

## Appendix 2

### Representations

### Objections

#### Friends of the Earth (FOE):

FOE, on behalf of Preston New Road Action Group, initially expressed concerns regarding the consultation period of 21 days for consideration of the Environmental Statement accompanying the planning application. LCC took account of these concerns and extended the formal consultation period to 12 weeks.

FOE submitted a further objection to the proposal with regard to the precautionary principle and the Water Framework Directive; inconsistency within national and local planning policy, inconsistency with government policy; evidence of adverse environmental impacts and inadequate consideration of adverse socio-economic and public health impacts.

Friends of the Earth have made further representations on the further information. The grounds for objection are summarised as follows.

#### Precautionary Principle

- The development should not go ahead unless it can be proven that there will be no groundwater contamination over the short and long term.
- The development is an unconventional activity where the full impacts are unknown and where the risks can be clearly identified.
- Fracking poses a higher risk of well failure (and leaks) due to injection of wells and drilling wells horizontally as well as vertically.
- Fracking at Preese Hall resulted in harmful consequences
- The current regulatory framework for the shale gas industry is inadequate, flawed or ineffectively applied and enforced.
- Regulators appear to have failed to assess the risks and determine the standards necessary to enable the development to go ahead, e.g. water recycling standards.

#### Groundwater, Flooding and Water Resource

- Potential groundwater contamination as a result of mechanical failure of equipment, well integrity issues, membrane defects, well degradation, geological faults, and increased run off leaving the site.
- Watercourses could be conduits transferring contamination to other areas.
- Where there is a risk of significant adverse impact on surface water quality then the development is only acceptable in terms of the Water Development Framework in the circumstances set out in the River Basin Management Plan for the North West.
- Risk of flooding to Carr Bridge Residential Park and Moss House Lane properties

- The EIA does not consider impacts on water circulation from polluted water and the unsustainable use of water, given the large amounts of water required
- Risks to the availability of water supplies and water pressure problems for nearby residents

### Climate Change

- The assessment of the potential for greenhouse gas (GHG) emissions is incorrect, with regard to impact of leakage, global warming potential (GWP) of methane and scales of emissions.
- The EIA findings that the impact on climate change is n/a does not enable the local planning authority to make an informed decision.
- The mitigation measures proposed for possible sources of fugitive methane emissions are basic and may be ineffective based on US research.
- The figure used in the application for GWP is inaccurate and asks for clarity regarding the carbon footprint calculations.
- The comparison of the sites GHG emissions to the UK carbon budget is wholly inappropriate. Cuadrilla do not appear to know how much GHG will be emitted and therefore the precautionary principle should apply.
- Utilising shale gas resources is contrary to Policy DM2, to reduce carbon emissions and is contrary to the Lancashire Climate Change
- Planning decisions must take account of the need to reduce GHG emissions and this application will increase the emissions.

### Energy

- Need for the mineral resource has not been demonstrated
- Local planning authorities should consider all energy sources and as per the European Renewable Directive 2009, including renewable energy sources.
- Impact of shale gas on UK security of energy supply is highly contested
- Shale gas recovery is incompatible with the UK meeting the climate change target and could lock the UK into fossil fuel use for decades.
- Exploitation of unconventional gas and oil are a dangerous distraction to investing in energy efficiency and renewable energy

### Waste

- Insufficient information on how overflow water and wastewater discharges, and pollutants, will affect the local environment and protected sites.
- Management of contaminated wastewater is wholly inadequate. There is a lack of treatment centres, resulting in potential capacity issues, especially if flow back rates are higher than estimated. This is not an adequate solution.
- Contrary to Planning Policy (Statement 10) as the application produces huge quantities of waste.
- It is unclear what waste quality standards would be applied by the applicant to ensure that concentration of pollutants in the wastewater did not accumulate beyond safe levels as a result of re-use for fracking and how risks to the environment and health and safety would be mitigated.

- Further investigation is required before the Council can lawfully grant an application to drill.
- Legacy of underground waste which will be present is denied, not a temporary development as it will create permanent contaminated wastewater
- Risks from flow back fluid and waste water
- Risks of storage of waste to protected ecological areas

#### Chemical Composition

- No detail has been given on the drilling and hydraulic fracturing chemicals, including the additives in the friction reducer
- Polymers may leach or decompose into toxic monomers
- The classification of polyarylamide as non hazardous is disputed.
- The classification of oil based muds as non toxic is disputed
- The classification of flow back fluid as radioactive waste with non-hazardous composition is disputed.
- The chemical content of jetting fluid is unclear.
- Will surfactant, gelling agent, defoamers, corrosion inhibitors, weighing agents and additional biocides not be needed?
- A list of actual products to be used and in what quantities, with a Material Safety Data Sheet for each chemical should be available for public viewing.
- Total quantities of friction reducer are significant and the use of hydrochloric acid as a contingency is a concern.
- Environmental permit information should be part of the planning application. The list of potential additives includes 14 that are presumed hazardous.
- The use of toxic chemicals is contrary to the aim of the North West River Basin Management Plan which aims to reduce the release of toxic pollutants.

#### Air quality

- People including children will be exposed to pollutants from traffic.
- The planning authority should check the baseline air quality and assess whether the development will significantly add to air quality issues and whether significant people will be affected.
- The air quality assessment does not identify vulnerable groups e.g. the elderly residents at Carr Bridge Residential Park nor Weeton St Michael primary school nor the large urban areas of Blackpool and Kirkham Wesham.
- Emissions from generators, engines and site equipment for drilling have been scoped out of the air quality assessment despite the potential for emissions.
- All possible sources of emissions should be included with cumulative impacts assessed, including increased NO<sub>2</sub> levels.
- There will be air quality impacts and mitigation is required, with reference to the Air Quality Directive.

#### Traffic

- HGV movements on single lane roads has the potential for severe impacts and conflict with vulnerable road users including cyclists and pedestrians

- The local authority is responsible for proper management of roads and the safety of road users
- Access to the westbound bus stop on Preston New Road by residents of Carr Bridge Caravan Park could be affected by site traffic.
- The generation of 49,722 vehicle movements will impact on the environment and will be in breach of statutory thresholds for noise and air quality.
- Peak vehicle movements are to be spread throughout the day, but at Balcombe and Barton Moss there was a convoy of vehicles
- The removal of waste will result in additional transport movements with increased carbon emissions and air quality impacts.

### Ecology

- Potential adverse impacts on the migratory path for wintering birds utilising the Morecambe Bay and Ribble Estuary Ramsar/ SPA sites
- Impacts of surface overflow draining into Carr Bridge Brook and watercourses connected to the Ribble Estuary
- Impacts on internationally designated sites, Morecambe Bay SPA, Ribble and Alt Estuaries SPA and Liverpool Bay SPA and Marton Mere SSSI
- Impacts on protected and notable species
- Impacts on SPA qualifying bird species and wintering birds
- Impacts on the functional link with the Ribble and Alt Estuaries SPA/Ramsar, require that a full Habitat Regulation Assessment must be carried out.
- Significant loss of 2.6ha of habitat and disturbance to breeding and wintering birds, bats and brown hare.
- Adverse impacts of loss of habitat and disturbance to protected species are not sufficiently mitigated
- Impacts of the flare (noise, heat, emissions) and 24hour lighting on wildlife
- The applicant has assessed cumulative impact of development as significant at the international level but the mitigation measures proposed are inadequate
- There is no Biodiversity Mitigation Strategy
- The use of conditions would be inadequate as the applicant has disregarded conditions at other sites
- A mitigation measure to not construct during bird breeding or wintering birds season does not reflect the construction timetable
- Mitigation measures for wintering birds are minimal and incomplete as they do not address the impacts from the flare or lighting and available habitat.
- The applicant conclusion that significant impacts will become not significant after mitigation is contested

### Seismicity

- The ES contains too little information for the Council to understand and evaluate the risks around induced seismicity from drilling and fracking
- The Fylde is highly faulted geologically and there are a number of faults in the vicinity of the site including one which will be encountered by drilling
- Potential effects on induced seismicity during the hydraulic fracturing stage of the project, associated with ground motion hazard, well integrity, liquefaction,

slope instability, and cumulative effects of settlement and fluid migration. The scale of impact is disputed; it is not insignificant / negligible.

- The relevant authorities lack a full understanding of the geology of the local area and the causes of the tremors from fracking last undertaken in the area.

#### Socio economic

- The analysis of socio-economic impacts is probably unlawful because it takes account of economic impacts which are not related to environmental consequences of drilling and fracking
- Strongly disagree that shale gas will make a positive contribution to economic growth at a local and national scale
- There is no explanation of local expenditure and its calculation
- Job creation effects are highly limited. There will be low job creation with no guarantee of jobs for local people given the specialist nature of the jobs
- Strongly disagree that there will be no significant effects for wider economic effects as potential adverse effects have been disregarded. Economic costs of the development will be detrimental to the local economy
- There is no assessment of impacts to residents in the immediate vicinity and impacts on tourism and agriculture
- Several years of disruption to the local community with 14 months of drilling 24hours a day, 8 months of hydraulic fracturing and 12 months of flaring with dust, light and noise emissions.
- Unprecedented levels of public opposition / concern about the impacts
- Previous sites yet to be restored, a concerning precedent to communities
- Inaccuracies in the site description and proximity to residences with failure to mention Foxwood Chase and Carr Bridge Residential Caravan Park
- No consideration of impacts on schools, caravan parks, kennels, catteries, farm nurseries and national cycle infrastructure located 1-2km from the site.
- Fracking could adversely affect house prices
- Tourism may be affected by loss of rural tranquillity, visual and noise impact, additional traffic and risks of local environmental pollution.
- No consideration of impacts on Blackpool and tourism.
- US evidence linking fracking to harmful effects on livestock and farming.
- No mitigation measures for impacts on agriculture, tourism, loss of amenity for local residents

#### Public Health

- The ES does not review the evidence of known and unknown adverse public health impacts of unconventional gas. The industry is evolving quicker than the research into health impacts.
- Occupational health not addressed despite US evidence of harmful effects to workers from air quality, waste, wastewater, fracking fluid.
- Fracking fluid information is vague and there are no details of chemicals in the drilling fluids
- The community profile does not include communities in the immediate vicinity of the site, e.g. Carr Bridge.
- Relevant data on demographics and deprivation in Blackpool is excluded.

- Impacts on physical activity have not been considered.
- HGVs carrying drilling and fracking chemicals and hazardous wastewater may deter cyclists and pedestrians using local roads
- Air quality assessment should include fixed point sources of air emissions (e.g. generators)
- Cuadrilla has overstated safety claims, through misleading advertising, exaggeration and subjective claims.
- US evidence of negative health impacts of shale gas development
- US evidence of heart and neural defects in newborns within 10mile radius of maternal residence to shale gas developments
- Dangerous levels of human exposure to benzene.
- Exposure to silica as a health hazard to workers.
- Breast Cancer UK expressed strong concerns about the potential adverse health effects from exposure to harmful chemicals as a result of fracking.
- Germany environment agency has stated that there is a lack of information to assess risks and how they can be controlled.
- Operator has a poor track record in running operations properly.

#### Consultation

- Very low participation in consultation tools and techniques, compared to high numbers of people submitting representations. Public exhibition events managed to separate stakeholders, elected members from residents.
- The LPA need to take account of the legitimacy of high local and national interest and opposition, due to the international importance of the area for wildlife, national importance for food production and tourism and the precedent of the decision regarding shale gas development in the UK.
- Levels of risk to area have been mi-advertised and characterised.

#### Planning Policy

- Not conform with LWMLP Policies CS5 and DM2
- Not conform with FBLP Policies SP2, EP10, EP15, EP16, EP17, EP22, EP23, EP24, EP26 regarding countryside development, habitats, protected sites, SSSIs, BHS, agricultural land, water resources, groundwater and air pollution.
- Application must be judged on all relevant national and local planning policy, especially climate change, waste, transport and unacceptable adverse environmental impacts
- Not sustainable development – as leave legacy for future generations for mining waste, climate change emissions, risk of groundwater contamination
- Significant problems with the assessment of impacts in the ES including waste, waste mitigation, seismicity, chemicals, health and air quality
- Adverse impacts of application cannot be mitigated through conditions in terms of climate change emissions, wastewater production, lighting or noise because of the scale of the activity proposed.
- Production scale shale gas disguised as exploration and appraisal, given 4 wells, continuous nature of the drilling and hydraulic fracturing proposed, total period of the development, extended flow test over 2 years, installation of pipes connecting to the national transmission network, the installation of equipment

to treat and regulate gas on-site, and the proposal to pump gas during EFT into the grid.

- No margin for rigorous testing, monitoring or evaluation between stages.

### **Preston New Road Action Group:**

Representations received on behalf of Preston New Road Action Group object to the proposal for the following summarised reasons:

#### Proximity to residents

- Other countries do not allow such sites within 2km of residences
- The application does not fully address the impacts on the closest residences, particularly Foxwood Chase and Staining Wood cottages
- Residents will suffer increased noise levels, visual intrusion and subsidence.
- Testing of dangerous materials near to resident's homes should be prohibited.
- The development will result in poor water supply/pressure to local residents
- Will the site be subject to water restrictions during droughts like residents?

#### Impact on ecology

- The methodology, results and analysis of ecological surveys are considered to be incomplete and in parts inaccurate, particularly with regard to habitats, bats, badgers, water vole, great crested newt, wintering birds and brown hare.
- The environmental assessment results are disputed particularly with regard to bird species, pink footed geese, the functional link between Lytham Moss and the SPA sites, and the impacts on and the mitigation for wintering birds.
- Seismic arrays are being located in fields away from those used by wintering birds, but the proposed field is grazed by pink footed geese

#### Pollution risk

- Development is contrary to Policy EP26 as it will emit chemicals into the air from the flaring process, with a negative impact on local residents, especially those with breathing disorders. Alternatives to flaring should be used.
- Chemicals in the air could enter Westby reservoir
- Polyacrylamide when heated breaks down into component chemicals which are hazardous and could affect people's health
- Failure rates for wells are high, all wells eventually leak with a risk of polluting the surrounding land. Preese Hall well was subject to failure
- The development will contribute to climate change, and is therefore contrary to the NPPF and the Climate Change Act (2008)
- There is a risk of groundwater capacity from well head failure and potential for the containment capacity of the well pad to be exceeded
- Monitoring wells for groundwater quality and gas concentrations should be mandatory. Who will monitor and what will happen if levels are exceeded?
- Risk that trucks will drip waste onto the free draining access track, and into ground the Carr Bridge Brook. Impacts on Carr Bridge Brook are not provided.

### Waste Disposal

- Other countries would not allow contaminated waste to be stored on site
- No defined plan for waste management so no defined end to the process.
- There is not enough waste treatment capacity available for flowback fluid (and inert waste), especially when considered with the Roseacre development.
- No defined plan for the disposal of spacer fluid or suspension brine
- Need detail on the recycling of flowback fluid and any additional chemicals to enable its reuse. Reuse could generate a concentration of toxic chemicals
- Radium and lead cannot be treated, what will happen to them?
- One employee on site for extended flow testing is a health and safety concern
- No detail on an emergency response plan for any serious accident on site

### Traffic

- Development traffic will increase accident risks on the busy/ dangerous A583
- The impact of traffic on nearby residences and Fylde residents is understated
- It would be better for traffic to turn left out of the site and join the M55 at junction 3, turning right onto the A583 will be dangerous
- Lorries accessing the site could be a hazard to buses stopping

### Landscape

- Contrary to Policy SP2, significant impact, agricultural to industrial land use
- Food chain contamination risk from flared chemicals falling on grazing land
- Disagree with the finding of the ES with regard to landscape impact and mitigation measures with regard to site trees and hedgerows and TPO trees.
- The development will result in the loss of agricultural and tourism jobs

### Induced Seismic Activity

- Seismic monitoring will not stop an earthquake happening it will only warn, an earthquake like at Preese Hall could happen again.
- The Preese Hall earthquake took place after drilling had stopped, further information on why this happened is required.
- Drilling through a fault is proposed, this is contrary to DECC guidance and could induce seismic activity.

### Development and Regulation

- The development is not temporary. If exploration is successful it will move into full production so long term impacts need consideration.
- Need onshore drilling regulations with an accountable body to enforce them.
- Should focus on developing renewable energy solutions instead of shale gas
- No detail on approval processes for the design, construction and operation of the wells, site rig, hydraulic fracturing, gas mains and propane storage
- No detail on the monitoring of the site infrastructure following abandonment.

**Objections:** Up to the end of December 2014 a total of 11127 representations objecting to the proposal had been received. Of these 827 were individual letters; 4727 were template objections submitted by Friends of the Earth; 5573 template objections, many of which were collected and submitted by 'Frack Free Lancashire'. Representations have continued to be received mostly in a variety of template forms, the final number of which will be reported when the application is presented for determination.

A petition of 52 signatories objecting to the proposed development was received from Roseacre Awareness Group.

The reasons for objecting to the proposal have been summarised under the following headings:

### **Need for Development**

- Fracking not needed in Lancashire or anywhere in the country.
- Extraction is for profit for a minority and we will not own or use the gas produced.
- Amount of gas that could be produced is overestimated.
- Shale gas production will not result in cheaper gas prices.
- Shale gas is not a long term viable solution to energy needs/security.

### **Climate Change**

- Shale production will have a negative effect on meeting UK targets relating to global heat, carbon emissions and greenhouse gas emissions, from Kyoto agreement and Climate Change Act 2008.
- Contrary to NPPF Para 93- reductions in greenhouse gas emissions.
- LCC has a responsibility to help reduce emissions.
- LCC has a moral duty to ensure fossil fuels not exploited.
- Need to leave fossil fuels in the ground.
- International Energy Agency warns that most of gas should stay in ground to avoid catastrophic climate change.
- The use and burning of fossil fuels impacts on climate change.
- Burning shale gas is as bad as burning coal.
- Can't continue to use up natural resources.

### **Alternatives for energy production**

- We have a responsibility to future generations to find better sources of energy
- Should focus on gas off-shore not on-shore.
- Should produce cleaner nuclear energy.
- We should not rely on fossil fuels.
- Need to invest in renewable energy sources to reduce carbon output.
- LCC should promote renewable energy in line with Renewables Directive
- Will not help to produce 27% of renewable sources as agreed by EU.
- Make Blackpool a renewable investment centre / Fylde Green Coast.
- Need to encourage/invest in wind farms on hills and coastline.

- Need to commit to more solar power / solar roadways / solar farms and allow more solar panels on roofs.
- Use and develop green technology/clean renewables like other countries, e.g. Germany runs on 90% renewable energy
- Need to stop energy waste and promote green efficiency.
- Harness wave power at the coast.
- Need more research into sustainable energy before committing to shale gas.
- More jobs (approx 40,600) could be sustained in off shore wind capacity.
- Renewables guarantee to provide energy.
- Wind power turbines dismantle easily when out of use, earth remains same.
- Should invest in biomass.
- Fossil fuel reliance stifles innovation for alternative clean sources of energy.

### **Environmental Impact**

- Fracking will endanger the planet, the environment and people.
- Fracking is not sustainable as a well can only be fracked 18 times.
- Gas is a luxury. Clean water, air and soil are not.
- Need to preserve not destroy planet for future generations.
- Will result in environmental catastrophe in Lancashire.
- Full environmental effects are unknown and need further research and risk assessments before allowing fracking in Lancashire/ UK.
- Other countries/states/areas have banned or restricted the process.
- Other countries advocate buffer zones between the development and sensitive receptors e.g. residences.
- American reports of pollution and contamination from shale gas production.
- The cons/risks of fracking outweigh the pros/rewards.
- The evidence of danger is overwhelming.
- Too many unanswered questions.
- Too many potential and irreversible problems linked to fracking.
- Fracking needs wide open spaces so cannot work in the UK.
- Should wait 10 years for research results from America.
- Shale gas is a new industry and need research into the risks.

### **Exploratory or Production Stage**

- The application is for production and not exploration as demonstrated by the need to process the gas and the length of time - 6 years.
- It is contrary to DECC guidance to put gas into the gas grid during exploration
- If it's exploratory, why are they connecting to the gas grid?
- By creating a well pad, the development will scale up to enable full production.

### **Regulatory Framework**

- No regulation / lack of regulation for shale gas industry.
- No amount of regulation can prevent human error or equipment failure.
- Unrepentant industry already flouts and exploits previous planning regulations due to lack of enforcement / policing.

- USA contamination incidents despite strict regulations.
- Accidents and disasters happen offshore despite all the regulations and inspections.
- Regulation unlikely – Government only interested in money.
- Government inspectors cannot inspect what they don't know about.
- Environment Agency and Health & Safety Executive are not in a position to protect us, due to staff cutbacks, lack of expertise, limited scope and not sufficiently independent.
- HSE can approve well design but do check if built correctly.
- HSE need to confirm their role before LCC can legally decide the application.
- Agencies are in a state of confusion as to who does what.
- Well heads will not be properly managed.
- Who will monitor roads for spillages to ensure safety of local communities?
- The council is powerless and uninterested in enforcing regulations causing great distress to residents.
- If approved, measures / restrictions cannot be enforced.
- Regulation must be fit for purpose.
- No independent inspection regime
- What happens if regulatory / mitigation plans don't work?
- Who pays for any damage?
- There is nothing in place to monitor wells after they are drilled or abandoned
- If anything goes wrong, the operator accepts no responsibility and leave clean up and reparation costs to local authorities.
- Robust monitoring is vital.
- Cuadrilla has breached planning permissions in Lancashire (and Balcombe) on numerous occasions. Safety regulations have not been enforced, demonstrating a dangerous gap in regulatory enforcement.
- Companies involved in shale gas have been proved to bend the rules to the detriment of the environment and have not alerted the necessary authorities.
- Cuadrilla has previously not reported faults at other sites.
- Cuadrilla accidentally released radioactive contamination into groundwater at Preese Hall and concealed it from LCC, the EA and the public for over a year until the information was released under duress.
- Cuadrilla continued drilling after its licence expired at its site near the Ribble Estuary SSSI.

### **Safety Risks**

- To start fracking would be terrible as it's destructive, dangerous and risky.
- The process and (unreliable) technology have not been proven to be safe.
- How can fracking be safe in the UK and not in other countries?
- Fracking is not 100% safe and should be banned or delayed until risk. assessed and fully researched and the public receive independent assurance that fracking processes are safe in short and long term.
- The process is flawed and inherent risks outweigh any benefits.
- Risks from the use, collection, storage and transportation of gas and propane
- Risk of accidents to workers and residents.
- Risk of explosion and unavoidable blowouts, in densely populated areas.

- Potential for major accidents (and comparison made to Abbeystead).
- The site will be a potential target for terrorist attacks.
- Concern regarding flammable gas in boreholes and USA accidents.
- Methane is highly flammable.
- Risks from faulty well heads, well integrity failure, human error.
- All wells fail within 100 years as they are only made of steel and concrete
- Cuadrilla's Annas Road site, both wells failed.
- Well integrity compromised / failure and major problems at Preese Hall.
- How did the faults at Preese Hall cause damage to the well? Not explained
- Why is there no appraisal of the technical failures at Preese Hall?
- The development site will have multiple wells with the potential for bigger problems.
- Risks to National Grid / power cables.
- Risk of accidents from pipes under houses, including potential loss of life.
- Multiple wells will pose a greater risk than one exploratory well, increased likelihood of accidents and potentially more dangerous.
- Shale gas extraction is a significant engineering challenge with the potential for serious technical problems.
- The development is a hazardous installation and should be refused permission as per policy EMP5.
- How are explosives classified? What quantity will be used and how will they be stored and transported?
- Could the emergency services deal with any incident?
- How will the council respond to a major chemical leak?
- Cuadrilla has a poor safety record.
- Concern regarding Cuadrilla's ability to deal with any incidents, to contain them and resolve them.

### **Geology / Seismicity**

- Triggering of earth tremors are massive risks to undermining of sub surface strata and creating instability and sink holes.
- Risk of earth tremors not adequately addressed given past experience of test drilling in Fylde and particularly at Preese Hall.
- Earthquake risk / causes earthquakes and sink holes - injury to humans, property, roads and wildlife.
- Strong risk of earthquake near to nuclear power station at Heysham and other nuclear establishments and risk of damage to proposed underground gas storage facility at Preesal.
- Last time drilling in Lancashire – earthquakes caused house to shake leading to cracks in plaster. Patio sank.
- UK geology – too many local faults will allow leakage. Faults still moving. In previous drilling using unproven technology an undetected fault moved and failed the borehole. Too risky.
- Earth movement happened in Lancashire as a result of initial testing – safety assurances are of no value and events cause fear to adults and children.
- David Smythe, Professor of Geophysics at Glasgow University – research raised questions about dangers of fracking in UK. Induced seismic activity.

- Link between fracking and previously geologically stable areas – Ohio/US.
- Fracking could destabilise the entire bedrock beneath the Fylde, upon which sits several mine workings and unstable ground conditions – running sand etc.
- PNR area moss land – significant risk to local properties of subsidence especially Carr Bridge Residential Caravan Park.
- Intention is to drill into a fault line (fault 1) with Harves Ho and Moor Hey faults adjacent, will this induce seismic activity. Contrary to DECC guidance to avoid drilling wells into or close to existing pre stressed regional faults. Consequences are unknown.
- Traffic light system of seismic monitors provides warning only, will not stop an earthquake.
- Earthquake risk –contrary to DM2.
- Annular pressure checks at Preese Hall are not independent.

### **Air Pollution**

- Proposal will result in greenhouse gas emissions / air pollution.
- Proposal is contrary to Policy EP26 due to flaring and air quality impacts.
- Flared methane emissions from fracked gas are worse than from coal.
- It is estimated that up to 7.9% of methane from shale gas escapes to atmosphere from venting and leaks over the lifetime of a well.
- In the USA, the methane emissions from shale developments were up to 1000 times higher than initially reported.
- Flaring of methane 24hrs a day is not clean energy.
- The proposal is contrary to Article 4 of the mining waste directive which requires that the best available technique for the management of waste should be used e.g. green completion.
- In the US, the Environmental Protection Agency (EPA) requires use of green completion technology from 2015 for hydraulically fractured wells instead of flaring to reduce air pollution.
- The description of the proposed flare is unclear.
- Flare plume dispersal modelling should be a priority.
- Flaring within 230m of a residential property is not acceptable.
- Fracking will unleash radon, methane, toxic gases, particulate matter and carcinogenic toxins into the atmosphere with associated health risks.
- Radioactive products will be released into environment, and will affect drinking water and food production.
- Radon should be treated as a hazardous waste.
- Potential impact from air pollution to Westby reservoir and watercourses.
- Fumes from the flare will concentrate toxic air pollution, which will be detrimental to local residents, including those at the caravan park.
- Air pollution will impact people and particularly those with existing illnesses, breathing disorders and low immune systems.
- Gas flaring is hazardous and will cause fires in homes.
- Impact of 100 lorries per day will release carbon monoxide and carbon dioxide.
- Waste fluid left in open air pits to evaporate will release harmful VOC's (volatile organic compounds) into the atmosphere.

- The development will increase nitrogen dioxide levels and increase health risks to local residents.
- If boreholes are not sealed properly there will be fugitive gas emissions.
- Is Cuadrilla being made to fit special filters to machines, diggings, chimneys, diesel generators etc?
- Need air quality monitoring for Great Plumpton given the prevailing wind and likely negative impacts.
- Residents sought rural environment for clean air and now at risk of adverse effects.
- Negative impact from air pollution on enjoyment of property, garden and living in Great Plumpton.
- Emissions should be monitored with limits and fines for exceeding
- There will be an unacceptable level of dust generated.

### **Noise Pollution**

- There will be an unacceptable level of noise / noise pollution.
- The proposed times and duration for hydraulic fracturing are excessive in an area people have chosen to live in for the peace and quiet.
- A 50db noise level during fracturing is too loud to be acceptable.
- 24 hours a day of drilling, compressor and generator noise alongside associated traffic noise will disturb residents and have negative impacts on shift workers.
- Carr Bridge residential park, residents aged 55-90 years old of which many are not in good health. They chose to live on the site for the pleasant, quiet, rural location but are greatly concerned about drilling and traffic noise.
- The impact of 24/7 noise for a local autistic child will be unbearable.
- How far away will compressor stations be heard? The thump of compressors could be sensed up to 2 miles away.
- Traffic noise will affect the peace and quiet, with HGVs thundering past properties.
- The applicants EIA site noise assessment is incorrect for Foxwood Chase as the majority of residents are retired so if the noise exceeds acceptable limits it will have a significant effect on their daily enjoyment of homes and gardens.
- The applicants EIA traffic noise assessment is incorrect for Foxwood Chase as the properties are in close proximity to the site entrance and will hear HGV's and other vehicles decelerating and accelerating on entry and exit to the site, resulting in varying noise levels not constant as reported in the EIA.
- The applicants EIA traffic assessment is incorrect as the increase in traffic noise will be significant as the noise from one HGV is equivalent to noise from 10-15 cars and there will be 100 lorries per day.
- There will be a detrimental effect from noise in Great Plumpton, due to the prevailing wind blowing from the west carrying noise to the village. The ES has not provided information on noise levels for the village.
- There will be negative impacts from noise to the nearby dog kennels and the horse welfare centre.
- There is no information regarding noise from explosives detonation and impact on residents.
- The proposed site is a quiet field so the noise will be new and concentrated

- The noise of the site will impact on local residents and visitors enjoyment of the site for leisure including walking.
- There needs to be baseline and continuous acoustic monitoring at neighbouring houses.
- Cuadrilla exceeded set noise levels at Balcombe.
- The proposal will be contrary to Noise Policy Statement for England, Defra 2010 and NPPF 2012 Paragraph 144 due to observed adverse effects from large scale, long term noise duration.
- The proposal will be contrary to FBLP Policy EP27 by emitting unacceptable constant noise in a relatively quiet rural area.

### Light Pollution

- Disturbance to residents from light pollution.
- Floodlights ruining night sky.
- Staining Farm 1 & 2 (10 properties) – expect illuminated 53m rig will have unavoidable impact on local residents.
- Light pollution increases sleep problems and causes health problems
- The flares will cause light pollution.
- Negative impacts at night are large. Detrimental impact on humans and wildlife
- Site lit brightly at night including access road - become an island of light - like an oil refinery/industrial site.
- Proposed lighting not in keeping with rural area. Significant direct impact on local residents.
- Contrary to EP28 – avoid or minimise harm.
- Contrary to SP5.
- Flare should not be visible.
- Flare should be fitted with suitable silencing.
- Flare flume dispersal modelling should be a priority.

### Soil and Groundwater Contamination

- The Earth will become a barren toxic wasteland after fracking, breaking up and filling the ground with chemicals must have environmental consequences.
- Risk of short term well failure and loss of well integrity in the long term are widely reported, resulting in a toxic legacy for current and future generations
- Issues from corrosion of well casings, cement deterioration, faulty drilling.
- Fracking fluid contains carcinogens, toxins, radioactive and hazardous materials which will contaminate land and water sources affecting food production and drinking water.
- Risk of contamination from carcinogenic chemicals.
- Risk of contamination from *Caesium-137, Americium-241, Beryllium, Hydrochloric acid, lead, arsenic, cadmium, glutaraldehyde, biocide quaternary ammonium chloride, ammonium persulfate, choline Chloride, isopropanol, petroleum distillate, polyacrylamide, guar gum, citric acid, lauryl sulphate, sodium hydroxide, copolymer of acrylamide, sodium acrylate, chloride, bromine, methane.*
- 50% of chemicals will remain in the ground.
- Don't want a chemical legacy for our children to have to deal with.

- Need full disclosure of chemicals in fracking fluids and risks from them.
- Contamination/pollution from fracking process, gases and fracking fluid to aquifers, ground water sources, local rivers, streams, springs and reservoirs in the short and long term which could endanger drinking water supply to people and grazing animals with associated health risks.
- Over a thousand documented cases in the US of groundwater pollution.
- Drinking water is more important resource than gas. Risk of contaminating water supply is too big a risk.
- Need more work to establish the safety of the process in relation to ground water contamination.
- Need baseline and continuous groundwater monitoring with work suspended if contamination / adverse effects are found.
- Monitoring wells for groundwater quality and gas concentrations should be mandatory.
- Even if tightly regulated an unforeseen accidental discharge could contaminate groundwater and the damage cannot be rectified.
- Millions of litres of polluted / toxic water will be left to drift underground, approximately 30miles around each well with long term damage.
- Faults can act as conduits and enable fracking fluids to migrate to water sources.
- Excessive rain could impact on the containment capacity of the well pad. Land adjacent to Carr Brook and Moss House Lane already prone to flooding.
- Proposed site is on a hill and any polluted waste water will leach into dykes and waterways including Carr Brook, and into farm land and out into the River Ribble.
- Preese Hall well was damaged and toxic waste water could be leaking into dykes and streams feeding into the River Wyre.
- The Water Framework Directive requires that a development should not go ahead unless it is proven that there is no risk to groundwater.
- Contrary to FBLP Policy EP24 as water quality will be affected by leaking wells.
- Who pays for decontamination of our water supplies? Are councils not cash strapped?
- Need a law for every contamination, company directors get 10 year jail sentence.
- Water from taps could ignite.

## **Waste Disposal**

- Huge amounts of toxic/hazardous waste and waste water will be produced with inadequate measures in places to treat and dispose of it.
- Significant risks associated with its waste transportation and disposal.
- Risk of a devastating impact on local environment from waste management.
- There are no adequate treatment facilities / insufficient capacity for huge volumes of hazardous and contaminated waste with radium.
- Burying radioactive waste in landfill sites is ridiculous.
- How can massive amounts of waste water be disposed of without significantly affecting the landscape.
- How will large volumes of waste water be managed in times of heavy rain and localised flooding.

- Flowback fluid recycling risk assessment does not recognise resultant flow back waste will have increased toxicity /chemical composition.
- DECC has said that there is no clear and safe way to treat flowback water.
- Flow back water from Preese Hall, when tested at Davyhulme was too toxic to treat, so returned to Preese Hall.
- Safety concerns over separating process for flow back fluid.
- Cuadrilla has dumped thousands of gallons of contaminated waste water into Manchester Ship Canal (from Barton Moss) and was allowed to get away with it. The EA cannot guarantee that this will not happen again.
- Flowback fluid will be 'lost' to avoid expense of disposal. How can this be regulated?
- Waste products will be stored in sealed containers which demonstrates Cuadrilla have no idea how to treat waste
- Toxic waste will be stored near schools and residential areas
- Risk of children jumping into a cavern of chemically poisoned water
- Potential unknown hazards will be transported on roads as the waste will not have been analysed instantly on site.
- US have documented accidents and spills from transportation of shale gas waste materials.
- Is there sufficient security to keep hazardous waste from being misused

### **Water Resource Sustainability**

- Excessive amounts of a scarce resource, fresh water, will be used.
- Existing water suppliers and handlers may struggle to cope.
- Public drinking water must be preserved at all costs and not depleted particularly in times of drought.
- Vast amounts of water should not be utilized for gas drilling, especially given water shortages in recent years
- Water usage is unsustainable, it should be safeguarded
- Why not use saline water?
- The mains water supply in the area has a history of bursts and poor water pressure and fracking will deteriorate if further.
- The negotiations and works by United Utilities are not clear or complete.

### **Environmental / Landscape Impact**

- Local and global level implications to natural environment.
- Should not allow companies to exploit the environment at our expense.
- Fracking wells are only viable for a short number of years, this development will open the way for hundreds across the Fylde with untold environmental damage.
- Potential for 1000's of well pads across the Fylde if these are approved, reports suggest a need for 80 to 33,000 wells to exploit the Bowland Shale.
- Fylde will become industrialised with thousands of wells feeding the south.
- Once interest rates rise, the development will fail and leave damage to environment and landscape for future generations to clear up.
- The proposal will destroy/degrade/permanently damage the beautiful Lancashire/Fylde countryside by industrialisation and traffic.

- Inappropriate development in the greenbelt.
- Application is contrary to Policies SP2, SP5 and EP11 as it is not in keeping with the landscape character due to its character and appearance.
- The development will be a blight/blot/scar on the rural landscape and will get worse when in full production, turning area into an industrial zone.
- The visual impact from the M55 motorway and the A583 will promote an industrial image and deter tourists
- A 53m high rig will have a significant landscape impact and is inappropriate and unnecessary in this area
- The tall structures will be on site for approximately 29 months and will be a third of the size of Blackpool Tower
- The title page image is misleading as it shows a 30m rig and not a 53m rig
- Staining Wood properties will suffer the highest impact on visual amenity but they are not shown in the ES photo montage.
- The new access road and hedgerow changes are not minor landscape changes.

### **Ecology / Wildlife**

- Contamination of nearby Carr Bridge Brook could result in pollution of the Ribble Estuary SSSI site an internationally important site for wildlife including wintering wildfowl and animals that use the watercourses.
- Poses a threat to wildlife sites including Ribble Estuary SSSI, Wyre Estuary SSSI, Lytham Moss BHS, RSPB sites including Marton Mere.
- Potential ecological disaster.
- The RSPB report says that shale gas will damage biodiversity, by salinization of soils and surface water and fragmentation of forests, creating shale gas landscapes.
- Adverse effect on local ecology and biodiversity, including death of and disturbance to wildlife and damage to habitats.
- Impacts from well operation 24hours a day, 7 days a week.
- Impacts from flare burn off.
- Impacts from noise and lighting pollution to animals e.g. lighting and bats.
- Impact on protected species including brown hare, foxes, rabbits, frogs, toads, dragonflies, shrews, voles, weasels, stoats, hedgehogs and great crested newts.
- Impact on wildlife corridors/feeding grounds for wintering wildfowl, migratory birds, local birds, skylarks, kestrels, Canada goose, buzzards, barn owls, tawny owls, woodpeckers, Martin Mere birds, pink footed geese, starlings
- Pollinating insects could be driven away.
- Impact of stress to the horses at the World Horse Welfare and Rehabilitation Centre (Penny Farm). The centre is visited by children and elderly people.
- Impact on trees and woodlands from vehicle pollution.
- Proposals are contrary to EU, UN, NPPF and Policy EP15 policy guidance, as the proposal will cause environmental harm.
- Ecological surveys are incomplete as per a report by an independent ecologist
- Humber Wood and the Plumpton Lane/A583 TPO tree are not included in the assessment.
- Survey data limitations relating to the bat information.

## Economy

- No economic benefit. The number of jobs to be created are exaggerated
- Only jobs for outside specialists, so no local benefit.
- More job opportunities in renewable green energy, which are also sustainable.
- DECC report that job creation in fracking will be approximately 24,300 yet 400,000 could be created in clean energy. Fracking is not sustainable, whereas sun, wind and tidal resources will not run out.
- Shale gas creates bad press which has a negative impact on the Northwest economy particularly if the industry were to escalate in scale.
- Impact on coastal settlements from potential loss of jobs in tourism/farming
- Tourism in Blackpool, Lytham St Annes and the Fylde could be seriously affected /harmed, with reduced visitors and trade due to industrialisation, toxic rivers, dead wildlife, gasfield landscape and HGV traffic.
- New York University (Professor Oswald) reported that shale gas impacts on cattle and crops from water, soil and air pollution.
- Rich arable land / grazing land will be polluted from leaching of chemicals onto the land and water supply with subsequent entry into the food chain, rendering produce unsalable.
- Cannot sacrifice food growing, need to keep prime farming land safe for food production, for local economy and to avoid world food shortages.
- Impact on local dog boarding kennel from dog owner's perception of risks.
- Impact on Maple Farm Nurseries from impacts to trees and shrubs.

## Traffic

- Unacceptable increase in the number of heavy lorries and tankers delivering large loads of water, silica sand, prop pant and acid and taking away toxic waste flowback water on an inadequate minor road system and damaging road surface – over 100 per day (200 movements) for each well, 20,000 for the total project. Contrary to Policy T3.
- Site entrance on a dangerous section of Preston New Road which is narrow and with fast traffic will lead to traffic congestion from HGVs turning into the site and which would lead to confrontation due to insufficient room to manoeuvre within the highway.
- Impact on villages and country lanes. No go zones for cyclists, pedestrians, horse riders, dog walkers, vulnerable road users stopping tourism and leisure and ruining peace and quiet.
- Highway safety major concern. Roads not wide enough for heavy traffic 24.7 supplies. Traffic jams and disruption to bus services and bus stops near the site. Hazard of spillage by impatient motorists and water pollution.
- Drilling under motorway – any tremors could cause chaos and destruction.
- Articulated lorries for the development but ES compares increase in traffic against all HGVs and not just the same articulated lorries. Number of articulated lorries will double and at times treble. Significant change in profile of traffic passing homes.
- Cyclists count taken in October 13 does not reflect summer cycling levels. Increased HGV increase risk to cyclists at junction of A583 and Westby Road

where A583 comes over brow of the hill and bends right. Drill rig directly in driver's eye line with potential to distract and heighten risk of accident.

- Cyclists would be affected by spillages from vehicles leaving the site. Inadequate washing down vehicles.
- Impact on communities of Weeton, Great Plumpton if site traffic uses the B5260, Plumpton Lane and Moss House Lane.
- Kirkham notorious blackspot, several fatal accidents, impact of extra traffic heading to M55.
- Impact on trees and woodlands from pollution
- HGV traffic out of site will turn right onto the A583 to access J4, would it not be better to turn left and access J3.
- Impact on Moss House Lane, used as a short cut, so likely increase if congestion on A583 with inherent risks to road users and pedestrians.
- Impact on A583 as emergency route to Blackpool Victoria Hospital from congestion./ traffic volume increase
- Congestion, stop people being able to access A583. Existing problems with turning right out of sites on Preston New Road.
- Carr Bridge residents access to PNR problematic – elderly and poor health. A safe crossing point is required for Carr Bridge residents.
- Contrary to SP7 - impact on amenity of residents from heavy trucks and toxic waste, fumes, noise and vibration contrary to SP9.
- Impact to main routes to M55 and M55 itself.
- Impact on A583 to M55 J3 – even more traffic from Wesham, Kirkham, Wrea Green and Warton.
- Impact on entry and exit to Foxwood Chase. Already difficult - proposal will make it significantly worse.
- Existing problems with turning right out of sites on Preston New Road.
- Cumulative impact with Roseacre site
- Arup traffic modelling based on computer models only and not real-time system.
- Carr Bridge Residential Caravan Park, some residents are elderly and in poor health, and will find it difficult to access the A583 and there will be no safe crossing point.
- Proposal is contrary to Policy T3 due to the impact of 20,000 vehicle movements over the lifetime of the policy and the impacts on tourism from toxic waste and emissions.
- Proposal is contrary to Policies SP7 and SP9 due to impact on the amenity of residents from heavy trucks, toxic waste, fumes, noise and vibration and the endangerment to road users including schoolchildren and horse riders

### **Health and Well being**

- Full short term and long term public health effects are unknown.
- Growing evidence of serious risk to human health.
- Other countries have banned shale gas development on health grounds.
- American reports have linked air pollution/gas flaring, contamination and groundwater contamination from shale gas developments with health impacts.
- US shale gas air reported to have 50 hazardous chemicals of which 35 affect the brain and nervous system.

- In New York State a 3 year moratorium on shale gas followed a report from hundreds of health professionals regarding health impacts.
- Lancet, British Medical Journal and the Medical Journal of America have linked the proximity of shale gas sites with increased health risks.
- Lancet article reported insufficient regulations to safeguard public health.
- NHS website states that the gases emitted are highly toxic and cancer inducing.
- Breast Cancer UK has reported that fracking chemicals are linked to an increased risk of breast cancer.
- The council should protect people's lives and not destroy them; it's too dangerous to risk the health of local people. People will get sick and die; it will be a living hell.
- Need before and after baseline check on residents health.
- Reported health risks include neurological conditions (brain damage, memory problems, sensory conditions), cancer, breast cancer, leukaemia, heart defects, respiratory disease, infertility, neural tube defects, congenital heart defects, reduced Apgar scores for newborn babies, dermatological conditions (skin rashes), chemical burns, poisoning, sickness, stress, emotional distress and sleep problems.
- Risk of exposure to sulphur dioxide, polyaromatic hydrocarbons, radon and particulate matter, carcinogenic gases (benzene) neurotoxins (toluene) and central nervous system impacts (xylene) which have health implications.
- Elderly residents (including Carr Bridge residents) with respiratory conditions including (Chronic Obstructive Pulmonary Disease) COPD, asthma and heart problems have moved to the countryside to improve their health and life expectancy, but now concerned that the development will affect their health, particularly from methane which is an asphyxiate.
- Potential for toxins to enter the food chain risking starvation and death.
- Silica sand can cause pulmonary, lung cancer and cardio vascular diseases.
- Blind people will not be able to see that water is discoloured.
- Health impacts will cause a strain on the NHS as people become ill.
- Need to think about present and future generations including elderly and younger generation's safety.
- The EIA does not consider impacts on humans.
- There are no guarantees that the health of local people will not be adversely affected. No decision should be made until a Health Impact Assessment (HIA) / investigation into health risks (supported by empirical data) has been completed.
- Regulations can't mitigate against health impacts from accidental waste spillage and well failure.
- No amount of money is worth the risks of the health of the community.
- Will Cuadrilla pay compensation for health impacts.
- The proposal is contrary to NPPF Paragraphs 120 and 144 as it poses a considerable risk to human health.
- The proposal is contrary to Policy EMP5 as the chemicals in the air make it contrary to health.

## **Community**

- The damage to communities will be irreparable and not good for wellbeing.

- Massive impact on rural community from the 24hr operation, will be like living on a heavy industrial site.
- Rapid industrialisation of small isolated rural communities leading to industrial and population growth will put stress on services and infrastructure.
- An influx of gas workers and families could lead to over building and an increase in rental values. Baseline data is needed to compare the effect.
- The application is incorrect with regard to number of residences/people in close proximity to the site that will be unavoidably impacted by the development. There are 10 not 1 residences at Staining Wood Farm.
- Need a 2km buffer zone from residential areas for unconventional gas well pads (like in Australia). It's irresponsible to locate an unsafe development near to (densely) populated areas including Staining Wood/Foxwood Chase which is within 300m of the site.
- Contrary to Policy EMP5 as residences at risk from hazardous installation.
- An unsafe development should not be located near to villages and schools.
- Impact on communities at Foxwood Chase, Little Plumpton, Great Plumpton, Carr Bridge, Westby, Wrea Green.
- People will leave the area, take children out of schools and it will be ruined
- The development site is too close to large urban communities.
- Need to consider the impact on residents of drilling and fracking for 24/7 for 2-3years, and if viable for 10-15yrs with 20-30wells on the site.
- Concern about hydraulic fracturing for 12hrs a day 7-7pm is far too long and will disturb too many people. No restriction on how many 2-3hr durations during a 12hr day.
- Any disaster will affect the local community for generations. People in local area do not want this forced on them.
- Earthquakes or the threat of earthquakes will impact on the quality of life of residents.
- Impact from protests and cost of policing them.
- Proposal is contrary to NPPF Paragraph 144 on grounds of unacceptable adverse impact on the environment and local communities.
- There has not been transparent consultation. As a major issue, need better public consultation and opportunity for people to speak and be listened too. Need a local vote.

## **Property**

- Purchased house for a peaceful retirement and/or peace and quiet, these plans will have a very negative impact.
- To allow this application is an infringement of Human Rights to allow people to peacefully enjoy their property.
- Development in close proximity to residential properties within 230m is totally unacceptable. It is not necessary to be so close to homes.
- Applicant does not have our consent to access the land under our property, outraged that property owners do not have a say on what happens underneath properties.
- An unproven process, should not be allowed under residential land.
- The change to trespass laws put the public at greater risk. Legislation for on-shore exploitation is not protecting the public.

- Nothing to protect us if damage occurs from fracking beneath our homes.
- Significantly higher risk of potential damage to property / foundations.
- Mobile residential park will be on a direct line of the proposed work, any undue pressure caused by drilling will undermine the mobile homes.
- Home insurance premiums may increase, or insurance refused due to risks of subsidence.
- If house is undermined who will be responsible? Will the applicant pay/ be made to pay for repairs to damaged property?
- Will be the same as coal mining experience, where told there will be no impact on property and there is and then fight for years for compensation
- Properties have been damaged from Preese Hall earth tremors and costs of repair have not been reimbursed by Cuadrilla. Insurance company is not paying out as there is no proof that the damage was caused by the tremor
- Horrendous experience from days' explosions from Cuadrilla Annas Road site, houses shaking, property damage and residents panic.
- Ground water leaks at property resulting from Anna's Road site works.
- Concern regarding impact from HGVs on the stability of properties at Carr Bridge Residential Park.
- LCC will be held liable for any damage to property if permission is granted.
- The cost of future legal challenges to Fylde BC and LCC for compensate for damages will outweigh any government subsidies.
- Residents have paid a premium to live in a rural area and planning applications have already had a detrimental impact on housing and land value
- House valuations in area will depreciate further if proposal is approved and this will lock people into possible negative equity.
- Will applicant pay for compensation for loss in house value?
- Who wants to buy a house with 24hr drilling on the doorstep?

### **Damage and Compensation**

- Need a fund to compensate residents for damage caused by any earthquakes during works and for several years after abandonment.
- Local residents and people of Lancashire should receive significant financial benefits over and above taxation/employment.
- No assurance that Cuadrilla will accept liability for any damage to properties and the environment. The local authority and the community will have to pay for any damage caused by Cuadrilla
- Will applicant be accountable for damage to the environment, housing, roads, health? Who will foot the bill?
- How much will the mess cost to clean up and who will clean it up?
- Who picks up the bill when something goes wrong? If council it's a waste of money that could be put to serious use.

### **Abandonment**

- Abandonment and restoration proposals will not ensure that accidental pollution is cleaned up or contained by the applicant.
- No guarantee countryside will be returned to former state when fracking ceases.

- Do not trust the gas companies to properly and safely close off wells.
- Need to review Grange Road, Beconsall and Preese Hall sites to establish why they are still restoring the sites so long after the seismic activity.
- Annular pressure checks at Preese Hall are not independent.
- Cuadrilla fill the well with cement which will fail as the cement fails.
- Who will be responsible for the abandoned wells?
- Need financial and monitoring processes in place, particularly after well abandonment, so legacy issues are minimised.
- Unclear clear how consequential damage to property / wider environment will be dealt with after abandonment.
- Additional costs to tax payer will result from the development.
- Who is examining existing sites for pollution and safety following abandonment?
- Who is paying to monitor the abandoned sites in the future and for how long?
- No bond submitted for monitoring during and after the works.

### **Applicant / Application**

- Company are not acting in best interest for future generations, they only care about making money and not the harm to the local area.
- Cuadrilla will sell to a bigger company, resulting in dozens of drill holes all over the place which will turn Fylde into a nightmare.
- Is Cuadrilla a fit company to carry out these operations In light of earthquakes, tremors and well damage at Preese Hall and a government reprimand?
- Cuadrilla has not complied with previous permissions or permits. They have a poor reputation and do not keep promises
- One problem after another at previous sites.
- £100k bribery per district.
- Cuadrilla has handed out monetary incentives to parish councillors and local landowners.
- The legality / validity of Cuadrilla's shale gas licences is questioned
- DECC licences have expired.
- The application form is incorrect
- The planning application documents are unreliable as they are full of inaccuracies, contain highly contentious statements and there is no credible risk assessment.
- The ES data is incorrect in relation to distances to properties and villages to the site and nearest receptors and therefore assessments, including fugitive gas release, are incorrect.
- There are doubts regarding the ES data and in turn Cuadrilla's ability to execute the proposal safely, within set parameters, and to accurately record and monitor data.
- The EIA prepared by Arup for Cuadrilla is not independent as Arup were restricted by Cuadrilla in terms of research. There is not enough information supplied regarding geology and hydrogeology.
- Company not agree to an Institute of Mechanical Engineering assessment.
- Public meetings arranged whilst at work, need a better forum.

## **Government**

- Government dash for gas is wrong.
- Live in a democracy, but feel we have no say in this matter as the Government is intent on pushing forward regardless of people's views and incentivising the industry.
- Government is bribing councils to accept fracking by offering extra money – unacceptable.
- Significant profits should not be permitted
- Have any MPs been to Lancashire to see the areas that will be destroyed?
- Lancashire is beautiful and valued - it is not a northern industrial wasteland.
- Government is being short signed. Shale gas is a short term fix.
- By allowing an overseas company to frack here the government is taking away our rights as citizens, e.g. the right to prevent drilling under own home
- Violation of rights of citizens
- What right does the government have to make Lancashire the core site for fracking.
- Disappointed that Lancashire are being told what to do by central government
- After contamination the Government will refer to £100k payment and let Cuadrilla keep profits and LCC will have to pay for the clean up.
- Should be a public consultation before fracking our country.
- Being rushed through out of political fear that companies will go to other countries.

## **Lancashire County Council / Decision making / Policy**

- LCC making money out of fracking.
- LCC have a moral duty to future generations to ensure that fossil fuels are not exploited. Permitting fracking will accelerate and expand the fossil fuel industry, LCC should not support a short sighted and destructive move.
- LCC should pursue safer and more long term solutions to secure our energy needs in the future rather than a short term view to acquire energy resources
- Why authorise, promote and support a destructive activity when there are alternatives.
- Ridiculous and dangerous to allow fracking.
- If LCC allow the application, they will be held accountable for problems.
- How will the Council response to future lawsuits if anything goes wrong?
- If LCC refuse the application, it can lead the UK on clean, renewable energy.
- LCC should not rush a decision but should enforce a moratorium on all further fracking activity until a proper regulatory framework is in place and a full study of evidence from the USA into health and environmental effects has been considered by the full Council.
- Council should look after and protect residents, communities and the environment, need to protect safety, security and well-being of society. Not in public interest to allow.
- To approve when there is objection is anti-democratic.
- No glory to the Council when there is sickness and water pollution.

- Outraged that the Council is planning on or even considering applications for fracking when it knows the dangers to the environment and the earthquake it caused.
- Stand firm and listen to constituents and not bow to the government or industry.
- There is a lack of clear information about the process. Is the Council making a decision with the same lack of verifiable evidence?
- Lancashire needs to be progressive, forward thinking and responsible, don't let Lancashire be exploited
- Do councillors want to have large scale damage to inhabitants on their hands?
- Science and technologies are not advanced enough to reassure ratepayers of Lancashire that any disastrous outcomes can be mitigated against.
- Once grant this application, lead to more and cumulative impact of intensive gas drilling in Lancashire for many years
- If one council approves, trigger for others to follow.
- The proposal is contrary to NPPF Paragraphs 30,32,36,61,93,97,109,120,144
- The proposal is contrary to Policies EC5, E5, and GD1.
- The proposal is contrary to Policies EP11, EP12, EP15, EP18, EP23, EP24, EP26, EP27, and EP28.
- The proposal is contrary to Policy DM2, SP7, SP9, and EMP5.

### **Support**

#### **North and Western Chamber of Commerce**

- Support shale gas development subject to conclusive evidence that the proposals are unsafe and will cause irreparable damage to the local environment
- Welcome investment in Lancashire which could create thousands of jobs in the local economy directly through the supply chain and spread beyond that, through inward investment and spin off technologies.
- Help create well paid jobs in Lancashire and help rebalance the local economy and generate wealth.
- The National Transmission System for gas has spare capacity and runs through the county which has excellent road, rail, air and port infrastructure.
- UCLAN and Lancaster University have considerable energy expertise across a range of disciplines which could benefit from the shale gas development.
- Lancashire is already a leading centre for the nuclear industry and advanced technology and manufacturing and with shale gas opportunities could regain its role as a national economic powerhouse, with Lancashire a centre of expertise for shale gas operations.
- Huge opportunity for Lancashire to use to generate economic growth.
- Following a review of Government, Royal Society, Royal Academy of Engineering, International Energy Agency, Energy and Climate Change Select Committee and Public Health England findings, concluded that if properly and effectively regulated, fracking is no more dangerous than any other form of energy extraction.
- Shale gas extraction would be at low risk to the environment and public health
- Confident that shale gas extraction will be properly regulated and take place safely and responsibly

- Shale gas in Lancashire would strengthen the UK's energy supply as well as providing a bridge fuel towards a low-carbon future
- Shale gas in Lancashire would establish Lancashire at the heart of a successful UK and European industry
- Lancashire's Strategic Economic Plan, prepared by Lancashire Enterprise Partnership (LEP) and endorsed by Lancashire County Council, acknowledged that shale gas sector may play an important economic role in Lancashire within the timeframe of the Growth Deal and the locating of an elite institution in Lancashire for shale gas would be important in establishing the sector both locally and nationally.

### **Chamber of Commerce East Lancashire**

- Important to the local and national economies and for international competitiveness to have energy supply, security, price and supply chain opportunities
- Assurance of energy supply will be a strategic consideration to would-be inward investors.
- Shale gas fills the gap between decommissioning coal and nuclear plants and the ideal of a no-carbon solution
- Shale gas will be a significant buffer against volatile imports
- Lancashire's manufacturing sector could gain from careful use of shale gas resources
- Lancashire's wellbeing and prosperity can benefit

Up to the end of December 2014 a total of 200 representations supporting the proposal both in principle and in respect of the specific benefits that the proposal would generate in the locale. Representations in support have continued to be received the final number of which will be reported when the application is presented for determination.

The reasons for supporting the proposal have been summarised under the following headings:

### **Energy Security – need, supply and pricing**

- UK needs to secure energy reserves as global energy demands increase and reserves decrease, need to avoid energy shortages
- Growing population needs energy. 80% of homes have gas central heating
- Need to reduce reliance on expensive imported gas and associated impacts of supply disruption (due to political unrest) and fluctuating gas prices
- Need to reduce reliance on imported gas which helps support foreign regimes
- Need to have a predictable, sustainable source of energy to ensure our energy supply, to stabilise prices and replace declining North Sea reserves
- Shale gas is critical for future energy strategy. Failure to explore this possible source of energy would be grossly irresponsible
- Without shale gas, National Grid scenarios suggest 80% of our gas will be imported in 20 years time. Global market prices could cripple us.
- National Grid suggests that up to 40% of the UK's gas requirements could be met by shale in 2035. Bowland could supply the UK with gas for 23-169 years

- US has moved from being the world's largest energy importer to being a net exporter due to shale gas and has reduced energy prices
- If priced correctly shale gas would force competition in the energy market
- Everybody wants cheaper energy, gas is the cheapest source of energy
- Shale gas will be potentially vast resource of clean sustainable energy for the UK which could help deliver climate change commitments by substituting for coal in electricity production and thereby reducing emissions of CO2.
- Need to explore all future gas sources, including shale, renewable and nuclear. It would be madness not to tap into huge store of natural energy
- Shale could bridge the gap until we build up renewable and/or nuclear capacity to deliver the quantities we need
- Cannot expect one source of energy wind power to provide our energy needs
- A wind farm requires 200 times as much land as a fracking well site for the same energy output and residents are anti wind farms
- Prefer to have shale gas than nuclear energy

### **Economic Benefits**

- Need to determine whether or not the gas is in commercial quantities
- Shale gas development will bring economic growth, wealth and prosperity to the UK, Northwest and Lancashire economies and to local communities
- It's vital to the country's prosperity to exploit our natural reserves and to benefit future generations
- Energy from a local source will be good for the local economy and could attract high gas consuming businesses to relocate in the region.
- SME business failure may be avoided by stabilising energy costs and by providing new business opportunities as part of the supply chain - energy services, components, education/training, hospitality, property
- Shale gas exploration will provide increased potential for local business growth and revenues and provide employment for local people
- Shale gas could be a catalyst bringing in inward investment and regenerating Lancashire and Blackpool
- This opportunity should be welcomed and not lost to other counties and countries. Shale gas could transform Lancashire like North Sea oil/gas has done for Aberdeen and how shale gas has done for small towns in the US.
- Fylde Borough Council and Lancashire County Council will benefit from tax revenues, which could help pay for public services and infrastructure
- Investigation works have already provided significant business to the accommodation sector in and around Blackpool with knock on impacts
- This is an opportunity to change the region from high unemployment and no industry, to an innovative area that supports new industry and is a leader of new technology within the energy sector.
- Without shale gas, what is the economic future for Lancashire and Blackpool, Blackpool has high levels of deprivation, child poverty, poor health, benefits dependency and youth unemployment
- Fylde coast has an over dependence on declining agriculture and tourism sectors with a transient, seasonal, low paid, unskilled, migrant workforce.

- Shale gas provides economic diversity through new industrial activity, generating skilled permanent jobs and youth employment opportunities, directly or indirectly through the supply chain including engineers, apprentices
- Reports suggest that a shale gas industry could be responsible for a supply chain spend of over £300 billion and support 60,000-74,000 jobs.
- If shale gas development is not allowed in Lancashire, but develops elsewhere, Lancashire will miss out on revenue and employment generated by supply chain businesses
- New jobs essential for the prosperity of the UK and the Northwest area
- Job prospects for future generations will help stop them having to move away and will improve the local skills base
- UCLAN and Blackpool & the Fylde College can train local people in skills to ensure jobs can go to local people
- Every aspect of the community will benefit, including people struggling to pay gas bills through cheaper gas prices

### **Minimal Environmental Risks**

- Environmental impact of shale gas is less than any other energy source, mineral and coal extraction have a far larger impact on our environment
- Shale operations are sustainable, non-polluting and can be undertaken with minimal risk to the environment, wildlife or the local population
- Shale gas development has been safely undertaken in America for 10 years
- The process of rock fracturing and its waste products have been intensely investigated and proven to be totally safe
- Reports by the Royal Society, the Royal Academy of Engineers and other academics have concluded that shale gas is safe
- Security of energy, economic benefits and job creation far outweigh any supposed risks, disruption or inconvenience
- The energy industry creates jobs and prosperity on a grand scale in a secure and environmentally friendly way as evidence in the Shetland Islands
- The EIA addressed environmental risks and has satisfactory mitigation
- Lancashire experiences natural geological processes/earth tremors, shale gas will not significantly increase the incidence
- The possibility of any localised pollution is the same as any other industrial or agricultural business
- The development footprint of a producing gas well is minimal
- Drilling rigs will be no more visually intrusive than large electric pylons and site lighting will be no more visually intrusive than airport approach lights
- The noise of drilling will be low compared with noise of jet aircraft at Warton
- Vehicle movements are less than to quarries/waste disposal sites and vehicle sizes are no greater than large farm equipment used by local farmers
- Routing of traffic will be controlled by planning conditions and the use of byways for cycling will not be impaired
- Environmental and property concerns raised by professional protesters have been overstated/inaccurate, to scaremonger local communities to oppose
- Opposition viewpoint is short sighted, over-emotional, ill informed and nimbyism. Adverse factors identified by objectors have no scientific credibility
- Silent majority support the proposal, cannot let activists jeopardise new jobs

## **Robust Regulatory framework**

- Exploitation of shale gas in Lancashire is safe and will avoid environmental impacts if environmental protection measures are implemented to best practice standard and monitored and controlled by regulatory bodies
- Regulations, enforced by Lancashire County Council, the Environment Agency, the Health & Safety Executive and DECC will ensure that the process is safe and safeguards are in place to protect the environment.
- DECC seismic control system should overcome ground tremor fears
- The Environment Agency is convinced that shale gas activities can be carried out safely and will monitor the development in the short and long term
- The UK has 60 years of regulating onshore and offshore oil and gas industries
- The UK has some of the toughest and most stringent health and safety, environmental and drilling regulations and the gas industry prioritises safety, environmental protection and competence
- Engineers located in Lancashire are confident with the process, regulations and limited risks to the environment
- Public scrutiny and implementation of regulations will ensure the safe and responsible extraction of shale gas
- Preference to risk the potential failure of gold standard regulatory bodies rather than competing for higher priced gas
- The establishment of a local liaison group should ensure a good working relationship between Cuadrilla and local communities
- Cuadrilla is open and informative about their development and is aware of its responsibilities with regard to safety, environmental management and working with local communities. The management team have been involved in over 3,000 natural gas and oil wells across the world
- Visited a Cuadrilla site and impressed by the company's efficiency and safe modern technology. Need to allow Cuadrilla to prove it can be done safely with no damage to the environment.
- At Annas Road site, Cuadrilla kept residents well informed, noise was minimal (similar to light aircraft /farm vehicles), increased traffic was negligible and there was no noticeable smells or gases