



# Welcome

Welcome to our public event, which aims to give the local community and members of the public an opportunity to learn more about Egdon Resources and our development plans for the oil production site at Lodge Farm, north of the hamlet of Wressle.

This exhibition is part of the process leading up to the submission of a planning application to North Lincolnshire Council and it will provide information on the history of the site, what has happened there so far and what we are looking to do in the future.

You can also find out about the planning process and measures we take to ensure that we minimise our impact on the environment.

Egdon team members are on hand to provide any information you need, or to answer any questions that you may have.

**[egdon-community.com/wressle-consultation](https://egdon-community.com/wressle-consultation)**

Wressle site storage tanks.





## Who are Egdon?

Egdon Resources is a British onshore oil and gas exploration and production company established in 1997. We currently have 34 licences that permit us to explore for and produce oil and gas in a number of onshore locations across the UK.

Since 2000 we have drilled 16 exploration, appraisal and production wells, and operated 5 producing oil and gas fields. We have several production sites in the East Midlands, the North East and the South Coast, with Wressle being our “flagship” production site.

We are committed to being a good neighbour. We always try to work with local communities so that we understand their concerns, and can mitigate any potential disruption and keep people updated about our operations. To help with this we have set up Community Liaison Groups (CLGs) in our areas of operation.

Egdon is a member of United Kingdom Onshore Oil and Gas (UKOOG), the representative body for the onshore oil and gas industry in the UK, which promotes best practice in all operations. UKOOG has also established a community engagement charter which encourages open and transparent communication between the industry and neighbouring communities.

In September 2023, HEYCO Energy Group, Inc., through its subsidiary Petrichor Partners LP, completed its acquisition of Egdon. HEYCO, an established energy company with holdings in the United States and Europe has invested in, and provided technical advice to, Egdon for more than two decades. This acquisition adds to HEYCO’s expanding European portfolio, following the purchase of a gas field in Northern Spain and the establishment of a Madrid office in 2022.

As a private company within the wider HEYCO family, this new structure and combined financial and human capital will help Egdon to achieve our vision of providing locally derived, secure, affordable, and sustainable energy to meet the UK’s evolving energy requirements. We are actively developing and progressing geothermal, energy storage, hydrogen and renewable energy opportunities alongside the traditional oil and gas projects that will support the UK’s energy security needs.

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Egdon Community Liaison Group on a site visit at Laughton.







# The importance of onshore oil and gas

Oil and gas are an important energy source for the country, powering our homes, vehicles and many essential industries. With reserves in the North Sea declining together with the increasing issues and cost of importing energy, it is critical that the UK provides its own source of home-grown onshore energy.

Oil plays a vital role in producing feedstock for all manner of plastics and products we use every day, from computers to detergent bottles; while gas provides the main source of energy for heating our homes.

Technological advances, electric vehicles, increased energy efficiency and energy from renewables will affect the way energy is produced and used, but oil and gas will still be needed for decades to come, and security of energy supply remains a key issue for the UK.

Our work to produce oil and gas will help to provide the UK with secure energy supplies, reducing the need for imported oil and delivering local economic benefits.

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Rig on another Egdon site.





# The way forward

Egdon recognises that we all have a role to play in transitioning to a lower-carbon future, and as such we are looking to balance our traditional oil and gas work with alternative energy projects which may include:-

- ❖ repurposing some of our sites and wells for renewable sources of energy, with an initial focus on geothermal development i.e. recovery of heat
- ❖ developing a number of stand-alone opportunities for energy storage (natural gas, hydrogen and compressed air), green hydrogen production and renewable energy generation

We expect to make material progress in relation to these exciting and innovative projects during 2024.

In addition, we have established a Climate Change Policy committing Egdon to the following targets:-

- ❖ operations achieving Net Zero emissions by 2050
- ❖ at least a 25% reduction in emissions by 2035

and to monitoring and reporting our performance in this key area.

Alongside these alternative energy projects, we are progressing a development programme related to oil and gas. The Wressle site has been a success, and is now the second largest source of onshore oil production in the UK. This locally produced oil contributes to the UK's energy mix, and we are looking to develop the site further to also target gas reserves that will feed into the local gas network.

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For illustrative purposes only.



## What's happened at Wressle so far

Following the grant of planning permission on appeal in January 2020, all of the planning permission conditions were discharged and the Wressle site was reconfigured by installing additional groundwater monitoring boreholes, the installation of a new impermeable membrane, and concrete bunds for production facilities and equipment. All of these works were impacted by the COVID pandemic and associated impacts on suppliers of plant, machinery and the availability of materials. There were also delays within the regulatory system relating to Environmental Permits and consents.

Site works were completed by the end of 2020, and production facilities were installed in early 2021.

The work programme to recomplete the well for flow testing was undertaken in January 2021, with 'first oil' achieved on 30th January 2021. At that time the oil production rate was around 90 barrels a day.

There were a number of operational issues during the following months, including wax plugging in the well; this necessitated bringing in specialised contractors to remove hard wax deposits.

The planning application that was granted on appeal in January 2020 allowed for a programme of works including a proppant squeeze, which was designed to overcome blockages in the sub-surface rocks in the near-wellbore formation. These blockages impaired rock permeability and restricted the natural flow of hydrocarbons to the wellbore. This proppant squeeze involved injecting:

- ❖ **150m<sup>3</sup> of proppant fluid (made up of 97% water and no hazardous substances)**
- ❖ **20 tonnes of proppant (ceramic, spherically shaped "beads")**

The planned programme involved pumping a slurry of the ceramic beads and gelled water under pressure to create tiny fractures in the oil-bearing reservoir of the near well-bore rock formation. The ceramic beads were designed to prop open the fractures to enable oil and gas to flow.

Once we received all the necessary regulatory approvals, the proppant squeeze operation was undertaken on the 24th and 25th July 2021. The "squeeze" itself took less than 4 hours in total across the two days. It was completed without any impact, incident, or environmental issue, and the operation did not register on the installed seismic monitors (a condition of the approved Hydraulic Fracture Plan).

Interestingly, an event was detected around 5 hours before the treatment began and was believed to be a surface blast occurring c.5-10km east at a quarry.

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Entrained proppant in carrier gel/fluid.





## What's happened at Wressle so far

Production resumed at Wressle on 19th August 2021, and oil recovery rates progressively increased which demonstrated that the proppant squeeze operation had been successful.

Since then, production has continued to exceed pre-operational expectations, and during the first six months of 2023 oil production has averaged over 700 barrels per day.

As the production operation has evolved, additional equipment and facilities have been added, including:-

- ❖ 3 x gas micro turbines, which use gas to generate electricity for site use
- ❖ a secondary separator, to improve gas separation
- ❖ a hot water system (in progress), to enable hot water on site to clean the well and surface equipment; and
- ❖ a temporary jet pump system (recently installed) to help lift hydrocarbons to surface

The well is now producing via the jet pump and continues to produce oil at rates that exceed the pre-proppant squeeze forecasts.

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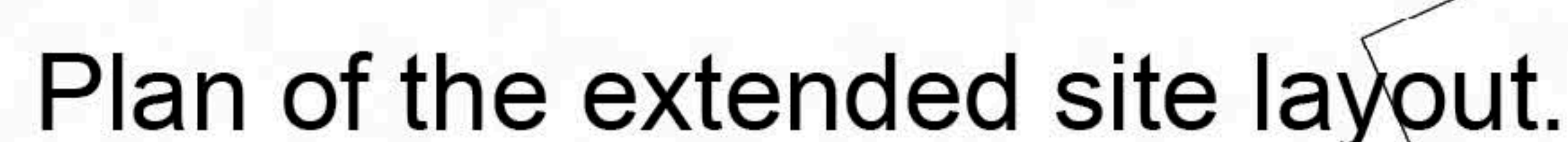
We are looking to develop the Wressle site by drilling two additional production wells, and a third well to reinject any water that is produced along with the oil. The first well will target the Penistone Flags formation, which is principally a gas reservoir. The produced gas will be exported into the local gas network, via a connection about 600m south west of the site.

Once the site extension works are complete, it is likely that the two production wells would be drilled “back to back” i.e. one after the other. We aim to drill and then install gas process equipment after testing of the wells, to get gas into the local network as soon as possible.

The direction of the new wells is indicated on the map within this exhibition. Each well will be around 2,400 – 2,700m in length and the bottom hole locations will be around 1,800 – 1,860m below ground level.

It is likely that both of the production wells will need to have the same proppant squeeze process that was applied successfully to the Wressle-1 well in 2021.

Once this is complete, we expect that the wells will flow to their full potential and will contribute gas into the local network for many years to come.





# The Regulatory Process – Planning and Environmental Permissions

The Wressle development will require Egdon to prepare planning and Environmental Permit applications. No drilling of additional wells can happen unless these permissions are granted.

The planning application will include a detailed description of the scope of the planned development, together with a number of technical assessments undertaken by respected independent environmental specialists and submitted as part of the application. As the assessments are independent they help inform the planning decision process and may feed through into specific planning conditions to manage potential impacts.

Technical assessments will include:

- ❖ Ecology
- ❖ Biodiversity Net Gain
- ❖ Landscape and Visual Impact
- ❖ Lighting
- ❖ Cultural Heritage and Archaeology
- ❖ Noise
- ❖ Flood Risk, Surface Water Drainage, Hydrogeology
- ❖ Traffic and Transport
- ❖ Air Quality and
- ❖ Soils

In addition, a specialist hydrogeological risk assessment will be prepared to minimise any potential risks to sub-surface aquifers and groundwaters. Some of these assessments are also required for the Environmental Permit application.



BSOR regulations applicable to the onshore oil industry.

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# Planning Timeline

19TH  
**JUL**  
2023

North Lincolnshire Council (NLC) issues pre-application advice; the principle of development is acceptable subject to assessment of potential environmental impacts

19TH  
**JUL**  
2023

NLC issues a Screening Opinion stating that an Environmental Impact Assessment and Environmental Statement is not required

21ST  
**NOV**  
2023

Presentation to  
Appleby Parish Council

27TH  
**NOV**  
2023

Presentation to  
Broughton Town Council

27TH  
**NOV**  
2023

Consultation starts

28TH  
**NOV**  
2023

Public consultation drop-in event,  
Broughton village hall

24TH  
**DEC**  
2023

Consultation closes

31ST  
**JAN**  
2024  
PROVISIONAL

Submit planning application to NLC

**FEB**  
2024  
PROVISIONAL

Formal public consultation by NLC

30TH  
**APR**  
2024  
PROVISIONAL

Target date for NLC to determine  
planning application



# Environmental protection

We are proud of our record on environmental issues, and we have an established Environmental Management System that covers all of our operational activities.

All of our operations will be undertaken in line with conditions imposed through the Environmental Permit and Planning Permissions. We will also be subject to regular inspection and audit of our activities by the Environment Agency. This is to verify that we are managing the site in accordance with all legal and regulatory requirements and not adversely impacting the surrounding environment.

The environmental permitting process in the UK is thorough and stringent, and we have many years' experience in designing, building and operating onshore oil sites to the highest standards. The joint approach of a rigorous permitting regime and our commitment to environmental protection means that you can be confident that the Wressle site will continue to be managed responsibly and professionally.

Some of the key environmental considerations are detailed below.

## Land

Like the existing site, the extension will be constructed with an impermeable membrane system to ensure that there is no potential for land impact. All storage tanks are located inside purpose-built concrete/masonry bunds, designed and installed to approved construction standards to ensure that there is no risk of a release of oil onto the site itself.

## Groundwater and watercourses

Groundwater monitoring boreholes are installed on site, and a specialist surface water interceptor is installed to prevent any flood risk and ensures that any surface water discharged to the Ella Beck is clean. Waters from both the boreholes and stream have been analysed by independent third party specialist contractors for a number of years now, and there has been no impact on water quality from Egdon's site activities taking place at Wressle.

## Ecology and biodiversity

Ecology surveys have recently been undertaken to assess any ecological impacts that could result from the development, and any mitigation that may need to be applied. We will implement a scheme to achieve at least a 10% biodiversity net gain in the immediate area, by proposing additional tree and habitat planting. We are committing to this before it becomes a legal requirement in January 2024.

## Flooding

The site is located in Flood Zone 1 on the Environment Agency (EA) flood maps, and the Environment Agency has confirmed that the wellsite is not in an area of high flood risk. Notwithstanding this, the site design accounts for the potential for flood risk, by building in a surface water bunding and water management system.

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Drilling rig on site  
at Wressle in 2014.





# Environmental protection

## Air Quality

We plan to connect to the local gas network to export all the gas produced, thereby eliminating flaring completely. Notwithstanding this, the Air Quality Impact Assessment will apply a “worst case scenario” when assessing emissions impacts. We have already installed gas micro turbines on site, which produce electricity for site use.

## Landscape, Cultural Heritage and Archaeology

The site is not in any area designated either nationally or locally for its landscape importance. The potential for visual impact will be greatest during the drilling and workover phases when there will be a rig on site, but these operations are temporary and short lived. As the site is within an existing working farm, the visual impact is restricted as it is not particularly visible from many public viewpoints. The site lies outside any areas of national or local archaeological importance, and the nearest Scheduled Ancient Monument is Thornholme Augustinian Priory, 1.5 km to the north.

## Noise and light

The closest property is c.500m away, so this location – amongst others – is where baseline noise monitoring will take place. Noise modelling will predict noise from site operations, with drilling being the noisiest activity. Noise surveys conducted during drilling and production operations at Wressle have demonstrated Egdon’s compliance with planning permission noise thresholds.

The impact of external lighting will form part of the assessment of visual amenity, whereby the effect of light spillage, sky glow and glare at night on the local area will be carefully considered, and mitigated if necessary.

## Traffic and transport

A traffic and transport assessment will assess the impact of HGV movements across the different operational phases. We are conscious that HGVs are perhaps the main concern for local residents, so HGV movements will only be conducted during daytime hours, with restrictions at weekends and on bank holidays. The approved HGV route to the site will remain in place, with no HGVs allowed through Broughton.

Thus far, we have not been made aware of any complaints from local residents and we hope that this continues. We do have a formal mechanism in place to record and progress any such instances though; as we take our responsibilities very seriously and always aim to be a good neighbour.

**Please ask an Egdon team member if you have any queries or concerns on local impacts.**

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## Safety

As a responsible operator, Egdon is committed to high standards of health, safety and environmental performance. As a member of UKOOG, the representative body for the UK onshore oil and gas industry, we are committed to ensuring that the highest standards of industry practice are maintained across all of our sites.

All of the operations we undertake on our sites are designed and managed with robust and interlinked safety management systems to ensure that there are limited risks to people, both on site and in the local community, and the environment. A full safety risk assessment is undertaken that identifies all of the key risks and this feeds into all of the control and mitigation measures and procedures that we implement on site.

We use skilled, knowledgeable and professional contractors with many years' experience in onshore oil production, and we have been drilling and operating onshore oil and gas sites for many years, with an excellent safety record.

**OPERATED BY EGDON RESOURCES U.K. LTD**  
**Emergency Telephone: 0845 3009065**



**All visitors and drivers  
must report to the site office**



**No unauthorised  
persons allowed on site**



**Safety boots  
must be worn**



**Safety helmets  
must be worn**



**Caution!  
Crude oil and low  
pressure natural gas**



**Mobile telephones  
must be switched off**



**No smoking  
No naked lights**



# Community relations and benefit

Egdon has set up a Community Liaison Group (CLG) with members of the local community, NLC, police, Environment Agency and Egdon management. The group held a few initial meetings – virtual due to COVID – but as concerns about the Wressle operation began to recede, members agreed that updates would suffice until there was something more material to discuss.

We will re-institute the CLG meetings in the coming weeks to provide a platform for local people to ask questions and seek information about the proposed development.

We are committed to providing a Community Fund mechanism, in order to share in any success from production though funding local good causes. The Wressle Community Fund is managed by the Broughton Community and Sports Association (BCSA), and Egdon also provides direct funding to applicants outside the BSCA funding criteria.

So far in 2023, close to £90,000 has been awarded to a diverse range of projects such as:-

- ❖ Allotment Association
- ❖ Broughton Scouts
- ❖ Wheelchair basketball
- ❖ Village Hall
- ❖ Skateboard Park
- ❖ Primary School
- ❖ Youth Centre
- ❖ Pineapple Theatre
- ❖ Pensioners Club

The proposed Wressle development, if successful, will continue to generate funds for local causes and we are proud that we have been able to contribute to the local community in this way.

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## What happens next

The pre-application consultation phase has now started and we aim to submit a planning application in January 2024.

Our operations will not, either now or in the future, involve the process of hydraulic fracturing (“fracking”) for shale gas or oil. This part of Lincolnshire does not have the specific rock-formations that contain shale gas or oil.

We will be seeking approval to produce from the Wressle site for 10-15 years, although the actual timespan for production depends on gas and oil volumes and how they decline over time.

Following the submission, you will also be able to view the planning application online and submit comments to NLC. All comments received will be considered by NLC’s planning officers.

The onshore oil and gas industry is stringently regulated by the North Sea Transition Authority (NSTA), Health and Safety Executive (HSE) and the Environment Agency (EA). Egdon’s detailed plans will be submitted to the regulators for their respective review and approval. No site operations can take place until Egdon is in receipt of all the regulatory permits and consents. The EA’s Environmental Permit process is also open to public comment, so all documents submitted will be available to view and we will make these available via Egdon’s website: <https://www.egdon-community.com/>

We strive to be good neighbours and your views are important to us. We are keen to understand your thoughts about this exhibition, and to listen and address any questions or concerns you may have. Please feel free to approach the Egdon team members here today with any questions or comments you may have.

Thank you for attending our exhibition, we hope that you have found it informative.

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