

From: Nick Mace [REDACTED]
Sent: 14 December 2020 15:52
To: Chris Bartlett
Cc: Freddie Holt
Subject: RE: Further Information

Hi Chris

See below response to your questions. If you need any further clarity please let Freddie or I know.

Regards

Nick

- **You state that previous exploration indicated “flowrates of 1599.6 bbls/day (254 m3/day) per day”. I assume this was from the 2018 7-day flow test. How accurate is this, given that this flow test wasn’t 100% successful?**

The previous flow period was indeed in the Autumn of 2018, and flow was intermittent and variable because of slugging of liquids lost to the well during drilling and other operations. The rate referred to a period of consistent and stable flow of reservoir fluids. The measured rate is reasonably accurate given the high spec equipment on site that metered the return of fluids from the well.

- **Regarding the new membrane, it would be helpful to understand why this is now required? I have also read the Design Philosophy Statement, and although I can see the lengths that have been gone to, to ensure the correct containment is to be used, the why is still vague. The Planning Statement refers to current standards; have new standards been introduced or is the existing membrane simply old and past usefulness? And if not replaced, would using the old membrane be safe or not?**

In a letter from the Environment Agency 11th November 2019, an objection was raised with the following statement “While we may not require a fully engineered impermeable subbase system as per a permanent installation, we require additional safeguards to ensure that the proposed system is sufficiently robust”. In response to the EA objection the Design and Philosophy Statement was commissioned and accepted by the EA. This is to protect the hydrogeological environment during the extended well testing and handling of hydrocarbon fluids over an extended period of time. The risk outlined in Phase 1 only requires a small bund for a short term operation. Therefore the membrane/bund outlined in the planning statement are proportionate to the risk of the operation.

- **There looks to be a 3 month period of analysis following (and presumably because of) Phase 1 and procurement of Phase 2 & 3 equipment after which Phase 2 & 3 would commence. In looking at minimising time on site (not just operational time), can this period be shortened at all? For example, could procurement be carried out whilst Phase 1 is underway? Or can all matters be timetabled immediately once one Phase has been completed?**

It is Angus Energy intention to shorten this period of time to a minimum time as possible. However, it would be remiss of Angus Energy to reduce the time further. This is due to the analysis of Phase 1 results, procurement of contractors can be subject to complex commercial negotiations and the availability of contractors to start Phase 2 and 3, especially during a time of a global pandemic. There is an element of planning and procurement which will be carried out in parallel with Phase 1, but until the results of Phase 1 are completed, analysed and approved by partners, the time period of 3 months is seen as a reasonable duration.

- **Will Phase 3 be 12 months at most, or could it be longer should you require to use any of the contingencies? The Indicative Project Schedule seems to show that it may be possible for an extra 2 months' work is needed, should all contingencies be used?**

Phase 3 will be 12 months in duration with mobilisation and demobilisation either side of this 12 month extended well test phase. Contingency options (nitrogen lift, acid wash installation of a plug), if required, will be used within this period.

Looking at M13 Policy of the West Sussex Joint Minerals Local Plan, there are some specific points which we believe is necessary to investigate further. Again, these points are taken from the Planning Statement:

- **You state that "Potential local business rate investment of between region of £40,000 - £60,000 per annum." and "The development will spend approximately £1,709,000 per annum on 3rd party goods and services sourced predominantly from other local businesses, which includes suppliers of security and welfare facilities, hotels, site maintenance, legal/professional fees, waste and fuel payments." We are unsure where these figures are derived from? Have you got any further breakdown of these costs which you say are directly associated "the impact of permitting it, or refusing it, upon the local economy".**

The business rate is a potential based on an assumption the site moves from exploration to production. Business rates are paid during exploration however this rate is predicted to increase as detailed in section 6.3, the amount would be in the region of £40,000 - £60,000 per annum if the subsequent production application were to be approved.

The proposed development will also help support a strong and diverse rural economy in the villages and the countryside by creating or supporting existing jobs, and by purchasing 3rd party supplier services or by placing orders with plant suppliers and building contractors, with a bias towards the Sussex area wherever possible and practicable. With regards to section 6.3 of the socioeconomic report, the £1.7M spend is broken down in the below table. Angus Energy recognise that specialist oil and gas equipment will have to be sourced outside of the county of Sussex so a pessimistic assumption of 0% has been used. However, without the specialist well testing equipment being sourced the benefits to the local economy will not be realised. In conclusion the approval of the site has the potential to inject over £800,000 into the local economy for a short term and temporary project.

Breakdown	Approximate Spend (£) breakdown (figures rounded down)	Aim Local Sourced	Sources
Security & Welfare	£350,000	100%	Includes cabins, offices, electrical cabling, personnel (supervisor, site team), fencing, consumables
Hotel Stays	£30,000	100%	Assumption based on (£45/night x 365 days x 2 people as an estimate over the whole job on average)
Site Maintenance/ Civils	£250,000	100%	Civils and engineering new membrane (Phase 2) and general site maintenance throughout.
HSE Monitoring	£100,000	25%	Costs include groundwater and surface water monitoring, noise monitoring and ecology studies including consultancy reporting throughout the duration of operations and use of HSE consultancy advisors for the project.
Waste & Fuel	£100,000	80%	Waste streams from welfare and operations and diesel for onsite power.
Transport & Logistics	£80,000	100%	Cranes, deliveries, HGV provider
Specialist well testing equipment	£875,000	0%	Well test spread, rigs, wellheads etc.
Total Costs	£1.7M		
Total potentially Locally Sourced	£815,000		

- **Policy 13 (c) (ii) discusses “the cost of, and scope for, developing elsewhere outside the designated area”. A large portion of PEDL 244 is located outside of the High Weald AONB. Have you carried out any studies as to whether somewhere else within the PEDL area could target the same formation, and what would the costs be to do this compared to using the Balcombe site??**

As outlined within the planning statement the Balcombe site is the ‘best option’ for establishing whether the reserves are viable to exploit compared to the possibility of exploratory and appraisal operations taking place at other sites within the area of search that have not been drilled or initially flow tested.

It is Angus Energy view and that of Minerals planning guidance 120 which states, “[w]hen determining applications for subsequent phases, the fact that exploratory drilling has taken place on a particular site is likely to be material in determining the suitability of continuing to use that site only insofar as it establishes the presence of hydrocarbon resources”. Other sites with PEDL 244 have not provided any identification or evidence of the presence of hydrocarbons. Furthermore, and from a technical point of view recent work has indicated that there is an element of structural closure to the presence or absence of hydrocarbons in this formation. That is to say, the hydrocarbon resources in the Kimmeridge are controlled by the rock structures in the subsurface as opposed to a ubiquitous resource across the basin. As a result we believe that further sites can only be selected on the basis of structural mapping of the subsurface which requires further technical analysis. At present we have no further sites that have been identified and we would wish to evaluate the results of this well before any further work proceeds.