

The Shell oil leak

Written by Geraldine Kent
Monday, 22 August 2011 16:10

On Friday, 19 August Shell Oil company announced that it had stopped the oil leak from Gannet Alpha platform in the North Sea.

More than 200 tonnes of oil have entered the North Sea from the pipe since the problem was first detected on August 10.

I thought I would write about this incident simply because it is of significant importance to the well-being of the environment.

The oil current covers around 6.43 square kilometres of sea, and is 3.62 tonnes by volume, according to the latest estimates.

Today, Shell divers closed the relief valve from which oil had been seeping at a rate of less than one barrel a day.

Glen Cayley, technical director of Shell's exploration and production activities in Europe, based in Aberdeen, said: "It was a careful and complex operation conducted by skilled divers, with support from our technical teams onshore. But we will be watching the line closely over the next 24 hours and beyond. Our next task is to remove the residual oil from inside the depressurised flow line, and that will take time."

A Shell spokeswoman said: "We are continuing to monitor the conditions of the sea which affect the dispersal of the oil, in conjunction with Marine Scotland, and to undertake surveys of bird and marine life by air surveillance and vessels in the area. These surveys, which include independent bird monitoring, have indicated no significant impact on the environment."

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The “significant impact” on the environmental

The oil penetrates into the structure of the plumage of birds, reducing its insulating ability, thus making the birds more vulnerable to temperature fluctuations and much less buoyant in the water.

It also impairs or disables birds' flight abilities to forage and escape from predators. As they attempt to preen, birds typically ingest oil that covers their feathers, causing kidney damage, altered liver function, and digestive tract irritation. This and the limited foraging ability quickly causes dehydration and metabolic imbalances.

Some studies have suggested that, even after cleaning, less than 1% of oil soaked birds survive.

Marine mammals exposed to oil spills are affected in similar ways as seabirds. Oil coats the fur of Sea otters and seals, reducing its insulation abilities and leading to body temperature fluctuations and hypothermia. Ingestion of the oil causes dehydration and impaired digestions. Because oil floats on top of water, less sunlight penetrates into the water, limiting the photosynthesis of marine plants and phytoplankton. This, as well as decreasing the fauna populations, affects the food chain in the ecosystem.

[Information from Wikipedia http://en.wikipedia.org/wiki/Oil_spill#Environmental_effects]

Shell's proposed clean up

Royal Dutch Shell, which operates the platform, said it was managing the leak in a flow line, but it would not reveal how much oil had been spilt. A clean-up vessel and spotter plane were sent to the site, 180.24 kilometres east of Aberdeen, on Friday.

A spokesman for Shell said "We have stemmed the leak significantly and we are taking further measures to isolate it. The subsea well has been shut in, and the flow line is being de-pressurised."

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Scotland's Green party co-leader Patrick Harvie said: "It's too early to tell how serious this spill is, but it is imperative now that Shell act both urgently and efficiently. They must also keep the public and the authorities properly informed about progress, something BP failed to do during the Gulf of Mexico disaster last year."