

# **Drivers & Victims of the Fossil Fuel Industry in New Zealand**

*An extended version for Palmerston North  
Information Evening, 20 Feb 2018*

*By*

**Catherine Cheung**

**Climate Justice Taranaki**

**[www.climatejusticetaranaki.info](http://www.climatejusticetaranaki.info)**

# What is Climate Justice?

- Root causes of climate change:  
socio-economic & political systems & ideologies
- Those who are least responsible for climate change are the worst hit
- Individual actions not enough, needs systemic change
- Justice at the core of all climate actions



<http://www.ausgeco2hlt.de/mitmachen/material/>

<https://climatejusticetaranaki.wordpress.com/about/climate-justice/>  
<http://www.rallyforclimatejustice.nz/principles>

**LARGE PRODUCERS**



**MEDIUM PRODUCERS**



**LARGE EXPLORERS**



**SMALL PRODUCERS/SMALL**



## FIELD OPERATIONS SERVICE PROVIDERS



HALLIBURTON



MB Century



Schlumberger



## NON-FIELD SERVICE PROVIDERS

anderson  
loyd.

AECOM

BELL GULLY



KPMG

btw company  
surveyors, planners, engineers, land & gas services

BUDDLE  
FINDLAY

CHAPMAN  
TRIPP

Deloitte.



OPUS



Govett Quilliam  
THE LAWYERS

GreenwoodRoche



senate shj



KensingtonSwan  
LAWYERS



Russell  
McAugh



MARSH

MinterEllison  
RuddWatts  
LAWYERS

Simpson Grierson



<http://www.pepanz.com/about-us/our-members/>

# Ministry of Business, Innovation & Employment

*“The Government wants New Zealand to be a highly attractive **global destination for petroleum exploration and production investment**... New Zealand’s oil and gas production could be substantially increased – potentially to the point where New Zealand becomes a **net exporter of oil** by 2030...”*

NZ Energy Strategy 2011-2021

<http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-strategies>

*“From a global perspective, New Zealand is a frontier oil and gas location. Lightly explored basins, **low-risk** and a straightforward entry and permitting process... Fiscal regime governing energy production is **favourable**...”*

NZ Trade & Enterprise

<https://www.nzte.govt.nz/en/invest/sectors-of-opportunity/oil-and-gas/>



# Government subsidies for Oil/Gas

**2009: \$40.5 million**

**2016: \$87.6 million**

[http://www.terrenceloomis.ac.nz/uploads/5/3/3/3/5333337/govt\\_subsidies\\_update\\_report\\_2017-3.pdf](http://www.terrenceloomis.ac.nz/uploads/5/3/3/3/5333337/govt_subsidies_update_report_2017-3.pdf)

## Government still funding oil industry and ignoring renewables

Gareth Hughes MP on Sunday, March 20, 2016 - 11:32

The Green Party can reveal the Government is continuing to pour public money into subsidies for the oil and gas industry and ignore clean energy investment, on the eve of a major government-sponsored oil and gas conference starting in Auckland tomorrow.

The Government has just confirmed it spent \$47,583 on the 2016 Minerals Exploration Data Pack – a collection of valuable data for overseas fossil fuel companies as a sweetener to make drilling for oil in New Zealand more attractive.

<https://www.greens.org.nz/news/press-release/government-still-funding-oil-industry-and-ignoring-renewables>

<http://www.petroleumconference.nz/wp-content/uploads/2017/03/11-Kellett-Geoscience-23-March.pdf>

## NIWA report confirms it does oil and gas work

10:08 am on 25 November 2015

Share this      

Eric Frykberg - [eric.frykberg@radionz.co.nz](mailto:eric.frykberg@radionz.co.nz)

A National Institute of Water and Atmospheric Research (NIWA) report shows it does work for the oil and gas industry.

The confirmation comes a day after Greenpeace protesters boarded a NIWA research ship they said was prospecting for fossil fuels.

<https://www.radionz.co.nz/news/national/290502/niwa-report-confirms-it-does-oil-and-gas-work>



RV Tangaroa returns to Wellington after an extensive upgrade, including the installation of DP2 dynamic positioning capabilities.

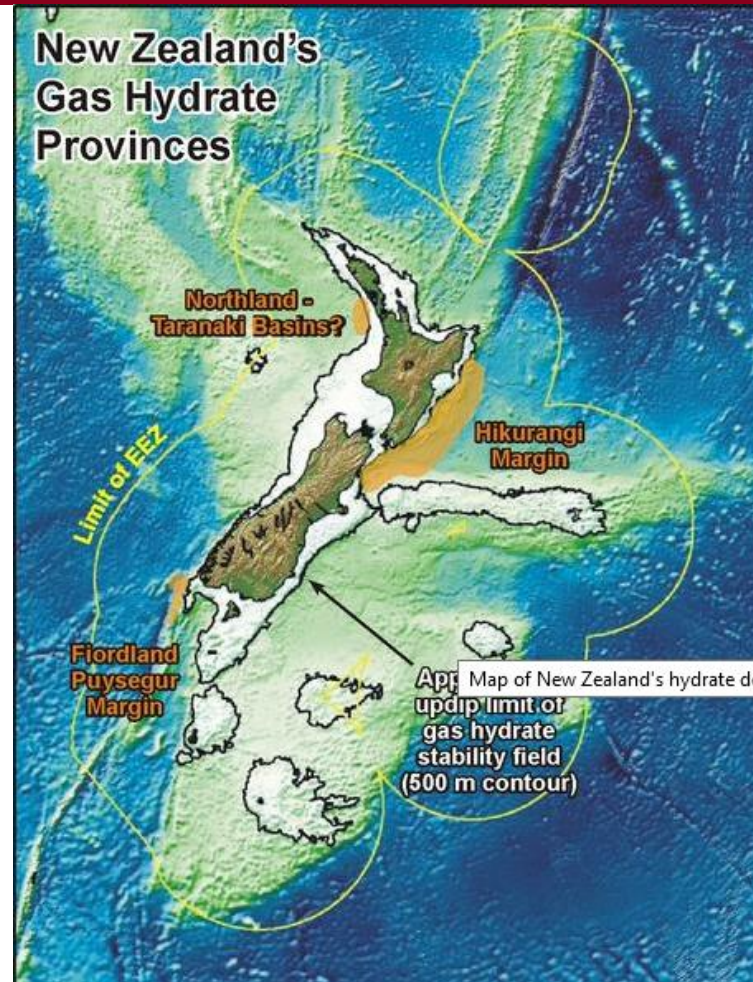
<https://www.niwa.co.nz/news/scientists-investigate-ocean-floor-minerals>







**“GNS Science is leading a research programme into the resource potential of New Zealand’s gas hydrate deposits in collaboration with NIWA, the University of Otago, and the University of Auckland, funded by the Ministry of Business, Innovation, and Employment (Harnessing New Zealand’s gas hydrate resources: towards exploration drilling; GHR).”**



<https://www.gns.cri.nz/Home/Our-Science/Energy-Resources/Gas-Hydrates/Current-Research/Gas-hydrates-as-an-energy-resource>  
<https://view.knowledgevision.com/presentation/a21e535ec46a4b66854c4bc7f6c34df3>

# Playing with ‘Fire in the Ice’



ELSEVIER

Palaeoworld

Volume 25, Issue 4, December 2016, Pages 496-507



## Methane Hydrate: Killer cause of Earth's greatest mass extinction

Uwe Brand <sup>a</sup>, Nigel Blamey <sup>a</sup>, Claudio Garbelli <sup>b, 1</sup>, Erika Griesshaber <sup>c</sup>, Renato Posenato <sup>d</sup>, Lucia Angiolini <sup>b</sup>, Karem Azmy <sup>e</sup>, Enzo Farabegoli <sup>f</sup>, Rosemarie Came <sup>g</sup>

**“Global warming triggered by the massive release of carbon dioxide may be catastrophic, but the release of methane from hydrate may be apocalyptic. The end Permian holds an important lesson for humanity regarding the issue it faces today with greenhouse gas emissions, global warming, and climate change.”**

<https://www.sciencedirect.com/science/article/pii/S1871174X16300488>

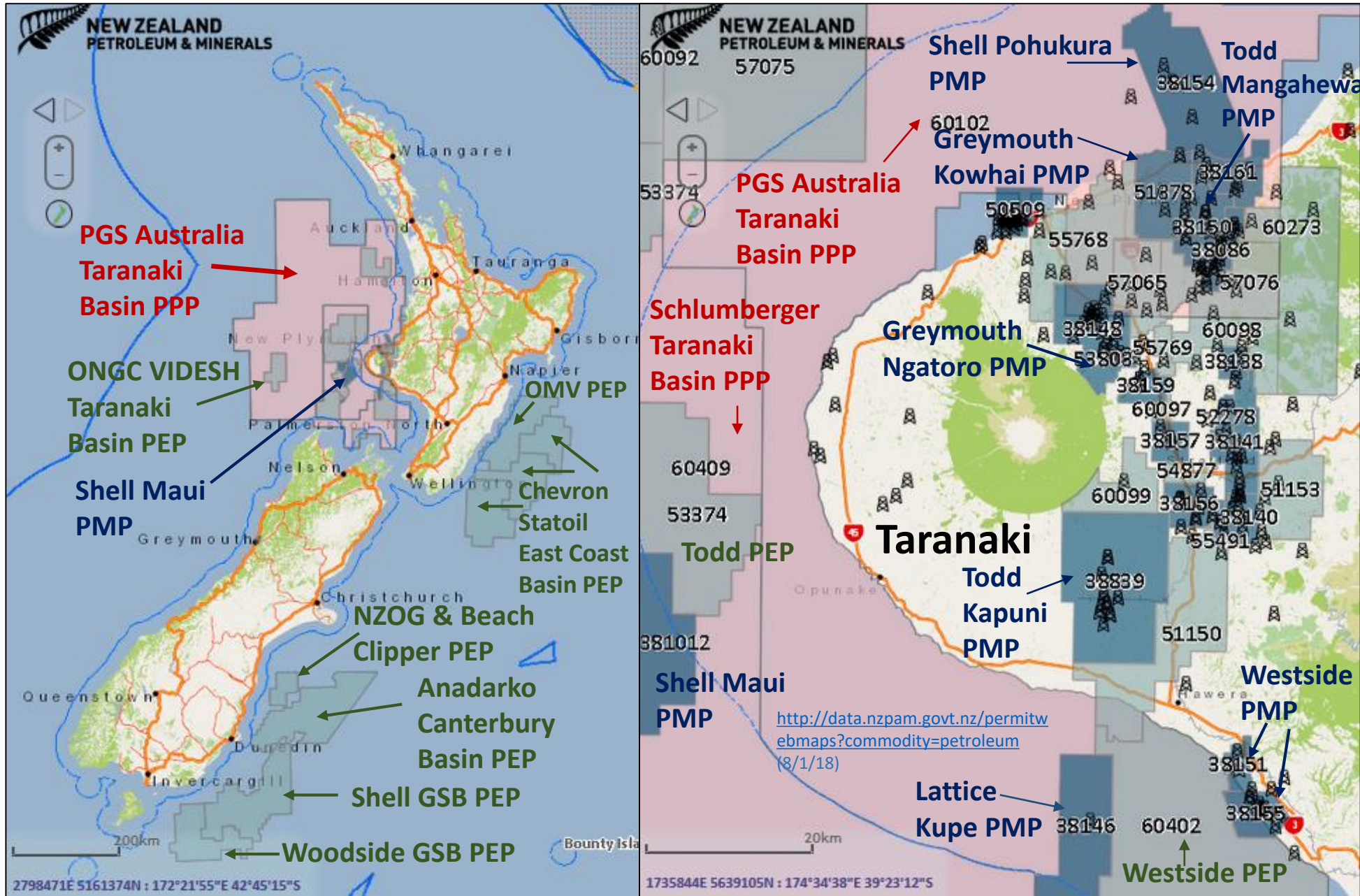
<http://www.independent.co.uk/environment/earth-permian-mass-extinction-apocalypse-warning-climate-change-frozen-methane-a7648006.html#gallery>

<https://www.netl.doe.gov/research/oil-and-gas/methane-hydrates/fire-in-the-ice>

<http://www.energynewsbulletin.net/exploration/news/1099528/nz-junior-jumps-on-hydrate-train>

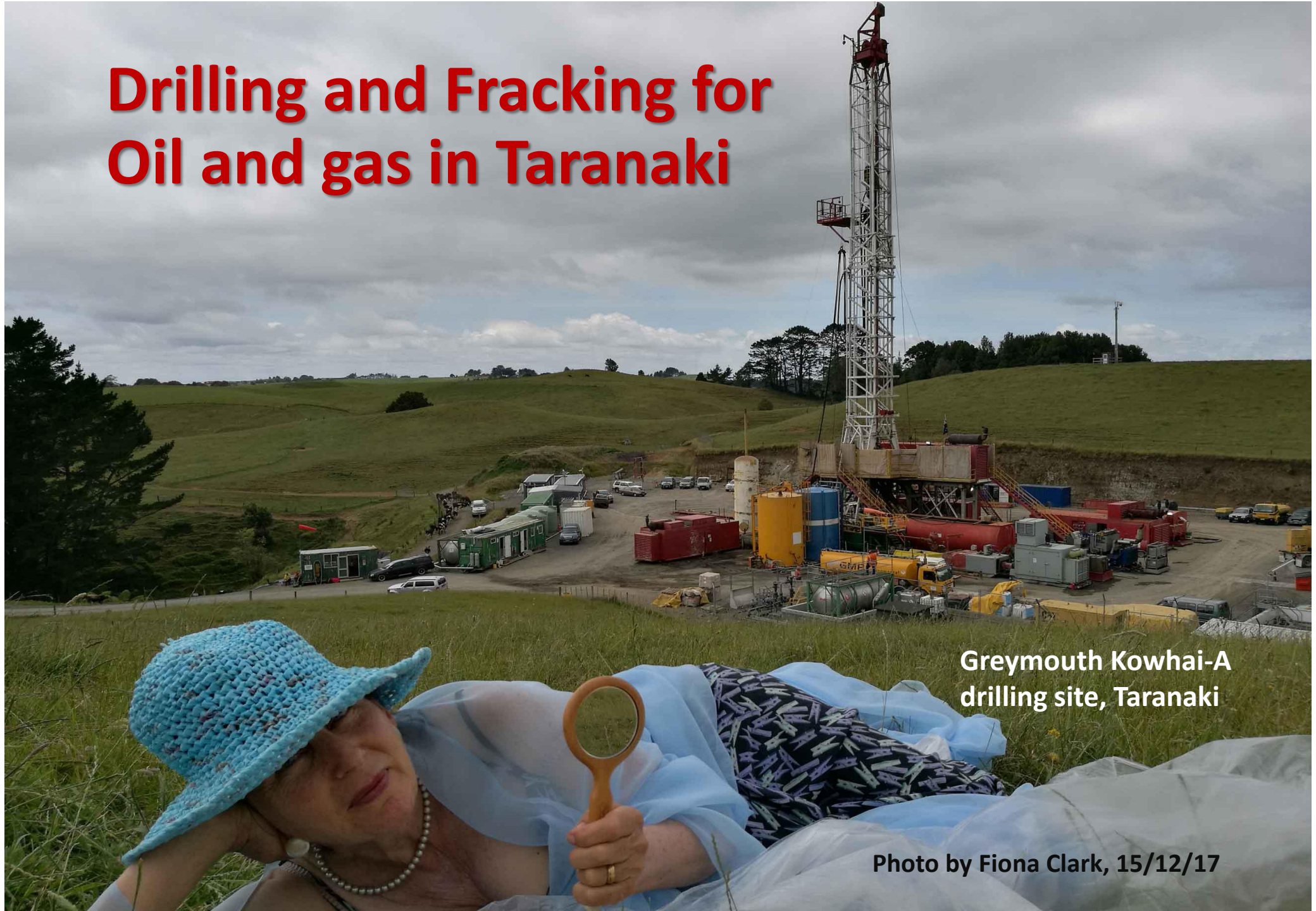


# Petroleum Prospecting, Exploratory & Mining Permits






# Drilling and Fracking for Oil and gas in Taranaki



Greymouth Kowhai-A  
drilling site, Taranaki

Photo by Fiona Clark, 15/12/17





**Todd Energy  
Mangahewa-D well site,  
Tikorangi, Taranaki**

Photo by Fiona Clark, 24/03/17

**Table 3** Consents for production activities at wellsites associated with McKee Production Station

Wellsite	Consent number	Purpose	Issue date	Expiry
Makara-B	4883-2	To discharge treated stormwater and treated produced water from the Makara-B wellsite into an unnamed tributary of the Mangaone Stream in the Waitara catchment	28/05/2009	2027
	4884-2	To discharge emissions into the air from hydrocarbon exploration and production testing operations and miscellaneous emissions associated with eight wells at the Makara-B wellsite	07/04/2005	2021
Mangahewa-A	4919-2	To discharge treated stormwater from hydrocarbon exploration and production operations at the Mangahewa-A wellsite onto and into land and into an unnamed tributary of the Waitara River	27/10/2000	2021
	4920-3	To discharge emissions to air during flaring from well workovers and in emergency situations and miscellaneous emissions associated with production activities at the Mangahewa-A wellsite	25/08/2008	2021
Mangahewa-C	6967-1	To discharge treated stormwater and treated produced water from hydrocarbon exploration and production operations at the Mangahewa-3 wellsite onto and into land in the vicinity of an unnamed tributary of the Waiau Stream	19/10/2006	2021
	6974-1	To discharge emissions to air during flaring from well workovers and in emergency situations and miscellaneous emissions associated with production activities at the Mangahewa-3 wellsite	19/10/2006	2021
	7180-1	To discharge water containing contaminants from the hydrotesting of pipelines onto and into land at the Mangahewa-3 wellsite	14/12/2007	2021
	9594-1	To take and use groundwater for water supply purposes associated with hydrocarbon exploration and production activities	18/06/2013	2027
	7404-1	To take water from the Manganui River for wellsite and well drilling activities during hydrocarbon exploration and production operations at the Mangahewa-D wellsite	19/11/2008	2021

<https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGproduction/MR2016-ToddMcKeeProductionStationPowerPlant.pdf>



# It's NOT just the wells!

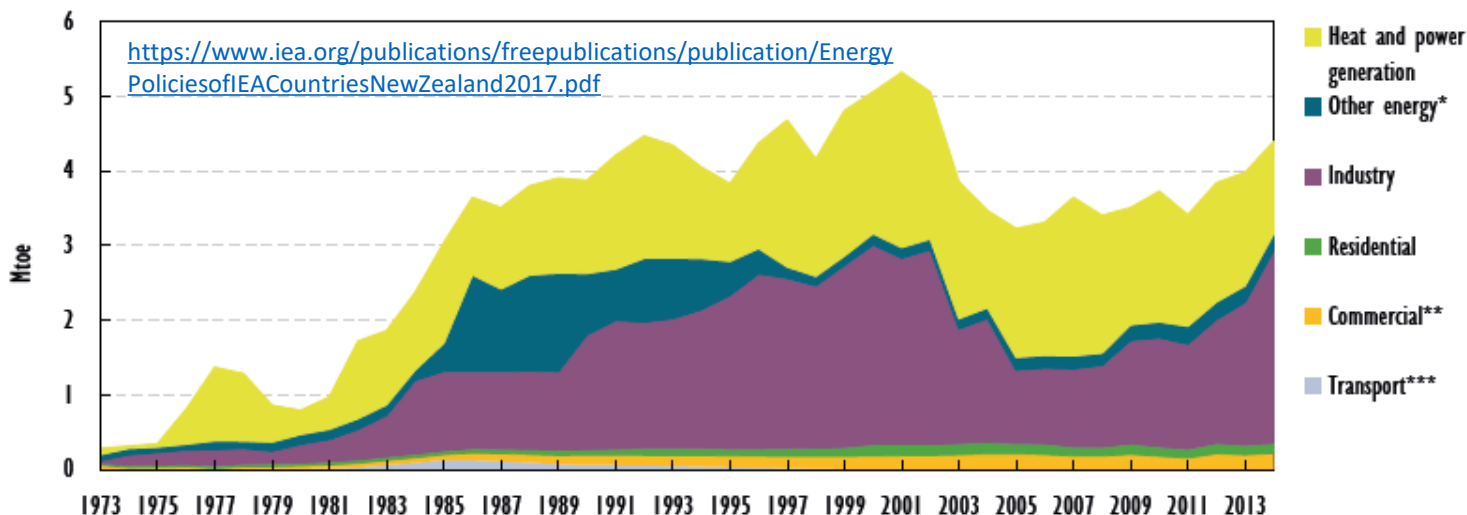
- Wellsites
- Production stations
- Deepwell injection sites
- Mix Bury Cover sites
- Land farms
- Worm farms
- Tank farms
- Methanex
- Ammonia-Urea plant

Half of NZ's gas production is used to make methanol for export and urea for industrial agriculture; only 3% supplies homes



<http://climatejusticetaranaki.info>

Figure 3.2 Natural gas demand by sector, 1973-2014





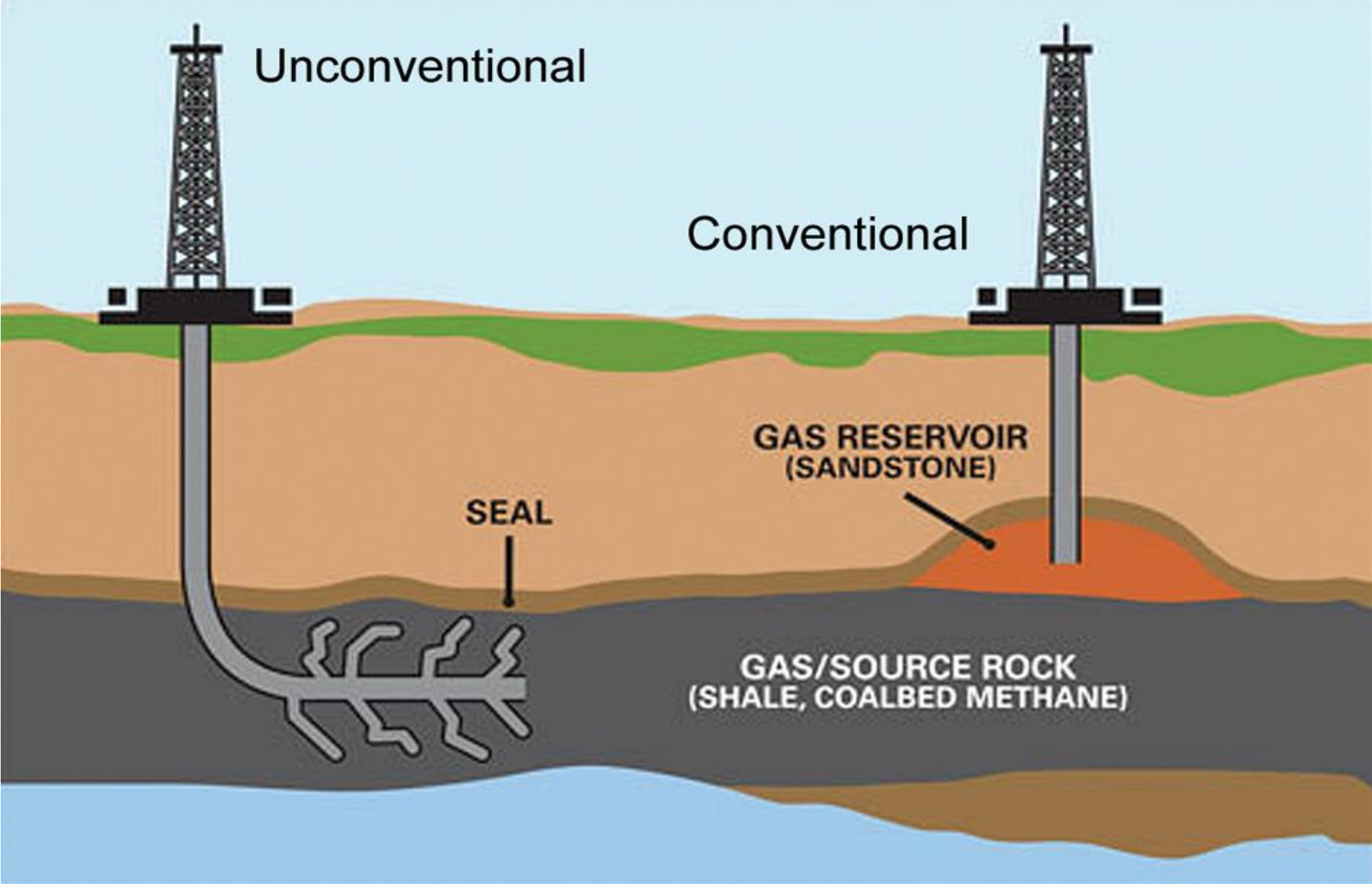
# Multiple Impacts

- Environmental
- Health & safety
- Economic



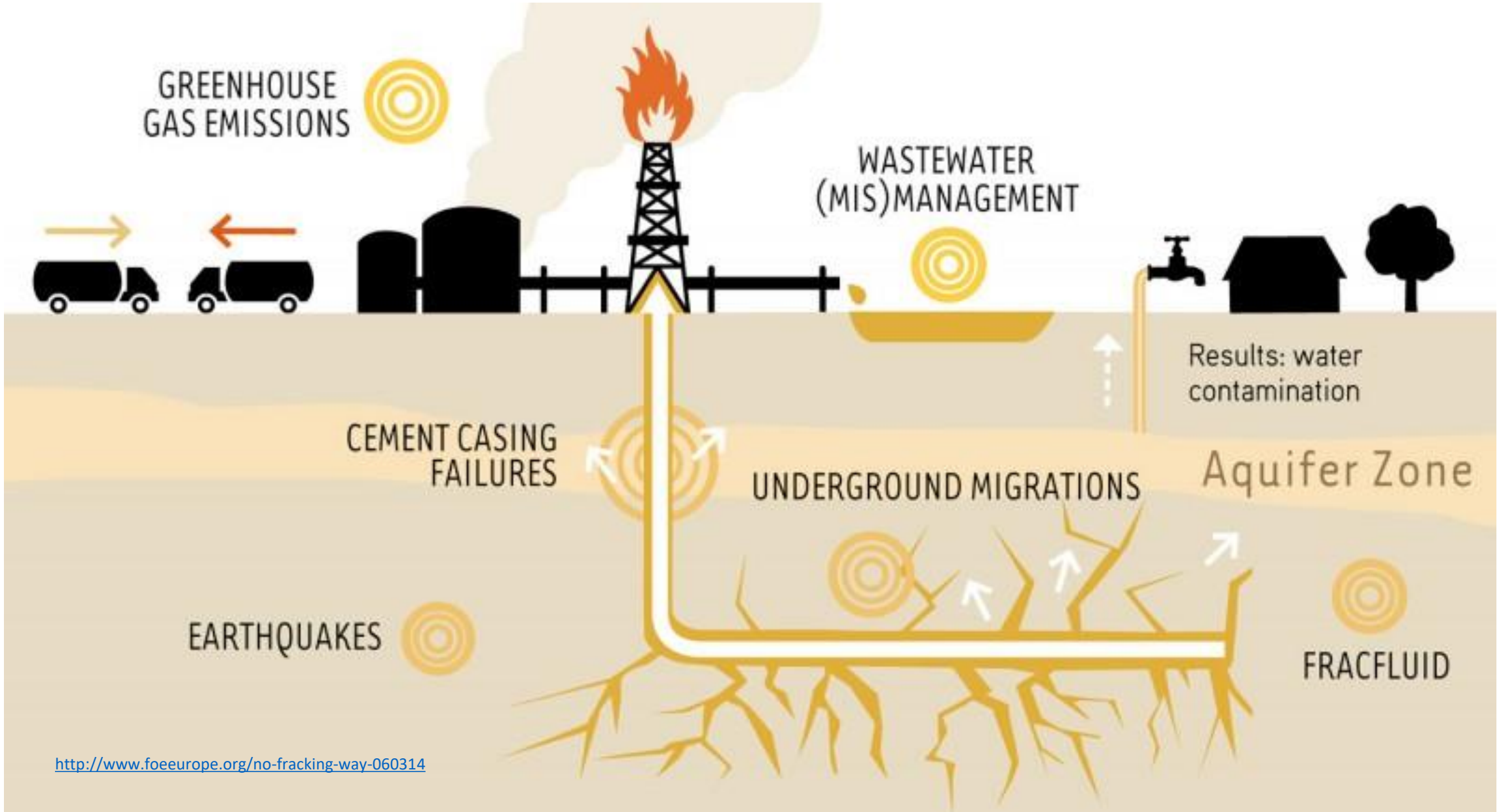
**Greymouth Ohanga-A  
wellsite, Taranaki**

Photo by Fiona Clark, 26 Nov 2014



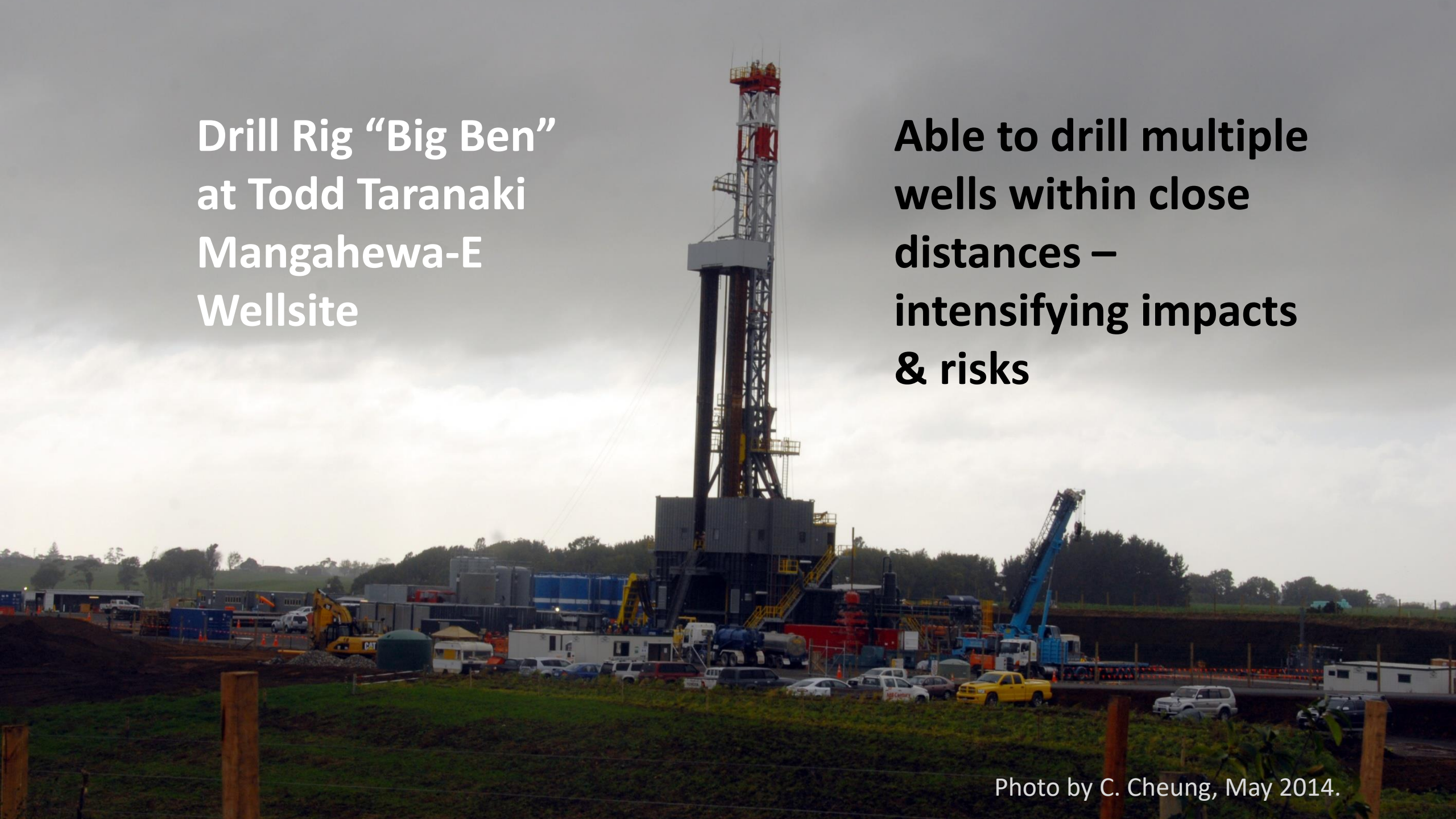


# Environmental Harm



**Drill Rig “Big Ben”  
at Todd Taranaki  
Mangahewa-E  
Wellsite**

**Able to drill multiple  
wells within close  
distances –  
intensifying impacts  
& risks**



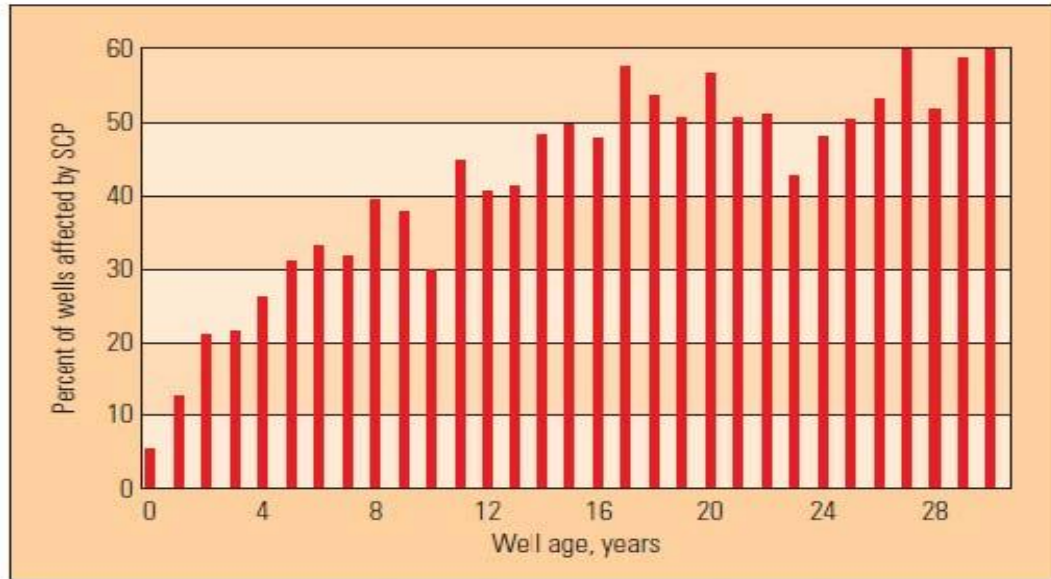
# Frack, frack and frack again

Date	Well	No. of Zones	Depth (m)	Frack fluid (m3)	Chemicals (%)	Proppant (tonnes)	Nitrogen (m3)	Returned fluid (m3)
23-26Nov 2014	Mangahewa-17	4	3676-4117	618	2.87	47	0	327
13-20Dec 2014	Mangahewa-18	6	3410-4085	1085	3.32	136	0	484
28Nov-7Dec 2014	Mangahewa-19	4	3571-4168	718	3.57	85	0	1945
21-23Nov 2014	Mangahewa-20	4	3637-4135	663	2.06	53	0	559
				<a href="https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGhf/MR2015-ToddEnergyMangahewaEHF.pdf">https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGhf/MR2015-ToddEnergyMangahewaEHF.pdf</a>				
Jan-Feb 2016	Mangahewa-14ST1	9	3462-4637	5404	1.85	247	93697	5854
Feb-Apr 2016	Mangahewa-12ST2	13	3444-4750	6653	0.20	319	0	7090
				<a href="https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGhf/MR2017-ToddEnergyMangahewaCHF.pdf">https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGhf/MR2017-ToddEnergyMangahewaCHF.pdf</a>				



# Leaky Wells

All well casing leaks. In <20 years, over half of the wells will leak. Even new wells can leak.



^ Wells with SCP by age. Statistics from the United States Mineral Management Service (MMS) show the percentage of wells with SCP for wells in the outer continental shelf (OCS) area of the Gulf of Mexico, grouped by age of the wells. These data do not include wells in state waters or land locations.

Bruffato, et al. 2003. *From mud to cement-building gas wells*, Schlumberger. Oil Field Review, 62-76, Autumn, 2003.

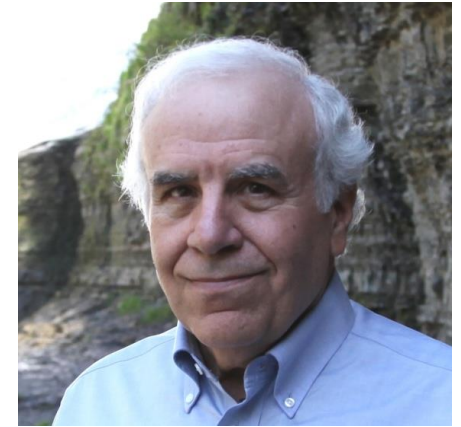
[https://www.slb.com/~media/Files/resources/oilfield\\_review/ors03/aut03/p62\\_76.ashx](https://www.slb.com/~media/Files/resources/oilfield_review/ors03/aut03/p62_76.ashx)

Unconventional wells are more likely to leak than conventional wells.

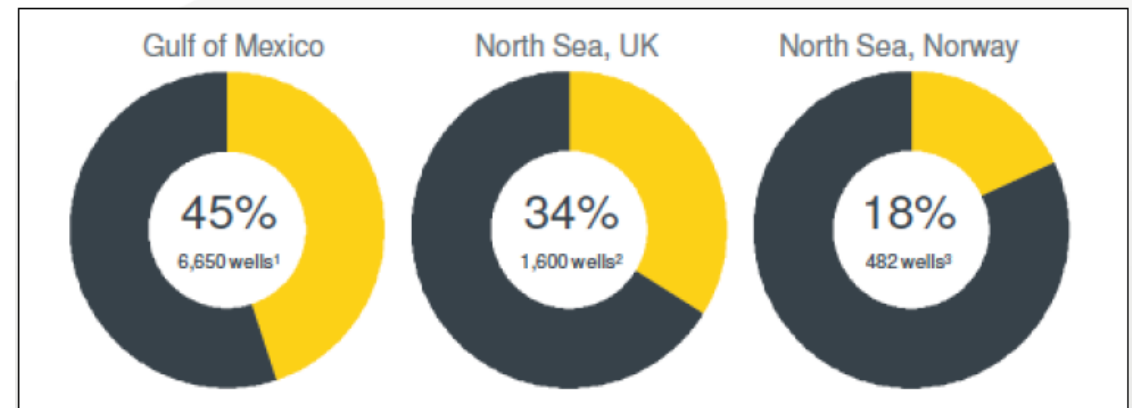
<http://www.pnas.org/content/111/30/10955.abstract>

Prof Anthony Ingraffea TEDx Albany talk, 2013.

[https://www.youtube.com/watch?v=Dxis-vYGM\\_M](https://www.youtube.com/watch?v=Dxis-vYGM_M)



**In NZ, about 10% of wells** have integrity issues. Globally 760,000 wells are affected by well integrity issues.



<http://www.petroleumconference.nz/wp-content/uploads/2017/04/18-Finnegan-Tech-23-March.pdf>

# Taranaki examples of well leaks

Reported in Sept 2009, two production wells at Austral Cheal-A: *“The discharge to the Urenui Formation was occurring due to **integrity issues** with casing patch seals within the wells.”* (TRC 1133945, 2013).

In October 2013, Tag Oil’s Cardiff-3 well at Cheal-C wellsite encountered a *“**well integrity issue**”,* as recorded on WorkSafe list of 61 *“petroleum dangerous occurrence notifications”* (8 July 2013 - 7 Feb 2014).

In May 2014, Tag Oil’s own news alert reported that at Cardiff-3 well, *“the fracture stimulation [fracking] was affected by a **poor cement bond** (Tag Oil, 2014) over the interval, or **skin damage** must exist in the near wellbore area, restricting flow.”*

In April 2015, Tikorangi residents were informed by Todd Energy that four of their Mangahewa-C wells were **damaged** and have become unstable with saline water intrusion. Two will be **plugged and redrilled** to different directions. A few of the Mangahewa-E wells appear to be also showing signs of **integrity issues**.

# Call for Tender: Onshore Petroleum Wells Technical Assessment

MBIE's recent review of more than 960 onshore well drilled over the last 150 years found a number of wells to have *“outstanding plugging and abandonment (P&A) commitments, i.e. these wells are not recorded as having been plugged and abandoned. These wells represent an unknown risk to health and safety, and the environment”*.

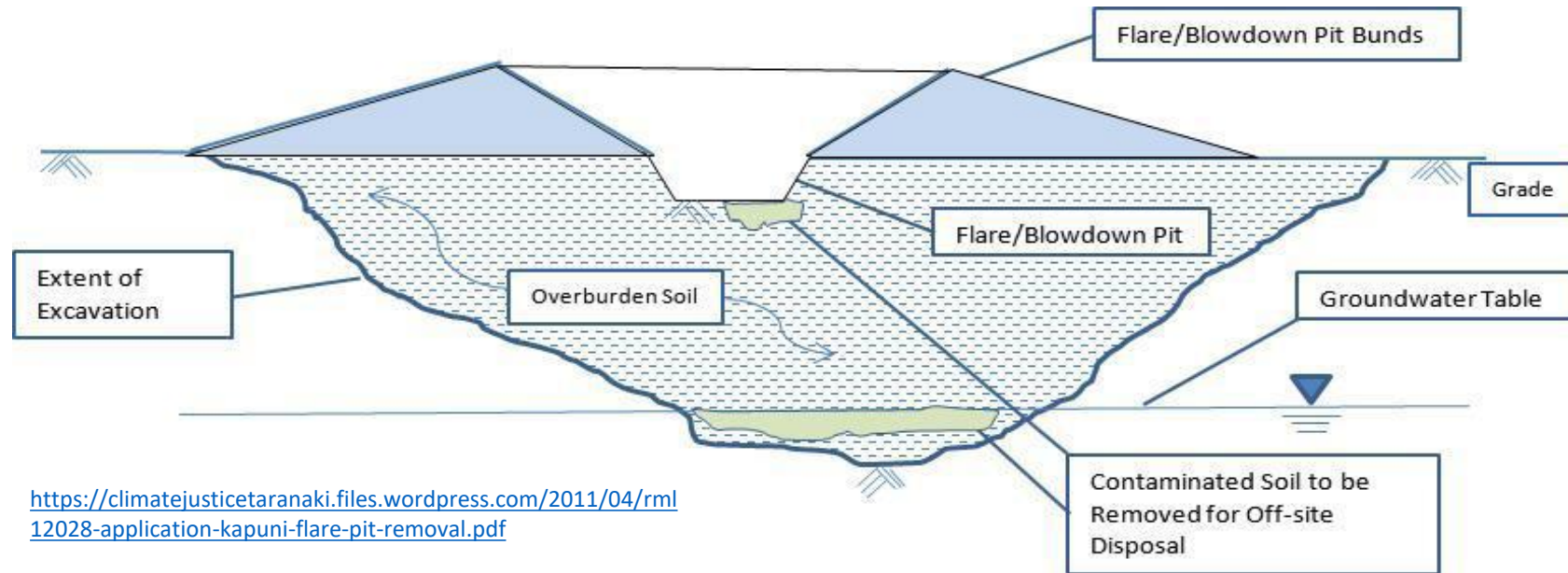
MBIE is looking for a **suitably qualified technical service** provider to assist in determining and describing the technical integrity of these wells, and provide a methodology that **ranks the risk these wells** pose, which will be used to prioritise any activities to **address this risk**.



# Taranaki examples of water contamination

Contaminated **groundwater** & thousands of cubic metres of **contaminated soil** found under several STOS Kapuni flare/blow-down pits, & had to be removed & disposed offsite (2012-2014).

<https://climatejusticetaranaki.files.wordpress.com/2011/04/stdc-information-report-re-consents-for-kapuni-contaminated-soil-2012-08-7.pdf>



At Greymouth Turangi-B wellsite, presence of **toluene** (a constituent of BTEX) and elevated levels of chloride in **groundwater** samples from two of the closest monitoring wells. Council attributed this finding to “*general wellsite activities*”, notably discharge of returned fracking fluids into the flare pit for combustion (TRC 1073740, 2013).

# Stream bed contamination

During 2015-2016, at Todd Energy McKee Production Station & Power Plant:

*“**Hydrocarbons** from historical contamination were not detected in the [Mangahewa] stream sediment at the upstream site, but were present at lower concentrations than previous years in the **lower site sediment**... it has not been determined whether the hydrocarbon contamination is a **remnant effect from the well blow-out** that occurred here in 1995, or whether it is **recent contamination**.”*

<https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGproduction/MR2016-ToddMcKeeProductionStationPowerPlant.pdf>

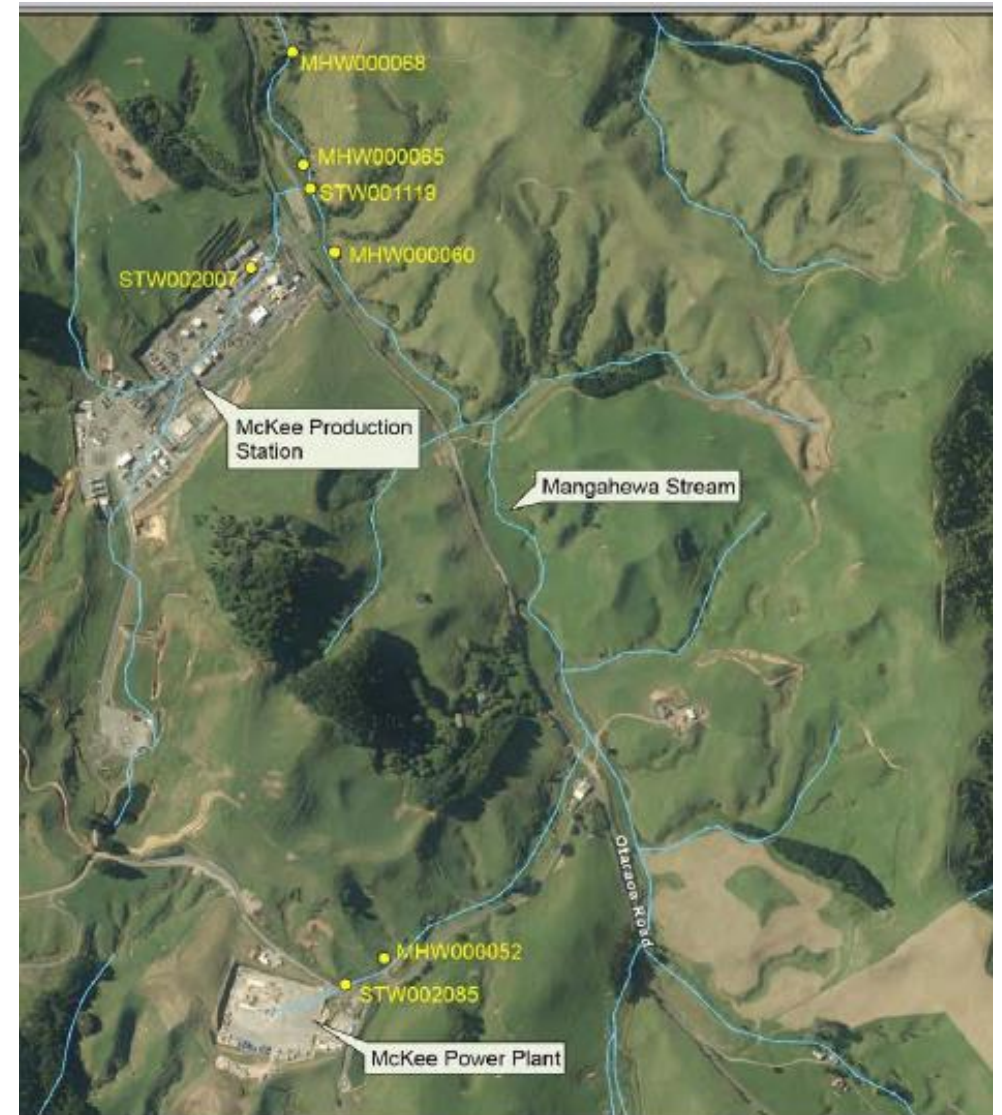


Figure 2 Sampling sites relating to McKee Production Station and Power Plant

# BTW Brown Road and Wellington landfarm



Figure 1 Aerial photograph showing the layout of the landfarming facilities on Brown Road, Waitara, and approximate regional location (inset)



Photo by Fiona Clark, 1/06/14

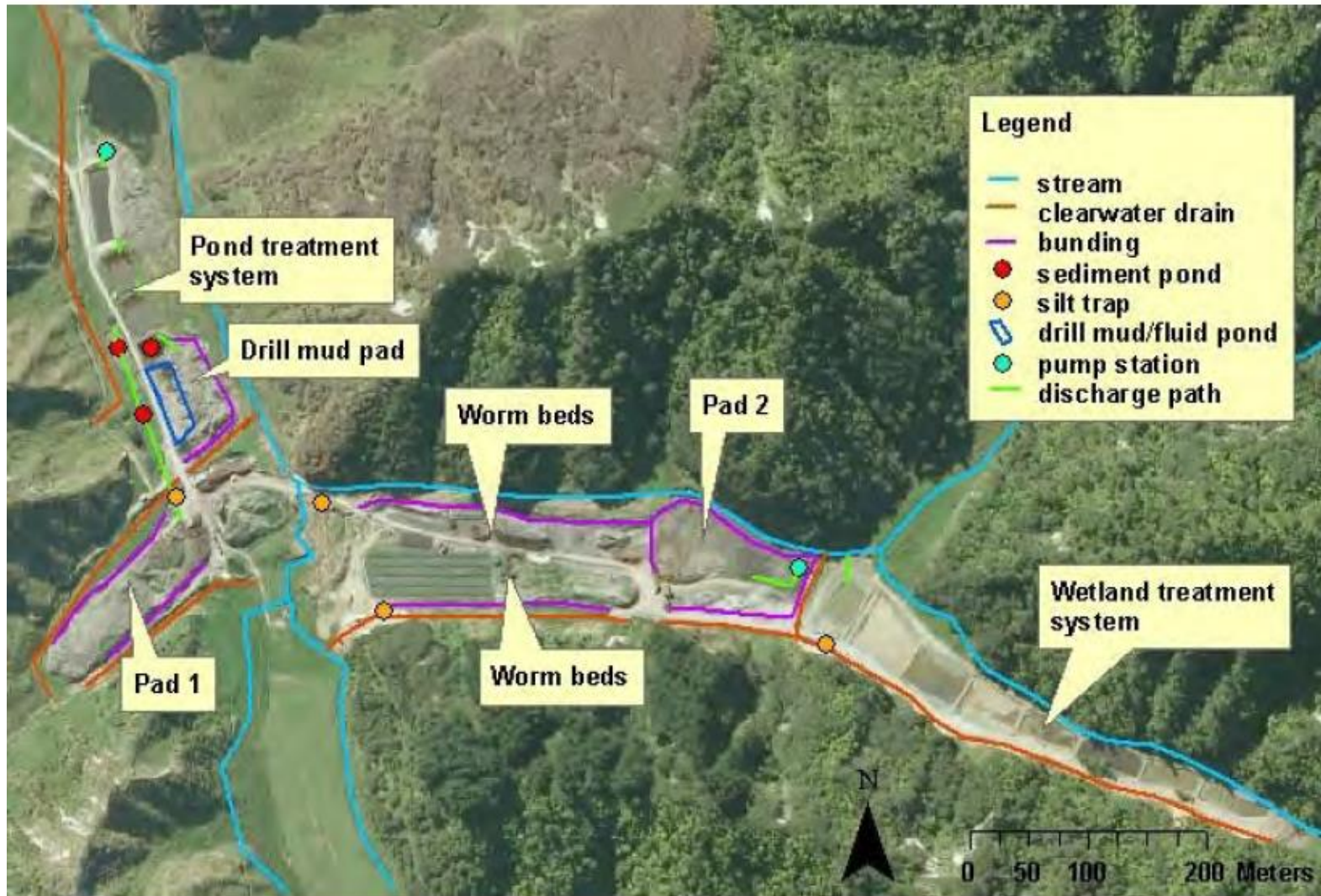
**Benzene has been detected in groundwater since 2012**, with levels consistently exceeding consent limits in at least one test bore. The council says the contamination is of a **“legacy nature”** and **“given the absence of environmental consequences”**, the operation received a **‘good’** performance rating.

<https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGwaste/MR2014-BTWWellingtonLandfarm.pdf>

<https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGwaste/MR2016-BTWWellingtonLandfarm.pdf>



# Remediation NZ composting/wormfarming operation, Uruti



In 2016-17, levels of **un-ionised ammonia** above consent limits in the wetland treatment system on site, trace amount of **toluene** in the groundwater and presence of **petroleum hydrocarbon** in the Haehanga Stream nearby.

Where do companies take water for hydraulic fracturing (HF) operations at these well sites?

Todd Mangaheva-A

Permitted activity take and water trucked in from a municipal supply.

Mangaheva-D

Consented groundwater and surface water take.

Mangaheva-G

Yet to be decided.

Greymouth Kaimiro-A

Trucked from municipal supply.

Kowhai- A

Have not given effect to hydraulic fracture discharge permit so cannot provide the information.

Kowhai-C

Permitted take from pond onsite.

Kowhai-D

Permitted take from pond onsite.

Ngatoro-E

Permitted take and trucked in from municipal supply.

Ohanga-A

Trucked in from municipal supply.

Turangi-B

Trucked in from municipal supply.

Urenui-1

Permitted take and trucked in from municipal supply.

Origin Kauri-E

Trucked in from municipal supply.

STOS-Kapuni wellsites

Waimate West Water supply.

Tag Oil Cheal-C; Cardiff; Supple-jack; Sidewinder

All trucked in from municipal supplies.

Response from Taranaki Regional Council to OIA request, 2 May 2017

## Water abstraction

From 2011-2012, Todd Taranaki exceeded its water abstraction limit to take from Mangaheva Stream for McKee production station on 9 occasions, *“although associated effects on stream health were unlikely. ... the Company demonstrated a good level of environmental performance and compliance..”* (TRC 1143821, 2013).



# Climate Change Impacts



**Fugitive emissions captured by a FLIR camera in Texas**

<https://www.youtube.com/watch?v=RAo3mh8CwMU&feature=youtu.be>



<https://www.youtube.com/user/earthworksaction/videos>

<https://vimeo.com/205496570> (Australia)

[https://d3n8a8pro7vhmx.cloudfront.net/lockthegate/pages/3861/attachments/original/1495068484/FLIR\\_Report\\_FINAL\\_20170501\\_Small.pdf?1495068484](https://d3n8a8pro7vhmx.cloudfront.net/lockthegate/pages/3861/attachments/original/1495068484/FLIR_Report_FINAL_20170501_Small.pdf?1495068484)



**EARTHWORKS**  
earthworksaction.org

FLIR video by ITC certified Optical Gas Imaging Thermographer

Using FLIR GF 320 camera



# Health Impacts

In Darling Downs QLD, **hospital admissions** for acute circulatory conditions increased 133% & acute respiratory conditions increased 142% from 2007-2014.

Coal seam gas emissions increased substantially over the same period:

**NO<sub>x</sub>, PM<sub>10</sub>, volatile organic compounds & formaldehyde.**

**McCarron, 2018**

<http://www.tandfonline.com/doi/full/10.1080/00207233.2017.1413221>

Flare at Todd Energy  
Mangahewa-E wellsite

Performance rating =  
*“Improvement required”*  
during 2013-2015

Taranaki Regional Council, Feb 2016

<https://trc.govt.nz/assets/Documents/Environment/Monitoring-OGdrilling/MR2015-ToddEnergyMangahewaEWellsite.pdf>



Photo by Fiona Clark, 29 Dec 2014



# Health Impacts

In Colorado, a study showed association between density and proximity of gas wells within 10-mile [16km] of maternal home and prevalence of **congenital heart defects** & possibly **neural tube defects**. McKenzie et al. 2014 <http://dx.doi.org/10.1289/ehp.1306722>



<https://www.pghcitypaper.com/pittsburgh/lawsuit-over-fracking-near-schools-in-mars-school-district-could-have-statewide-legal-impact/Content?oid=1843379>

**Some Taranaki wellsites are within 1km from homes, schools and public places.**

Taranaki District Health Board advised South Taranaki District Council:

*“Because of the potential **adverse health effects** and the **lack of knowledge** in the New Zealand setting we strongly recommend that a **“precautionary approach”** is applied to planning decisions related to oil and gas exploration.”*

22 July 2016

[https://www.southtaranaki.com/uploaded\\_files/District-Plan/160810/Taranaki%20District%20Health%20Board.pdf](https://www.southtaranaki.com/uploaded_files/District-Plan/160810/Taranaki%20District%20Health%20Board.pdf)



**COMPENDIUM OF SCIENTIFIC, MEDICAL, AND MEDIA FINDINGS  
DEMONSTRATING RISKS AND HARMS OF FRACKING  
(UNCONVENTIONAL GAS AND OIL EXTRACTION)**

**Fourth Edition**

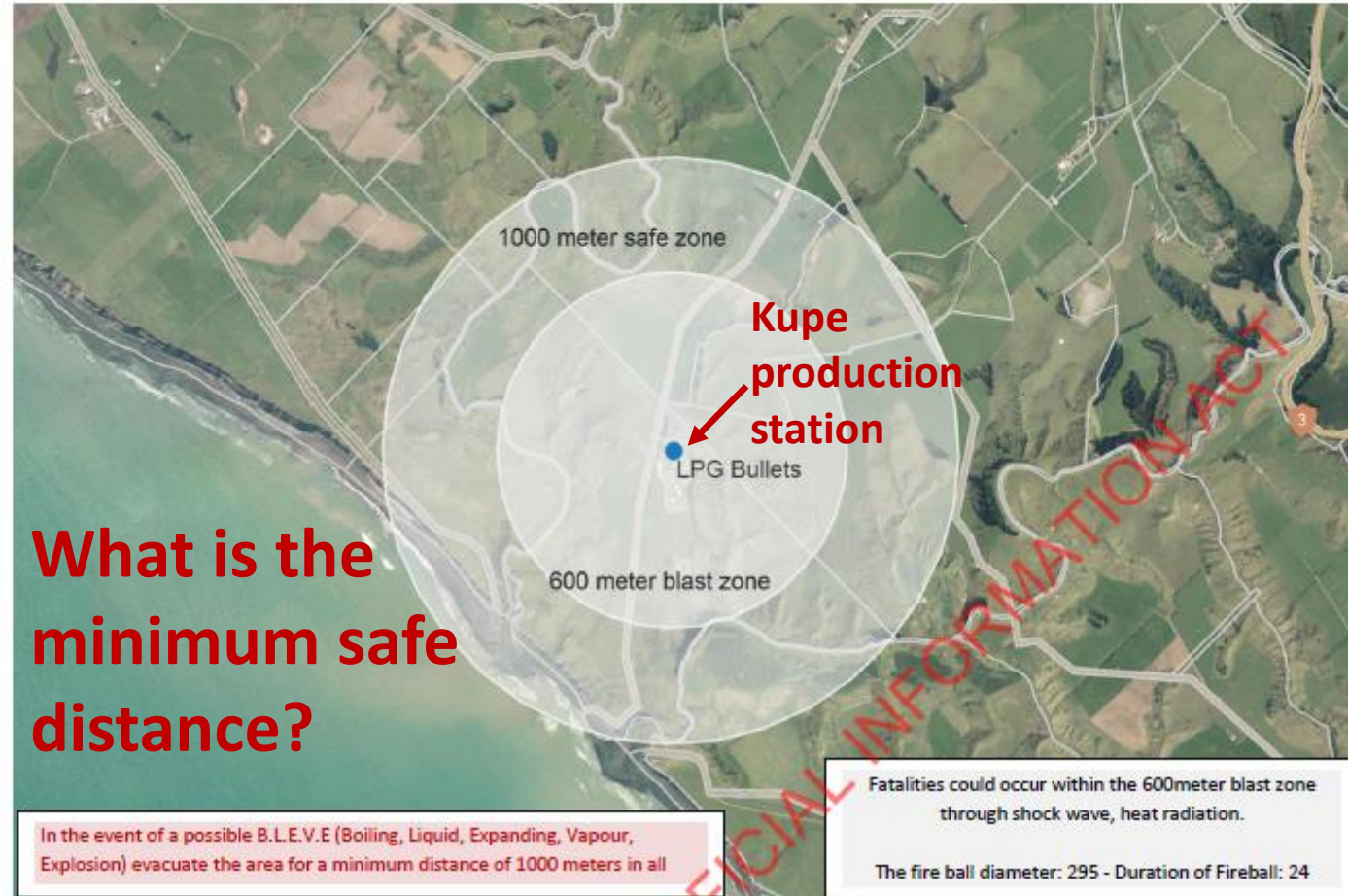
**November 17, 2016**

[http://concernedhealthny.org/wp-content/uploads/2016/12/COMPENDIUM-4.0\\_FINAL\\_11\\_16\\_16Corrected.pdf](http://concernedhealthny.org/wp-content/uploads/2016/12/COMPENDIUM-4.0_FINAL_11_16_16Corrected.pdf)





# Health & Safety Impacts





<https://jury.co.nz/category/petrochem/>

***“I live in a place more beautiful than I ever dreamed possible. It is also a place that is now in the **evacuation zones** for two separate well sites and not so far from another dozen sites on this side of the river. Fracking and petrochemical development is very personal for me. I live with it day and night. Every day and every night... Beyond the boundaries of our property, Tikorangi has **changed forever...**”***  
**Abbie Jury**



Left: Todd Energy Mangahewa-D wellsite.  
Above: McKee Production Station. Photos:  
Fiona Clark



# Offshore Petroleum Permits (Taranaki to Manuwatu-Whanganui)

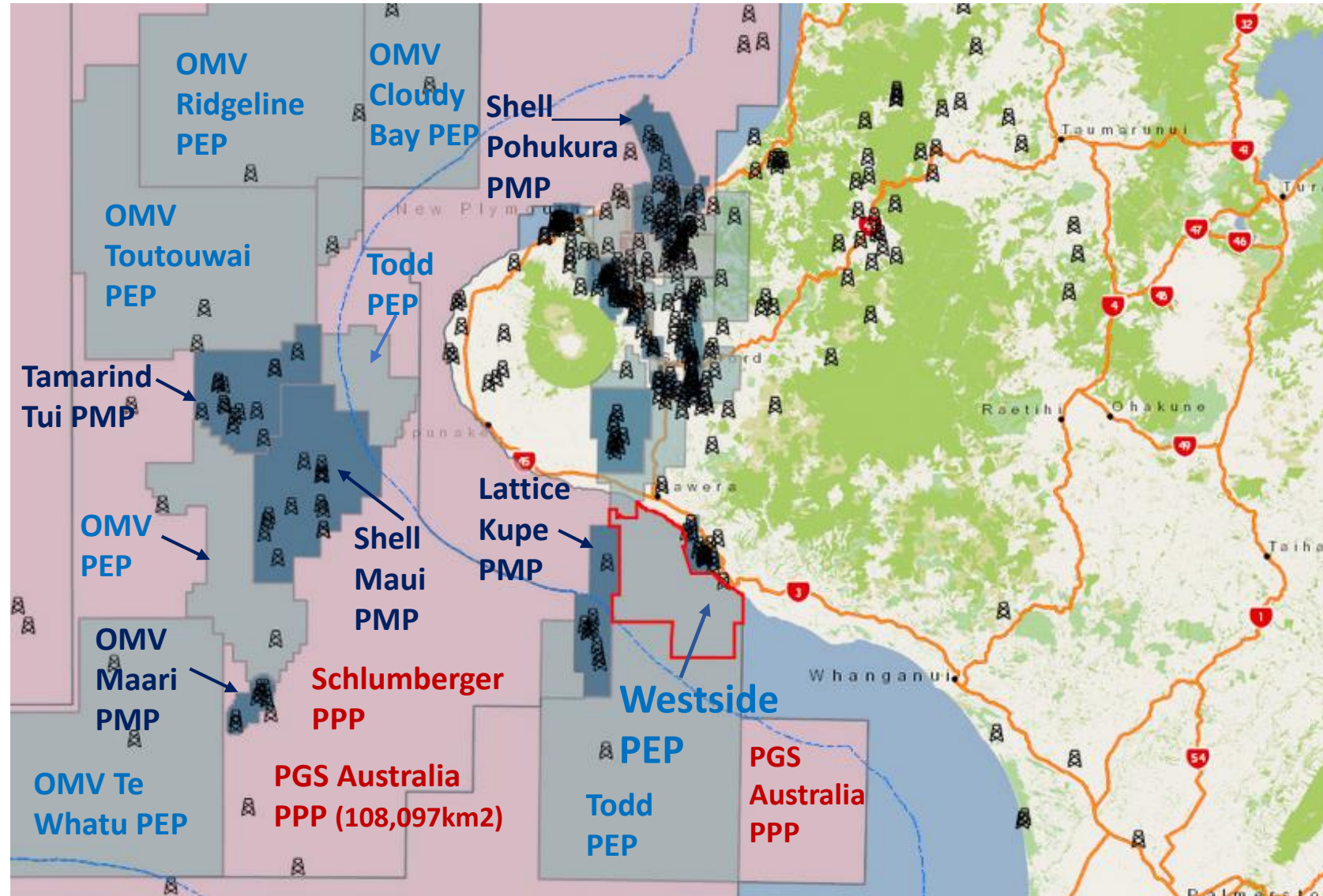
**Crown Minerals Act 1991** with  
'Anadarko Amendment' 2013,  
administered by MBIE

**Resource Management Act 1992 &  
Amendments 2017** for within 12  
nm offshore,  
administered by Regional Councils

**EEZ Act - Exclusive Economic Zone  
& Continental Shelf Act 2012** for  
12-200nm offshore, administered  
by EPA

**Maritime Transport Act 1994**  
administered by Maritime NZ

**Health & Safety at Work Act 2015**  
administered by WorkSafe NZ





# Westside New Zealand Limited

**Exploratory Permit 2017**



Westside New Zealand Limited has been granted one 12-year offshore permit in the Taranaki Basin.

PEP 60402 has an area of 547km<sup>2</sup>.

Westside New Zealand Limited is a wholly-owned subsidiary of WestSide Corporation Pty Limited, an oil and gas operator registered in Australia.

It is the operator of the Meridian gas field in Queensland, where over 40 new gas wells have been drilled since 2010.

Westside's ultimate parent company is Landbridge Group Co. Limited, based in China.

Westside has been operating the onshore Rimu and Kauri production assets in southern Taranaki since late last year, when these were acquired from former operator, Origin Energy.

Since acquiring these permits, Westside has stabilised production from the fields and is currently undertaking work to materially increase oil and gas production.

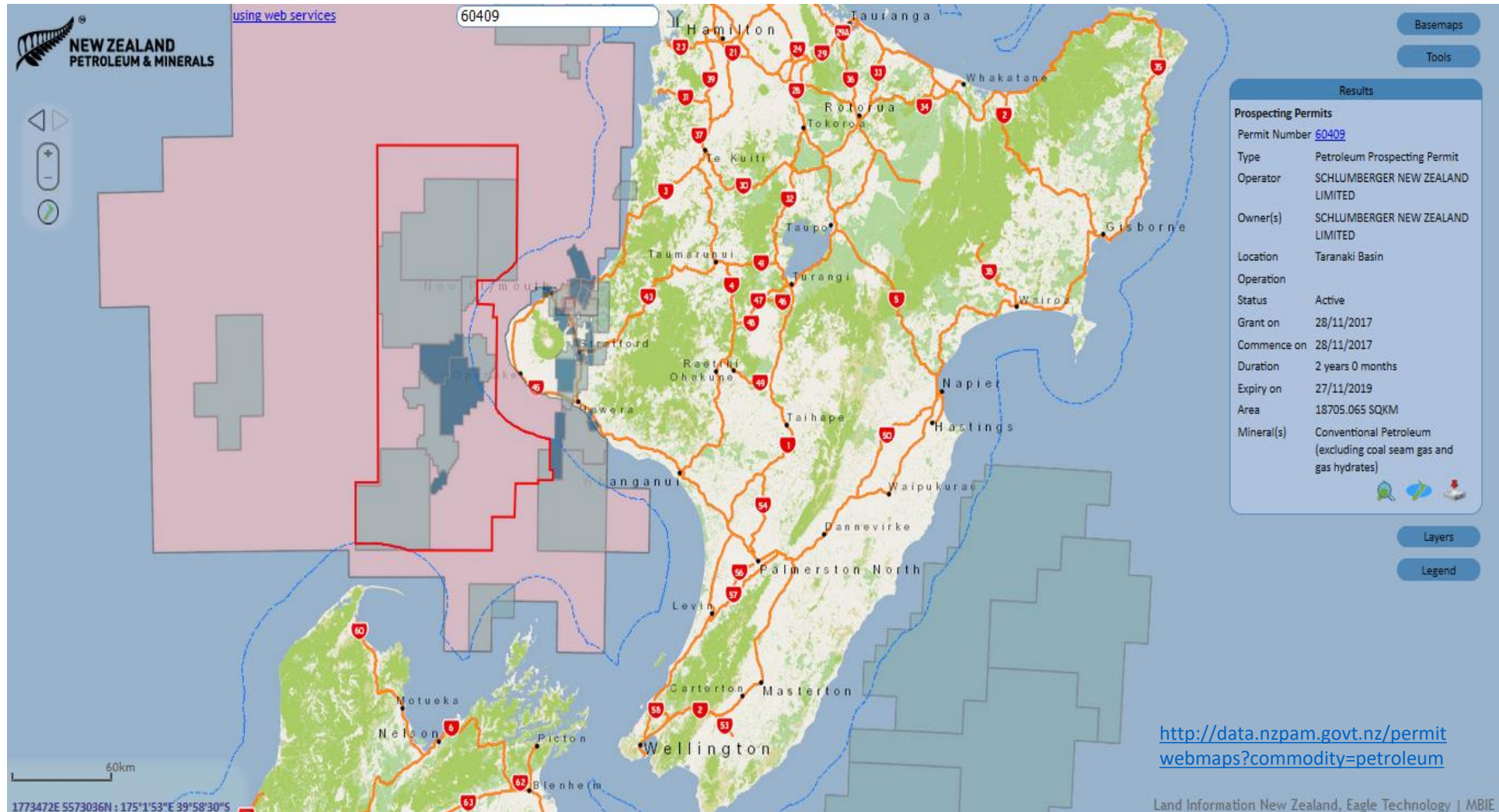
Westside also reports that it has been developing relationships with the local councils, iwi, landholders and other stakeholders within the Taranaki area, and specifically near Hawera.



**Oil spill trajectory** based on a 51,728 m<sup>3</sup> subsea release of condensate over 106 days, following a hypothetical loss of well control at **Maui Platform A** during summer conditions (Figure 23 in RPS Maui Field – South Taranaki Basin – Quantitative Spill Modelling Study, 2014).

# Schlumberger Prospecting Permit (granted on 28 Nov 2017)

Prospecting applications may be made at any time (outside the Block Offer program) & are non-exclusive in most cases





# Rare footage of blue whale feeding behaviour in the South Taranaki Bight



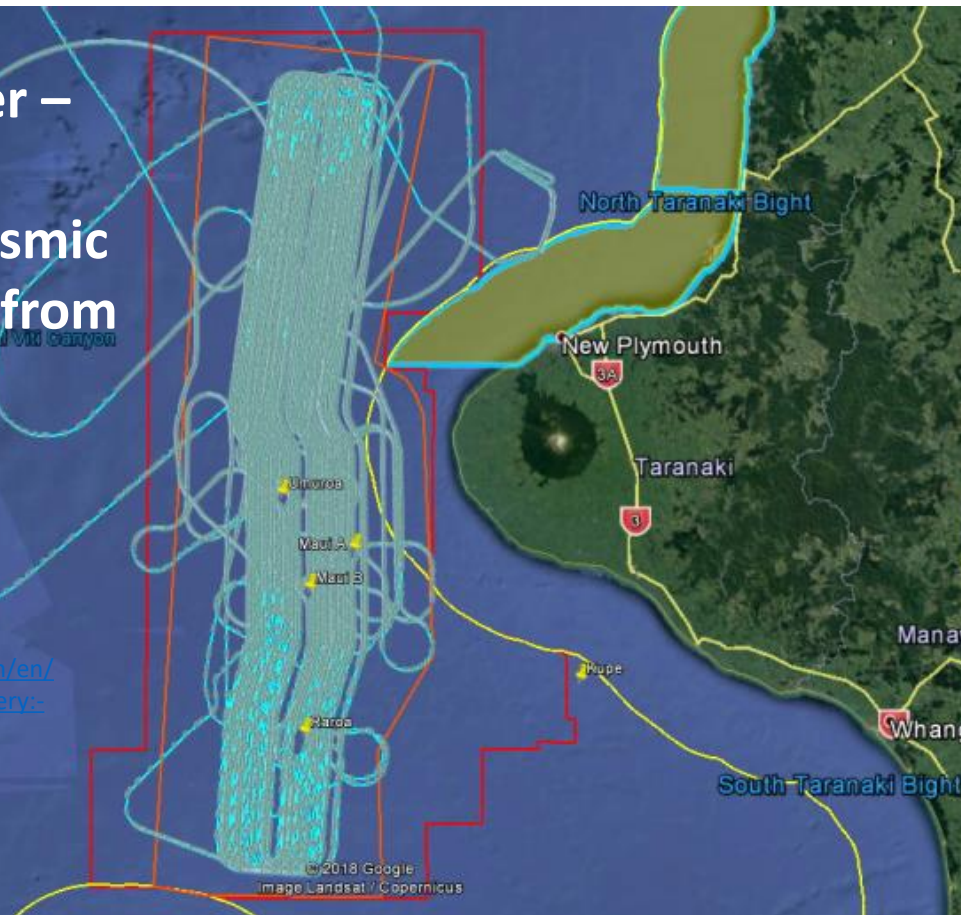
UAS piloted by Todd  
Chandler, 2017.

<http://blogs.oregonstate.edu/gemmlab/?cat=712807>

# Impacts on Marine life & ecosystems

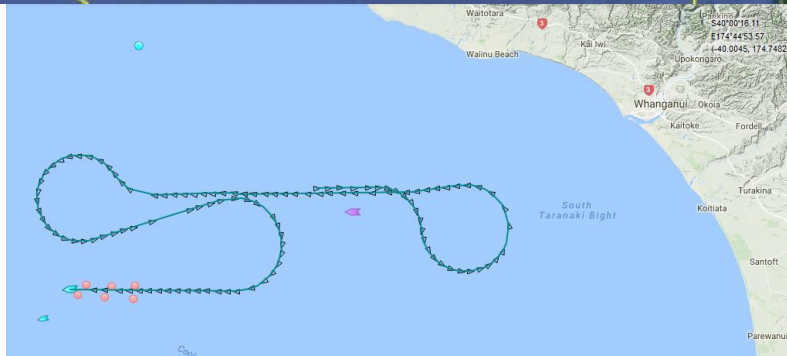
Schlumberger –  
Amazon  
Warrior's seismic  
survey track from  
Dec 2017-  
24/01/2018

<http://www.marinetraffic.com/en/ais/home/centerx:172.1/centery:-38.3/zoom:3>



Track from 17-  
18/02/2018

<http://www.marinetraffic.com/>



- South Taranaki Bight (STB) is a **global marine mammal hotspot** and part of the Cook Strait **Important Bird Area**
- At least 36 species of marine mammals, 6 Endangered including Maui Dolphin & Blue Whale, 18 Data deficient
- **Seismic noise** known to directly and/or indirectly harm marine mammals, penguins, fish, lobsters, scallops, zooplankton...
- **Exploratory drilling**
- Oil spill risks
- Disturbance of habitats
- Decadal discharge of **toxic contaminants**
- Cumulative impacts

<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0019653>

<http://blogs.oregonstate.edu/gemmlab/2017/10/24/hearing-is-believing/>

<http://DOI.org/10.1038/s41598-017-16569-x>

<http://dx.doi.org/10.1080/03014223.2017.1302970>

<https://view.knowledgevision.com/presentation/9a4a3135e5ff4028945c7b7ca0bb2d82>



# Cumulative Impacts



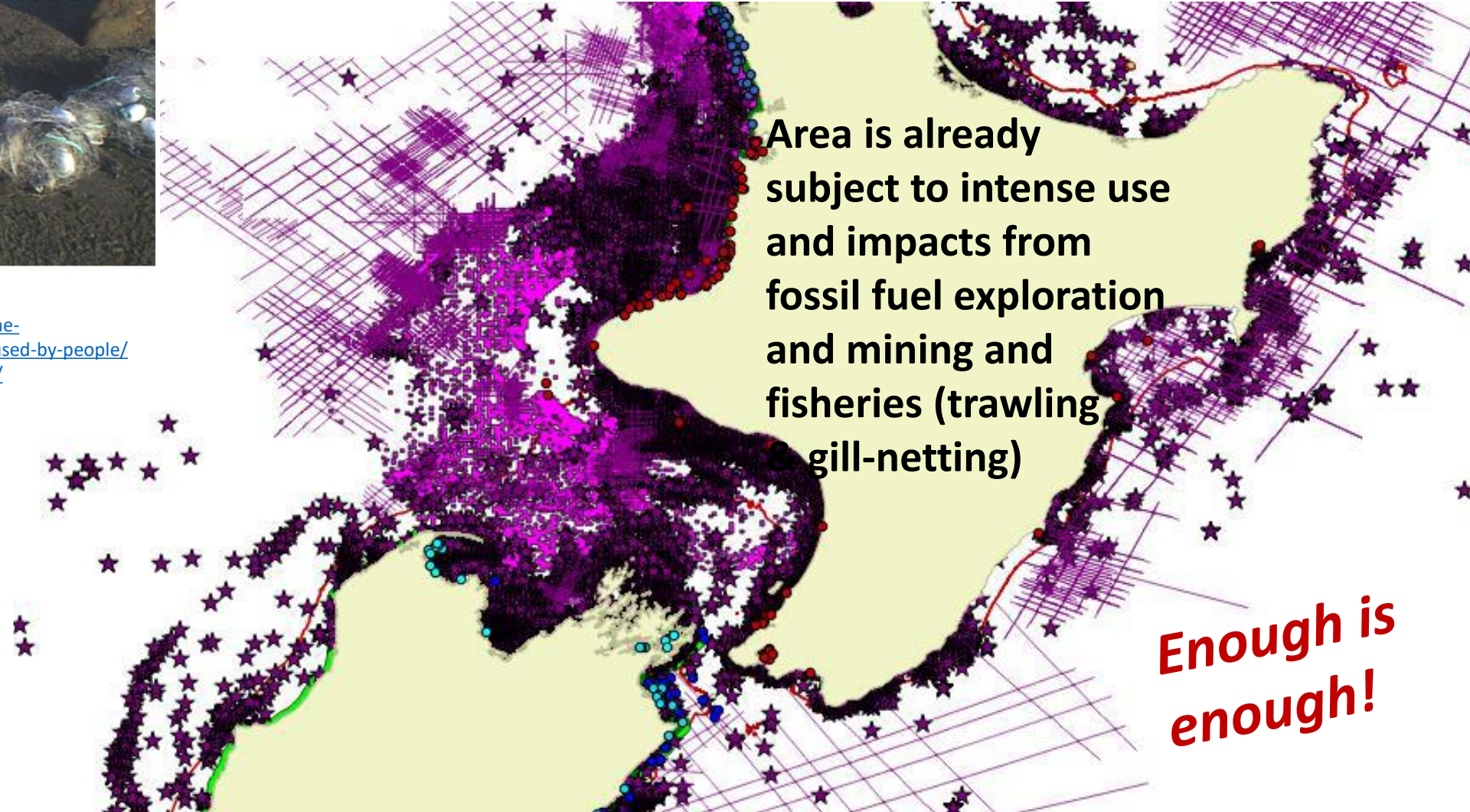
Maui dolphin caught in a fishing net. Image: ©

<http://www.doc.govt.nz/nature/native-animals/marine-mammals/dolphins/maui-dolphin/threats/threats-caused-by-people/>  
<http://www.int-res.com/abstracts/esr/v32/p391-413/>



Little penguin, Otago, photo by Craig McKenzie

[http://www.nzherald.co.nz/nz/news/article.cfm?c\\_id=1&objectid=11976740](http://www.nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=11976740)



Area is already subject to intense use and impacts from fossil fuel exploration and mining and fisheries (trawling and gill-netting)

**Enough is enough!**

Graphic from Prof. Liz Slooten



# Economic Impacts

The government expects to pay over **\$800 million** in the next 25 years to oil companies, as tax and royalty rebates (42-48 % of total cost), to decommission their aging offshore rigs and structures

<http://www.stuff.co.nz/taranaki-daily-news/news/90952440/Government-faces-multi-million-dollar-bill-to-decommission-oil-rigs>

Inland Revenue is considering introducing **'Refundable tax credit'** for decommissioning

<http://www.petroleumconference.nz/wp-content/uploads/2017/04/23-Hulbert-Community-22-March.pdf>

<http://taxpolicy.ird.govt.nz/publications/2017-ris-areirm-bill/petroleum-mining-decommissioning>

## Government faces multi-million dollar bill to decommission oil rigs

LEIGHTON KEITH

Last updated 09:19, March 29 2017





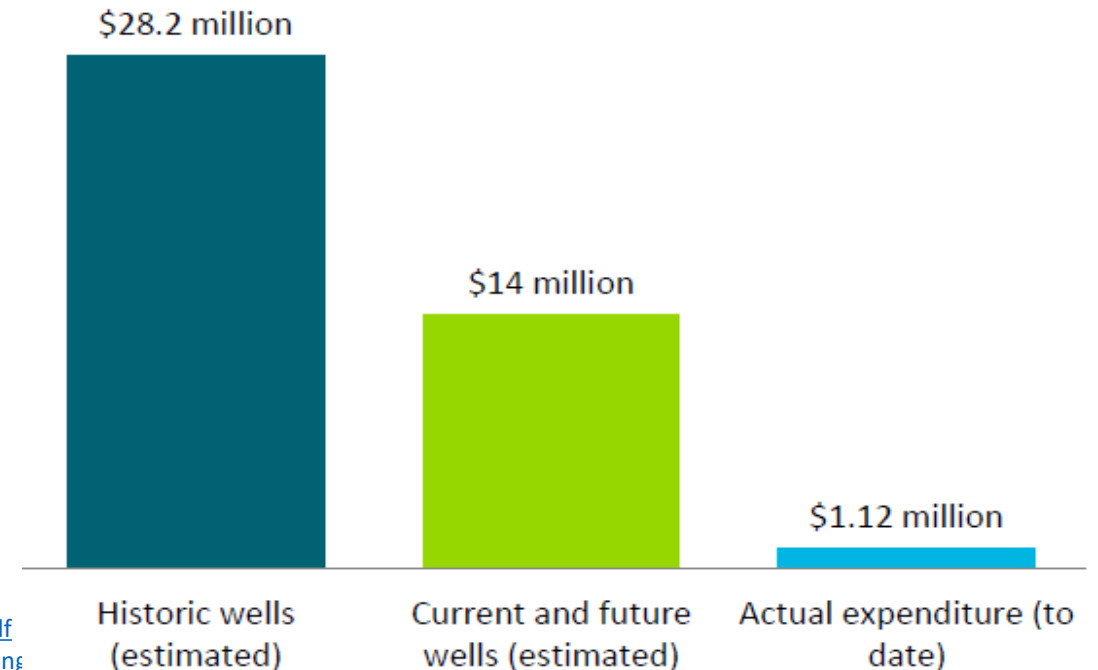
# Managing third party risk exposure from onshore wells

Craig Barry & Tom Milton  
Ministry of Business, Innovation and Employment  
23 March 2017

- A well may pose a health & safety or environmental risk where the permit holder is no longer liable
- **Land owners** are exposed for the cost of plug & abandonment (P&A) and remediation if a well poses a health & safety or environmental risk
- Crown financially exposed as a last resort

<http://www.petroleumconference.nz/wp-content/uploads/2017/04/25-Milton-Community-23-March.pdf>  
<http://www.mbie.govt.nz/info-services/sectors-industries/energy/current-reviews-consultations/managing-financial-risk-from-current-and-future-wells/discussion-document.pdf>

## Size of third party risk exposure





# How climate change could send your insurance costs soaring

LEITH HUFFADINE

Last updated 05:00, January 6 2018



***“Council chief executive Tim Grafton says New Zealand can expect to face, on average, annual costs of \$1.6 billion... from natural disasters, based on data going back to 1900.”***

<https://www.stuff.co.nz/environment/climate-news/98001955/how-climate-change-could-send-your-insurance-costs-soaring>

# New Zealand ill-prepared for rising cost of climate change

NewsTalk ZB Staff, National, Sunday, 17 December 2017, 7:08AM



<http://www.newstalkzb.co.nz/news/national/new-zealand-ill-prepared-for-rising-cost-of-climate-change/>

## New Zealand to spend \$14 billion to meet Paris Agreement targets

<http://www.newshub.co.nz/home/politics/2017/05/new-zealand-to-spend-14-billion-to-meet-paris-agreement-targets.html>

22/05/2017 |  Isobel Ewing

## Economy Hub: The five biggest risks facing NZ this year

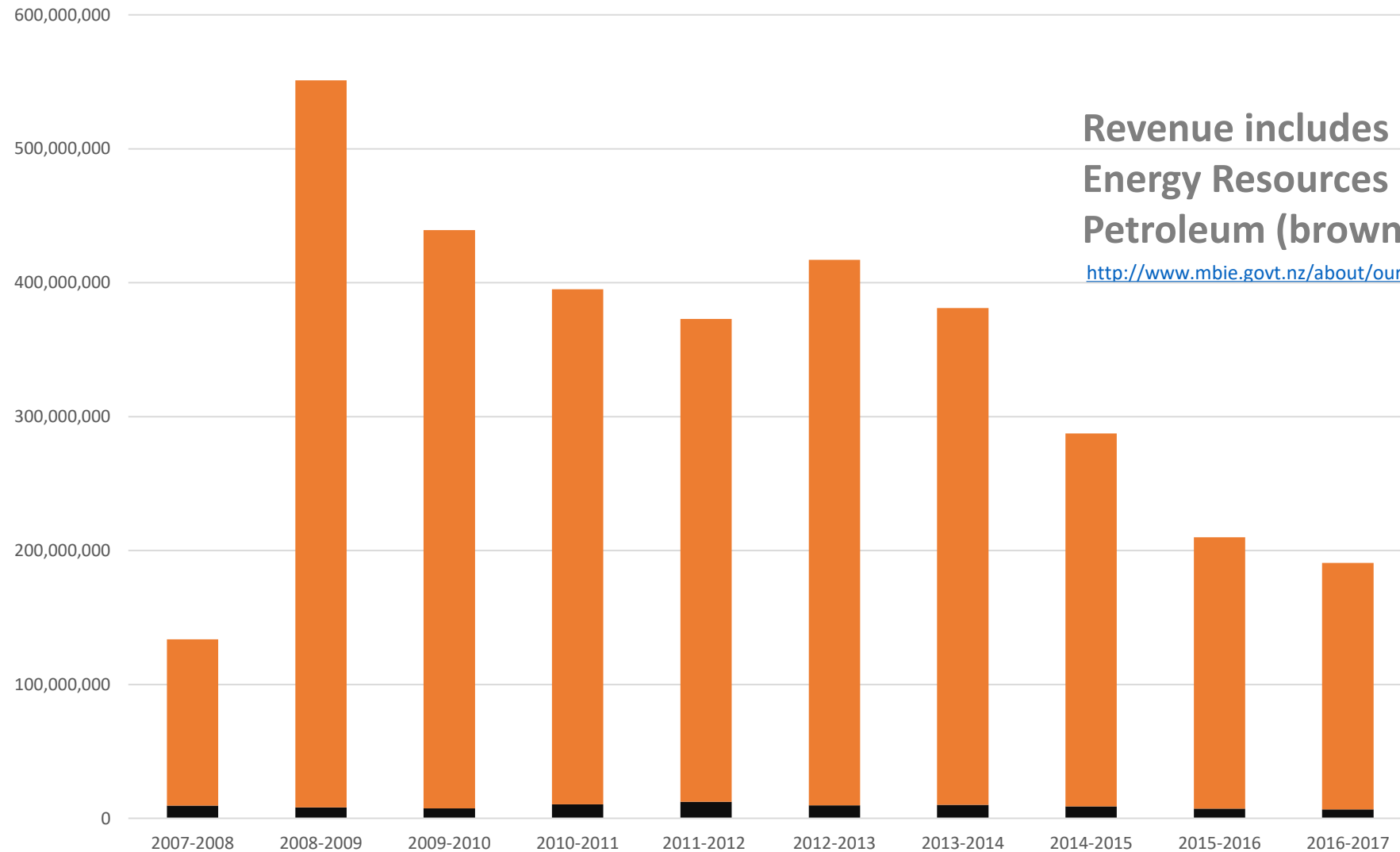
13 Feb, 2018 2:59pm

3 minutes to read

**Natural catastrophe & extreme weather events have topped the list of perceived risks...**

[http://www.nzherald.co.nz/business/news/article.cfm?c\\_id=3&objectid=11993533](http://www.nzherald.co.nz/business/news/article.cfm?c_id=3&objectid=11993533)

# Revenue from Petroleum & Coal (NZ\$)



Revenue includes Royalties and Energy Resources Levy from Petroleum (brown) and Coal (black)

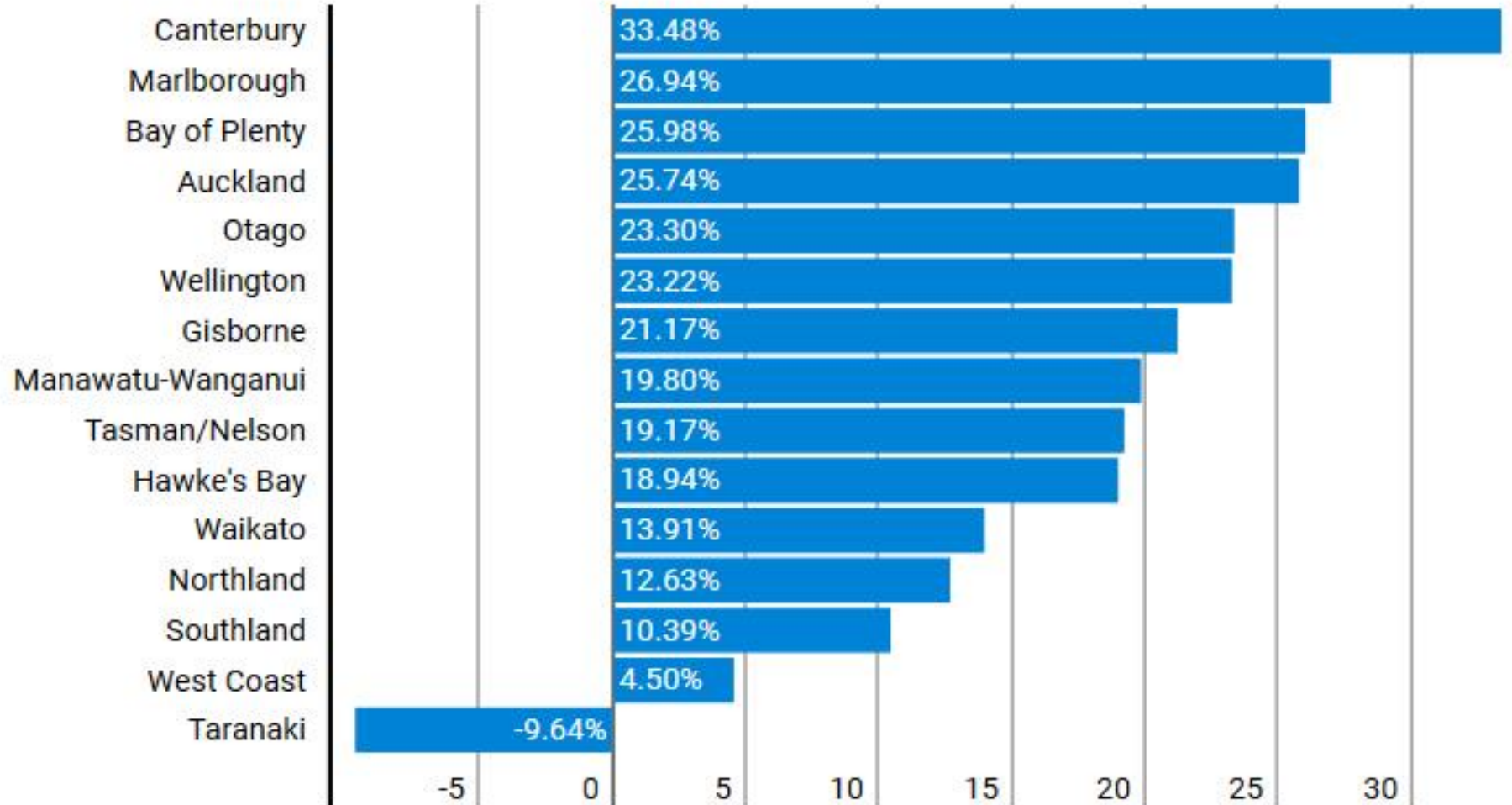
<http://www.mbie.govt.nz/about/our-work/mbie-datasets>



## Change in GDP per capita, 2009-2016

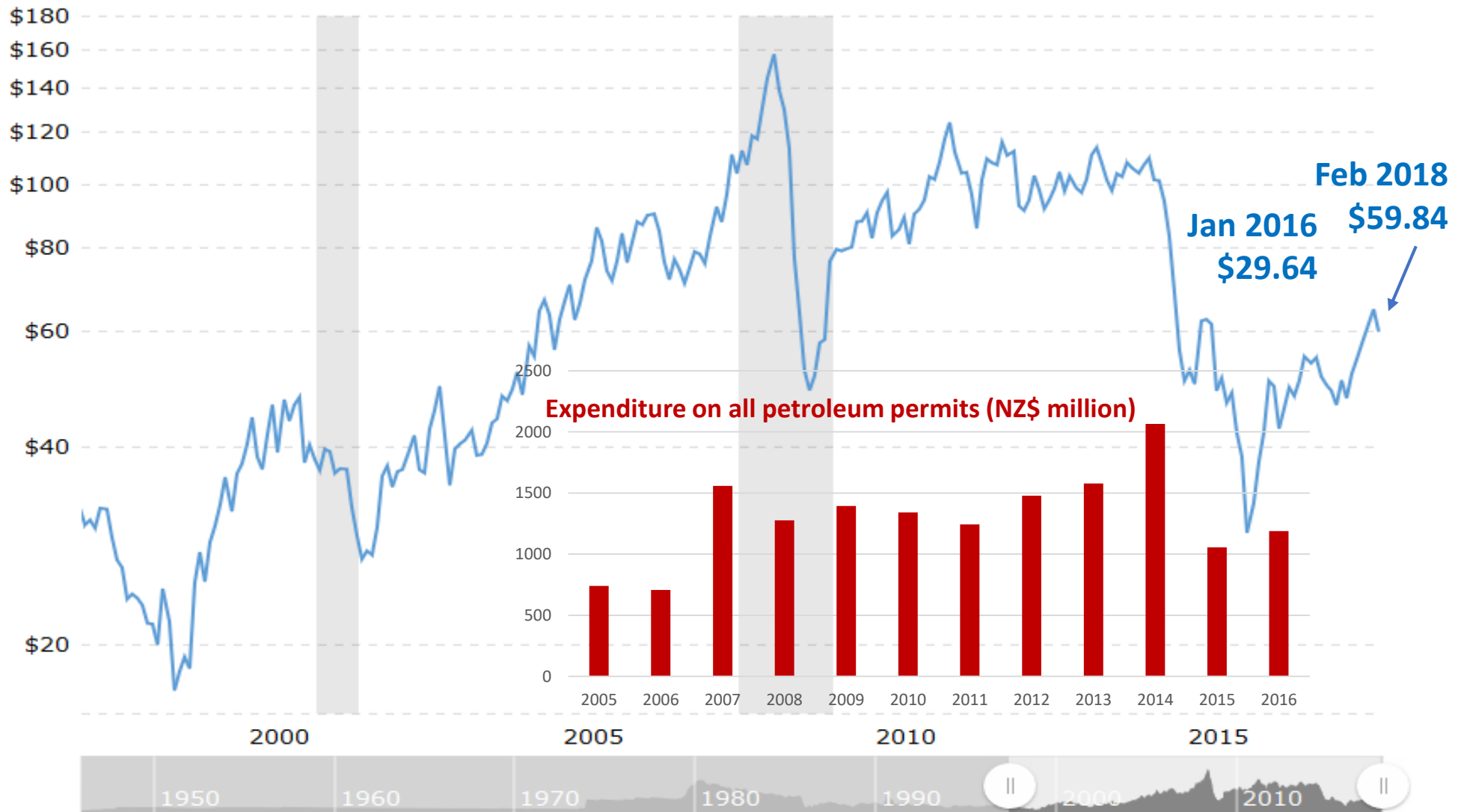
***“Though the GDP per capita of \$71,297 remained ahead of the national average of \$54,178 ...***

***Oil and dairy have long been the region's flotation device but the economic downturn signalled a warning call for an industry shake-up...”***



Source: Statistics NZ

# Historic Trend of Crude Oil Prices



<http://www.macrotrends.net/1369/crude-oil-price-history-chart>

<http://www.mbie.govt.nz/info-services/sectors-industries/energy/energy-data-modelling/publications/energy-in-new-zealand>



# More job losses at Taranaki engineering company ITL

DEENA COSTER  
Last updated 12:43, May 29 2015



**“...*New Zealand Energy Corporation* announced job losses for its Taranaki based staff and in March, Bell Block based oil and gas pipeline specialists *Energyworks* reviewed its work force in light of a decrease in scheduled work....**

***Halliburton* and *Baker Hughes*, who both have a presence in Taranaki, have also felt the pinch and earlier in the year announced thousands of job cuts which affected employees world-wide.”**

<https://www.stuff.co.nz/taranaki-daily-news/68953932/more-job-losses-at-taranaki-engineering-company-itl>

Saturday, 20 August 2016

# Shell looks to divest NZ assets

<https://www.odt.co.nz/business/shell-looks-divest-nz-assets>  
<http://energystream.co.nz/news/2017/aug/21/august-2017-og-wrap>

By Simon Hartley



Business

# Taranaki Engineering company lays off all its staff

LEIGHTON KEITH  
Last updated 15:55, July 30 2017



<https://www.stuff.co.nz/taranaki-daily-news/news/95251374/taranaki-engineering-company-lays-off-all-its-staff>



***“The closure comes as the result of a combination of persistently difficult market conditions, particularly the significant and sustained downturn in work from the energy sector,”* John Lecher**

SIMON O'CONNOR/STUFF

Taranaki's Amtec Engineering at Bell Block closed and made all of its staff redundant last week.

***“Shell New Zealand continues exploring divestment options for its remaining Kiwi interests, which is consistent with Royal Dutch Shell reshaping its global portfolio in line with its long-term strategy,”* Jager added.**

# Climate change risk prompts Super Fund to sell shares in oil, gas firms

1:05 pm on 16 August 2017



Eric Frykberg, Transport, Energy & Resource Infrastructure Reporter  
eric.frykberg@radionz.co.nz

Share this



The New Zealand Superannuation Fund has sold shares in some of the world's biggest companies to reduce exposure to firms emitting greenhouse gases.



<http://www.radionz.co.nz/news/national/337218/super-fund-sells-shares-to-cut-climate-change-exposure>

***“We think that climate change represents a **material risk**, one that is not being properly priced by the markets... This is clearly **not an ethical decision** at this stage, it is an investment decision”*** Matt Whineray of NZ Super Fund

<http://www.noted.co.nz/money/investment/why-nz-super-fund-is-ditching-millions-worth-of-climate-damaging-investments/>

# Schlumberger To Exit Land, Marine Seismic Acquisition Business

Velda Addison Senior Editor, Digital News Group Hart Energy Friday, January 19, 2018 - 12:10pm



***“Schlumberger Ltd. (NYSE: [SLB](#)) has decided to exit the land and marine seismic acquisition business, which has been battered by the downturn and faces an **uncertain future**.”***

<https://www.epmag.com/schlumberger-exit-land-marine-seismic-acquisition-business-1679376#p=full>



# The slow demise or temporary slump of New Zealand's oil and gas industry

BRITTANY BAKER

Last updated 16:01, March 24 2017



ANZ chief economist  
Cameron Bagrie said  
nothing good can last  
forever...

*"**Volatility** is the name of the game... The idea you're going to have one career for life is a joke. Things are moving at such an **exponential pace**... What we're seeing is **a massive structural change**"*



ANDY JACKSON/Fairfax NZ

Oil and gas are still the dominant player in the world's energy game but global warming is pushing fossil fuels into the socially and politically unacceptable zone.

<http://www.stuff.co.nz/business/industries/90611800/the-slow-demise-or-temporary-slump-of-new-zealands-oil-and-gas-industry> (24 March 2017)



## Energy and Mining

E tū represents hundreds of workers in energy and mining across New Zealand, including coal, iron-sands and gold miners, and workers on oil rigs and in offshore exploration. Many vibrant New Zealand communities have been built around the energy and mining industry and it's a rich part of New Zealand's work and community history.

Health and safety is a key focus of our work in energy and mining. The Pike River Mine disaster in 2010 was a sombre reminder of the danger in the industry and the need for tight regulation to keep our miners safe. E tū was a staunch voice for reform in the sector to prevent this tragedy from being repeated.

### A 'Just Transition'

Although there will be a need for coal mining for steel production for the foreseeable future, E tū acknowledges the importance and inevitability of the transition to renewable energy. However, we need to ensure that the burden of the change will not be borne disproportionately by the workers and communities that rely on the work they are currently carrying out.

Just  
Equitable  
Inclusive  
Transition

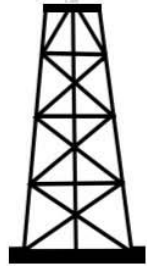


<https://blog.p2pfoundation.net/3-steps-to-building-just-transition-now-with-a-permanent-community-energy-cooperative/2017/05/09>

# Moving on from oil and gas in NZ

issues - action - transition

Sunday 25<sup>th</sup> March 2018  
at the Dowse Lower Hutt  
10 am - 5 pm free entry



## community information day



## nau mai haere mai

This is a rare opportunity to learn more about the connections between NZ's oil and gas industry and: sacrificed communities, endangered marine life, water issues, man-made climate change and our backyard BBQ's.

Leading scholars, activists and scientists will present the latest information available and answer the hard questions like: how can I join the clean energy movement when I drove here in a car, is gas a good transition fuel, and is the Government addressing climate change or passing the buck?

Speakers include: Ihaia Puketapu, Teanau Tuiono, Te Tui Shortland, Dr Mike Joy, Jeanette Fitzsimons, Dr Lyndon DeVantier, Fiona Clark and more. A full program will be available mid-March at the Dowse and [www.climatejusticetaranaki.info](http://www.climatejusticetaranaki.info). For more details email Jean Kahui at: [frackfreeaction@outlook.co.nz](mailto:frackfreeaction@outlook.co.nz).

[www.RallyForClimateJustice.nz](http://www.RallyForClimateJustice.nz)  
26-27 March 2018, Wellington

