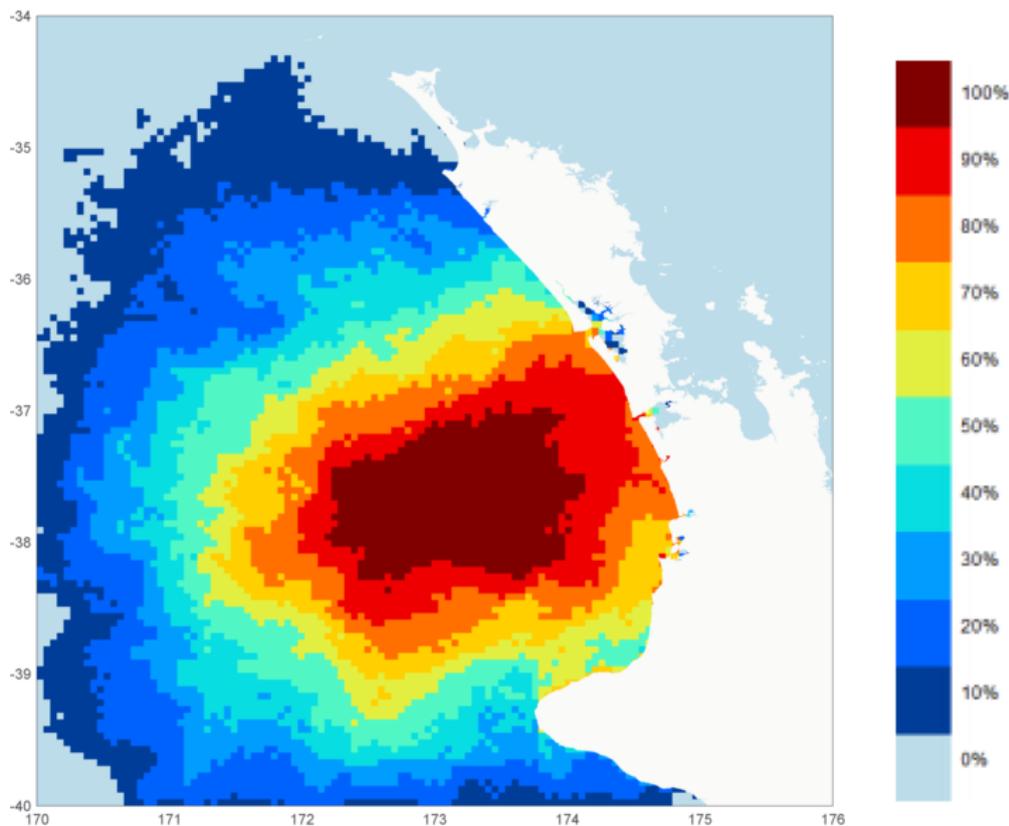


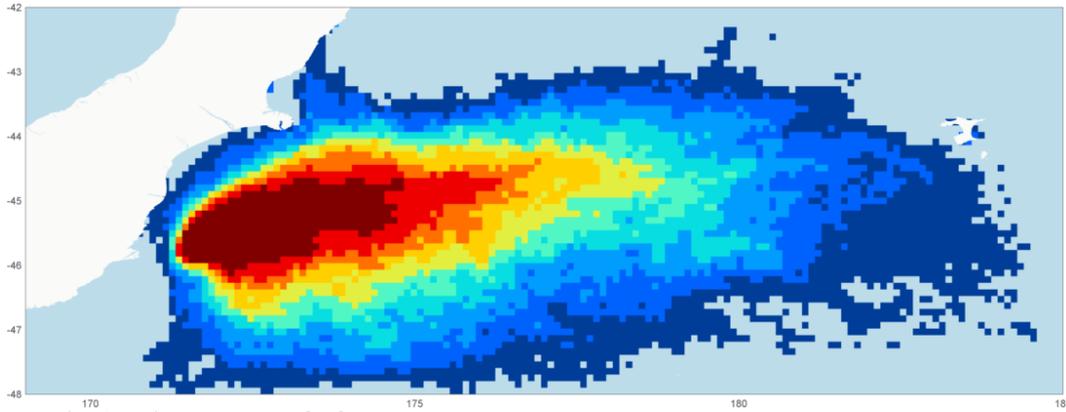
Dumpark / Greenpeace Oil Spill Report 2-Page Background Information v3

Technical parameters of oil spill report:

- The modelling used medium crude, as our analysis showed that medium crude is similar in weathering characteristics to two known New Zealand oil types (Maari-2 and Amokura-1 crude) (Pg. 28 of the full report). Both OMV and AWE also model on medium crude.
- The flow rate of 10,000 barrels of oil per day, our primary scenario, is based on documented natural flow rates for existing wells in Taranaki New Zealand (Pg. 19)ⁱ. Shell Oil spill modelling scenarios also use flow rates of 10,000 barrelsⁱⁱ. In the appendices of our full report 5,000 and 40,000 are also provided for comparison.
- The simulation runs for 76 days. This is potentially an underestimate of the time it would take to kill a blowout in NZ. Oil driller OMV estimates a duration of between 120 and 135 days to kill a shallow water blowout in offshore Taranakiⁱⁱⁱ, while Shell estimates 106 days. As a comparison the Gulf of Mexico deep-sea blowout was capped after 87 days.
- Industry standard modelling techniques based on ten years of hindcast ocean current and weather data were used to model 1000 spill trajectories. This database of spill trajectories was then used to create the probability maps.

The figures below show the percentage of medium crude spills that reached the level of concern of 1 g/m² (socio-economic threshold on land). The numerical model simulates a continuous spill of 10,000 bbl/day for 76 days during the summer season.





Key facts of deep sea oil risk:

- Deep-sea drilling is riskier than shallow water drilling^{iv}.
- Exploratory drilling (which is what this report concerns) is the riskiest stage of oil production^v.
- The Gulf of Mexico spill was from a deep-sea exploratory drilling operation.
- New Zealand has no deep-sea oil production with the deepest production well currently at 125 meters.

Key facts on Anadarko:

- Anadarko were a co-owner (not merely a shareholder as is often stated) of the Macondo Prospect in the Gulf of Mexico which was the site of the world's worst offshore oil spill – The Deepwater Horizon disaster 2010.
- Anadarko were found jointly and severally liable for the Gulf of Mexico spill by US courts^{vi}.
- Anadarko paid BP a US\$4 billion dollar out-of-court settlement to indemnify themselves against liability^{vii}.
- Anadarko are scheduled to begin exploratory drilling this New Zealand summer 2013/14 in the Deepwater Taranaki permit off the North Island's West Coast and the Canterbury Basin permit of the Otago coast.
- Anadarko also have permits for seismic surveying and exploratory drilling in the Pegasus Basin near to Kaikoura.

For more information:

Steve Abel, energy and climate campaigner, Greenpeace: +64 21 927301 steve.abel@greenpeace.org

Ana Mules, communications officer, Greenpeace: +64 21 2609186 ana.mules@greenpeace.org

Niall Bennett, head of communications, Greenpeace: +64 22 1831740 niall.bennett@greenpeace.org

ⁱ One of the Maari partners Horizon Oil said that the first production well MR3P8 had test flowed without pumping at a rate of over 10,000 barrels of oil per day (bopd) through a choke 26% open. Retrieved 25/10/13 from: http://www.nzpam.govt.nz/cms/news_media/2009/first-two-maari-oil-wells-flow-over-20-000-barrels-a-day

ⁱⁱ Retrieved 25/10/11 from: http://www.epa.govt.nz/Publications/STOS_Ruru_2_and_Maui_Appendix_2_Reduced.pdf

ⁱⁱⁱ Pg. 142, OMV EIA June 2013, retrieved 20/10/13 from:

http://www.epa.govt.nz/Publications/OMV_Impact_Assessment_1_July_2013.pdf.

^{iv} "Statistical analysis reveals that company reported incidents (such as blowouts, fires, injuries, and pollution) increase with water depth. For an average platform, each 100 feet of added depth increases the probability of a company-reported incident by 8.5 percent." Preliminary Empirical Assessment of Offshore Production Platforms in the Gulf of Mexico, Lucija Muehlenbachs, Mark A.Cohen, and Todd Gerarden, 2009.

^v Scandpower annual report based on SINTEF data reveals that, among the various phases of offshore operations, exploration drilling entails the highest risk of blowout. Retrieved 1/10/13: <http://officerofthewatch.com/2013/08/06/the-probability-of-an-offshore-accident/>

^{vi} February 22, 2012, US District Court, Eastern District of Louisiana, Judge Carl Barbier concluded: "Liability for OPA [Oil Pollution Act] removal costs and damages is joint and several, vis-à-vis BP and Anadarko and the subsurface discharge. Furthermore, because it is undisputed that BP and Anadarko were owners of the offshore facility, BP and Anadarko are liable for civil penalties [under the Clean Water Act]".

^{vii} Retrieved 25/10/13 from: <http://www.anadarko.com/Investor/Pages/NewsReleases/NewsReleases.aspx?release-id=1617533>