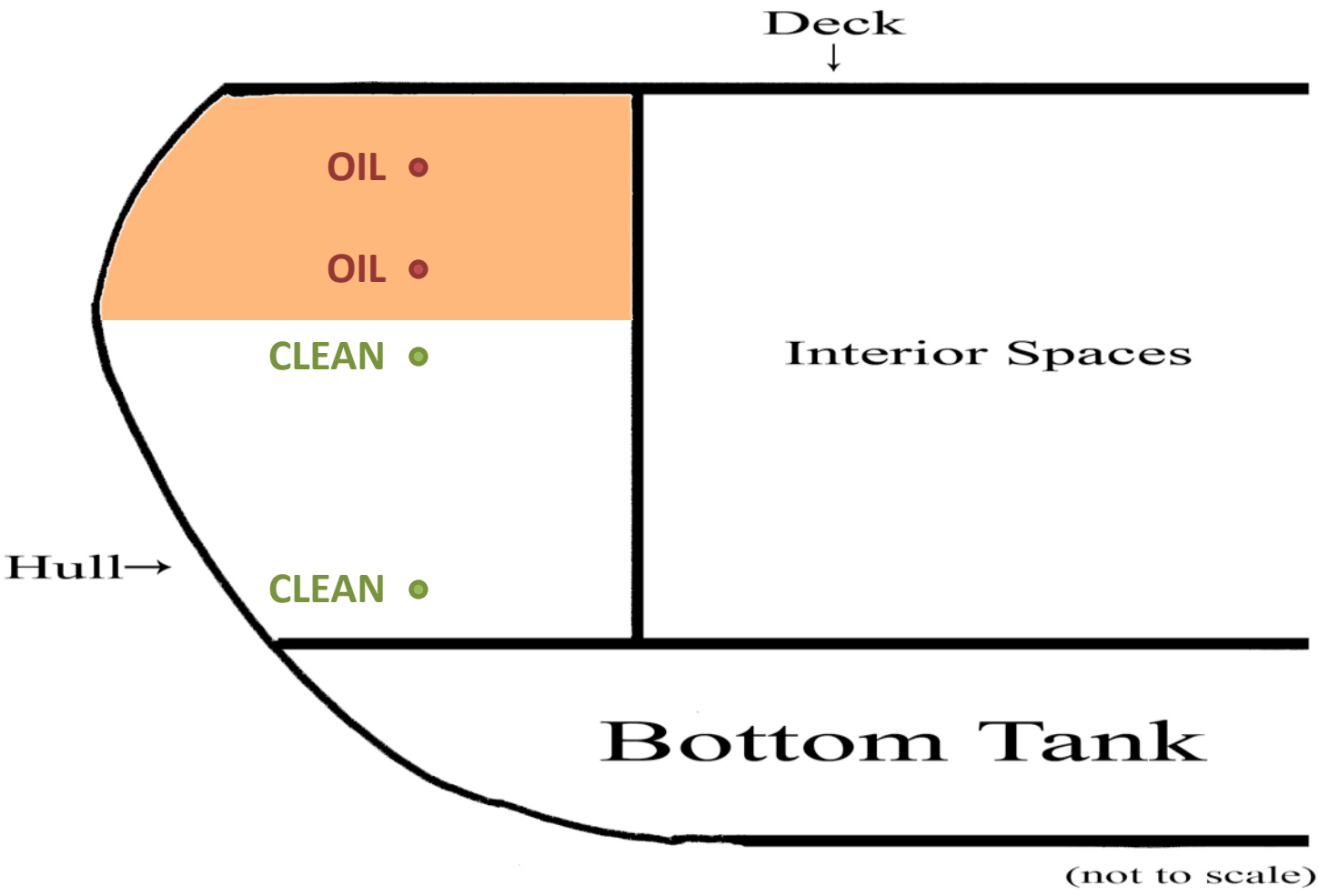
The second hole is drilled near the bottom of the tank. If oil is present, the tank is essentially full of oil.



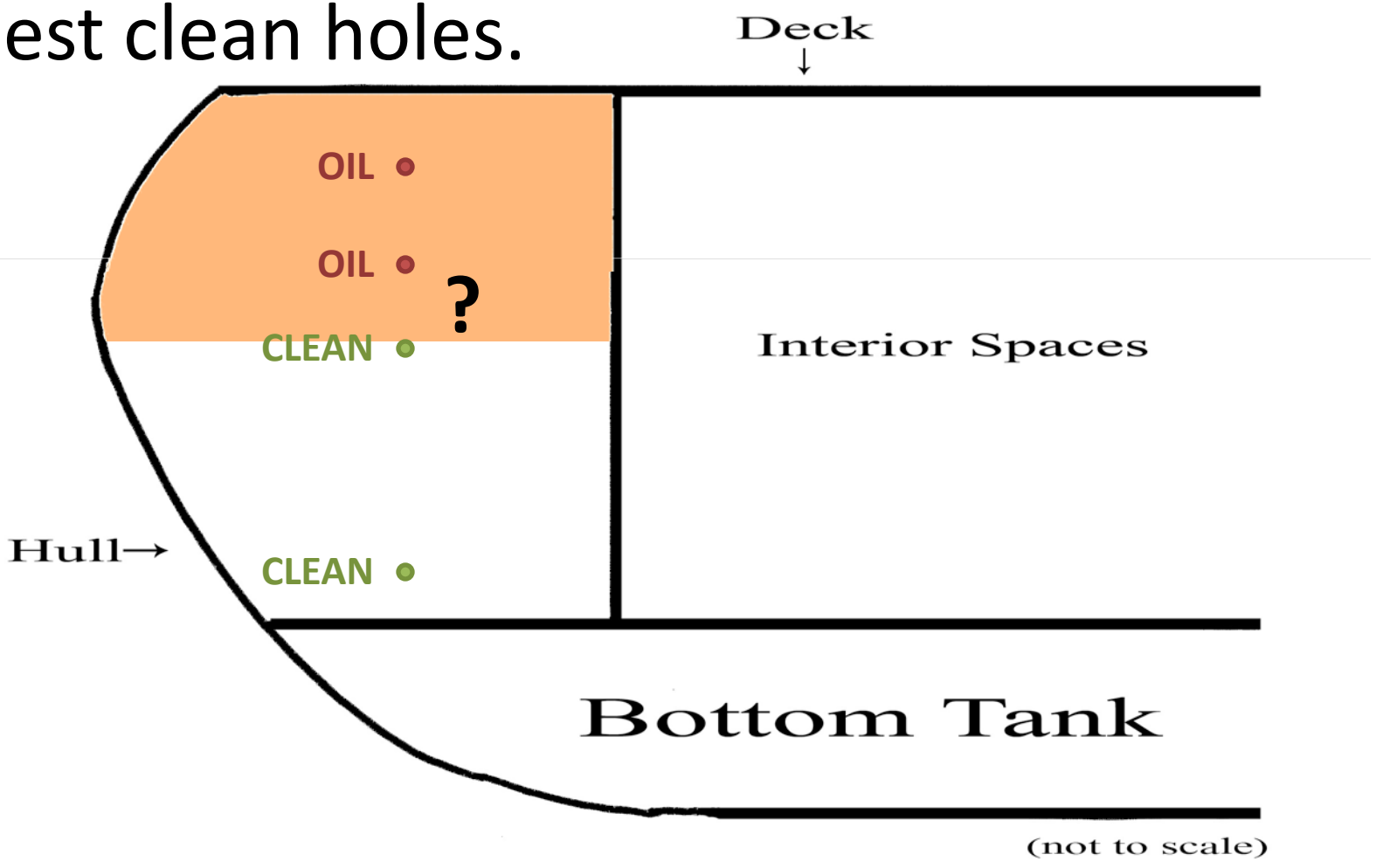
However, if the hole near the bottom of the tank shows no oil the oil-water interface (fuel level) is somewhere between the two holes.



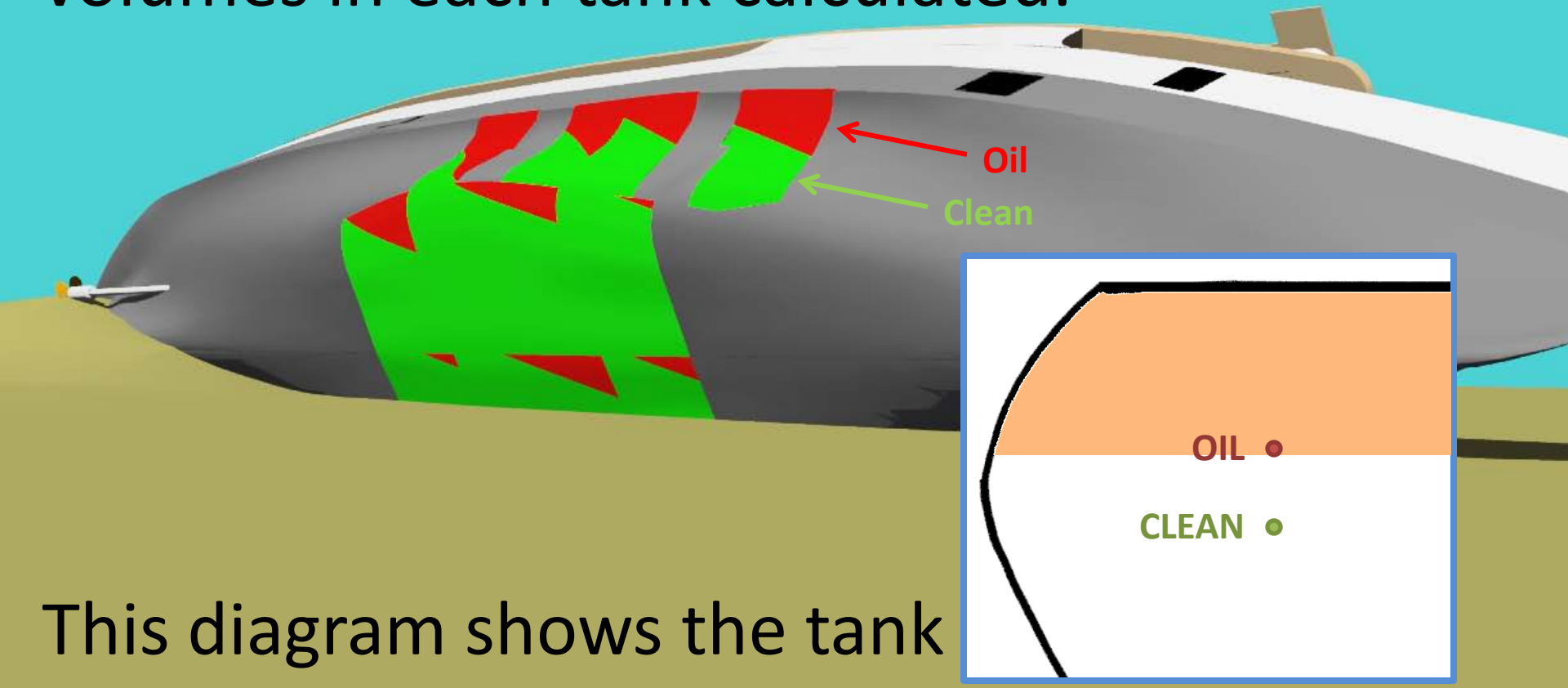
In that case the diver drills additional holes which allow them to determine a range of fuel levels in each tank.



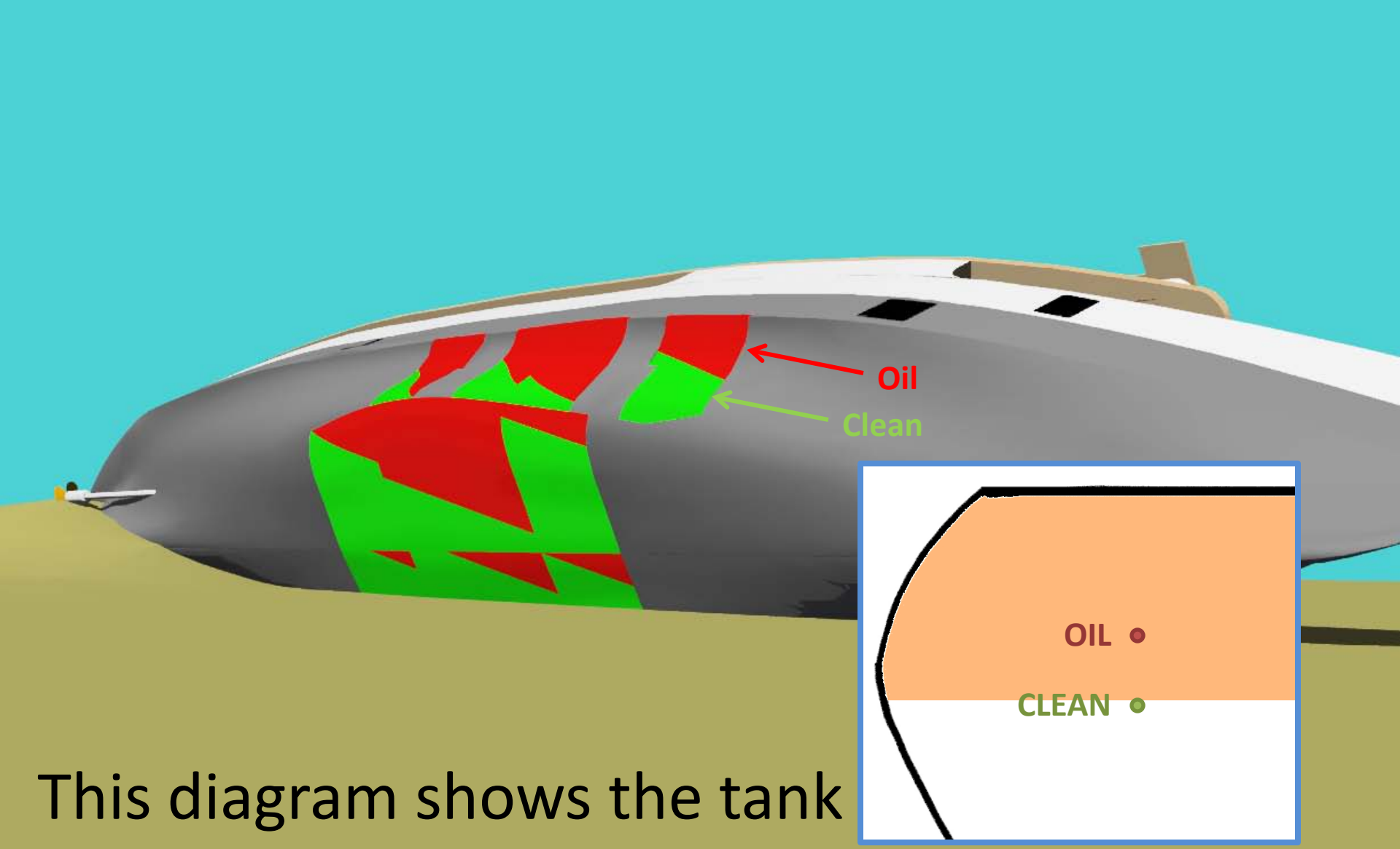
This method gives us a range of possible fuel levels because the oil-water interface can be anywhere between the lowest oiled hole and highest clean holes.



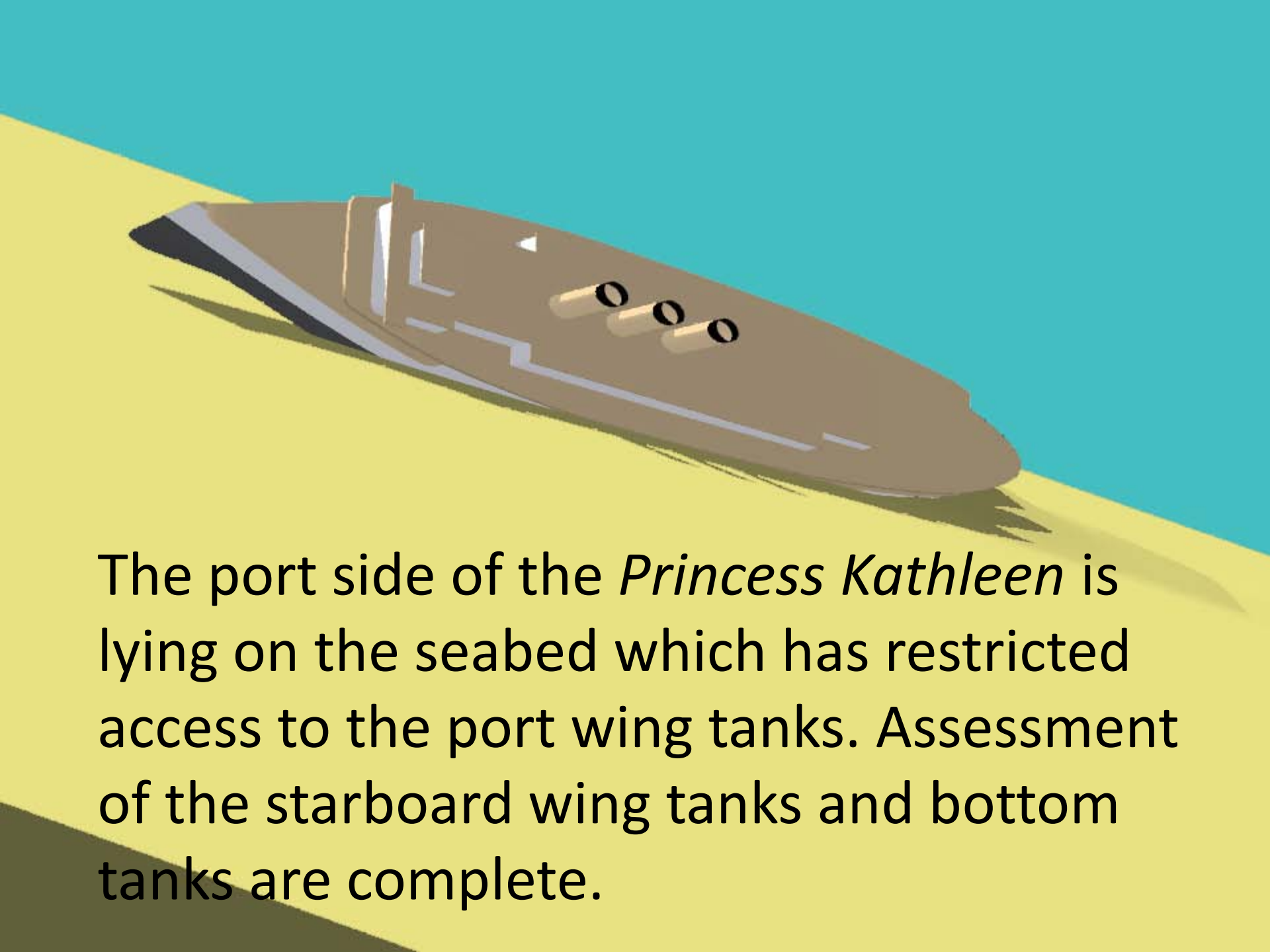
Using the dimensional diagram the oil-water interface can be entered and a range of fuel volumes in each tank calculated.



This diagram shows the tank volumes if the oil is just below the highest oiled hole- ie the **smallest** quantity of fuel.



This diagram shows the tank volumes if the oil is just above the highest clean hole- ie the **largest** quantity of fuel.



The port side of the *Princess Kathleen* is lying on the seabed which has restricted access to the port wing tanks. Assessment of the starboard wing tanks and bottom tanks are complete.

Based on the assessment completed thus far there is an estimated 14,000 – 34,000 gallons of bunker oil onboard. (This does not include the fuel in the port wing tanks which have not been assessed yet.)

Princess Kathleen Unified Command - 2010