Cuadrilla Resources Ltd.

Quick Scan

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Colophon

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1. Introduction

The issue of shale gas exploration and exploitation is currently being debated heavily in various Dutch political and public fora. Shale gas drilling is a socially and environmentally sensitive issue, especially in a densely populated country like the Netherlands. In both the political and public debate, the benefits of increased domestic natural gas production are being weighed against the serious risks of adverse social and environmental impacts. Numerous scientific studies have examined the risks associated with unconventional production of natural gas from shale rock. The assumed risks include:

Seismic effects
Pollution of (underground) water supplies
Existence of polluting chemicals and radioactive substances in waste water
Methane gas emissions at drilling site (ecological footprint)
Blow-out of well (sudden escape of high pressure gas from the well)
Increased road traffic through neighbouring communities
Noise and light disturbance by exploration and production activities of neighbouring
communities

As a result of the intense debate, remaining scientific uncertainties and resistance to shale gas exploitation from various societal sectors, Dutch Minister of Economic Affairs Kamp informed the Dutch parliament on 18 September 2013 that the decision as to whether to allow exploratory drilling for shale gas in the Netherlands would be put on hold until research into the pros and cons of various possible drilling sites was completed.²

Cuadrilla Resources Ltd. (Cuadrilla) is one of the companies that has been granted a preliminary licence for shale gas exploration in the Netherlands. Given the significant role Cuadrilla is likely to play in shale gas exploration should the Dutch government decide to allow such activities to go ahead, it is important for the Dutch public to have access to basic background information about Cuadrilla. Such information includes facts about Cuadrilla's global activities, its ownership and corporate structure, its policies related to (potential) social and environmental impacts and issues, its financial performance in recent years, its degree of liability should any adverse impacts occur, and its association with controversies related to shale gas exploration and exploitation in the past. After a brief description of the aim, methods and research questions of the present report, each of these elements is investigated in further detail in the following sections.

See e.g., "Aanvullend onderzoek naar mogelijke risico's en gevolgen van de opsporing en winning van schalie- en steenkoolgas in Nederland", research report by Witteveen+Bos, Arcadis and Fugro, commissioned by the Dutch Ministry of Economic Affairs, 16 August 2013, Rijksoverheid website, Ministeries, EZ, Documenten en publicaties, Rapporten, <a href="http://www.rijksoverheid.nl/ministeries/ez/documenten-en-publicaties/rapporten/2013/08/26/aanvullend-onderzoek-naar-mogelijke-risico-s-en-gevolgen-van-de-opsporing-en-winning-van-schalie-en-steenkoolgas-in-nederland-eindrapport-onderzoeksvragen-a-en-b.html; "Schaliegas in Nederland (op basis van Shale Gas Report voor House of Commons)", research report by Royal Haskonings for Cuadrilla Resources, 8 September 2011, http://www.cuadrillaresources.nl/wp-content/uploads/2012/03/2011-07-09-Schaliegas-in-Nederland.pdf; "Fact sheet: fracking nader toegelicht", Netherlands Oil and Gas Exploration and Production Association (NOGEPA), no date, http://www.cuadrillaresources.nl/wp-content/uploads/2012/04/11-12-08-NOGEPA-Fact-Sheet-Fracking.pdf (02/10/2013)

Rijksoverheid website, 'Geen proefboringen naar schaliegas in afwachting van bredere studie', 18 September 2013, http://www.rijksoverheid.nl/nieuws/2013/09/18/geen-proefboringen-naar-schaliegas-in-afwachting-van-bredere-studie.html>, accessed 2-10-2013.



2. Aim, methods and research questions

The aim of the present Quick Scan is to provide interested stakeholders and the general public with a fact-based profile and analysis of Cuadrilla, including the company's corporate social responsibility (CSR) performance as a corporate entity. A Quick Scan includes both a discussion of the company's CSR policies, as well as an overview of CSR-related risks present in the company's business or supply chain. The normative standards and recommendations established in the internationally-agreed OECD Guidelines for Multinational Enterprises³ provide a reference for selecting the CSR issues addressed in the Quick Scan and a benchmark for assessing the company's performance.

A SOMO Quick Scan provides a succinct and pointed assessment of the CSR-related performance of a specific company and is conducted in a short period of time. Quick Scans are not meant to provide a complete or detailed image of a company's social performance. Due to the fact that some controversial practices may not have been reported in the media or known to civil society organisations and due to the time available for the research, the overview of controversial practices in this report might not be exhaustive. Furthermore, where information about the latest developments, either positive or negative, was unavailable, it is possible that situations described in the overview have recently changed. Despite these limitations, SOMO Quick Scans provide a practical and reliable overview that can be used for a more informed assessment of a company's corporate responsibility performance. Quick Scans are generally commissioned by civil society organisations (CSOs) such as trade unions and non-governmental organisations (NGOs) in order to assist them in making a risk-assessment of a company, often for campaigning or partnership purposes. This Quick Scan has been commissioned by Milieudefensie (Friends of the Earth Netherlands).

The present Quick Scan aims to answer the following research questions:

What are Cuadrilla Resources' activities, and where are its operations located?
How is Cuadrilla Resources structured?
What is known about Cuadrilla Resources' owners and financiers?
How does Cuadrilla's company structure and financial position relate to its liability for possible adverse impacts of shale gas drilling in the Netherlands?
What known past controversies has Cuadrilla Resources been involved in?

The information-gathering methods that have been employed consist primarily of desk research. Publicly-available information was obtained from Cuadrilla's corporate documents and websites, corporate data and news databases, and research reports published by other civil society organisations and media outlets. In addition, Cuadrilla Resources was provided with an opportunity to review a draft version of the Quick Scan, provide feedback and ensure the factual correctness of the information. Cuadrilla Resources declined to make use of this opportunity and did not provide specific feedback on the contents of the draft provided.⁴

Organization for Economic Cooperation and Development (OECD), OECD Guidelines for Multinational Enterprises 2011 edition, http://www.oecd.org/daf/inv/mne/48004323.pdf (03/10/2013).

⁴ Cuadrilla Resources, response to a draft version of this document, e-mail received 25 October 2013.

3. Corporate information

In order to provide a better understanding of Cuadrilla Resources as a corporate entity, this section describes where the company's activities take place, how Cuadrilla Resources is structured, and who the company's owners are. This section also elaborates on and analyses the company's CSR policies and its financial performance. Finally, the section analyses the implications of Cuadrilla's corporate structure for the degree to which the company can be held legally and financially liable should the exploration activities result in any adverse impacts.

3.1. Activities

Cuadrilla Resources Ltd. is an oil and gas exploration and production company headquartered in the United Kingdom. Established in 2007, the company's main line of business is the production of natural gas from shale rock using a technique known as hydraulic fracturing (fracking).

Cuadrilla has exploration and production activities in various European countries. Most of its operations are located in its home country, the United Kingdom. In the Netherlands and Poland, the company has acquired concession agreements, and in Hungary, Cuadrilla is already producing natural gas extracted from shale rock. The company has further subsidiaries in Spain, Germany, the Czech Republic and the United States, although no actual exploration or production activities have yet taken place in these countries. The following sub-sections elaborate on Cuadrilla's activities in its various countries of operation.

3.1.1. UK

Cuadrilla Resources currently has active operations in two counties in the UK – Lancashire and West Sussex. The majority of the company's activities take place along the Fylde coast in Lancashire. The only site actually producing gas is Elswick. In Kent and Surrey counties, Cuadrilla holds concessions but has not started exploring. Table 1 provides a complete list of Cuadrilla's current operations in the UK.

Table 1: Cuadrilla's operations in the UK

Site name	Municipality	County	Status
Elswick	Elswick	Lancashire	Production site
Preese Hall	Weeton	Lancashire	Drilling since August 2010
Grange Hill	Singleton	Lancashire	Drilling since January 2011
Becconsall	Banks / Hesketh Bank	Lancashire	Drilling since August 2011
Kirkham	Kirkham	Lancashire	Licence acquired June 2010 (no drilling yet)
Hale Hall Farm	Wharles	Lancashire	Licence acquired February 2010 (no drilling yet)
Lingfield	Linfield	Surrey	Licence expired November 2011 (no drilling yet)
Balcombe	Balcombe	West Sussex	Exploration drilling started
Cowden	Cowden	Kent	Well drilled by previous operator in 1999, no drilling by Cuadrilla yet
Anna's Road	Westby	Lancashire	Preparing for drilling horizontal well
Clifton	Clifton	Lancashire	Plans submitted for exploration well

Source: Cuadrilla⁵

⁵ Cuadrilla website, "Our sites", http://www.cuadrillaresources.com/our-sites/ (19/09/2013)



Singleton Elswick / Weeton 4 A585 Blackpool Wharles A583 Westby Kirkham Lytham St Annes Drilled Consent acquired Producing A59 Banks

Figure 1 maps Cuadrilla's sites in Lancashire, where most of the company's activities take place.

Figure 1: Cuadrilla's sites in Lancashire, UK

Source: Cuadrilla⁶

3.1.2. The Netherlands

In the Netherlands, Cuadrilla operates through its Dutch subsidiaries Cuadrilla Brabant BV (formerly Brabant Resources BV) and Cuadrilla Hardenberg BV (formerly Hardenberg Resources BV). The company's Dutch headquarters is located in Den Bosch. EBN BV (formerly Energie Beheer Nederland⁷), has a 40% ownership in Cuadrilla Brabant. EBN is fully-owned by the Dutch state.⁸ Currently, the company has concession agreements in different areas in the Netherlands, including North Brabant and the "Noordoostpolder" region, and pending applications for "De Kempen" (in the provinces Limburg, North Brabant and Zeeland) and "Breda-Maas" (in the provinces North Brabant and Limburg).⁹ Plans have been submitted for exploration drillings in the

⁶ Cuadrilla website, "Our sites", http://www.cuadrillaresources.com/our-sites/ (19/09/2013)

⁷ EBN website, "Naamswijziging EBN", http://www.ebn.nl/Actueel/Paginas/Naamswijziging-EBN.aspx (29/09/2013)

Cuadrilla website, Over ons, "Wie wij zijn", http://www.cuadrillaresources.nl/over-ons/; EBN website, Samenwerkingen & projecten, "Noord-Brabant", http://www.ebn.nl/SamenwerkingenEnProjecten/Paginas/Noord-Brabant.aspx (20/09/2013)

It has to be noted that Cuadrilla did request licences for the areas "De Kempen" and "Breda-Meuse", but that these have not been granted yet to the company. Also, there are competing applications for these areas (by Hutton Energy and Gallic Energy, respectively), so it is not yet clear which company will be awarded with the licences for these areas. For a map of the concession areas, see Schaliegasvrij Nederland website, Kaart, "Schaliegaskaart Nederland", https://www.schaliegasvrij.nl/kaart/ (07/10/2013)

municipalities of Boxtel, Noordoostpolder and Haaren.¹⁰ It remains uncertain whether the permits for actual drilling in these three municipalities will be granted to the company. In September 2013, the Dutch Minister of Economic Affairs postponed all exploration drilling in the Netherlands until additional research on the regional and local impacts of shale gas production could be conducted.¹¹

3.1.3. Poland

In November 2012, Cuadrilla announced that it had been granted the Pionki Exploration licence in Poland. The concession covers an area of approximately 800 km² and is located in east-central Poland. The company operates through its subsidiary Cuadrilla Polska Sp. z o.o. with offices in Warsaw. ¹³

3.1.4. Hungary

Hungary is the only country outside the UK in which Cuadrilla has shale gas production operations. Cuadrilla's Hungarian concession is located in the vicinity of the municipalities of Tompa and Kiskunhalas, where it operates through its subsidiary Delcuadra Kft. Delcuadra is a joint venture between Delta Hydrocarbons, RAG Rohol-Aufsuchung AG and Cuadrilla. Although Cuadrilla only has a 29.3% ownership in Delcuadra 14, due to the contractual relationships with other shareholders, the three companies have equal control of the production site. 15

3.1.5. Other countries

In Spain, Cuadrilla's subsidiary Cuadrilla Resources Iberica S.L. is registered in Madrid. ¹⁶ It is unclear whether this subsidiary is still active; on some business websites the subsidiary is listed as "dissolved". ¹⁷ The (temporary) cessation of Cuadrilla's Spanish activities could be explained by the fact that in April 2013 the Spanish autonomous region Cantabria instituted a ban on shale gas drilling. ¹⁸ In Germany, the company operates Cuadrilla Resources Deutschland GmbH, incorporated in Stuttgart. ¹⁹ Cuadrilla's local subsidiary in the Czech Republic is Cuadrilla Morava

¹⁰ Cuadrilla website, Over ons, Blog, "Openheid", http://www.cuadrillaresources.nl/over-ons/blog/openheid/ (20/09/2013)

[&]quot;Uitstel rond besluit proefboringen schaliegas", Duurzaam Bedrijfsleven, 19 september 2013, http://www.duurzaambedrijfsleven.nl/57949/uitstel-rond-besluit-proefboringen-schaliegas/ (20/09/2013)

[&]quot;Cuadrilla expands European portfolio with important Poland exploration licence", Cuadrilla press release, 21 November 2012, http://www.cuadrillaresources.com/news/cuadrilla-news/article/cuadrilla-expands-european-portfolio-with-important-poland-exploration-licence/ (20/09/2013)

Polish Shale Gas website, Shales in Poland, "Other licensees", http://polishshalegas.pl/en/shales-in-poland/other-licensees (20/09/2013)

[&]quot;Cuadrilla update", AJ Lucas press release, 12 August 2011, http://www.lucas.com.au/files/ASX-Announcements/ASX-2011-12/Cuadrilla%20Update%20110812.pdf (19/09/2013)

Cuadrilla Resources Holdings Limited, Annual Accounts 2012, as deposited at the UK Companies House. Acquired through Duedil, https://www.duedil.com/company/07147040/cuadrilla-resources-holdings-limited/documents (26/09/2013)

Einforma website, Directorio de empresas, "Cuadrilla Resources Iberica S.L. (extinguida)", http://www.einforma.com/servlet/app/prod/DATOS_DE/EMPRESA/CUADRILLA-RESOURCES-IBERICA-S.L.--EXTINGUIDA--C_Qig1NDcyOTY3_de-MADRID.html (20/09/2013)

¹⁷ Ibid.

[&]quot;Shale-rich Spanish region vote to ban fracking", Reuters, 8 April 2013, http://uk.reuters.com/article/2013/04/08/us-energy-spain-shale-idUKBRE9370G220130408 (20/09/2013)

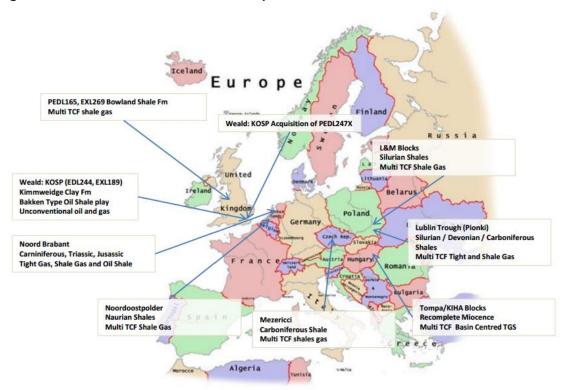
Firma-online website, Deutschland, Stuttgart, "PLZ 70192", http://firma-online.org/db/Cuadrilla Resources Deutschland GmbH (20/09/2013)



sro. ²⁰ In the United States, Susquehanna Natural Resources Co is incorporated as a subsidiary of Cuadrilla Resources. ²¹

Figure 2 maps Cuadrilla's drilling licences across Europe.

Figure 2: Cuadrilla's licences across Europe



Source: Lucas²²

3.2. Ownership and company structure

Cuadrilla Resources is owned by AJ Lucas Group Ltd (Lucas, 43.7%), Riverstone Capital (Riverstone, 43.7%) and Cuadrilla's own management (12.6%). Lucas, an Australian construction and mining company also owns 25% of two of Cuadrilla's English exploration permits in the Bowland Basin and in the Weald Basin. With its direct ownership in Cuadrilla's permits, Lucas also contributes 25% of the direct exploration expenses attributable to these permit areas. Riverstone is a US-based energy and power-focused private investment firm with offices in the US and the UK. Through its joint-venture with the Carlyle Group, a US-based global asset management firm, Riverstone invests in various sectors within the energy industry, including exploration and

Energy-pedia website, "Czech Republic: Companies apply for shale gas licences in Czech Republic", http://www.energy-pedia.com/news/czech-republic/companies-apply-for-shale-gas-licences-in-czech-republic and http://www.energy-pedia.com/news/czech-republic/companies-apply-for-shale-gas-licences-in-czech-republic and http://rejstrik-firem.kurzy.cz/29223482/cuadrilla-morava-sro/ (20/09/2013)

²¹ Cuadrilla Resources Limited, Annual Accounts 2012, as deposited at the UK Companies House. Acquired through Duedil, https://www.duedil.com/company/06472493/cuadrilla-resources-limited/documents (26/09/2013)

[&]quot;Cuadrilla back on track", AJ Lucas presentation, February 2013, p. 9., http://www.asx.com.au/asxpdf/20130213/pdf/42czqtz72fzq22.pdf (20/09/2013)

[&]quot;Cuadrilla back on track", AJ Lucas presentation, February 2013, p. 8., http://www.asx.com.au/asxpdf/20130213/pdf/42czqtz72fzq22.pdf (20/09/2013)

Lucas website, Investments, "Cuadrilla Resources (United Kingdom)", http://www.lucas.com.au/investments/cuadrilla-resources (20/09/2013)

production, power generation and renewable energy.²⁵ Three of Riverstone's partners, principals and managing directors - Alfredo A. Marti, Haroun van Hövell and N. John Lancaster – sit on Cuadrilla's board of directors. Cuadrilla's chairman, Lord John Browne, is a partner at Riverstone.²⁶

In June 2013, UK utility Centrica Plc acquired a 25% stake in the Cuadrilla-Lucas exploration permit in the Bowland Basin area.²⁷

The board of Cuadrilla is composed of three nominees from Lucas, three nominees from Riverstone and two members of Cuadrilla's management team. Lucas and Riverstone have no direct role in the day-to-day operations of Cuadrilla.²⁸

Figure 3 provides an overview of Cuadrilla's corporate structure. The company's principal subsidiary, Cuadrilla Resources Ltd. is based in the UK. All of Cuadrilla's exploration licences and applications for drilling licences are held through wholly-owned subsidiaries incorporated in the countries in which the licences are held. An exception is Hungary, where Cuadrilla has a minority stake in Delcaudra, the primary exploration and production company active in the country. The different colours in Figure 3 distinguish between the different functions of the subsidiaries. Owners of the company are marked red, corporate or holding companies are blue, production companies (responsible for Cuadrilla's Elswick site in the UK and its Hungarian operations) are orange, exploration companies (in the UK, the Netherlands and other European countries) are yellow, and subsidiaries providing oil and gas support services are marked green.

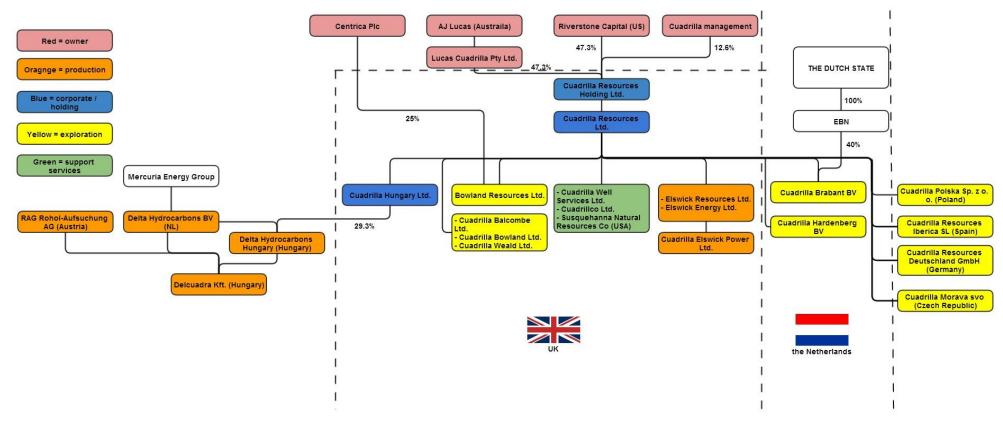
²⁵ Riverstone website, http://www.riverstonellc.com/Section.aspx/1/Overview (23/09/2013)

²⁶ Riverstone website, "Team", http://www.riverstonellc.com/Team.aspx (23/09/2013)

²⁷ Cuadrilla Resources Limited, Annual Accounts 2012, as deposited at the UK Companies House. Acquired through Duedil, https://www.duedil.com/company/06472493/cuadrilla-resources-limited/documents (26/09/2013)

Lucas website, Investments, "Cuadrilla Resources (United Kingdom)", http://www.lucas.com.au/investments/cuadrilla-resources (20/09/2013)

Figure 3: Cuadrilla's corporate structure



Source: Orbis, Dutch Chamber of Commerce, Cuadrilla, UK Companies House

3.3. CSR policies and procedures

Having looked at Cuadrilla's activities and company structure in the preceding paragraphs, it is important to analyse what measures and policies the company has in place to guarantee that these activities are performed in a socially and environmentally responsible manner.

The Dutch government has emphasised the importance of adherence to the OECD Guidelines for Multinational Enterprises for companies operating in and from Dutch territory. The OECD Guidelines advise companies to develop and disclose company policies on a range of corporate social responsibility (CSR) issues, including respect for human rights and environmental management and protection. The OECD Guidelines also insist that companies must conduct risk-based due diligence to identify, prevent, and mitigate potential adverse social and environmental impacts.²⁹

Cuadrilla Resources does not publish an annual CSR report or address CSR issues in its periodic financial reports. In contradiction to the recommendations in the OECD Guidelines, the company does not have a publicly-available policy or procedures for systematic, risk-based due diligence. Cuadrilla does not make reference to any normative guidelines for responsible business conduct, nor is it a member of any international sustainability initiatives or multi-stakeholder groups.

Cuadrilla has a one-page environmental policy in which it describes its commitment to conduct its operations in an "environmentally responsible manner and to protect the interests of the communities in which it operates". Cuadrilla also has a one-page health and safety policy specifying its guidelines for employees, contractors and other stakeholders impacted by its operations are laid down. Also, on different parts of its Dutch and UK and websites, the company provides information on a number of specific environmental and safety elements and procedures associated with shale gas drilling. The issues mentioned (and measures taken by Cuadrilla to address them) include the following:

- Ground water and aquifer: The drill well for gas production is designed with various layers of steel casings and cement fillings to prevent the contamination of ground water and the aquifer. A control-well is drilled in order to monitor leakage;
- Soil protection: An impermeable membrane is laid out on the drilling site to protect the soil underneath;
- Water use: Water usage is reduced by improving operational efficiency and reusing or recycling water where practicable;
- Seismicity: Cuadrilla conducts seismic analyses of the site before drilling and uses a "traffic light system" during the fracking phase to monitor and determine seismic activity at and around the site;

Organization for Economic Cooperation and Development (OECD), OECD Guidelines for Multinational Enterprises 2011 edition, http://www.oecd.org/daf/inv/mne/48004323.pdf (03/10/2013).

Environmental Policy, Cuadrilla Resources document, 19 October 2012, http://www.cuadrillaresources.com/wp-content/uploads/2012/02/Environment-Policy-19-October-2012-v2.pdf (14/10/2013)

Health and Safety Policy, Cuadrilla Resources document, 19 October 2012, http://www.cuadrillaresources.com/wp-content/uploads/2012/02/Health-and-Safety-Policy-19-October-2012-v2.pdf (14/10/2013)

Cuadrilla website, "Protecting our environment", http://www.cuadrillaresources.com/protecting-our-environment/; Cuadrilla website, "Veiligheid & milieu", http://www.cuadrillaresources.nl/veiligheid-milieu/; Cuadrilla website, About us, "Part of the community", http://www.cuadrillaresources.com/about-us/part-of-the-community/ (25/09/2013)



- Emissions: The emission of carcinogenic (cancer-causing) substances is minimized by the use of a closed system of fracking fluid storage. Cuadrilla is also taking steps to reduce methane gas emissions and monitors emissions until after the productive life of the well;
- Landscape: Noise emissions are monitored and held below 50 decibel (dB), light emissions are minimized by inward direction of construction lights at night;
- Health and safety: Health and safety risks associated with the company's operations are identified, assessed and effectively managed to ensure safe, injury free outcomes;
- Disclosure: Data on water use, chemical additives, waste water and methane emissions are measured and disclosed;
- Engagement: A two-way system of communication and engagement with employees, contractors, suppliers, visitors and with members of the local community is encouraged.

3.4. Finances

Since its establishment in 2007, Cuadrilla's only natural gas production activities have been those located at Cuadrilla's Elswick site in the UK and the company's Hungarian operations (in which Cuadrilla has a minority ownership). All other activities involved exploration drillings or merely applying for licences. For an oil and gas production company such as Cuadrilla, income is only generated once exploration leads to actual production activities. Since most of Cuadrilla's projects are currently in the pre-production licensing or exploration phase, the company has not made any net profits in the past six years.

The group's financial figures have been consolidated in the accounts of the holding company, Cuadrilla Resources Holdings Ltd., which are presented in Table 2 below.

Table 2: Key indicators for Cuadrilla Resources Holdings Ltd. (consolidated figures), 2009-2012, in thousand GBP

Key indicators	2012	2011	2010	2009
Total equity	60,593	45,679	n/a	n/a
Turnover	404	2,382	141	4
Operating profits (losses)	-19,175	-7,937	-11,019	-2,552
Assets	74,309	55,603	39,414	19,040
Wages incl. emoluments (management fees)	3,797	2,129	4,049	844
Number of employees	35	20	12	8

Source: Duedil and UK Companies House³³

Since 2009, Cuadrilla's assets have grown considerably from 19 million GBP in 2009 to 74 million GBP in 2012. Its employees' and managers' wages and emoluments (management fees) have also grown as the company has hired additional employees each year. Its operating losses fluctuate between 2009 and 2012, but have thus far significantly exceeded turnover each year. The financial figures of the holding company's principal subsidiary, Cuadrilla Resources Ltd., reveals roughly the same picture (see Table 3) – a considerable growth of assets, employees, wages and management fees and no profits since 2009. Wages and management fees at Cuadrilla Resources

Duedil website, Cuadrilla Resources Holdings Limited, "Financials", https://www.duedil.com/company/07147040/cuadrilla-resources-holdings-limited/financials; Cuadrilla Resources Holdings Limited, Annual Accounts 2012, as deposited at the UK Companies House. Acquired through Duedil, https://www.duedil.com/company/07147040/cuadrilla-resources-holdings-limited/documents (26/09/2013). The equity figures in the table have been reported in the company's annual accounts in USD, conversion to GBP was done using currency conversion rates of www.xe.com on 01/10/2013.

make up a considerable share of the company's turnover, in 2011 and 2012 around half of the turnover and in 2010 even up to 70%.

Table 3: Key indicators for Cuadrilla Resources Ltd., 2009-2012, in thousand GBP

Key indicators	2012	2011	2010	2009
Total equity	16,063	16,110	n/a	n/a
Turnover	4,084	2,123	1,948	755
Operating profits (losses)	-62	-79	n/a	n/a
Assets	108,534	73,293	48,575	20,151
Wages incl. emoluments (management fees)	2,312	915	1,401	157
Number of employees	19	11	7	5

Source: Duedil and UK Companies House³⁴

Cuadrilla's equity figures, i.e. the company's total assets minus all its liabilities, the value of the group on the balance sheet was 45 million GBP in 2011 and 60 million GBP in 2012. For the company's principal subsidiary, Cuadrilla Resources Ltd., this was around 16 million GBP in both years.

Cuadrilla's two Dutch subsidiaries – a Cuadrilla Brabant and Cuadrilla Hardenberg – a have thus far only reported operating losses (i.e. they not earned any income for the group). This is because the only activities the company has engaged in involved preparations for shale gas drilling in the three concession areas of Cuadrilla in the Netherlands. The value on the balance sheet of the two subsidiaries combined was approximately 400,000 GBP in 2010 and one million GBP in 2011. The companies did not employ any personnel in 2010 and 2011. Cuadrilla's two employees in the Netherlands – Frank de Boer and Henk Duyverman – are employed by the parent company in the UK. Table 4 provides key financial indicators for Cuadrilla Brabant and Cuadrilla Hardenberg.

Table 4: Key financial indicators for Cuadrilla's Dutch subsidiaries, 2010-2011, in thousand GBP

Key indicators	2011	2010	2011	2010
Subsidiary name	Cuadrilla Brabant		Cuadrilla Hardenberg	
Total equity	1,070	376	14	9
Operating profits (losses)	-694	-339	-4	-6
Assets	289	228	0	15
Number of employees	0	0	0	0

Source: Dutch Chamber of Commerce³⁵

3.5. Liability for adverse impacts

Given the potential adverse social and environmental impacts of shale gas production in the Netherlands, it is important to analyse the degree to which Cuadrilla can be held legally and financially liable should the exploration activities result in any adverse impacts. On 19 September 2013 at a hearing on shale gas in the Dutch parliament, Cuadrilla's Dutch director, Frank de Boer,

Duedil website, Cuadrilla Resources Limited, "Financials", https://www.duedil.com/company/06472493/cuadrilla-resources-limited/financials; Cuadrilla Resources Limited, Annual Accounts 2012, as deposited at the UK Companies House. Acquired through Duedil, https://www.duedil.com/company/06472493/cuadrilla-resources-limited/documents (26/09/2013). The equity figures in the table have been reported in the company's annual accounts in USD, conversion to GBP was done using currency conversion rates of www.xe.com on 01/10/2013.

Cuadrilla Brabant BV and Cuadrilla Hardenberg BV, Annual Accounts 2011, as deposited at the Dutch Chamber of Commerce. The figures in the table have been reported in the company's annual accounts in USD, but for the sake of comparability with the parent company figures, have been converted to (thousand) GBP. Conversion was done using currency conversion rates of www.xe.com on 01/10/2013.



was asked how the question of liability is guaranteed and managed within the company. His answer was that Cuadrilla is backed by investors with sufficient funds and that the company belongs to the top-10 best-insured extractives companies in north-western Europe. Based on international and national legal precedent, this section explores various aspects of the liability question related to Cuadrilla's investors, insurance, company structure, and financial performance and reserves.

Corporate structure and limited liability

As can be seen in Figure 3 above, Cuadrilla is a multi-layered company with several levels of subsidiaries. In the case of shale gas exploration in Boxtel (Noord-Brabant, Netherlands), the relevant subsidiary is Cuadrilla Brabant BV, which is a private limited liability company. The general principle of limited liability makes it difficult to hold a parent company liable for the acts of its subsidiary, which is a separate entity subject to the laws of the host country (the Netherlands in the case of Cuadrilla).³⁷ This general practice, which is not unique to Cuadrilla, is known in legal jargon as creating a "corporate veil". The limiting of liability to the subsidiary (so that the parent company cannot be held liable) is one of the main rationales behind the corporate strategy of establishing subsidiaries – otherwise the parent company would simply carry out the activities in its own name.

In the present case, the original permit for the exploration of the area was applied for by and granted to the UK parent company Cuadrilla Resources Ltd. In April 2010, the permit was transferred to Cuadrilla Brabant (formerly Brabant Resources BV). Although the exact costs associated with potential accidents or adverse impacts from shale gas exploration and production in the Netherlands are difficult to estimate , it is unclear whether Cuadrilla Brabant and Cuadrilla Hardenberg, with a combined equity value of only one million GBP (see Table 4 above) and no provisions for any (possible) future damage included in their annual accounts, are sufficiently financially prepared to deal with possible social or environmental costs associated with damage caused by its activities (e.g. reparations, clean-up, compensation to victims, etc.). Should there be an accident for which Cuadrilla Brabant or Cuadrilla Hardenberg is liable, the parent company or another (sister) corporate entity *could* – in theory – step in to come to the financial "rescue" of Cuadrilla Brabant in order to keep it from becoming insolvent, but it would be difficult to hold the

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Tweede Kamer der Staten Generaal website, Nieuws, Kamernieuws, "Hoorzitting Schaliegas", live stream broadcast on 19 September 2013, http://www.tweedekamer.nl/nieuws/kamernieuws/newspage2334_hoorzitting_schaliegas.jsp (19/09/2013)

See, for example the recent case of oils spills in Nigeria associated with Royal Dutch Shell subsidiary Shell Petroleum Development Company of Nigeria Ltd. (SPDC). I. Sekularac and A. Deutsch, "Dutch court says Shell responsible for Nigeria spills", Reuters, 30 January 2013, http://uk.reuters.com/article/2013/01/30/uk-shell-nigeria-lawsuit-idUKBRE90T0DC20130130 (02/10/2013)

[&]quot;Toestemming overdracht opsporingsvergunning Noord-Brabant", letter from the Dutch Ministry of Economic Affairs to Cuadrilla, 13 April 2010, obtained by a Freedom of Information (Wet Openbaarheid van Bestuur – WOB) request by Schaliegasvrij Nederland. Schaliegasvrij Nederland website, Nieuws en achtergrond, WOB verzoeken, "Wob-verzoek d.d. 2012-06-15", https://www.schaliegasvrij.nl/wob-verzoeken-2/ (02/10/2013)

[&]quot;Aanvullend onderzoek naar mogelijke risico's en gevolgen van de opsporing en winning van schalie- en steenkoolgas in Nederland", research report by Witteveen+Bos, Arcadis and Fugro, commissioned by the Dutch Ministry of Economic Affairs, 16 August 2013, Rijksoverheid website, Ministeries, EZ, Documenten en publicaties, Rapporten, http://www.rijksoverheid.nl/ministeries/ez/documenten-en-publicaties/rapporten/2013/08/26/aanvullend-onderzoek-naar-mogelijke-risico-s-en-gevolgen-van-de-opsporing-en-winning-van-schalie-en-steenkoolgas-in-nederland-eindrapport-onderzoeksvragen-a-en-b.html (02/10/2013)

parent/sister liable for the damages that Cuadrilla Brabant or Cuadrilla Hardenberg are unable to cover. 40

Investors

A similar situation holds for Cuadrilla's investors. Cuadrilla Resources may well have a number of capital-rich investors such as Riverstone, but Cuadrilla's limited liability status means that its investors can be held neither legally nor financially liable for any adverse impacts caused by the company. The investors only risk losing the exact amount of their investment in the company, and they are not bound to pay for reparations or compensation in the event of an accident. Again, certain investors may choose to come to the financial rescue of the company in case of an accident, but they are under no obligation to do so. Mr. de Boer's rationalisation (to placate concerned Dutch parliamentarians and citizens) that Cuadrilla is backed by investors with sufficient funds is thus not an adequate answer to the question of who would have to pay in the event of an unforeseen adverse impact.⁴¹

Insurance

It is difficult to verify the validity and implications of Mr. de Boer's claim that Cuadrilla is among the top-10 best insured extractives companies in north-western Europe. ⁴² The company does not provide additional information or clarification as to the degree to which Cuadrilla's Dutch subsidiaries are covered, nor which specific activities are insured, nor for how much these subsidiaries and activities may be insured. Without these further specifications, Mr. de Boer's statement has little meaning for Dutch politicians, regulators and citizens concerned about potential risks of fracking.

UK courts have developed a concept of "duty of care", by which a parent company may incur liability towards another member of the corporate group for the acts committed by this other member where the parent owes a duty of care to the claimant. The issue was formulated under English law by the Court of appeal in the "Lubbe v Cape Plc" case which asked: "whether a parent company owed a duty of care to the claimant where the parent (a) exercises *de facto* control over the operations of the subsidiary and (b) knows through its directors that those operations involve risks to the health of the workers employed by that subsidiary." Despite this ruling, courts – both in the UK and elsewhere – a have generally remained reluctant to holding a parent company liable for the acts of its subsidiary (see decision of the District Court of the Hague in January 2013 re the liability of Royal Dutch Shell for the acts of its Nigerian subsidiary).

Tweede Kamer der Staten Generaal website, Nieuws, Kamernieuws, "Hoorzitting Schaliegas", live stream broadcast on 19 September 2013, http://www.tweedekamer.nl/nieuws/kamernieuws/newspage2334_hoorzitting_schaliegas.jsp (19/09/2013).

⁴² Idem.



4. Cuadrilla Resources' involvement in past controversies

This section contains a brief overview of controversial impacts and issues with which Cuadrilla Resources has been associated with directly or indirectly through its operations in the past. Rather than an exhaustive analysis of Cuadrilla's operational aspects of corporate responsibility management, implementation systems, reporting and transparency, or total performance on any issue, the overview provides a description of a limited number of corporate responsibility-related issues and controversies that might merit further attention or reflection. The normative standards and recommendations established in the OECD Guidelines for Multinational Enterprises provide a reference for selecting the controversial issues and a benchmark for assessing the company's performance. Please note that Cuadrilla's positive sustainability achievements are not addressed here. Information on positive achievements can be found on the media page of company's website. ⁴³

4.1. Seismicity prediction methods and transparency

On 1 April 2011 and on 27 May 2011 two seismic events (earthquakes) of 2.3 Richter local magnitude (ML) and of 1.5 ML, respectively took place shortly after Cuadrilla's Preese Hall well near Blackpool was hydraulically fractured. Cuadrilla suspended its hydraulic fracturing operations at the site and commissioned a report to investigate the cause of the earthquakes. The UK Department of Energy and Climate Change (DECC) also commissioned an independent report to determine the causes of the seismicity. Both reports attribute the two seismic events to Cuadrilla's fracturing operations. According to The Royal Society and The Royal Academy of Engineering, the cause of the Blackpool earthquake was the injection of fracking treatment water into the ground by the company: The most likely cause of the events was the transmission of injected fluid to a nearby (but previously unidentified) pre-stressed fault, reducing the effective stress to the point where the fault slipped and released its stored energy. The energy released was several orders of magnitude greater than the microseismic energy associated with routine hydraulic fracturing. The magnitude greater than the microseismic energy associated with routine hydraulic fracturing.

Although the independent researchers in the DECC report do not call for a cessation of shale gas exploration activities at the Preese Hall site, they do criticize Cuadrilla's methodology of predicting

⁴³ Cuadrilla Resources website, Media, http://www.cuadrillaresources.nl/over-ons/media/ (03/10/2013).

B. Koppelman et al, "Shale gas extraction in the UK - a review of hydraulic fracturing", The Royal Society and The Royal Academy of Engineering, June 2012, p. 41., http://www.raeng.org.uk/news/publications/list/reports/Shale_Gas.pdf (19/09/2013)

⁴⁵ C.J. de Pater and S. Baisch, "Geomechanical Study of Bowland Shale Seismicity – Synthesis Report", report commissioned by Cuadrilla Resources, http://www.cuadrillaresources.com/wp-content/uploads/2012/02/Geomechanical-Study-of-Bowland-Shale-Seismicity_02-11-11.pdf (19/09/2013)

Ch. A. Green et al, "Preese Hall shale gas fracturing – review & recommendations for induced seismic mitigation", G Frac Technologies, Keele University and British Geological Survey, prepared for the Department of Energy and Climate Change (DECC), April 2012, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48330/5055-preese-hall-shale-gas-fracturing-review-and-recomm.pdf (19/09/2013)

B. Koppelman et al, "Shale gas extraction in the UK - a review of hydraulic fracturing", The Royal Society and The Royal Academy of Engineering, June 2012, p. 41., http://www.raeng.org.uk/news/publications/list/reports/Shale_Gas.pdf (19/09/2013)

and avoiding earthquakes in the future. The DECC report critiques Cuadrilla's methods on several points, including:

- Probability of earthquakes. According to Cuadrilla's report, the probability of further earthquake activity is low. However, the DECC researchers disagreed, noting, "We are not convinced by the projected low probability of other earthquakes during future treatments. We believe it is not possible to state categorically that no further earthquakes will be experienced during a similar treatment in a nearby well". **
- Model predicting earthquakes. The DECC report also expresses concern about the method and models used by Cuadrilla to predict earthquakes. They explained, "We also consider that the use of the numerical simulations to estimate maximum likely magnitude of any further earthquake should be treated with some caution, mainly because the model [used by Cuadrilla] is necessarily simplistic due to lack of data to constrain parameters". ⁴⁹
- Threshold for action in case of earthquakes. "We consider that the maximum magnitude threshold of 1.7 ML, initially proposed for the traffic light system, is undesirably high from the viewpoint of prudent conduct of future operations. Based on this limit, no action would have been taken before the magnitude 2.3 ML event on 1 April 2011. Instead, we recommend a lower limit of 0.5 ML". 50

Professor David Smythe from the University of Glasgow has also criticized Cuadrilla's planning application for the drilling of the company's Balcombe site in West Sussex. According to Smythe, the boundaries of Cuadrilla's licence are misplaced, the interpretation of the geological structure is insecure, and as a result, some of the interpreted major faults run in the wrong direction. As a possible consequence, "any faults intersected may act as fast-track conduits to the surface for contaminated frack water and released methane". 51

It could not be verified whether Cuadrilla has altered its methodology for predicting earthquakes and its threshold for taking action in case of earthquakes as a response to the critique of the DECC. It is also not known whether the company has altered its planning application for its Balcombe site as a reaction to Professor Smythe's observations. However, these cases illustrate the fact that shale gas drilling at major depths is a relatively new form of natural resource extraction and that the methodology applied is far from being unanimous among experts.

Reporting of seismic events

According to Charles Hendry, UK's Minister for Energy and Climate Change between 2010 and 2012, by not communicating properly with the DECC, the company had "disclosed weaknesses in Cuadrilla's performance as a licensee, which need to be addressed." The minister's concern about Cuadrilla originated from an incident on 1 April 2011, when the casing of a well drilled at the company's Preese Hall site was damaged by an earthquake caused by its drilling. In the communication between the minister and the company – obtained by *The Guardian* through a Freedom of Information request – the minister expressed concern that "Cuadrilla failed to recognise the significance of the casing deformation experienced in the earth tremor triggered by fracking

⁴⁸ Ch. A. Green et al, "Preese Hall shale gas fracturing – review & recommendations for induced seismic mitigation", G Frac Technologies, Keele University and British Geological Survey, prepared for the Department of Energy and Climate Change (DECC), April 2012, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48330/5055-preese-hall-shale-gas-fracturing-review-and-recomm.pdf (19/09/2013)

⁴⁹ Idem.

⁵⁰ Idem

D. Smythe, "Critique of Cuadrilla's plans and proposals for drilling near Balcombe, West Sussex", University of Glasgow, August 2013, http://www.davidsmythe.org/fracking/cuadrilla%20sussex%20critique%20V1.pdf (30/09/2013)



operations on 1 April 2011 and [...] that the company did not report it to [DECC] officials as to the possible cause of the tremor and the possibility it might be linked to fracking". 52

In a reaction to the incident, Cuadrilla communicated that the company "was never required to report this issue as the casing deformation caused no actual or potential loss of well integrity and was neither a safety nor an environmental incident. No remedial action was needed to repair the well."⁵³ According to Cuadrilla, as soon as the company's own studies showed that the tremors were indeed caused by Cuadrilla's operations, the company reported the incident to the DECC. With the UK energy minister alleging the event represented a failure by the company and Cuadrilla denying this, it remains unclear whether or not Cuadrilla has breached its reporting requirements. However, this incident indicates that Cuadrilla has – at the very least – underperformed with regard to the issue of transparency and timely and accurate reporting that is recommended by the OECD Guidelines and which is essential in social acceptance of this form of unconventional fossil fuel extraction.⁵⁴

4.2. Deviation from permitted activities in the UK and Hungary

In 2011, Cuadrilla breached the conditions under which it was allowed to drill at its Becconsall site in Lancashire by drilling beyond the permitted 90-day period. The 90-day period was established to protect wintering birds in the area. According to Stuart Perigo from Lancashire's County Council, by continuing drilling after 30 September 2011, Cuadrilla "failed to meet a planning condition aimed at protecting wintering birds at a nearby sanctuary". ⁵⁵ Although an ecologist hired by Cuadrilla to monitor the birds during the two months in which it exceeded the officially-permitted drilling period found no evidence of specific impacts of the drilling on the wintering birds, ⁵⁶ the incident nevertheless represented "a failure to comply with the company's own method statement related to the protection of birdlife from the nearby Site of Special Scientific Interest [...] and potentially a breach of the Wildlife and Countryside Act". ⁵⁷

Hungarian media have also reported several irregularities connected to Delcuadra, a Hungarian exploration and production company owned by the consortium including Cuadrilla, Delta Hydrocarbons and RAG Rohol-Aufsuchung AG. According to Hungarian daily *Népszabadság*, Delcuadra has been producing natural gas at a concession site in Balotaszállás (Hungary) since 2011, although the company merely had an exploration permit for the area. The company also allegedly deviated from the specifications on its permit by not storing the fracturing fluid in a closed-system vault, and thereby causing soil contamination. In addition, *Népszabadság* alleged that while the company's exploration permit allowed it to cover 500 m² with concrete for its drilling activities, the company had done so on an area which is significantly larger than the permitted 500m².

D. Carrington, "Cuadrilla breached fracking conditions, court told", The Guardian, 10 September 2012, http://www.theguardian.com/environment/2012/sep/10/cuadrilla-breach-fracking-lancashire (17/09/2013)

F. Harvey et al, "Fracking company Cuadrilla halts operations at Lancashire drilling site", The Guardian, 10 September 2012, http://www.theguardian.com/environment/2013/mar/13/fracking-cuadrilla-halts-operations-lancashire (17/09/2013)

Organization for Economic Cooperation and Development (OECD), OECD Guidelines for Multinational Enterprises 2011 edition, http://www.oecd.org/daf/inv/mne/48004323.pdf (03/10/2013).

D. Carrington, "Cuadrilla breached fracking conditions, court told", The Guardian, 10 September 2012, http://www.theguardian.com/environment/2012/sep/10/cuadrilla-breach-fracking-lancashire (17/09/2013)

⁵⁷ "Fracking on trial: the verdict", Rising Tide press release, 6 September 2012, http://risingtide.org.uk/content/fracking-trial-verdict (17/09/2013)

I. Tanács, "Özvegy Bartekné esete a földjén gázt bányászó multival", Népszabadság, 16 April 2012, http://nol.hu/belfold/20120416-engedely_nelkul_termelik_a_gazt (19/09/2013)

⁵⁹ I. Tanács, "Özvegy Bartekné esete a földjén gázt bányászó multival", Népszabadság, 16 April 2012, http://nol.hu/belfold/20120416-engedely_nelkul_termelik_a_gazt (19/09/2013)

4.3. Safety and environmental track record of Cuadrilla's chairman

John Browne, chairman of Cuadrilla and partner and managing director of Riverstone, was chief executive officer (CEO) of the British oil company BP between 1995 and 2007. According to numerous reports, ⁶⁰ Browne's poor safety track record was one of the major forces behind his early retirement as BP's CEO in 2007. A *New York Times* article ⁶¹ referring to a report by an independent review panel on safety measures at BP, ⁶² concludes that under the leadership period of John Browne, the company put profits before safety. Another report alleges it was Browne's management and legacy that led to BP's three major accidents in the past ten years: the Texas City Refinery explosion (2005), the Alaskan oil spill (2006) and the Deepwater Horizon explosion in the Gulf of Mexico (2010). ⁶³ A ProPublica investigation alleged that, under Browne, BP "managers had become deaf to risk and systematically gambled with safety at hundreds of facilities and with thousands of employees' lives". ⁶⁴ U.S. Congressman Joe Barton had also spoken about the company's safety track record under Browne: "I am concerned about BP's corporate culture of seeming indifference to safety and environmental issues". ⁶⁵

The fact the John Browne in his function as acting CEO of BP has had a questionable safety and environmental track record obviously does not necessarily imply that these issues are neglected at Cuadrilla Resources. However, the association of such an important figure in Cuadrilla's management and governance with such serious safety and environmental issues means that communities and other stakeholders impacted by Cuadrilla's activities are justified in placing a heightened expectation of Cuadrilla to ensure – and prove to the public that it is ensuring – that it has conducted sufficient due diligence to identify, avoid, mitigate and remedy all potential risks to health, safety and the environment. The limited number and scope of publicly-available CSR policies and procedures (see section 3.3), combined with the abovementioned concerns about the company's transparency, indicate that Cuadrilla has not met this expectation.

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See e.g., T. Bower, "Return of Lord Oil Slick: Why has Cameron handed this Labour luvvie such a key job?", The Daily Mail, 3 July 2010, http://www.dailymail.co.uk/debate/article-1291663/Return-Lord-Oil-Slick-Why-Cameron-handed-Lord-Browne-key-job.html; J. Mouawad, "For BP, a History of Spills and Safety Lapses", The New York Times, 8 May 2010, http://www.nytimes.com/2010/05/09/business/09bp.html?_r=0&adxnnl=1&pagewanted=all&adxnnlx=1379513091-B+0xvUiCbCWPQG6jByiPlg;; T. Webb, "Tony Hayward on BP oil crisis: "I'd have done better with an acting degree", The Guardian, 9 November 2010, http://www.theguardian.com/business/2010/nov/09/bp-tony-hayward-bbc-interview;; A. Lustgarten, "Furious Growth and Cost Cuts Led To BP Accidents Past and Present", ProPublica, 26 October 2010, http://www.propublica.org/article/bp-accidents-past-and-present; "Carlyle's Lord Browne Sugar Coats BP Blast", PEU Report website, 10 August 2008, http://peureport.blogspot.nl/2008/08/carlyles-slippery-lord-browne.html (18/09/2013)

J. Mouawad, "For BP, a History of Spills and Safety Lapses", The New York Times, 8 May 2010, http://www.nytimes.com/2010/05/09/business/09bp.html?_r=0&adxnnl=1&pagewanted=all&adxnnlx=1379513091-B+0xvUiCbCWPQG6jByiPlg (18/09/2013)

Reference is made to James A. Baker, III et al, "The Report of the B.P. U.S. Refineries Independent Safety Review Panel", January 2007, http://www.bp.com/liveassets/bp_internet/globalbp/globalbp_uk_english/SP/STAGING/local_assets/assets/pdfs/Baker_p_anel_report.pdf (18/09/2013)

T. Bower, "Return of Lord Oil Slick: Why has Cameron handed this Labour luvvie such a key job?", The Daily Mail, 3 July 2010, http://www.dailymail.co.uk/debate/article-1291663/Return-Lord-Oil-Slick-Why-Cameron-handed-Lord-Browne-key-job.html (18/09/2013)

A. Lustgarten, "Furious Growth and Cost Cuts Led To BP Accidents Past and Present", ProPublica, 26 October 2010, http://www.propublica.org/article/bp-accidents-past-and-present (18/09/2013)

T. Bower, "Return of Lord Oil Slick: Why has Cameron handed this Labour luvvie such a key job?", The Daily Mail, 3 July 2010, http://www.dailymail.co.uk/debate/article-1291663/Return-Lord-Oil-Slick-Why-Cameron-handed-Lord-Browne-key-job.html (18/09/2013)



4.4. Misleading advertising

In the summer of 2012, Cuadrilla distributed an information leaflet entitled "Summer 2012 Exploring For Natural Gas – Cuadrilla Resources is exploring for natural gas in Lancashire" to thousands of properties in the county of Lancashire. The purpose of the distribution was to inform residents of the process of and risks associated with hydraulic fracturing. Civil society organisation Refracktion filed a complaint at the Advertising Standards Authority (ASA), the UK's regulator for advertising, stating that the leaflet contained misleading information that could not be substantiated. Of the 18 statements criticised by the complainants, the ASA ruled that 6 were in breach of the ASA code. The OECD Guidelines for Multinational Enterprises insist that companies must "disclose accurate information on all material matters regarding their activities". ⁶⁶ The ASA found that the following claims in Cuadrilla's brochure represented "misleading advertising", "subjective claims", (non)-"substantiation", or "exaggeration". ⁶⁷

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	"Cuadrilla uses proven, safe technologies to explore for and recover natural gas";
	"The Government's own review, published in April 2012, 68 also concluded that it was safe
	to resume hydraulic fracturing [in the Bowland Basin]";
	"[The report] too set out safeguards to help ensure that there will be minimal seismic
	activity and no prospect of any resulting damage";
	"[] no one should notice any disturbance or even be aware of the activity";
	"We also know that hydraulic fracturing does not lead to contamination of the underground
	aquifer" and "There is 'no evidence of aquifer contamination from hydraulic fracturing'";
	"Cuadrilla's fracturing fluid does not contain hazardous or toxic components".

The ASA and concluded that "the brochure must not appear again in its present form". ⁶⁹ As a reaction to the authority's ruling, Francis Egan, Cuadrilla's CEO said that the company would "examine the adjudication carefully to see what communication lessons can be learned in future". ⁷⁰

4.5. Adverse impacts on and failure to consult with residential stakeholders

The cases described in this paragraph all relate to adverse impacts on residents living near Cuadrilla's exploration sites in the UK.

Organization for Economic Cooperation and Development (OECD), OECD Guidelines for Multinational Enterprises 2011 edition, http://www.oecd.org/daf/inv/mne/48004323.pdf (03/10/2013).

ASA website, Rulings, Cuadrilla Resources Ltd, "ASA Adjudication on Cuadrilla Resources Ltd", 24 April 2013, http://www.asa.org.uk/Rulings/Adjudications/2013/4/Cuadrilla-Resources-Ltd/SHP_ADJ_203806.aspx; "Fracking leaflet banned over 'misleading' claims", BBC News, 24 April 2013, http://www.bbc.co.uk/news/uk-england-lancashire-22284340; F. Harvey, "Cuadrilla censured by advertising watchdog over fracking safety claims", The Guardian, 24 April 2013, http://www.theguardian.com/environment/2013/apr/24/caudrilla-censured-fracking-safety-claims (19/08/2013)

Reference is made to Ch. A. Green et al, "Preese Hall shale gas fracturing – review & recommendations for induced seismic mitigation", G Frac Technologies, Keele University and British Geological Survey, prepared for the Department of Energy and Climate Change (DECC), April 2012, https://www.gov.uk/government/uploads/system/uploads/system/uploads/attachment_data/file/48330/5055-preese-hall-shale-gas-

nttps://www.gov.uk/government/uploads/system/uploads/attachment_data/file/48330/5055-preese-nail-shale-gas-fracturing-review-and-recomm.pdf (19/09/2013)

ASA website, Rulings, Cuadrilla Resources Ltd, "ASA Adjudication on Cuadrilla Resources Ltd", 24 April 2013, http://www.asa.org.uk/Rulings/Adjudications/2013/4/Cuadrilla-Resources-Ltd/SHP_ADJ_203806.aspx (19/08/2013)

¹⁰ "Fracking leaflet banned over 'misleading' claims", BBC News, 24 April 2013, http://www.bbc.co.uk/news/uk-england-lancashire-22284340 (18/09/2013)

Trespassing and damaging private property for geological surveys

According to reports in *The Guardian*, in May 2012, Cuadrilla repeatedly trespassed on local inhabitants' private land for the purpose of carrying out geological surveys at exploration areas in Lancashire. Cuadrilla allegedly used explosives and "lorry-mounted ground vibrators" to test the geological layers beneath the surface of its exploration area. In one instance, contractors working for Cuadrilla reportedly marked a private site for detonation of explosive charges to carry out exploration works. Also, damage to private property was reported following explosions set off on a neighbouring property.⁷¹

Residents not properly informed about timing of drilling operations

In September 2012, residents of Hesketh Bank were not informed on the timing of drilling operations at Cuadrilla's nearby Becconsall site. Residents have complained about movements of heavy machinery in the early morning hours and mud trails being left behind in their village by Cuadrilla's trucks.⁷²

Possible breach of noise level limits

In September 2013 Cuadrilla might have breached the allowed limits for noise disturbance at its Balcombe site in West Sussex. The noise level monitoring report by the company showed levels which are higher than the maximum values at the site, although Cuadrilla's report suggests that the noise was not produced by the company's drilling activities but rather by "other local activity". 73

Sustained complaints about disturbances and adverse impacts from residential stakeholders

Various complaints of residents living near Cuadrilla's exploration or production sites have been documented online. The "Residents action on Fylde fracking" website ⁷⁴ has a collection of complaints which residents of the UK's Fylde coast in Lancashire have submitted. Although the website is an open platform where theoretically anyone can post a complaint (thus the information contained should be interpreted with caution), the list of grievances does give an idea of the issues local residents are faced with due to Cuadrilla's operations. The issues mentioned include the following:

	Frequent minor tremors several times a week;
	Cracks appearing in walls, patios and the plasterwork of houses;
0	Sewers and mains collapsing (and hence water being temporarily cut off) due to drilling and fracking;
0	Heavy machinery and vehicles being driven through municipalities at night or in the early morning hours;
	Vehicles being parked without permission on private property around the rig site;
	Exploration works starting without proper notice; and
	Noise disturbance "day and night". 75

D. Carrington, "Fracking firm Cuadrilla trespassed on private land for geological surveys", The Guardian, 2 August 2013, http://www.theguardian.com/environment/2013/aug/02/fracking-cuadrilla-trespassed-private-land (17/09/2013)

^{72 &}quot;Frustration over residential drilling operation", Hubmaker Media, 7 September 2012, http://www.heskethbank.com/2012_news_archive.html (17/09/2013)

P. Jackson, "Noise monitoring during drilling operations - Lower Stumble Well Site, Balcombe, West Sussex", Spectrum Acoustic Consultants, commissioned by Cuadrilla Resources, August 2013, http://balcombeparishcouncil.files.wordpress.com/2013/09/noise-report-balcombe-sep-13.pdf (19/09/2013)

Residents action on Fylde fracking website, "Residents' Reports", http://stopfyldefracking.org.uk/residents-reports/ (18/09/2013)

⁷⁵ See e.g. "Drilling to continue after Balcombe noise breach concerns", West Sussex County Times, 9 September 2013,



The cases of residential disturbance described above provide an illustration of the possible consequences of shale gas exploration activities on local inhabitants. While some of the issues mentioned (such as the presence of heavy machinery) are inevitable, the OECD Guidelines insist that others (such as a failure to meaningfully consult and provide timely information to local stakeholders) are unacceptable. The difficulties associated with natural gas production in or near populated areas increases the importance of companies developing and implementing appropriate due diligence policies and procedures, as well as a high degree of transparency and disclosure of information toward impacted communities and other stakeholders.

http://www.wscountytimes.co.uk/news/local/drilling-to-continue-after-balcombe-noise-breach-concerns-1-5470275; E. Gosden, "Cuadrilla's Balcombe drilling may have broken noise rules", 8 September 2013, http://www.telegraph.co.uk/finance/newsbysector/energy/oilandgas/10294482/Cuadrillas-Balcombe-drilling-may-have-broken-noise-rules.html (19/08/2013)

See Chapter II and Chapter V of the OECD Guidelines for Multinational Enterprises 2011 edition, http://www.oecd.org/daf/inv/mne/48004323.pdf (03/10/2013).

5. Conclusions

Given the sensitivities and difficulties associated with shale gas exploration and exploitation in a densely-populated country like the Netherlands, ⁷⁷ a complex, heated, and important debate about the country's energy future lies ahead for Dutch politicians, corporate actors, civil society organisation and other stakeholders. Should the Dutch government eventually decide to proceed with exploratory fracking, it will require a responsible and diligent corporate partner to do so. Any such company will be required to – at a very minimum – abide by the OECD Guidelines for Multinational Enterprises in exercising its corporate social responsibility while conducting its activities.

UK-based Cuadrilla Resources Ltd. is one of the companies that has been granted a preliminary licence for shale gas exploration in the Netherlands. Through its two Dutch subsidiaries – Cuadrilla Brabant BV and Cuadrilla Hardenberg BV - Cuadrilla has pending and awarded concession agreements for shale gas extraction in four areas – North Brabant, the "Noordoostpolder" region, "De Kempen" (in the provinces Limburg, North Brabant and Zeeland) and "Breda-Maas" (in the provinces North Brabant and Limburg) – and plans have been submitted for exploration drillings in the three municipalities – Boxtel, Haaren (North Brabant) and Noordoostpolder (Flevoland).

The present Quick Scan has assessed and analysed several aspects of Cuadrilla Resources' operations, policies and the company's track record and involvement in controversies related to CSR issues and normative standards found in the OECD Guidelines. The results of the analysis call into question whether Cuadrilla represents the responsible, diligent partner the Dutch government will need should it decide to go ahead with fracking. This general conclusion is based on the following findings.

Dearth of detailed CSR policies/reporting and lack of risk-based due diligence procedures

In a series of one-page documents and webpages, Cuadrilla briefly and unsystematically outlines its policies on some environmental, health and safety issues associated with its operations (see section 3.3). However, the number and scope of the issues addressed falls far short of the issues and recommendations outlined in the OECD Guidelines. No annual CSR report is produced to track the company's performance on non-financial issues, nor does the company address social or environmental issues in its periodic financial reports. Cuadrilla does not make reference to any normative guidelines for responsible business conduct, nor does it appear to have in place an appropriate due diligence procedure to identify, avoid, mitigate and remediate potential social and environmental impacts associated with its activities, as is required by the OECD Guidelines and which must thus be required by the Dutch government.

See e.g., "Aanvullend onderzoek naar mogelijke risico's en gevolgen van de opsporing en winning van schalie- en steenkoolgas in Nederland", research report by Witteveen+Bos, Arcadis and Fugro, commissioned by the Dutch Ministry of Economic Affairs, 16 August 2013, Rijksoverheid website, Ministeries, EZ, Documenten en publicaties, Rapporten, <a href="http://www.rijksoverheid.nl/ministeries/ez/documenten-en-publicaties/rapporten/2013/08/26/aanvullend-onderzoek-naar-mogelijke-risico-s-en-gevolgen-van-de-opsporing-en-winning-van-schalie-en-steenkoolgas-in-nederland-eindrapport-onderzoeksvragen-a-en-b.html; "Schaliegas in Nederland (op basis van Shale Gas Report voor House of Commons)", research report by Royal Haskonings for Cuadrilla Resources, 8 September 2011, http://www.cuadrillaresources.nl/wp-content/uploads/2012/03/2011-07-09-Schaliegas-in-Nederland.pdf; "Fact sheet: fracking nader toegelicht", Netherlands Oil and Gas Exploration and Production Association (NOGEPA), no date, http://www.cuadrillaresources.nl/wp-content/uploads/2012/04/11-12-08-NOGEPA-Fact-Sheet-Fracking.pdf (02/10/2013)



Instances of questionable environmental and social performance

Since its establishment in 2007, the frequency of instances of Cuadrilla's association with or involvement in controversies suggests that the company's performance on social and environmental issues may not be up to the minimum standards set by the OECD Guidelines and the Dutch government. The controversies identified in the present Quick Scan included the company's alleged deviation from permitted activities and areas, disputed methods for predicting and reporting on fracking-related seismic activity and events (earthquakes), and failure to provide accurate and timely information about risks and even providing misleading information to stakeholders. Cuadrilla's association with this wide range of controversies suggests that Dutch politicians and the public are justified in demanding of Cuadrilla a high degree of thoroughness, transparency and due diligence in developing its CSR policies and procedures to identify, avoid, mitigate and remediate potential adverse impacts.

Limited liability

In the hypothetical event that Cuadrilla's shale gas operations in the Netherlands were to cause significant unforeseen damage to human health, property or the environment, Cuadrilla's corporate structure (a multi-layered company with multiple limited liability companies and subsidiaries) and financial situation provide little certainty or assurance guaranteeing that Cuadrilla would be able to bear the (financial) consequences of dealing with damages (e.g. reparations, clean-up, compensation to victims, etc.). Cuadrilla's two Dutch subsidiaries, which currently have a combined equity value of just one million GBP and which do not have provisions for any (possible) future damage included in their annual accounts, may not be sufficiently financially prepared to deal with possible social or environmental costs associated with an accident. While the UK-based parent company or some of Cuadrilla's rich investors may step in to bail out the Dutch subsidiaries, there is certainly no guarantee that they will voluntarily do so, and experience has proved it difficult to hold parent companies liable for adverse impacts caused by a subsidiary in a different country. Cuadrilla's claims about being one of the "best insured" companies mean little when the company refuses to specify exactly which activities in which countries are insured to what amount.

The debate surrounding shale gas exploitation and other forms of energy production and provision will undoubtedly be one of the dominant topics in Dutch political and political discourses in the coming years and decades. The Dutch government, informed by Dutch public opinion, international normative guidelines, sound science and a weighing of the true costs and benefits of all available options, will eventually have to make a decision as to whether to allow shale gas production or whether to give priority to other, more sustainable forms of energy. Should the Dutch government eventually decide to proceed with exploratory fracking, it will require a responsible and diligent corporate partner that abides by the OECD Guidelines for Multinational Enterprises in exercising its corporate social responsibility while conducting its activities. It is hoped that the present Quick Scan of Cuadrilla Resources contributes constructively to that debate by identifying critical issues and questioning whether Cuadrilla is such an appropriate partner.