

To: The Isle Of Wight Council Planning Department

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## **Ref 20/00513/FUL- OBJECTION**

Objection to the Isle Of Wight Council regarding the UKOG Planning Application for a Proposed Exploratory Drilling Site on land off the A3056 at Arreton Isle of Wight.

Objection Dated 11/02/2021

My name is Philip C. CEng MCE. I am not a resident of The Isle Of Wight, I was born and raised in Bournemouth and have travelled to The Isle Of Wight on many occasions.

I have had an extensive experience in the UK and abroad regarding Civil engineering works relating to the Oil and Gas Industry in particular. My overseas experience began with ARAMCO in the 1980's prior to the American to Saudi Arabian hand over. On secondment to the the Saudi Arabian Oil Company (formerly Arabian-American Oil Company). My UK experience spans nearly forty years in a professional capacity dealing with Civil Engineering projects such as motorway and road design, Large project infrastructures and latterly the decommissioning and refurbishment of Hydrocarbon storage and petrol/diesel supply and distribution facilities both here and abroad.

The issues to which I object to are on technical and engineering grounds of the proposals, and are as follows:

Access/Egress track.

1. The Access/Egress track design allows a quite steep (pdf:- 3efc11\_c043efb6e25c4460a5153df18b4e520e:- DWG No. LTP 3101/C1/01/SHEET2/REV 0) Indicates approximately an approximate of 1:26 gradient down towards the half way point along the track leading to the A3056, for the initial 116.0m from the proposed drilling site. And an approximate gradient of 1:42 from the half way point down to the A3056 over 134.0m directly onto the A3056. The last section of that is paved and is the presumably a wheel washing location before being allowed onto the A3056. The quite steep gradients and the last section of hard paved track can only drain directly onto the A3056 public highway.

2. There is no indicated provision for a geotextile underlay to strengthen and reinforce the track construction. No hydrocarbon interception. No silt chamber or drainage other than directly onto the A3056 public highway and the adjacent land either side. The result of the total lack of provision for any drainage, hydrocarbon interception, silt traps or impervious lined contaminated water storage, can only lead to any hydrocarbon spillage, silt and rainwater draining over the surface directly onto the A3056 public highway and the adjacent land. In a flash flood situation the hydrocarbon and chemical spillage from wheel washing area, which is assumed to be adjacent to hard paved entrance/exit. Silt and rainwater will flow over the A3056 public highway onto the far side kerb, if any and onto the land on that side. That lack of provision will inevitably require that the A3056 public highway be regularly cleaned and cleared. The public highway will then require to monitoring for safety purposes to prevent hold ups, skidding and accidents.

The lack of such provisions may also lead to accidents and traffic hold up and interruption of traffic flow further up and down the A3056 public highway. The results of that are essentially prohibitive for the access/egress arrangement to be viable unless some form of Hydrocarbon interception for wheel washing, silt traps to intercept silt and debris from the type 1 granular material surface, and some form of positive drainage and/or impervious lined temporary pond storage facility is carried out adjacent to the entrance/egress location.

3. The 3efc11\_9c594b80e5de497c80e754743a56ebd0.pdf Envireau Water design storm utilised in the design parameters indicates that rainfall is predicated on a 1:100 year storm periodicity. Recent experience over the last few decades has indicated that a 1:100 year storm is becoming inadequate for design for rainwater run off and periodicity. Experience with flash floods all over the UK notably Boscastle in 2004 is increasingly indicating that a 1:100 year flash storm is becoming more frequent. For design purposes in a well drained location that will have little impact on local areas, a 1:100 year rainfall design can still be adequate except in a flash flood situation. However in this location, where the drilling site access and egress track design has no provision for any form of drainage for the track which has a relatively steep gradient leading directly onto the

A3056 public highway. The inevitable conclusion is that at least there should be a temporary imperviously lined storage pond and sufficient drainage to direct any 1:100 flash flood rainfall directly to that facility. There is a natural low point at approximately 14.0m up from the A3056 public highway shown on DWG: 6098.505 WELLSITE ACCESS ROAD VERTICAL PROFILE, where rainwater will collect naturally. That location will become flooded and unuseable without drainage or an imperviously sealed storage pond provision.

Local groundwater extraction points also indicate that in a flash flood situation, that may well be of a 1:200 year storm nature, that the drilling site containment bund and access/egress track may be overwhelmed with hydrocarbon and chemical contaminated water in the directions shown on the Envireau Water plans Figure 3 and Figure 4.

4. There appears to be no obvious provision for a hydrocarbon interceptor and filter at the within the containment area of the drilling site, or outside of it, where spillages may still occur.. The plans merely indicate surface water outside the containment area, outfalling to two narrow diminishing ditches with no further interception other than a "mini silt chamber".

A hydrocarbon interceptor and filter is a necessity for a hydrocarbon exploration, or production facility. The absence of anything remotely similar ought to be subject to operational safety rejection by the Isle Of Wight Council and the Isle Roads section.

5. 3efc11\_9c594b80e5de497c80e754743a56ebd0.pdf set of drawings and the 300mm rolled in stone is shown initially on Figure 5C of the Envireau Water Hydrological Concept Model and DWG: 6098.510 WELLSITE CONSTRUCTION DETAILS SHEET 3 OF 3.

Considering the present agricultural condition and operation of the present track, which is of less width and of a different configuration to the proposed track dimensions. Areas of the proposed track will encroach onto agricultural soil surface and strata. The present track will have a very basic and aging sub grade strengthening, if any. 300mm of rolled and compacted type 1 granular material may well be an inadequate construction for the heavily loaded articulated 16.5m and 22.0m long proposed Heavy Goods Vehicles on the proposed

track. There is a history of other similar sites on the mainland, primarily that of Third Energy's site at Kirby Misperton where the 300mm of type 1 rolled in and compacted granular material on the drilling site was found to be inadequate for the imposed loads and frequency of turning movements of 16.5m and 22.0m trailer articulated vehicles as are proposed at Arreton.

Regards

Philip C CEng MCE